BASE STATION ANTENNAS

Amphenol Private Networks

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CXL 380-470C

Unity Gain, Broad-Band Base Station Antenna for 380 - 470 MHz

- CXL 380-470C is a sturdy, 0 dBd, vertically polarized, omnidirectional base station antenna, which covers 380 - 470 MHz.
- The antenna is provided with our “C” mast bracket, which is a universal, epoxy-coated mounting bracket made of non-corrosive aluminium. The accompanying U-bolts and fittings are made of stainless steel.
- The antenna can be mounted on 27 to 65 mm dia. mast tubes and it is possible to lead the cable either along the inside or on the outside of the mast tube.

DESCRIPTION

- The broad-banded antenna element is completely enclosed in a glass fibre shroud, which will ensure performance undisturbed by corrosive environments.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- This antenna is constructed to ensure long dependable service in all climates.

ORDERING DESIGNATIONS

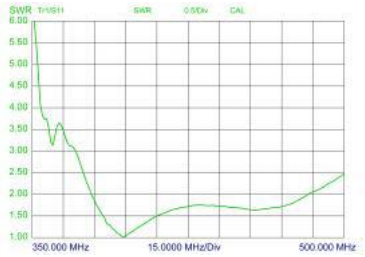
TYPE	PRODUCT NO.
CXL 380-470C	100000509

SPECIFICATIONS

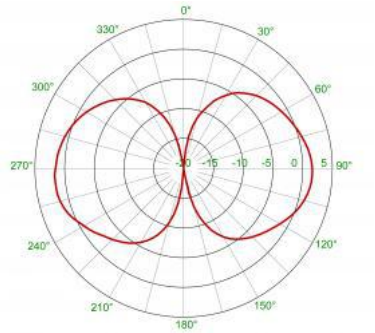
ELECTRICAL	
MODEL	CXL 380-470C
ANTENNA TYPE	½ λ, broad-banded
FREQUENCY	380 - 470 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	0 dBd
BANDWIDTH	90 MHz
SWR	≤ 2.0
MAX. POWER	150 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	–30° C → +70° C
CONNECTOR	N-female

WIND SURFACE	0.042 m² / 0.45 ft²
WIND LOAD	49 N @ 160 km/h / 99.42 mph.
MAX. WIND SPEED	200 km/h / 125 mph.
COLOUR	Marine white
MATERIALS	Radome : Polyurethane-coated glass fibre Mounting bracket : Seawater resistant aluminium, epoxy-coated
TOTAL HEIGHT	Approx. 1.20 m / 47.25 in.
WEIGHT	Approx. 2.2 kg / 4.85 lb.
MOUNTING	On 27 - 65 mm / 1.06 - 2.56 in. dia. mast tube

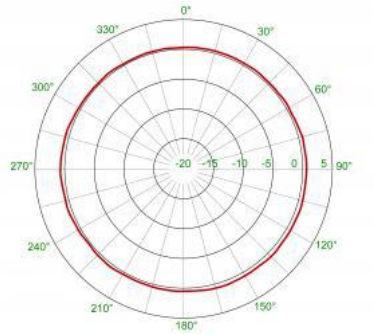
TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



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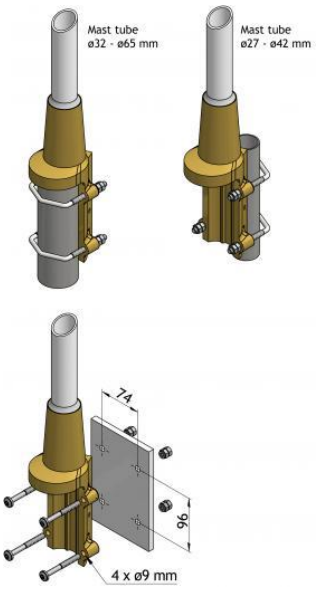
MULTI-PURPOSE MOUNTING BRACKET


Mast tube
ø32 - ø65 mm
Mast tube
ø27 - ø42 mm
74
96
4 x ø9 mm

CXL 3-3C

Sturdy 3 dBd Gain Base Station Antenna for the air Band

- CXL 3-3C is a sturdy, 3 dBd, vertically polarized, omnidirectional base station antenna, which covers the air band.
- The antenna is provided with our “C” mast bracket, which is a universal, epoxy-coated mounting bracket made of non-corrosive aluminium. The accompanying U-bolts and fittings are made of stainless steel.
- The antenna can be mounted on 27 to 65 mm dia. mast tubes and it is possible to lead the cable either along the inside or on the outside of the mast tube.

DESCRIPTION

- The phasing of the radiating elements is carefully adjusted to yield maximum gain in the horizontal plane, with the level of the sidelobes reduced to a minimum. Special emphasis has been laid on obtaining a large bandwidth both in relation to SWR and gain.
- The broad-banded antenna element is completely enclosed in a glass fibre shroud, which will ensure performance undisturbed by corrosive environments.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- This antenna is constructed to ensure long dependable service in all climates.

ORDERING DESIGNATIONS

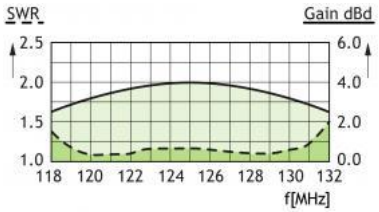
TYPE	PRODUCT NO.
CXL 3-3C	100000079

SPECIFICATIONS

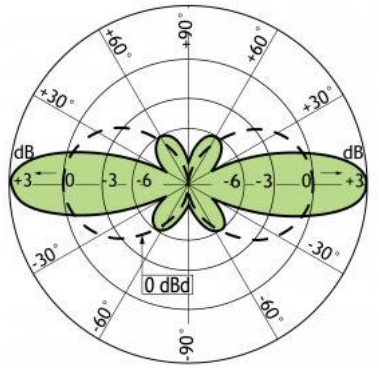
ELECTRICAL	
MODEL	CXL 3-3C
ANTENNA TYPE	Coaxial, broad-band dipole
FREQUENCY	119 - 131 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd
HALF POWER BEAMWIDTH	30°
BANDWIDTH	12 MHz
SWR	≤ 1.5 @ 119 - 131 MHz (< 3 @ 118 - 137 MHz)
MAX. POWER	400 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)

HCM CODES	HCM000ND00, 030DE00
MECHANICAL	
TEMP. RANGE	–30° C → +70° C
CONNECTOR	N-female
WIND SURFACE	0.165 m²
WIND LOAD	209 N @ 160 km/h / 99 mph
MAX. WIND SPEED	200 km/h / 125 mph
COLOUR	Marine white
MATERIALS	Radome : Polyurethane coated glass fibre Mounting bracket : Seawater resistant aluminium, epoxy-coated
TOTAL HEIGHT	Approx. 3.5 m
WEIGHT	Approx. 4.5 kg
MOUNTING	On 27 - 65 mm dia. mast tube

TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)

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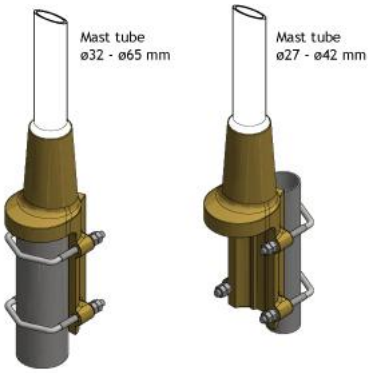
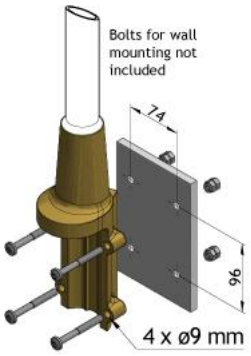
MULTI-PURPOSE MOUNTING BRACKET





CXL 3-2C

Sturdy, Unity-Gain, Omnidirectional Base Station Antenna for the International Aircraft Band

- CXL 3-2C is a sturdy, 0 dBd, vertically polarized, omnidirectional base station antenna for the 110 - 140 MHz civil aircraft band.
- CXL 3-2C is extremely broad-banded – and it is most suitable for use on control towers etc., where reliability is of the utmost importance.
- The antenna is provided with our “C” mast bracket, which is a universal, epoxy-coated mounting bracket made of non-corrosive aluminium.

DESCRIPTION

- The accompanying U-bolts and fittings are made of stainless steel.
- The antenna can be mounted on 27 to 65 mm dia. mast tubes, and it is possible to lead the cable either along the inside or on the outside of the mast tube.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- The broad-banded antenna element is completely enclosed in a glass fibre shroud, which will ensure performance undisturbed by corrosive environments.
- CXL 3-2C is constructed to ensure long dependable service in all climates.

ORDERING DESIGNATIONS

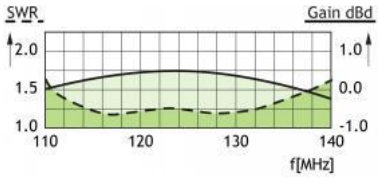
TYPE	PRODUCT NO.
CXL 3-2C	100000076

SPECIFICATIONS

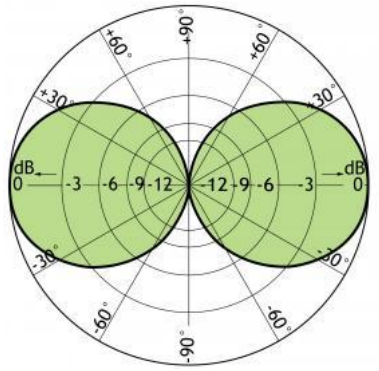
ELECTRICAL	
MODEL	CXL 3-2C
ANTENNA TYPE	Coaxial, broad-band dipole
FREQUENCY	110 - 140 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	30 MHz
SWR	≤ 1.6
MAX. POWER	500 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
HCM CODES	HCM000ND00, 040DE00

MECHANICAL	
TEMP. RANGE	–30° C → +70° C
CONNECTOR	N-female
WIND SURFACE	0.12 m²
WIND LOAD	152 N @ 160 km/h / 99 mph
MAX. WIND SPEED	200 km/h / 125 mph
COLOUR	Marine white
MATERIALS	Radome : Polyurethane-coated glass fibre Mast clamp : Seawater resistant aluminium, epoxy-coated
TOTAL HEIGHT	Approx. 2.3 m
WEIGHT	Approx. 3.6 kg
MOUNTING	On 27 - 65 mm dia. mast tube

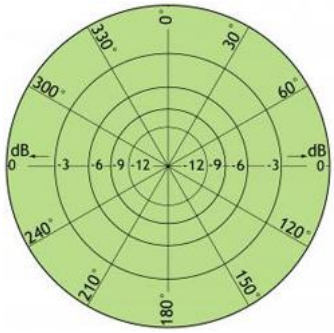
TYPICAL GAIN AND SWR CURVES



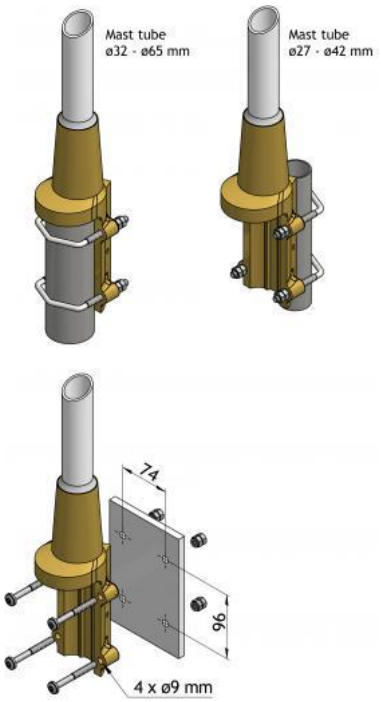
TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET


Mast tube
ø32 - ø65 mm
Mast tube
ø27 - ø42 mm
74
96
4 x ø9 mm

S.M2

Two element stacked dipole array

- The S.M2 are an array of two centre fed folded dipoles mounted on an aluminium mast.
- Each folded dipole balun assembly and associated harness junction is completely encapsulated in epoxy resin, totally preventing moisture ingress.
- The balun assembly has been tested to BS5490:IP67.

Description

- The parallel feed enables beam tilt to be easily achieved, and the dipoles can be reorientated to shape the beam pattern.
- At VHF the antenna disassembles and flat packs for ease of shipping.

ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
S.M2-127	117 - 137 MHz	123003110
S.M2-165	155 - 175 MHz	123003111
S.M2-184	176 - 192 MHz	123003112
S.M2-200	192 - 208 MHz	123003113
S.M2-405	380 - 430 MHz	123003114
S.M2-445	420 - 470 MHz	123003115

Specifications

TYPE	PRODUCT NO.
UA66-22	123001005
2140.01.00.00	123001012
2141.01.00.00	123001013
ELECTRIAL	
FREQUENCY RANGE	117 - 470 MHz
INPUT IMPEDANCE	50Ω
BANDWIDTH	± 4% of centre frequency
SWR	<1.5:1
FRONT TO BACK RATIO	5.5 dB
MAXIMUM INPUT POWER	250 Watts

POLARISATION	Vertical
FORWARD GAIN	5 dBd
3 dB BEAMWIDTH	E Plane 36º H Plane 180º
MECHANICAL	
STANDARD CONNECTION	3 m (118.11 in.) Length of RG 213 c/w 'N' type socket
ELEMENTS	12.7 mm dia. x 1.6 mm wall aluminium alloy grade 6063T6
SUPPORT BOOM UHF	UHF 38.1 mm dia. x 3.2 mm wall aluminium alloy grade 6082T6
SUPPORT BOOM VHF	VHF 63.5 mm dia. x 6.3 mm wall aluminium alloy grade 6082T6
FASTENERS	Stainless steel grade A2-70
DIPOLE CLAMPS	Cast aluminium alloy
DIPOLE ADJUSTMENT	M8 stainless steel screws
SADDLE CLAMPS	Diecast zinc alloy
INSULATOR	Epoxy resin encapsulant
LIGHTNING PROTECTION	Direct grounded VHF lightning finial
MOUNTING BRACKETS UHF	UHF fit inside scaffold pole
MOUNTING BRACKETS VHF	VHF to suit structure
TYPICAL WEIGHT (UHF)	UHF 4 kg (8.82 lb.)
TYPICAL WEIGHT (VHF)	VHF 9 kg (19.84 lb.)
TYPICAL LENGTH (UHF)	UHF 1.25 m (49.21 in.)
TYPICAL LENGTH (VHF)	VHF 4 m (157.48 in.)
TYPICAL WIND LOADING @ 162 km/h (UHF)	UHF 85N
TYPICAL WIND LOADING @ 162 km/h (VHF)	VHF 292N

MOUNTING ACCESSORIES

Mounting accessories to be ordered separately.

UA66-22

Very strong square cast alloy clamp, fits up to 50 mm diameter tubes as either a cross-over or parallel clamp. Supplied with two stainless steel ‘U’ bolts.

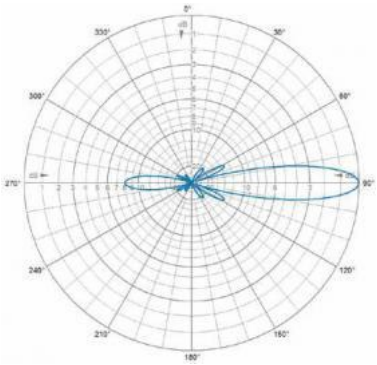
2140.01.00.00

Parallel clamps, in galvanised steel with stainless steel fixings, fits from 25-60 mm diameter tubes.

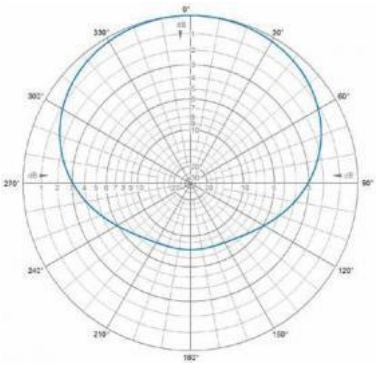
2141.01.00.00

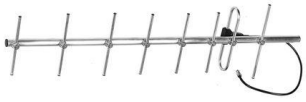
Parallel clamps, in galvanised steel with stainless steel fixings, fits from 38-120 mm diameter tubes.

TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)





S.8Y series

Directional antennas

- The S.8Y series are of a rugged and reliable construction for long range communication networks at both UHF & VHF.
- The one piece folded dipole incorporates a d.c. short to minimise static interference.
- The balun assembly is completely encapsulated in epoxy resin, totally preventing moisture ingress, and has been tested to BS5490:IP67.

- These antennas give a gain of 10 dBd with front to back ratio typically 18 dB.
- They are supplied as standard with 3 metres of RG 213 cable terminated with an 'N' type socket, although cable and connector options are available upon request.
- The S.8Y is approved to MPT1411: Part 2.

ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
S.8Y-155	145 - 165 MHz	Replaced by 7043150
S.8Y-165	155 - 165 MHz	Replaced by 7043155
S.8Y-405	380 - 430 MHz	Replaced by 7043410
S.8Y-445	420 - 470 MHz	Replaced by 7043420

SPECIFICATIONS

ELECTRIAL	
FREQUENCY RANGE	140 - 500 MHz
INPUT IMPEDANCE	50Ω
BANDWIDTH	± 4% of centre frequency
SWR	<1.5:1
FRONT TO BACK RATIO	18 dB
MAXIMUM INPUT POWER	150 Watts
POLARISATION	Vertical & horizontal
FORWARD GAIN	10 dBd
3 dB BEAMWIDTH	E Plane 43º H Plane 50º
MECHANICAL	
STANDARD CONNECTION	3 m (118.11 in.) Length of RG 213 c/w 'N' type socket
ELEMENTS UHF	UHF 12.7 mm dia. x 1.6 mm (0.50 in. dia x 0.06 in.) wall aluminium alloy grade 6063T6
ELEMENTS VHF	VHF 19.0 mm dia. x 1.6 mm

	(0.75 in. dia x 0.06 in.) wall aluminium alloy grade 6063T6
SUPPORT BOOM	31.7 mm dia. x 2.6 mm (1.25 in. dia x 0.10 in.) wall aluminium alloy grade 6082T6
FASTENERS	Stainless steel grade A2-70
SADDLE CLAMPS	Diecast zinc alloy
INSULATOR	Epoxy resin encapsulant
LIGHTNING PROTECTION	Direct grounded
MOUNTING BRACKETS	See mounting accessories (not supplied)
TYPICAL WEIGHT (UHF)	3 kg
TYPICAL WEIGHT (VHF)	5.2 kg
TYPICAL LENGTH (UHF)	1.6 m
TYPICAL LENGTH (VHF)	4 m
TYPICAL WIND LOADING @ 162 km/h (UHF)	UHF 100 N
TYPICAL WIND LOADING @ 162 km/h (VHF)	VHF 230 N

MOUNTING ACCESSORIES

Mounting accessories to be ordered separately.

TYPE	DIMENSION	PRODUCT NO.
1763-100		123001001
UA64-23	25 - 50 mm	123001006
UA64-23	25 - 76 mm	123001007
UA66-24	25 - 50 mm	123001017
UA66-24	25 - 76 mm	123001018
UA66-24	25 - 100 mm	123001019
UA66-24	25 - 115 mm	123001020

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1763-100

Galvanised steel-cross-over clamp, fits 32 mm (1-1/4") diameter antenna booms to up to 50 mm (2") diameter poles, max. length 1500 mm.

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UA64-23

Circular cast alloy clamp, gives a good two point fixing, supplied as standard with 4 x 50 mm stainless steel ‘U’ bolts and two half-moon cast spacers to fit antenna booms of 25 to 50 mm diameter. Will also accomodate 76 mm (3”) ‘U’ bolts to fit masts of that diameter. (order UB06).

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UA66-24

Rectangular cast alloy clamp, gives a good two point fixing, supplied as standard with 4 x 50 mm stainless steel ‘U’ bolts and two half-moon cast spacers to fit antenna booms of 25 to 50 mm diameter. To fit 76 mm (3”) masts (order UB06 ‘U’ bolts). To fit 100 mm (4”) masts (order UB07 ‘U’ bolts). To fit 115 mm (4 1/2”) masts (order UB09 ‘U’ bolts).

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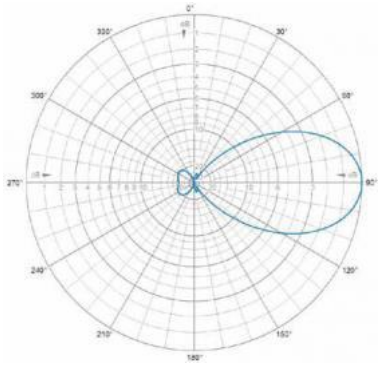
TYPICAL RADIATION PATTERN (E-PLANE)



If the antennas are mounted for vertical polarization, these curves show the radiation patterns in the vertical plane.

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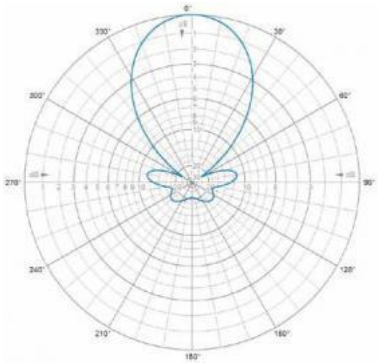
TYPICAL RADIATION PATTERN (H-PLANE)



If the antennas are mounted for vertical polarization, these curves show the radiation patterns in the horizontal plane (horizontal coverage).

S.6Y series

Directional antennas

- The S.6Y series are of a rugged and reliable construction for communication networks at both UHF & VHF.
- The one piece folded dipole incorporates a d.c. short to minimise static interference.
- The balun assembly is completely encapsulated in epoxy resin, totally preventing moisture ingress, and has been tested to BS5490:IP67.

- These antennas give a gain of 8.5 dBd with front to back ratio typically 16 dB.
- They are supplied as standard with 3 metres of RG 213 cable terminated with an 'N' type socket, although cable and connector options are available upon request.

ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
S.6Y-148	140 - 155 MHz	Replaced by 7042140
S.6Y-165	156 - 175 MHz	Replaced by 7042155
S.6Y-184	176 - 192 MHz	123002062
S.6Y-200	192 - 208 MHz	123002063
S.6Y-395	380 - 410 MHz	123002064
S.6Y-420	410 - 430 MHz	123002065
S.6Y-445	420 - 470 MHz	123002066

SPECIFICATIONS

ELECTRIAL	
FREQUENCY RANGE	140 - 470 MHz
INPUT IMPEDANCE	50Ω
BANDWIDTH	± 5% of centre frequency
SWR	<1.5:1
FRONT TO BACK RATIO	16 dB
MAXIMUM INPUT POWER	150 Watts
POLARISATION	Vertical & horizontal
FORWARD GAIN	8.5 dBd
3 dB BEAMWIDTH	E Plane 56º H Plane 63º
MECHANICAL	
STANDARD CONNECTION	3 m (118.11 in.) Length of RG 213 c/w 'N' type socket

ELEMENTS UHF	UHF 12.7 mm dia. x 1.6 mm (0.50 in. dia x 0.06 in.) wall aluminium alloy grade 6063T6
ELEMENTS VHF	VHF 19.0 mm dia. x 1.6 mm (0.75 in. dia x 0.06 in.) wall aluminium alloy grade 6063T6
SUPPORT BOOM	31.7 mm dia. x 2.6 mm (1.25 in. dia x 0.10 in.) wall aluminium alloy grade 6082T6
FASTENERS	Stainless steel grade A2-70
SADDLE CLAMPS	Diecast zinc alloy
INSULATOR	Epoxy resin encapsulant
LIGHTNING PROTECTION	Direct grounded
MOUNTING BRACKETS	See mounting accessories (not supplied)
TYPICAL WEIGHT (UHF)	UHF 2.7 kg (5.95 lb.)
TYPICAL WEIGHT (VHF)	VHF 5.5 kg (12.13 lb.)
TYPICAL LENGTH (UHF)	UHF 1.3 m (51.18 in.)
TYPICAL LENGTH (VHF)	VHF 4 m (157.48 in.)
TYPICAL WIND LOADING @ 162 km/h (UHF)	UHF 100 N
TYPICAL WIND LOADING @ 162 km/h (VHF)	VHF 208 N

MOUNTING ACCESSORIES

Mounting accessories to be ordered separately.

TYPE	DIMENSION	PRODUCT NO.
1763-100		123001001
UA64-23	25 - 50 mm	123001006
UA64-23	25 - 76 mm	123001007
UA66-24	25 - 50 mm	123001017
UA66-24	25 - 76 mm	123001018
UA66-24	25 - 100 mm	123001019
UA66-24	25 - 115 mm	123001020

1763-100

Galvanised steel-cross-over clamp, fits 32 mm (1-1/4") diameter antenna booms to up to 50 mm (2") diameter poles, max. length 1500 mm.

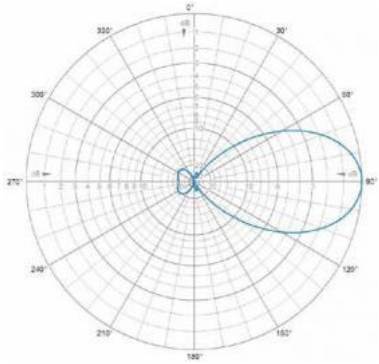
UA64-23

Circular cast alloy clamp, gives a good two point fixing, supplied as standard with 4 x 50 mm stainless steel ‘U’ bolts and two half-moon cast spacers to fit antenna booms of 25 to 50 mm diameter. Will also accomodate 76 mm (3”) ‘U’ bolts to fit masts of that diameter. (order UB06).

UA66-24

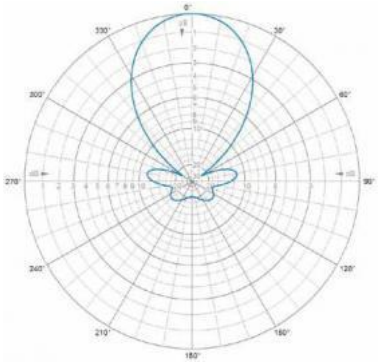
Rectangular cast alloy clamp, gives a good two point fixing, supplied as standard with 4 x 50 mm stainless steel ‘U’ bolts and two half-moon cast spacers to fit antenna booms of 25 to 50 mm diameter. To fit 76 mm (3”) masts (order UB06 ‘U’ bolts). To fit 100 mm (4”) masts (order UB07 ‘U’ bolts). To fit 115 mm (4 1/2”) masts (order UB09 ‘U’ bolts).

TYPICAL RADIATION PATTERN (E-PLANE)



If the antennas are mounted for vertical polarization, these curves show the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)



If the antennas are mounted for vertical polarization, these curves show the radiation patterns in the horizontal plane (horizontal coverage).

S.4Y series

Directional antennas

- The S.4Y series are of a rugged and reliable construction for communication networks at both UHF & VHF.
- The one piece folded dipoleincorporates a d.c. short to minimise static interference.
- The balun assembly is completely encapsulated in epoxy resin, totally preventing moisture ingress, and has been tested to BS5490:IP67.

- These antennas give a gain of 7.5 dBd with front to back ratio typically 15 dB.
- They are supplied as standard with 3 metres of RG 213 cable terminated with an 'N' type socket, although cable and connector options are available upon request.

ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
S.4Y-73	69 - 77 MHz	123002040
S.4Y-82	77 - 87 MHz	123002041
S.4Y-127	117 - 137 MHz	123002044
S.4Y-165	155 - 175 MHz	123002045
S.4Y-184	176 - 192 MHz	123002046
S.4Y-200	192 - 208 MHz	123002047
S.4Y-405	380 - 430 MHz	Replaced by 7041410
S.4Y-445	420 - 470 MHz	Replaced by 7041420

SPECIFICATIONS

ELECTRICAL	
FREQUENCY RANGE	69 - 470 MHz
INPUT IMPEDANCE	50Ω
BANDWIDTH	± 6% of centre frequency
SWR	<1.5:1
FRONT TO BACK RATIO	15 dB
MAXIMUM INPUT POWER	150 Watts
POLARISATION	Vertical & horizontal
FORWARD GAIN	7.5 dBd
3 dB BEAMWIDTH	E Plane 57º H Plane 74º
MECHANICAL	

STANDARD CONNECTION	3 m (118.11 in.) Length of RG 213 c/w 'N' type socket
ELEMENTS UHF	UHF 12.7 mm dia. x 1.6 mm (0.50 in. dia x 0.06 in.) wall aluminium alloy grade 6063T6
ELEMENTS VHF	VHF 19.0 mm dia. x 1.6 mm (0.75 in. dia x 0.06 in.) wall aluminium alloy grade 6063T6
SUPPORT BOOM	31.7 mm dia. x 2.6 mm (1.25 in. dia x 0.10 in.) wall aluminium alloy grade 6082T6
FASTENERS	Stainless steel grade A2-70
SADDLE CLAMPS	Diecast zinc alloy
INSULATOR	Epoxy resin encapsulant
LIGHTNING PROTECTION	Direct grounded
MOUNTING BRACKETS	See mounting accessories (not supplied)
TYPICAL WEIGHT (UHF)	UHF 2.3 kg (5.07 lb.)
TYPICAL WEIGHT (VHF)	VHF 6.0 kg (13.23 lb.)
TYPICAL LENGTH (UHF)	UHF 0.9 m (35.43 in.)
TYPICAL LENGTH (VHF)	VHF 3 m (118.11 in.)
TYPICAL WIND LOADING @ 162 km/h (UHF)	UHF 60 N
TYPICAL WIND LOADING @ 162 km/h (VHF)	VHF 340 N

MOUNTING ACCESSORIES

Mounting accessories to be ordered separately.

TYPE	DIMENSION	PRODUCT NO.
1763-100		123001001
UA64-23	25 - 50 mm	123001006
UA64-23	25 - 76 mm	123001007
UA66-24	25 - 50 mm	123001017
UA66-24	25 - 76 mm	123001018
UA66-24	25 - 100 mm	123001019
UA66-24	25 - 115 mm	123001020

1763-100

Galvanised steel-cross-over clamp, fits 32 mm (1-1/4") diameter antenna booms to up to 50 mm (2") diameter poles, max. length 1500 mm.

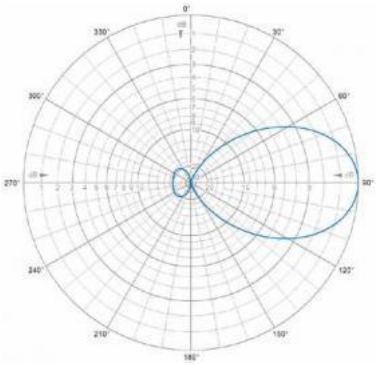
UA64-23

Circular cast alloy clamp, gives a good two point fixing, supplied as standard with 4 x 50 mm stainless steel ‘U’ bolts and two half-moon cast spacers to fit antenna booms of 25 to 50 mm diameter. Will also accomodate 76 mm (3”) ‘U’ bolts to fit masts of that diameter. (order UB06).

UA66-24

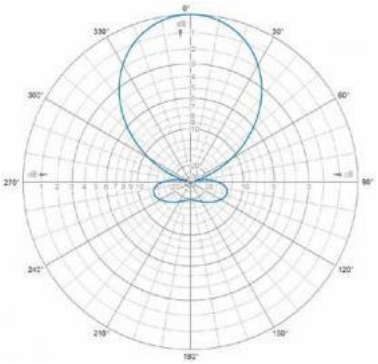
Rectangular cast alloy clamp, gives a good two point fixing, supplied as standard with 4 x 50 mm stainless steel ‘U’ bolts and two half-moon cast spacers to fit antenna booms of 25 to 50 mm diameter. To fit 76 mm (3”) masts (order UB06 ‘U’ bolts). To fit 100 mm (4”) masts (order UB07 ‘U’ bolts). To fit 115 mm (4 1/2”) masts (order UB09 ‘U’ bolts).

TYPICAL RADIATION PATTERN (E-PLANE)



If the antennas are mounted for vertical polarization, these curves show the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)



If the antennas are mounted for vertical polarization, these curves show the radiation patterns in the horizontal plane (horizontal coverage).

S.3Y series

Directional antennas

- The S.3Y series are of a rugged and reliable construction for communication networks at both UHF & VHF.
- The one piece folded dipole incorporates a d.c. short to minimise static interference.
- The balun assembly is completely encapsulated in epoxy resin, totally preventing moisture ingress, and has been tested to BS5490:IP67.

- These antennas give a gain of 6dBd with front to back ratio typ. 15 dB.
- They are supplied as standard with 3 metres of RG 213 cable terminated with an 'N' type socket, although cable and connector options are available upon request.

ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
S.3Y-71	66 - 75 MHz	Replaced by 7049066
S.3Y-80	75 - 85 MHz	Replaced by 7049075
S.3Y-98	88 - 108 MHz	123002032
S.3Y-127	117 - 137 MHz	123002033
S.3Y-142	135 - 149 MHz	123002034
S.3Y-155	145- 165 MHz	Replaced by 7049145
S.3Y-165	155 - 175 MHz	Replaced by 7049000
S.3Y-184	176 - 192 MHz	123002037
S.3Y-200	192 - 208 MHz	123002038
S.3Y-395	380 - 410 MHz	123002039
S.3Y-420	410 - 430 MHz	123002048
S.3Y-445	420 - 470 MHz	123002049

SPECIFICATIONS

ELECTRICAL	
FREQUENCY RANGE	66 - 470 MHz
INPUT IMPEDANCE	50Ω
BANDWIDTH	± 6% of centre frequency
SWR	<1.5:1
FRONT TO BACK RATIO	15 dB
MAXIMUM INPUT POWER	150 Watts
POLARISATION	Vertical & horizontal

FORWARD GAIN	6 dBd
3 dB BEAMWIDTH	E Plane 62º H Plane 84º
MECHANICAL	
STANDARD CONNECTION	3m (118.11 in.) Length of RG 213 c/w 'N' type socket
ELEMENTS UHF	UHF 12.7 mm dia. x 1.6 mm (0.50 in. dia x 0.06 in.) wall aluminium alloy grade 6063T6
ELEMENTS VHF	VHF 19.0 mm dia. x 1.6 mm (0.75 in. dia x 0.06 in.) wall aluminium alloy grade 6063T6
SUPPORT BOOM	31.7 mm dia. x 2.6 mm (1.25 in. dia x 0.10 in.) wall aluminium alloy grade 6082T6
FASTENERS	Stainless steel grade A2-70
SADDLE CLAMPS	Diecast zinc alloy
INSULATOR	Epoxy resin encapsulant
LIGHTNING PROTECTION	Direct grounded
MOUNTING BRACKETS	See mounting accessories (not supplied)
TYPICAL WEIGHT (UHF)	UHF 1.5 kg (3.31 lb.)
TYPICAL WEIGHT (VHF)	VHF 4.5 kg (9.92 lb.)
TYPICAL LENGTH (UHF)	UHF 0.7 m (27.56 in.)
TYPICAL LENGTH (VHF)	VHF 1.5 m (88.61 in.)
TYPICAL WIND LOADING @ 162 km/h (UHF)	UHF 52 N
TYPICAL WIND LOADING @ 162 km/h (VHF)	VHF 240 N

MOUNTING ACCESSORIES

Mounting accessories to be ordered separately.

TYPE	DIMENSION	PRODUCT NO.
1763-100		123001001
UA64-23	25 - 50 mm	123001006
UA64-23	25 - 76 mm	123001007
UA66-24	25 - 50 mm	123001017
UA66-24	25 - 76 mm	123001018
UA66-24	25 - 100 mm	123001019
UA66-24	25 - 115 mm	123001020

1763-100

Galvanised steel-cross-over clamp, fits 32 mm (1-1/4") diameter antenna booms to up to 50 mm (2") diameter poles, max. length 1500 mm.

UA64-23

Circular cast alloy clamp, gives a good two point fixing, supplied as standard with 4 x 50 mm stainless steel ‘U’ bolts and two half-moon cast spacers to fit antenna booms of 25 to 50 mm diameter. Will also accomodate 76 mm (3”) ‘U’ bolts to fit masts of that diameter. (order UB06).

UA66-24

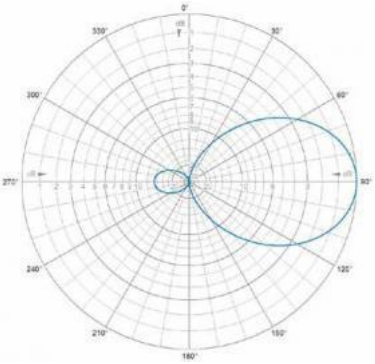
Rectangular cast alloy clamp, gives a good two point fixing, supplied as standard with 4 x 50 mm stainless steel ‘U’ bolts and two half-moon cast spacers to fit antenna booms of 25 to 50 mm diameter.

To fit 76 mm (3”) masts (order UB06 ‘U’ bolts).

To fit 100 mm (4”) masts (order UB07 ‘U’ bolts).

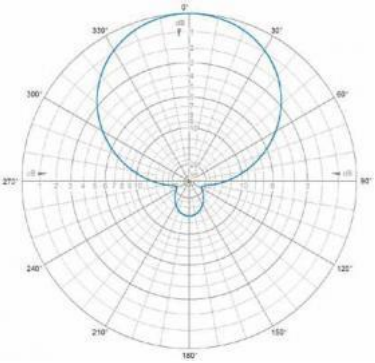
To fit 115 mm (4 1/2”) masts (order UB09 ‘U’ bolts).

TYPICAL RADIATION PATTERN (E-PLANE)

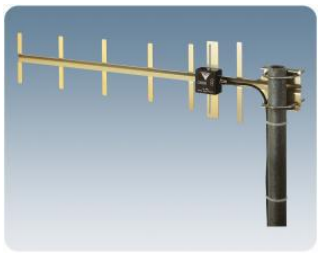


If the antennas are mounted for vertical polarization, these curves show the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)



If the antennas are mounted for vertical polarization, these curves show the radiation patterns in the horizontal plane (horizontal coverage).



YA 900

Low-Cost Holiday and Weekend Cottage Directional Antenna for Cellular Networks in the 900 MHz Band

- Low-cost and low-weight directional antenna.
- Ideal for use on caravans, mobile homes and at weekend cottages.
- Significant improvement of the quality of the mobile communitation in areas with unsatisfactory coverage (YA 900 to be directed towards the nearest base station).

DESCRIPTION

- Approx. 10 dBd gain.
- For use with 900 MHz cellular networks (EGSM, NMT-900, ETACS).
- For mobile telephones being used in “semi-stationary” installations.
- “Built-in” mounting bracket.
- Supplied with fittings and bolts for mounting on 30 - 50 mm diameter mast tube.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
YA 900	130001255

SPECIFICATIONS

ELECTRICAL	
MODEL	YA 900
ANTENNA TYPE	7-element Yagi-antenna
FREQUENCY	870 – 960 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Linear (vertical or horizontal dep. on orientation)
GAIN	12 dBi 10 dBd
FRONT-TO-BACK-RATIO	≥ 15 dB
HALF-POWER BEAMWIDTH	Approx. 50° (H-plane)
BANDWIDTH	100 MHz
SWR	≤ 1.5
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Antenna: Gold aludine, Aluminium Fittings: Stainless steel
COLOUR	Aludine “gold”
TOTAL LENGTH	710 mm
HEIGHT	170 mm

WEIGHT	315 g
CONNECTORS	FME-connector (cable to be ordered separately)
MOUNTING	On 30–50 mm dia. mast tube

HOW TO USE THE ANTENNA

With the YA 900 you will experience a significant improvement of the quality of your communication on the 900 MHz cellular networks (EGSM, NMT-900, ETACS ect.).

The antenna makes it possible to use your mobile telephone in areas with a poor coverage and where it is sometimes very difficult to obtain and maintain a satisfactory connection.

The YA 900 is ideal for use on caravans, mobile homes, at weekend cottages and other places where the mobile telephone is used in "semi-stationary" installations.

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INSTALLATION STEPS

- Mount the antenna on a 30 - 50 mm diameter mast tube using the accompanying fittings and bolts (see illustration on the other page). The antenna is to be oriented as indicated on the connection box of the antenna.
- Connect the antenna to the mobile telephone using an FME-cable of appropriate length and an adapter for connection of an exterior antenna to the handportable.
- Direct the antenna towards the nearest base station for the 900 MHz cellular network in question. The correct direction may be determined using the field strength indicator on the mobile telephone:

- Turn on the telephone and note the field strength level on the indicator.
- Rotate the antenna (in the horizontal plane) while observing the field strength indicator.
- Choose the direction in which the highest field strength level is observed and fasten the antenna.

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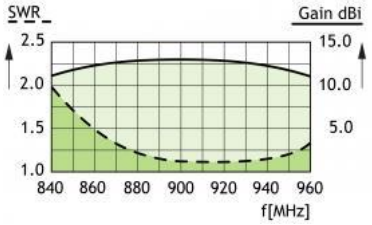
TYPICAL GAIN AND SWR CURVES



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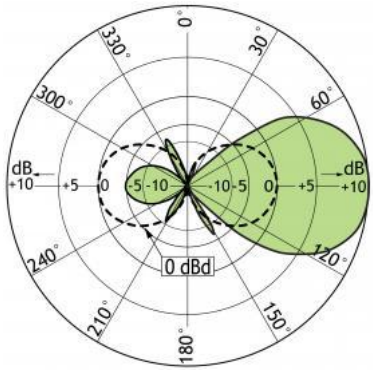
TYPICAL RADIATION PATTERN (E-PLANE)



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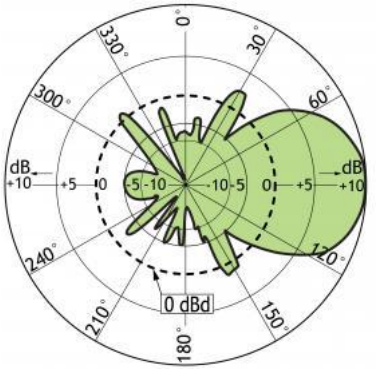
TYPICAL RADIATION PATTERN (H-PLANE)


0
30
60
120
150
180
210
240
300
330
dB
+10
+5
0
-5
-10
-10
-5
0
+5
+10
dB
0 dBd

S.2Y series

Directional antennas

- The S.2Y series are of a rugged and reliable construction for communication networks at both UHF & VHF.
- The one piece folded dipole incorporates a d.c. short to minimise static interference.
- The balun assembly is completely encapsulated in epoxy resin, totally preventing moisture ingress, and has been tested to BS5490:IP67.

- These antennas give a gain of 3 dBd with front to back ratio typ. 13 dB.
- They are supplied as standard with 3 metres of RG 213 cable terminated with an 'N' type socket, although cable and connector options are available upon request.

ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
S.2Y-72	67 - 76 MHz	Replaced by 7031050
S.2Y-82	77 - 86 MHz	Replaced by 7031066
S.2Y-155	145 - 165 MHz	Replaced by 7031144
S.2Y-165	156 - 175 MHz	Replaced by 7031156
S.2Y-405	376 - 424 MHz	Replaced by 7039380
S.2Y-410	385 - 435 MHz	Replaced by 7039410
S.2Y-445	420 - 470 MHz	Replaced by 7039420

SPECIFICATIONS

ELECTRICAL	
FREQUENCY RANGE	67 - 470 MHz
INPUT IMPEDANCE	50Ω
BANDWIDTH	± 6% of centre frequency
SWR	<1.5:1
FRONT TO BACK RATIO	13 dB
MAXIMUM INPUT POWER	150 Watts
POLARISATION	Vertical & horizontal
FORWARD GAIN	3 dBd
3 dB BEAMWIDTH	E Plane 72º H Plane 144º
MECHANICAL	
STANDARD CONNECTION	3 m (118.11 in.) Length of RG 213 c/w 'N' type socket

ELEMENTS UHF	UHF 12.7 mm dia. x 1.6 mm (0.50 in. dia x 0.06 in.) wall aluminium alloy grade 6063T6
ELEMENTS VHF	VHF 19.0 mm dia. x 1.6 mm (0.75 in. dia x 0.06 in.) wall aluminium alloy grade 6063T6
SUPPORT BOOM	31.7 mm dia. x 2.6 mm (1.25 in. dia x 0.10 in.) wall aluminium alloy grade 6082T6
FASTENERS	Stainless steel grade A2-70
SADDLE CLAMPS	Diecast zinc alloy
INSULATOR	Epoxy resin encapsulant
LIGHTNING PROTECTION	Direct grounded
MOUNTING BRACKETS	See mounting accessories (not supplied)
TYPICAL WEIGHT (UHF)	UHF 1.3 kg (2.87 lb.)
YPICAL WEIGHT (VHF)	VHF 3.5 kg (7.71 lb.)
TYPICAL LENGTH (UHF)	UHF 0.6 m (23.62 in.)
TYPICAL LENGTH (VHF)	VHF 1.5 m (59.06 in.)
TYPICAL WIND LOADING @ 162 km/h (UHF)	UHF 50 N
TYPICAL WIND LOADING @ 162 km/h (VHF)	VHF 180 N

MOUNTING ACCESSORIES

Mounting accessories to be ordered separately.

TYPE	DIMENSION	PRODUCT NO.
1763-100		123001001
UA64-23	25 - 50 mm	123001006
UA64-23	25 - 76 mm	123001007
UA66-24	25 - 50 mm	123001017
UA66-24	25 - 76 mm	123001018
UA66-24	25 - 100 mm	123001019
UA66-24	25 - 115 mm	123001020

1763-100

Galvanised steel-cross-over clamp, fits 32 mm (1-1/4") diameter antenna booms to up to 50 mm (2") diameter poles, max. length 1500 mm.

UA64-23

Circular cast alloy clamp, gives a good two point fixing, supplied as standard with 4 x 50 mm stainless steel ‘U’ bolts and two half-moon cast spacers to fit antenna booms of 25 to 50 mm diameter. Will also accomodate 76 mm (3”) ‘U’ bolts to fit masts of that diameter. (order UB06).

UA66-24

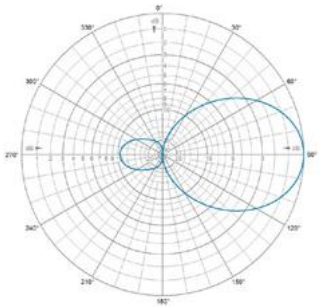
Rectangular cast alloy clamp, gives a good two point fixing, supplied as standard with 4 x 50 mm stainless steel ‘U’ bolts and two half-moon cast spacers to fit antenna booms of 25 to 50 mm diameter.

To fit 76 mm (3”) masts (order UB06 ‘U’ bolts).

To fit 100 mm (4”) masts (order UB07 ‘U’ bolts).

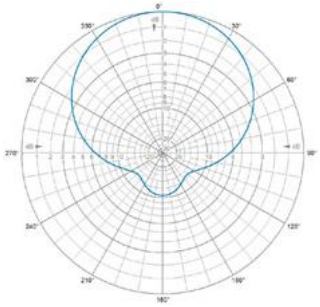
To fit 115 mm (4 1/2”) masts (order UB09 ‘U’ bolts).

TYPICAL RADIATION PATTERN (E-PLANE)



If the antennas are mounted for vertical polarization, these curves show the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)



If the antennas are mounted for vertical polarization, these curves show the radiation patterns in the horizontal plane (horizontal coverage).

YA 2100

Low-Cost 10 dB Directional Antenna for Networks in the 2100 MHz Band

- Low-cost and low-weight directional antenna.
- Approx. 10 dBi gain.

DESCRIPTION

- “Built-in” mounting bracket.
- Supplied with fittings and bolts for mounting on 30 - 50 mm diameter mast tube.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
YA 2100	130001553

SPECIFICATIONS

ELECTRICAL	
MODEL	YA 2100
ANTENNA TYPE	9-element Yagi-antenna
FREQUENCY	1900 – 2200 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Linear (vertical or horizontal dep. on orientation)
GAIN	10 dBi 8 dBd
FRONT-TO-BACK-RATIO	≥ 15 dB
HALF-POWER BEAMWIDTH	Approx. 35° (E-plane) Approx. 45° (H-plane)
BANDWIDTH	300 MHz
SWR	≤ 1.8 @ 1.9 - 2.2 GHz
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Antenna: Gold aludine, Aluminium Fittings: Stainless steel
COLOUR	Aludine “gold”
TOTAL LENGTH	570 mm
MAX. ELEMENT HEIGHT	100 mm
WEIGHT	300 g (incl. bolts)

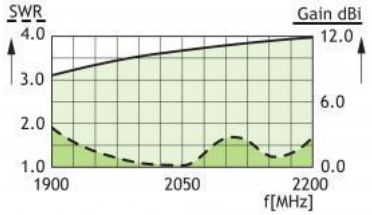
CONNECTORS	FME-connector (cable to be ordered separately)
MOUNTING	On 30 – 50 mm dia. mast tube

INSTALLATION STEPS

- Mount the antenna on a 30-50 mm diameter mast tube using the accompanying fittings and bolts (see illustration overleaf). The antenna is to be oriented as indicated on the connection box of the antenna.
- Direct the antenna towards the nearest base station for the 2100 MHz network in question. The correct direction may be determined using the field strength indicator telephone.

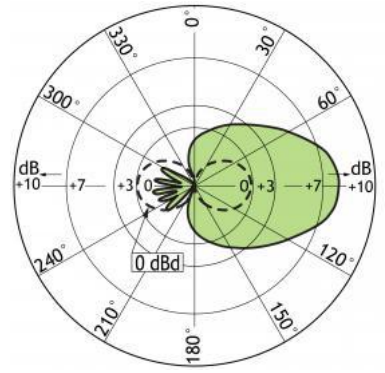
- Mount the antenna on your mast.
- Rotate the antenna (in the horizontal plane) while observing the field strength indicator.
- Choose the direction in which the highest field strength level is observed and fasten the antenna.

TYPICAL GAIN AND SWR CURVES



With the YA 2100 you will experience a significant improvement of the quality of your communication on the 2100 MHz networks.

TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)

S.1H series

Heavy duty centre-fed folded dipole antenna.

- The S.1H series are designed for use in extreme environments, or for multi channel applications.
- The one piece folded dipole assembly incorporates a d.c. short and is completely encapsulated in epoxy resin, totally preventing moisture ingress.
- A sleeve is welded to the dipole to increase strength, and improve VSWR.

- These antennas can be arranged in a variety of arrays to produce a wide range of radiation patterns.
- They are supplied as standard with 3 m of RG 213 cable terminated with an 'N' type socket.

ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
S.1H-78	**66 - 88 MHz**	**123003020**
S.1H-98	**88 - 108 MHz**	**123003021**
S.1H-127	**117 - 137 MHz**	**123003022**
S.1H-165	**155 - 175 MHz**	**123003023**

SPECIFICATIONS

ELECTRICAL	
FREQUENCY RANGE	66 - 175 MHz
INPUT IMPEDANCE	50Ω
BANDWIDTH	± 10% of centre frequency
SWR	<1.5:1
FRONT TO BACK RATIO	4 dB
MAXIMUM INPUT POWER	500 Watts
POLARISATION	Vertical
FORWARD GAIN	2 dBd
3 dB BEAMWIDTH	E Plane 85º H Plane 200º (Gain & RPE assmes mount on conductive pole)
MECHANICAL	
STANDARD CONNECTION	3 m (118.11 in.) Length of RG 213 c/w 'N' type socket
ELEMENTS	19.0 mm dia. x 1.6 mm (0.75 in. dia x 0.06 in.) wall aluminium alloy grade 6063T6

DIPOLE SLEEVE (WELDED)	31.7 mm dia. x 2.6 mm (1.25 in. dia x 0.10 in.) wall aluminium alloy grade 6063T6
SUPPORT BOOM	48.4 mm dia. x 4.5 mm (1.91 in. dia x 0.18 in.) wall aluminium alloy grade 6082T6
FASTENERS	Stainless steel grade A2-70
SADDLE CLAMPS	Machined aluminium alloy
INSULATOR	Epoxy resin encapsulant
LIGHTNING PROTECTION	Direct grounded
MOUNTING BRACKETS	See mounting accessories (not supplied)
TYPICAL WEIGHT	5.3 kg (11.68 lb.)
TYPICAL LENGTH	1.5 m (59.06 in.)
TYPICAL WIND LOADING @ 162 km/h	202 N

MOUNTING ACCESSORIES

Mounting accessories to be ordered separately.

TYPE	DIMENSION	PRODUCT NO.
1763-100		123001001
UA64-23	25 - 50 mm	123001006
UA64-23	25 - 76 mm	123001007
UA66-24	25 - 50 mm	123001017
UA66-24	25 - 76 mm	123001018
UA66-24	25 - 100 mm	123001019
UA66-24	25 - 115 mm	123001020

1763-100

Galvanised steel-cross-over clamp, fits 32 mm (1-1/4") diameter antenna booms to up to 50 mm (2") diameter poles, max. length 1500 mm.

UA64-23

Circular cast alloy clamp, gives a good two point fixing, supplied as standard with 4 x 50 mm stainless steel ‘U’ bolts and two half-moon cast spacers to fit antenna booms of 25 to 50 mm diameter. Will also accomodate 76 mm (3”) ‘U’ bolts to fit masts of that diameter. (order UB06).

UA66-24

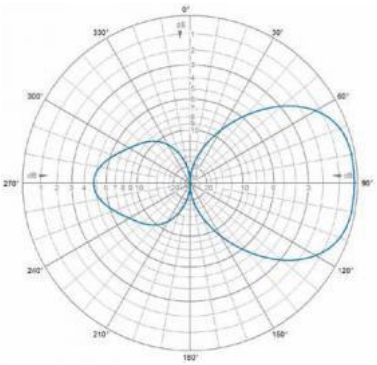
Rectangular cast alloy clamp, gives a good two point fixing, supplied as standard with 4 x 50 mm stainless steel ‘U’ bolts and two half-moon cast spacers to fit antenna booms of 25 to 50 mm diameter.

To fit 76 mm (3”) masts (order UB06 ‘U’ bolts).

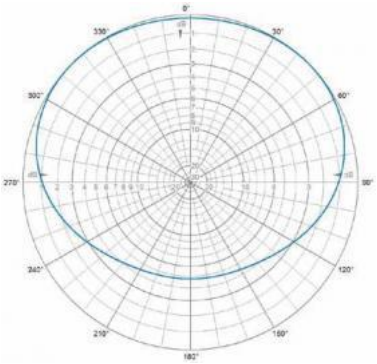
To fit 100 mm (4”) masts (order UB07 ‘U’ bolts).

To fit 115 mm (4 1/2”) masts (order UB09 ‘U’ bolts).

TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



S.1 series

Centre-fed folded dipole antenna.

- The S.1 series are of a rugged and reliable construction.
- The one piece folded dipole incorporates a d.c. short to minimise static interference.
- The balun assembly is completely encapsulated in epoxy resin, totally preventing moisture ingress, and has been tested to BS5490:IP67.

- These antennas can be arranged in a variety of arrays in combination with CPS (cable power splitter) series to produce a wide range of radiation patterns.
- They are supplied as standard with 3 metres of RG 213 cable terminated with an 'N' type socket.
- Heavy duty and stainless steel options are available.

ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
S.1-72	66 - 80 MHz	Replaced by 7050060
S.1-82	70 - 86 MHz	Replaced by 7050075
S.1-98	88 - 108 MHz	Replaced by 7050088
S.1-127	117 - 137 MHz	Replaced by 7050118
S.1-160	145 - 176 MHz	Replaced by 7050158
S.1-200	192 - 208 MHz	Replaced by 7050170
S.1-405	380 - 430 MHz	Replaced by 7051400
S.1-380-470	380 - 470 MHz	Replaced by S.1-380-470
S.1-445	420 - 470 MHz	Replaced by 7051420
S.1-475	430 - 520 MHz	Replaced by S.1-475

SPECIFICATIONS

ELECTRICAL	
FREQUENCY RANGE	66 - 520 MHz
INPUT IMPEDANCE	50 Ω
BANDWIDTH	± 10% of centre frequency
SWR	< 1.5:1
FRONT TO BACK RATIO	4 dB
MAXIMUM INPUT POWER	150 W
POLARIZATION	Vertical
FORWARD GAIN	2 dBd
3 dB BEAMWIDTH	E Plane 85º H Plane 200º

	(Gain & RPE assmes mount on conductive pole)
MECHANICAL	
STANDARD CONNECTION	3 m (118.11 in.) Length of RG 213 c/w 'N' type socket
ELEMENTS (UHF) (> 138 MHz)	UHF 12.7 mm dia. x 1.6 mm (0.50 in. dia x 0.06 in.) wall aluminium alloy grade 6063T6
ELEMENTS (VHF) (< 138 MHz)	VHF 19.0 mm dia. x 1.6 mm (0.75 in. dia x 0.06 in.) wall aluminium alloy grade 6063T6
SUPPORT BOOM	31.7 mm dia. x 2.6 mm (1.25 in. dia x 0.10 in.) wall aluminium alloy grade 6082T6
FASTENERS	Stainless steel grade A2-70
SADDLE CLAMPS	Diecast zinc alloy
INSULATOR	Epoxy resin encapsulant
LIGHTNING PROTECTION	Direct grounded
MOUNTING BRACKETS	See mounting accessories (not supplied)
TYPICAL WEIGHT (UHF)	UHF 1.9 kg (4.19 lb.)
TYPICAL WEIGHT (VHF)	VHF 2.8 kg (6.17 lb.)
TYPICAL LENGTH (UHF)	UHF 1 m (39.37 in.)
TYPICAL LENGTH (VHF)	VHF 1.33 m (52.36 in.)
TYPICAL WIND LOADING @ 162 km/h (UHF)	UHF 54 N
TYPICAL WIND LOADING @ 162 km/h (VHF)	VHF 148 N

MOUNTING ACCESSORIES

Mounting accessories to be ordered separately.

TYPE	DIMENSION	PRODUCT NO.
1763-100		123001001
UA64-23	25 - 50 mm	123001006
UA64-23	25 - 76 mm	123001007
UA66-24	25 - 50 mm	123001017
UA66-24	25 - 76 mm	123001018
UA66-24	25 - 100 mm	123001019
UA66-24	25 - 115 mm	123001020

1763-100

Galvanised steel-cross-over clamp, fits 32 mm (1-1/4") diameter antenna booms to up to 50 mm (2") diameter poles, max. length 1500 mm.

UA64-23

Circular cast alloy clamp, gives a good two point fixing, supplied as standard with 4 x 50 mm stainless steel ‘U’ bolts and two half-moon cast spacers to fit antenna booms of 25 to 50 mm diameter. Will also accomodate 76 mm (3”) ‘U’ bolts to fit masts of that diameter. (order UB06).

UA66-24

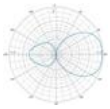
Rectangular cast alloy clamp, gives a good two point fixing, supplied as standard with 4 x 50 mm stainless steel ‘U’ bolts and two half-moon cast spacers to fit antenna booms of 25 to 50 mm diameter.

To fit 76 mm (3”) masts (order UB06 ‘U’ bolts).

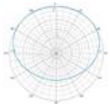
To fit 100 mm (4”) masts (order UB07 ‘U’ bolts).

To fit 115 mm (4 1/2”) masts (order UB09 ‘U’ bolts).

TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



RX 5000

Self-Supporting Wide-Band Receiving Whip Antenna for the LF, MF and HF Bands.

1. This antenna provides a very efficient means of establishing a universal, wide-band 50 Ω receiving aerial system for the complete LF, MF and HF bands in one unit.
2. The antenna consists of a high-capacitance, 5 m long glass fibre antenna element with a frequency-compensated wide-band impedance transformer mounted in the bottom end.
3. The transformer converts the widely varying antenna impedance to a constant 50 Ω, making it possible to use length-independent, shielded, standard RG 58 C/U or RG 213/U as downlead cable to the 50 Ω receiver.

- The antenna is protected against noise pick-up running on the outside of the downlead cable, and it is protected against static by DC-grounding.
- Moreover, the 50 Ω receiver and the matching transformer itself are protected against RF overload and violent discharges by an air spark gap (approx. 1 kV), a gas filled spark gap (90 V) and a resistance network.
- To prevent electrolytical corrosion, the coaxial cable braid is only capacitively coupled to the earth connection.
- Installation is easily carried out by means of the two hot galvanized mast clamps. The antenna has very small weight and minimum wind surface, thereby requiring only a minimum of mast strength.
- The glass fibre construction gives a stiff and self-supporting structure with extremely good resistance against the corrosive marine environment with UV-radiation, salt, exhaust gases and ice formation as primary factors.
- RX 5000 is a maintenance-free and very reliable construction.

ORDERING DESIGNATIONS

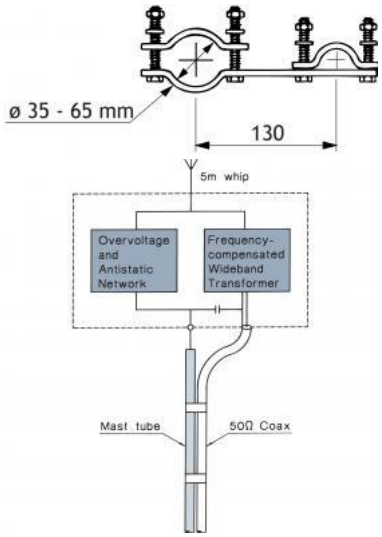
TYPE NO.	PRODUCT NO.
RX 5000	110000111

SPECIFICATIONS

ELECTRICAL	
MODEL	RX 5000
ANTENNA TYPE	Self-supporting wide-band receiving whip antenna for LF, MF and HF bands
FREQUENCY RANGE	100 kHz – 30 MHz
IMPEDANCE	50 Ω
POLARISATION	Vertical
MECHANICAL	
TEMP. RANGE	-30° → +70° C
CONNECTOR	“N”-female
WIND SURFACE	0.082 m²
WIND LOAD	108 N @ 150 km/h
MAX. WIND SPEED	200 km/h

COLOUR	Marine white
MATERIALS	Shroud : Glass fibre, stainless steel and chromed brass Housing: Polycarbonate
TOTAL HEIGHT	Approx. 5.17 m (incl. box)
DIA. IN TOP END	5 mm
DIA. IN BOTTOM END	20 mm
WEIGHT	Approx. 2.9 kg (clamps inclusive)
MOUNTING	With side-mounting clamps on 35 – 65 mm dia. mast tube

CLAMP DETAILS



YA 1800

Low-Cost Holiday and Weekend Cottage Directional Antenna for Cellular Networks in the 1800 MHz Band

- Low-cost and low-weight directional antenna.
- Ideal for use on caravans, mobile homes and at weekend cottages.
- Significant improvement of the quality of the mobile communitation in areas with unsatisfactory coverage (YA 1800 to be directed towards the nearest base station).

DESCRIPTION

- Approx. 10 dBi gain.
- For use with 1800 MHz cellular networks (DCS 1800, PCN 1800, DECT and similar networks).
- For mobile telephones being used in “semi-stationary” installations.
- “Built-in” mounting bracket.
- Supplied with fittings and bolts for mounting on 30 - 50 mm diameter mast tube.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
YA 1800	130001277

SPECIFICATIONS

ELECTRICAL	
MODEL	YA 1800
ANTENNA TYPE	7-element Yagi-antenna
FREQUENCY	1700 – 1900 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Linear (vertical or horizontal dep. on orientation)
GAIN	10 dBi
FRONT-TO-BACK-RATIO	≥ 15 dB
HALF-POWER BEAMWIDTH	Approx. 50° (H-plane)
BANDWIDTH	200 MHz
SWR	≤ 1.5
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Antenna: Gold aludine, Aluminium Fittings: Stainless steel
COLOUR	Aludine “gold”
TOTAL LENGTH	426 mm
MAX. ELEMENT HEIGHT	108 mm

WEIGHT	250 g (incl. bolts)
CONNECTORS	FME-connector (cable to be ordered separately)
MOUNTING	On 30–50 mm dia. mast tube

HOW TO USE THE ANTENNA

With the YA 1800 you will experience a significant improvement of the quality of your communication on the 1800 MHz cellular networks (DCS 1800, PCN 1800, DECT and similar networks).

The antenna makes it possible to use your mobile telephone in areas with a poor coverage and where it is sometimes very difficult to obtain and maintain a satisfactory connection.

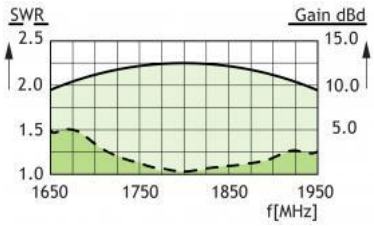
The YA 1800 is ideal for use on caravans, mobile homes, at weekend cottages and other places where the mobile telephone is used in “semi-stationary” installations.

INSTALLATION STEPS

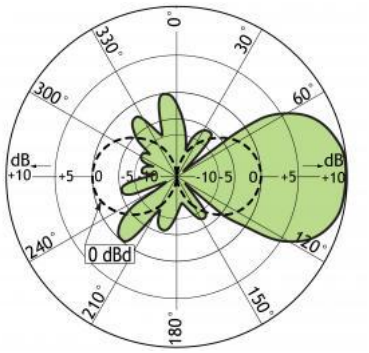
- Mount the antenna on a 30-50 mm diameter mast tube using the accompanying fittings and bolts (see illustration on the other page). The antenna is to be oriented as indicated on the connection box of the antenna.
- Connect the antenna to the mobile telephone using an FME-cable of appropriate length and an adapter for connection of an exterior antenna to the handportable.
- Direct the antenna towards the nearest base station for the 1800 MHz cellular network in question. The correct direction may be determined using the field strength indicator on the mobile telephone:

- Turn on the telephone and note the field strength level on the indicator.
- Rotate the antenna (in the horizontal plane) while observing the field strength indicator.
- Choose the direction in which the highest field strength level isobserved and fasten the antenna.

TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



R 900-7/..., R 900-10/..., R 900-14/...

Directional Antennas with 7, 10 and 14 dBd Gain for the 900 MHz Band

- These antennas are 4-, 8- and 18-element Yagi antennas with 7, 10, and 14 dBd gain, respectively.
- When mounted for vertical polarisation the horizontal coverage is R 900-7: 74°, R 900-10: 52° and R 900-14: 32°.
- These Yagis incorporate baluns optimized for wide bandwidth and accurate matching.

- The entire balun unit and feeder cable inlet are completely sealed in a polythene moulding ensuring permanent waterproof connections. The antennas are supplied with a 0.8 or 3 m “tail” of RG 213 terminated with an N-female connector. (See specifications).
- Radiating elements, supporting booms and adjoining metal castings have been constructed in high quality aluminium alloys to prevent corrosion. All metal parts are DC-grounded.
- The antennas are designed for back mounting and are provided with rear extended booms.
- These antennas can be stacked and fed in phase with a matching harness for increased gain.
- A mast clamp for fixation on 30 - 58 mm diameter mast tube is enclosed.

ORDERING DESIGNATIONS

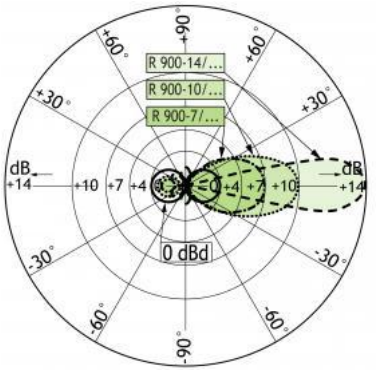
TYPE	ANTENNA TYPE	FREQUENCY	PRODUCT NO.
R 900-7/l	4-element Yagi 7 dBd	820 - 900 MHz	7385900
R 900-7/h	4-element Yagi 7 dBd	870 - 960 MHz	7385900
R 900-10/l	8-element Yagi 10 dBd	820 - 900 MHz	7175890
R 900-10/h	8-element Yagi 10 dBd	870 - 960 MHz	7175872
R 900-14/l	18-element Yagi 14 dBd	820 - 900 MHz	7176890
R 900-14/h	18-element Yagi 14 dBd	870 - 960 MHz	7176870

SPECIFICATIONS

ELECTRICAL			
MODEL	R 900-7/...	R 900-10/...	R 900-14/...
ANTENNA TYPE	4-element Yagi	8-element Yagi	18-element Yagi
FREQUENCY	l: 820 - 900 MHz h: 870 - 960 MHz		
IMPEDANCE	50 Ω		
POLARIZATION	Vertical or horizontal		
GAIN	9 dBi 7 dBd	12 dBi 10 dBd	16 dBi 14 dBd
FRONT TO BACK RATIO	16 dB	20 dB	25 dB
HALF POWER BEAMWIDTH	E-plane: 56° H-plane: 74°	E-plane: 42° H-plane: 52°	E-plane: 23° H-plane: 32°
BANDWIDTH	80-90 MHz		

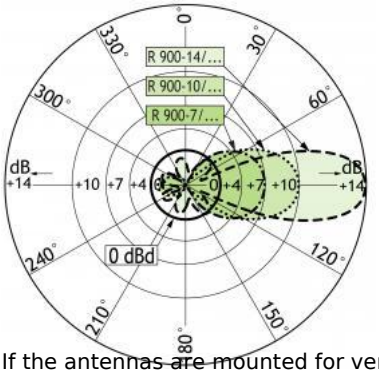
SWR	≤ 1.5		
MAX. POWER	150 W		
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)		
MECHANICAL			
TEMP. RANGE	-25°C → +60°C		
CONNECTION	0.8 m tail of RG 213 terminated with type “N” female connector	0.8 m tail of RG 213 terminated with type “N” female connector	3 m tail of RG 213 terminated with type “N” female connector
WIND SURFACE	0.034 m²	0.047 m²	0.091 m²
WIND LOAD	43 N @ 160 km/h	59 N @ 160 km/h	119 N @ 160 km/h
COLOUR	“Aluminium”		
MATERIALS	Elements/Boom/Saddle clamps: Aluminium alloys. Fittings: Stainless steel. Bracket: Hot-dipped galvanized steel		
BOOM LENGTH	Approx. 0.69 m	Approx. 0.97 m	Approx. 2.04 m
BOOM DIA.	25.4 mm		
MAX. ELEMENT LENGTH	0.21 m		
DIA. OF ELEMENTS	9.5 mm		
WEIGHT	Approx. 2.1 kg	Approx. 2.8 kg	Approx. 4.2 kg
MOUNTING	Supplied with mast bracket suiting 30-58 mm dia. mast tube		

RADIATION PATTERN



If the antennas are mounted for vertical polarization these curves show the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)



If the antennas are mounted for vertical polarization these curves show the radiation patterns in the horizontal plane (horizontal coverage).

R 900/1800-12/14

Dual Band Yagi Antenna for the 900 & 1800 MHz Bands

- Dual band shrouded yagi antenna.
- Covers the 900 MHz GSM band (880 – 960 MHz) as well as the 1800 MHz DCS-1800/PCN band (1710 – 1890 MHz).
- 12 dBd gain on 900 MHz and 14 dBd gain on 1800 MHz.
- Linearly polarised with orthogonal polarisations for the two bands.

- H-plane beam widths 35° and 29° for the 900 MHz and
- 1800 MHz bands respectively.
- E-plane beam widths 33° and 26° for the two bands.
- A sturdy glass reinforced plastic shroud ensures effective protection against the weather.
- All metal parts are DC grounded for noise reduction and lightning protection.
- Materials carefully chosen for minimum electrolytic corrosion and intermodulation.
- Supplied with circular cast alloy clamp for mounting on
- 25 – 50 mm mast tubes.
- Reliable and robust design for optimum performance and long lifetime.

ORDERING DESIGNATIONS

The antenna is supplied in the standard version with bracket suiting 25 - 50 mm dia. mast tube. Available for 50 - 75 mm dia. mast tube as an option.

TYPE	PRODUCT NO.
R 900/1800-12/14	120000066

SPECIFICATIONS

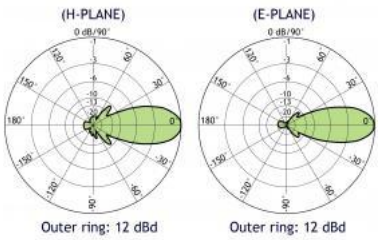
MODEL	R 900/1800-12/14
ANTENNA TYPE	Dual band yagi antenna
FREQUENCY	GSM: 880–960 MHz PCN: 1710–1890 MHz
GAIN	GSM: 14 dBi 12 dBd PCN: 16 dBi 14 dBd
H-PLANE BEAM WIDTH (-3 DB POINTS)	GSM: 35° PCN: 29°
E-PLANE BEAM WIDTH (-3 DB POINTS)	GSM: 33° PCN: 26°
MAXIMUM POWER	50 W

ELETRICAL	
MODEL	R 900/1800-12/14
ANTENNA TYPE	Dual band yagi antenna
FREQUENCY	GSM: 880 – 960 MHz PCN: 1710 – 1890 MHz
IMPEDANCE	50 Ω

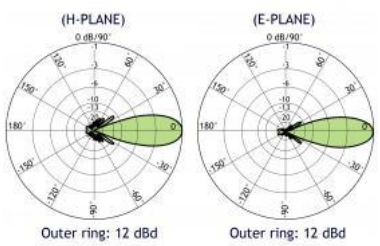
POLARIZATION	Two linear orthogonal	
GAIN	GSM: 14 dBi 12 dBd PCN: 16 dBi 14 dBd	
H-PLANE BEAM WIDTH (-3 DB POINTS)	GSM: 35° PCN: 29°	
E-PLANE BEAM WIDTH (-3 DB POINTS)	GSM: 33° PCN: 26°	
FRONT TO BACK RATIO	20 dB	
BANDWIDTH	GSM : 80 MHz PCN : 180 MHz	
SWR	≤ 1.5 (typ. ≤ 1.3)	
MAX. POWER	50 W	
ANTISTATIC PROTECTION	All metal parts DC-grounded	
MECHANICAL		
TEMP. RANGE	-25°C → +60°C	
CONNECTOR	“N” type female	
WIND LOAD	244 N @ 160 km/h	
COLOUR		Grey
SHROUD	183 mm dia. glass fiber tube	
DIMENSIONS	Length 1300 mm, diameter 183 mm	
WEIGHT	5 kg	
MOUNTING	Supplied with circular cast alloy clamp for mounting on 25 – 50 mm dia. mast tubes	

RADIATION PATTERN

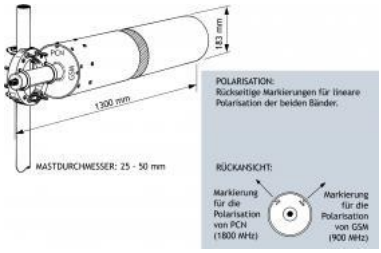
TYPICAL RADIATION PATTERN 900 MHz (GSM)



TYPICAL RADIATION PATTERN 1800 MHz (PCN)



MOUNTING OUTLINE



R 700-2700/10

Multi Band Yagi Antenna for the 700 - 2700 MHz Bands

- Multi-band shrouded Directional Antenna.
- Covers e.g. the 900 MHz EGSM band (880 – 960 MHz) as well as the 1800 MHz DCS-1800/PCN band (1710 – 1890 MHz), UMTS band (1900 - 2200 MHz) and WIFI (2400 - 2484 MHz).
- A sturdy glass-reinforced plastic shroud ensures effective protection against the weather.

- All metal parts are DC-grounded for noise reduction and lightning protection.
- Materials carefully chosen for minimum electrolytic corrosion and intermodulation.
- Supplied with circular cast alloy clamp for mounting on 25 – 50 mm mast tubes.
- Reliable and robust design for optimum performance and long lifetime.
- Fire retardant properties.

ORDERING DESIGNATIONS

The antenna is supplied in the standard version with bracket suiting 25 - 50 mm dia. mast tube. Available for 50 - 75 mm dia. mast tube as an option.

TYPE	PRODUCT NO.
R 700-2700/10	120000067

SPECIFICATIONS

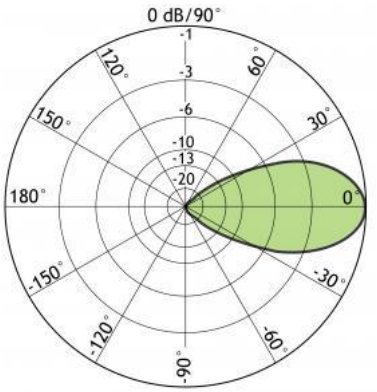
ELETRICAL					
MODEL	R 700-2700/10				
ANTENNA TYPE	Shrouded Directional Antenna				
FREQUENCY	700 MHz	900 MHz	1800 MHz	2100 MHz	2700 MHz
POLARIZATION	Linear, vertical or horizontal				
GAIN	11.0 dBi	12.0 dBi	11.6 dBi	11.0 dBi	9.5 dBi
H-PLANE BEAMWIDTH (-3 dB POINTS)	53°	50°	48°	62°	78°
E-PLANE BEAMWIDTH (-3 dB POINTS)	46°	45°	40°	40°	38°
FRONT-TO-BACK RATIO	> 25 dB				
BANDWIDTH	≥ 2000 MHz @ SWR ≤ 1.5				
SWR	≤ 1.5				
IMPEDANCE	50 Ω				
MAX. POWER	150 W				

ANTISTATIC PROTECTION	All metal parts DC-grounded
MECHANICAL	
TEMP. RANGE	-25°C → +60°C
CONNECTOR	“N” type female
WIND LOAD	250 N (max. @ 160 km/h)
COLOUR	Grey
SHROUD	180 mm glass fibre tube
DIMENSIONS	Length 1360 mm, diameter 180 mm
WEIGHT	7 kg excl. mounting hardware
MOUNTING	Supplied with circular cast alloy clamp for mounting on 25 – 50 mm dia. mast tubes

RADIATION PATTERN

TYPICAL RADIATION PATTERN (E-PLANE)

Outer ring: 10 dBd (@ 900 MHz)



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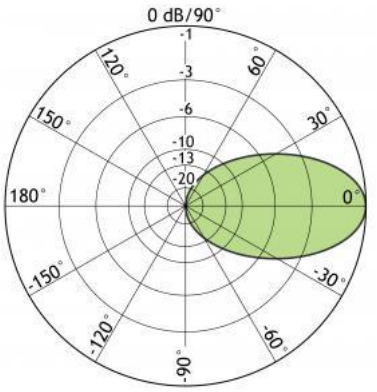
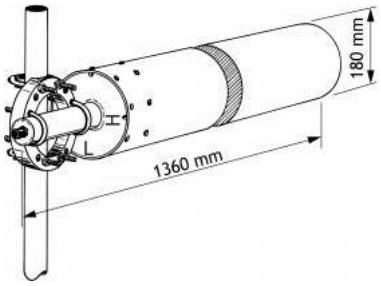
TYPICAL RADIATION PATTERN (H-PLANE)



Outer ring: 10 dBd (@ 900 MHz)

MOUNTING OUTLINE

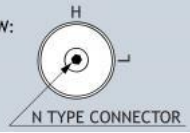


MAST DIAMETER: 25 - 50 mm

POLARIZATION:
MOUNTING NOTES:

1. "L" and "H" indicate polarization of antenna. Polarization is vertical when "L" is facing downwards. By aligning the middle drain holes to face downwards the antenna is at 45° polariztion.
2. When mounting inside a tunnel, the "L" must be normal to the wall/roof.
3. Antenna must be mounted at least 50 mm from tunnel wall/roof.
4. One drain hole at the rear of the antenna and one at the front must be pointing downwards. These drain holes must have the sealing grommets removed.

REAR VIEW:



R 2400-...

Shrouded Yagi Antennas for the 2400 MHz Band

- Series of three shrouded yagi antennas with 6 – 15 dBd gain.
- Covers the frequency range 2300 – 2500 MHz.
- Can be used for both vertical and horizontal polarisation.
- H-plane beam widths 24° to 80° and E-plane beam widths 23° to 60° depending on model.

- Ideal for fixed links and point-to-multipoint applications.
- A sturdy glass reinforced plastic shroud ensures effective protection against the weather.
- All metal parts are DC grounded for noise reduction and lightning protection.
- Materials carefully chosen for minimum electrolytic corrosion and intermodulation.
- Supplied with fixed Norstell clamp (48.5 mm dia.).
- Reliable and robust design for optimum performance and long lifetime.

R 2400-6

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R 2400-11

R 2400-15

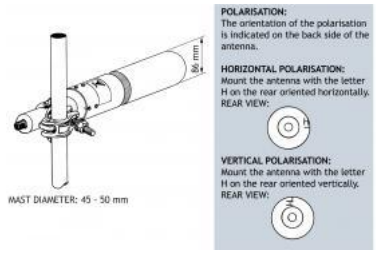
ORDERING DESIGNATIONS

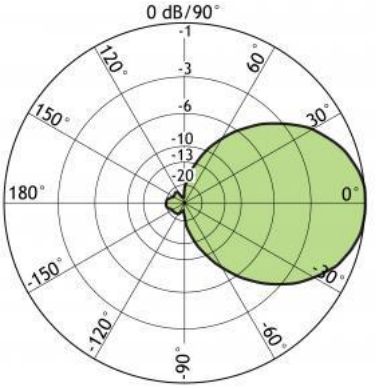
TYPE	PRODUCT NO.
R 2400-6	120000073
R 2400-11	120000076
R 2400-15	120000075

SPECIFICATIONS

MODEL	R 2400-6	R 2400-11	R 2400-15
ANTENNA TYPE	Shrouded yagi antenna		
FREQUENCY	2300 – 2500 MHz		
GAIN	8 dBi 6 dBd	13 dBi 11 dBd	17 dBi 15 dBd
H-PLANE BEAM WIDTH (-3 DB POINTS)	80°	43°	24–30°
E-PLANE BEAM WIDTH (-3 DB POINTS)	60°	40°	23–27°
MAXIMUM POWER	150 W		
MODEL	R 2400-6	R 2400-11	R 2400-15
ELECTRICAL			
ANTENNA TYPE	Shrouded yagi		
FREQUENCY	2300 – 2500 MHz		
IMPEDANCE	50 Ω		
POLARIZATION	Vertical or horizontal		
GAIN	8 dBi 6 dBd	13 dBi 11 dBd	17 dBi 15 dBd
H-PLANE BEAM WIDTH (-3 DB POINTS)	80°	43°	24–30°
E-PLANE BEAM WIDTH (-3 DB POINTS)	60°	40°	23–27°
FRONT TO BACK RATIO	> 20 dB	> 20 dB	20 dB
BANDWIDTH	200 MHz		
SWR	≤ 1.5:1		
MAX. POWER	150 W		
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)		
MECHANICAL			
TEMP. RANGE	-25°C → +60°C		
CONNECTOR	“N” type female		
WIND LOAD @ 160 km/h	34 N	63 N	91 N
WIND SURFACE	0.027 m²	0.0495 m²	0.072 m²
COLOUR	Grey		
SHROUD	86 mm dia. glass fibre tube		
LENGTH	420 mm	620 mm	1000 mm
WEIGHT	1.6 kg	1.8 kg	2.1 kg
MOUNTING	Supplied with fixed Norstell clamp (48.5 mm dia.) for mounting on 45–50 mm mast tubes		

MOUNTING & PATTERN





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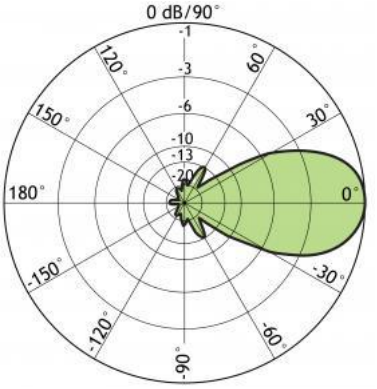
H-PLANE: Outer ring 6 dBd



H-PLANE: Outer ring 11 dBd

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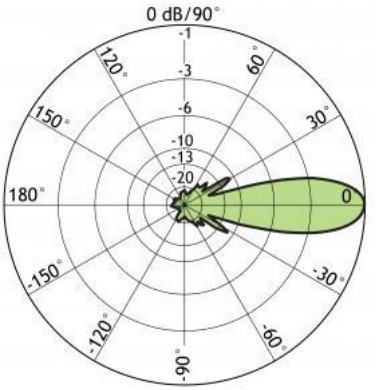

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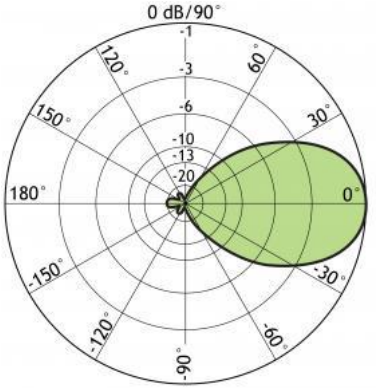
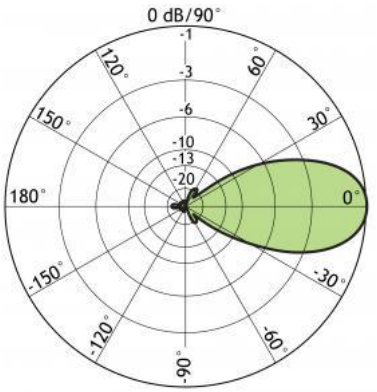
H-PLANE: Outer ring 15 dBd

TYPICAL RADIATION PATTERN



E-PLANE: Outer ring 6 dBd



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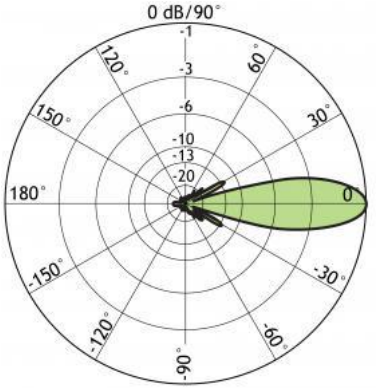
E-PLANE: Outer ring 11 dBd



E-PLANE: Outer ring 15 dBd

QHAM 2500-RC/...

Circularly Polarized Quadrifilar Helix for Mast Mounting

- Quadrifilar helix antenna for fixed installation.
- Two models within the 2.5 GHz band covering 2300 - 2500 MHz and 2530 - 2660 MHz, respectively.
- Right-hand circularly polarized antenna (RHCP).

DESCRIPTION

- Ideal for “base station” receiving antenna when communicating with transmitting antenna on portable device (e.g. as receiving antenna on board a helicopter communicating with portable camera on a motor bike or situations similar to this).
- The circularly polarized antenna minimizes the fading effect often encountered in environments with reflecting obstacles.
- Suitable for mounting on 1” threaded water pipe.
- Comprehensive range of accessory mounting brackets available to make the perfect installation for your specific needs.

ORDERING DESIGNATIONS

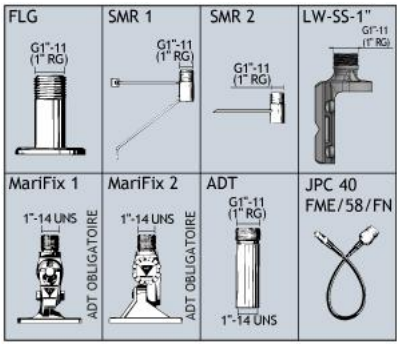
TYPE	FREQUENCY	PRODUCT NO.
QHAM 2500-RC/l	2300 - 2500 MHz	110000156
QHAM 2500-RC/h	2530 - 2660 MHz	110000206

SPECIFICATIONS

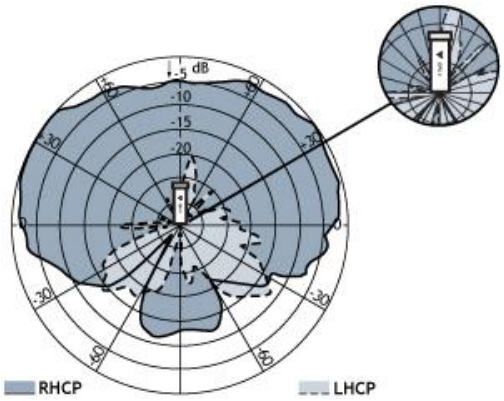
ELECTRICAL	
MODEL	QHAM 2500-RC/...
ANTENNA TYPE	Quadrifilar helix antenna
FREQUENCY	l: 2300 - 2500 MHz h: 2530 - 2660 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Circular right-hand
COVERAGE	Hemispherical
GAIN	Approx. 2 dBic 0 dBd
BANDWIDTH	130 - 200 MHz (dep. on model)
SWR	≤ 2.0
MAX. POWER	2 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	

TEMP. RANGE	-30°C → +70°C
CONNECTOR	FME-male
WIND SURFACE	Approx. 0.0072 m²
MAX. WIND SPEED	200 km/h
WIND LOAD	Approx. 9.6 N @ 150 km/h
COLOUR	Marine white
MATERIALS	Shroud: Weather resistant low loss plastic
TOTAL HEIGHT	Approx. 23 cm
ANTENNA DIA.	33 mm
WEIGHT	Approx. 140 g
MOUNTING	On 1” threaded water pipe or on PROCOM 1” mounting brackets (see below)

ACCESSORIES (to be ordered separately)



VERTICAL RADIATION PATTERN



QHA TETRA-RH

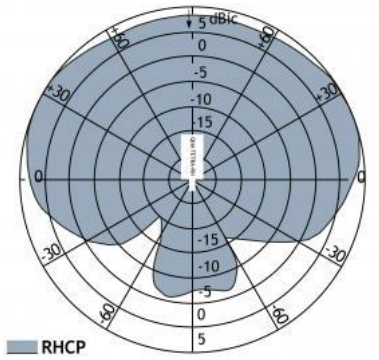
Circularly Polarized Quadrifilar Helix for air-ground-air (AGA) communication

- Circulary polarized quadrifilar helix antenna for fixed installation.
- Right-hand circularly polarized antenna (RHCP).

- Ideal for master/main antenna for air-ground-air (AGA) communication.
- The circularly polarized antenna minimizes the fading effect often encountered in environments with reflecting obstacles.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY
QHA TETRA-RH	110000288	380 - 400 MHz



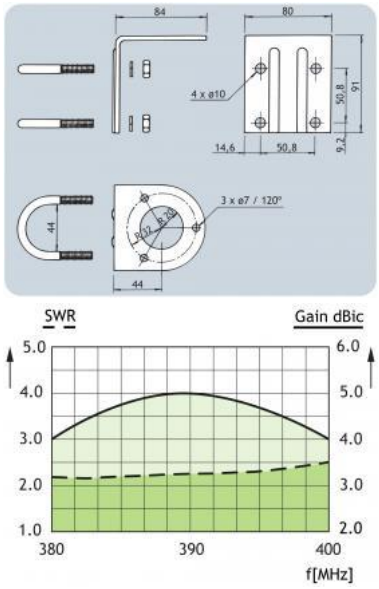
SPECIFICATIONS

ELECTRICAL	
MODEL	QHA TETRA-RH
ANTENNA TYPE	Quadrifilar helix antenna
FREQUENCY	380 - 400 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Circular right-hand
COVERAGE	Hemispherical
GAIN	Approx. 4 dBic
BANDWIDTH	20 MHz
SWR	≤ 3.0

MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-20°C → +60°C
CONNECTOR	N-female
COLOUR	Silver, white housing
MATERIALS	Antenna: Copper with semi-rigid coaxial cable Housing: White, weather-resistant plastic Fittings: Stainless Steel
TOTAL HEIGHT	Approx. 350 mm / 13.8 in.
ANTENNA DIA.	150 mm / 5.9 in.
WEIGHT	Approx. 1650 gr. / 3.6 lb.
MOUNTING	On 30 - 40 mm / 11.8 - 15.7 in. dia. mast tube

MOUNTING

Mast mounting bracket: SM-MAS



R 1800-...

Shrouded Yagi Antennas for the 1800 MHz Band

- Series of three shrouded yagi antennas with 6–15 dBd gain.
- Covers the 1800 MHz DCS-1800/PCN band (1710 – 1880 MHz).
- Can be used for both vertical and horizontal polarisation.

- H-plane beam widths 24° to 80° and E-plane beam widths 23°to 60° depending on model.
- A sturdy glass reinforced plastic shroud ensures effective protection against the weather.
- All metal parts are DC grounded for noise reduction and lightning protection.
- Materials carefully chosen for minimum electrolytic corrosion and intermodulation.
- Supplied with fixed Norstell clamp (48.5 mm dia.)
- Reliable and robust design for optimum performance and long lifetime.

R 1800-6

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R 1880-11

R 1800-15

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
R 1800-6	120000070
R 1800-11	120000071
R 1800-15	120000072

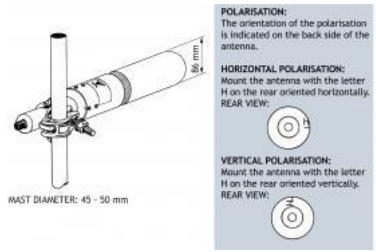
SPECIFICATIONS

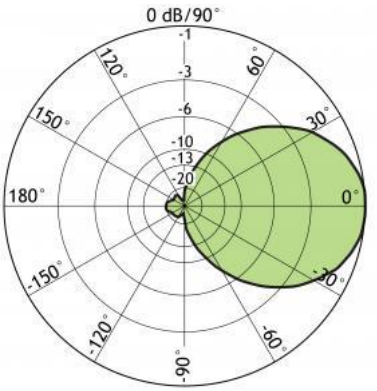
MODEL	R 1800-6	R 1800-11	R 1800-15
ANTENNA TYPE	Shrouded yagi antenna		
FREQUENCY	1710 – 1880 MHz		
GAIN	8 dBi 6 dBd	13 dBi 11 dBd	17 dBi 15 dBd
H-PLANE BEAM WIDTH (-3 DB POINTS)	80°	43°	24–30°
E-PLANE BEAM WIDTH (-3 DB POINTS)	60°	40°	23–27°
MAXIMUM POWER	150 W		

MODEL	R 1800-6	R 1800-11	R 1800-15
ELECTRICAL			
ANTENNA TYPE	Shrouded yagi		
FREQUENCY	1710 – 1880 MHz		
IMPEDANCE	Nom. 50 Ω		
POLARIZATION	Vertical or horizontal		
GAIN	8 dBi 6 dBd	13 dBi 11 dBd	17 dBi 15 dBd
H-PLANE BEAM WIDTH (-3 DB POINTS)	80°	43°	24 – 30°
E-PLANE BEAM WIDTH (-3 DB POINTS)	60°	40°	23 – 27°
FRONT TO BACK RATIO	> 20 dB	> 20 dB	20 dB
BANDWIDTH	170 MHz		
SWR	≤ 1.5		
MAX. POWER	150 W		
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)		
MECHANICAL			
TEMP. RANGE	-25°C → +60°C		
CONNECTOR	“N” type female		
WIND LOAD @ 160 km/h	34 N	63 N	114 N
WIND SURFACE	0.027 m²	0.050 m²	0.090 m²
COLOUR	Grey		
SHROUD	86 mm dia. glass fibre tube		
LENGTH	420 mm	620 mm	1300 mm
WEIGHT	1.6 kg	1.8 kg	2.1 kg

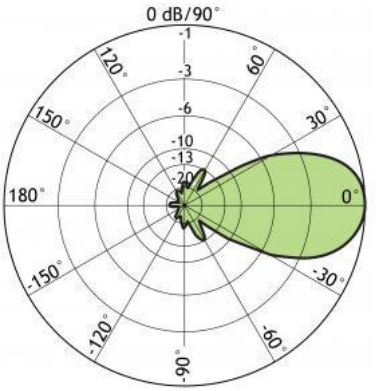
MOUNTING	Supplied with fixed Norstell clamp (48.5 mm dia.) for mounting on 45 - 50 mm mast tubes

MOUNTING & PATTERN

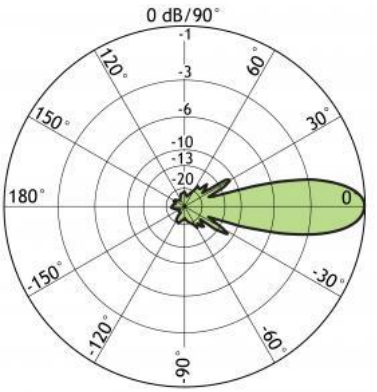




H-PLANE: Outer ring 6 dBd

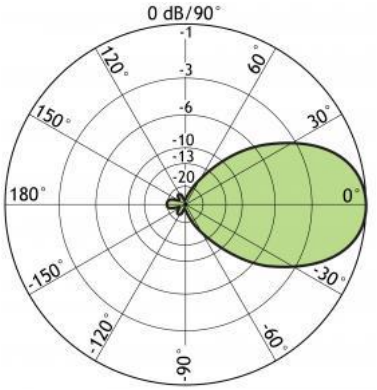


H-PLANE: Outer ring 11 dBd

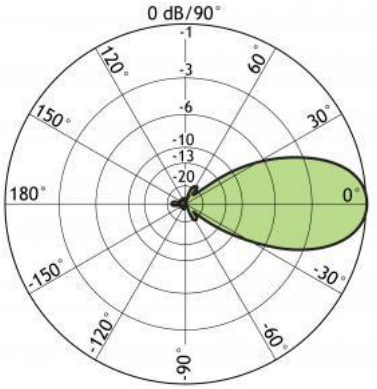


H-PLANE: Outer ring 15 dBd

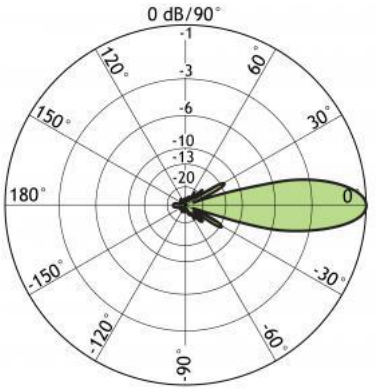
TYPICAL RADIATION PATTERN



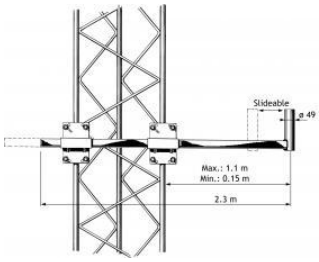
E-PLANE: Outer ring 6 dBd



E-PLANE: Outer ring 11 dBd



E-PLANE: Outer ring 15 dBd



SMC 2300/65-105

Slideable Side-Mounting Clamp for Base Station Antennas

- This slideable side-mounting clamp provides the possibility of mounting the antenna on the arm with the arm in retracted state (antenna close to tower).
- After mounting the antenna on the arm, the arm can be slid out to the required stand-off distance.

DESCRIPTION

- Eliminates dangerous struggling with heavy antennas at the end of fixed-length stand-off arms.
- SMC 2300/65-105 consists of:
  - Two mast fixation clamps for mast leg diameters 65 - 105 mm (for fixation across two mast legs).
  - One 2.3 m long slideable arm.
- Designed to carry all Procom antennas including CXL 70-8HD/...-PT and CXL 2-5HD/... mounted with stabilizing brackets (FB-HD/78).

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
SMC 2300/65-105	100000047

SPECIFICATIONS

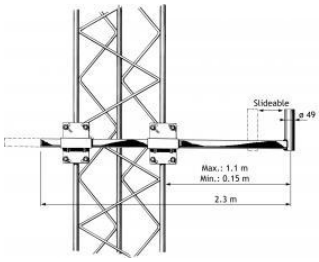
APPLICATION	Slideable side-mounting clamp for base station antennas
TOTAL LENGTH OF ARM	2.3 m
REQUIREMENTS CONCERNING SUPPORTING STRUCTURE	Mounts across two legs of square or triangular towers with round legs Max. dia. 105 mm Min. dia. 65 mm
STAND-OFF DISTANCE	Depending on side-length of mast. With a distance between mast legs of 1 m, side-mounting distance will be variable from 0.15 m to 1.10 m
DIA. OF ANTENNA MOUNTING TUBE	Ø 49 mm
WIND SURFACE (Excl. antenna)	0.073 m²
WIND LOAD (Excl. antenna)	93 N @ 160 km/h
MATERIALS	Hot-dipped galvanized steel
WEIGHT	Approx. 10 kg

PLEASE NOTE

The optimum position for an omnidirectional antenna is at the top of the mast as this ensures undisturbed radiation in all horizontal directions.

Mounting of an omnidirectional antenna at the side of a mast imposes some distortion of the radiation pattern as well as the SWR. The influence is dependent on the distance to the mast and the mast diameter.

Often this effect can be advantageously exploited to create directional patterns when a certain “preferred area” has to be covered by the antenna system.



SMC 2300/30-65

Slideable Side-Mounting Clamp for Base Station Antennas

- This slideable side-mounting clamp provides the possibility of mounting the antenna on the arm with the arm in retracted state (antenna close to tower).
- After mounting the antenna on the arm, the arm can be slid out to the required stand-off distance.

DESCRIPTION

- Eliminates dangerous struggling with heavy antennas at the end of fixed-length stand-off arms.
- SMC 2300/30-65 consists of:
  - Two mast fixation clamps for mast leg diameters 30 - 65 mm (for fixation across two mast legs).
  - One 2.3 m long slideable arm.
- Designed to carry all Procom antennas including CXL 70-8HD/...-PT and CXL 2-5HD/... mounted with stabilizing brackets (FB-HD/78).

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
SMC 2300/30-65	100000046

SPECIFICATIONS

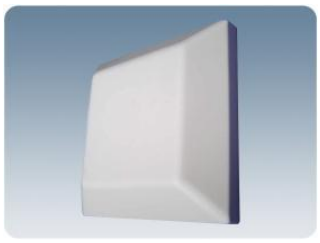
APPLICATION	Slideable side-mounting clamp for base station antennas
TOTAL LENGTH OF ARM	2.3 m
REQUIREMENTS CONCERNING SUPPORTING STRUCTURE	Mounts across two legs of square or triangular towers with round legs Max. dia. 65 mm Min. dia. 30 mm
STAND-OFF DISTANCE	Depending on side-length of mast. With a distance between mast legs of 1 m, side-mounting distance will be variable from 0.15 m to 1.10 m
DIA. OF ANTENNA MOUNTING TUBE	Ø 49 mm
WIND SURFACE (Excl. antenna)	0.073 m²
WIND LOAD (Excl. antenna)	93 N @ 160 km/h
MATERIALS	Hot-dipped galvanized steel
WEIGHT	Approx. 10 kg

PLEASE NOTE

The optimum position for an omnidirectional antenna is at the top of the mast as this ensures undisturbed radiation in all horizontal directions.

Mounting of an omnidirectional antenna at the side of a mast imposes some distortion of the radiation pattern as well as the SWR. The influence is dependent on the distance to the mast and the mast diameter.

Often this effect can be advantageously exploited to create directional patterns when a certain "preferred area" has to be covered by the antenna system.



PLPO TETRA/380-470

Indoor or outdoor linearly polarized patch antennas for wall mounting

DESCRIPTION

- Low-profile antenna for the 380 - 470 MHz band.
- Covers 90 MHz with a radiation of approx. 4 dBi.
- The antenna is available with a snap-fit wall mounting bracket.

ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.	
PLPO TETRA/380-470	380 - 470 MHz	752.01.05.00	

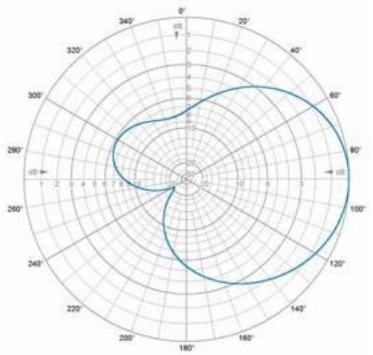
SPECIFICATIONS

ELETRICAL	
MODEL	PLPO TETRA/380-470
ANTENNA TYPE	Linearly polarized low-profile antenna
FREQUENCY	380 - 470 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Linear (Vertical and Horizontal)
GAIN	Approx. 4 dBi
BANDWIDTH	≥ 90 MHz
HALF-POWER BEAMWIDTH	E-plane 120° H-plane 130°
SWR	≤ 2
MAX. POWER	50 W
IM3	≤ -140 dBc (2x Tx @ 37 dBm)
SAR Testing (Specific Absorption Rate)	EN 50385:2002; 7.19 W Touch Safe Level
MECHANICAL	
CONNECTOR	N-Socket on 150 mm pigtail or antenna back
MATERIALS	Aluminium, PTFE Radome: ABS fire retardant, white RAL 6014
SIZE (L x W x H)	Approx. 292 x 292 x 76 mm / 11.50 x 11.50 x 2.99 in.

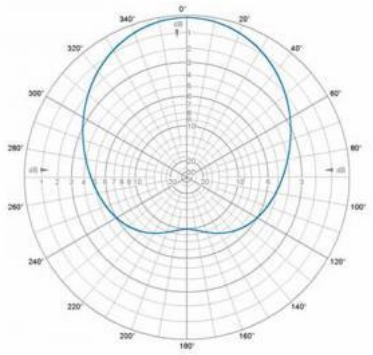
WEIGHT	Approx. 0.4 kg / 0.88 lb.	
MOUNTING	Click mounting on stainless steel plate A2-70	
IP-RATING	IP65	

PATTERN

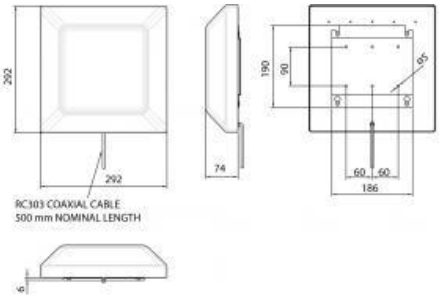
TYPICAL RADIATION PATTERN (E-plane)

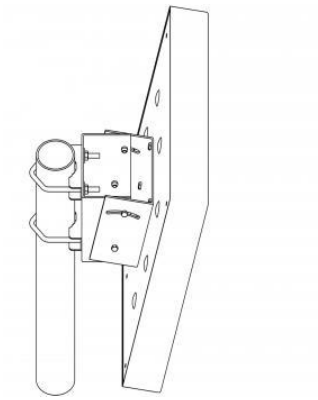


TYPICAL RADIATION PATTERN (H-plane)



DIMENSIONS





PATCH-MAMO

Mast mounting bracket for vertical or horizontal supporting mast tube

- Using the PATCH-MAMO mast mounting bracket, PCPO xH/TETRA/... and PLPO xH/TETRA/... can be mounted on any kind of vertical or horizontal supporting mast tube as long as the outer diameter of the tube is within 40 - 55 mm.

- The PATCH-MAMO is a lightweight mounting bracket made of non-corrosive aluminium.
- The accompanying U-bolts and nuts are made of stainless steel.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PATCH-MAMO	100000447

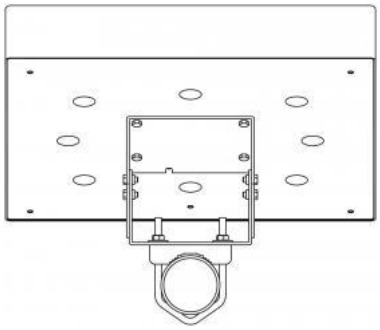
SPECIFICATIONS

MODEL	PATCH-MAMO
APPLICATION	Clamp for mounting on vertical or horizontal mast tubes with 40 - 55 mm diameter
COLOUR	"Aluminium"
WEIGHT	Approx. 558 g
MOUNTING	On 40 – 55 mm dia. mast tube, see drawing

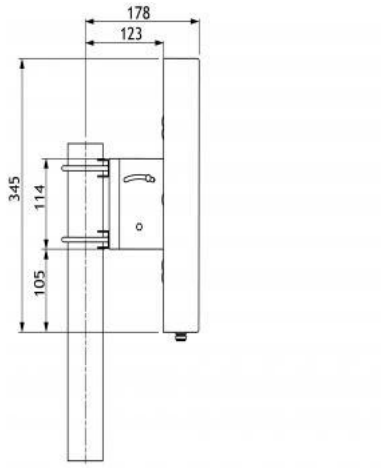
Mounting

Tilt adjustable from +5˚/-30˚.

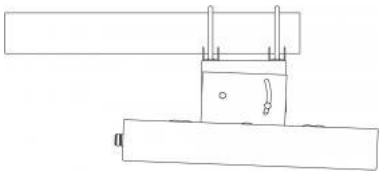
Top view



Mounting via U-bolts.



Horizontal mounting



NTA 3E-SHT

Short Active three-frequency NAVTEX Receiving Antenna

- Specially designed for the three NAVTEX frequencies 490 kHz, 518 kHz and 4209.5 kHz.
- Built-in low-noise amplifier providing excellent impedance matching to the 50 ohm downlead cable.

- Special band-pass filter based tuning circuitry to optimize the antenna for the NAVTEX frequencies and protect from possible interference from e.g. medium wave broadcast radio signals.
- RF ground internally AC-coupled to mounting bracket preventing electrolytic corrosion.
- Sturdy design to withstand the roughest weather and climate conditions.
- Simple mounting using the 1” revolving nut system.
- Wide varity of accessory mounting brackets available.
- Junction kit for easy connection to receiver and DC power supply available (to be ordered separately).

ORDERING DESIGNATIONS

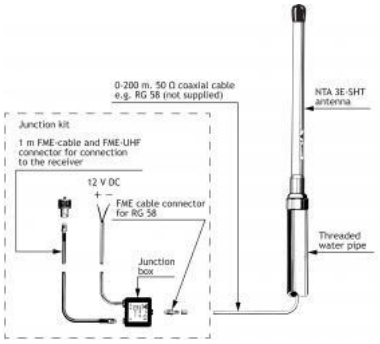
TYPE	PRODUCT NO.
NTA 3E-SHT	110000235
BCL 1-KA Junction kit	110000003

SPECIFICATIONS

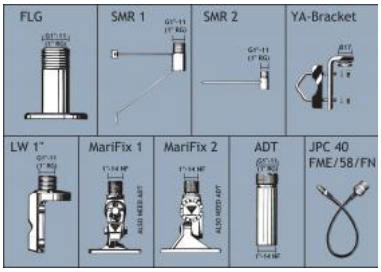
ELETRICAL	
MODEL	NTA 3E-SHT
ANTENNA TYPE	Active E-field narrow-band three-frequency NAVTEX antenna
FREQUENCY	490 kHz, 518 kHz and 4209.5 kHz
IMPEDANCE	Nom. 50 Ω
SWR	≤ 1.5
SUPPLY VOLTAGE / CURRENT	9 to 15 VDC / 20 mA
MECHANICAL	
TEMP. RANGE	-30°C → +60°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.013 m²
WIND LOAD	Approx. 17 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre

	Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 530 mm
DIA. IN TOP END	21 mm
DIA. IN BOTTOM END	23 mm
WEIGHT	Approx. 350 g
MOUNTING	On 1” RG (G1”-11) threaded water pipe or on optional mounting brackets (see below)

ACCESSORIES



ACCESSORIES (to be ordered separately)



MA DAB SC

Base Station and Marine DAB Antenna with Low Weight and Wind Load

- The dimensions of this base station, marine and receiving DAB (Digital Audio Broadcast) antenna are kept as small as possible to reduce weight, wind load and cost.
    - Despite the small dimensions the efficiency is very high.

DESCRIPTION

- The tapered ½ λ stainless steel radiator together with the chromed brass housing and stainless steel corner bracket constitute an antenna tough and ready to cope with the corrosive environment at the masthead.
- The end-fed dipole principle makes the antenna independent of ground-plane, radials or other auxiliary arrangements.
- The antenna whip should not be mounted parallel or near other metal parts, such as windex, supporting wires etc. Free mounting and as high as possible is preferable, otherwise the SWR and the radiation diagram will be influenced.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
MA DAB SC	100000085

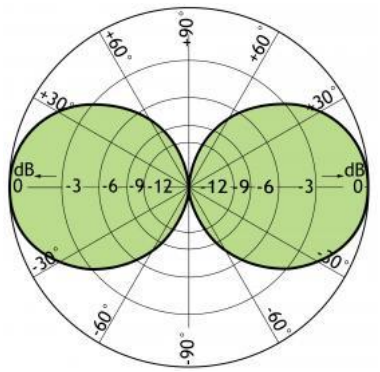
SPECIFICATIONS

ELECTRICAL	
MODEL	MA DAB SC
ANTENNA TYPE	½ λ dipole, end-fed
FREQUENCY	223 - 240 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	17 MHz
SWR	

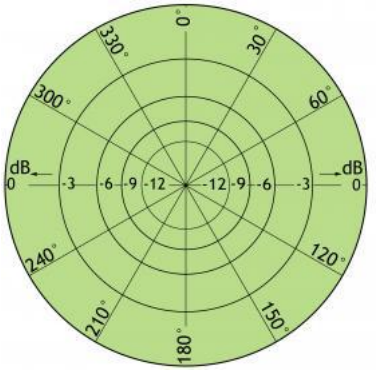
MAX. POWER	25 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30° C → +70° C
CONNECTOR	UHF-female
WIND SURFACE	0.0076 m²
WIND LOAD	9.6 N @ 160 km/h
COLOUR	Bright chromed
MATERIALS	Shroud : Stainless steel Housing: Chromed brass
TOTAL HEIGHT	Approx. 800 mm
WEIGHT	Approx. 265 g
MOUNTING	With fast screws, rivets or binders

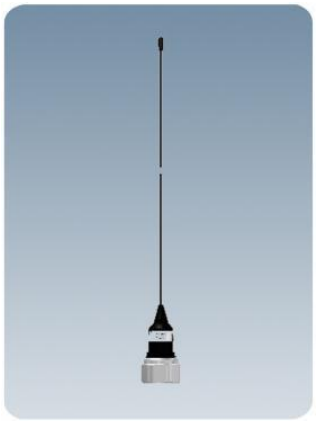
TYPICAL GAIN AND SWR CURVES

TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)


0°
30°
60°
120°
150°
180°
210°
240°
300°
330°
dB
0
-3
-6
-9
-12
-12
-9
-6
-3
dB
0



MA 450/...

End-fed ½ λ dipole marine and base station antenna.

- Black-chromed stainless steel whip.
- Full-size, end-fed ½ λ antenna whip.

DESCRIPTION

- This base station and maritime UHF antenna is developed for use on board ships as well as on masts and thanks to the 1” revolving nut mounting system it can be mounted in the mast, in the auxilliary mast as well as on the cross-beam. By means of Procom’s flange mount it can also be mounted on deck or rooftop.
- Bear in mind that the higher the antenna is mounted the better the coverage.
- Avoid mounting the antenna parallel with and in the neighbourhood of other metal parts, such as mast, supporting wires etc. Free mounting and as high as possible is most preferable, otherwise the SWR and the radiation diagram will be influenced.
- The antenna is a ½ λ design and this means that it needs neither loading coils, ground-plane, radials nor other auxiliary arrangements.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
MA 450/ 380-400 MHz	110000343
MA 450/ 440-460 MHz	110000352

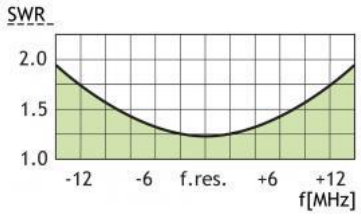
Other frequencies on request

SPECIFICATIONS

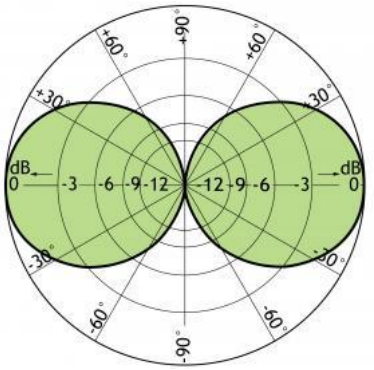
ELECTRICAL	
MODEL	MA 450/...
ANTENNA TYPE	½ λ antenna
FREQUENCY	Models within 380 - 460 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	20 MHz
SWR	≤ 2 typ. ≤ 1.5
MAX. POWER	25 W

MECHANICAL	
MATERIALS	Black-chromed stainless steel Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 400 mm / Approx. 15.75 in.
WEIGHT	Approx. 160 g / Approx. 0.35 lb.
CONNECTOR	N (female)

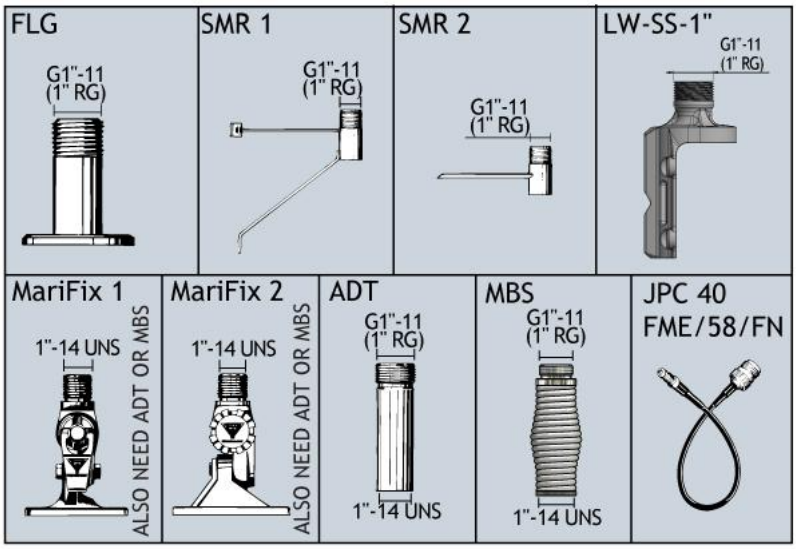
TYPICAL SWR CURVE



TYPICAL RADIATION PATTERN (E-PLANE)



ACCESSORIES (to be ordered separately)


FLG
G1"-11
(1" RG)
SMR 1
G1"-11
(1" RG)
SMR 2
G1"-11
(1" RG)
LW-SS-1"
G1"-11
(1" RG)
MariFix 1
1"-14 UNS
ALSO NEED ADT OR MBS
MariFix 2
1"-14 UNS
ALSO NEED ADT OR MBS
ADT
G1"-11
(1" RG)
1"-14 UNS
MBS
G1"-11
(1" RG)
1"-14 UNS
JPC 40
FME/58/FN

MA 160/...

End-fed ½ λ dipole marine and base station antenna.

- Black-chromed stainless steel whip.
- Full-size, end-fed ½ λ antenna whip.

DESCRIPTION

- This base station and maritime VHF antenna is developed for use on board ships as well as on masts and thanks to the 1” revolving nut mounting system it can be mounted in the mast, in the auxilliary mast as well as on the cross-beam. By means of Procom’s flange mount it can also be mounted on deck or rooftop.
- Bear in mind that the higher the antenna is mounted the better the coverage.
- Avoid mounting the antenna parallel with and in the neighbourhood of other metal parts, such as mast, supporting wires etc. Free mounting and as high as possible is most preferable, otherwise the SWR and the radiation diagram will be influenced.
- The antenna is a ½ λ design and this means that it needs neither loading coils, ground-plane, radials nor other auxiliary arrangements.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
MA 160/149-164 MHz	110000340
MA 160/156-162.5 MHz	110000350
MA 160/164-170 MHz	110000351
MA 160/167-175 MHz	110000358

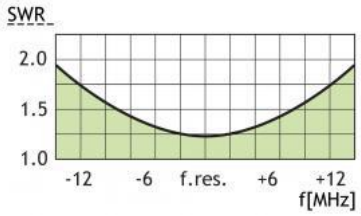
Other frequencies on request

SPECIFICATIONS

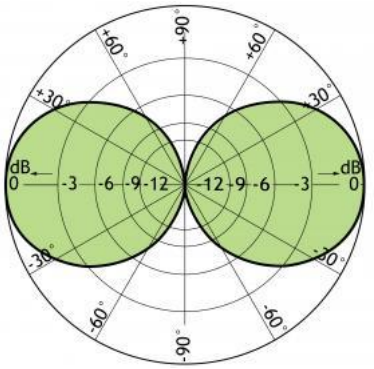
ELECTRICAL	
MODEL	MA 160/...
ANTENNA TYPE	½ λ antenna
FREQUENCY	Models within 149 - 164 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN @ BW of 6 MHz	2 dBi 0 dBd
BANDWIDTH	Up to 15 MHz

SWR	< 2.0
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Black-chromed stainless steel Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 800 mm / Approx. 31.5 in.
WEIGHT	Approx. 220 g / Approx. 0.49 lb.
CONNECTOR	N (female)

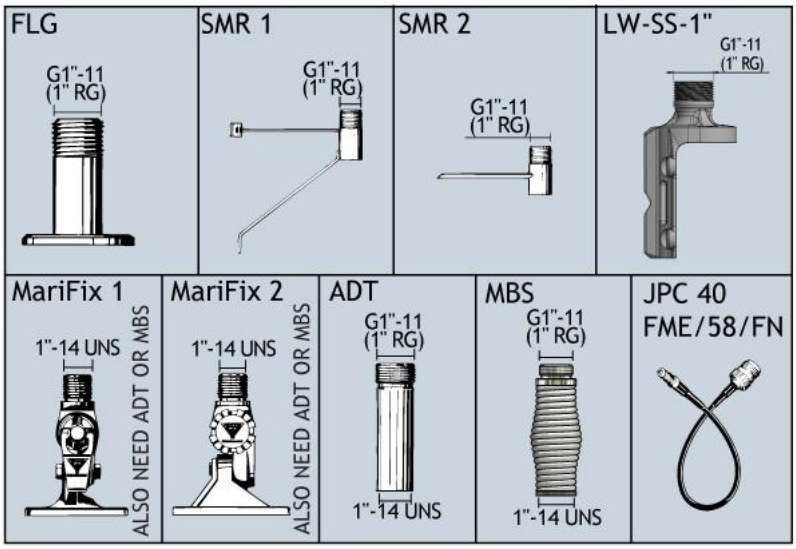
TYPICAL SWR CURVE



TYPICAL RADIATION PATTERN (E-PLANE)



ACCESSORIES (to be ordered separately)


FLG
G1"-11
(1" RG)
SMR 1
G1"-11
(1" RG)
SMR 2
G1"-11
(1" RG)
LW-SS-1"
G1"-11
(1" RG)
MariFix 1
1"-14 UNS
ALSO NEED ADT OR MBS
MariFix 2
1"-14 UNS
ALSO NEED ADT OR MBS
ADT
G1"-11
(1" RG)
1"-14 UNS
MBS
G1"-11
(1" RG)
1"-14 UNS
JPC 40
FME/58/FN

GP 80 B/...

Broad-Banded, Antistatic Ground-Plane Antenna for the 80 MHz Band

- GP 80 B/... is a broad-banded ground-plane antenna of the triple-leg type.

Description

- The 80 MHz-band is covered by 3 models covering the following frequency segments: 66 - 78 MHz, 71 - 83 MHz and 76 - 88 MHz.
- Atmospherical discharges are immediately led to ground, as all metal parts are DC-connected. Consequently, the antenna shows a DC-short across the coaxial cable.
- GP 80 B/... is made from corrosion-resistant aluminium, which together with a special anodizing process gives this antenna a very long lifetime.

ORDERING DESIGNATIONS

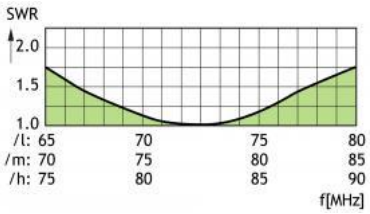
TYPE	PRODUCT NO.	FREQUENCY
GP 80 B/l	100000065	66 - 78 MHz
GP 80 B/m	100000064	71 - 83 MHz
GP 80 B/h	100000063	76 - 88 MHz

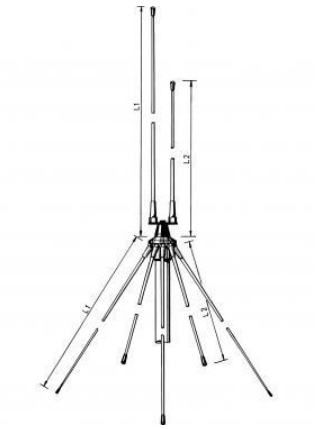
SPECIFICATIONS

ELECTRICAL	
MODEL	GP 80 B/...
ANTENNA TYPE	¼ λ ground-plane, broad-banded
FREQUENCY	Models within 66 - 88 MHz (see model survey)
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	12 MHz
SWR	≤ 1.6
MAX. POWER	600 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)

MECHANICAL	
CONNECTOR	0.5 m tail of RG 213 terminated with an N-female connector
WIND SURFACE	0.101 m²
WIND LOAD	128 N @ 160 km/h
COLOUR	Black
MATERIALS	Black anodized, corrosion-resistant aluminium
TOTAL HEIGHT	Approx. 1.6 m
WEIGHT	Approx. 2.4 kg
MOUNTING	38 mm dia. mast tube

TYPICAL SWR - CURVE





GP 80/160

>1/4 λ Glass fibre Ground-Plane Antenna for the 80 MHz and 160 MHz Bands

The radiator is measured from its free end to the bottom of the black insulator, while the radials are measured from their free ends to where they meet the GP-head. The radials must be placed short/long alternately.

- GP 80/160 is a dual-band glass fibre ground-plane antenna of the triple-leg type.
- The antenna is tunable (by cutting) within its main frequency bands: 66...88 MHz/145...175 MHz.

Description

- The cutting diagrams below indicate the length of the radiators and the radials corresponding to specific frequencies within the two bands. It is recommended to use the curves as a guide and fine-tune using an SWR-meter.
- The antenna comprises a brass GP-head, two glass fibre radiators and six glassfiber radials.
- GP 80/160 is made of first-class materials and will endure “wear and tear” for years – no maintenance required.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
GP 80/160	100000066
GP 80/160/42 mm	100000067

SPECIFICATIONS

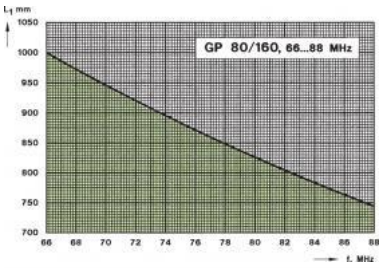
ELECTRICAL	
MODEL	GP 80/160
ANTENNA TYPE	Dual-band ¼ λ full-size ground-plane
FREQUENCY	66...88 MHz/145...175 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd on both bands
BANDWIDTH	Approx. 5 MHz on both bands
SWR	≤ 1.2 @ f. res.
MAX. POWER	250 W
MECHANICAL	
CONNECTOR	N-female
WIND SURFACE	Approx. 0.05 m²

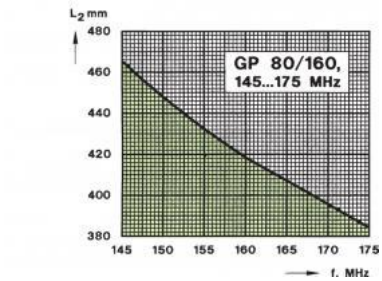
WIND LOAD	63 N @ 160 km/h
COLOUR	White/bright chrome
MATERIALS	Elements : Glass fibre Metal parts : Bright chromed brass
TOTAL HEIGHT	1.8 m
WEIGHT	Approx. 1.5 kg
MOUNTING	38 mm dia. mast tube (42 mm dia. as option, see note)

PLEASE NOTE

The GP 80/160 can be delivered with a GP-head for mounting on 42 mm dia. mast tube (standard is 38 mm) when ordering as option GP 80/160/42 mm.

CUTTING DIAGRAMS





PRO GHz-LINK SERIES

Series of Parabolic Antennas with Housing for Electronic Equipment for Link Applications in the Microwave Bands

- Series of completely assembled parabolic antennas with housing for electronic equipment. Ideal for fixed links, e.g. video links, data links etc.
- Models available for the 7 GHz, 10 GHz, 14 GHz, 18 GHz, 23 GHz, and 38 GHz microwave bands.

DESCRIPTION

- Choose between a 48 cm and a 70 cm parabolic dish.
- The antenna is carefully sealed with a radome of outdoor quality plastic.
- The antenna is terminated with a coaxial/waveguide transition with SMA (female) connector (inside the equipment housing).
- The housing is provided with N (female) connector for the downlead cable.
- Heavy-duty stainless steel mast mounting bracket integrated on the housing. Bracket adjustable in azimuth (±10°) as well as elevation (±26°). For mounting on 50 - 115 mm mast tubes.

MODEL SURVEY/ORDERING DESIGNATIONS

DISH SIZE	FREQUENCY 7 GHz 7.125–7.725	PRODUCT NO.	FREQUENCY 10 GHz 10.15–10.65	PRODUCT NO.
48 cm	PRO 7-001HD/TSV50	150000106	PRO 10-001HD/TSV50	150000063
70 cm	PRO 7-001HD/TSV70	150000107	PRO 10-001HD/TSV70	150000061
DISH SIZE	FREQUENCY 14 GHz 14.50–15.35	PRODUCT NO.	FREQUENCY 18 GHz 17.70–19.70	PRODUCT NO.
48 cm	PRO 14-001HD/TSV50	150000065	PRO 18-001HD/TSV50	150000109
70 cm	PRO 14-001HD/TSV70	150000108	PRO 18-001HD/TSV70	150000110
DISH SIZE	FREQUENCY 23 GHz 22.0–23.6	PRODUCT NO.	FREQUENCY 38 GHz 37.0–39.5	PRODUCT NO.
48 cm	PRO 23-	150000068	PRO 38-	150000066

	001HD/TSV50		001HD/TSV50	
70 cm	PRO 23-001HD/TSV70	150000076	PRO 38-001HD/TSV70	150000111

FREQUENCY DEPENDENT SPECIFICATIONS

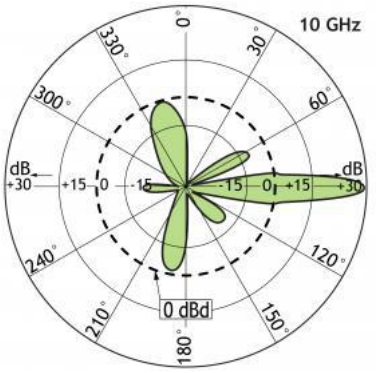
MODE	PRO 7-001HD/...	PRO 10-001HD/...	PRO 14-001HD/...
FREQUENCY GHz	7.125–7.725	10.15–10.65	14.50–15.35
APPROXIMATE GAIN, .../TSV50	24 dBd 26 dBi	27 dBd 29 dBi	30 dBd 32 dBi
APPROXIMATE GAIN, .../TSV70	27 dBd 29 dBi	30 dBd 32 dBi	33 dBd 35 dBi
MODE	PRO 18-001HD/...	PRO 23-001HD/...	PRO 38-001HD/...
FREQUENCY GHz	17.70–19.70	22.0–23.6	37.0–39.5
APPROXIMATE GAIN, .../TSV50	32 dBd 34 dBi	34 dBd 36 dBi	38 dBd 40 dBi
APPROXIMATE GAIN, .../TSV70	35 dBd 37 dBi	37 dBd 39 dBi	41 dBd 43 dBi

GENERAL SPECIFICATIONS

MODEL	PRO...-001HD/TSV50	PRO...-001HD/TSV70
ELECTRICAL		
ANTENNA TYPE	Parabolic dish antenna with radome, housing and mounting bracket	
IMPEDANCE	Nom. 50 Ω	
POLARIZATION	Horizontal	
SWR	< 1.5 within the band	
MAX. POWER	250 W	
MECHANICAL		
CONNECTION	Antenna: SMA (female) (coaxial/waveguide transition inside housing) Housing: N (female) (for connection of the downlead cable)	
WIND SURFACE	Approx. 0.25 m²	Approx. 0.38 m²
WIND LOAD	Approx. 316 N @ 160 km/h	Approx. 480 N @ 160 km/h
COLOUR	Radome: Light grey Housing, brackets: Grey	
MATERIALS	Parabolic dish: Aluminium Waveguide components: Brass and copper Housing: Glass reinforced plastic Brackets: Stainless steel	
DIMENSIONS, dish diameter	480 mm	700 mm
DIMENSIONS, housing (H x W x D)	Outside: 220 x 170 x 150 mm Inside: 190 x 135 x 120 mm	

DIMENSIONS, total depth	Approx. 400 mm	Approx. 500 mm
WEIGHT	Approx. 15 kg	Approx. 17 kg
MOUNTING	Mast mounting with supplied bracket on 50 - 115 mm mast tube	

TYPICAL RADIATION PATTERN (H-PLANE)



GP 80

¼ λ Glass fibre Ground-Plane Antenna for the 80 MHz Band

The radiator is measured from its free end to the bottom of the black insulator, while the radials are measured from their free ends to where they meet the GP-head.

- GP 80 is a glass fibre ground-plane antenna of the triple-leg type.
- The antenna is tunable (by cutting) within its main frequency band: 66...88 MHz but is further applicable up to 150 MHz.

Description

- The cutting diagrams on the diagrams tab indicate the length of the radiator and the radials corresponding to a specific frequency. It is recommended to use the curves as a guide and fine-tune using an SWR-meter.
- The antenna comprises a brass GP-head, one glassfiber radiator and three glass fibre radials.
- GP 80 is made of first-class materials and will endure “wear and tear” for years – no maintenance required.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
GP 80	100000061
GP 80/42 mm	100000062

SPECIFICATIONS

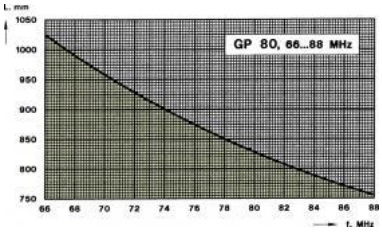
ELECTRICAL	
MODEL	GP 80
ANTENNA TYPE	¼ λ triple-leg ground-plane
FREQUENCY	Tunable by cutting within: 66...88 MHz (Also applicable: 88...150 MHz)
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	8 MHz (SWR < 2.0)
SWR	≤ 1.2 @ f. res.

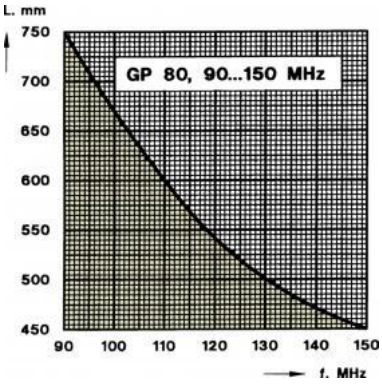
MAX. POWER	1 kW
MECHANICAL	
CONNECTOR	UHF-female (fitting PL-259)
WIND SURFACE	0.043 m²
WIND LOAD	54 N @ 160 km/h
COLOUR	White/bright chrome
MATERIALS	Elements: Glass fibre Metal parts: Bright chromed brass
TOTAL HEIGHT	Approx. 1.3 m
WEIGHT	Approx. 1.3 kg
MOUNTING	38 mm dia. mast tube (42 mm dia. as option, see note)

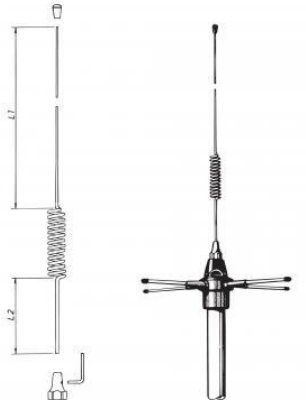
PLEASE NOTE

The GP 80 can be delivered with a GP-head for mounting on 42 mm dia. mast tube (standard is 38 mm) when ordering as option GP 80/42 mm.

CUTTING DIAGRAMS







GP 450-3/...

Collinear, 3 dBd Ground-Plane Base Station and Marine Antenna for the 450 MHz Band

- The high gain of this antenna combined with its low height makes it the right choice for a wide variety of purposes.
- The antenna is delivered in two models tunable by cutting within 380...410 MHz (l-version) and 406...470 MHz (h-version), respectively.

Description

- The GP 450-3/... is especially suitable as a marine antenna in connection with 450 MHz cellular radio telephone systems making it possible to extend the normally land-based cellular system for maritime mobile service as well.
- The compactness of the GP 450-3/... also makes it highly qualified as a base station antenna.
- The higher the antenna is mounted, the better coverage. Avoid mounting the antenna parallel to or in the neighbourhood of other metal parts such as masts, supporting wires etc., otherwise the SWR and the radiation pattern may be influenced.
- The antenna is easily field-tuned following the instructions below, or it can be ordered factory-tuned for CELLULAR or customer-specified frequencies. See ordering information below.
- Materials used are 18/8 stainless steel, UV-stabilized plastic and triple-plated chromed brass.

PLEASE NOTE: The GP 450-3/... can also be delivered factory tuned to a specific frequency or cellular network, such as TETRA. In this case, please add frequency or name of the network to the antenna model, e.g. GP 450-3/390 MHz.

ORDERING DESIGNATIONS

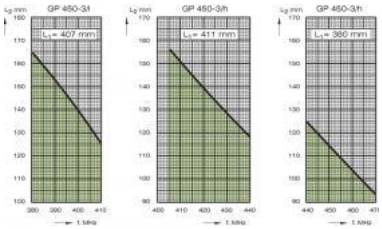
TYPE	PRODUCT NO.	FREQUENCY
GP 450-3/l	100000134	Tunable within 380...410 MHz
GP 450-3/h	100000135	Tunable within 406...470 MHz

SPECIFICATIONS

ELECTRICAL	
MODEL	GP 450-3/...
ANTENNA TYPE	Collinear ground-plane antenna
FREQUENCY	Tunable by cutting within: l: 380...410 MHz h: 406...470 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd
BANDWIDTH	10 MHz @ SWR < 1.5
SWR	≤ 1.3 @ f. res.

MAX. POWER	250 W
MECHANICAL	
TEMP. RANGE	-30° C → +70° C
CONNECTOR	N-female
WIND SURFACE	0.0131 m²
WIND LOAD	17 N @ 160 km/h
COLOUR	Bright chrome
MATERIALS	Bright polished stainless steel. Bright chromed brass. Weather- and shockproof plastics
TOTAL HEIGHT	Approx. 730 mm (at 406 MHz)
DIA. IN TOP END	2 mm
DIA. IN BOTTOM END	3 mm
WEIGHT	Approx. 780 g
MOUNTING	On 27 mm dia. mast tube (¾” water pipe)

CUTTING DIAGRAM

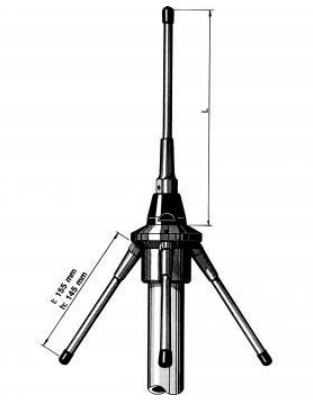


TUNING INSTRUCTIONS

The GP 450-3/...must be tuned to the operating frequency according to the following instructions:

- Only for GP 450-3/h: Cut the top section (L1) above the phasing coil as indicated in the cutting diagram, depending on whether operating in the lower end or the higher end of the band 406 – 470 MHz.
- Tune the antenna using an SWR-meter by cutting the bottom end of the whip (L2). The whip is loosened from the nipple using the accompanying hex key. Use the cutting diagram above as a guide for this procedure.

Do not cut the radials.



GP 450/...

¼ λ Ground-Plane Antenna for the 450 MHz Band

- GP 450/... is a ground-plane antenna of the triple-leg type.
- The antenna is delivered in two models tunable over the ranges 380...430 MHz (l) and 420...470 MHz (h), respectively, by adjusting the length of the radiator.

Description

- The cutting diagram on the diagrams tab indicates how long the radiator must be corresponding to a specific centre frequency. The radiator is measured from its free end (excl. top knob) to the bottom of the black insulator. Do not cut the radials – they should be left untouched.
- GP 450/... comprises a GP-head, one radiator and threeradials – all made of chromed brass.
- GP 450/... is made of first-class materials and will endure “wear and tear” for years – no maintenance required.

ORDERING DESIGNATIONS

TYPE NO.	PRODUCT NO.	FREQUENCY
GP 450/l	100000128	Tunable within 380...430 MHz
GP 450/l-42 mm	100000130	Same as above
GP 450/h	100000129	Tunable within 420...470 MHz
GP 450/h-42 mm	100000133	Same as above

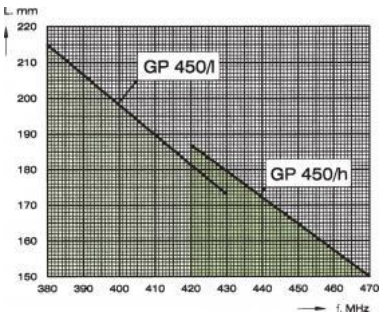
SPECIFICATIONS

ELECTRICAL	
MODEL	GP 450/...
ANTENNA TYPE	¼ λ ground-plane antenna
FREQUENCY	l: 380...430 MHz h: 420...470 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	40 MHz @ SWR 2.0
SWR	≤ 1.2 @ f. res.
MAX. POWER	1 kW
MECHANICAL	

TEMP. RANGE	-30° C → +70° C
CONNECTOR	UHF-female (fitting PL-259)
WIND SURFACE	0.0128 m²
WIND LOAD	16 N @ 160 km/h
COLOUR	Bright chrome
MATERIALS	Chromed brass. Weather- and shockproof plastics
TOTAL HEIGHT	Approx. 340 mm
ANTENNA ELEMENT DIA.	8 mm
WEIGHT	Approx. 900 g
MOUNTING	38 mm dia. mast tube (42 mm dia. as option, see note)

PLEASE NOTE
The GP 450/... can be delivered with a GP-head for mounting on
42 mm dia. mast tube (standard is 38 mm) when ordering as option **GP 450/...-42 mm.**

CUTTING DIAGRAM



GP 40

¼ λ Glass fibre Ground-Plane Antenna for the 40 - 70 MHz Range

- GP 40 is a glass fibre ground-plane antenna of the triple-leg type.
- The antenna is tunable (by cutting) within: 40...70 MHz.

- The cutting diagrams below indicate the length of the radiator and the radials corresponding to a specific frequency. It is recommended to use the curves as a guide and fine-tune using an SWR-meter.
- The antenna comprises a brass GP-head, one glass fibre radiator and three glass fibre radials.
- GP 40 is made of first-class materials and will endure "wear and tear" for years – no maintenance required.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
GP 40	100000165
GP 40/42 mm	100000167

SPECIFICATIONS

ELECTRICAL	
MODEL	GP 40
ANTENNA TYPE	¼ λ triple-leg ground-plane
FREQUENCY	Tunable by cutting within: 40...70 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	1.5 MHz @ 40 MHz (SWR ≤ 1.5) 3 MHz @ 70 MHz (SWR ≤ 1.5)
SWR	< 1.2 @ f. res.
MAX. POWER	1 kW
MECHANICAL	

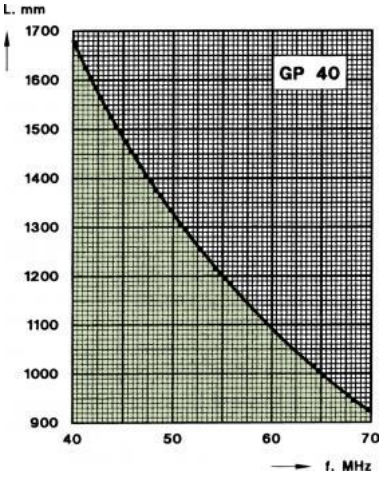
CONNECTOR	UHF-female (fitting PL-259)
WIND SURFACE	0.075 m²
WIND LOAD	95 N @ 160 km/h
COLOUR	White/bright chrome
MATERIALS	Elements: Glass fibre Metal parts: Bright chromed brass
TOTAL HEIGHT	Approx. 3.2 m
WEIGHT	Approx. 1.6 kg
MOUNTING	38 mm dia. mast tube (42 mm dia. as option, see note)

PLEASE NOTE

The GP 40 can be delivered with a GP-head for mounting on 42 mm dia. mast tube (standard is 38 mm) when ordering as option GP 40/42 mm.

The radiator is measured from its free end to the bottom of the black insulator, while the radials are measured from their free ends to where they meet the GP-head.

CUTTING DIAGRAMS



GP 27

¼ λ Ground-Plane Antenna for the 27 MHz Band or for Frequencies within 27…45 MHz

- GP 27 is a glass fibre ground-plane antenna of the triple-leg type.
- The antenna is delivered factory-tuned to 27 MHz – further adjustment is not necessary for this band.

Description

- Tunable (by cutting) to frequencies within the range: 27…45 MHz.
- The antenna can be field-tuned following the cutting diagrams below as a guide and fine-tuning using an SWR-meter.
- For a small cutting charge the antenna may also be supplied factory-tuned. In this case, please state centre frequency.
- GP 27 is made of first class materials and will endure rough climates for years – no maintenance required

The radiator is measured from its free end to the bottom of the black insulator, while the radials are measured from their free ends to where they meet the GP-head.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
GP 27	100000162
GP 27/42 mm	100000163

SPECIFICATIONS

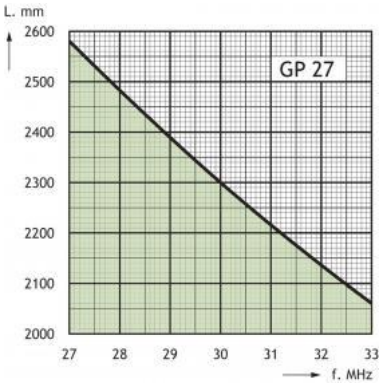
ELECTRICAL	
MODEL	GP 27
ANTENNA TYPE	¼ λ triple-leg ground-plane
FREQUENCY	Tunable by cutting within: 27…45 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	1.0 MHz @ 27 MHz (SWR < 1.5) 1.5 MHz @ 45 MHz (SWR < 1.5)

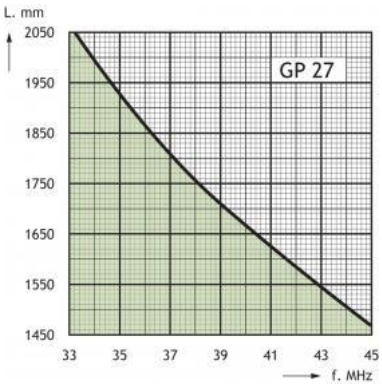
SWR	< 1.3 @ f. res.
MAX. POWER	1 kW
MECHANICAL	
TEMP. RANGE	-30° C → +70° C
CONNECTOR	UHF-female (fitting PL-259)
WIND SURFACE	0.062 m²
WIND LOAD	78 N @ 160 km/h
COLOUR	White/bright chrome
MATERIALS	Elements: Glass fibre Metal parts: Bright chromed brass
TOTAL HEIGHT	Approx. 4.5 m
WEIGHT	Approx. 1.7 kg
MOUNTING	38 mm dia. mast tube (42 mm dia. as option, see note)

PLEASE NOTE

The GP 27 can be delivered with a GP-head for mounting on 42 mm dia. mast tube (standard is 38 mm) when ordering as option GP 27/42 mm.

CUTTING DIAGRAMS





GP 160 B

Broad-banded, Antistatic Ground-Plane Antenna for the 160 MHz Band

- GP 160 B is a broad-banded, 0 dBd, ground-plane antenna of the triple-leg type.
- The antenna is fully universal as it covers the complete band: 145 - 175 MHz.

- Atmospherical discharges are immediately led to ground, as all metal parts are DC-grounded.(Consequently, the antenna shows a DC-short across the coaxial cable).
- GP 160 B is made from corrosion-resistant aluminium, which together with a special anodizing process gives this antenna a very long lifetime.

ORDERING DESIGNATIONS

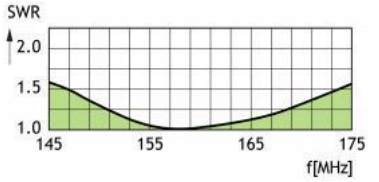
TYPE	PRODUCT NO.
GP 160 B	100000107

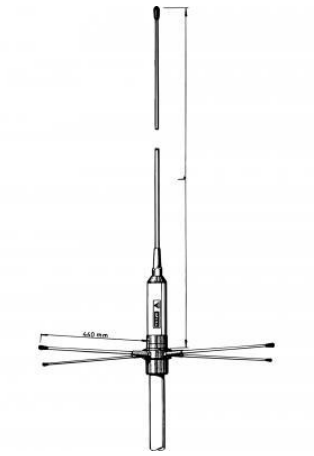
SPECIFICATIONS

ELETRICAL	
MODEL	GP 160 B
ANTENNA TYPE	¼ λ ground-plane, broad-banded
FREQUENCY	Covering: 145 - 175 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	30 MHz
SWR	≤ 1.6
MAX. POWER	1 kW
ANTISTATIC PROTECTION	All metal parts DC-grounded (Shows a DC-short over the coaxial cable)
MECHANICAL	
TEMP. RANGE	-35° C → +70° C
CONNECTOR	0.5 m tail of RG 213 terminated with an N-female connector

WIND SURFACE	0.046 m²
WIND LOAD	58 N @ 160 km/h
COLOUR	Black
MATERIALS	Black anodized, corrosion-resistant aluminium
TOTAL HEIGHT	Approx. 0.72 m
WEIGHT	Approx. 1.5 kg
MOUNTING	On 38 mm dia. mast tube

TYPICAL GAIN AND SWR CURVES





GP 160 5/8

⅝ λ Ground-Plane Base Station and Marine Antenna for the 2 m Band

- The antenna is tunable (by cutting the radiator) within the frequency band 145...175 MHz.
- GP 160 5/8 is a very sturdy construction which can stand mounting under extreme conditions. It is well suited for mounting on fishing vessels etc. and a good choice for base stations in the land mobile field.

- GP 160 5/8 is a 1 dBd, vertically polarised omnidirectional base station and marine antenna.
- The antenna is delivered adjusted to 145 MHz unless otherwise specified. It may, however, be delivered preadjusted for the maritime VHF band provided this is stated on the purchase order.
- GP 160 5/8 is DC-grounded and antistatically protected as all metal parts are ground-connected. Consequently, the antenna shows a DC-short across the coaxial cable.
- The materials used are glass fibre and chromed brass.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
GP 160 5/8	100000108

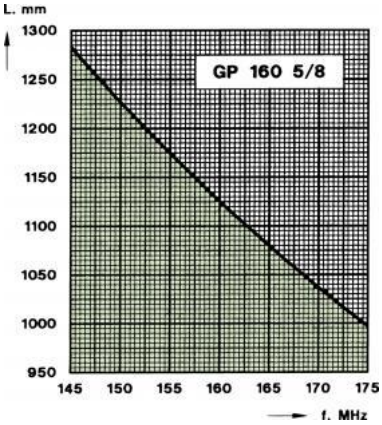
SPECIFICATIONS

ELECTRICAL	
MODEL	GP 160 5/8
ANTENNA TYPE	⅝ λ ground-plane
FREQUENCY	Tunable by cutting within: 145...175 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	3 dBi 1 dBd
BANDWIDTH	6 MHz (SWR ≤ 2.0)
SWR	≤ 1.2 @ f. res.
MAX. POWER	500 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30° C → +70° C

CONNECTOR	UHF-female (fitting PL-259)
WIND SURFACE	0.028 m²
WIND LOAD	35 N @ 160 km/h
COLOUR	White/bright chrome
MATERIALS	Shroud : Polyurethane-coated glass fibre Metal parts: Bright chromed brass
TOTAL HEIGHT	Approx. 1.34 m
DIA. IN TOP END	5 mm
DIA. IN BOTTOM END	8 mm
WEIGHT	Approx. 1.3 kg
MOUNTING	On 27 mm dia. mast tube (¾" water pipe)

The length of the radiator is measured from the upper edge of the head, right above the mounting point of the radials, to the top end of the antenna element. The radials should not be cut.

CUTTING DIAGRAM



GP 160

¼ λ Glass fibre Ground-Plane Antenna for the 160 MHz Band

- GP 160 is a glass fibre ground-plane antenna of the triple-leg type.
- The antenna is tunable (by cutting) within its main frequency band: 145...175 MHz, but is further applicable up to 400 MHz.

DESCRIPTION

- The cutting diagrams below indicate the length of the radiator and the radials corresponding to a specific frequency.
- It is recommended to use the curves as a guide and fine-tune using an SWR-meter.
- The antenna comprises a GP-head made of chromed brass, one glassfiber radiator and three glass fibre radials.
- GP 160 is made of first-class materials and will endure “wear and tear” for years – no maintenance required.
- LW-SS-1" mounting bracket and GP Adaptor is available as accessories.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
GP 160	100000104
GP 160/42 mm	100000105
ACCESSORIES	
LW-SS-1"	110000394
GP Adaptor	100000679

SPECIFICATIONS

ELETRICAL	
MODEL	GP 160
ANTENNA TYPE	¼ λ ground-plane
FREQUENCY	Tunable by cutting within: 145...175 MHz (Also applicable: 175...400 MHz)
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd

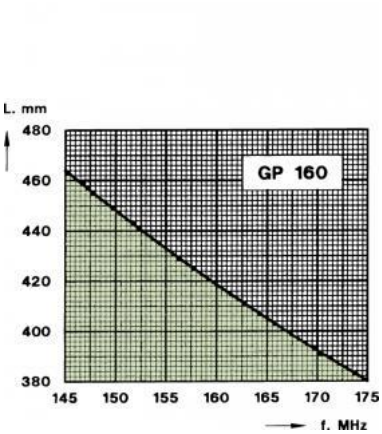
BANDWIDTH	12 MHz @ 160 MHz (SWR < 2.0) 30 MHz @ 400 MHz (SWR < 2.0)
SWR	≤ 1.2 @ f. res.
MAX. POWER	1 kW
MECHANICAL	
TEMP. RANGE	-30° C → +70° C
CONNECTOR	UHF-female (fitting PL-259)
WIND SURFACE	0.0184 m²
WIND LOAD	23 N @ 160 km/h
COLOUR	White/bright chrome
MATERIALS	Shroud : Polyurethane-coated glass fibre Metal parts: Bright chromed brass
TOTAL HEIGHT	Approx. 870 mm
DIA. IN TOP END	5 mm
DIA. IN BOTTOM END	8 mm
WEIGHT	Approx. 1.0 kg
MOUNTING	38 mm dia. mast tube (42 mm dia. as option, see note)

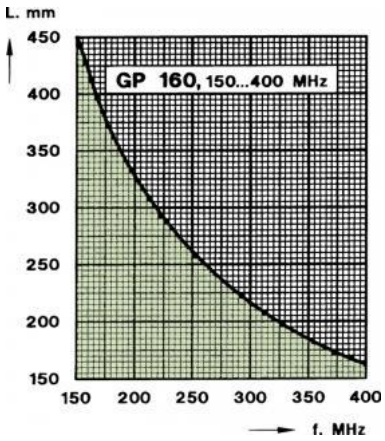
PLEASE NOTE

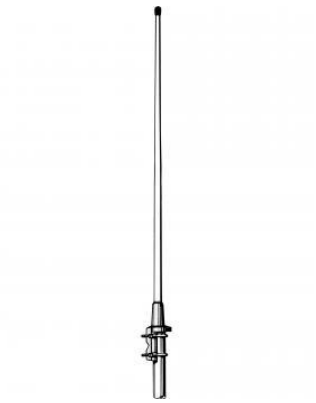
The GP 160 can be delivered with a GP-head for mounting on 42 mm dia. mast tube (standard is 38 mm) when ordering as option GP 160/42 mm.

The radiator is measured from its free end to the bottom of the black insulator, while the radials are measured from their free ends to where they meet the GP-head.

CUTTING DIAGRAMS




L. mm
450
400
350
300
250
200
150
GP 160, 150...400 MHz
150
200
250
300
350
400
f. MHz



CXL 2400-8LW/...

8 db Omnidirectional Base Station and Marine Antenna for the 2400 MHz Band

- Vertically polarized, omnidirectional base station and marine antenna.
- Approximately 8 dBd gain.

DESCRIPTION

- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.
- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- Highly suitable for duplex operation with large spacing between the TX and the RX frequencies.
- The antenna element is sealed in a high-quality, conical glass fibre tube.
- All metal parts in the antenna are DC-grounded to reduce the noise caused by atmospherical discharge. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 2400-8LW/... is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

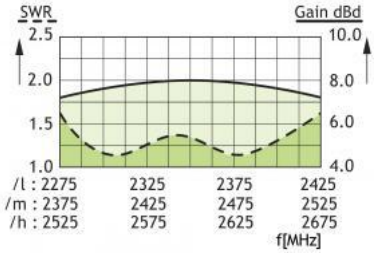
TYPE	PRODUCT NO.	FREQUENCY
CXL 2400-8LW/l	100000170	2300 – 2400 MHz
CXL 2400-8LW/m	100000172	2400 – 2500 MHz
CXL 2400-8LW/h	100000168	2530 – 2660 MHz

SPECIFICATIONS

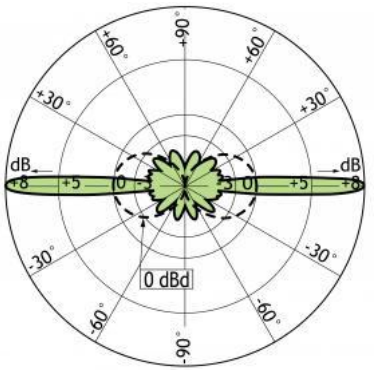
ELECTRICAL	
MODEL	CXL 2400-8LW/...
ANTENNA TYPE	Coaxial, collinear antenna, broadbanded
FREQUENCY	Models within 2300 – 2660 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	Average gain 10 dBi 8 dBd
HALF POWER BEAMWIDTH	7°
BANDWIDTH	≥ 100 MHz @ SWR ≤ 1.5

SWR	≤ 1.5
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.037 m²
WIND LOAD	Approx. 46 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 1.15 m
DIA. IN TOP END	21 mm
DIA. IN BOTTOM END	23 mm
WEIGHT	Approx. 900 g
MOUNTING	On 16 to 54 mm dia. mast tube

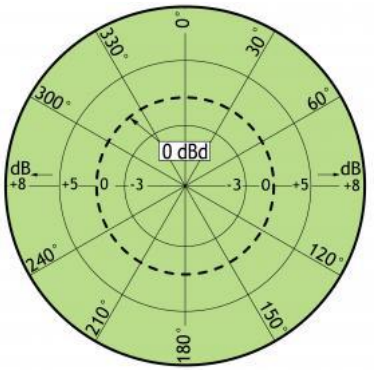
TYPICAL GAIN AND SWR CURVES



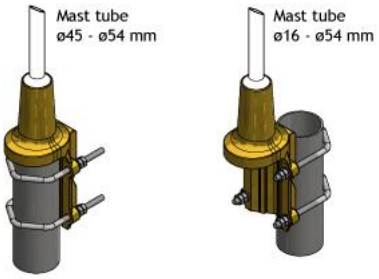
TYPICAL RADIATION PATTERN (E-PLANE)

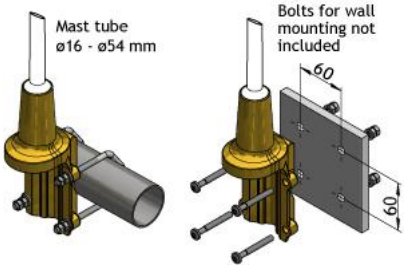


TYPICAL RADIATION PATTERN (H-PLANE)



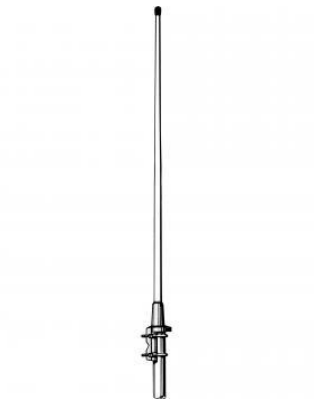
MULTI-PURPOSE MOUNTING BRACKET





PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.



CXL 2400-6LW/...

6 dBd Omdirectional Base Station and Marine Antenna for the 2400 MHz Band

- Vertically polarized, omnidirectional base station and marine antenna.
- Approximately 6 dBd gain.

DESCRIPTION

- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.
- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- Highly suitable for duplex operation with large spacing between the TX and the RX frequencies.
- The antenna element is sealed in a high-quality, conical glass fibre tube.
- All metal parts in the antenna are DC-grounded to reduce the noise caused by atmospherical discharge. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 2400-6LW/... is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

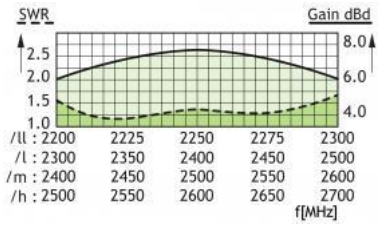
TYPE	PRODUCT NO.	FREQUENCY
CXL 2400-6LW/ll	100000412	2200 - 2300 MHz
CXL 2400-6LW/l	100000182	2300 - 2500 MHz
CXL 2400-6LW/m	100000185	2400 - 2600 MHz
CXL 2400-6LW/h	100000176	2500 - 2700 MHz

SPECIFICATIONS

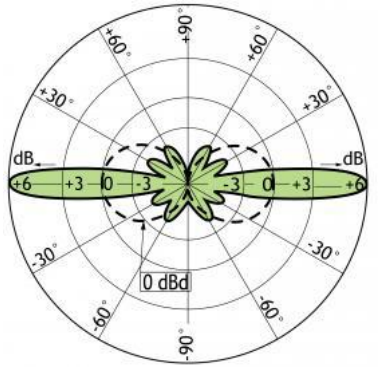
ELECTRICAL	
MODEL	CXL 2400-6LW/...
ANTENNA TYPE	Coaxial, collinear antenna, broadbanded
FREQUENCY	Models within 2200 – 2700 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	8 dBi 6 dBd
HALF POWER BEAMWIDTH	9°

BANDWIDTH	≥ 200 MHz @ SWR ≤ 2.0
SWR	≤ 2.0, typ. ≤ 1.5
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.033 m²
WIND LOAD	Approx. 42 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fiber Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 1 m
DIA. IN TOP END	21 mm
DIA. IN BOTTOM END	23 mm
WEIGHT	Approx. 800 g
MOUNTING	On 16 to 54 mm dia. mast tube

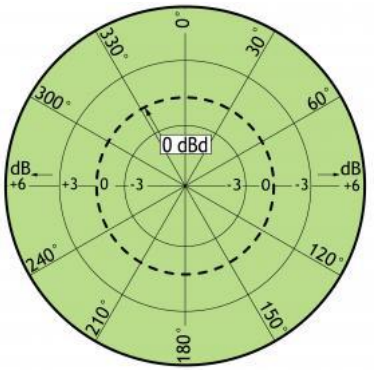
TYPICAL GAIN AND SWR CURVES



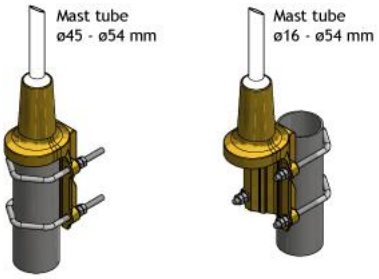
TYPICAL RADIATION PATTERN (E-PLANE)

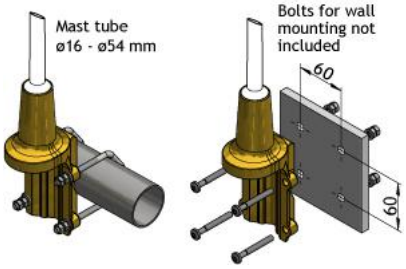


TYPICAL RADIATION PATTERN (H-PLANE)



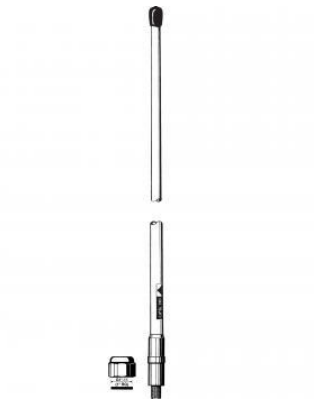
MULTI-PURPOSE MOUNTING BRACKET





PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.



CXL 2400-6/...

6 dBd Omdirectional Base Station and Marine Antenna for the 2400 MHz Band

- Vertically polarized, omnidirectional base station antenna and marine.
- Approximately 6 dBd gain.

DESCRIPTION

- Simple mounting using the 1” revolving nut system.
- Wide variety of accessory mounting brackets available.
- Large bandwidth with respect to both SWR and gain.
- Highly suitable for duplex operation with large spacing between the TX and the RX frequencies.
- The antenna element is sealed in a high-quality, conical glass fibre tube.
- All metal parts in the antenna are DC-grounded to reduce the noise caused by atmospherical discharge. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 2400-6/... is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station antenna and marine.

ORDERING DESIGNATIONS

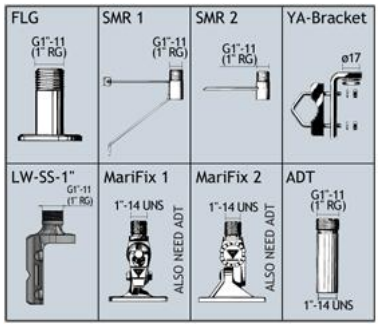
TYPE	PRODUCT NO.	FREQUENCY
CXL 2400-6/ll	100000432	2200 - 2300 MHz
CXL 2400-6/l	110000161	2300 - 2500 MHz
CXL 2400-6/m	110000163	2400 - 2600 MHz
CXL 2400-6/h	110000162	2500 - 2700 MHz

SPECIFICATIONS

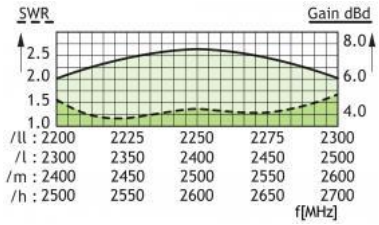
ELECTRICAL	
MODEL	CXL 2400-6/...
ANTENNA TYPE	Coaxial, collinear antenna, broad-banded
FREQUENCY	Models within 2200 – 2700 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	8 dBi 6 dBd
BANDWIDTH	≥ 200 MHz @ SWR ≤ 2.0
SWR	≤ 2.0, typ. ≤ 1.5
MAX. POWER	100 W

ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.03 m²
WIND LOAD	Approx. 38 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 1.15 m
DIA. IN TOP END	21 mm
DIA. IN BOTTOM END	23 mm
WEIGHT	Approx. 600 g
MOUNTING	On 1” RG (G1”-11) threaded water pipe or on optional mounting brackets (see below)

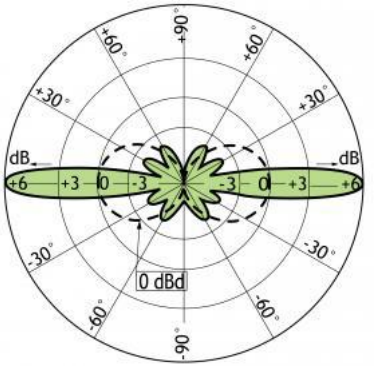
ACCESSORIES (to be ordered separately)



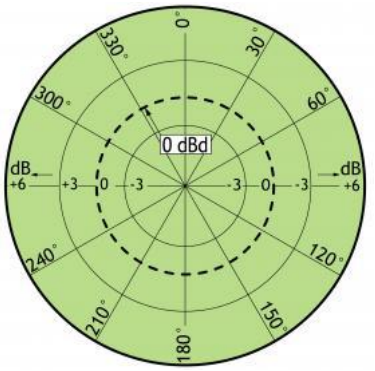
TYPICAL GAIN AND SWR CURVES

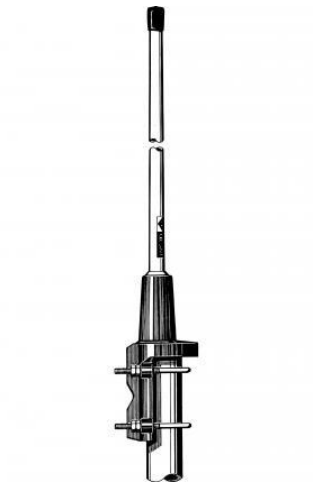


TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE),





CXL 2400-3LW/...

3 dBd Omnidirectional Base Station and Marine Antenna for the 2400 MHz Band

- Vertically polarized, omnidirectional base station and marine antenna.
- Approximately 3 dBd gain.

DESCRIPTION

- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.
- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- Highly suitable for duplex operation with large spacing between the TX and the RX frequencies.
- The antenna element is sealed in a high-quality, conical glass fibre tube.
- All metal parts in the antenna are DC-grounded to reduce the noise caused by atmospherical discharge. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 2400-3LW/... is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

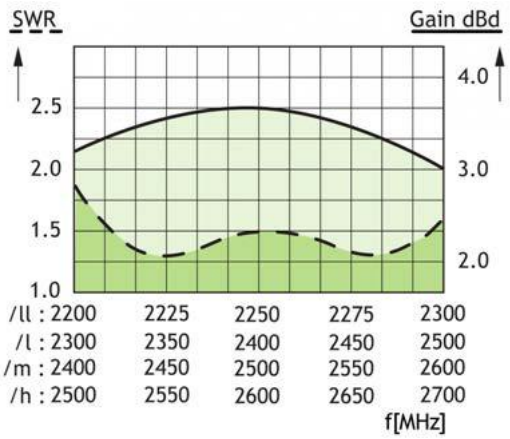
TYPE	PRODUCT NO.	FREQUENCY
CXL 2400-3LW/ll	100000557	2200 - 2300 MHz
CXL 2400-3LW/l	100000183	2300 – 2500 MHz
CXL 2400-3LW/m	100000169	2400 – 2600 MHz
CXL 2400-3LW/h	100000171	2500 – 2700 MHz

SPECIFICATIONS

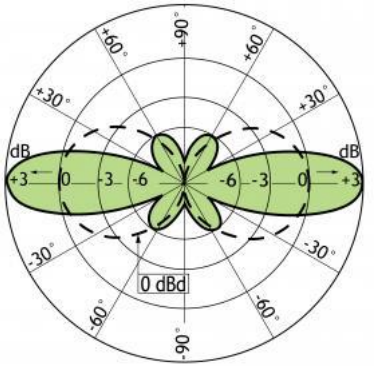
ELECTRICAL	
MODEL	CXL 2400-3LW/...
ANTENNA TYPE	Coaxial, collinear antenna, broadbanded
FREQUENCY	Models within 2200 – 2700 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd

HALF POWER BEAMWIDTH	22°
BANDWIDTH	For l, m and h models: ≥ 200 MHz @ SWR ≤ 2.0 For ll-model: ≥ 100 MHz @ SWR ≤ 2.0
SWR	≤ 2.0, typ. ≤ 1.5
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.02 m²
WIND LOAD	Approx. 26 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 700 mm
DIA. IN TOP END	22 mm
DIA. IN BOTTOM END	23 mm
WEIGHT	Approx. 600 g
MOUNTING	On 16 to 54 mm dia. mast tube

TYPICAL GAIN AND SWR CURVES

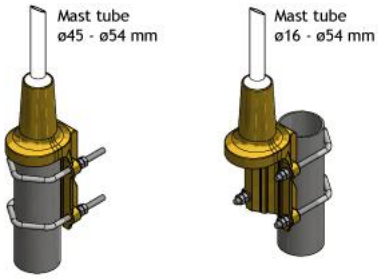


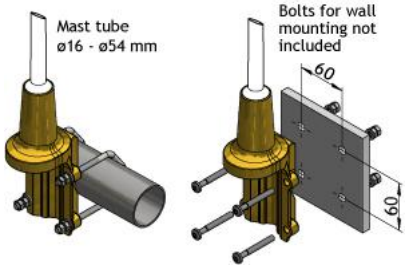
TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)

MULTI-PURPOSE MOUNTING BRACKET





PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.

CXL 2400-3/...

3 dBd Omnidirectional Base Station and Marine Antenna for the 2400 MHz Band

- Vertically polarized, omnidirectional base station and marine antenna.
- Approximately 3 dBd gain.

DESCRIPTION

- Simple mounting using the 1” revolving nut system.
- Wide variety of accessory mounting brackets available.
- Large bandwidth with respect to both SWR and gain.
- Highly suitable for duplex operation with large spacing between the TX and the RX frequencies.
- The antenna element is sealed in a high-quality, conical glass fibre tube.
- All metal parts in the antenna are DC-grounded to reduce the noise caused by atmospherical discharge. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 2400-3/... is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

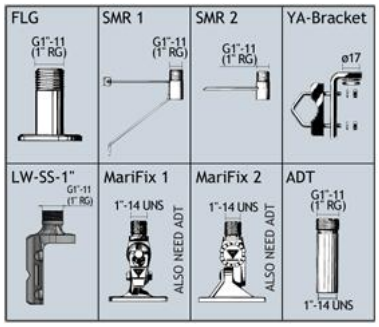
TYPE	PRODUCT NO.	FREQUENCY
CXL 2400-3/ll	100000586	2200 – 2300 MHz
CXL 2400-3/l	110000157	2300 – 2500 MHz
CXL 2400-3/m	110000158	2400 - 2600 MHz
CXL 2400-3/h	110000159	2500 – 2700 MHz

SPECIFICATIONS

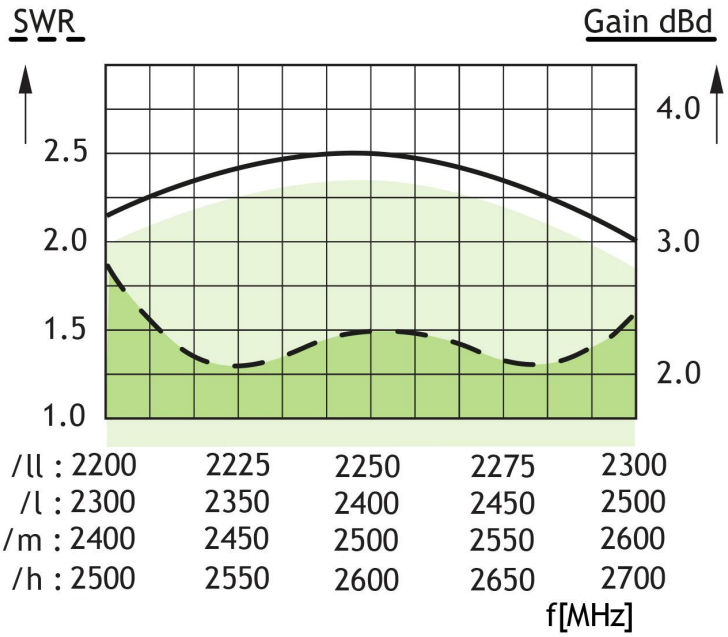
ELECTRICAL	
MODEL	CXL 2400-3/...
ANTENNA TYPE	Coaxial, collinear antenna, broad-banded
FREQUENCY	Models within 2200 – 2700 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd
BANDWIDTH	≥ 200 MHz @ SWR ≤ 2.0
SWR	≤ 2.0, typ. ≤ 1.5
MAX. POWER	100 W

ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.01 m²
WIND LOAD	Approx. 13 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 550 mm
DIA. IN TOP END	22 mm
DIA. IN BOTTOM END	23 mm
WEIGHT	Approx. 400 g
MOUNTING	On 1” RG (G1”-11) threaded water pipe or on optional mounting brackets (see below)

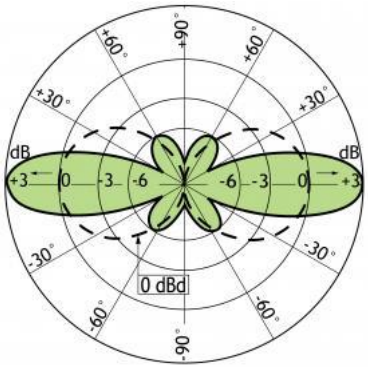
ACCESSORIES (to be ordered separately)



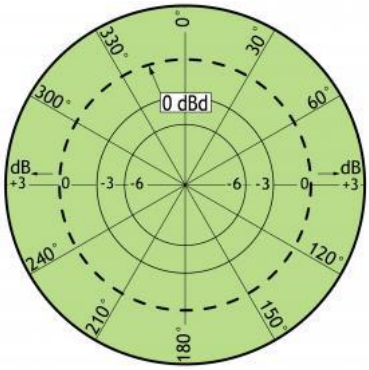
TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



CXL 2400-1LW/...

0 dBd Omnidirectional Base Station and Marine Antenna for the 2400 MHz Band

- Vertically polarized, omnidirectional base station and marine antenna.
- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.

DESCRIPTION

- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- Highly suitable for duplex operation with large spacing between the TX and the RX frequencies.
- The antenna element is sealed in a high-quality, conical glass fibre tube.
- The CXL 2400-1LW/... is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

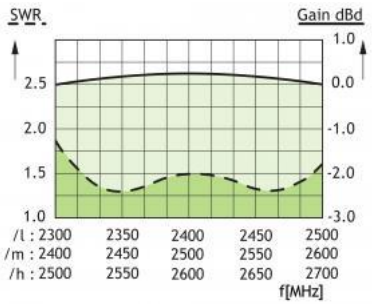
TYPE	PRODUCT NO.	FREQUENCY
CXL 2400-1LW/l	100000196	2300 – 2500 MHz
CXL 2400-1LW/m	100000195	2400 – 2600 MHz
CXL 2400-1LW/h	100000422	2500 – 2700 MHz

SPECIFICATIONS

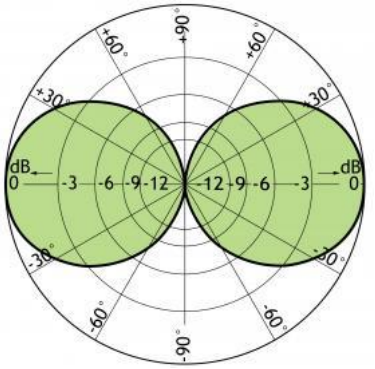
ELECTRICAL	
MODEL	CXL 2400-1LW/...
ANTENNA TYPE	Coaxial, collinear antenna, broadbanded
FREQUENCY	Models within 2300 – 2700 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	≥ 100 MHz @ SWR ≤ 1.5
SWR	≤ 2.0, typ. ≤ 1.5
MAX. POWER	100 W
MECHANICAL	

TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.02 m²
WIND LOAD	Approx. 26 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 400 mm
DIA. IN TOP END	14 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 400 g
MOUNTING	On 16 to 54 mm dia. mast tube

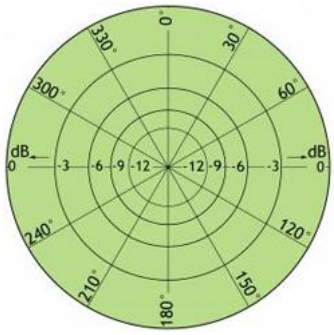
TYPICAL GAIN AND SWR CURVES



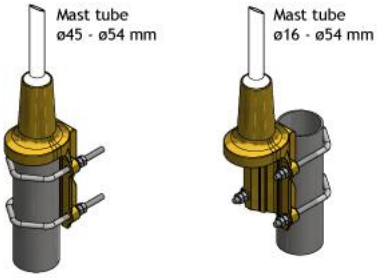
TYPICAL RADIATION PATTERN (E-PLANE)

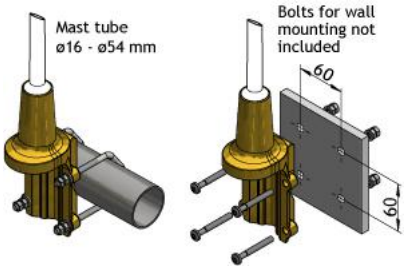


TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET





PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.

CXL 2400-1/...

Unity Gain Base Station and Marine 2400 MHz Antenna for Mounting on Threaded 1

- The CXL 2400-1/... is a 0 dBd, vertically polarized, omnidirectional rod-type base station and marine antenna for the 2400 MHz band.

DESCRIPTION

- The 1” revolving nut mounting system is standard throughout the marine sector, and several different mounting brackets are available, making it possible to install the antenna either on the masthead using FLG or SMR 2, side-mounted on the mast (SMR 1) or mounted on a cross-beam (FLG). Also, the antenna can be mounted on deck or rooftop by means of the FLG.
- The higher the antenna is mounted, the better coverage. Avoid mounting the antenna parallel to or in the neighbourhood of other metal parts, such as masts, supporting wires etc., otherwise the SWR and the radiation pattern may be strongly influenced.
- A conical glass fibre tube completely encloses the carefully designed radiating element to ensure long dependable service in all climates.

ORDERING DESIGNATIONS

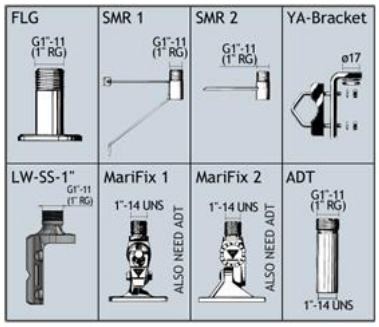
TYPE	PRODUCT NO.	FREQUENCY
CXL 2400-1/l	110000165	2300 – 2500 MHz
CXL 2400-1/m	110000164	2400 - 2600 MHz
CXL 2400-1/h	110000166	2500 – 2700 MHz

SPECIFICATIONS

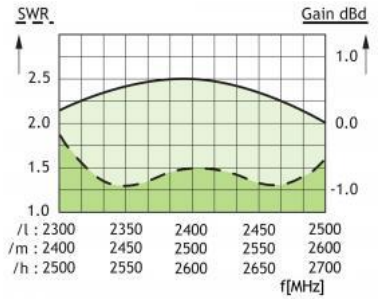
ELECTRICAL	
MODEL	CXL 2400-1/...
ANTENNA TYPE	½ λ coaxial dipole, broad-banded
FREQUENCY	Models within 2300 – 2700 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	≥ 200 MHz @ SWR ≤ 2.0
SWR	≤ 2.0, typ. ≤ 1.5
MAX. POWER	100 W
MECHANICAL	

TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.006 m²
WIND LOAD	Approx. 8 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 230 mm
DIA. IN TOP END	14 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 180 g
MOUNTING	On 1” RG (G1”-11) threaded water pipe or on optional mounting brackets (see accessories)

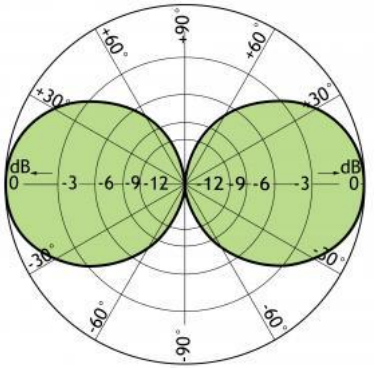
ACCESSORIES (to be ordered separately)



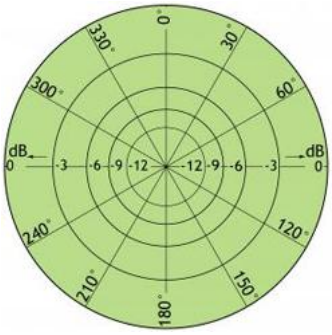
TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



CXL 230-3LW/DAB

Lightweight, 3 dBd BAse Station and Marine Antenna for the DAB Band

- CXL 230-3LW/DAB is a vertically polarised, omnidirectional base station and marine antenna, which covers the DAB (Digital Audio Broadcast) Band.
- Approximately 3 dBd gain.

DESCRIPTION

- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.
- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- The phasing of the radiating elements is adjusted to yield maximum gain in the horizontal plane, with the level of the sidelobes reduced to a minimum.
- The carefully designed, broad-banded antenna element is sealed in a high-quality conical glass fibre tube with low wind-load, which will ensure performance undisturbed by corrosive environments.
- All metal parts in the antenna are DC-grounded to reduce the noise caused by atmospherical discharge. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 230-3LW/DAB is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

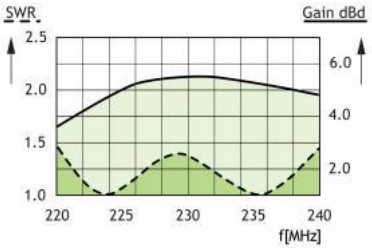
TYPE	PRODUCT NO.
CXL 230-3LW/DAB	110000115

SPECIFICATIONS

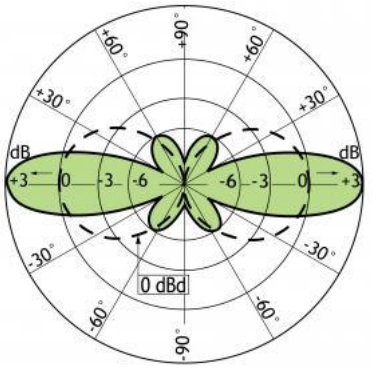
ELECTRICAL	
MODEL	CXL 230-3LW/DAB
ANTENNA TYPE	Broad-banded collinear antenna
FREQUENCY	223 - 240 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd
HALF POWER BEAMWIDTH	30°
BANDWIDTH	17 MHz
SWR	< 1.5
MAX. POWER	150 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)

MECHANICAL	
TEMP. RANGE	-30° C → +70° C
CONNECTOR	N-female
WIND SURFACE	0.0461 m²
WIND LOAD	59 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 2.05 m
WEIGHT	Approx. 1.3 kg
MOUNTING	On 16 to 54 mm dia. mast tube

TYPICAL GAIN AND SWR CURVES

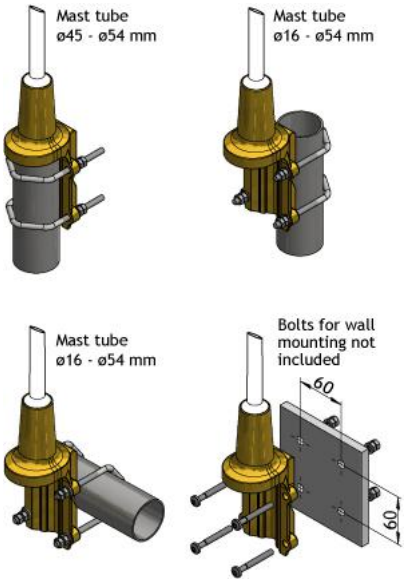


TYPICAL RADIATION PATTERN (E-PLANE)



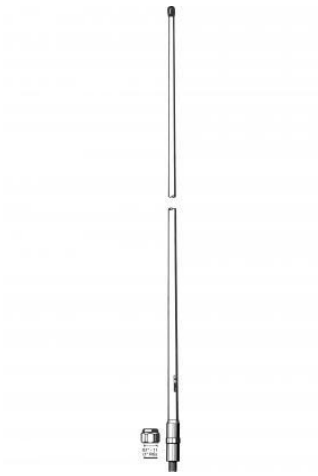
TYPICAL RADIATION PATTERN (H-PLANE)

MULTI-PURPOSE MOUNTING BRACKET



PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.



CXL 230-3/DAB

3 dBd Colinear Base Station and Marine DAB Antenna

- This antenna is especially developed for the DAB (Digital Audio Broadcast) band and it is used when more gain is required than obtainable with standard ½ λ dipoles.

DESCRIPTION

- The higher the antenna is mounted, the better coverage. Avoid mounting the antenna parallel with or in the neighbourhood of other metal parts, such as masts, supporting wires etc. The antenna needs no ground-plane, radials nor other auxiliary arrangements.
- A conical glass fibre tube completely encloses the carefully designed radiating element to ensure long dependable service in all climates.

ORDERING DESIGNATIONS

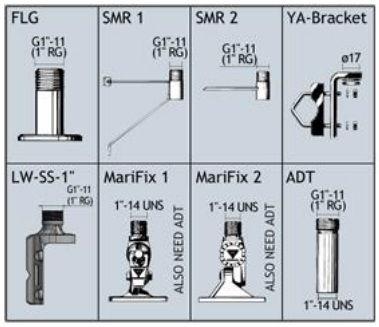
TYPE	PRODUCT NO.
CXL 230-3/DAB	100000083

SPECIFICATIONS

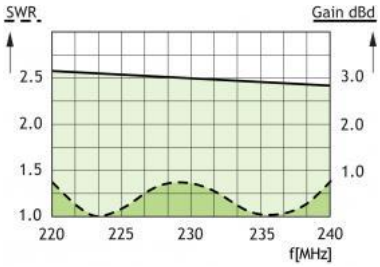
ELECTRICAL	
MODEL	CXL 230-3/DAB
ANTENNA TYPE	Omnidirectional coaxial collinear
FREQUENCY	223 - 240 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd
BANDWIDTH	17 MHz
SWR	< 1.5
MAX. POWER	150 W
MECHANICAL	
TEMP. RANGE	-30° C → +70° C
CONNECTOR	UHF-female
WIND SURFACE	0.0385 m²

WIND LOAD	67 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 2.0 m
WEIGHT	Approx. 1 kg
MOUNTING	On 1” RG (G1” - 11) threaded water pipe or on optional mounting brackets (see below)

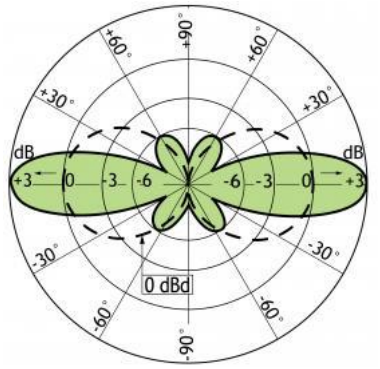
ACCESSORIES (to be ordered separately)



TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)


0
30
60
120
150
180
210
240
300
330
0 dBd
dB
+3
0
-3
-6
-6
-3
0
dB
+3

CXL 230-1LW/DAB

Universal, Unity-Gain BAse Station and Marine DAB Antenna

- This multi-purpose, omnidirectional, rod-type base station and marine antenna covers the DAB band and can be used in a wide variety of applications.
- The broad-banded ½ λ dipole antenna element is sealed in a high-quality glass fibre tube with low wind-load, which will ensure performance undisturbed by corrosive environments.

DESCRIPTION

- Approximately 0 dBd gain.
- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.
- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- All metal parts in the antenna are DC-grounded to reduce the noise caused by atmospherical discharge. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 230-1LW/DAB is a vibration-proof, lightweight, slim-line, corrosion-resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

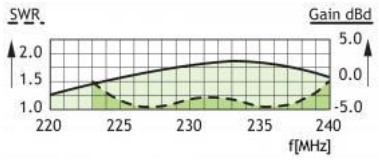
TYPE	PRODUCT NO.
CXL 230-1LW/DAB	110000114

SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 230-1LW/DAB
ANTENNA TYPE	½ λ coaxial dipole, broad-banded
FREQUENCY	223 - 240 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	17 MHz
SWR	< 1.5
MAX. POWER	150 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30° C → +70° C

CONNECTOR	N-female
WIND SURFACE	0.0172 m²
WIND LOAD	22 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 1.26 m (Dep. on frequency)
WEIGHT	Approx. 760 g
MOUNTING	On 16 to 54 mm dia. mast tube

TYPICAL GAIN AND SWR CURVES



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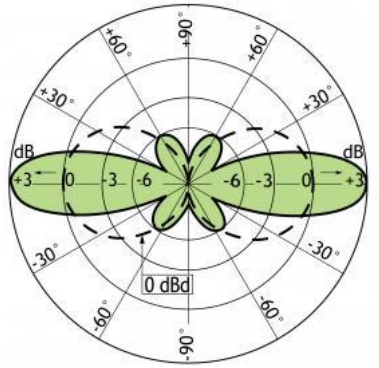
TYPICAL RADIATION PATTERN (E-PLANE)



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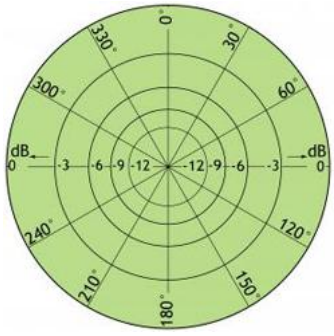
TYPICAL RADIATION PATTERN (H-PLANE)



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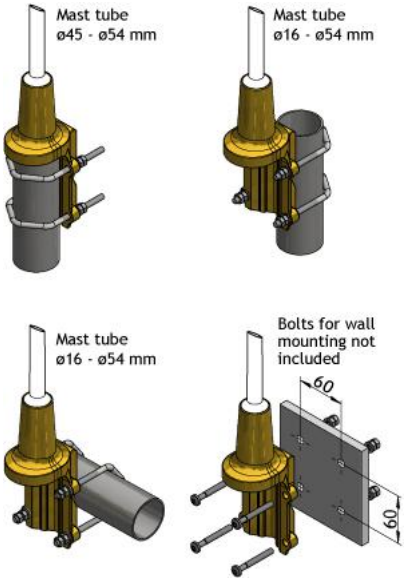
MULTI-PURPOSE MOUNTING BRACKET



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PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.

CXL 230-1/DAB

Base Station and Marine DAB Antenna

- This 0 dBd omnidirectional base station and marine antenna covers the terrestrial DAB (Digital Audio Broadcast) Band.
- The antenna is a ½ λ design and this means that it needs neither loading coils, ground-plane, radials nor other auxiliary arrangements.

DESCRIPTION

- Avoid mounting the antenna parallel with and in the neighbourhood of other metal parts, such as masts, supporting wires etc. Free mounting and as high as possible is most preferable, otherwise the SWR and the radiation diagram will be influenced.
- Bear in mind that the higher the antenna is mounted the better coverage.
- Furthermore, the antenna is a grounded radiator antenna and therefore it shows a DC-short across the coaxial cable.
- A conical glass fibre tube completely encloses the carefully designed radiating element to ensure long dependable service in all climates.

ORDERING DESIGNATIONS

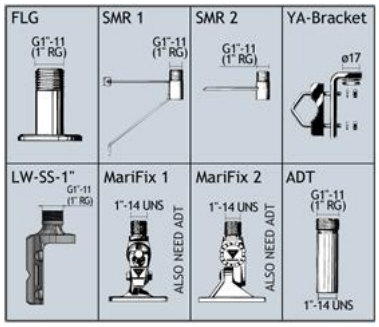
TYPE	PRODUCT NO.
CXL 230-1/DAB	100000084

SPECIFICATIONS

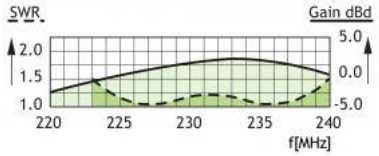
ELECTRICAL	
MODEL	CXL 230-1/DAB
ANTENNA TYPE	½ λ coaxial, broad-band
FREQUENCY	223 - 240 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	17 MHz
SWR	< 1.5
MAX. POWER	150 W
MECHANICAL	
TEMP. RANGE	-30° C → +70° C
CONNECTOR	UHF-female
WIND SURFACE	0.024 m²

WIND LOAD	30 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 1.15 m
DIA. IN TOP END	8 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 300 g
MOUNTING	On 1” RG (G1” - 11) threaded water pipe or on optional mounting brackets (see below)

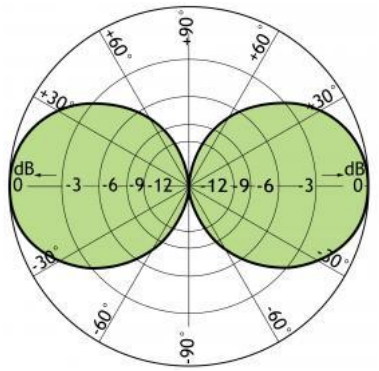
ACCESSORIES (to be ordered separately)



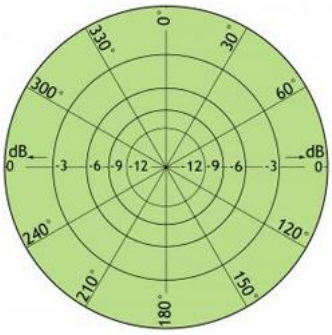
TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)


0°
30°
60°
120°
150°
180°
210°
240°
300°
330°
dB
0
-3
-6
-9
-12
-12
-9
-6
-3
dB
0

CXL 23-7C/...

7 dBd Omnidirecctional Base Station Antenna for the 23 cm Amateur Band

- The CXL 23-7C/... is a 7 dBd, vertically polarized, omnidirectional base station antenna, which covers 1240 – 1340 MHz in three models.
- The antenna is provided with the type “C” universal fixing bracket. The epoxy coated cast aluminium bracket and accompanying stainless steel “U” bolts are suitable for the most severe marine environment.

DESCRIPTION

- The CXL 23-7C/... is suitable for 27 – 65 mm dia. mast tubes. The coaxial feeder cable can be routed either internally or externally to the support tube.
- The antenna has excellent VSWR and gain characteristics and is highly suitable for repeater operation.
- The radiating element of the antenna is housed in a sealed high quality tapered glass fibre tube providing low wind loading and excellent all weather performance.
- The antenna is DC grounded for static discharge protection.
- The CXL 23-7C/... is a vibration-proof, slim-line, corrosion resistant, modern style base station antenna.

ORDERING DESIGNATIONS

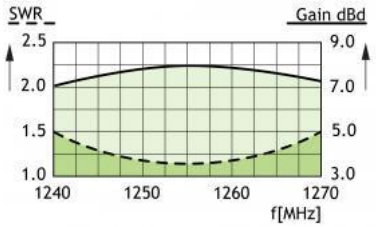
TYPE	PRODUCT NO.	FREQUENCY
CXL 23-7C/l	100000173	1240 – 1270 MHz
CXL 23-7C/h	100000174	1260 – 1300 MHz
CXL 23-7C/hh	100000282	1300 - 1340 MHz

ELECTRICAL	
MODEL	CXL 23-7C/...
ANTENNA TYPE	Collinear, broad-banded
FREQUENCY	Covering: 1240 – 1340 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	9 dBi 7 dBd
HALF POWER BEAMWIDTH	11°
BANDWIDTH	30 MHz for CXL 23-7C/l 40 MHz for CXL 23-7C/h 40 MHz for CXL 23-7C/hh
SWR	≤ 1.5 for CXL 23-7C/l ≤ 1.75 for CXL 23-7C/h ≤ 1.75 for CXL 23-7C/hh

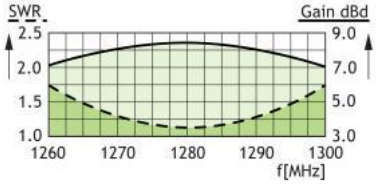
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
CONNECTOR	N-female
WIND SURFACE	0.03 m²
WIND LOAD	38 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Radome: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated
TOTAL HEIGHT	Approx. 1.5 m
WEIGHT	Approx. 1.0 kg
MOUNTING	On 27 – 65 mm dia. mast tube

TYPICAL GAIN AND SWR CURVES

CXL 23-7C/l



CXL 23-7C/h



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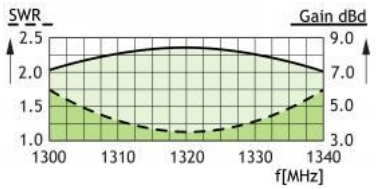
CXL 23-7C/hh



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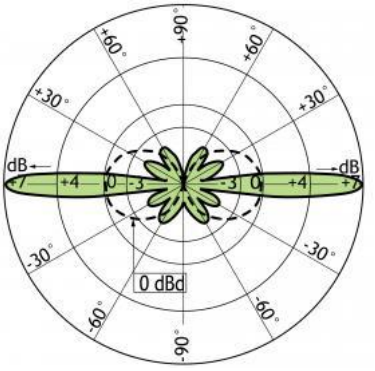
TYPICAL RADIATION PATTERN (E-PLANE)



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TYPICAL RADIATION PATTERN (H-PLANE)

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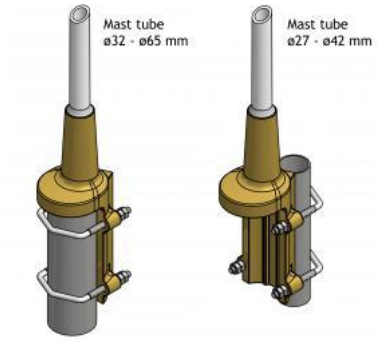
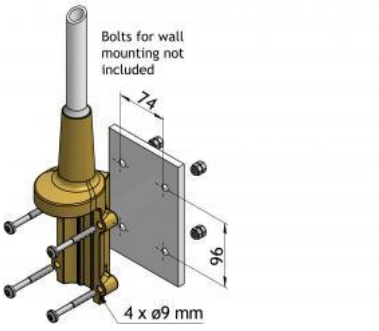
MULTI-PURPOSE MOUNTING BRACKET





CXL 225-450C

Unity Gain, Broad-Banded Base Station Antenna for 225 - 450 MHz

- CXL 225-450C is a 0 dBd gain, omnidirectional base station antenna.
- The antenna is extremely broad-banded and covers the complete band: 225 – 450 MHz.

DESCRIPTION

- CXL 225-450C is designed for fixation on supporting tubes with outer diameter between 27 mm and 65 mm.
- The construction of the mount makes it possible to lead the cable either inside or along the outside of the mast tube.
- A glass fibre tube completely encloses the carefully designed radiating element to ensure long dependable service in all climates.
- Atmospherical discharges are immediately led to ground as all metal parts are DC-grounded (consequently, the antenna shows a DC-short across the coaxial cable).
- This antenna is used where reliability is of utmost importance. A long lifetime has been taken into consideration when designing this antenna – it is sturdy and strong.

ORDERING DESIGNATIONS

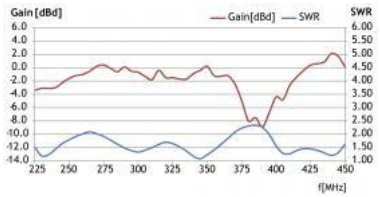
TYPE	PRODUCT NO.
CXL 225-450C	100000088

SPECIFICATIONS

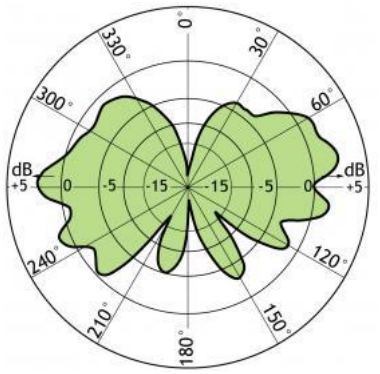
ELECTRICAL	
MODEL	CXL 225-450C
ANTENNA TYPE	Coaxial, broad-band dipole
FREQUENCY	Covering: 225 – 450 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	0 dBd (see curve)
BANDWIDTH	225 MHz
SWR	≤ 2.5, typ. ≤ 2.0
MAX. POWER	200 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	

TEMP. RANGE	–30° C → +70° C
CONNECTOR	N-female
WIND SURFACE	0.056 m²
WIND LOAD	85 N @ 175 km/h / 109 mph
MAX. WIND SPEED	200 km/h / 125 mph
COLOUR	Marine white
MATERIALS	Radome : Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated
TOTAL HEIGHT	Approx. 1.20 m
WEIGHT	Approx. 3.0 kg
MOUNTING	On 27 - 65 mm dia. mast tube

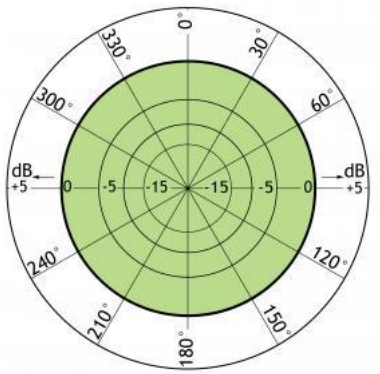
TYPICAL GAIN AND SWR CURVES



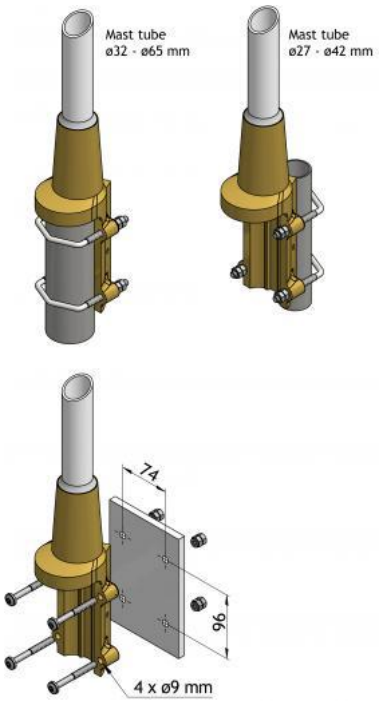
TYPICAL RADIATION PATTERN (E-PLANE)

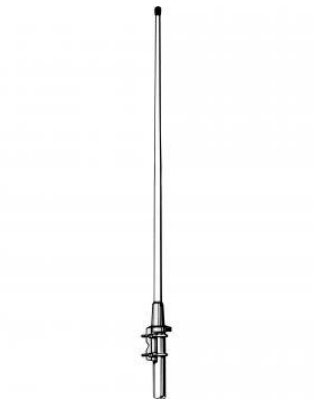


TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET


Mast tube
ø32 - ø65 mm
Mast tube
ø27 - ø42 mm
74
96
4 x ø9 mm



CXL 2000-6LW/...

6 dBd Omdirectional Base Station and Marine Antenna for the 2000 MHz Band

- Vertically polarized, omnidirectional base station and marine antenna.
- Approximately 6 dBd gain.

DESCRIPTION

- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.
- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- Highly suitable for duplex operation with large spacing between the TX and the RX frequencies.
- The antenna element is sealed in a high-quality, conical glass fibre tube.
- All metal parts in the antenna are DC-grounded to reduce the noise caused by atmospherical discharge. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 2000-6LW/... is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

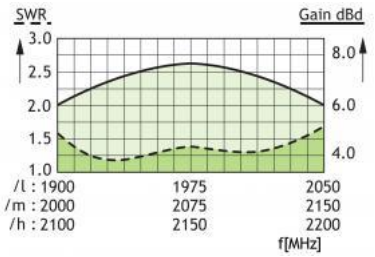
TYPE	PRODUCT NO.	FREQUENCY
CXL 2000-6LW/l	100000193	1900 – 2050 MHz
CXL 2000-6LW/m	100000194	2000 – 2150 MHz
CXL 2000-6LW/h	100000297	2100 – 2200 MHz

SPECIFICATIONS

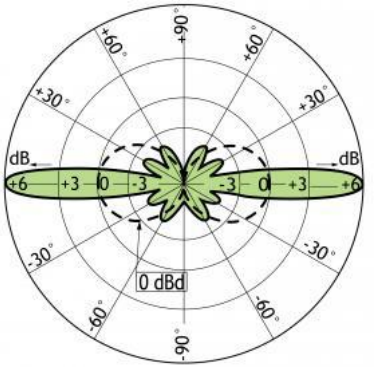
ELECTRICAL	
MODEL	CXL 2000-6LW/...
ANTENNA TYPE	Coaxial, collinear antenna, broadbanded
FREQUENCY	Models within 1900 – 2200 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	8 dBi 6 dBd
HALF POWER BEAMWIDTH	9°
BANDWIDTH	≥ 150 MHz @ SWR ≤ 2.0

SWR	≤ 2.0, typ. ≤ 1.5
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
HCM CODE	HCM000ND00, 007DE60
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.033 m²
WIND LOAD	Approx. 42 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 1.2 m
DIA. IN TOP END	21 mm
DIA. IN BOTTOM END	23 mm
WEIGHT	Approx. 800 g
MOUNTING	On 16 to 54 mm dia. mast tube

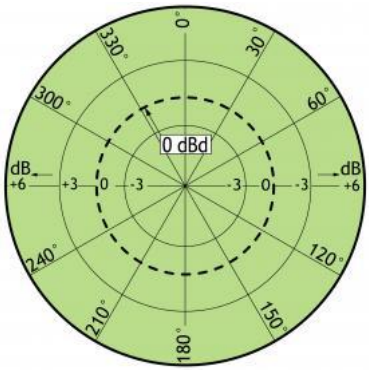
TYPICAL GAIN AND SWR CURVES



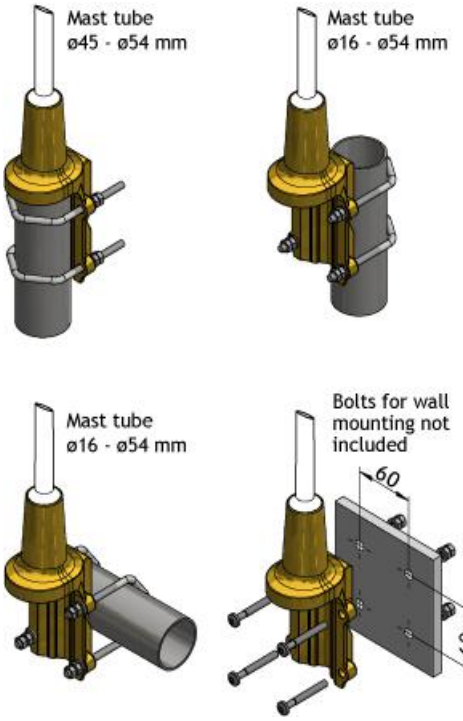
TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)

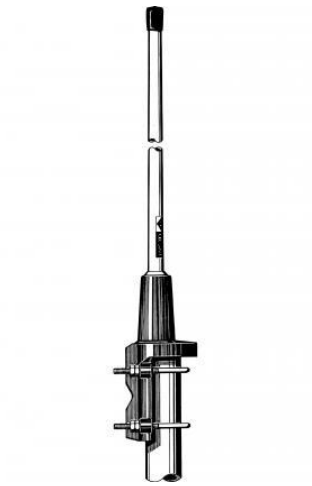


MULTI-PURPOSE MOUNTING BRACKET



PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.



CXL 2000-3LW

3 dBd Omnidirectional Base Station and Marine Antenna for the 2000 MHz Band

- Vertically polarized, omnidirectional base station and marine antenna.
- Approximately 3 dBd gain.

DESCRIPTION

- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.
- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- Highly suitable for duplex operation with large spacing between the TX and the RX frequencies.
- The antenna element is sealed in a high-quality, conical glass fibre tube.
- All metal parts in the antenna are DC-grounded to reduce the noise caused by atmospherical discharge.
- Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 2000-3LW is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

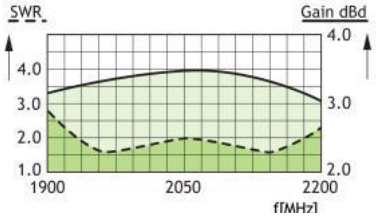
TYPE	PRODUCT NO.
CXL 2000-3LW	100000191

SPECIFICATIONS

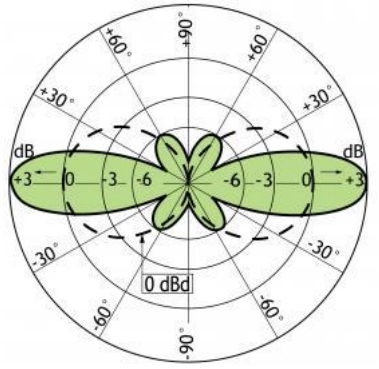
ELECTRICAL	
MODEL	CXL 2000-3LW
ANTENNA TYPE	Coaxial, collinear antenna, broadbanded
FREQUENCY	1900 – 2200 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd
HALF POWER BEAMWIDTH	22°
BANDWIDTH	≥ 200 MHz @ SWR ≤ 2.0 ≥ 300 MHz @ SWR ≤ 2.5
SWR	≤ 2.5, typ. ≤ 2.0

MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
HCM CODE	HCM000ND00, 015DE50
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.02 m²
WIND LOAD	Approx. 25 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 700 mm
DIA. IN TOP END	22 mm
DIA. IN BOTTOM END	23 mm
WEIGHT	Approx. 600 g
MOUNTING	On 16 to 54 mm dia. mast tube

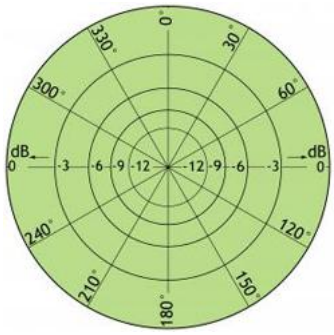
TYPICAL GAIN AND SWR CURVES



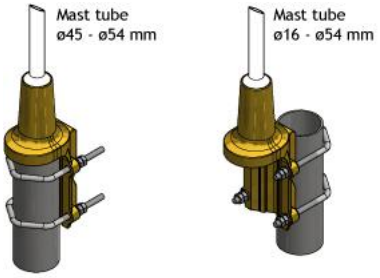
TYPICAL RADIATION PATTERN (E-PLANE)

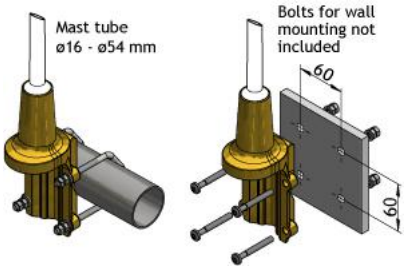


TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET





PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.

CXL 2/70C

Dual-frequency, Base Station Antenna for the 160 MHz and 450 MHz Bands

- CXL 2/70C is a dual-frequency base station antenna - two bands with only one antenna.

DESCRIPTION

- This antenna makes it possible to:
  - operate 160 and 450 MHz transceivers alternately on the same antenna
  - operate two transceivers (160 and 450 MHz) at the same time on one antenna using a diplexer (type DIPX 225/330 - must be ordered separately).
- CXL 2/70C is designed for fixation on supporting tubes with outer diameter between 27 mm and 65 mm.
- The construction of the mount makes it possible to lead the cable either inside or along the outside of the mast tube.
- Atmospherical discharges are immediately led to ground as all metal parts are DC-grounded (consequently, the antenna shows a DC-short across the coaxial cable).

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
CXL 2/70C	100000103

SPECIFICATIONS

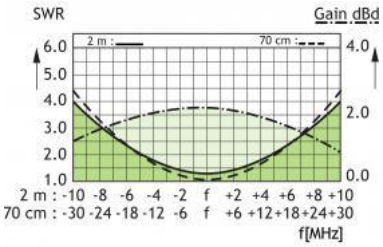
ELECTRICAL	
MODEL	CXL 2/70C
ANTENNA TYPE	Coaxial, dual-frequency base station antenna
FREQUENCY	160 MHz-band freq. to be stated within: 144 - 175 MHz 450 MHz-band freq. to be stated within: 380 - 470 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	Approx. 2 dBi 0 dBd
BANDWIDTH	160 MHz: ≥ 8 MHz @ SWR 2.0 450 MHz: ≥ 20 MHz @ SWR 2.0
SWR	≤ 1.5 @ f. res. in both bands
MAX. POWER	100 W (for each band)

ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
HCM CODE	HCM000ND00, 040DE00
MECHANICAL	
CONNECTOR	N-female
WIND SURFACE	0.067 m²
WIND LOAD	85 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Radome : Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated
TOTAL HEIGHT	Approx. 1.3 m
WEIGHT	Approx. 2.5 kg
MOUNTING	On 27 - 65 mm dia. mast tube

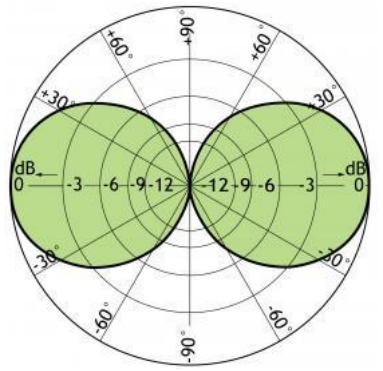
ORDERING

The antenna is delivered factory-tuned to two single frequencies or two frequency-bands. These two frequencies (stated in MHz) must be specified when ordering.

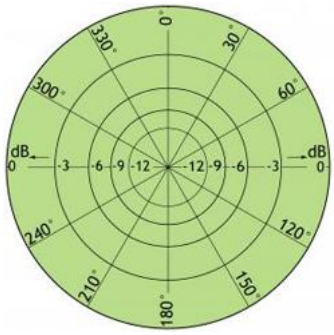
TYPICAL GAIN AND SWR CURVES



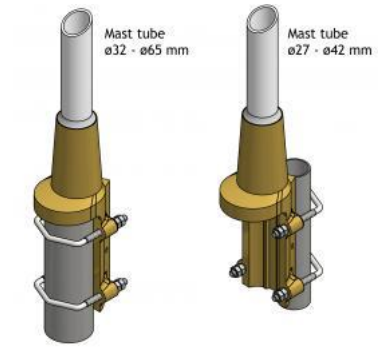
TYPICAL RADIATION PATTERN (E-PLANE)

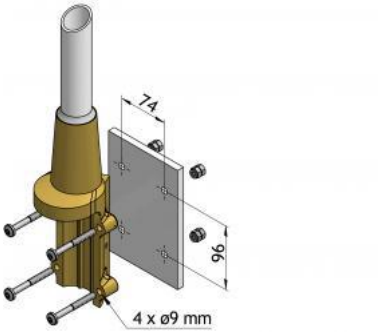


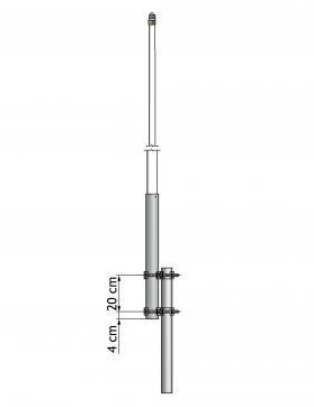
TYPICAL RADIATION PATTERN (H-PLANE),



MULTI-PURPOSE MOUNTING BRACKET







CXL 2-5SL/...

Sturdy, 5 dBd Gain, Base Station Antenna for the 160 MHz Band

- CXL 2-5SL/... is a 5 dBd, vertically polarized, omnidirectional base station antenna.
- The antenna has a bandwidth of 8 MHz. Please specify centre frequency or duplex TX and RX when ordering.

DESCRIPTION

- The antenna is provided with our type "SL" (Slim Line) mast mount, which is a multipurpose mounting tube made of non-corrosive aluminium. The accompanying clamp set and fittings are made of hot galvanized steel.
- The antenna can be mounted on mast tubes of 33 to 70 mm in outer diameter.
- In designing this antenna, special emphasis has been laid on obtaining a large bandwidth both in relation to SWR and gain. The phasing of the radiating elements is carefully adjusted to yield maximum gain in the horizontal plane, with the level of the side lobes reduced to a minimum.
- The antenna element is sealed in a high-quality, conical glass fibre tube with low wind-load, which will ensure performance undisturbed in all climates.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- CXL 2-5SL/... is a vibration-proof, lightweight, slim-line, corrosion-resistant, modern style base station antenna.

ORDERING DESIGNATIONS

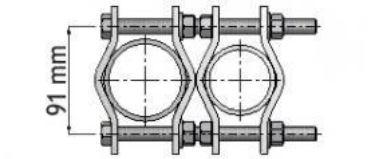
TYPE	PRODUCT NO.
CXL 2-5SL/144 - 152 MHZ	100000574
CXL 2-5SL/151 - 159 MHZ	100000575
CXL 2-5SL/156 - 164 MHZ	100000576
CXL 2-5SL/164 - 172 MHZ	100000577
CXL 2-5SL/167 - 175 MHZ	Contact for availability

SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 2-5SL/...
ANTENNA TYPE	High-gain collinear
FREQUENCY	8 MHz wide frequency segments within the 144 - 175 MHz range. Please specify centre frequency or duplex TX and RX
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical

GAIN	7 dBi 5 dBd
HALF POWER BEAMWIDTH	18°
BANDWIDTH	8 MHz
SWR	≤ 1.6
MAX. POWER	500 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	0.374 m²
WIND LOAD	473 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Radome : Polyurethane-coated glass fibre Procom Clamp Set: Hot galvanized steel
TOTAL HEIGHT	Approx. 6.2 m (Dep. on frequency)
WEIGHT	Approx. 10 kg
MOUNTING	On 33 - 70 mm mast tube

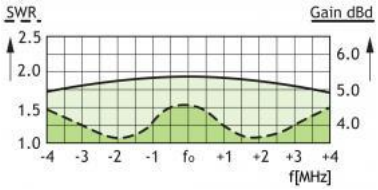
PROCOM CLAMP SET



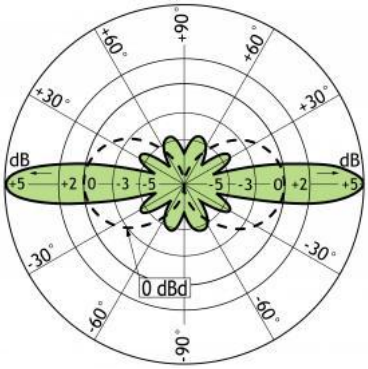
PLEASE NOTE

When using the CXL 2-5SL/... at windy locations where wind speeds of more than 150 km/h can be expected, the antenna must be mounted on the side of the mast and the top section of the glass fibre tube stabilized with a bracket.

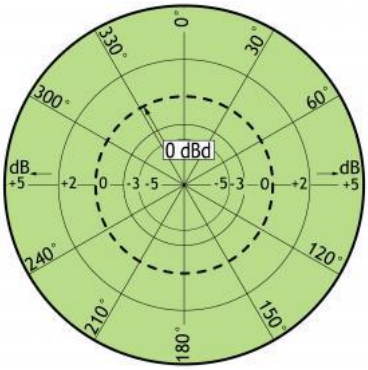
TYPICAL GAIN AND SWR CURVES

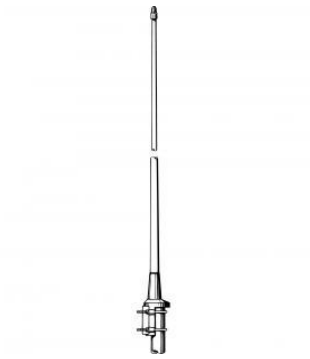


TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)





CXL 2-5HD/...

Sturdy, 5 dBd Gain, Base Station Antenna for the 160 MHz Band

- CXL 2-5HD/... is a 5 dBd, vertically polarized, omnidirectional base station antenna.
- The antenna has a bandwidth of 7 MHz. Please specify centre frequency or duplex TX and RX when ordering.

DESCRIPTION

- The antenna is provided with our sturdy type “HD” mast mount, which is a heavy-duty, multipurpose mounting bracket made of non-corrosive aluminium. The accompanying U-bolts and fittings are made of stainless steel.
- The antenna can be mounted on mast tubes of 58 to 105 mm in outer diameter. Further, the construction of the mount makes it possible to lead the cable either along the inside or on the outside of the mast tube.
- In designing this antenna, special emphasis has been laid on obtaining a large bandwidth both in relation to SWR and gain. The phasing of the radiating elements is carefully adjusted to yield maximum gain in the horizontal plane, with the level of the sidelobes reduced to a minimum.
- The antenna element is sealed in a high-quality, conical glass fibre tube with low wind-load, which will ensure performance undisturbed in all climates.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- CXL 2-5HD/... is a vibration-proof, lightweight, slim-line, corrosion-resistant, modern style base station antenna.

ORDERING DESIGNATIONS

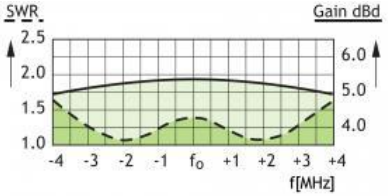
TYPE	PRODUCT NO.
CXL 2-5HD/...	100000101

SPECIFICATIONS

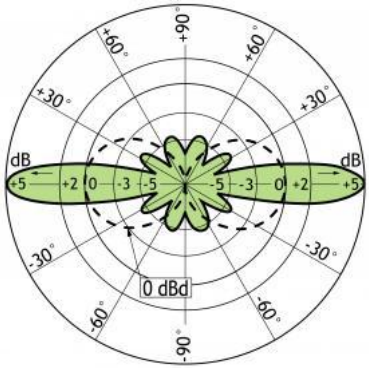
ELECTRICAL	
MODEL	CXL 2-5HD/...
ANTENNA TYPE	High-gain collinear
FREQUENCY	7 MHz wide frequency segments within the 144 - 175 MHz range. Please specify centre frequency, or duplex TX and RX
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	7 dBi 5 dBd
HALF POWER BEAMWIDTH	18°
BANDWIDTH	7 MHz
SWR	≤ 1.5
MAX. POWER	500 W

ANTISTATIC PROTECTION	All metal parts DC-grounded (connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	0.382 m²
WIND LOAD	483 N @ 160 km/h
BENDING TORQUE	Below “HD”-bracket, at 150 km/h: Approx. 1.27 kNm
COLOUR	Marine white
MATERIALS	Radome : Polyurethane-coated glass fibre Mounting bracket : Seawater resistant aluminium, polyester coated
TOTAL HEIGHT	Approx. 6.6 m (Dep. on frequency)
WEIGHT	Approx. 10 kg
MOUNTING	On 58 - 105 mm dia. mast tube

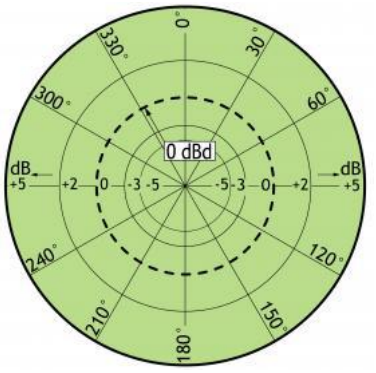
TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



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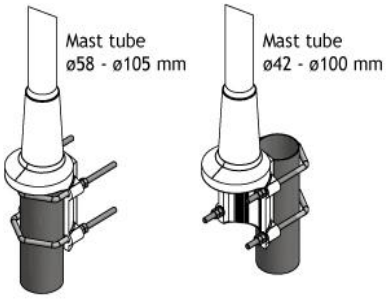
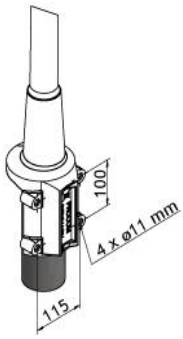
MULTI-PURPOSE MOUNTING BRACKET





PLEASE NOTE

When using the CXL 2-5HD/... at windy locations where wind speeds of more than 150 km/h can be expected, the antenna must be mounted on the side of the mast and the top section of the glassfibre tube stabilized with a bracket.

CXL 2-3LW/...

Lightweight, 3 dBd Base Station and Marine Antenna for the 150 MHz Band

- CXL 2-3LW/... is a 3 dBd, vertically polarised, omnidirectional base station and marine antenna, which covers the VHF-band in 5 models.
- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.

DESCRIPTION

- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- The phasing of the radiating elements is adjusted to yield maximum gain in the horizontal plane, with the level of the sidelobes reduced to a minimum.
- The carefully designed, broad-banded antenna element is sealed in a high-quality conical glass fibre tube with low wind-load, which will ensure performance undisturbed by corrosive environments.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 2-3LW/... is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

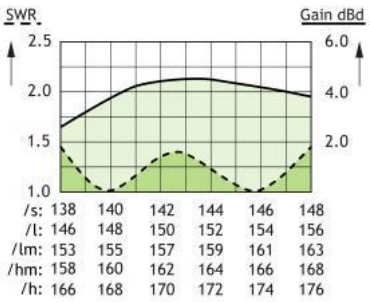
TYPE	FREQUENCY	PRODUCT NO.
CXL 2-3LW/s	137 - 150 MHz	100000473
CXL 2-3LW/l	146 - 154 MHz	100000092
CXL 2-3LW/lm	153 - 162 MHz	100000091
CXL 2-3LW/hm	158 - 167 MHz	100000093
CXL 2-3LW/h	166 - 175 MHz	100000090

SPECIFICATIONS

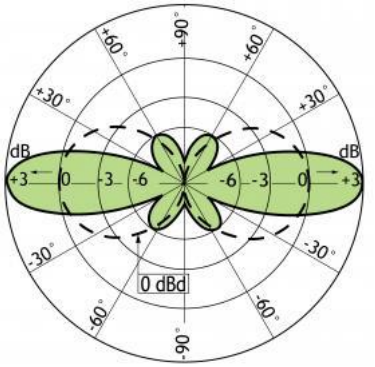
ELECTRICAL	
MODEL	CXL 2-3LW/...
ANTENNA TYPE	Broad-banded collinear antenna
FREQUENCY	Bands within 137 – 175 MHz
IMPEDANCE	Nom. 50 Ω

RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd
HALF POWER BEAMWIDTH	30°
BANDWIDTH	9 MHz
SWR	≤ 1.5
MAX. POWER	150 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (connector shows a DC-short)
HCM CODE	HCM000ND00, 015DE50
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	0.0651 m²
WIND LOAD	82 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 2.8 m
DIA. IN TOP END	15 mm
DIA. IN BOTTOM END	23 mm
WEIGHT	Approx. 1.4 kg
MOUNTING	On 16 to 54 mm dia. mast tube

TYPICAL GAIN AND SWR CURVES

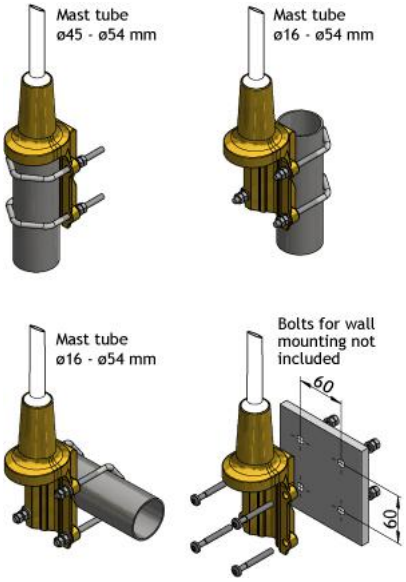


TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)

MULTI-PURPOSE MOUNTING BRACKET



PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.

CXL 2-3C/...-PT

3 dBd Omnidirectional lighting protected Base Station Antenna for 167 - 174 MHz

- CXL 2-3C/167-174-PT is a sturdy, 3 dBd, vertically polarized, omnidirectional base station antenna, covering 167 - 174 MHz.
- The antenna has been approved to withstand lightning (10/350 µs impulses/150 kA) according to EN 61643-11, VDE 0855-300 and VDE 0185-305-114 in FH-Kiel Laboratory in Germany.

DESCRIPTION

- The antenna is provided with our “C” mast bracket, which is a universal, epoxy-coated mounting bracket made of non-corrosive aluminium. The accompanying U-bolts and fittings are made of stainless steel.
- The antenna can be mounted on 27 to 65 mm dia. mast tubes and it is possible to lead the cable either along the inside or on the outside of the mast tube.
- The antenna element is completely enclosed in a glass fibre shroud, ensureing undisturbed performance in all climates.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- This antenna is constructed to ensure long dependable service in all climates.

ORDERING DESIGNATIONS

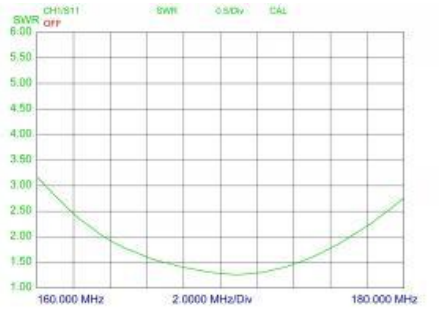
TYPE	PRODUCT NO.
CXL 2-3C/167-174-PT	100000519

SPECIFICATIONS

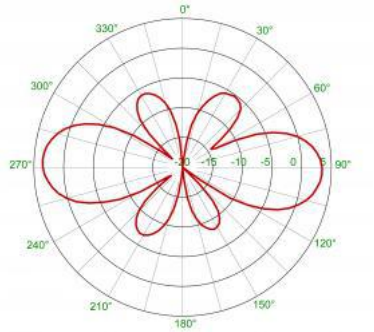
ELECTRICAL	
MODEL	CXL 2-3C/...-PT
ANTENNA TYPE	½ λ coaxial dipole
FREQUENCY	167 - 174 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd
BANDWIDTH	7 MHz
SWR	≤ 1.75
MAX. POWER	150 W

ANTISTATIC PROTECTION	All metal parts DC-grounded (connector shows a DC-short)
LIGHTNING CURRENT HANDLING CAPABILITY	150 kA (Test pulse 10/350 µs)
HCM CODE	HCM000ND00, 015DE40
MECHANICAL	
TEMP. RANGE	–30° C → +70° C
CONNECTOR	N-female
WIND SURFACE	0.117 m² / 1.26 ft²
WIND LOAD	137 N @ 160 km/h / 99.42 mph.
MAX. WIND SPEED	200 km/h / 125 mph.
COLOUR	Marine white
MATERIALS	Radome : Polyurethane-coated glass fibre Mounting bracket : Seawater resistant aluminium, epoxy-coated
TOTAL HEIGHT	Approx. 2.8 m / 110.24 in.
WEIGHT	Approx. 5.0 kg / 11.02 lb.
MOUNTING	On 27 - 65 mm / 1.06 - 2.56 in. dia. mast tube

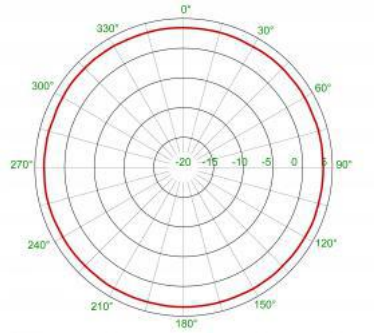
TYPICAL SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



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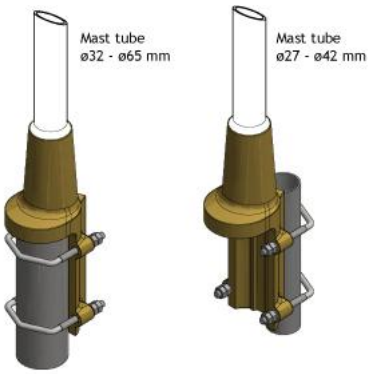
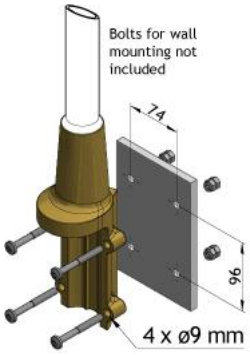
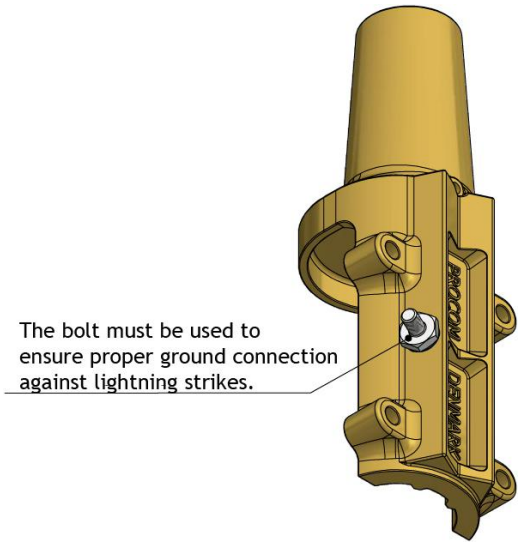
MULTI-PURPOSE MOUNTING BRACKET





MOUNTING DESCRIPTION FOR GROUND CONNECTION



CXL 2-3C/...

Sturdy, 3 dBd Gain Base Station Antenna for the 160 MHz Band

- CXL 2-3C/... is a sturdy, 3 dBd, vertically polarized, omnidirectional base station antenna, which covers the 160 MHz band in 4 models.
- The antenna is provided with our “C” mast bracket, which is a universal, epoxy-coated mounting bracket made of non-corrosive aluminium. The accompanying U-bolts and fittings are made of stainless steel.

DESCRIPTION

- The antenna can be mounted on 27 to 65 mm dia. mast tubes and it is possible to lead the cable either along the inside or on the outside of the mast tube.
- The phasing of the radiating elements is carefully adjusted to yield maximum gain in the horizontal plane, with the level of the sidelobes reduced to a minimum. Special emphasis has been laid on obtaining a large bandwidth both in relation to SWR and gain.
- The broad-banded antenna element is completely enclosed in a glass fibre shroud, which will ensure performance undisturbed by corrosive environments.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- This antenna is constructed to ensure long dependable service in all climates.

ORDERING DESIGNATIONS

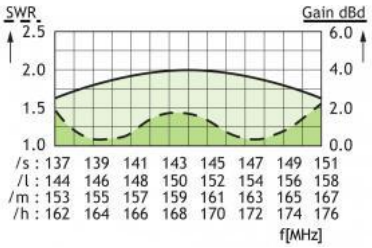
TYPE	FREQUENCY	PRODUCT NO.
CXL 2-3C/s	137 - 150 MHz	100000096
CXL 2-3C/l	144 - 157 MHz	100000097
CXL 2-3C/m	153 - 166 MHz	100000098
CXL 2-3C/h	162 - 175 MHz	100000095

SPECIFICATIONS

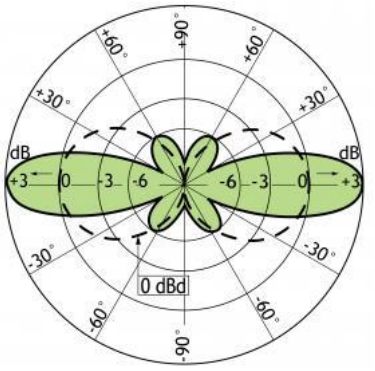
ELECTRICAL	
MODEL	CXL 2-3C/...
ANTENNA TYPE	Collinear, broad-banded
FREQUENCY	137 - 175 MHz covered by 4 models. See model survey
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd
HALF POWER BEAMWIDTH	30°

BANDWIDTH	13 MHz
SWR	≤ 1.5
MAX. POWER	150 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (connector shows a DC-short)
HCM CODE	HCM000ND00, 015DE50
MECHANICAL	
CONNECTOR	N-female
WIND SURFACE	0.143 m²
WIND LOAD	181 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Radome : Polyurethane-coated glass fibre Mounting bracket : Seawater resistant aluminium, epoxy-coated
TOTAL HEIGHT	Approx. 2.95 m (Dep. on frequency)
WEIGHT	Approx. 4.2 kg
MOUNTING	On 27 - 65 mm dia. mast tube

TYPICAL GAIN AND SWR CURVES

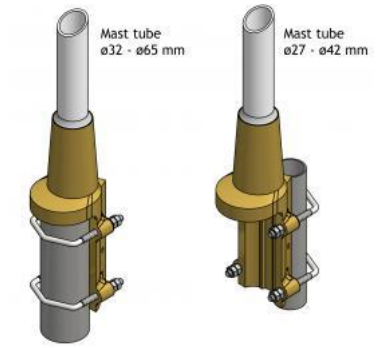


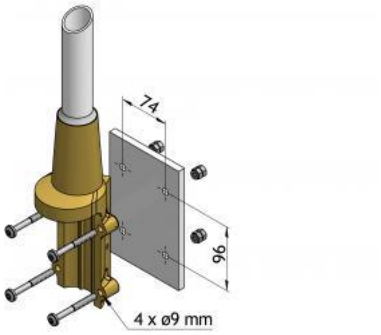
TYPICAL RADIATION PATTERN (E-PLANE)

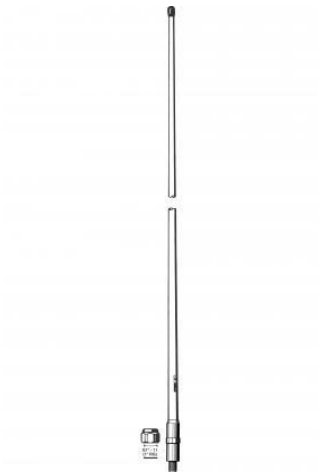


TYPICAL RADIATION PATTERN (H-PLANE)

MULTI-PURPOSE MOUNTING BRACKET







CXL 2-3

3 dBd Collinear Antenna for the Base Station and Maritime VHF Band

- This antenna is especially developed for the base station and maritime VHF band and it is used when more gain is required than obtainable with standard ½ λ dipoles.
- The 1” revolving nut mounting system is standard throughout the maritime sector, and several different mounting brackets are available, making it possible to install the antenna either on the masthead, side mounted on the mast or mounted on the cross-beam. Also, the antenna can be mounted on deck or rooftop by means of the FLG. (See accessories).

DESCRIPTION

- The higher the antenna is mounted, the better coverage. Avoid mounting the antenna parallel with or in the neighbourhood of other metal parts, such as masts, supporting wires etc. The antenna needs no ground-plane, radials nor other auxiliary arrangements.
- CXL 2-3 is broad-banded, having a good SWR on the RX-frequencies as well as on the TX-frequencies. All metal parts are at ground potential and consequently, the antenna shows a DC-short across the coaxial cable.
- A conical glass fibre tube completely encloses the carefully designed radiating element to ensure long dependable service in all climates.

ORDERING DESIGNATIONS

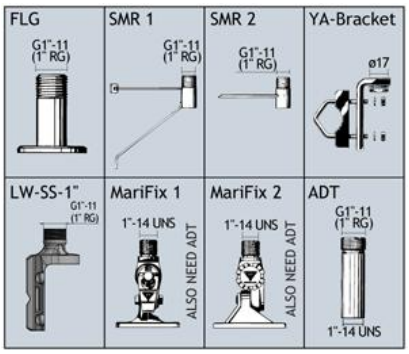
TYPE	PRODUCT NO.
CXL 2-3	110000130

SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 2-3
ANTENNA TYPE	Omnidirectional coaxial collinear
FREQUENCY	156 – 162 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd
BANDWIDTH	6 MHz
SWR	≤ 1.5
MAX. POWER	150 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
HCM CODE	HCM000ND00, 015DE50

MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	UHF-female
WIND SURFACE	0.0527 m²
WIND LOAD	67 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 2.60 m
DIA. IN TOP END	15 mm
DIA. IN BOTTOM	23 mm
WEIGHT	Approx. 1 kg
MOUNTING	On 1” RG (G1” - 11) threaded water pipe or on optional mounting brackets (see below)

ACCESSORIES (to be ordered separately)



TYPICAL GAIN AND SWR CURVES

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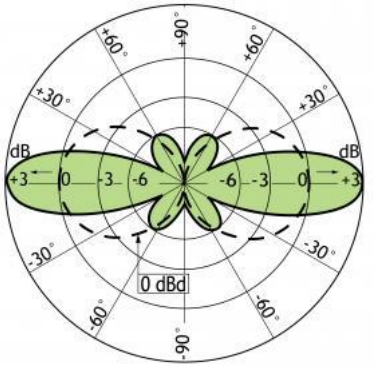
TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)

CXL 1800-8C

8 dBd Omnidirectional Base Station and Marine Antenna for the 1800 MHz Band

- Vertically polarized, omnidirectional base station and marine antenna.
- Approximately 8 dBd gain.

DESCRIPTION

- Provided with the “C” mounting bracket – a universal fixation bracket made of epoxy-coated seawater resistant aluminium.
- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on mast tubes, 27 to 65 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- Highly suitable for duplex operation with large spacing between the TX and the RX frequencies, e.g. the DCS-1800/PCN cellular system.
- The antenna element is sealed in a high-quality, conical glass fibre tube.
- All metal parts in the antenna are DC-grounded to reduce the noise caused by atmospherical discharge. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 1800-8C is a vibration-proof, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

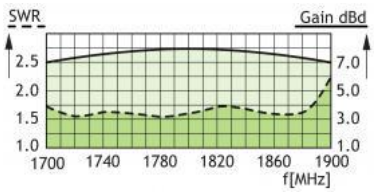
TYPE	PRODUCT NO.
CXL 1800-8C	100000184

SPECIFICATIONS

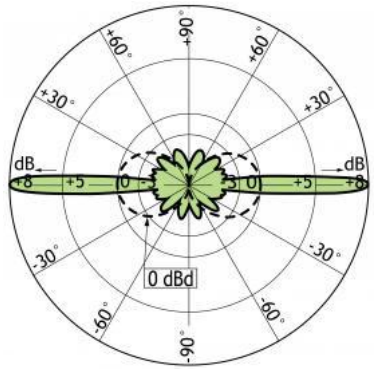
ELECTRICAL	
MODEL	CXL 1800-8C
ANTENNA TYPE	Coaxial, collinear antenna, broad-banded
FREQUENCY	1710 – 1880 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	10 dBi 8 dBd
BANDWIDTH	Approx. ≥ 200 MHz @ SWR ≤ 1.75
SWR	≤ 1.75, typ. ≤ 1.5
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)

HCM CODE	HCM000ND00, 004DE60
MECHANICAL	
CONNECTOR	N-female
WIND SURFACE	Approx. 0.04 m²
WIND LOAD	Approx. 51 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 1.5 m / 59 in.
DIA. IN TOP END	20 mm / 0.78 in.
DIA. IN BOTTOM END	23 mm / 0.90 in.
WEIGHT	Approx. 1.5 kg / 3.30 lb.
MOUNTING	On 27 – 65 mm / 1.06 - 2.55 in. dia. mast tube
ENVIRONMENTAL	
TEMP. RANGE	-30°C → +70°C
IP-RATING	IP66

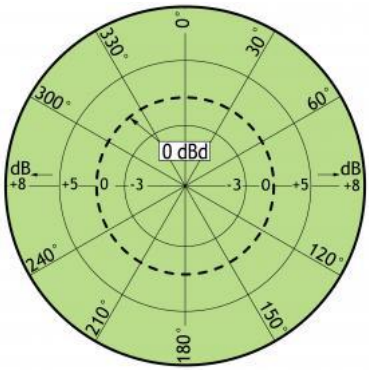
TYPICAL GAIN AND SWR CURVES



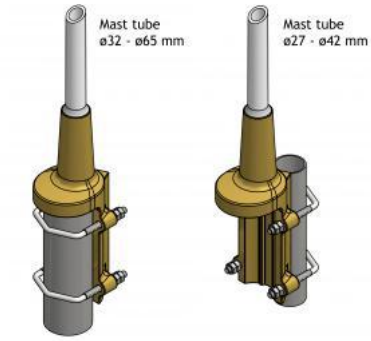
TYPICAL RADIATION PATTERN (E-PLANE)

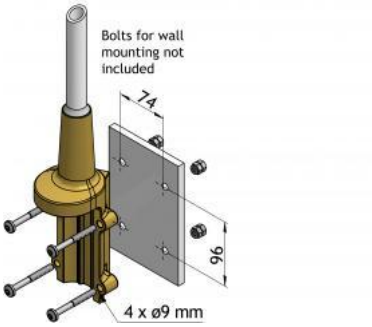


TYPICAL RADIATION PATTERN (H-PLANE)



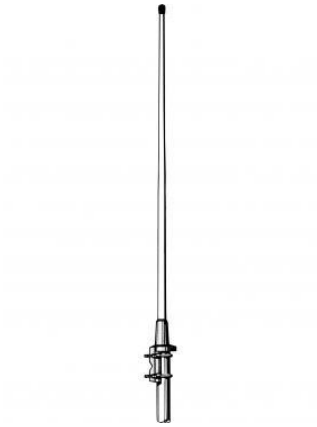
MULTI-PURPOSE MOUNTING BRACKET





PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.



CXL 1800-6LW

6 dBd Omdirectional Base Station and Marine Antenna for the 1800 MHz Band

- Vertically polarized, omnidirectional base station and marine antenna.
- Approximately 6 dBd gain.

DESCRIPTION

- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.
- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- Highly suitable for duplex operation with large spacing between the TX and the RX frequencies, e.g. the DCS-1800/PCN cellular system.
- The antenna element is sealed in a high-quality, conical glass fibre tube.
- All metal parts in the antenna are DC-grounded to reduce the noise caused by atmospherical discharge. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 1800-6LW is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

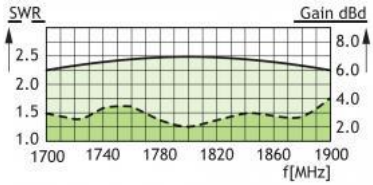
TYPE	PRODUCT NO.
CXL 1800-6LW	100000180

SPECIFICATIONS

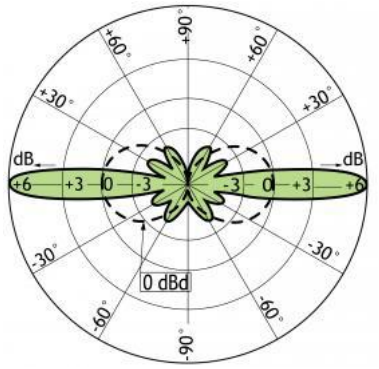
ELECTRICAL	
MODEL	CXL 1800-6LW
ANTENNA TYPE	Coaxial, collinear antenna, broad-banded
FREQUENCY	1700 – 1900 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	8 dBi 6 dBd
BAND WIDTH	≥ 200 MHz @ SWR ≤ 1.75
SWR	≤ 1.75, typ. ≤ 1.5
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded

	(Connector shows a DC-short)
HCM CODE	HCM000ND00, 007DE60
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.04 m²
WIND LOAD	Approx. 51 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 1.2 m
DIA. IN TOP END	21 mm
DIA. IN BOTTOM END	23 mm
WEIGHT	Approx. 900 g
MOUNTING	On 16 to 54 mm dia. mast tube

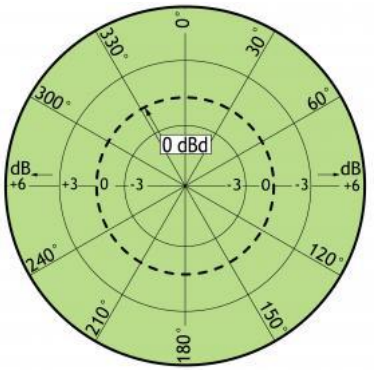
TYPICAL GAIN AND SWR CURVES



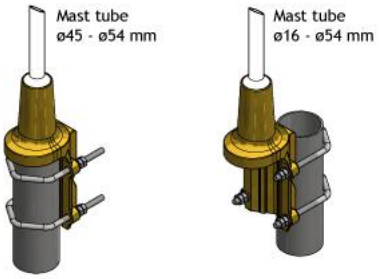
TYPICAL RADIATION PATTERN (E-PLANE)

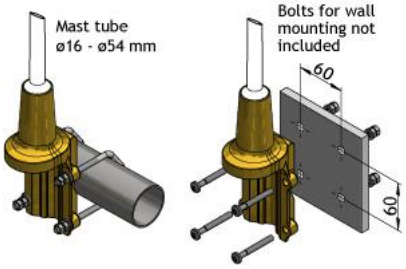


TYPICAL RADIATION PATTERN (H-PLANE)



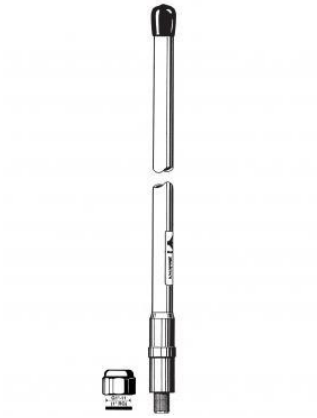
MULTI-PURPOSE MOUNTING BRACKET





PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.



CXL 1800-6/DECT

6 dBd Omdirectional Base Station and Marine Antenna for the DECT Band

- Vertically polarized, omnidirectional base station and marine antenna.
- Approximately 6 dBd gain.

DESCRIPTION

- The CXL 1800-6/DECT is especially suitable for the DECT band.
- To substantially reduce noise caused by atmospherical discharges, alle metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- Simple mounting using the 1” revolving nut system.
- Wide variety of accessory mounting brackets available.

ORDERING DESIGNATIONS

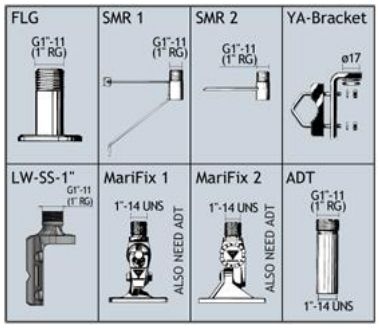
TYPE	PRODUCT NO.
CXL 1800-6/DECT	100000189

SPECIFICATIONS

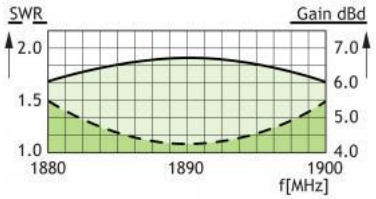
ELECTRICAL	
MODEL	1800-6/DECT
ANTENNA TYPE	Coaxial, collinear antenna
FREQUENCY	1880 - 1900 MHz (DECT)
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	8 dBi 6 dBd
BANDWIDTH	≤ 20 MHz @ SWR ≤ 1.5
SWR	≤ 1.5
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
HCM CODE	HCM000ND00, 007DE60
MECHANICAL	
TEMP. RANGE	-30°C → +70°C

CONNECTOR	N-female
WIND SURFACE	Approx. 0.03 m²
WIND LOAD	Approx. 38 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 1.15 m
DIA. IN TOP END	21 mm
DIA. IN BOTTOM END	23 mm
WEIGHT	Approx. 700 g
MOUNTING	On 1” RG (G1”-11) threaded water pipe or on optional mounting brackets (see below)

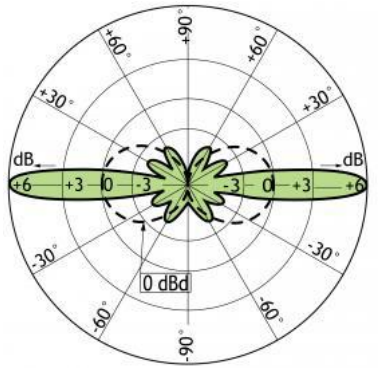
ACCESSORIES (to be ordered separately)



TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)


0
30
60
120
150
180
210
240
300
330
0 dBd
dB
+6
+3
0
-3
-3
0
-3
dB
+6

CXL 1800-6

6 dBd Omdirectional Base Station and Marine Antenna for the 1800 MHz Band

- Vertically polarized, omnidirectional base station and marine antenna.
- Approximately 6 dBd gain.

DESCRIPTION

- Simple mounting using the 1” revolving nut system.
- Wide variety of accessory mounting brackets available.
- Large bandwidth with respect to both SWR and gain. Highly suitable for duplex operation with large spacing between the TX and the RX frequencies, e.g. the DCS-1800/PCN cellular system.
- The antenna element is sealed in a high-quality, conical glass fibre tube.
- All metal parts in the antenna are DC-grounded to reduce the noise caused by atmospherical discharge. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 1800-6 is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

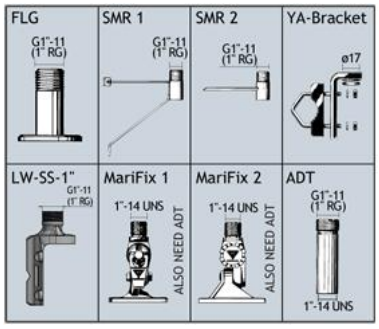
TYPE	PRODUCT NO.
CXL 1800-6	100000186

SPECIFICATIONS

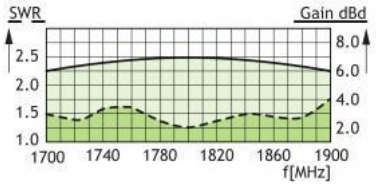
ELECTRICAL	
MODEL	CXL 1800-6
ANTENNA TYPE	Coaxial, collinear antenna, broad-banded
FREQUENCY	1700 – 1900 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	8 dBi 6 dBd
BANDWIDTH	≥ 200 MHz @ SWR ≤ 1.75
SWR	≤ 1.75, typ. ≤ 1.5
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C

CONNECTOR	N-female
WIND SURFACE	Approx. 0.03 m²
WIND LOAD	Approx. 38 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 1.15 m
DIA. IN TOP END	21 mm
DIA. IN BOTTOM END	23 mm
WEIGHT	Approx. 700 g
MOUNTING	On 1” RG (G1”-11) threaded water pipe or on optional mounting brackets (see below)

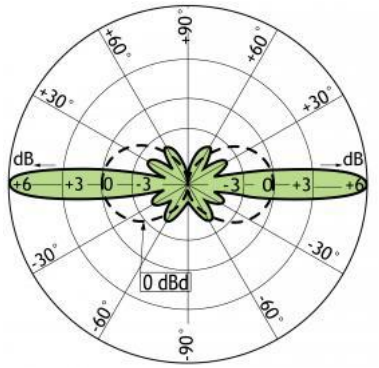
ACCESSORIES (to be ordered separately)



TYPICAL GAIN AND SWR CURVES

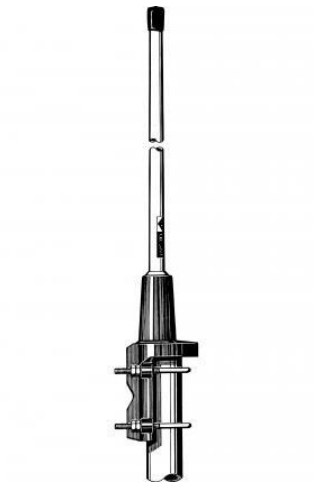


TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)


0
30
60
120
150
180
210
240
300
330
0 dBd
dB
+6
+3
0
-3
-3
0
-3
dB
+6



CXL 1800-3LW

3 dBd Omnidirectional Base Station and Marine Antenna for the 1800 MHz Band

- Vertically polarized, omnidirectional base station and marine antenna.
- Approximately 3 dBd gain.

DESCRIPTION

- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.
- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- Highly suitable for duplex operation with large spacing between the TX and the RX frequencies, e.g. the DCS-1800/PCN cellular system.
- The antenna element is sealed in a high-quality, conical glass fibre tube.
- All metal parts in the antenna are DC-grounded to reduce the noise caused by atmospherical discharge.
- Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 1800-3LW is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

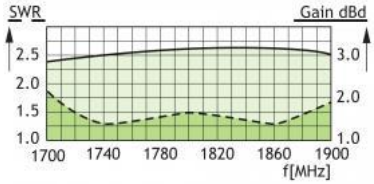
TYPE	PRODUCT NO.
CXL 1800-3LW	100000175

SPECIFICATIONS

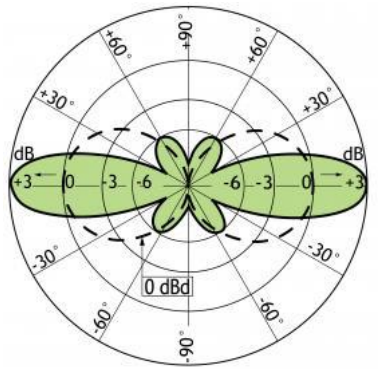
ELECTRICAL	
MODEL	CXL 1800-3LW
ANTENNA TYPE	Coaxial, collinear antenna, broadbanded
FREQUENCY	1710 – 1880 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd
BANDWIDTH	≥ 170 MHz @ SWR ≤ 2.0
SWR	≤ 2.0, typ. ≤ 1.75

MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
HCM CODE	HCM000ND00, 015DE50
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.02 m²
WIND LOAD	Approx. 25 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 700 mm
DIA. IN TOP END	12 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 600 g
MOUNTING	On 16 to 54 mm dia. mast tube

TYPICAL GAIN AND SWR CURVES

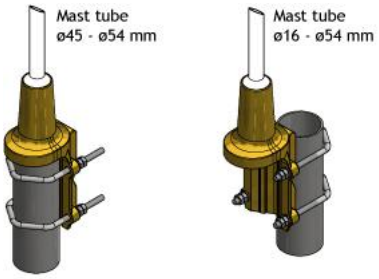


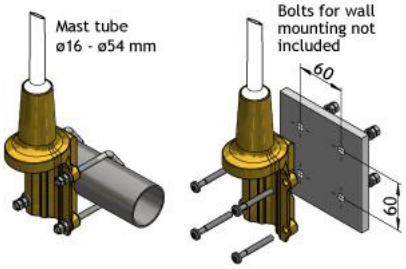
TYPICAL RADIATION PATTERN



TYPICAL RADIATION PATTERN (H-PLANE)

MULTI-PURPOSE MOUNTING BRACKET





PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.

CXL 1800-3/DECT

3 dBd Omnidirectional Base Station and Marine Antenna for the DECT Band

- Vertically polarized, omnidirectional base station and marine antenna.
- Approximately 3 dBd gain.

DESCRIPTION

- The CXL 1800-3/DECT is especially suitable for the DECT band.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- Simple mounting using the 1” revolving nut system.
- Wide variety of accessory mounting brackets available.

ORDERING DESIGNATIONS

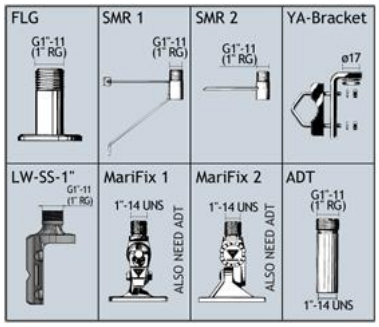
TYPE	PRODUCT NO.
CXL 1800-3/DECT	100000178

SPECIFICATIONS

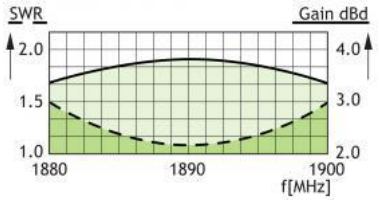
ELECTRICAL	
MODEL	CXL 1800-3/DECT
ANTENNA TYPE	Coaxial, collinear antenna
FREQUENCY	1880 - 1900 MHz (DECT)
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd
BANDWIDTH	≤ 20 MHz @ SWR ≤ 1.5
SWR	≤ 1.5
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
HCM CODE	HCM000ND00, 015DE50
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female

WIND SURFACE	Approx. 0.009 m²
WIND LOAD	Approx. 11 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 0.63 m
DIA. IN TOP END	12 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 350 g
MOUNTING	On 1” RG (G1”-11) threaded water pipe or on optional mounting brackets (see below)

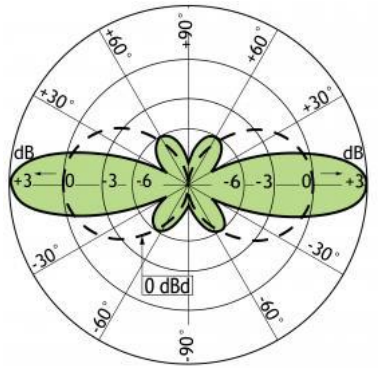
ACCESSORIES (to be ordered separately)



TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)


0
30°
60°
120°
150°
180°
210°
240°
300°
330°
0 dBd
dB
+3
0
-3
-6
-6
-3
0
dB
+3

CXL 2-3 GHz

Unity Gain Base Station and Marine 2-3 GHz Antenna for Mounting on Threaded 1

- The CXL 2-3 GHz is an ultra broad-banded, 0 dBd, vertically polarized, omnidirectional rod-type base station and marine antenna for the 2 - 3 GHz band.

DESCRIPTION

- The 1” revolving nut mounting system is standard throughout the marine sector, and several different mounting brackets are available, making it possible to install the antenna either on the masthead by use of FLG or SMR 2, side-mounted on the mast (SMR 1) or mounted on a cross-beam (FLG). Also, the antenna can be mounted on deck or rooftop by means of the FLG.
- The higher the antenna is mounted, the better coverage. Avoid mounting the antenna parallel to or in the neighbourhood of other metal parts, such as masts, supporting wires etc., otherwise the SWR and the radiation pattern may be strongly influenced.
- A conical glass fibre tube completely encloses the carefully designed radiating element to ensure long dependable service in all climates.

ORDERING DESIGNATIONS

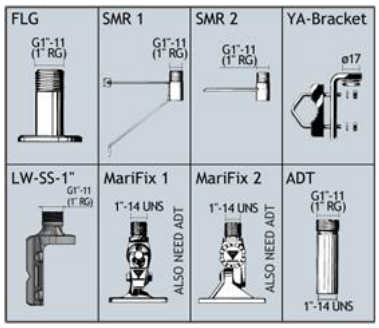
TYPE	PRODUCT NO.
CXL 2-3 GHz	100000204

SPECIFICATIONS

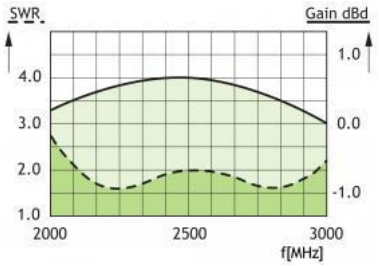
ELECTRICAL	
MODEL	CXL 2-3 GHz
ANTENNA TYPE	½ λ coaxial dipole, broad-banded
FREQUENCY	2000 - 3000 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	≥ 1 GHz @ SWR ≤ 2.0
SWR	≤ 2.0
MAX. POWER	100 W
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.006 m²
WIND LOAD	Approx. 8 N @ 160 km/h

COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 230 mm
DIA. AT TOP END	14 mm
DIA. AT BOTTOM END	16 mm
WEIGHT	Approx. 180 g
MOUNTING	On 1” RG (G1”-11) threaded water pipe or on optional mounting brackets (see below)

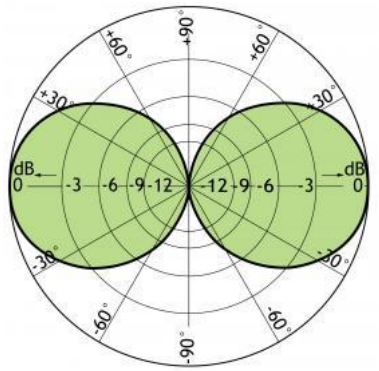
ACCESSORIES (to be ordered separately)



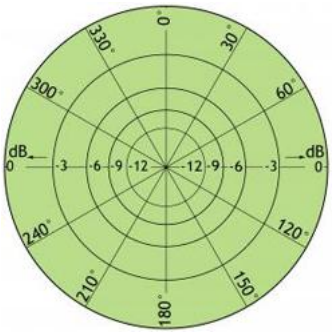
TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)


0°
30°
60°
120°
150°
180°
210°
240°
300°
330°
dB
0
-3
-6
-9
-12
-12
-9
-6
-3
dB
0

CXL 2-2C

Unity Gain, Broad.Banded Base Station Antenna for the 160 MHz Band

- CXL 2-2C is a 0 dBd gain, omnidirectional base station antenna.
- The antenna covers the complete band: 144 - 175 MHz.

DESCRIPTION

- CXL 2-2C is designed for fixation on supporting tubes with outer diameter between 27 mm and 65 mm.
- The construction of the mount makes it possible to lead the cable either inside or along the outside of the mast tube.
- A glass fibre tube completely encloses the carefully designed radiating element to ensure long dependable service in all climates.
- Atmospherical discharges are immediately led to ground as all metal parts are DC-grounded (consequently, the antenna shows a DC-short across the coaxial cable).
- This antenna is used where reliability is of utmost importance. A long lifetime has been taken into consideration when designing this antenna – it is sturdy and strong.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
CXL 2-2C	100000087

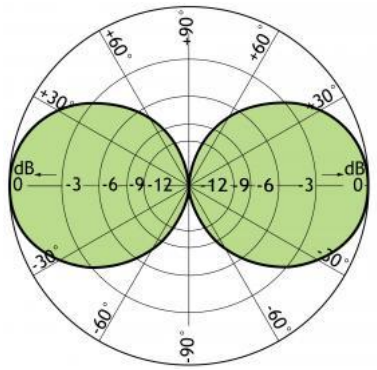
SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 2-2C
ANTENNA TYPE	Coaxial, broad-band dipole
FREQUENCY	Covering: 144 - 175 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	31 MHz
SWR	≤ 1.5
MAX. POWER	600 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	

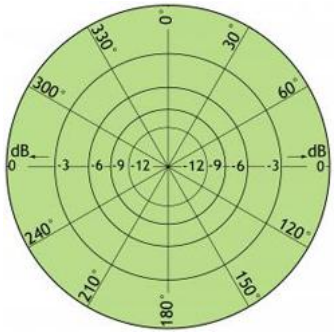
CONNECTOR	N-female
WIND SURFACE	0.091 m²
WIND LOAD	115 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Radome : Polyurethane-coated glass fibre Mast clamp : Seawater resistant aluminium, epoxy-coated
TOTAL HEIGHT	Approx. 1.75 m
WEIGHT	Approx. 3.0 kg
MOUNTING	On 27 - 65 mm dia. mast tube

TYPICAL GAIN AND SWR CURVES

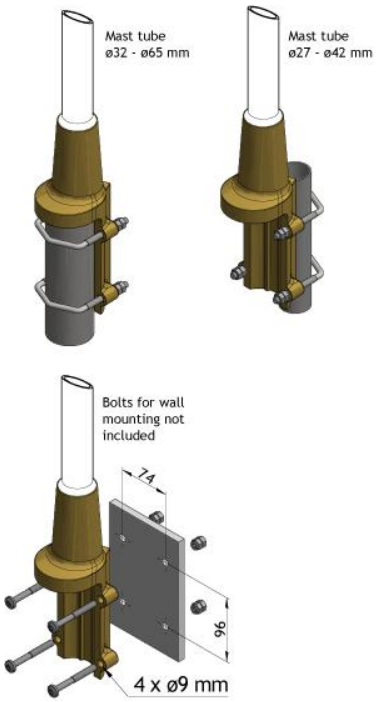
TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET


Mast tube
ø32 - ø65 mm
Mast tube
ø27 - ø42 mm
Bolts for wall
mounting not
included
74
96
4 x ø9 mm

G-CXL 900-1LW/...

Universal, 0 dBd Base Station and Marine Antenna for the 900 MHz Band. Designed for defense units.

- G-CXL 900-1LW/... is a 0 dBd, vertically polarised, omnidirectional base station and marine antenna, which covers the 900 MHz band in three models.
- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.

Description

- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- The carefully designed, broad-banded antenna element is sealed in a high-quality, conical glass fibre tube with low wind-load, which will ensure performance undisturbed by corrosive environments.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.

ORDERING DESIGNATIONS

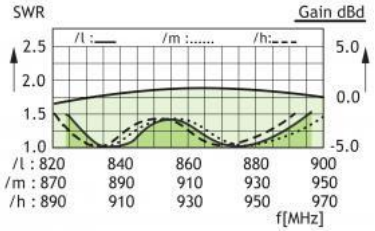
TYPE	PRODUCT NO.	FREQUENCY
G-CXL 900-1LW/l	110000187	824 – 894 MHz
G-CXL 900-1LW/m	110000188	870 – 950 MHz
G-CXL 900-1LW/h	110000189	890 – 960 MHz

SPECIFICATIONS

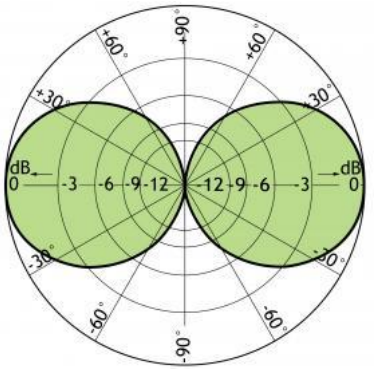
ELECTRICAL	
MODEL	G-CXL 900-1LW/...
ANTENNA TYPE	½ λ coaxial dipole, broad-banded
FREQUENCY	Models within 824 – 960 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	70 - 80 MHz
SWR	≤ 1.5
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C

CONNECTOR	N-female
WIND SURFACE	Approx. 0.018 m²
WIND LOAD	23 N @ 160 km/h
COLOUR	Green
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 490 mm
DIA. IN TOP END	13 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 560 g
MOUNTING	On 16 to 54 mm dia. mast tube

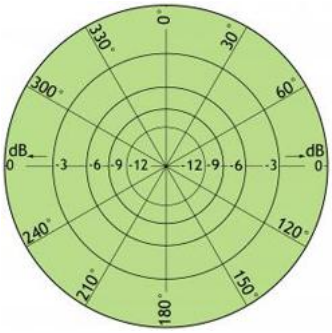
TYPICAL GAIN AND SWR CURVES



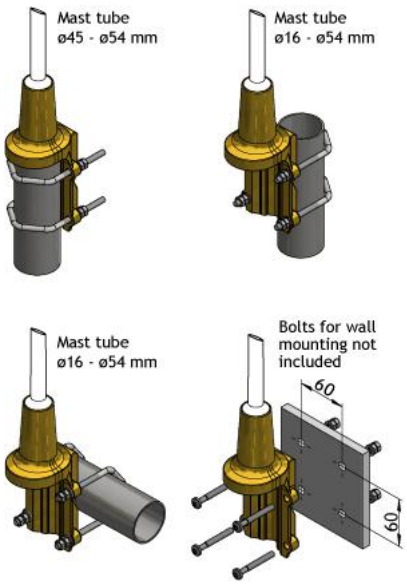
TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET



PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.

CXL 2-1LW/...

Universal, Unity-Gain Base Station and Marine Antenna for the 160 MHz Band

- This multi-purpose, omnidirectional, 0 dBd, rod-type base station and marine antenna covers the 160 MHz band in three models with 10 MHz overlap and can be used in a wide variety of applications.

DESCRIPTION

- The broad-banded ½ λ dipole antenna element is sealed in a high-quality conical glass fibre tube with low wind-load, which will ensure undisturbed performance by corrosive environments.
- Provided with the sturdy “LW” mast mount - a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.
- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- CXL 2-1LW/... is DC-grounded to substantially reduce noise caused by atmospherical discharges and consequently shows a DC-short across the coaxial cable.
- The CXL 2-1LW/... is a vibration-proof, lightweight, slim-line, corrosion-resistant, modern style base station and marine antenna.
- For extreme marine environments, it is recommended to use the CXL 150-1LW-SS-R/....

ORDERING DESIGNATIONS

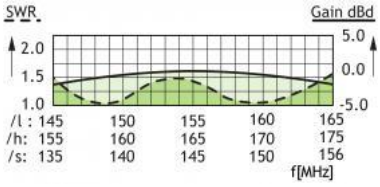
TYPE	PRODUCT NO.	FREQUENCY
CXL 2-1LW/s	110000296	138 - 156 MHz
CXL 2-1LW/l	110000082	146 - 165 MHz
CXL 2-1LW/h	110000080	155 - 175 MHz

SPECIFICATIONS

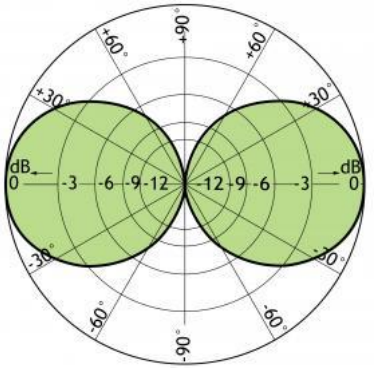
ELECTRICAL	
MODEL	CXL 2-1LW/...
ANTENNA TYPE	½ λ coaxial dipol, broad-banded
FREQUENCY	CXL 2-1LW/s: 138 - 156 MHz CXL 2-1LW/l: 146 - 165 MHz CXL 2-1LW/h: 155 - 175 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical

GAIN	2 dBi 0 dBd
BANDWIDTH	18 - 21 MHz depending on model
SWR	CXL 2-1/s: 138 - 156 MHz≤ 1.5 CXL 2-1/l: 146 - 163 MHz≤ 1.5 146 - 165 MHz≤ 1.75 CXL 2-1/h: 156 - 175 MHz≤ 1.5 155 - 175 MHz≤ 1.75
MAX. POWER	150 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	0.0172 m²
WIND LOAD	22 N @ 160 km/h
MAX WIND SPEED	200 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 1.3 m (Dep. on frequency)
DIA. IN TOP END	8 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 760 g
MOUNTING	On 16 to 54 mm dia. mast tube

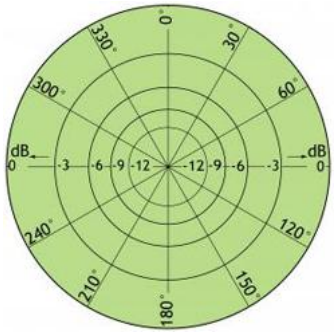
TYPICAL GAIN AND SWR CURVES



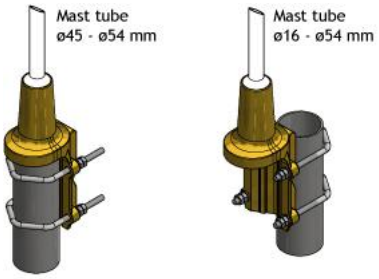
TYPICAL RADIATION PATTERN (E-PLANE)

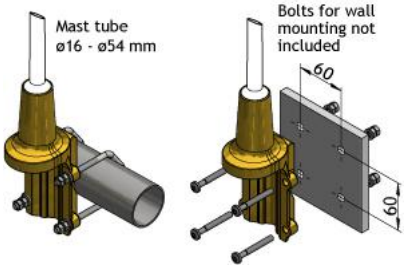


TYPICAL RADIATION PATTERN (H-PLANE)



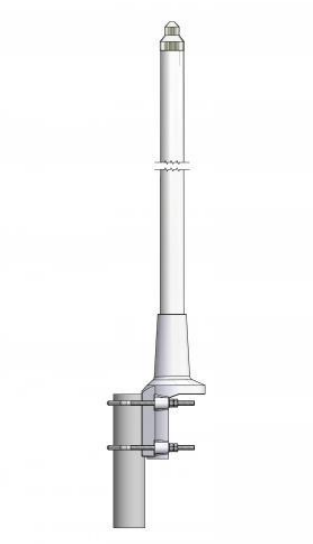
MULTI-PURPOSE MOUNTING BRACKET





PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.



CXL 2-1HD-PT

Sturdy, 0 dBd, Omnidirectional lightning protected Base Station Antenna for the 144 - 175 MHz Bands

- CXL 2-1HD-PT is 0 dBd, vertically polarized, omnidirectional base station antenna for the entire 2 m band.
- The antenna has been approved to withstand lightning (10/350 µs impulses/150 kA) according to EN 61643-11, VDE 0855-300 and VDE 0185-305-114 in FH-Kiel Laboratory in Germany.

DESCRIPTION

- The antenna is provided with our sturdy type “HD” mast mount - a heavy-duty, multipurpose mounting bracket made of non-corrosive aluminium. The accompanying U-bolts and fittings are made of stainless steel.
- The antenna can be mounted on mast tubes of 58 to 105 mm in outer diameter. Furthermore, the construction of the mount makes it possible to lead the cable either along the inside or on the outside of the mast tube.
- The antenna element is sealed in a high-quality, conical glass fibre tube with low wind load, ensuring undisturbed performance in all climates.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- Also available with UHF connector.

ORDERING DESIGNATIONS

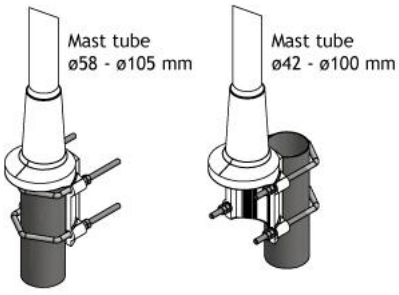
TYPE	FREQUENCY	PRODUCT NO.
CXL 2-1HD-PT	144 - 175 MHz	100000515
CXL 2-1HD-PT UHF	144 - 175 MHz	100000531

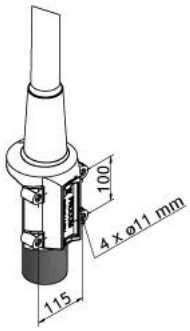
SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 2-1HD-PT
ANTENNA TYPE	½ λ coaxial dipole, broad-band
FREQUENCY	144 - 175 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi (0 dBd)
SWR	≤ 1.75

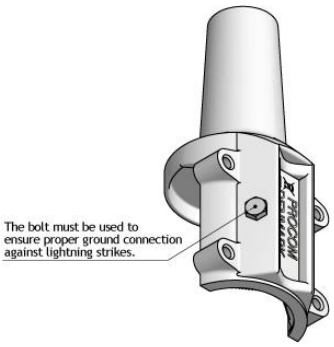
MAX. POWER	150 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	0.077 m² /0.83 ft²
WIND LOAD	90 N @ 160 km/h / 100 mph.
WIND VELOCITY	Tested to 200 km/h / 125 mph.
COLOUR	Marine white
MATERIALS	Radome: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, polyester-coated
TOTAL HEIGHT	Approx. 1.5 m / 59.06 in.
WEIGHT	Approx. 5.8 kg / 12.79 lb.
MOUNTING	On 58 - 105 mm / 2.28 - 4.13 in. dia. mast tube

MULTI-PURPOSE MOUNTING BRACKET

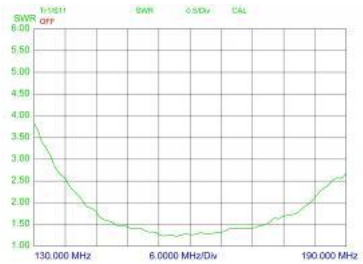




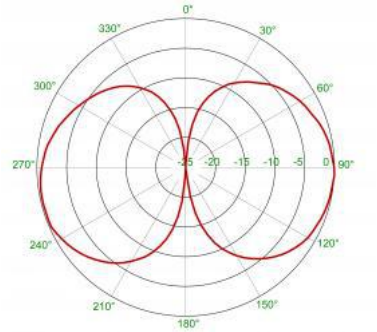
MOUNTING DESCRIPTION FOR GROUND CONNECTION



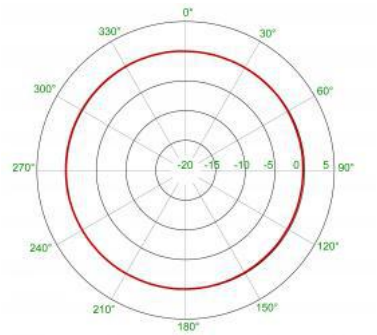
TYPICAL SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE),



G-CXL 900/1800/1900/UMTS/LW

Quadruple-Band Base Station and Marine Antenna for the 900 MHz, 1800 MHz, 1900 MHz and the 2000 MHz Bands. Designed for defence units

- Quadruple-band base station and marine antenna – four bands with only one antenna.
- Covering both GSM/NMT-900, DCS-1800/PCN (GSM 900/1800), PCS-1900 and UMTS.

Description

- Particularly suitable for use with triple-band mobile phones.
- Unity gain on all bands.
- Wide variety of accessory mounting brackets available.
- The carefully designed, broad-banded antenna element is sealed in a high-quality, conical glass fibre tube with low wind-load, which will ensure performance undisturbed by corrosive environments.
- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.
- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- The G-CXL 900/1800/UMTS/LW is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

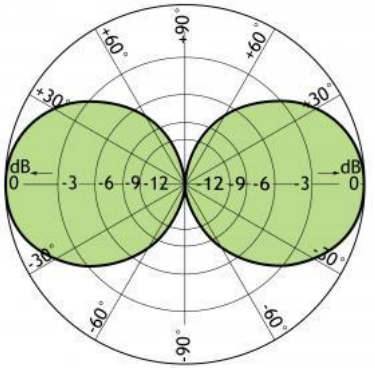
TYPE	PRODUCT NO.
G-CXL 900/1800/1900/UMTS/LW	110000231

SPECIFICATIONS

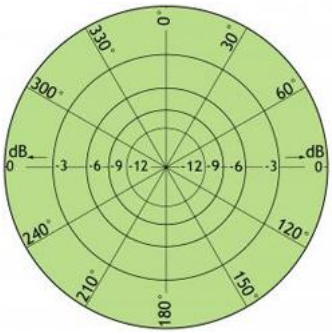
ELECTRICAL	
MODEL	G-CXL 900/1800/1900/UMTS/LW
ANTENNA TYPE	Quadruple-band base station and marine antenna
FREQUENCY	800 - 960 MHz/1710 - 1880 MHz/1850 - 1990 MHz 1900 - 2200 MHz (GSM 900/DCS-1800/PCS-1900/UMTS)
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	Approx. 0 dBi
SWR	GSM @ ≤ 2.0 DCS-1800 @ ≤ 2.0 PCS-1900 @ ≤ 3.0 UMTS @ ≤ 3.0
MAX. POWER	100 W

ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.018 m²
WIND LOAD	Approx. 23 N @ 160 km/h
MAX WIND SPEED	200 km/h
COLOUR	Green
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 500 mm
DIA. IN TOP END	21 mm
DIA. IN BOTTOM END	23 mm
WEIGHT	Approx. 600 g
MOUNTING	On 16 to 54 mm dia. mast tube

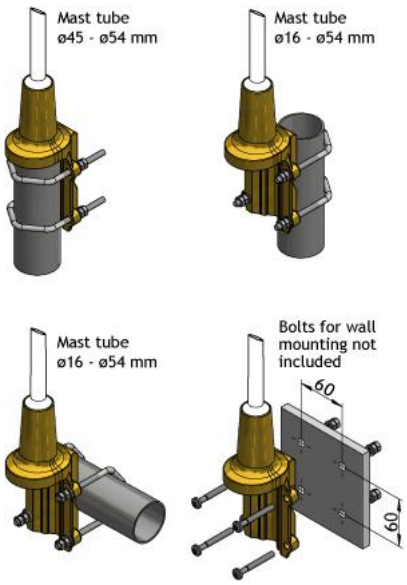
TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET


Mast tube
ø45 - ø54 mm
Mast tube
ø16 - ø54 mm
Mast tube
ø16 - ø54 mm
Bolts for wall
mounting not
included
60
60

CXL 2-1/...

Base Station and Marine VHF Antenna

- This base station and maritime VHF antenna is developed for use on board ships as well as on masts and thanks to the 1” revolving nut mounting system it can be mounted in the mast, in the auxilliary mast as well as on the cross-beam. By means of Procom’s flange mount it can also be mounted on deck or rooftop.

DESCRIPTION

- Bear in mind that the higher the antenna is mounted the better coverage.
- Avoid mounting the antenna parallel with and in the neighbourhood of other metal parts, such as mast, supporting wires etc. Free mounting and as high as possible is most preferable, otherwise the SWR and the radiation diagram will be influenced.
- The antenna is a ½ λ design and this means that it needs neither loading coils, ground-plane, radials nor other auxiliary arrangements.
- CXL 2-1/... can, without problems, operate with duplex radioes and on the semi-duplex channels, owing to the fact that it is broad-banded (see SWR diagram). In other words, CXL 2-1/... has a shipshape SWR on the RX-frequencies, which is just as important as it is for the TX-frequencies.
- Furthermore, the antenna is a grounded radiator antenna and therefore it shows a DC-short across the coaxial cable.
- A conical glass fibre tube completely encloses the carefully designed radiating element to assure long dependable service in all climates.

ORDERING DESIGNATIONS

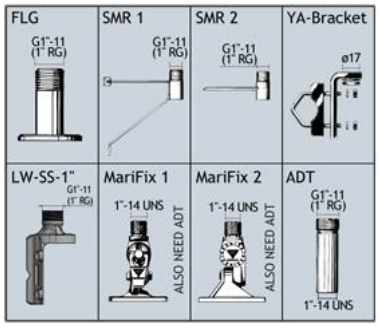
TYPE	PRODUCT NO.	FREQUENCY	CONNECTOR
CXL 2-1/s CXL 2-1/l CXL 2-1/h	110000297 110000119 110000123	138 - 156 MHz 146 - 165 MHz 155 - 175 MHz	"UHF"-female
CXL 2-1/s-N CXL 2-1/l-N CXL 2-1/h-N	110000298 110000121 110000124	138 - 156 MHz 146 - 165 MHz 155 - 175 MHz	"N"-female
CXL 2-1/s-TNC CXL 2-1/l-TNC CXL 2-1/h-TNC	110000299 110000118 110000126	138 - 156 MHz 146 - 165 MHz 155 - 175 MHz	"TNC"-female

SPECIFICATIONS

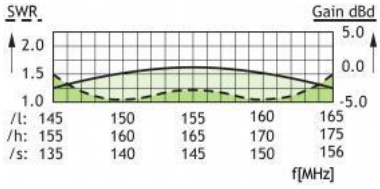
ELECTRICAL	
MODEL	CXL 2-1/...
ANTENNA TYPE	½ λ coaxial dipol, broad-banded
FREQUENCY	CXL 2-1/s: 138 - 156 MHz CXL 2-1/l: 146 - 165 MHz CXL 2-1/h: 155 - 175 MHz
IMPEDANCE	Nom. 50 Ω

RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	18 - 21 MHz depending on model
SWR	CXL 2-1/s: 138 - 156 MHz≤ 1.5 CXL 2-1/l: 146 - 163 MHz≤ 1.5 146 - 165 MHz≤ 1.75 CXL 2-1/h: 156 - 174 MHz≤ 1.5 155 - 175 MHz≤ 1.75
MAX. POWER	150 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	UHF-female (standard)
WIND SURFACE	0.018 m²
WIND LOAD	25 N @ 160 km/h
MAX. WIND SPEED	Tested to 200 km/h
IP RATING	IP 66
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 1.21 m
DIA. IN TOP END	8 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 300 g
MOUNTING	On 1” RG (G1” - 11) threaded water pipe or on optional mounting brackets (see accessories)

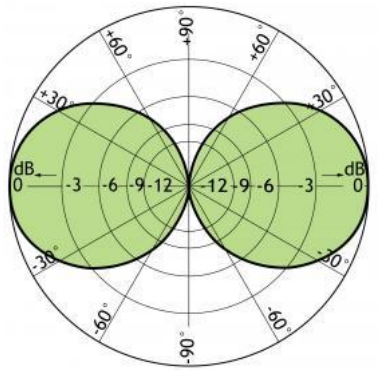
ACCESSORIES (to be ordered separately)



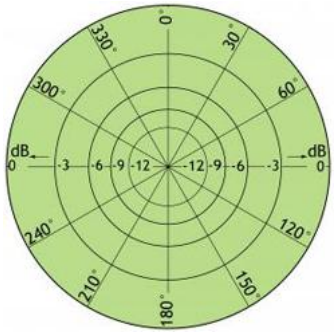
TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



G-CXL 70-1LW/...

Unity-Gain, Omnidirectional Base Station and Marine Antenna for the 450 MHz Band. Designed for defense units.

- G-CXL 70-1LW/... is a 0 dBd, vertically polarized, omnidirectional base station and marine antenna which covers the 450 MHz band in three models.
- The carefully designed, broadbanded ½ λ-dipole radiating element is made of brass tube and sealed in a high-quality conical glass fibre tube with low wind-load.

Description

- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.

ORDERING DESIGNATIONS

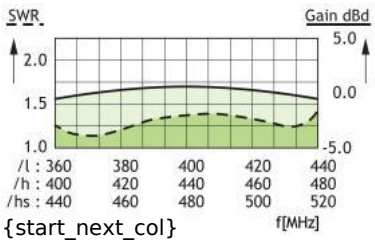
TYPE	PRODUCT NO.	FREQUENCY
G-CXL 70-1LW/l	100000269	380 - 430 MHz
G-CXL 70-1LW/h	100000270	420 - 470 MHz
G-CXL 70-1LW/hs	100000271	460 - 510 MHz

SPECIFICATIONS

ELECTRICAL	
MODEL	G-CXL 70-1LW/...
ANTENNA TYPE	½ λ coaxial dipole, broad-banded
FREQUENCY	
G-CXL 70-1LW/l :	380 - 430 MHz
G-CXL 70-1LW/h :	420 - 470 MHz
G-CXL 70-1LW/hs :	460 - 510 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	50 MHz
SWR	≤ 1.5
MAX. POWER	200 W
ANTISTATIC PROTECTION	All metal parts DC-grounded

	(Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-35°C → +70°C
CONNECTOR	N-female
WIND SURFACE	0.0192 m²
WIND LOAD	24 N @ 160 km/h
MAX. WIND SPEED	Tested to 200 km/h
IP RATING	IP 66
COLOUR	Green
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 680 mm
DIA. IN TOP END	12 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 650 g
MOUNTING	On 16 to 54 mm dia. mast tube

TYPICAL GAIN AND SWR CURVES



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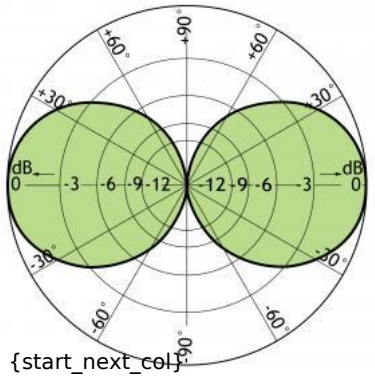
TYPICAL RADIATION PATTERN (E-PLANE)



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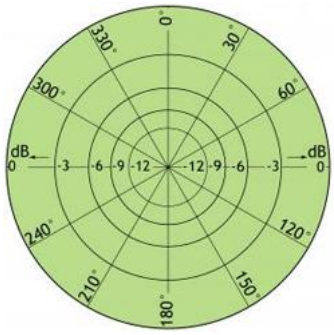
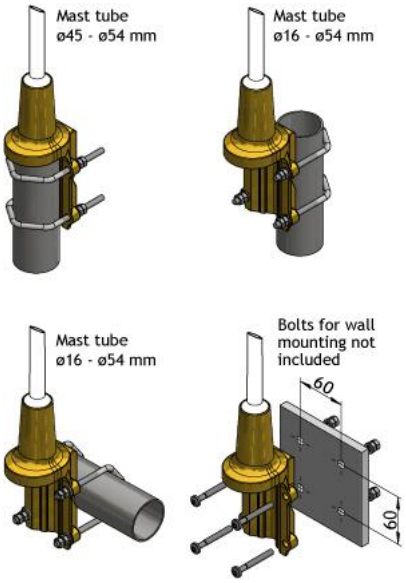
TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE BRACKET



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PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.

CXL 1800-8C/t-6

CXL 1800-8C/T-6 8 dBd Omnidirectional Base Station Antenna for the 1800 MHz Band with 6° electrical downtilt

- Vertically polarized, omnidirectional base station antenna.
- Approximately 8 dBd gain, in main slope.

DESCRIPTION

- Provided with the “C” mounting bracket – a universal fixation bracket made of epoxy-coated seawater resistant aluminium.
- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on mast tubes, 27 to 65 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- Highly suitable for duplex operation with large spacing between the TX and the RX frequencies, e.g. the DCS-1800/PCN cellular system.
- The antenna element is sealed in a high-quality, conical glass fibre tube.
- All metal parts in the antenna are DC-grounded to reduce the noise caused by atmospherical discharge. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 1800-8C/T-6 is a vibration-proof, slim-line, corrosion resistant, modern style base station antenna.

ORDERING DESIGNATIONS

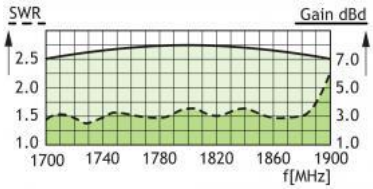
TYPE	PRODUCT NO.
CXL 1800-8C/T-6	100000308

SPECIFICATIONS

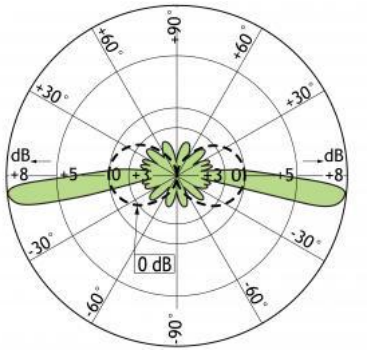
ELECTRICAL	
MODEL	CXL 1800-8C/T-6
ANTENNA TYPE	Coaxial, collinear antenna, broad-banded with 6° electrical downtilt
FREQUENCY	1710 – 1880 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN (MAIN SLOPE)	10 dBi 8 dBd
BANDWIDTH	Approx. ≥ 200 MHz @ SWR ≤ 1.75
SWR	≤ 1.75, typ. ≤ 1.5
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded

	(Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.04 m²
WIND LOAD	Approx. 51 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 1.5 m
DIA. IN TOP END	20 mm
DIA. IN BOTTOM END	23 mm
WEIGHT	Approx. 1.5 kg
MOUNTING	On 27–65 mm dia. mast tube

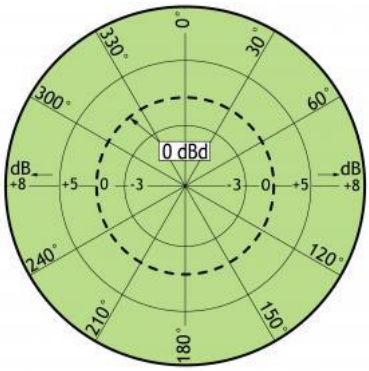
TYPICAL GAIN AND SWR CURVES



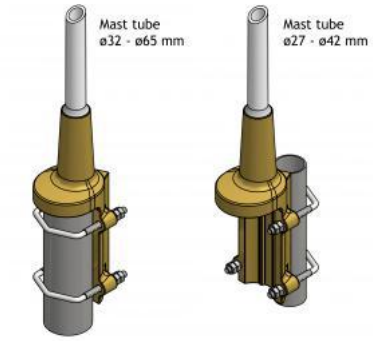
TYPICAL RADIATION PATTERN (E-PLANE)

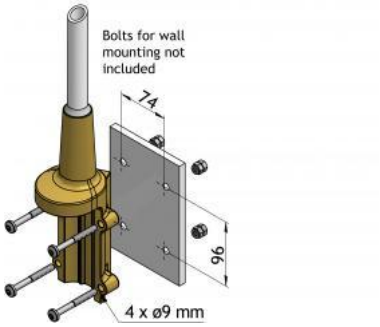


TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET





PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.

CXL 1800-3

3 dBd Omnidirectional Base Station and Marine Antenna for the 1800 MHz Band

- Vertically polarized, omnidirectional base station and marine antenna.
- Approximately 3 dBd gain.

DESCRIPTION

- Simple mounting using the 1” revolving nut system.
- Wide variety of accessory mounting brackets available.
- Large bandwidth with respect to both SWR and gain.
- Highly suitable for duplex operation with large spacing between the TX and the RX frequencies, e.g. the DCS-1800/PCN cellular system.
- The antenna element is sealed in a high-quality, conical glass fibre tube.
- All metal parts in the antenna are DC-grounded to reduce the noise caused by atmospherical discharge. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 1800-3 is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

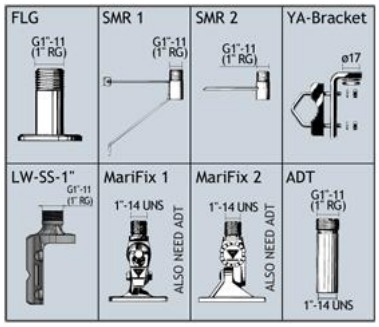
TYPE	PRODUCT NO.
CXL 1800-3	100000188

SPECIFICATIONS

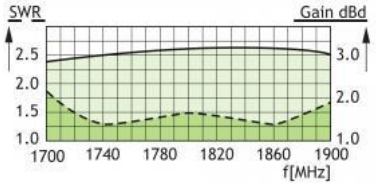
ELECTRICAL	
MODEL	CXL 1800-3
ANTENNA TYPE	Coaxial, collinear antenna, broad-banded
FREQUENCY	1710–1880 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd
BANDWIDTH	≥ 170 MHz @ SWR ≤ 2.0
SWR	≤ 2.0, typ. ≤ 1.75
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
HCM CODE	HCM000ND00, 015DE50

MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.009 m²
WIND LOAD	Approx. 11 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 630 mm
DIA. IN TOP END	12 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 350 g
MOUNTING	On 1” RG (G1”-11) threaded water pipe or on optional mounting brackets (see below)

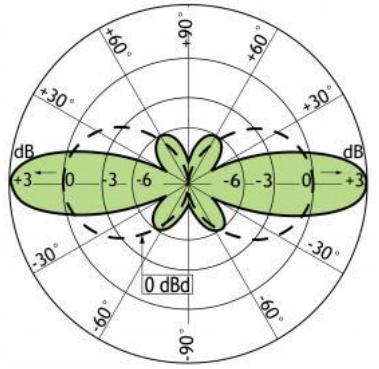
ACCESSORIES (to be ordered separately)



TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)


0°
30°
60°
120°
150°
180°
210°
240°
300°
330°
0 dBd
dB
+3
0
-3
-6
-6
-3
0
dB
+3

CXL 1800-1LW

Universal, 0 dBd Base Station and Marine Antenna for the 1800 MHz Band

- CXL 1800-1LW is a 0 dBd, vertically polarized, omnidirectional base station and marine antenna for the 1800 MHz band.
- The carefully designed, broad-banded antenna element is sealed in a high-quality, conical glass fibre tube with low wind-load, which will ensure performance undisturbed by corrosive environments.

DESCRIPTION

- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.
- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 1800-1LW is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

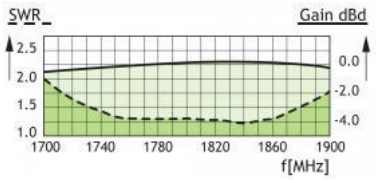
TYPE	PRODUCT NO.
CXL 1800-1LW	100000177

SPECIFICATIONS

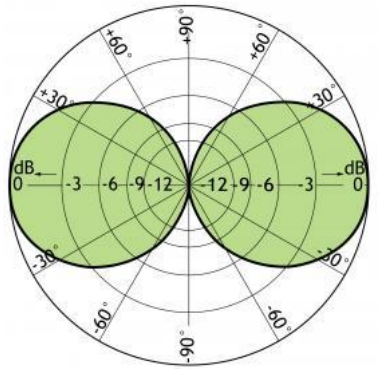
ELECTRICAL	
MODEL	CXL 1800-1LW
ANTENNA TYPE	½ λ coaxial dipole, broad-banded
FREQUENCY	1710 – 1880 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	≥ 170 MHz @ SWR ≤ 2.0
SWR	≤ 2.0
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)

HCM CODE	HCM000ND00, 040DE00
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.018 m²
WIND LOAD	23 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 490 mm
DIA. IN TOP END	14 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 500 g
MOUNTING	On 16 to 54 mm dia. mast tube

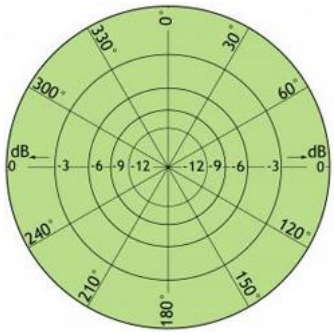
TYPICAL GAIN AND SWR CURVES



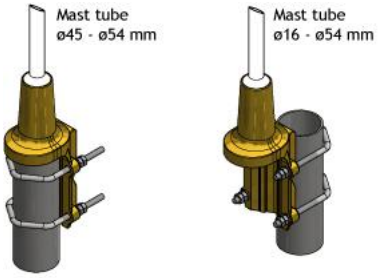
TYPICAL RADIATION PATTERN (E-PLANE)

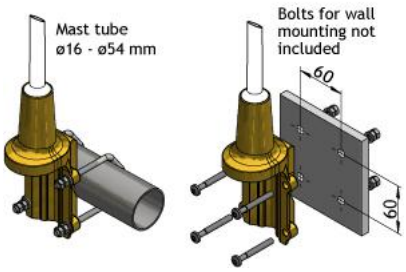


TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET





PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.

CXL 1800-1/DECT

Unity Gain Omnidirectional Base Station and Marine Antenna for the DECT

- Vertically polarized, omnidirectional base station and marine antenna.
- Approximately 0 dBd gain.

DESCRIPTION

- The CXL 1800-1/DECT is especially suitable for the DECT band.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- Simple mounting using the 1” revolving nut system.
- Wide variety of accessory mounting brackets available.

ORDERING DESIGNATIONS

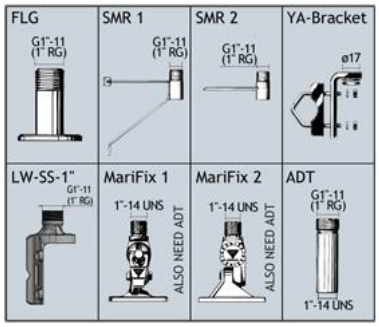
TYPE	PRODUCT NO.
CXL 1800-1/DECT	100000197

SPECIFICATIONS

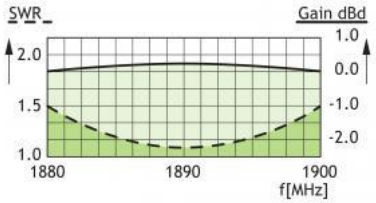
ELECTRICAL	
MODEL	CXL 1800-1/DECT
ANTENNA TYPE	Coaxial, collinear antenna
FREQUENCY	1880 - 1900 MHz (DECT)
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	≥ 20 MHz @ SWR ≤ 1.5
SWR	≤ 1.5
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female

WIND SURFACE	Approx. 0.007 m²
WIND LOAD	Approx. 23 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 420 mm
DIA. IN TOP END	13 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 250 g
MOUNTING	On 1” RG (G1”-11) threaded water pipe or on optional mounting brackets (see below)

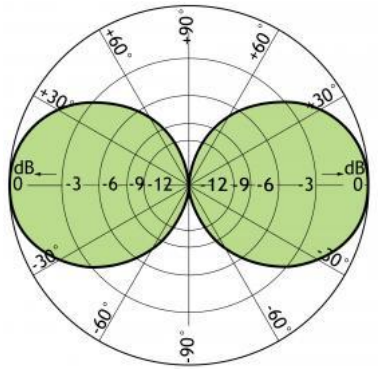
ACCESSORIES (to be ordered separately)



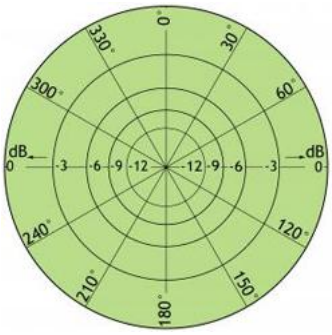
TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)


0°
30°
60°
120°
150°
180°
210°
240°
300°
330°
dB
0
-3
-6
-9
-12
-12
-9
-6
-3
dB
0

CXL 1800-1/...

Unity Gain Base Station and Marine 1800 MHz Antenna for Mounting on Threaded 1

- The CXL 1800-1/... is a 0 dBd, vertically polarized, omnidirectional rod-type base station and marine antenna for the 1800 MHz band.
- The 1” revolving nut mounting system is standard throughout the base station and marine sector, and several different mounting brackets are available, making it possible to install the antenna either on the masthead using FLG or SMR 2, side-mounted on the mast (SMR 1) or mounted on a cross-beam (FLG). Also, the antenna can be mounted on deck or rooftop by means of the FLG.

DESCRIPTION

- The CXL 1800-1/... is especially suitable for use in connection with 1800 MHz CELLULAR systems – as for instance the DCS-1800/PCN system – making it possible to extend the normally land-based cellular telephone system for maritime mobile service as well.
- The higher the antenna is mounted, the better coverage. Avoid mounting the antenna parallel to or in the neighbourhood of other metal parts, such as masts, supporting wires etc., otherwise the SWR and the radiation pattern may be strongly influenced.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- A conical glass fibre tube completely encloses the carefully designed radiating element to ensure long dependable service in all climates.

ORDERING DESIGNATIONS

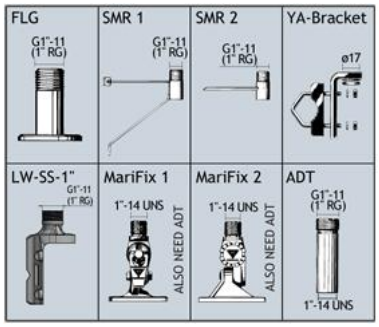
TYPE	PRODUCT NO.	FREQUENCY
CXL 1800-1/l	100000179	1710 – 1880 MHz
CXL 1800-1/h	100000181	1850 – 2000 MHz

SPECIFICATIONS

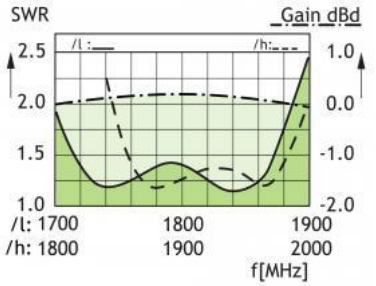
ELECTRICAL	
MODEL	CXL 1800-1/...
ANTENNA TYPE	½ λ coaxial dipole, broad-banded
FREQUENCY	l: 1710 – 1880 MHz h: 1850 – 2000 MHz
IMPEDANCE	Nom. 50 Ω
POLARISATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	≥ 170 MHz @ SWR ≤ 2.0
SWR	≤ 2.0
MAX. POWER	100 W
HCM CODE	HCM000ND00, 040DE00

MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.0070 m²
WIND LOAD	Approx. 9 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 420 mm
DIA. IN TOP END	13 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 250 g
MOUNTING	On 1” RG (G1”-11) threaded water pipe or on optional mounting brackets (see below)

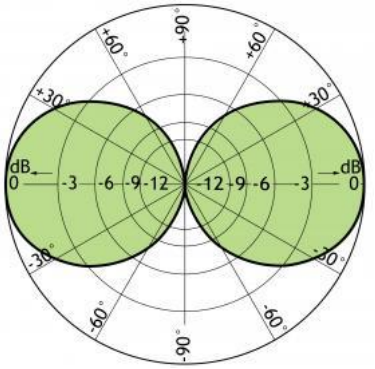
ACCESSORIES (to be ordered separately)



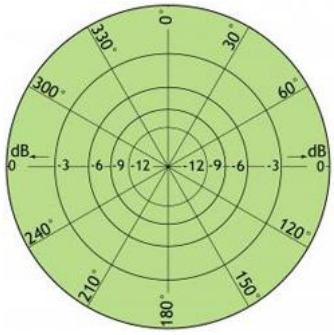
TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



CXL 175-400C

Unity Gain, Broad-Banded Base Station Antenna for 175 - 400 MHz

- CXL 175-400C is a 0 dBd gain, omnidirectional base station antenna.
- The antenna is extremely broad-banded and covers the complete band: 175 – 400 MHz.

DESCRIPTION

- CXL 175-400C is designed for fixation on supporting tubes with outer diameter between 27 mm and 65 mm.
- The construction of the mount makes it possible to lead the cable either inside or along the outside of the mast tube.
- A glass fibre tube completely encloses the carefully designed radiating element to ensure long dependable service in all climates.
- Atmospherical discharges are immediately led to ground as all metal parts are DC-grounded (consequently, the antenna shows a DC-short across the coaxial cable).
- This antenna is used where reliability is of utmost importance. A long lifetime has been taken into consideration when designing this antenna – it is sturdy and strong.

ORDERING DESIGNATIONS

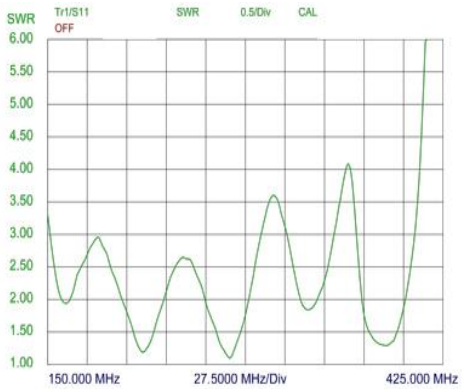
TYPE	PRODUCT NO.
CXL 175-400C	100000086

SPECIFICATIONS

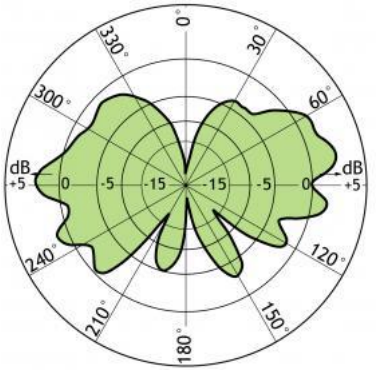
ELECTRICAL	
MODEL	CXL 175-400C
ANTENNA TYPE	Coaxial, broad-band dipole
FREQUENCY	Covering: 175 – 400 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	0 dBd ± 3 dB
BANDWIDTH	225 MHz
SWR	See curve
MAX. POWER	200 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	

CONNECTOR	N-female
WIND SURFACE	0.056 m²
WIND LOAD	71 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Radome : Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated
TOTAL HEIGHT	Approx. 1.0 m
WEIGHT	Approx. 3.0 kg
MOUNTING	On 27 - 65 mm dia. mast tube

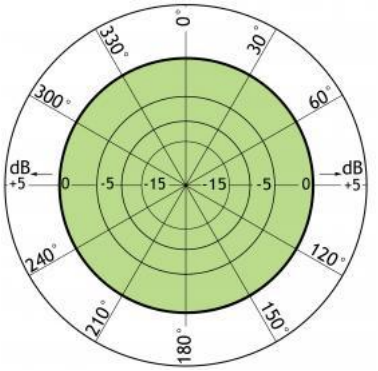
TYPICAL GAIN AND SWR CURVES



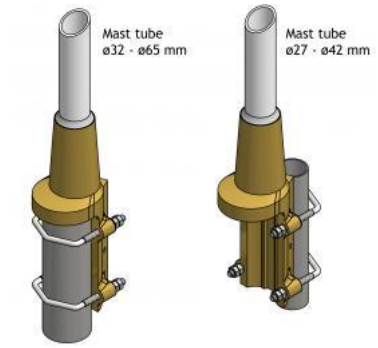
TYPICAL RADIATION PATTERN (E-PLANE)

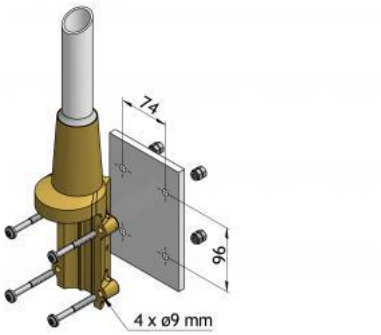


TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET





CXL 108-185C

0 dBi, Broad-Band Base Station and Marine Antenna for 108 - 185 MHz

- CXL 108-185C is a 0 dBi gain, omnidirectional base station and marine antenna.
- The antenna is extremely broad-banded and covers the complete band: 108 – 185 MHz.

DESCRIPTION

- CXL 108-185C is designed for fixation on supporting tubes with outer diameter between 27 mm and 65 mm.
- The construction of the mount makes it possible to lead the cable either inside or along the outside of the mast tube.
- A glass fibre tube completely encloses the carefully designed radiating element to ensure long dependable service in all climates.
- Atmospherical discharges are immediately led to ground as all metal parts are DC-grounded (consequently, the antenna shows a DC-short across the coaxial cable).
- This antenna is used where reliability is of utmost importance. A long lifetime has been taken into consideration when designing this antenna – it is sturdy and strong

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
CXL 108-185C	100000513

SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 108-185C
ANTENNA TYPE	Coaxial, broad-band dipole
FREQUENCY	Covering: 108 – 185 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	0 dBi (see gain curve)
BANDWIDTH	77 MHz
SWR	≤ 2.5
MAX. POWER	40 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)

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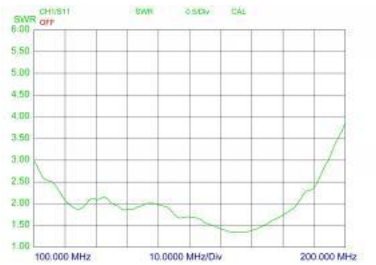
MECHANICAL	
TEMP. RANGE	-30° C → +70° C
CONNECTOR	N-female
WIND SURFACE	0.062 m² / 0.67 feet²
WIND LOAD	73 N @ 160 km/h / 99.42 mph.
MAX. WIND SPEED	200 km/h / 125 mph.
COLOUR	Marine white
MATERIALS	Radome : Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated
TOTAL HEIGHT	Approx. 1.64 m / 64.57 in.
WEIGHT	Approx. 3.5 kg / 7.72 lb.
MOUNTING	On 27 - 65 mm / 1.06 - 2.56 in. dia. mast tube

TYPICAL SWR CURVE



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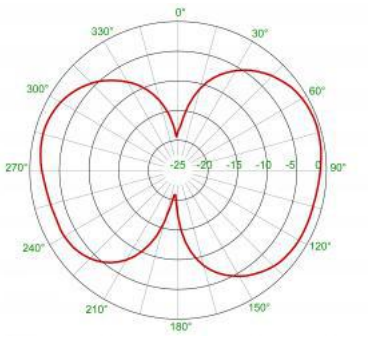
TYPICAL RADIATION PATTERN FOR 120 MHz (E-PLANE)



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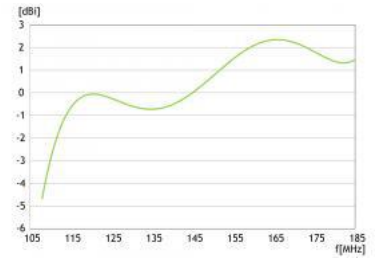
TYPICAL GAIN CURVE



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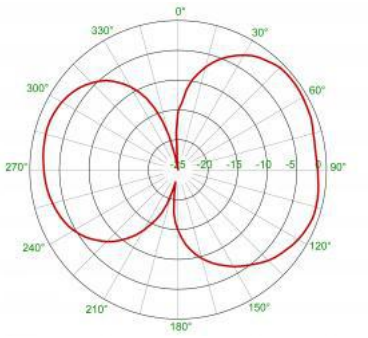
TYPICAL RADIATION PATTERN FOR 140 MHz (E-PLANE)



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TYPICAL RADIATION PATTERN FOR 144

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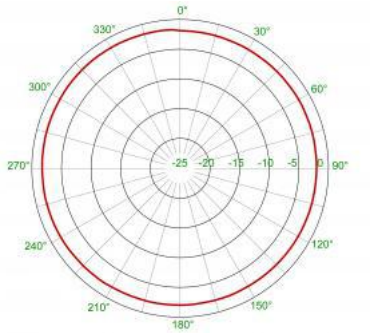
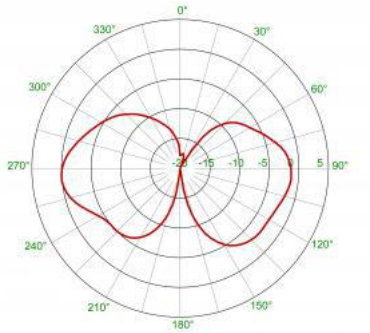
TYPICAL RADIATION PATTERN FOR 178

MHz (H-PLANE)



MHz (E-PLANE)



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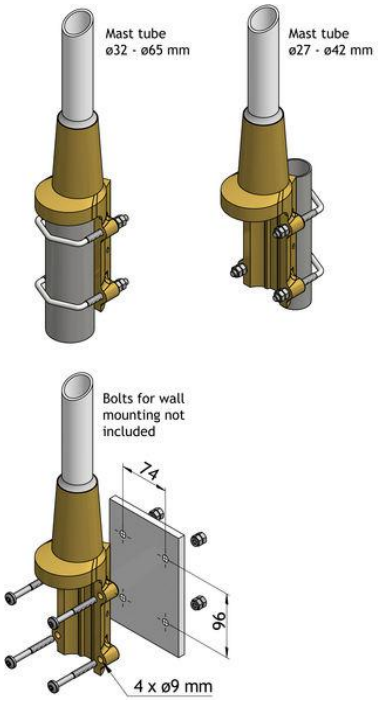
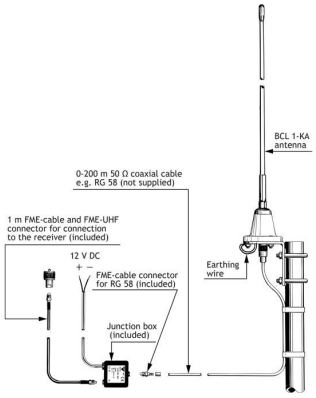
MULTI-PURPOSE MOUNTING BRACKET





BCL 1-KA

Active Receiving Antenna for 10 kHz - 110 MHz

- This active receiving antenna consists of a high-capacitance antenna element combined with an amplifier which is built into the antenna mount.
- The amplifier provides excellent impedance matching between the high-impedance antenna element and the 50 Ω downlead cable over an extremely wide bandwidth.

DESCRIPTION

- The sensitivity of the amplifier is optimized so that noise generated in the antenna and the receiver is always less than noise picked up by the antenna. The amplifier is protected against RF-overload and violent discharges and the large dynamic range ensures excellent cross and intermodulation properties.
- The earthing wire (see drawing) ensures a low loss connection to ground for RF-signals and thereby also prevents noise pick-up from noise fields running on the outside of the coaxial cable. As the earthing wire is AC-coupled, electrolytic corrosion is effectively prevented.
- The antenna is supplied with DC-power through the downlead 50 Ω coaxial cable by means of the included junction box which can be mounted in close vicinity to the receiving station. The junction box separates DC- and RF-signals and can advantageously be fed from the same DC-power supply as the receiver (if 12 V).
- The junction box is protected against accidental polarity reversal and it is filtered to avoid interference pick-up.
- The junction box is provided with FME-connectors for the antenna and the receiver ports. 1 m FME-cable and an FME-UHF connector is included for connecting the box to the receiver as well as an FME-crimp connector for the downlead cable (RG 58).
- The BCL 1-KA is designed to withstand the roughest of weather and climate conditions and it is perfectly suited also for marine purposes.
- The BCL 1-KA is supplied with the "SM-MA" mast mounting bracket.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
BCL 1-KA	110000108

SPECIFICATIONS

ELECTRICAL	
MODEL	BCL 1-KA
ANTENNA TYPE	Broadband active receiving antenna
FREQUENCY	10 kHz – 110 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical

HORIZ. COVERAGE	Omni-directional
ANTENNA FACTOR	Typ. 0.25 mV output in 50 Ω by a field strength of 1mV/m
1 dB COMPRESSION POINT	Typ. occurring at a field stength of 1.5 V/m
1 dB QUIETING	Typ. occurring at a field stength of 1 V/m form an interfering signal
CROSS MODULATION	40 dB cross modulation attenuation typically occurring at field strength of 0.7 V/m from an interfering source
INTERMODULATION	OIP_2 > 40 dBm OIP_3 > 27 dBm
AERIAL PROTECTION	Spark gap
SUPPLY VOLTAGE	12 V DC (9 – 14 V)
CURRENT CONSUMP.	Approx. 60 mA
MAX. INTENSITY OF RECEIVED FIELD	Distortion due to amplifier voltage limitation occurs at field intensities exceeding 1.5 V/m
MECHANICAL	
TEMP. RANGE	-30° C → +60° C
CONNECTOR, ANT.	UHF (for PL 259)
CONNECTORS, JUNCTION BOX	Antenna: FME-connector (M) RX: FME-connector (M)
CABLE/CONNECTOR	1 m FME-cable and FME-UHF included. FME-cable connector for RG 58 downlead cable included
WIND SURFACE	0.0259 m²
WIND LOAD	28.8 N @ 150 km/h
COLOUR	Marine white
MATERIALS	Shroud: Glass fibre and chromed brass MA housing: Lexan and chromed brass
TOTAL HEIGHT	Approx. 0.92 m (1.01 m incl. mounting bracket)
DIA. IN TOP END	7 mm
DIA. IN BOTTOM END	10 mm
WEIGHT	Approx. 600 g (800 g incl. mounting bracket)
MOUNTING	On 30 - 44 mm dia. mast tube or on a flat surface

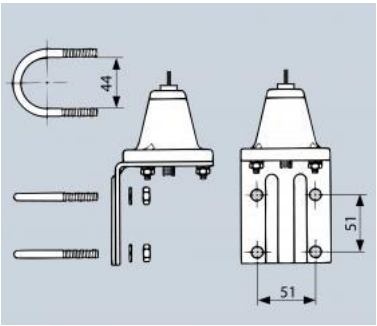
FME-SYSTEM ACCESSORIES

FME-CABLES	
TYPE	PRODUCT NO.
1 m FME	130000437
2 m FME	130000447
3 m FME	130000457
4 m FME	130000466
5 m FME	130000474

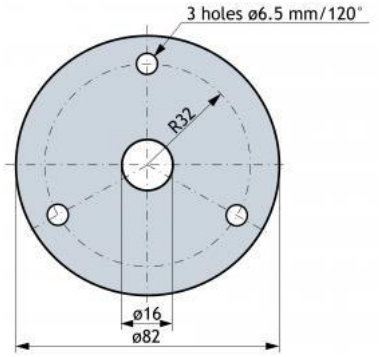
6 m FME	130000483
4 m FME-white	110000064
6 m FME-white	110000066
12 m FME-white	110000068
18 m FME-white	110000069
FME-CONNECTORS	
TYPE	PRODUCT NO.
FME-FME	130000583
FME-P (Prolongation)	130000565
FME-N	130000571
FME-FSMA (Female-SMA)	130000578
FME-BNC	130000566
FME-TNC	130000569
FME-UHF	130000572
FME-MUHF (Mini-UHF)	130000573
FME-EMUHF (Elbow-MUHF)	130000582
FME-EBNC (Elbow-BNC)	130000580
FME-ETNC (Elbow-TNC)	130000581
FME-SMA	130000577

For further information about other types of FME-cables and FME-connectors, please compare the cable and connector data sheets under accessories in our catalogue.

INSTALLATION DETAILS - USING SM-MA MOUNTING BRACKET



MOUNTING ON FLAT SURFACES



APPLICATION INFORMATION

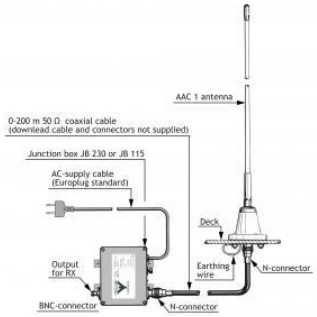
The BCL 1-KA active receiving antenna is especially suitable for receiving of broadcast radio stations in the long wave, medium wave, short wave and FM (88 -108 MHz) radio bands.

However, as the whole frequency range from 10 kHz to 110 MHz
is covered, the BCL 1-KA is also suitable as general purpose receiving antenna throughout the whole range.

Several advantages can be gained by using an active antenna instead of an ordinary wire antenna, especially in the lower frequency ranges. Firstly, the small physical size makes the active antenna much easier to install. Secondly, a wire antenna requires a matching unit which typically has narrow bandwidth, making retuning necessary when changing listening frequency.

The active wideband antenna BCL 1-KA is optimized throughout the whole covered frequency range. Thus, no tuning is required, making change of listening frequency much easier.

Considering that the active antenna yields signal to noise ratios and signal strengths normally only obtainable with much longer wire antennas, the BCL 1-KA makes a good choice, especially also with respect to economy.



AAC 1/...

Active Receiving Antenna for 10 kHz - 110 MHz for Communication Purposes

- This active receiving antenna has been designed for professional use and special emphasis has been placed on obtaining a large dynamic range with excellent cross and intermodulation properties, a low noise figure and a secure protection against RF-overload and violent nearby discharges.

DESCRIPTION

- The AAC 1/... can be used either where superb listening quality is required or where a high RF-density environment exists, as for instance in connection with MF and HF duplex operation onboard ships, where nearby transmitting antennas may cause excessive field strengths. For complete safety the antenna should, however, not be mounted closer than 15 metres from transmitting antennas.
- The antenna consists of a high-capacitance glass fibre antenna element and an amplifier built into the antenna mount. The amplifier provides the necessary impedance matching between the high-impedance antenna element and the 50 Ω downlead cable over an extremely wide bandwidth.
- The necessary supply voltage (12 – 15 V DC) for the amplifier is delivered through the downlead coaxial cable from the junction box
  with mains power supply, type JB 230 (230 VAC) or JB 115 (115 VAC),
  which separates DC and RF-signals. Up to 200 m of RG 213/U
  coaxial cable can be used between antenna and junction box
  with only minor degrading effects.
- The earthing wire (see drawing) ensures a low loss connection to ground for RF-signals, and thereby also prevents noise pick-up from the ship's installations running on the outside of the coaxial cable. As the earthing wire is AC-coupled, electrolytic corrosion is effectively prevented.
- By careful choice of materials, the AAC 1/... is designed to withstand the roughest of climate conditions, ensuring many years of trouble-free service.
- Extended amplifier frequency range makes it possible also to receive
  FM-radio (88 – 108 MHz).

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
AAC 1/JB 230	100000160
AAC 1/JB 115	100000438
Junction box JB 230	110000009
Junction box JB 115	110000264

ANTENNA SPECIFICATIONS

ELECTRICAL	
MODEL	AAC 1/...
ANTENNA TYPE	Broadband active receiving antenna for communication purposes
FREQUENCY	10 kHz – 110 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical

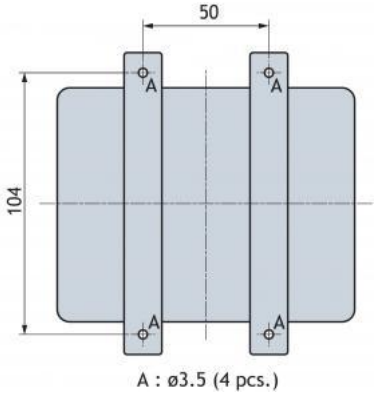
HORIZONTAL COVER.	Omni-directional
ANTENNA FACTOR	Typ. 0.25 mV output in 50 Ω by a field strength of 1 mV/m
1 dB COMPRESSION POINT	Typ. occurring at a field strength of 1.5 V/m
1 dB QUIETING	Typ. occurring at a field strength of 1 V/m from an interfering signal
CROSS MODULATION	40 dB cross modulation attenuation typically occurring at a field strength of 0.7 V/m from an interfering source
INTERMODULATION	OIP_2 > 40 dBm OIP_3 > 27 dBm
MAX. ALLOWED FIELD STRENGTH	90 V/m
AMPLIFIER PROTECTION	Spark gap
OPERATING VOLTAGE	12 – 15 V DC (with JB 230 or JB 115)
CURRENT CONSUMP.	Approx. 60 mA
MECHANICAL	
TEMP. RANGE	-30° C → +60° C
CONNECTOR	N-female
WIND SURFACE	0.0259 m²
WIND LOAD	28.8 N @ 150 km/h
COLOUR	Marine white
MATERIALS	Shroud: Glass fibre and chromed brass MA housing: Lexan amd chromed brass
TOTAL HEIGHT	Approx. 0.92 m / 36.22 in.
DIA. IN TOP END	7 mm / 0.28 in.
DIA. IN BOTTOM END	10 mm / 0.39 in.
WEIGHT	Approx. 600 g / 1.32 lb.
MOUNTING	On flat surfaces such as deck or roof or on 30 – 44 mm mast tube using accessory item “SM-MAS” (not included)

JUNCTION BOX / POWER SUPPLY

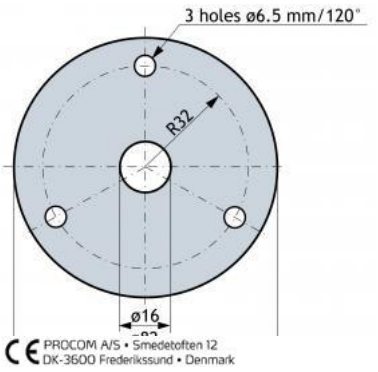
DETAILS	
MODELS	JB 230 (230 V) JB 115 (115 V)
SUPPLY VOLTAGE	230 V or 115 V AC, 50 – 60 Hz (please refer to ordering designations)
DC-VOLTAGE FOR ANTENNA	15 V unloaded, approx. 12 – 15 V with antenna
POWER CONSUMPTION	Approx. 7.5 W
TEMP. RANGE	-30° C → +60° C
CONNECTORS	In: N-female Out: BNC-female
“ON” INDICATOR	Red LED

FUSE	5 x 20 mm 50 mA/250 V Antisurge (JB 230) 100 mA/250 V Antisurge (JB 115)
SUPPLY CABLE	1.5 m, unterminated
MATERIAL	Aluminium
SURFACE TREATMENT	Light-grey vinyl painted
WEIGHT	Approx. 650 g / 1.43 lb.
DIMENSIONS (W x D x H)	120 x 130 x 59 mm / 4.72 x 5.12 x 2.32 in. (connectors included)

BOX INSTALLATION DETAILS



MOUNTING ON FLAT SURFACES



CXL VHF/GSM

2-Band Marine Antenna Covering Marine VHF and 900 MHz Cellular (GSM, NMT-900)

- Covers 155 – 162 MHz (marine VHF) and 890 – 960 MHz (GSM and NMT-900) with 0 dBd gain on both bands.
- Mounting using standard marine 1” revolving nut system.

DESCRIPTION

- The existing antenna can easily be replaced – the downlead cable may be reused.
- Saves space and weight in the masthead.
- Performs much better than two antennas (often mounted too close to each other – thereby reducing each other’s performance).
- Only one downlead cable necessary – saves additional weight. RG 213 recommended for lowest cable loss on both bands.
- Mount the antenna as high as possible and unobstructed by metal objects.
- Optional splitting filter (diplexer) type DIPX 225/330 available to connect the two radio telephones to the downlead cable.
- Wide range of accessory mounting brackets available (See accessories tab).

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
CXL VHF/GSM	110000127

SPECIFICATIONS

ELETRICAL	
MODEL	CXL VHF/GSM
ANTENNA TYPE	Dual-frequency coaxial antenna
FREQUENCY	Marine VHF: 155 – 162 MHz GSM/NMT: 890 – 960 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	Marine VHF: 2 dBi 0 dBd GSM/NMT: 2 dBi 0 dBd
SWR	≤ 2.5 @ 155 - 162 MHz ≤ 1.5 @ 890 - 930 MHz ≤ 2.5 @ 930 - 960 MHz
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded

	(Shows a DC-short at the connector)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
MATERIALS	Shroud: Polyurethane coated glass fibre Mounting bracket: Chromed brass
CONNECTOR	N-female
WIND SURFACE	Approx. 0.013 m²
WIND LOAD	Approx. 15 N @ 150 km/h
COLOUR	Marine white
TOTAL HEIGHT	Approx. 1.1 m
DIA. IN TOP END	8 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 400 g
MOUNTING	On 1” RG (G1”-11) threaded pipe or on optional mounting brackets (see below). Revolving nut enclosed

FME-SYSTEM ACCESSORIES

FME-CABLES	
TYPE	**PRODUCT NO.**
1 m FME	130000437
2 m FME	130000447
3 m FME	130000457
4 m FME	130000466
5 m FME	130000474
6 m FME	130000483
4 m FME-white	110000064
6 m FME-white	110000066
12 m FME-white	110000068
18 m FME-white	110000069
FME-CONNECTORS	
TYPE	**PRODUCT NO.**
FME-FME	130000583
FME-P (Prolongation)	130000565
FME-N	130000571
FME-FSMA (Female-SMA)	130000578

FME-BNC	130000566
FME-TNC	130000569
FME-UHF	130000572
FME-MUHF (Mini-UHF)	130000573
FME-EMUHF (Elbow-MUHF)	130000582
FME-EBNC (Elbow-BNC)	130000580
FME-ETNC (Elbow-TNC)	130000581
FME-SMA	130000577

For further information about other types of FME-cables and FME-connectors, please compare the cable and connector data sheets under accessories.

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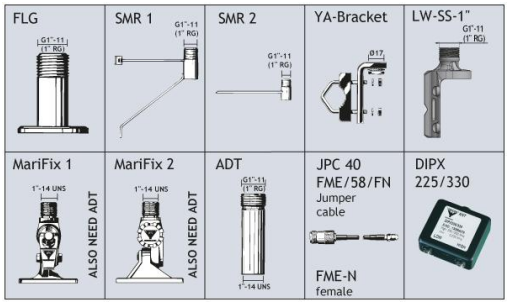
ACCESSORIES (To be ordered separately)



CXL 800-1/...

Unity Gain Base Station and Marine 800 MHz Antenna for Mounting on Threaded 1"

- The CXL 800-1/... is a 0 dBd, vertically polarized, omnidirectional rod-type base station and marine antenna which covers the 800-870 MHz band.
- The 1” revolving nut mounting system is standard throughout the base station or maritime sector, and several different mounting brackets are available, making it possible to install the antenna either on the masthead using FLG or SMR 2, side mounted on the mast (SMR 1) or mounted on a cross-beam (FLG). Also, the antenna can be mounted on deck or rooftop by means of the FLG.

DESCRIPTION

- CXL 800-1/... is especially suitable for use in connection with the LTE systems.
- The higher the antenna is mounted, the better coverage. Avoid mounting the antenna parallel with or in the neighbourhood of other metal parts, such as masts, supporting wires etc., otherwise the SWR and the radiation pattern may be strongly influenced.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- A conical glass fibre tube completely encloses the carefully designed radiating element to ensure long dependable service in all climates.

ORDERING DESIGNATIONS

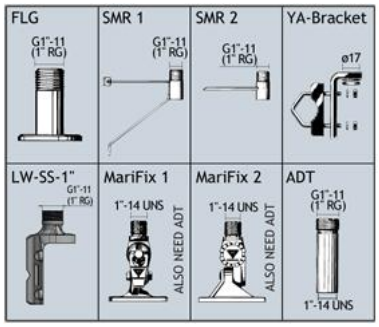
TYPE	PRODUCT NO.	FREQUENCY
CXL 800-1/I	100000687	800 – 870 MHz

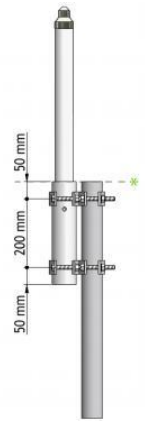
SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 800-1/...
ANTENNA TYPE	½ λ coaxial dipole, broad-banded
FREQUENCY	800 – 870 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	70 MHz
SWR	≤ 1.5
MAX. POWER	100 W
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.0070 m²

WIND LOAD	Approx. 9 N @ 160 km/h
MAX. WINDSPEED	200 km/h (125 mph)
COLOUR	Marine white (RAL 9010)
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 420 mm
DIA. IN TOP END	12 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 350 g
MOUNTING	On 1” RG (G1”-11) threaded water pipe or on optional mounting brackets (see below)

ACCESSORIES (to be ordered separately)





CXL 700-3SL

Collinear, 3 dBd Base Station Antenna for the 700 MHz Band

- CXL 700-3SL is a 3 dBd, vertically polarized, omnidirectional base station antenna covering the 746 – 807 MHz band.
- The antenna is designed especially for high power of max. 500 W.

DESCRIPTION

- The antenna is provided with our type "SL" (slim line) mast mount which is a multipurpose mounting tube made of non-corrosive aluminium. The accompanying clamp set and fittings are made of hot galvanized steel.
- CXL 700-3SL can be mounted on 33 to 70 mm dia. mast tubes.
- The carefully designed radiating element is sealed in a high-quality, conical glass fibre tube with low wind load ensuring performance undisturbed by corrosive environments.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- The exceptional mechanical capabilities of this antenna ensure long dependable service in all environments.

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* **The top of the mounting SL tube must be in alignment with the top of the mast.**

ORDERING DESIGNATIONS

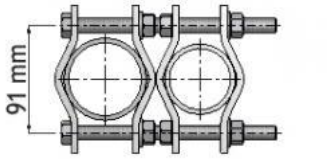
TYPE	FREQUENCY	PRODUCT NO.
CXL 700-3SL	746 – 807 MHz	100000475

SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 700-3SL
ANTENNA TYPE	Collinear, broad-band
FREQUENCY	746 - 807 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd
HALF POWER BEAMWIDTH	30°
BANDWIDTH	61 MHz
SWR	≤ 1.5

MAX. POWER	500 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
CONNECTOR	N-female
WIND SURFACE	0.033 m² / 0.36 ft²
WIND LOAD	38 N @ 160 km / 99.42 mph.
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater-resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 0.8 m / 31.5 in.
WEIGHT	Approx. 5.0 kg / 11.02 lb.
MOUNTING	On 33 - 70 mm / 1.3 – 2.76 in. dia. mast tube
ENVIRONMENTAL	
TEMP. RANGE	-30°C → +70°C

PROCOM CLAMP SET (INCLUDED)



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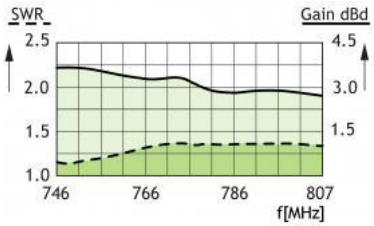
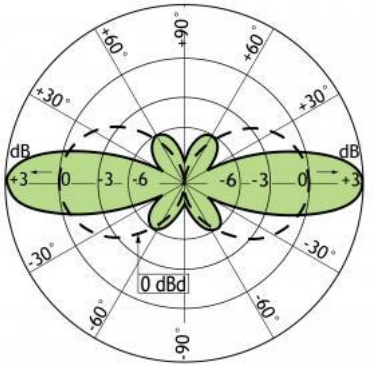
TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)

CXL TETRA/LTE 800C/...

Dual-band, Base Station Antenna for TETRA and LTE 800 Bands

- CXL TETRA/LTE 800C/... is a dual-band 0 dBd, vertically polarized, omnidirectional base station antenna - two bands with only one antenna.
- Great radiation performance for both bands.

DESCRIPTION

- This antenna makes it possible to:
  - operate TETRA and LTE 800 transceivers alternately on the same antenna.
  - operate two transceivers (TETRA and LTE 800) at the same time on one antenna using a diplexer (type PRO-DIPX 520/790-2700-7/16 - must be ordered separately).
- The antenna is provided with our “C” mast bracket, which is a universal, epoxy-coated mounting bracket made of non-corrosive aluminium. The accompanying U-bolts and fittings are made of stainless steel.
- The antenna can be mounted on 27 to 65 mm dia. mast tubes and it is possible to lead the cable either along the inside or on the outside of the mast tube.
- The antenna element is completely enclosed in a glass fibre shroud, which will ensure performance undisturbed by corrosive environments.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- This antenna is constructed to ensure long dependable service in all climates.

ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
CXL TETRA/LTE 800C/l	380 - 410 MHz / 790 - 850 MHz	100000558
CXL TETRA/LTE 800C/m	400 - 430 MHz / 790 - 850 MHz	100000546
ACCESSORIES		
PRO-DIPX 520/790-2700-N(f)		200002501
PRO-DIPX 520/790-2700-7/16(f)		200002445

SPECIFICATIONS

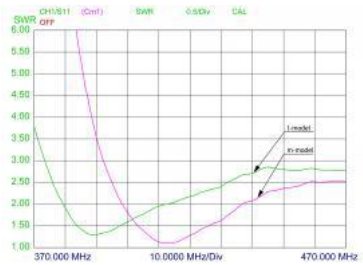
ELECTRICAL	
MODEL	CXL TETRA/LTE 800C/...
ANTENNA TYPE	Coaxial, dual-band base station antenna
FREQUENCY	TETRA: l : 380 - 410 MHz m : 400 - 430 MHz LTE 800: l : 790 - 850 MHz

	m : 790 - 850 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	Approx. 2 dBi 0 dBd
BANDWIDTH	TETRA: ≥ 30 MHz @ SWR 2.0 LTE 800: ≥ 60 MHz @ SWR 2.0
SWR	≤ 2.0
MAX. POWER	150 W (for each band)
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
HCM CODES	l: HCM000ND00, 030DE00 m: HCM000ND00, 040DE00
MECHANICAL	
TEMP. RANGE	-30° C → +70° C
CONNECTOR	N-female
WIND SURFACE	0.037 m² / 0.4 ft²
WIND LOAD	43 N @ 160 km/h / 99.42 mph.
MAX. WIND SPEED	200 km/h / 125 mph.
COLOUR	Marine white
MATERIALS	Radome : Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated
TOTAL HEIGHT	Approx. 0.95 m / 37.40 in.
WEIGHT	Approx. 2.2 kg / 4.85 lb.
MOUNTING	On 27 - 65 mm / 1.06 - 2.56 in. dia. mast tube

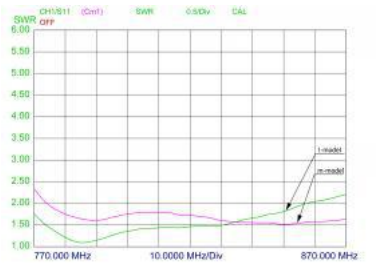
ORDERING

The antenna is delivered factory-tuned to two single frequencies or two frequency-bands. These two frequencies (stated in MHz) must be specified when ordering.

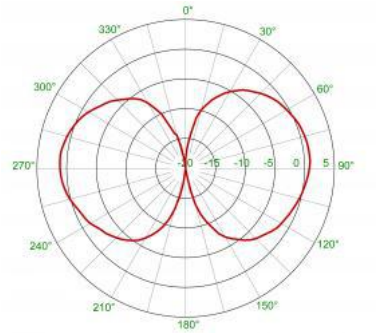
TYPICAL SWR CURVES FOR TETRA



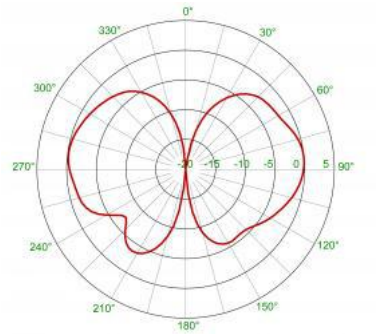
TYPICAL SWR CURVES FOR LTE



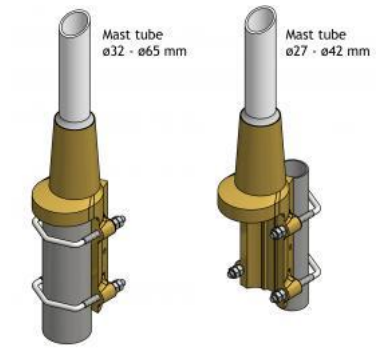
TYPICAL RADIATION PATTERN (E-PLANE) FOR TETRA

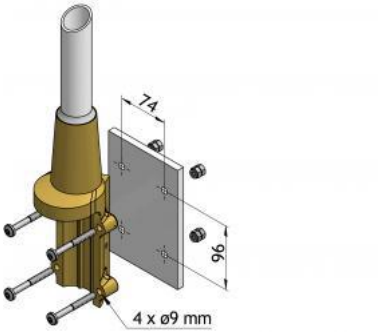


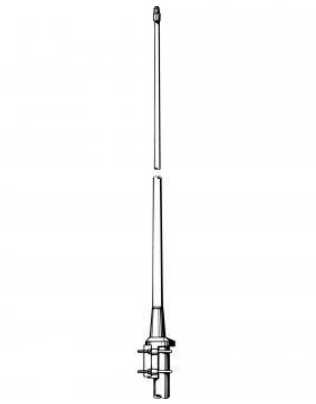
TYPICAL RADIATION PATTERN (E-PLANE) FOR LTE



MULTI-PURPOSE MOUNTING BRACKET







CXL 70-8HD/...-PT

Sturdy, 8 dBd, Omnidirectional Base Station Antenna for the 450 MHz Band

- CXL 70-8HD/...-PT is an 8 dBd, vertically polarized, omnidirectional base station antenna for the 450 MHz band.
- The antenna has a bandwidth of 20 MHz. Please specify centre frequency or duplex TX and RX when ordering.

DESCRIPTION

- The antenna has been approved to withstand lightning (10/350 µs impulses/100 kA) according to EN 61643-11, VDE 0855-300 and VDE 0185-305-114 in FH-Kiel Laboratory in Germany.
- The antenna is provided with our sturdy type “HD” mast mount, which is a heavy-duty, multipurpose mounting bracket made of non-corrosive aluminium. The accompanying U-bolts and fittings are made of stainless steel.
- The antenna can be mounted on mast tubes of 58 to 105 mm in outer diameter. Further, the construction of the mount makes it possible to lead the cable either along the inside or on the outside of the mast tube.
- In designing this antenna special emphasis has been laid on obtaining a large bandwidth both in relation to SWR and gain, making this antenna highly suitable for duplex operation with large spacing between the TX and RX frequencies. The phasing of the radiating elements is carefully adjusted to yield maximum gain in the horizontal plane, with the level of the sidelobes reduced to a minimum.
- The antenna element is sealed in a high-quality, conical glass fibre tube with low wind-load, which will ensure performance undisturbed in all climates.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- CXL 70-8HD/...-PT is a vibration-proof, slim-line, corrosion-resistant, modern style base station antenna.
- The CXL 70-8HD/... PT can be ordered on other frequencies on request.

ORDERING DESIGNATIONS

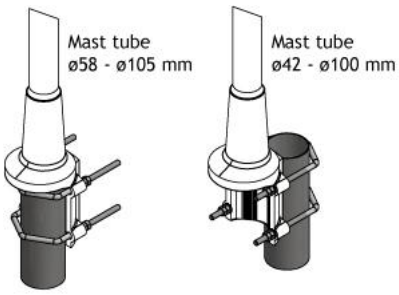
TYPE	FREQUENCY	PRODUCT NO.
CXL 70-8HD/l-PT	380 - 395 MHz	100000499
CXL 70-8HD/h-PT	410 - 430 MHz	100000500
CXL 70-8HD/lm-PT	425 - 445 MHz	100000501
CXL 70-8HD/hm-PT	440 - 460 MHz	100000502

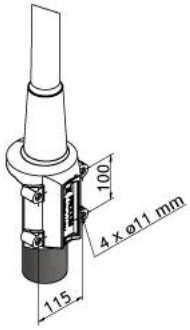
SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 70-8HD/...-PT
ANTENNA TYPE	High-gain collinear
FREQUENCY	20 MHz wide frequency segments within the 380 - 470 MHz range.
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional

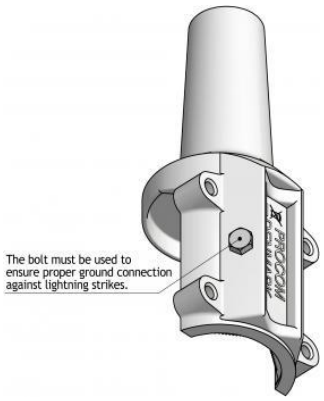
POLARIZATION	Vertical
GAIN	10 dBi 8 dBd
HALF POWER BEAMWIDTH	12°
BANDWIDTH	20 MHz
SWR	≤ 1.5
MAX. POWER	250 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	0.29 m² / 3.12 feet²
WIND LOAD	368 N @ 160 km/h / 86.39 mph.
WIND VELOCITY	Tested to 200 km/h / 124.27 mph.
COLOUR	Marine white
MATERIALS	Radome: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, polyester coated
TOTAL HEIGHT	Approx. 5.3 m / 208.66 in. (Dep. on frequency)
WEIGHT	Approx. 9 kg / 18.84 lb.
MOUNTING	On 58 - 105 mm / 2.28 - 4.13 in. dia. mast tube

MULTI-PURPOSE MOUNTING BRACKET





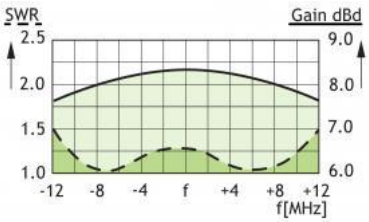
MOUNTING DESCRIPTION FOR GROUND CONNECTION



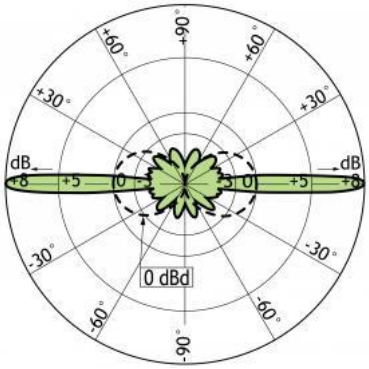
PLEASE NOTE

When using the CXL 70-8HD/...-PT at windy locations where wind speeds of more than (e.g. 150 km/h) can be expected, the antenna must be mounted on the side of the mast and the top section of the glass fibre tube stabilized with a bracket. For this purpose the Fixatid Bracket FB-HD/78 with the slideable side mounting Arms (SMC) can be used.

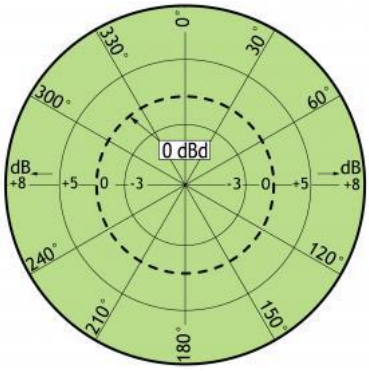
TYPICAL GAIN AND SWR CURVES

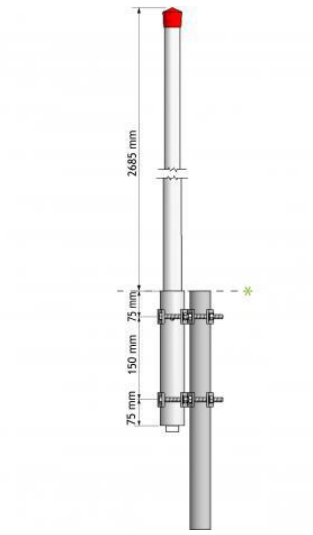


TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)





CXL TETRA-5SL

Sturdy, 5.4 dBd, Omnidirectional Base Station Antenna for the TETRA Bands

- CXL TETRA-5SL is a 5.4 dBd, vertically polarized, omnidirectional base station antenna for the TETRA bands.
- The antenna has a bandwidth of 20 MHz.

- The antenna is provided with our type "SL" (Slim Line) mast mount, which is a multipurpose mounting tube made of non-corrosive aluminium. The accompanying clamp set and fittings are made of hot galvanized steel.

- The antenna can be mounted on mast tubes of 33 to 70 mm in outer diameter.

Description

- The antenna element is sealed in a high-quality, cylindrical glass fibre tube with low wind-load, ensuring an undisturbed performance in all climates.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- CXL TETRA-5SL is a vibration-proof, slim-line, corrosion-resistant, modern style base station antenna.

ORDERING DESIGNATIONS

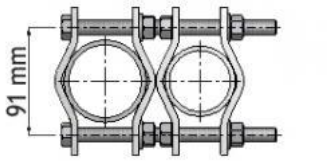
TYPE	PRODUCT NO.
CXL TETRA-5SL	100000464

SPECIFICATIONS

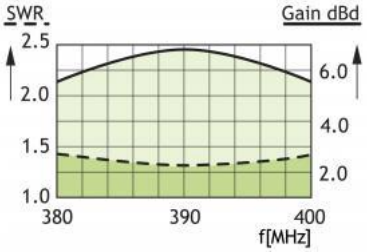
ELECTRICAL	
MODEL	CXL TETRA-5SL
ANTENNA TYPE	High-gain collinear
FREQUENCY	380 - 400 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	7.5 dBi (5.4 dBd)
HALF POWER BEAMWIDTH	15°
BANDWIDTH	20 MHz
SWR	≤ 1.5
MAX. POWER	250 W

ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	7/16 DIN female
WIND SURFACE	0.122 m²
WIND LOAD	143 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Radome: Polyurethane-coated glass fibre Procom clamp set: Hot galvanized steel
TOTAL HEIGHT	Approx. 3.0 m
WEIGHT	6.5 kg
MOUNTING	On 33 - 70 mm dia. mast tube

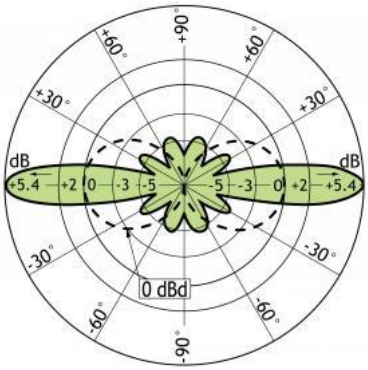
PROCOM CLAMP SET (INCLUDED)



TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)


0
30
60
120
150
180
210
240
300
330
0 dBd
dB
+5.4
+2
0
-3
-5
-5
-3
0
+2
dB
+5.4

CXL 900-6LW-NB/868 MHz

Lightweight, 6 dBd, Omnidirectional Base Station and Marine Antenna for the 900 MHz Band

- CXL 900-6LW-NB/868 MHz is a narrow-band 6 dBd, vertically polarized, omnidirectional base station and marine antenna.
- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.

DESCRIPTION

- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- The carefully designed radiating element is sealed in a high-quality, conical glass fibre tube with low wind-load, ensuring undisturbed performance in all climates.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 900-6LW-NB/868 MHz is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

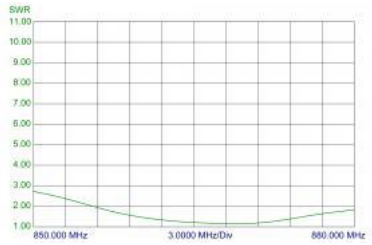
TYPE	PRODUCT NO.
CXL 900-6LW-NB/868 MHz	100000471

SPECIFICATIONS

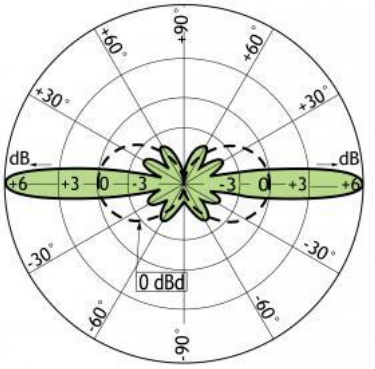
ELECTRICAL	
MODEL	CXL 900-6LW-NB/868 MHz
ANTENNA TYPE	Collinear, narrow-band
FREQUENCY	860 – 880 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	8 dBi 6 dBd
HALF POWER BEAMWIDTH	14°
BANDWIDTH	20 MHz
SWR	≤ 2.0 ≤ 1.5 @ centre frequency ±2 MHz
MAX. POWER	150 W
ANTISTATIC PROTECTION	All metal parts DC-grounded

	(Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.028 m² / 0.30 ft²
WIND LOAD	Approx. 35 N @ 160 km/h / 35 N @ 100 mph.
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	1.8 m / 70.87 in.
DIA. IN TOP END	20 mm / 0.79 in.
DIA. IN BOTTOM END	23 mm / 0.91 in.
WEIGHT	Approx. 1.1 kg / 2.43 lb.
MOUNTING	On 16 to 54 mm / 0.63 to 2.13 in. dia. mast tube

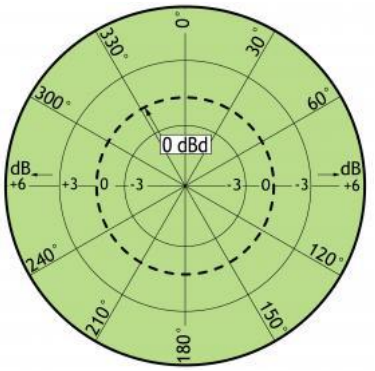
TYPICAL SWR CURVE



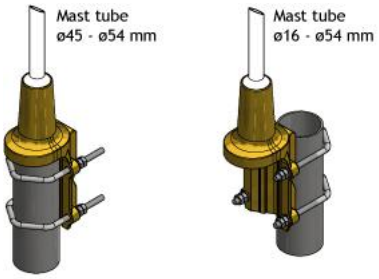
TYPICAL RADIATION PATTERN (E-PLANE)

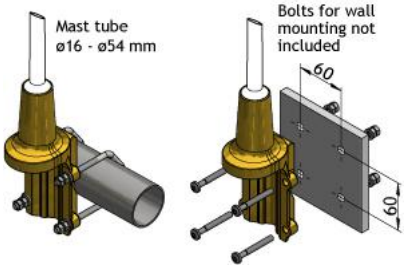


TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET





PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.

CXL 900-6LW/...

ightweight, 6 dBd, Omnidirectional Base Station and Marine Antenna for the 900 MHz Band

- CXL 900-6LW/... is a 6 dBd, vertically polarized, omnidirectional base station and marine antenna, covering the 900 MHz band in three models.
- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.

Description

- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- Highly suitable for duplex operation with large spacing between the TX and RX frequencies.
- The carefully designed radiating element is sealed in a high-quality, conical glass fibre tube with low wind-load, ensuring undisturbed performance in all climates.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 900-6LW/... is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

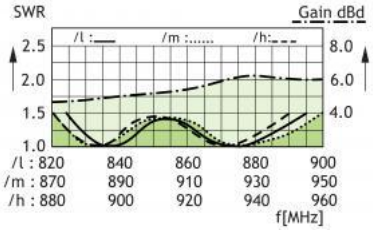
TYPE	FREQUENCY	PRODUCT NO.
CXL 900-6LW/l	824 – 894 MHz	100000139
CXL 900-6LW/m	870 – 950 MHz	100000138
CXL 900-6LW/h	890 – 960 MHz	100000137

SPECIFICATIONS

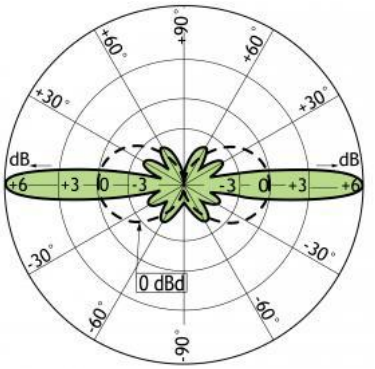
ELECTRICAL	
MODEL	CXL 900-6LW/...
ANTENNA TYPE	Collinear, broad-band
FREQUENCY	Models within 824 – 960 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	8 dBi 6 dBd
HALF POWER BEAMWIDTH	14°
BANDWIDTH	70 – 80 MHz

SWR	≤ 1.5
MAX. POWER	150 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.028 m²
WIND LOAD	Approx. 35 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	1.5 - 2.1 m (dep. on freq.)
DIA. IN TOP END	20 mm
DIA. IN BOTTOM END	23 mm
WEIGHT	Approx. 1.4 kg
MOUNTING	On 16 to 54 mm dia. mast tube

TYPICAL GAIN AND SWR CURVES

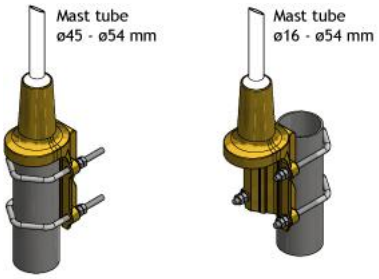


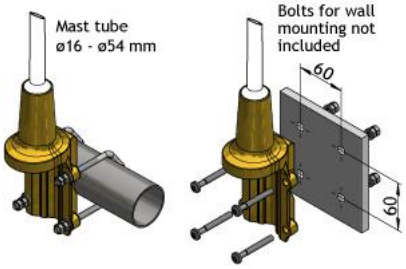
TYPICAL RADIATION PATTERN (E-PLANE)

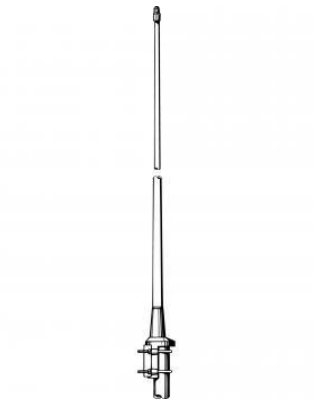


TYPICAL RADIATION PATTERN (H-PLANE)

MULTI-PURPOSE MOUNTING BRACKET







CXL 70-8HD/...

Sturdy, 8 dBd, Omnidirectional Base Station Antenna for the 450 MHz Band

- CXL 70-8HD/... is an 8 dBd, vertically polarized, omnidirectional base station antenna for the 450 MHz band.
- The antenna is provided with our sturdy type “HD” mast mount, which is a heavy-duty, multipurpose mounting bracket made of non-corrosive aluminium. The accompanying U-bolts and fittings are made of stainless steel.

DESCRIPTION

- The antenna can be mounted on mast tubes of 58 to 105 mm in outer diameter. Further, the construction of the mount makes it possible to lead the cable either along the inside oron the outside of the mast tube.
- In designing this antenna special emphasis has been laid on obtaining a large bandwidth both in relation to SWR and gain, making this antenna highly suitable for duplex operation with large spacing between the TX and RX frequencies. The phasing of the radiating elements is carefully adjusted to yield maximum gain in the horizontal plane, with the level of the sidelobes reduced to a minimum.
- The antenna element is sealed in a high-quality, conical glass fibre tube with low wind-load, which will ensure performance undisturbed in all climates.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- CXL 70-8HD/... is a vibration-proof, slim-line, corrosion-resistant, modern style base station antenna.
- The CXL 70-8HD/... can be ordered on other frequencies on request.

ORDERING DESIGNATIONS

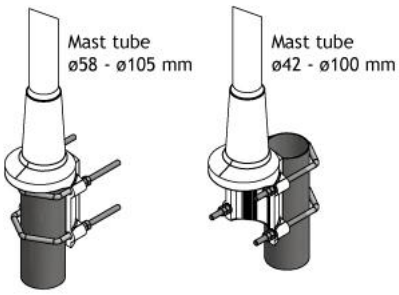
TYPE	FREQUENCY	PRODUCT NO.
CXL 70-8HD/s	360 - 380 MHz	100000537
CXL 70-8HD/f	380 - 400 MHz	100000516
CXL 70-8HD/l	400 - 420 MHz	100000538
CXL 70-8HD/lm	421 - 440 MHz	100000539
CXL 70-8HD/m	430 - 450 MHz	100000535
CXL 70-8HD/hm	439 - 457 MHz	100000540
CXL 70-8HD/h	451 - 470 MHz	100000507
CXL 70-8HD/hh	460 - 484 MHz	100000541

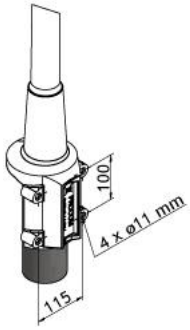
SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 70-8HD/...
ANTENNA TYPE	High-gain collinear
FREQUENCY	Models within the 360 - 484 MHz range.
IMPEDANCE	Nom. 50 Ω

RADIATION	Omnidirectional
POLARIZSATION	Vertical
GAIN	10 dBi 8 dBd
HALF POWER BEAMWIDTH	12°
BANDWIDTH	18 - 24 MHz dep. of models
SWR	≤ 1.5
MAX. POWER	250 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	0.29 m² /3.12 feet²
WIND LOAD	368 N @ 160 km/h / 86.39 mph.
COLOUR	Marine white
MATERIALS	Radome: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, polyester coated
TOTAL HEIGHT	Approx. 5.3 m / 208.66 in. (Dep. on frequency)
WEIGHT	Approx. 9 kg / 19.84 lb.
MOUNTING	On 58 - 105 mm / 2.28 - 4.13 in. dia. mast tube

MULTI-PURPOSE MOUNTING BRACKET





PLEASE NOTE

When using the CXL 70-8HD/... at windy locations where wind speeds of more than 150 km/h can be expected, the antenna must be mounted on the side of the mast and the top section of the glass fibre tube stabilized with a bracket.

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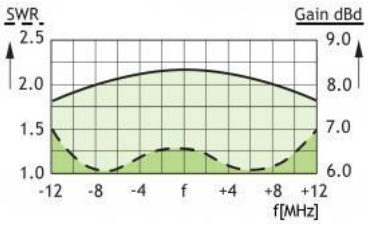
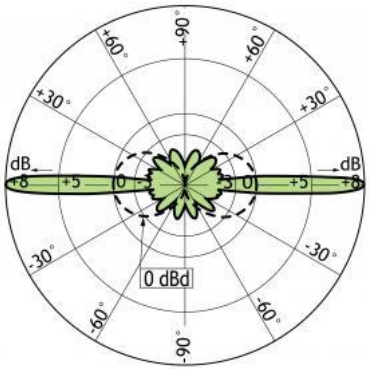
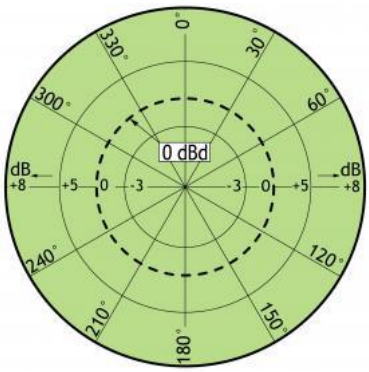
TYPICAL GAIN AND SWR CURVES

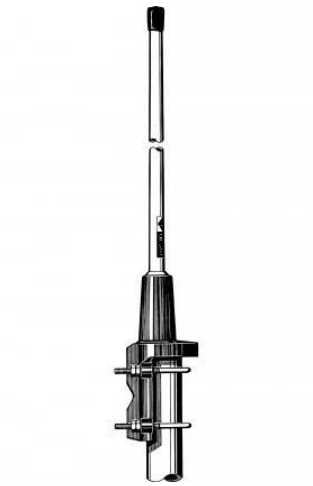


TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)





CXL 900-3LW-NB/868 MHz

Universal, 4 dBd Omnidirectional Base Station and Marine Antenna for the 900 MHz Band

- CXL 900-3LW-NB/868 MHz is a narrow-band 4 dBd, vertically polarized, omnidirectional base station and marine antenna.
- The phasing of the radiating elements is adjusted to yield maximum gain in the horizontal plane, with the level of the side lobes reduced to a minimum.

Description

- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.
- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 900-3LW-NB/868 MHz is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

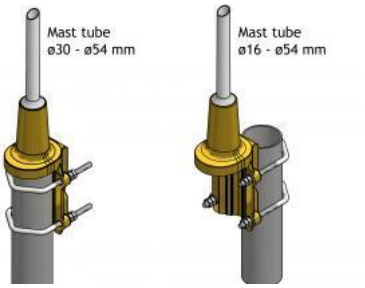
TYPE	PRODUCT NO.
CXL 900-3LW-NB/868 MHz	110000338

SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 900-3LW-NB/868 MHz
ANTENNA TYPE	Collinear, narrow-band
FREQUENCY	860 – 880 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	6 dBi 4 dBd
HALF POWER BEAMWIDTH	23°
BANDWIDTH	20 MHz

SWR	≤ 1.5 @ 868 MHz
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.035 m² / 0.38 ft^2
WIND LOAD	46 N @ 160 km/h / 46 N @ 100 mph.
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 1200 mm / 47.24 in.
DIA. TOP END	23 mm / 0.91 in.
DIA. BOTTOM END	23 mm/ 0.91 in.
WEIGHT	Approx. 900 g / 1.98 lb.
MOUNTING	On 16 to 54 mm dia. mast tube / 0.63 to 2.13 in. dia. mast tube

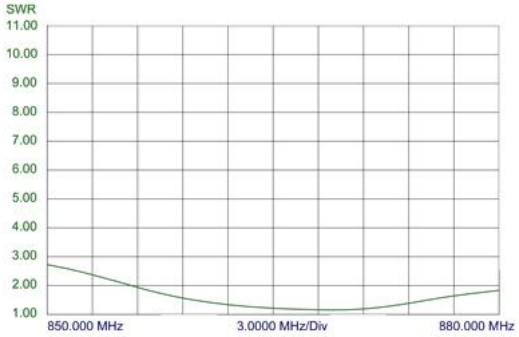
MULTI-PURPOSE MOUNTING BRACKET



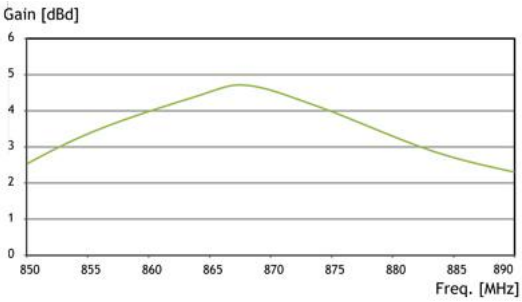
PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.

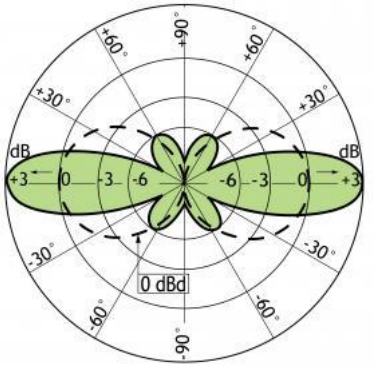
TYPICAL SWR CURVE



TYPICAL GAIN CURVE



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION (H-PLANE)

CXL 70-5SL/...

Sturdy, 5 dBd, Omnidirectional Base Station Antenna for the TETRA Band

- CXL 70-5SL/... is an 5 dBd, vertically polarized, omnidirectional base station antenna for the TETRA bands.
- The antenna has a band width of 20 MHz.

DESCRIPTION

- The antenna is provided with our type "SL" (Slim Line) mast mount, which is a multipurpose mounting tube made of non-corrosive aluminium. The accompanying clamp set and fittings are made of hot galvanized steel.
- The antenna can be mounted on mast tubes of 33 to 70 mm in outer diameter.
- The antenna element is sealed in a high-quality, conical glass fibre tube with low wind-load, which will ensure performance undisturbed in all climates.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- CXL 70-5SL/... is a vibration-proof, slim-line, corrosion-resistant, modern style base station antenna.

The top of the mounting SL tube must be in alignment with the top of the mast.

ORDERING DESIGNATIONS

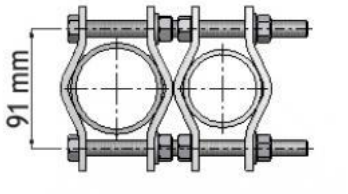
TYPE	PRODUCT NO.	FREQUENCY
CXL 70-5SL/l	100000326	380 - 400 MHz
CXL 70-5SL/h	100000327	410 - 430 MHz

SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 70-5SL/...
ANTENNA TYPE	High-gain collinear
FREQUENCY	380 - 400 MHz and 410 - 430 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	7 dBi 5 dBd
HALF POWER BEAMWIDTH	15°
BANDWIDTH	20 MHz
SWR	≤ 1.5

MAX. POWER	250 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
CONNECTOR	N-female
WIND SURFACE	0.21 m²
WIND LOAD	274 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Radome: Polyurethane-coated glass fibre Procom clamp set: Hot galvanized steel
TOTAL HEIGHT	Approx. 3.2 m
WEIGHT	Approx. 5.3 kg (8 kg incl. clamp set)
MOUNTING	On 33 - 70 mm dia. mast tube
ENVIRONMENTAL	
TEMP. RANGE	-30°C → +70°C

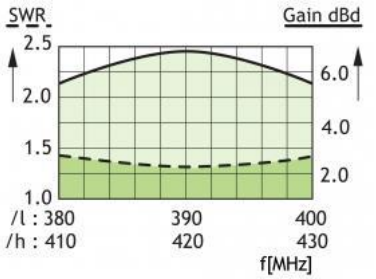
PROCOM CLAMP SET (INCLUDED)



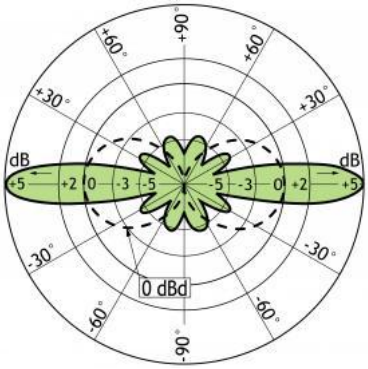
PLEASE NOTE

When using the CXL 70-5SL/... at windy locations where wind speeds of more than 150 km/h can be expected, the antenna must be mounted on the side of the mast and the top section of the glass fibre tube stabilized with a bracket.

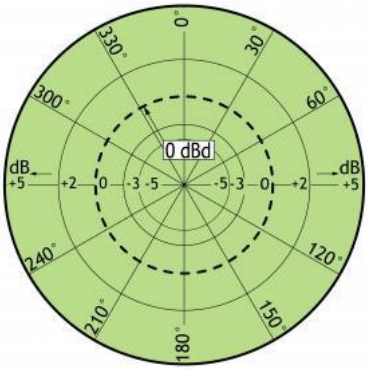
TYPICAL GAIN AND SWR CURVES

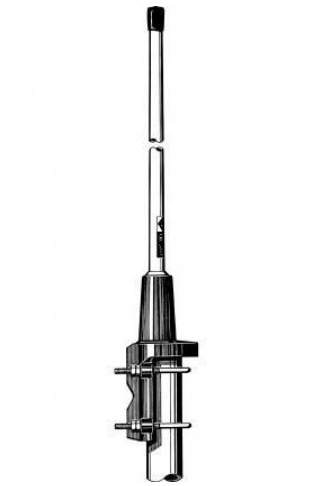


TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)





CXL 900-3LW/...

Universal, 3 dBd Base Station and Marine Antenna for the 900 MHz Band

- CXL 900-3LW/... is a 3 dBd, vertically polarized, omnidirectional rod-type base station and marine antenna which covers the 900 MHz band in three models.
- The carefully designed, broad-banded antenna element is sealed in a high-quality, conical glass fibre tube with low wind-load, which will ensure performance undisturbed by corrosive environments.

Description

- The phasing of the radiating elements is adjusted to yield maximum gain in the horizontal plane, with the level of the sidelobes reduced to a minimum.
- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.
- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 900-3LW/... is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

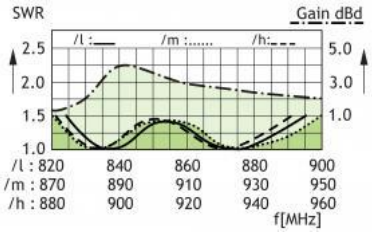
TYPE	PRODUCT NO.	FREQUENCY
CXL 900-3LW/l	110000106	824 – 894 MHz
CXL 900-3LW/m	110000107	870 – 950 MHz
CXL 900-3LW/h	110000105	890 – 960 MHz

SPECIFICATIONS

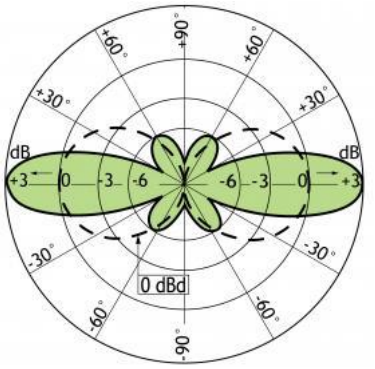
ELECTRICAL	
MODEL	CXL 900-3LW/...
ANTENNA TYPE	Collinear, broad-banded
FREQUENCY	Models within 824 – 960 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd

HALF POWER BEAMWIDTH	30°
BAND WIDTH	70 – 80 MHz
SWR	≤ 1.5
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.021 m²
WIND LOAD	27 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 700 mm (dep. on freq.)
DIA. IN TOP END	12 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 660 g
MOUNTING	On 16 to 54 mm dia. mast tube

TYPICAL GAIN AND SWR CURVES

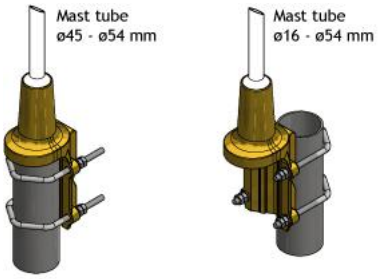


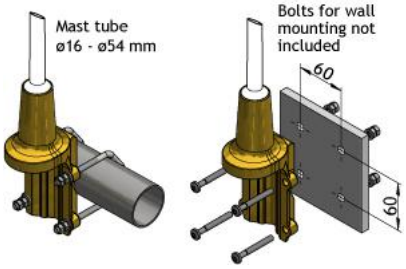
TYPICAL RADIATION PATTERN (E-PLANE)

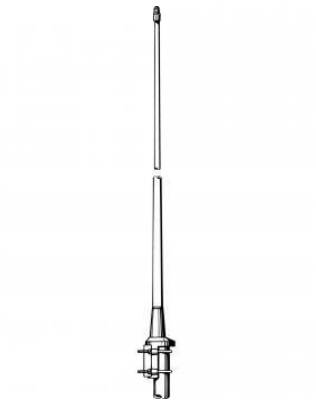


TYPICAL RADIATION PATTERN (H-PLANE)

MULTI-PURPOSE MOUNTING BRACKET







CXL 70-5HD/...-PT

Sturdy, 5 dBd, Omnidirectional Base Station Antenna for the TETRA Band

- CXL 70-5HD/...-PT is an 5 dBd, vertically polarized, omnidirectional base station antenna for the TETRA bands.
- The antenna has a band width of 20 MHz.

DESCRIPTION

- The antenna has been approved to withstand lightning (10/350 µs impulses/100 kA) according to EN 61643-11, VDE 0855-300 and VDE 0185-305-114 in FH-Kiel Laboratory in Germany.
- The antenna is provided with our sturdy type “HD” mast mount, which is a heavy-duty, multipurpose mounting bracket made of noncorrosive aluminium. The accompanying U-bolts and fittings are made of stainless steel.
- The antenna can be mounted on mast tubes of 58 to 105 mm in outer diameter. Further, the construction of the mount makes it possible to lead the cable either along the inside or on the outside of the mast tube.
- The antenna element is sealed in a high-quality, conical glass fibre tube with low wind-load, which will ensure performance undisturbed in all climates.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- CXL 70-5HD/...-PT is a vibration-proof, slim-line, corrosion-resistant, modern style base station antenna.

ORDERING DESIGNATIONS

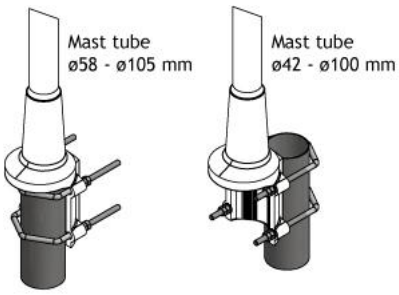
TYPE	FREQUENCY	PRODUCT NO.
CXL 70-5HD/l-PT	380 - 400 MHz	100000237
CXL 70-5HD/h-PT	410 - 430 MHz	100000232

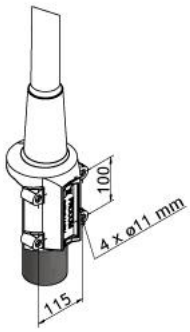
SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 70-5HD/...-PT
ANTENNA TYPE	High-gain collinear
FREQUENCY	380 - 400 MHz and 410 - 430 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	7 dBi 5 dBd
HALF POWER BEAMWIDTH	15°
BANDWIDTH	20 MHz

SWR	≤ 1.5
MAX. POWER	250 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	0.21 m²
WIND LOAD	274 N @ 160 km/h
WIND VELOCITY	Tested to 200 km/h
COLOUR	Marine white
MATERIALS	Radome: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, polyester coated
TOTAL HEIGHT	Approx. 3.2 m
WEIGHT	Approx. 6 kg
MOUNTING	On 58 - 105 mm dia. mast tube

MULTI-PURPOSE MOUNTING BRACKET



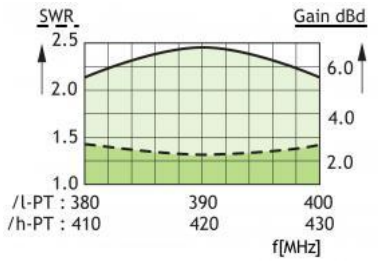


PLEASE NOTE

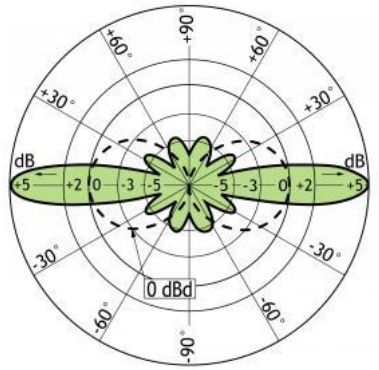
When using the CXL 70-5HD/...-PT at windy locations where wind speeds of more than 150 km/h can be expected, the antenna must be mounted on the side of the mast and the top section of the glass fibre tube stabilized with a bracket.

MOUNTING DESCRIPTION FOR GROUND CONNECTION

TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)

CXL 900-3/...

3 dBd Gain, Base Station and Marine 900 MHz Antenna for Mounting on Threaded 1” Water Pipe

- CXL 900-3/... is a 3 dBd, vertically polarized, omnidirectional rod-type base station and marine antenna which covers the 900 MHz band in four models.
- The 1” revolving nut mounting system is standard throughout the base station or maritime sector, and several different mounting brackets are available, making it possible to install the antenna either on the masthead using FLG or SMR 2, side-mounted on the mast (SMR 1), or mounted on a cross-beam (FLG). Also, the antenna can be mounted on deck or rooftop by means of the FLG. (See below).

Description

- CXL 900-3/... is especially suitable for use in connection with 900 MHz CELLULAR systems – making it possible to extend the normally land-based cellular telephone system for maritime mobile service as well.
- The phasing of the radiating elements is adjusted to yield maximum gain in the horizontal plane, with the level of the sidelobes reduced to a minimum.
- The higher the antenna is mounted, the better coverage. Avoid mounting the antenna parallel to or in the neighbourhood of other metal parts, such as masts, supporting wires etc., otherwise the SWR and the radiation pattern may be strongly influenced.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- A conical glass fibre tube completely encloses the carefully designed radiating element to ensure long dependable service in all climates.

ORDERING DESIGNATIONS

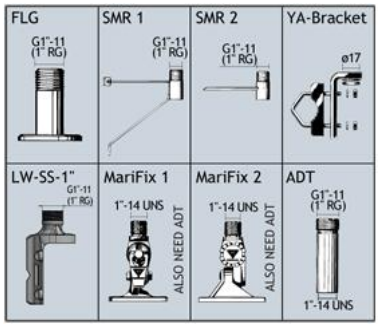
TYPE	PRODUCT NO.	FREQUENCY
CXL 900-3/ll	110000363	750 - 830 MHz
CXL 900-3/l	110000149	824 – 894 MHz
CXL 900-3/m	110000150	870 – 950 MHz
CXL 900-3/h	110000148	890 – 960 MHz

SPECIFICATIONS

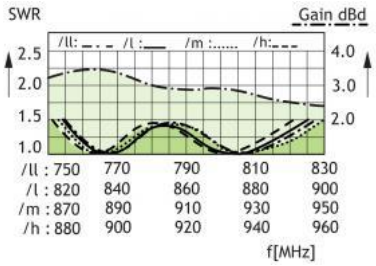
ELECTRICAL	
MODEL	CXL 900-3/...
ANTENNA TYPE	Collinear, broad-banded
FREQUENCY	Models within 750 – 960 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd
BAND WIDTH	70 - 80 MHz
SWR	≤ 1.5

MAX. POWER	100 W
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.0096 m²
WIND LOAD	12 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	h, m: Approx. 650 mm l : Approx. 670 mm
DIA. IN TOP END	12 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 380 g
MOUNTING	On 1” RG (G1”-11) threaded water pipe or on optional mounting brackets (see below)

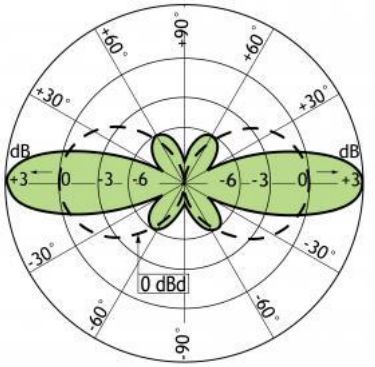
ACCESSORIES (to be ordered separately)



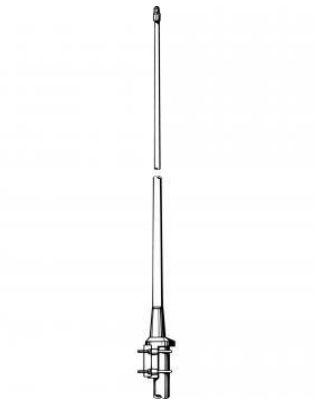
TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



CXL 70-5HD/...

Sturdy, 5 dBd, Omnidirectional Base Station Antenna for the TETRA Bands

- CXL 70-5HD/... is an 5 dBd, vertically polarized, omnidirectional base station antenna for the TETRA bands.
- The antenna has a band width of 20 MHz.

DESCRIPTION

- The antenna is provided with our sturdy type “HD” mast mount, which is a heavy-duty, multipurpose mounting bracket made of non-corrosive aluminium. The accompanying U-bolts and fittings are made of stainless steel.
- The antenna can be mounted on mast tubes of 58 to 105 mm in outer diameter. Further, the construction of the mount makes it possible to lead the cable either along the inside or on the outside of the mast tube.
- The antenna element is sealed in a high-quality, conical glass fibre tube with low wind-load, which will ensure performance undisturbed in all climates.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- CXL 70-5HD/... is a vibration-proof, slim-line, corrosion-resistant, modern style base station antenna.

ORDERING DESIGNATIONS

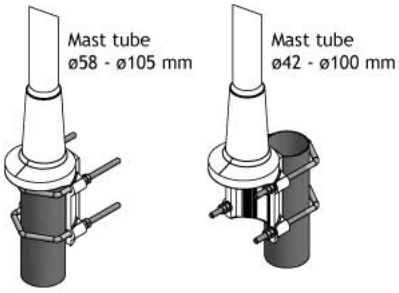
TYPE	PRODUCT NO.	FREQUENCY
CXL 70-5HD/l	100000124	380 - 400 MHz
CXL 70-5HD/h	100000235	410 - 430 MHz

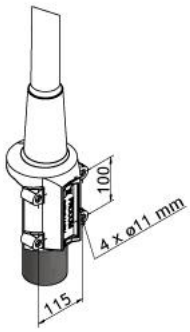
SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 70-5HD/...
ANTENNA TYPE	High-gain collinear
FREQUENCY	380 - 400 MHz and 410 - 430 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	7 dBi 5 dBd
HALF POWER BEAMWIDTH	15°
BANDWIDTH	20 MHz
SWR	≤ 1.5
MAX. POWER	250 W

ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	0.21 m²
WIND LOAD	274 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Radome: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, polyester coated
TOTAL HEIGHT	Approx. 3.2 m
WEIGHT	Approx. 6 kg
MOUNTING	On 58 - 105 mm dia. mast tube

MULTI-PURPOSE MOUNTING BRACKET

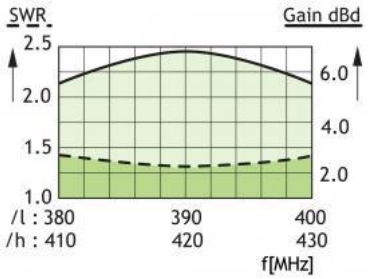




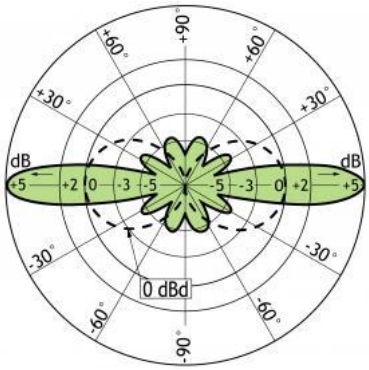
PLEASE NOTE

When using the CXL 70-5HD/... at windy locations where wind speeds of more than 150 km/h can be expected, the antenna must be mounted on the side of the mast and the top section of the glass fibre tube stabilized with a bracket.

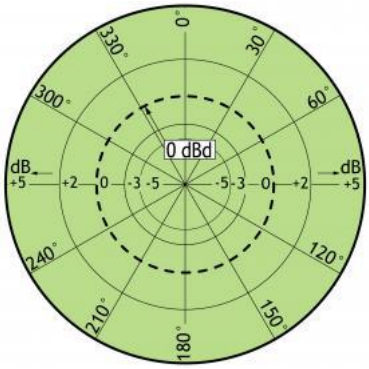
TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



CXL 900-1LW/...

Universal, 0 dBd Base Station and Marine Antenna for the 900 MHz Band

- CXL 900-1LW/... is a 0 dBd, vertically polarized, omnidirectional base station and marine antenna, which covers the 900 MHz band in three models.
- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.

Description

- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- The carefully designed, broad-banded antenna element is sealed in a high-quality, conical glass fibre tube with low wind-load, which will ensure performance undisturbed by corrosive environments.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 900-1LW/... is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

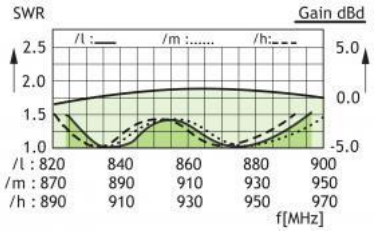
TYPE	PRODUCT NO.	FREQUENCY
CXL 900-1LW/l	110000103	824 – 894 MHz
CXL 900-1LW/m	110000102	870 – 950 MHz
CXL 900-1LW/h	110000098	890 – 960 MHz

SPECIFICATIONS

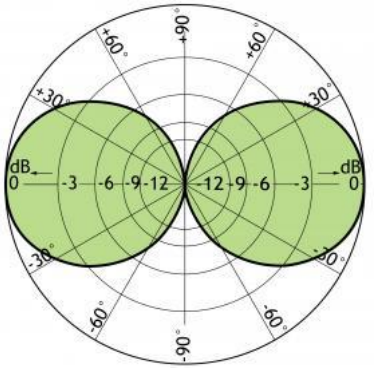
ELECTRICAL	
MODEL	CXL 900-1LW/...
ANTENNA TYPE	½ λ coaxial dipole, broad-banded
FREQUENCY	Models within 824 – 960 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	70 – 80 MHz
SWR	≤ 1.5
MAX. POWER	100 W

ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.018 m²
WIND LOAD	23 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 490 mm
DIA. IN TOP END	13 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 560 g
MOUNTING	**On 16 to 54 mm dia. mast tube**

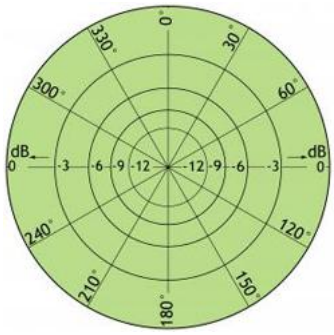
TYPICAL GAIN AND SWR CURVES



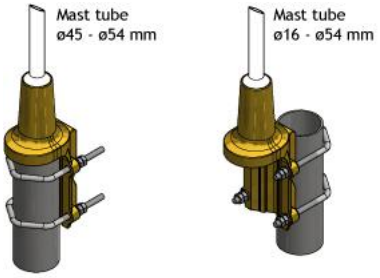
TYPICAL RADIATION PATTERN (E-PLANE)

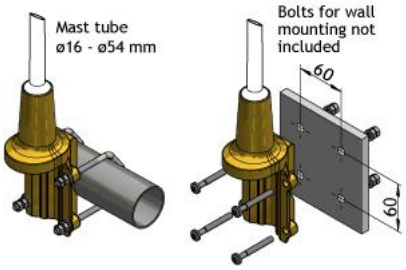


TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET





PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.

CXL 900/1800/1900/UMTS/LW

Quadruple-Band Base Station and Marine Antenna for the 900 MHz, 1800 MHz, 1900 MHz and the 2000 MHz Bands.

- Quadruple-Band base station and marine antenna – four bands with only one antenna.
- Covering both GSM/NMT-900, DCS-1800/PCN (GSM 900/1800), PCS-1900 and UMTS.

Description

- Particularly suitable for use with triple-band mobile phones.
- Unity gain on all bands.
- Wide variety of accessory mounting brackets available.
- The carefully designed, broad-banded antenna element is sealed in a high-quality, conical glass fibre tube with low wind-load, which will ensure performance undisturbed by corrosive environments.
- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 900/1800/1900/UMTS/LW is a vibration-proof, lightweight, slimline, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

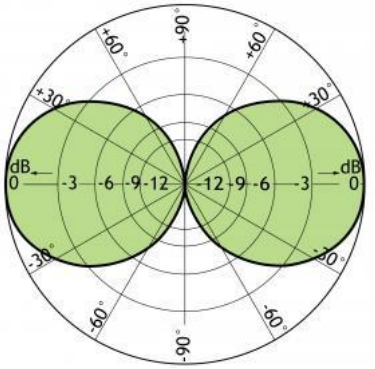
TYPE	PRODUCT NO.
CXL 900/1800/1900/UMTS/LW	110000229

SPECIFICATIONS

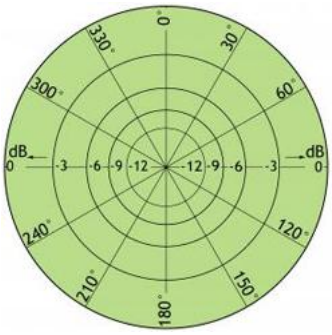
ELECTRICAL	
MODEL	CXL 900/1800/1900/UMTS/LW
ANTENNA TYPE	Quadruple-Band base station and marine antenna
FREQUENCY	800 - 960 MHz/1710 - 1880 MHz/ 1850 - 1990 MHz/1900 - 2200 MHz (GSM 900/DCS-1800/PCS-1900/UMTS)
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	Approx. 0 dBi
SWR	GSM @ ≤ 2.0 DCS-1800 @ ≤ 2.0 PCS-1900 @ ≤ 3.0 UMTS @ ≤ 3.0
MAX. POWER	100 W

ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.018 m²
WIND LOAD	Approx. 23 N @ 160 km/h
MAX WIND SPEED	200 Km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 500 mm
DIA. IN TOP END	21 mm
DIA. IN BOTTOM END	23 mm
WEIGHT	Approx. 600 g
MOUNTING	On 16 to 54 mm dia. mast tube

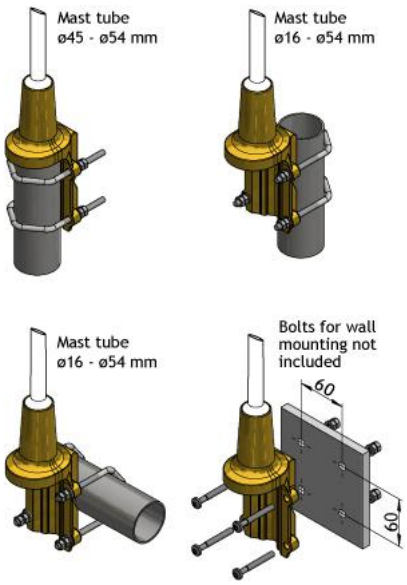
TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET


Mast tube
ø45 - ø54 mm
Mast tube
ø16 - ø54 mm
Mast tube
ø16 - ø54 mm
Bolts for wall
mounting not
included
60
60

CXL 70-5C/T-8/...-PT

Sturdy, 5 dBd, Omnidirectional Base Station Antenna with 8 degrees electrical downtilt for the TETRA Bands

- CXL 70-5C/T-8/...-PT is an 5 dBd, vertically polarized, omnidirectional base station antenna for the TETRA bands.
- The antenna has a bandwidth of 20 MHz.

DESCRIPTION

- The antenna has been approved to withstand lightning of max. (10/350 µs impulses/200 kA) according to DIN EN 62475 in FH-Kiel Laboratory in Germany.
- The antenna is provided with our “C” universal fixation bracket made of epoxy-coated, seawater resistant aluminium. The accompanying U-bolts and fittings are made of stainless steel.
- CXL 70-5C/T-8/...-PT can be mounted on 27 to 65 mm dia. mast tubes, and it is possible to lead the cable either along the inside or on the outside of the mast tube.
- The antenna element is sealed in a high-quality, cylindrical glass fibre tube with low wind-load, which will ensure performance undisturbed in all climates.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- The exceptional mechanical capabilities of this antenna ensure long dependable service in all environments.

ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
CXL 70-5C/T-8/h-PT	410 – 430 MHz	100000521

SPECIFICATIONS

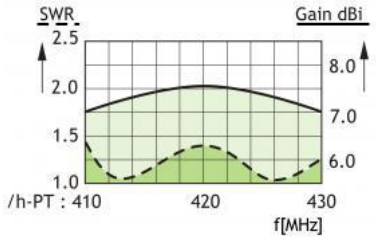
ELECTRICAL	
MODEL	CXL 70-5C/T-8/...-PT
ANTENNA TYPE	High-gain collinear
FREQUENCY	410 - 430 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	7 dBi (5 dBd)
ELECTRICAL TILT *	8°

HALF POWER BEAMWIDTH	14°
BANDWIDTH	20 MHz
SWR	≤ 1.5
MAX. POWER	250 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	0.14 m² / 1.51 ft²
WIND LOAD	168 N @ 160 km/h / 99.45 mph.
COLOUR	Marine white
MATERIALS	Radome: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy coated
TOTAL HEIGHT	3.2 m / 125.98 in.
WEIGHT	Approx. 4.3 kg / 9.48 lb.
MOUNTING	On 27 - 65 mm / 1.06 - 2.56 in. dia. mast tube

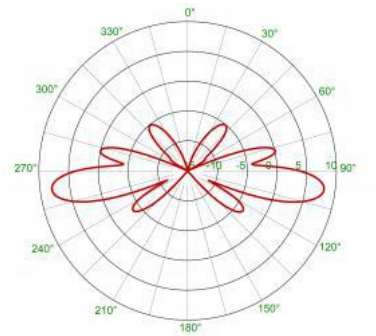
*The average gain is 7 dBi within the frequency band for 8° electrical downtilt.

Other frequency bands and electrical downtilt available on request.

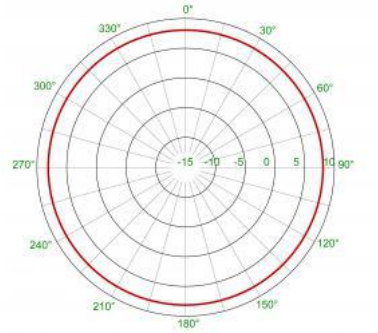
TYPICAL GAIN AND SWR CURVES



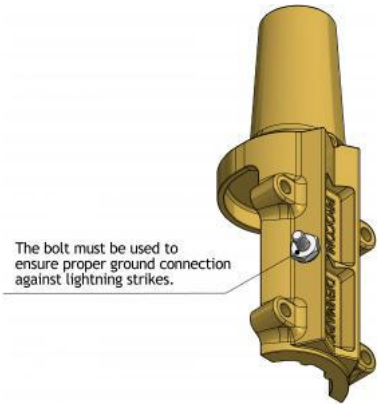
TYPICAL RADIATION PATTERN (E-PLANE)



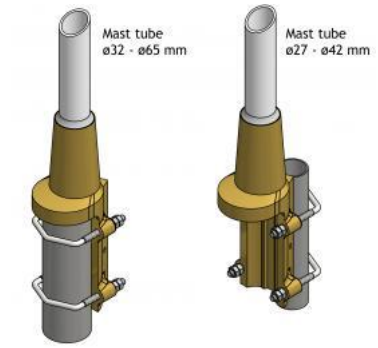
TYPICAL RADIATION PATTERN (H-PLANE)

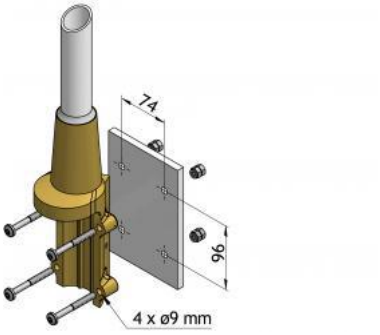


MOUNTING DESCRIPTION FOR GROUND CONNECTION



MULTI-PURPOSE MOUNTING BRACKET





CXL 70-5C/T-7/...

Collinear, 5 dBd Base Station Antenna and Marine Antenna with 7 degrees electrical downtilt

- CXL 70-5C/T-7/... is a 5 dBd, vertically polarized, omnidirectional base station and marine antenna, covering the 380 - 470 MHz band.
- The antenna is provided with our “C” universal fixation bracket made of epoxy-coated, seawater-resistant aluminium. The accompanying U-bolts and fittings are made of stainless steel.

DESCRIPTION

- CXL 70-5C/T-7/... can be mounted on 27 to 65 mm dia. mast tubes and it is possible to lead the cable either along the inside or on the outside of the mast tube.
- The carefully designed radiating element is sealed in a high-quality, conical glass fibre tube with low wind-load, ensuring a performance undisturbed by corrosive environments.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- The exceptional mechanical capabilities of this antenna ensure long dependable service in all environments.

ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
CXL 70-5C/T-7/s	380 - 400 MHz	Contact for availability
CXL 70-5C/T-7/f	410 - 430 MHz	100000478
CXL 70-5C/T-7/l	430 - 450 MHz	100000536
CXL 70-5C/T-7/h	450 – 470 MHz	100000459

SPECIFICATIONS

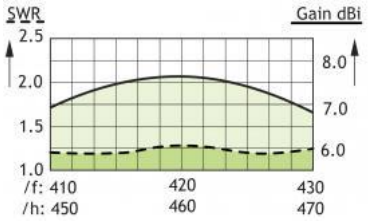
ELECTRICAL	
MODEL	CXL 70-5C/T-7/...
ANTENNA TYPE	Collinear, broad-banded
FREQUENCY *	380 - 470 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	5 dBd (7 dBi)
ELECTRICAL TILT *	7°
HALF POWER BEAMWIDTH	14°
BANDWIDTH	20 MHz

SWR	≤ 1.5
MAX. POWER	250 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
ENVIRONMENTAL CONDITIONS	CXL 70-5C/T-7... is designed and tested by the SP Technical Research Institute of Sweden to operate under the environmental conditions as described in ETSI EN 300 019-2-4 Class 4.1 E.
TEMP. RANGE	-55°C → +70°C
MAX WIND SPEED	200km/h (125 mph)
INGRESS PROTECTION LEVEL	IP 66
WIND SURFACE	0.14 m²
WIND LOAD	168 N @ 160 km/h
CONNECTOR	N-female
COLOUR	Marine white (RAL 9010)
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	3.0 m
DIA. IN TOP END	40 mm
DIA. IN BOTTOM END	40 mm
WEIGHT	Approx. 4.3 kg
MOUNTING	On 27 - 65 mm dia. mast tube

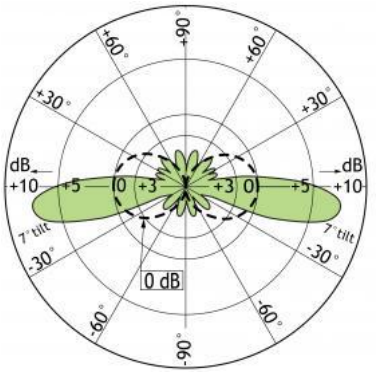
* The average gain is 5 dBd within the frequency band for 7° electrical downtilt.

Other electrical downtilt available on request.

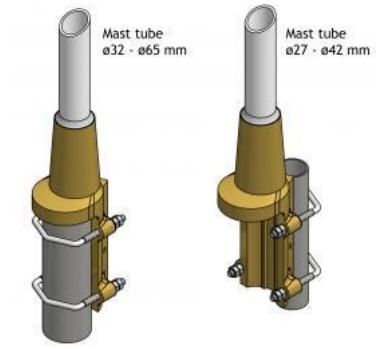
TYPICAL GAIN AND SWR CURVES

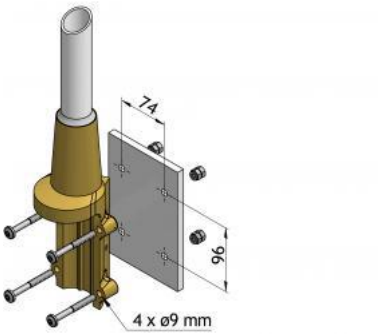


TYPICAL RADIATION PATTERN (E-PLANE)



MULTI-PURPOSE MOUNTING BRACKET





CXL 900/1800/1900/UMTS

Quadruple-Band Base Station and Marine Antenna for the 900 MHz, 1800 MHz, 1900 MHz and the 2000 MHz Bands

- Quadruple-Band base station and marine antenna – four bands with only one antenna.
- Covering both GSM/NMT-900, DCS-1800/PCN (GSM 900/1800) PCS-1900 and UMTS.

Description

- Particularly suitable for use with triple-band mobile phones.
- Unity gain on all bands.
- Simple mounting using the 1” revolving nut system.
- Wide variety of accessory mounting brackets available.

ORDERING DESIGNATIONS

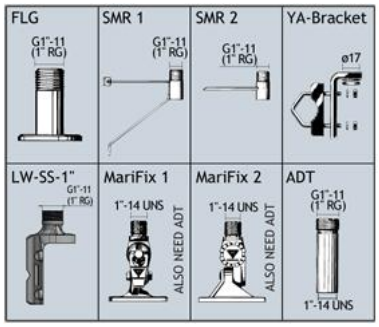
TYPE	PRODUCT NO.
CXL 900/1800/1900/UMTS	110000230

SPECIFICATIONS

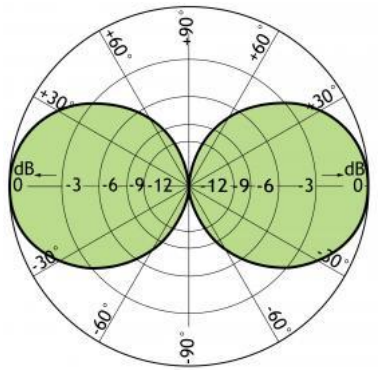
ELECTRICAL	
MODEL	CXL 900/1800/1900/UMTS
ANTENNA TYPE	Quadruple-Band base station and marine antenna
FREQUENCY	800-960 MHz/1710-1880 MHz/1850-1990 MHz/ 1900-2200 MHz (GSM 900/DCS-1800/PCS-1900/UMTS)
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	Approx. 0 dBi
SWR	GSM @ ≤ 2.0 DCS-1800 @ ≤ 2.0 PCS-1900 @ ≤ 3.0 UMTS @ ≤ 3.0
MAX. POWER	100 W
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.013 m²

WIND LOAD	Approx. 17 N @ 160 km/h
MAX WIND SPEED	200 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 450 mm
DIA. IN TOP END	21 mm
DIA. IN BOTTOM END	23 mm
WEIGHT	Approx. 300 g
MOUNTING	On 1” RG (G1” - 11) threaded water pipe or on optional mounting brackets (see below)

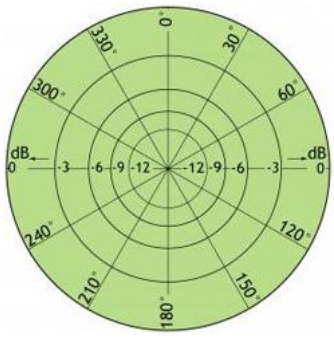
ACCESSORIES (to be ordered separately)



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



CXL 70-5C/T-12/...

Collinear, 5 dBd Base Station and Marine Antenna with 12 degrees electrical downtilt

- CXL 70-5C/T-12/... is a 5 dBd, vertically polarized, omnidirectional base station and marine antenna, covering the 380 – 470 MHz band.
- The antenna is provided with our type “C” universal fixation bracket made of epoxy-coated, seawater-resistant aluminium. The accompanying U-bolts and fittings are made of stainless steel.

DESCRIPTION

- CXL 70-5C/T-12/... can be mounted on 27 to 65 mm dia. mast tubes and it is possible to lead the cable either along the inside or on the outside of the mast tube.
- The carefully designed radiating element is sealed in a high-quality, conical glass fibre tube with low wind-load, ensuring a performance undisturbed by corrosive environments.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- The exceptional mechanical capabilities of this antenna ensure long dependable service in all environments.

ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
CXL 70-5C/T-12/s	380 – 400 MHz	100000460
CXL 70-5C/T-12/f	410 – 430 MHz	100000618
CXL 70-5C/T-12/l	430 – 450 MHz	100000598
CXL 70-5C/T-12/h	450 – 470 MHz	100000489

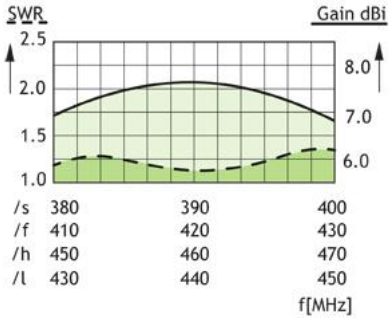
SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 70-5C/T-12/...
ANTENNA TYPE	Collinear, broad-banded
FREQUENCY *	380 - 470 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	5 dBd 7 dBi
ELECTRICAL TILT *	12°
HALF POWER BEAMWIDTH	18°
BANDWIDTH	20 MHz

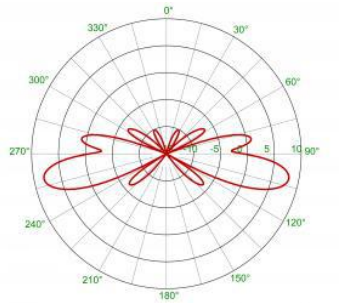
SWR	≤ 1.5
MAX. POWER	250 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
HCM CODE	HCM000ND00, 170PM30
MECHANICAL	
TEMP. RANGE	-35°C to +70°C
CONNECTOR	N-female
WIND SURFACE	0.161 m²
WIND LOAD	187 N @ 160 km/h
MAX. WIND SPEED	200 km/h / 124 mph.
INGRESS PROTECTION LEVEL	IP66
COLOUR	Marine white (RAL 9010)
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	3.2 m
DIA. IN TOP END	40 mm
DIA. IN BOTTOM END	40 mm
WEIGHT	Approx. 4.5 kg
MOUNTING	On 27 - 65 mm dia. mast tube

* The average gain is 7 dBi within the frequency band for 12° electrical downtilt. Other electrical downtilt available on request.

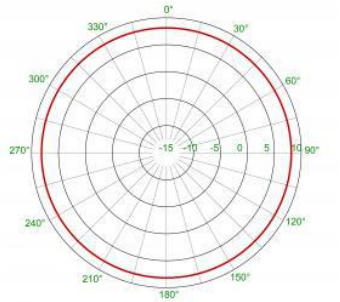
TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



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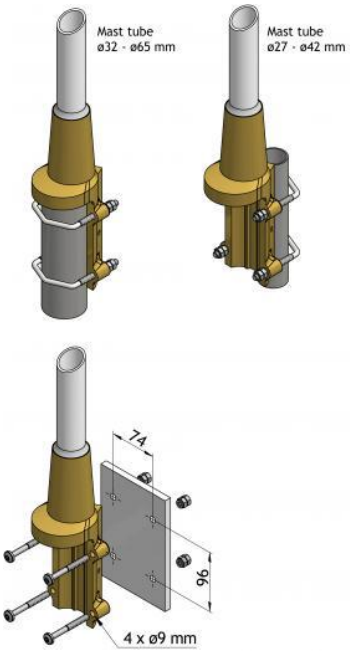
MULTI-PURPOSE MOUNTING BRACKET



CXL 70-5C/...

Collinear, 5 dBd Base Station and Marine Antenna for the 450 MHz Band

- CXL 70-5C/... is a 5 dBd, vertically polarized, omnidirectional base station and marine antenna, which covers within 350 - 620 MHz band in 9 models.
- The antenna is provided with our “C” universal fixation bracket made of epoxy-coated, seawater resistant aluminium. The accompanying U-bolts and fittings are made of stainless steel.

DESCRIPTION

- CXL 70-5C/... can be mounted on 27 to 65 mm dia. mast tubes and it is possible to lead the cable either along the inside or on the outside of the mast tube.
- The carefully designed radiating element is sealed in a high-quality, conical glass fibre tube with low wind-load, which will ensure performance undisturbed by corrosive environments.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- The exceptional mechanical capabilities of this antenna ensure long dependable service in all environments.

ORDERING DESIGNATIONS

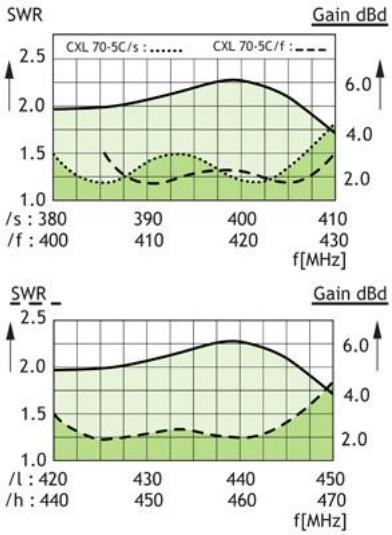
TYPE	FREQUENCY	PRODUCT NO.
CXL 70-5C/ls	350 - 370 MHz	100000593
CXL 70-5C/ss	360 - 390 MHz	100000594
CXL 70-5C/s	380 – 410 MHz	100000120
CXL 70-5C/f	406 – 430 MHz	100000115
CXL 70-5C/l	420 – 450 MHz	100000118
CXL 70-5C/h	440 – 470 MHz	100000117
CXL 70-5C/hh	470 - 490 MHz	100000595
CXL 70-5C/vh	490 - 520 MHz	100000596
CXL 70-5C/uh	590 - 614 MHz	100000597

SPECIFICATIONS

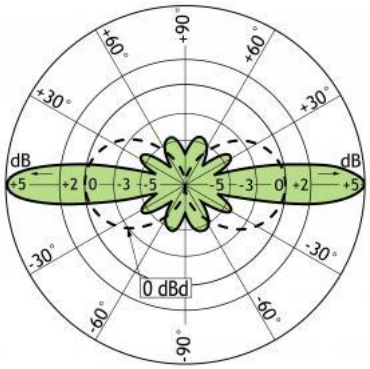
ELECTRICAL	
MODEL	CXL 70-5C/...
ANTENNA TYPE	Collinear, broad-banded
FREQUENCY	30 MHz wide frequency segments within 350 - 620 MHz.
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional

POLARIZATION	Vertical
GAIN	7 dBi 5 dBd
HALF POWER BEAMWIDTH	18°
BANDWIDTH	20 - 30 MHz (Dependent on model. See ordering designations)
SWR	<table><tr><th>Type</th><th>SWR < 1.5</th><th>SWR < 2.0</th></tr><tr><td>/ls</td><td>350-370 MHz</td><td>380-390 MHz</td></tr><tr><td>/ss</td><td>360-380 MHz</td><td></td></tr><tr><td>/s</td><td>380-400 MHz</td><td>400-410 MHz</td></tr><tr><td>/f</td><td>406-426 MHz</td><td>426-430 MHz</td></tr><tr><td>/l</td><td>420-440 MHz</td><td>440-450 MHz</td></tr><tr><td>/h</td><td>440-460 MHz</td><td>460-470 MHz</td></tr><tr><td>/hh</td><td>470-490 MHz</td><td></td></tr><tr><td>/vh</td><td>490-510 MHz</td><td>510-520 MHz</td></tr><tr><td>/uh</td><td>590-614 MHz</td><td></td></tr></table>
MAX. POWER	150 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)Publish
MECHANICAL	
TEMP. RANGE	-35°C → +70°C
CONNECTOR	N-female
WIND SURFACE	0.045 m² / 0.48 ft²
WIND LOAD	57 N @ 160 km/h / 99.42 mph.
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 2.2 m / 86.61 in. (dep. on freq.)
DIA. IN TOP END	13 mm / 0.51 in.
DIA. IN BOTTOM END	25 mm / 0.98 in.
WEIGHT	Approx. 2.8 kg / 6.17 lb.
MOUNTING	On 27 - 65 mm / 1.06 - 2.56 in. dia. mast tube

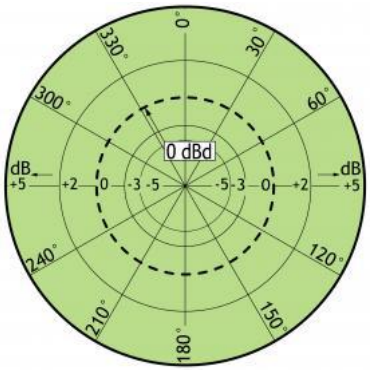
TYPICAL GAIN AND SWR CURVES



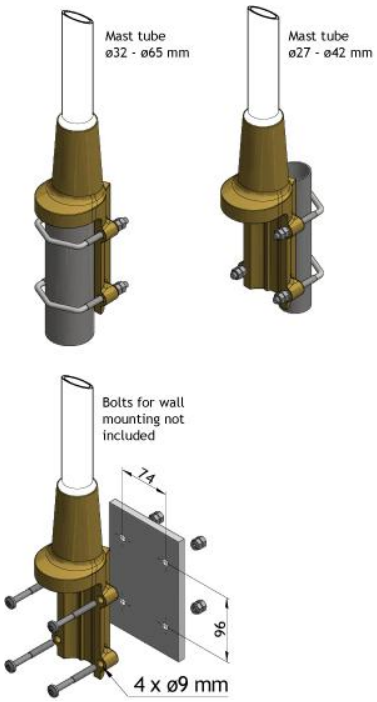
TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET


Mast tube
ø32 - ø65 mm
Mast tube
ø27 - ø42 mm
Bolts for wall
mounting not
included
74
96
4 x ø9 mm

CXL 450-3LW-SS

3 dBd Base Station and Marine Antenna for the 450 MHz Band

- CXL 450-3LW-SS is a 3 dBd, vertically polarised, omnidirectional base station and marine antenna, which covers the UHF band in 4 models with up to 10 MHz overlap.

DESCRIPTION

- The carefully designed radiating element is sealed in a high-quality, conical glass fibre tube with low wind-load which will ensure performance undisturbed by corrosive environments.
- Provided with the sturdy “LW-SS” mast mount – a multipurpose bracket made of stainless steel (AISI 316L).
- The accompanying U-bolts and fittings are made of stainless steel (AISI 304).
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 450-3LW-SS is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

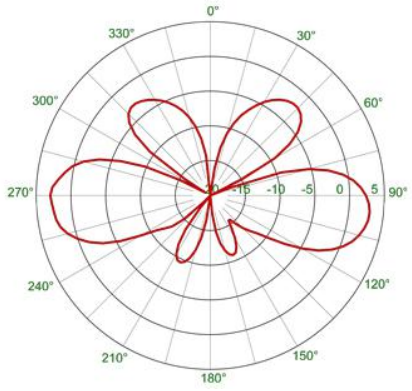
TYPE	FREQUENCY	PRODUCT NO
CXL 450-3LW-SS/s	380 – 410 MHz	100000681
CXL 450-3LW-SS/f	406 – 430 MHz	100000682
CXL 450-3LW-SS/l	420 – 450 MHz	100000683
CXL 450-3LW-SS/h	440 – 470 MHz	100000684

SPECIFICATIONS

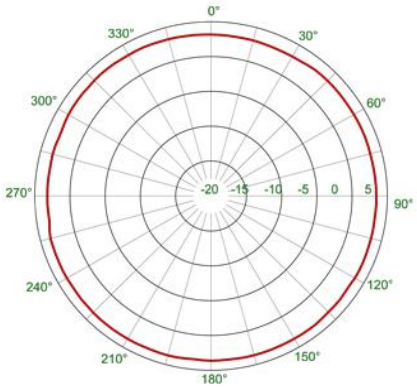
ELECTRICAL	
MODEL	CXL 450-3LW-SS/...
ANTENNA TYPE	Collinear, broad-banded
FREQUENCY	30 MHz wide frequency segments within 380 – 470 MHz. See model survey.
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd
HALFPOWER BEAMWIDTH	30°

BANDWIDTH	30 MHz
SWR	≤ 1.5
MAX. POWER	150 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-35°C → +70°C
CONNECTOR	N-female
WIND SURFACE	0.029 m²
WIND LOAD	33.6 N @ 160 km/h
MAX. WIND SPEED	200 km/h
INGRESS PROTECTION LEVEL	IP 66
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket : Stainless acid-proof steel (AiSi 316L) U-bolt and fittings : Stainless steel (AiSi 304)
TOTAL HEIGHT	Approx. 1.4 m (dep. on freq.)
DIA. IN TOP END	16 mm
DIA. IN BOTTOM END	23 mm
WEIGHT	Approx. 1.55 kg
MOUNTING	On 16 to 54 mm dia. mast tube

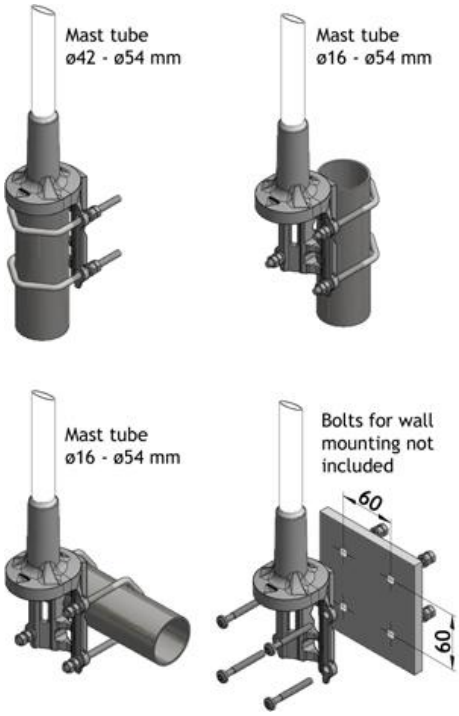
TYPICAL RADIATION PATTERN (V-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET



PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.

CXL 450-6HD/T-X/...

Sturdy, 6 dBd, Omnidirectional lightning protected Base Station Antenna for 450 MHz Bands

- CXL 450-6HD/T-X/... is a 6 dBd, vertically polarized, omnidirectional base station antenna for 450 MHz bands with three models.
- The antenna has been approved to withstand lightning.

DESCRIPTION

- The antenna is provided with our sturdy type “HD” mast mount - a heavy-duty, multipurpose mounting bracket made of non-corrosive aluminium. The accompanying U-bolts and fittings are made of stainless steel.
- The antenna can be mounted on mast tubes of 58 to 105 mm in outer diameter. Furthermore, the construction of the mount makes it possible to lead the cable either along the inside or on the outside of the mast tube.
- The antenna element is sealed in a high-quality, cylindrical glass fibre tube, ensuring undisturbed performance in all climates.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- CXL 450-6HD/T-X/... is a vibration-proof, slim-line, corrosion-resistant, modern style base station antenna.
- The centre fed dipole design and feed network gives a stable radiation pattern across a wide bandwidth, and allows tilted beam designs to be effectively employed without large pattern distortions.

ORDERING DESIGNATIONS

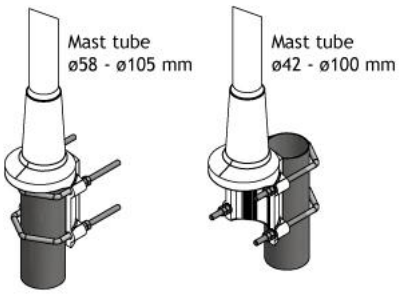
TYPE	PRODUCT NO.	FREQUENCY	TILT
CXL 450-6HD/T-0/l	100000653	340 - 370 MHz	0°
CXL 450-6HD/T-0/m	100000654	380 - 430 MHz	0°
CXL 450-6HD/T-0/h	100000655	420 - 470 MHz	0°
CXL 450-6HD/T-6/l	100000656	340 - 370 MHz	6°
CXL 450-6HD/T-6/m	100000657	380 - 430 MHz	6°
CXL 450-6HD/T-6/h	100000658	420 - 470 MHz	6°
CXL 450-6HD/T-8/l	100000659	340 - 370 MHz	8°
CXL 450-6HD/T-8/m	100000660	380 - 430 MHz	8°
CXL 450-6HD/T-8/h	100000661	420 - 470 MHz	8°
CXL 450-6HD/T-12/l	100000662	340 - 370 MHz	12°
CXL 450-6HD/T-12/m	100000663	380 - 430 MHz	12°
CXL 450-6HD/T-12/h	100000664	420 - 470 MHz	12°

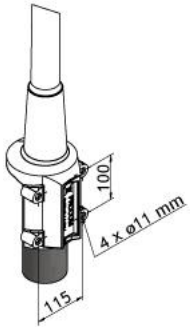
SPECIFICATIONS

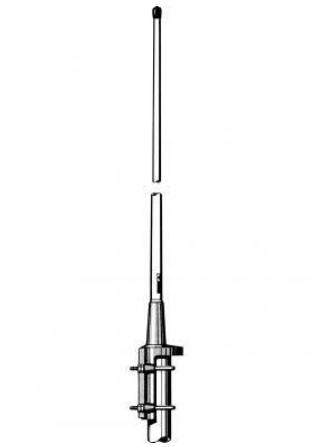
ELECTRICAL	
MODEL	CXL 450-6HD/T-X/...

ANTENNA TYPE	Medium-gain collinear
FREQUENCY	340 - 470 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	8 dBi 6 dBd
HALF POWER BEAMWIDTH	16°
SWR	≤ 1.5
MAX. POWER	300 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
AVAILABLE BEAMTILTS	0, 6, 8 and 12°
PIM	-153 dBc @ 2x43 dBm
MECHANICAL	
TEMP. RANGE	-30°C to +70°C
CONNECTOR	7/16 DIN female
WIND SURFACE	0.166 m²
WIND LOAD	236.7 N @ 160 km/h
WIND VELOCITY	Tested to 200 km/h
COLOUR	Marine white
MATERIALS	Radome: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, polyester-coated
TOTAL HEIGHT	Approx. 2.92 m, 115 Inch
WEIGHT	Approx. 8.5 kg, 19 Ib
MOUNTING	On 58 - 105 mm dia. mast tube

MULTI-PURPOSE MOUNTING BRACKET


Mast tube
ø58 - ø105 mm
Mast tube
ø42 - ø100 mm


100
4 x ø11 mm
115



CXL 70-3C/...

Collinear, 3 dBd Base Station and Marine Antenna for the 450 MHz Band

- CXL 70-3C/... is a 3 dBd, vertically polarized, omnidirectional base station and marine antenna, which covers the 380 – 470 MHz band in 4 models with up to 10 MHz overlap.
- The antenna is provided with our “C” universal fixation bracket made of epoxy-coated, seawater resistant aluminium. The accompanying U-bolts and fittings are made of stainless steel.

DESCRIPTION

- CXL 70-3C/... can be mounted on 27 to 65 mm dia. mast tubes, and it is possible to lead the cable either along the inside or on the outside of the mast tube.
- The carefully designed radiating element is sealed in a high-quality, conical glass fibre tube with low wind-load, which will ensure performance undisturbed by corrosive environments.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- The exceptional mechanical capabilities of this antenna ensures long dependable service in all environments.

ORDERING DESIGNATIONS

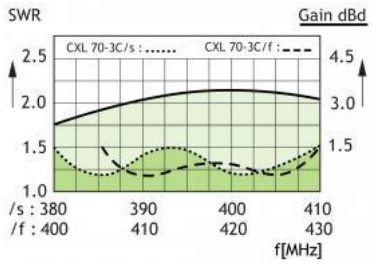
TYPE	PRODUCT NO.	FREQUENCY
CXL 70-3C/s	100000113	380 – 410 MHz
CXL 70-3C/f	100000109	406 – 430 MHz
CXL 70-3C/l	100000112	420 – 450 MHz
CXL 70-3C/h	100000110	440 – 470 MHz

SPECIFICATIONS

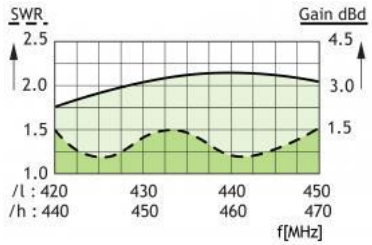
ELECTRICAL	
MODEL	CXL 70-3C/...
ANTENNA TYPE	Collinear, broad-banded
FREQUENCY	30 MHz wide frequency segments within 380 – 470 MHz. See model survey.
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd
HALF POWER BEAMWIDTH	30°
BANDWIDTH	30 MHz

SWR	≤ 1.5
MAX. POWER	150 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	0.032 m²
WIND LOAD	40 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 1.45 m (dep. on freq.)
DIA. IN TOP END	16 mm
DIA. IN BOTTOM END	25 mm
WEIGHT	Approx. 2.4 kg
MOUNTING	On 27 – 65 mm dia. mast tube

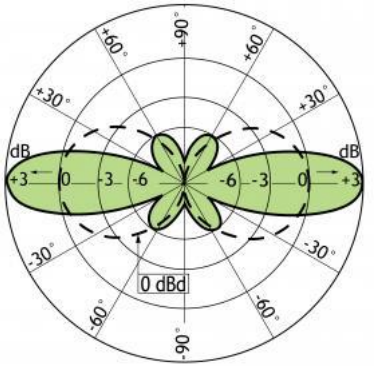
TYPICAL GAIN AND SWR CURVES



TYPICAL GAIN AND SWR CURVES

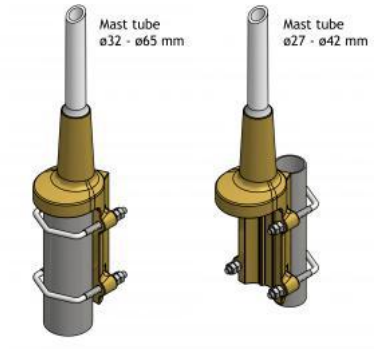


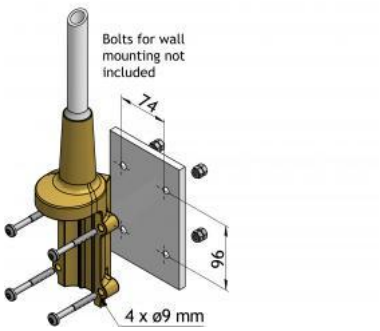
TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)

MULTI-PURPOSE MOUNTING BRACKET





G-CXL 2400-1LW/...

0 dBd Omnidirectional Base Station and Marine Antenna for the 2400 MHz Band. Designed for defense units.

- Vertically polarized, omnidirectional base station and marine antenna.
- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.

DESCRIPTION

- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- Highly suitable for duplex operation with large spacing between the TX and the RX frequencies.
- The antenna element is sealed in a high-quality, conical glass fibre tube.
- The G-CXL 2400-1LW/... is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

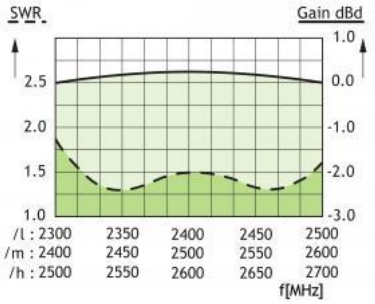
TYPE	PRODUCT NO.	FREQUENCY
G-CXL 2400-1LW/l	100000273	2300 – 2500 MHz
G-CXL 2400-1LW/m	100000274	2400 – 2600 MHz
G-CXL 2400-1LW/h	100000275	2500 – 2700 MHz

SPECIFICATIONS

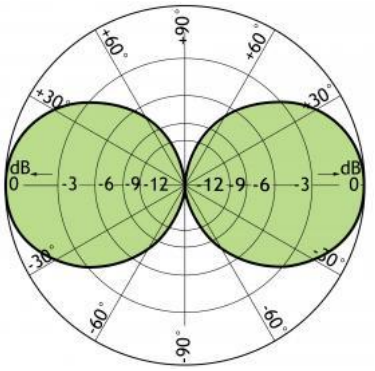
ELECTRICAL	
MODEL	G-CXL 2400-1LW/...
ANTENNA TYPE	Coaxial, collinear antenna, broadbanded
FREQUENCY	Models within 2300 – 2700 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	≥ 100 MHz @ SWR ≤ 1.5
SWR	≤ 2.0, typ. ≤ 1.5
MAX. POWER	100 W
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.02 m²
WIND LOAD	Approx. 26 N @ 160 km/h

COLOUR	Green
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 400 mm
DIA. IN TOP END	14 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 400 g
MOUNTING	On 16 to 54 mm dia. mast tube

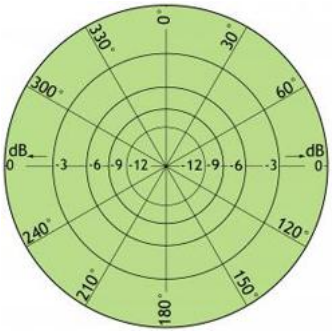
TYPICAL GAIN AND SWR CURVES



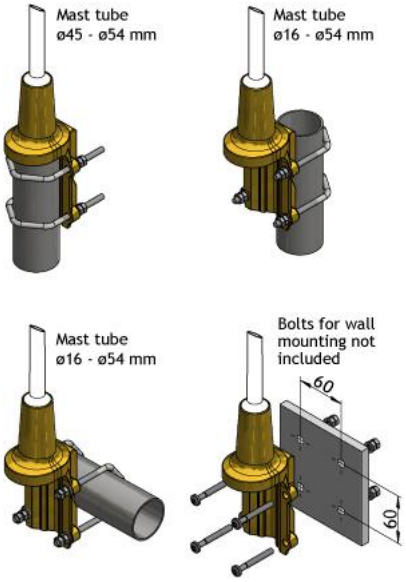
TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET



PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.

G-CXL 225-450C

Unity Gain, Broad-Banded Base Station Antenna for 225 – 450 MHz. Designed for defense units.

- G-CXL 225-450C is a 0 dBd gain, omnidirectional base station antenna.
- The antenna is extremely broad-banded and covers the complete band: 225 – 450 MHz.

DESCRIPTION

- G-CXL 225-450C is designed for fixation on supporting tubes with outer diameter between 27 mm and 65 mm.
- The construction of the mount makes it possible to lead the cable either inside or along the outside of the mast tube.
- A glass fibre tube completely encloses the carefully designed radiating element to ensure long dependable service in all climates.
- Atmospherical discharges are immediately led to ground as all metal parts are DC-grounded (consequently, the antenna shows a DC-short across the coaxial cable).
- This antenna is used where reliability is of utmost importance. A long lifetime has been taken into consideration when designing this antenna – it is sturdy and strong.

ORDERING DESIGNATIONS

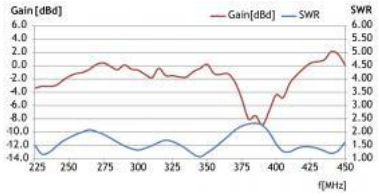
TYPE	PRODUCT NO.
G-CXL 225-450C	100000268

SPECIFICATIONS

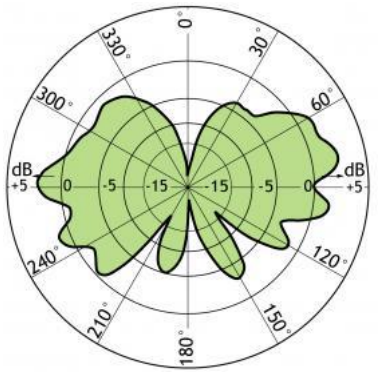
ELECTRICAL	
MODEL	G-CXL 225-450C
ANTENNA TYPE	Coaxial, broad-band dipole
FREQUENCY	Covering: 225 – 450 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	0 dBd (see curve)
BANDWIDTH	225 MHz
SWR	≤ 2.5, typ. ≤ 2.0
MAX. POWER	200 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	–30° C → +70° C

CONNECTOR	N-female
WIND SURFACE	0.056 m²
WIND LOAD	85 N @ 175 km/h / 109 mph
MAX. WIND SPEED	200 km/h / 125 mph
COLOUR	Green
MATERIALS	Radome : Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, black Clamps: Stainless steel
TOTAL HEIGHT	Approx. 1.20 m
WEIGHT	Approx. 3.0 kg
MOUNTING	On 27 - 65 mm dia. mast tube

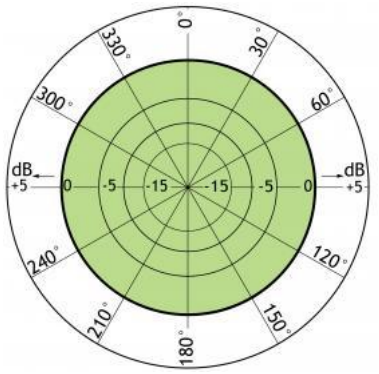
TYPICAL GAIN AND SWR CURVES



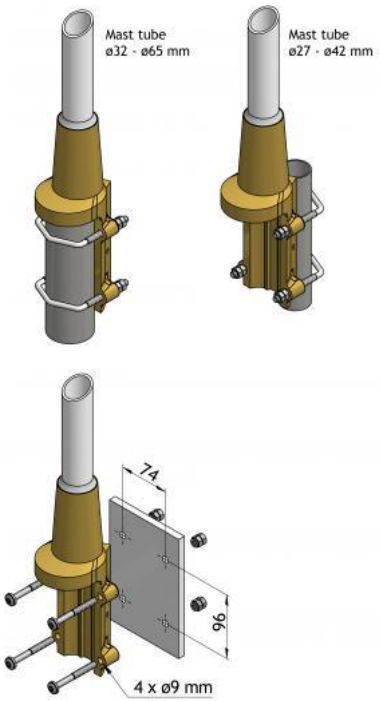
TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET


Mast tube
ø32 - ø65 mm
Mast tube
ø27 - ø42 mm
74
96
4 x ø9 mm

CXL 70-3/GPS 4/...

Dual Band Antenna for the UHF Band and GPS

- This active antenna has been designed for use on the TETRA band and GPS.
- The antenna consists of a high-performance 3 dBd glass fibre- encapsulated antenna element and an active GPS antenna. The latter is built into the bottom part of the antenna together with a diplex filter. Only one down lead cable is therefore necessary.

DESCRIPTION

- The antenna element is a colinear antenna for the UHF band frequency range within 380 - 430 MHz.
- The GPS antenna has a full hemispherical coverage and a built-in high-gain, low-noise amplifier.
- The necessary supply voltage (5 V DC) for the amplifier is delivered through the down lead coaxial cable. Up to 30 m of RG 214/U coaxial cable can be used between the antenna and the receiver/transceiver.
- By careful choice of materials, the CXL 70-3/GPS 4/... is designed to withstand the roughest of climate conditions, ensuring many years of trouble-free service.

ORDERING DESIGNATIONS

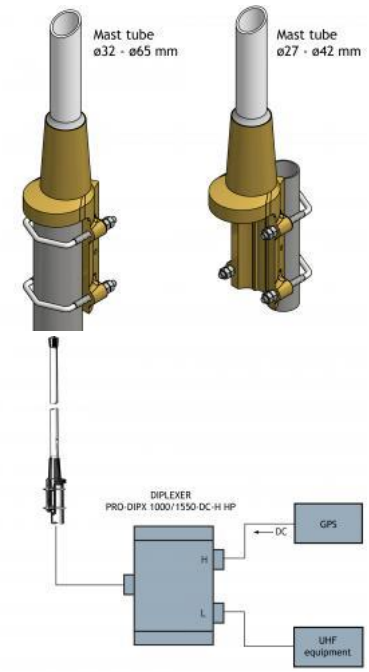
TYPE	PRODUCT NO.	FREQUENCY
CXL 70-3/GPS 4/TETRA-l	112000052	380 - 400 MHz
CXL 70-3/GPS 4/TETRA-h	112000053	410 - 430 MHz
ACCESSORIES	PRODUCT NO.	FREQUENCY
DIPX 1000/1550-DC-H	200000749	
PRO-DIPX 1000/1550-DC-H HP	200001998	

SPECIFICATIONS

ELECTRICAL UHF	
MODEL	CXL 70-3/GPS 4/...
ANTENNA TYPE	Collinear antenna element
FREQUENCY	380 - 400 MHz, 410 - 430 MHz and other frequencies on request
BANDWITH	14 - 20 MHz dependent on model
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	Approx. 5.2 dBi 3 dBd
SWR	Typ. < 2.0
MAX. POWER	25 W

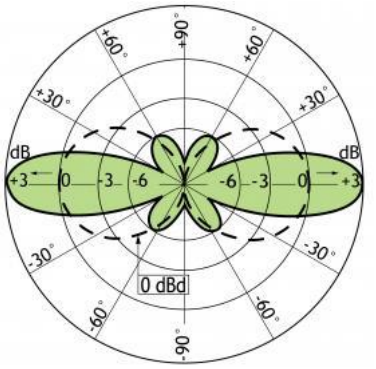
ELECTRICAL GPS	
ANTENNA TYPE	Quadrifilar Helix Active antenna
FREQUENCY	1575 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Circular right-hand
COVERAGE	Hemispherical
GAIN (in axial direction)	> 32 dBi
CROSS POLARIZATION ATT	> 10 dB (typ.)
Built-in Amplifier	
GAIN	> 30 dB (typ.)
NOISE FIGURE	< 3 dB (typ.)
$P_{1\ dB}$	Approx. +10 dBm
SWR (output)	≤ 2.0
SUPPLY VOLTAGE	5 ±0.5 V DC (3 V and 12 V respectively available on request)
SELECTIVITY	> 20 dB down @ ± 100 MHz
CURRENT CONSUMPTION	Approx. 44 mA
MECHANICAL	
TEMP. RANGE	-30° C → + 70° C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.076 m²
WIND LOAD	Approx. 97 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Radome : Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated
TOTAL HEIGHT	Approx. 1.95 m
WEIGHT	Approx. 3 kg
MOUNTING	On 27 - 65 mm dia. mast tube

MULTI-PURPOSE MOUNTING BRACKET



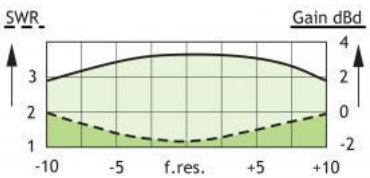
Alternatively, filter type DIPLEXER DIPX 1000/1550-DC-H can be used. Either filter to be ordered separately.

TYPICAL RADIATION PATTERN (E-PLANE) FOR THE UHF BAND



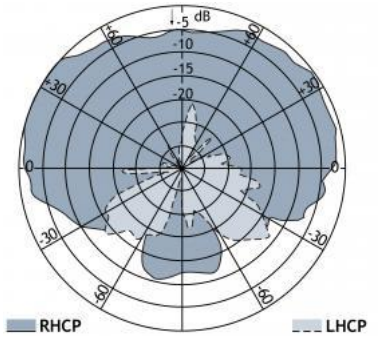
TYPICAL RADIATION PATTERN (H-PLANE) FOR THE UHF BAND

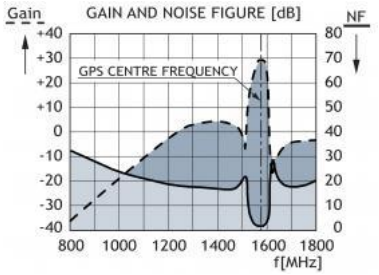
TYPICAL GAIN AND SWR CURVE FOR THE UHF BAND

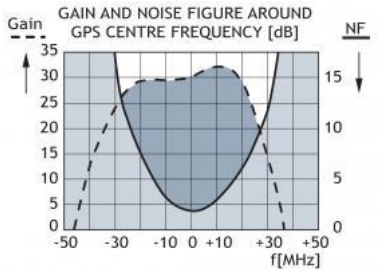


TYPICAL RESPONSE CURVES AND RADIATION PATTERN FOR THE GPS-PART (1575 MHz)

VERTICAL RADIATION PATTERN







G-CXL 2-2C

Universal, Unity-Gain Base Station and Marine Antenna for the 160 MHz Band. Designed for defense units.

- G-CXL 2-2C is a 0 dBd gain, omnidirectional base station antenna. The antenna covers the complete band: 144 - 175 MHz.
- G-CXL 2-2C is designed for fixation on supporting tubes with outer diameter between 27 mm and 65 mm.

DESCRIPTION

- The construction of the mount makes it possible to lead the cable either inside or along the outside of the mast tube.
- A glass fibre tube completely encloses the carefully designed radiating element to ensure long dependable service in all climates.
- Atmospherical discharges are immediately led to ground as all metal parts are DC-grounded (consequently, the antenna shows a DC-short across the coaxial cable).
- This antenna is used where reliability is of utmost importance. A long lifetime has been taken into consideration when designing this antenna – it is sturdy and strong.

ORDERING DESIGNATIONS

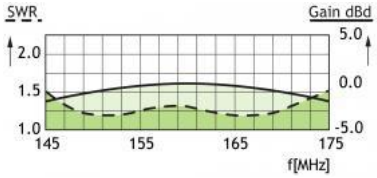
TYPE	PRODUCT NO.
G-CXL 2-2C	100000267

SPECIFICATIONS

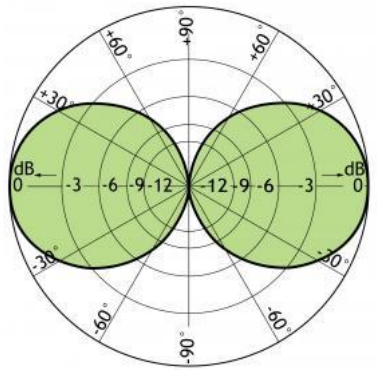
ELECTRICAL	
MODEL	G-CXL 2-2C
ANTENNA TYPE	Coaxial, broad-band dipole
FREQUENCY	Covering: 144 - 175 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	31 MHz
SWR	≤ 1.5
MAX. POWER	600 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
CONNECTOR	N-female
WIND SURFACE	0.091 m²

WIND LOAD	115 N @ 160 km/h
COLOUR	Green
MATERIALS	Shroud: Polyurethane-coated glass fibre Mast clamp : Seawater resistant aluminium, black
TOTAL HEIGHT	Approx. 1.75 m
WEIGHT	Approx. 3.0 kg
MOUNTING	On 27 - 65 mm dia. mast tube

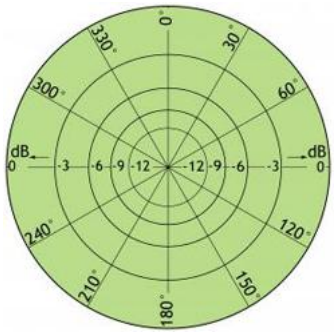
TYPICAL GAIN AND SWR CURVES



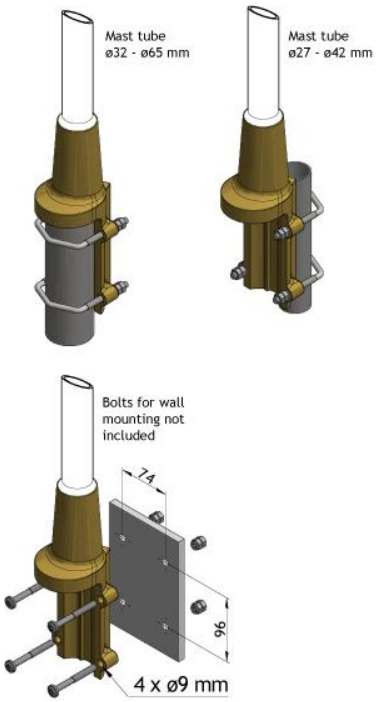
TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)

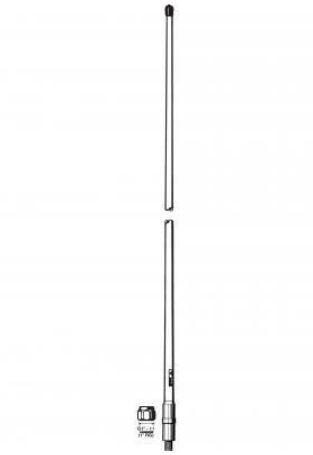


MULTI-PURPOSE MOUNTING BRACKET



PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.



CXL 70-3/...

3 dBd Gain Base Station and Marine UHF Antenna

- This collinear UHF antenna with 3 dBd gain is developed for use on board ships as well as on masts, and thanks to the 1” revolving nut mounting system it can be mounted in the mast, in the auxiliary mast as well as on the cross-beam. By means of Procom’s flange mount type “FLG”, it can also be mounted on deck or rooftop.

DESCRIPTION

- The CXL 70-3/... is in widespread use in connection with 450 MHz CELLULAR systems. The antenna makes it possible to extend the – normally land based – CELLULAR telephone system service for maritime use as well, and here the 3 dBd gain of the antenna comes to definite advantage.
- Bear in mind that the higher the antenna is mounted the better coverage.
- Avoid mounting the antenna parallel with and in the neighbourhood of other metal parts, such as masts, supporting wires etc. Free mounting and as high as possible is most preferable, otherwise the SWR and the radiation diagram will be influenced.
- The antenna needs neither loading coils, ground-plane, radials nor other auxiliary arrangements.
- The antenna is a grounded radiator antenna and therefore it shows a DC-short across the coaxial cable.
- A conical glass fibre tube completely encloses the carefully designed radiating element to assure long dependable service in all climates.

ORDERING DESIGNATIONS

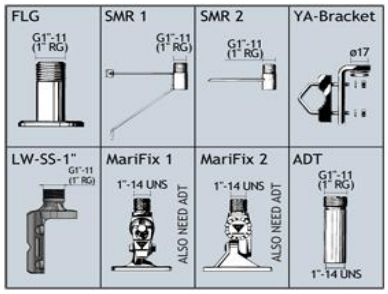
TYPE	FREQUENCY	PRODUCT NO.
CXL 70-3/s	380 – 410 MHz	110000141
CXL 70-3/f	406 – 430 MHz	110000140
CXL 70-3/l	420 – 450 MHz	110000142
CXL 70-3/h	440 – 470 MHz	110000139

SPECIFICATIONS

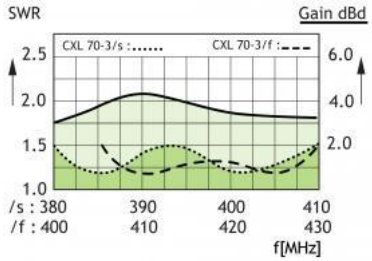
ELECTRICAL	
MODEL	CXL 70-3/...
ANTENNA TYPE	Coaxial, broad-band
FREQUENCY	CXL 70-3/s : 380 – 410 MHz CXL 70-3/f : 406 - 430 MHz CXL 70-3/l : 420 – 450 MHz CXL 70-3/h: 440 - 470 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd

HALFPOWER BEAMWIDTH	30°
BANDWIDTH	30 MHz
SWR	≤ 1.5
MAX. POWER	150 W
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	0.0337 m²
WIND LOAD	43 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	1.430 m
DIA. IN TOP END	16 mm
DIA. IN BOTTOM END	23 mm
WEIGHT	Approx. 1.2 kg
MOUNTING	On 1” RG (G1” - 11) threaded water pipe or on optional mounting brackets (see below)

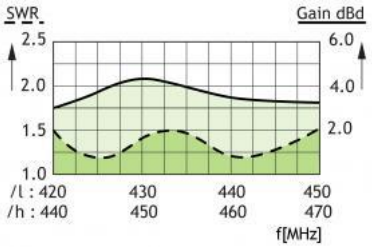
ACCESSORIES (to be ordered separately)



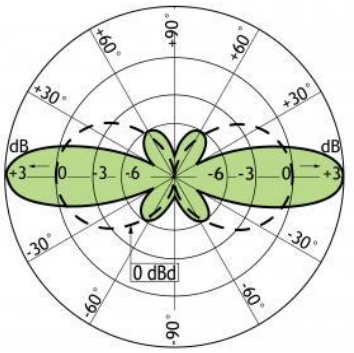
TYPICAL GAIN AND SWR CURVES



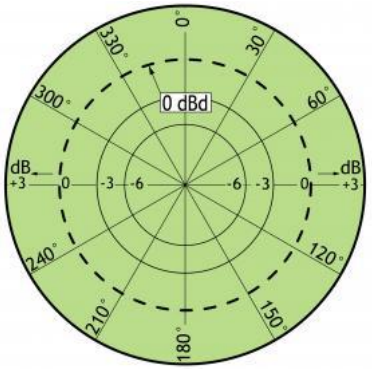
TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



G-CXL 2-1LW/...

Universal, Unity-Gain Base Station and Marine Antenna for the 160 MHz Band. Designed for defense units.

- This multi-purpose, omnidirectional, 0 dBd, rod-type base station and marine antenna covers the 160 MHz band in two models with 10 MHz overlap and can be used in a wide variety of applications.
- The broad-banded ½ λ dipole antenna element is sealed in a high-quality conical glass fibre tube with low wind-load, which will ensure undisturbed performance by corrosive environments.

DESCRIPTION

- Provided with the sturdy “LW” mast mount - a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- G-CXL 2-1LW/... is DC-grounded to substantially reduce noise caused by atmospherical discharges and consequently shows a DC-short across the coaxial cable.

ORDERING DESIGNATIONS

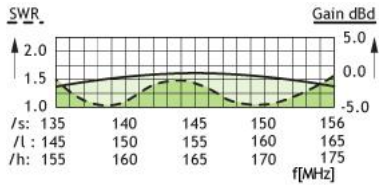
TYPE	FREQUENCY	PRODUCT NO.
G-CXL 2-1LW/l	146-165 MHz	110000185
G-CXL 2-1LW/h	155-175 MHz	110000186

SPECIFICATIONS

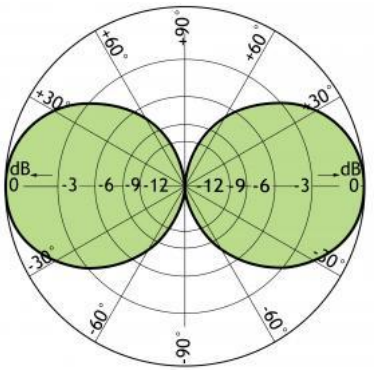
ELECTRICAL	
MODEL	G-CXL 2-1LW/...
ANTENNA TYPE	½ λ coaxial dipol, broad-banded
FREQUENCY	G-CXL 2-1LW/l: 146-165 MHz G-CXL 2-1LW/h: 155-175 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARISATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	20 MHz
SWR	
CXL 2-1/l:	146 - 163 MHz ≤ 1.5
	146 - 165 MHz ≤ 1.75
CXL 2-1/h:	156 - 174 MHz ≤ 1.5
	155 - 175 MHz ≤ 1.75

MAX. POWER	150 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	0.019 m²
WIND LOAD	27 N @ 160 km/h
MAX. WIND SPEED	Tested to 200 km/h
IP RATING	IP 66
COLOUR	Green
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 1.28 m (Dep. on frequency)
DIA. IN TOP END	8 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 760 g
MOUNTING	On 16 to 54 mm dia. mast tube

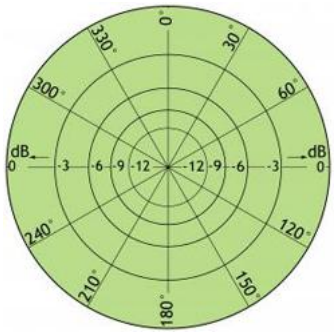
TYPICAL GAIN AND SWR CURVES



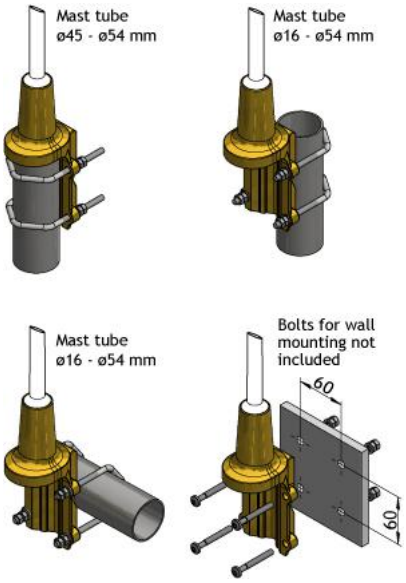
TYPICAL RADIATION PATTERN (E-PLANE)

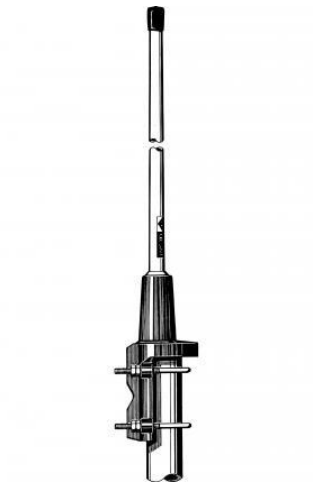


TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET





CXL 70-1LW/...

Unity-Gain, Omnidirectional Base Station and Marine Antenna for the 450 MHz Band

- CXL 70-1LW/... is a 0 dBd, vertically polarized, omnidirectional base station and marine antenna which covers the 450 MHz band in three models.
- The carefully designed, broadbanded ½ λ-dipole radiating element is made of brass tube and sealed in a high-quality conical glass fibre tube with low wind-load.

DESCRIPTION

- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.
- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 70-1LW/... is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

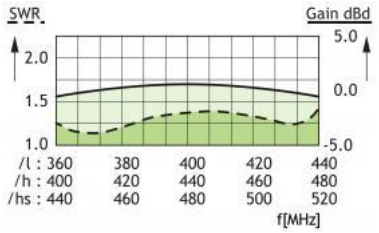
TYPE	FREQUENCY	PRODUCT NO.
CXL 70-1LW/l	380 - 430 MHz	110000087
CXL 70-1LW/h	420 - 470 MHz	110000083
CXL 70-1LW/hs	460 - 510 MHz	110000085

SPECIFICATIONS

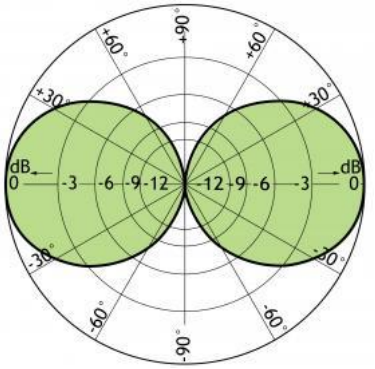
ELECTRICAL	
MODEL	CXL 70-1LW/...
ANTENNA TYPE	½ λ coaxial dipole, broad-banded
FREQUENCY	CXL 70-1LW/l: 380 - 430 MHz CXL 70-1LW/h: 420 - 470 MHz CXL 70-1LW/hs: 460 - 510 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd

BANDWIDTH	50 - 60 MHz dep. of model
SWR	≤ 1.5
MAX. POWER	200 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-35°C → +70°C
CONNECTOR	N-female
WIND SURFACE	0.0192 m²
WIND LOAD	24 N @ 160 km/h
MAX. WIND SPEED	Tested to 200 km/h
IP RATING	IP 66
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 680 mm
DIA. IN TOP END	12 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 650 g
MOUNTING	On 16 to 54 mm dia. mast tub

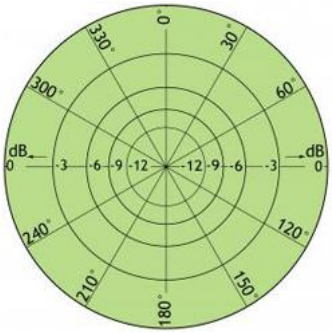
TYPICAL GAIN AND SWR CURVES



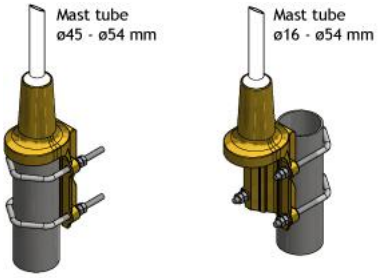
TYPICAL RADIATION PATTERN (E-PLANE)

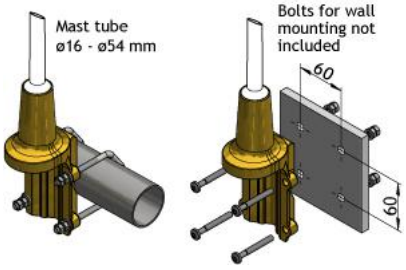


TYPICAL RADIATION PATTERN (H-PLANE)



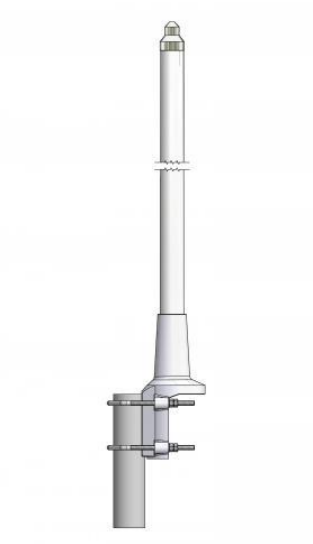
MULTI-PURPOSE MOUNTING BRACKET





PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.



CXL 70-1HD/...-PT

Sturdy, 0 dBd, Omnidirectional lightning protected Base Station Antenna for the TETRA Bands

- CXL 70-1HD/...-PT is an 0 dBd, vertically polarized, omnidirectional base station antenna for the TETRA bands with two models.
- The antenna has been approved to withstand lightning (10/350 µs impulses/200 kA) according to EN 61643-11, VDE 0855-300 and VDE 0185-305-114 in FH-Kiel Laboratory in Germany.

DESCRIPTION

- The antenna is provided with our sturdy type “HD” mast mount - a heavy-duty, multipurpose mounting bracket made of non-corrosive aluminium. The accompanying U-bolts and fittings are made of stainless steel.
- The antenna can be mounted on mast tubes of 58 to 105 mm in outer diameter. Furthermore, the construction of the mount makes it possible to lead the cable either along the inside or on the outside of the mast tube.
- The antenna element is sealed in a high-quality, conical glass fibre tube with low wind load, ensuring undisturbed performance in all climates.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- CXL 70-1HD/...-PT is a vibration-proof, slim-line, corrosion-resistant, modern style base station antenna.

ORDERING DESIGNATIONS

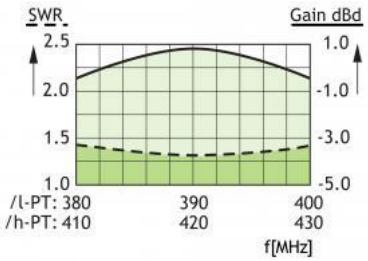
TYPE	FREQUENCY	PRODUCT No.	
CXL 70-1HD/l-PT	380-400 MHz	100000358	
CXL 70-1HD/h-PT	410-430 MHz	100000379	

SPECIFICATIONS

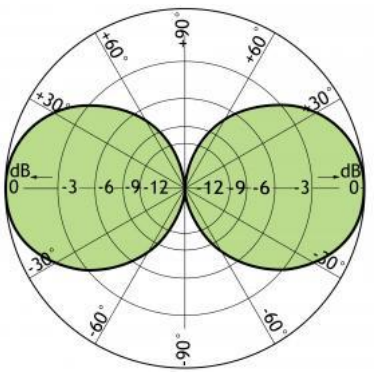
ELECTRICAL	
MODEL	CXL 70-1HD/...-PT
ANTENNA TYPE	½ λ coaxial dipole
FREQUENCY	380 - 400 MHz 410 - 430 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
SWR	≤ 1.5

MAX. POWER	250 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
MAX WIND SPEED	200 km/h / 125 mph
WIND SURFACE	0.085 m²
WIND LOAD	107 N @ 160 km/h
CONNECTOR	N-female
COLOUR	Marine white
MATERIALS	Radome: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, polyester-coated
TOTAL HEIGHT	Approx. 1.4 m
WEIGHT	Approx. 4.4 kg
MOUNTING	On 58 - 105 mm dia. mast tube
ENVIRONMENTAL	
ENVIRONMENTAL CONDITIONS	CXL 70-1HD/...-PT is designed and tested by the SP Technical Research Institute of Sweden to operate under the environmental conditions as described in ETSI EN 300 019-2-4 Class 4.1 E.
TEMP. RANGE	-55°C → +70°C

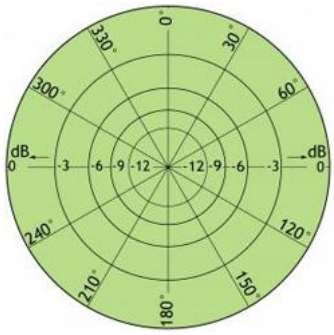
TYPICAL GAIN AND SWR CURVES



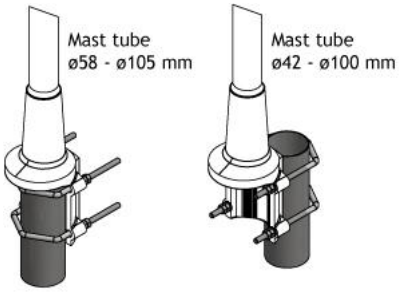
TYPICAL RADIATION PATTERN (E-PLANE)

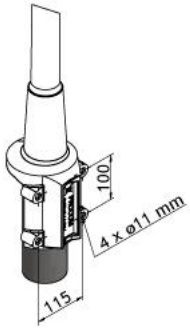


TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET





MOUNTING DESCRIPTION FOR GROUND CONNECTION

CXL 70-1/...

Unity Gain Base Station and Marine UHF Antenna

- This rod-type UHF antenna is developed for use onboard ships as well as on masts and covers the 450 MHz band in three models.
- The 1” revolving nut mounting system makes it possible to mount the antenna in the mast, in the auxiliary mast or on the cross-beam. By means of Procom’s flange mount type “FLG”, it can easily be mounted even on the rooftop.

DESCRIPTION

- This antenna type can be used for a wide variety of purposes. It is very popular and widely used in connection with 70 cm CELLULAR systems – as for instance the Nordic Mobile Telephone system NMT – making it possible to extend the – normally land based – CELLULAR telephone system for maritime mobile service as well.
- The antenna is a ½ λ design and this means that it needs neither loading coils, groundplane, radials nor other auxiliary arrangements.
- Bear in mind that the higher the antenna is mounted the better coverage.
- Avoid mounting the antenna parallel with or in the neighbourhood of other metal parts, such as masts, supporting wires etc. Free mounting and as high as possible is most preferable, otherwise the SWR and the radiation diagram will be influenced.
- The antenna is a grounded radiator antenna and therefore it shows a DC-short across the coaxial cable.
- A conical glass fibre tube completely encloses the carefully designed radiating element to assure long dependable service in all climates.

ORDERING DESIGNATIONS

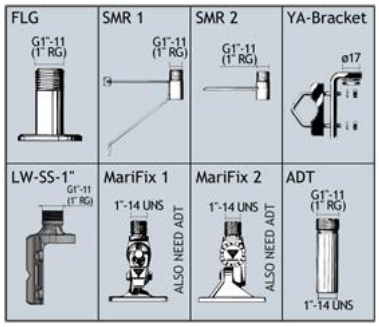
TYPE	PRODUCT NO.	FREQUENCY
CXL 70-1/l	110000137	380 – 430 MHz
CXL 70-1/h	110000136	420 – 470 MHz
CXL 70-1/hs	110000135	460 - 510 MHz

SPECIFICATIONS

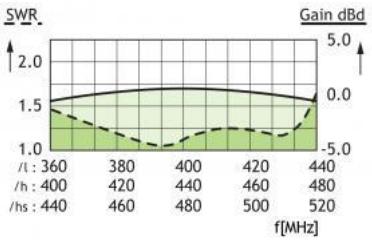
ELECTRICAL	
MODEL	CXL 70-1/...
ANTENNA TYPE	½ λ coaxial dipole, broad-banded
FREQUENCY	CXL 70-1/l : 380 – 430 MHz CXL 70-1/h : 420 – 470 MHz CXL 70-1/hs: 460 - 510 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional

POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	50 MHz
SWR	≤ 1.5
MAX. POWER	150 W
MECHANICAL	
CONNECTOR	N-female
WIND SURFACE	0.0093 m²
WIND LOAD	12 N @ 160 km/h
MAX. WIND SPEED	Tested to 200 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 560 mm
DIA. IN TOP END	12 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 350 g
MOUNTING	On 1” RG (G1” - 11) threaded water pipe or on optional mounting brackets (see accessories)
ENVIRONMENTAL	
TEMP. RANGE	-30°C → +70°C
IP RATING	IP 66

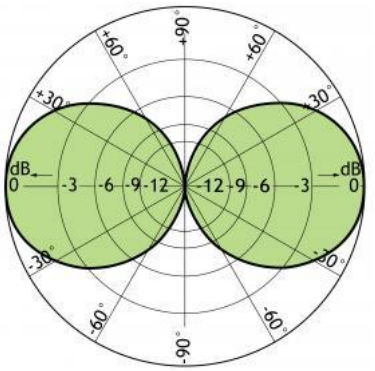
ACCESSORIES (to be ordered separately)



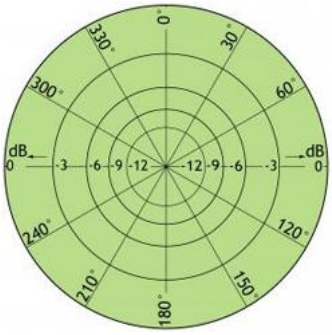
TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



CXL 5700-6

6 dBd Omnidirectional Base Station and Marine Antenna for the 5700 MHz Band

- Vertically polarized, omnidirectional base station and marine antenna.
- Approximately 6 dBd gain.

DESCRIPTION

- Wide variety of accessory mounting brackets available.
- Highly suitable for duplex operation with large spacing between the TX and the RX frequencies.
- The antenna element is sealed in a high-quality, conical glass fibre tube.
- The CXL 5700-6 is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

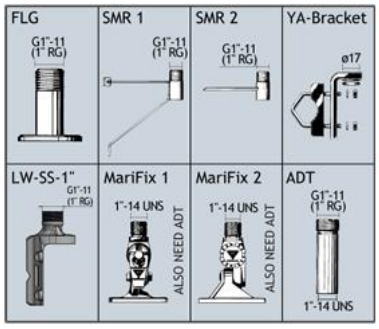
TYPE	PRODUCT NO.
CXL 5700-6	100000291

SPECIFICATIONS

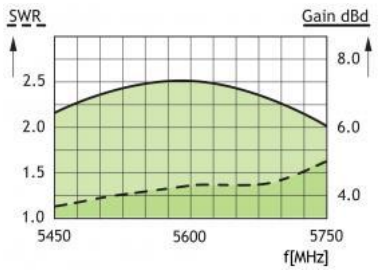
ELECTRICAL	
MODEL	CXL 5700-6
ANTENNA TYPE	Coaxial, collinear antenna, broad-banded with 3 - 5° electrical downtilt
FREQUENCY	5450 - 5750 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	8 dBi 6 dBd
BANDWIDTH	≥ 300 MHz @ SWR ≤ 2.0
SWR	≤ 2.0
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C

CONNECTOR	N-female
WIND SURFACE	Approx. 0.007 m²
WIND LOAD	Approx. 10 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 378 mm
DIA. AT TOP END	13 mm
DIA. AT BOTTOM END	16 mm
WEIGHT	Approx. 200 g
MOUNTING	On 1” RG (G1”-11) threaded water pipe or on optional mounting brackets

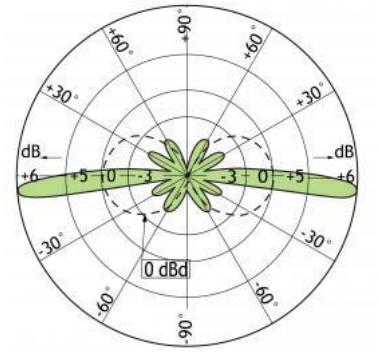
ACCESSORIES (to be ordered separately)



TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)


0
30
60
120
150
180
210
240
300
330
0 dBd
dB
+6
+3
0
-3
-3
0
-3
dB
+6

CXL 5700-3

3 dBd Omnidirectional Base Station and Marine Antenna for the 5700 MHz Band

- Vertically polarized, omnidirectional base station and marine antenna.
- Approximately 3 dBd gain.

DESCRIPTION

- Simple mounting using the 1" revolving nut system.
- Wide variety of accessory mounting brackets available.
- Large bandwidth with respect to both SWR and gain.
- Highly suitable for duplex operation with large spacing between the TX and the RX frequencies.
- The antenna element is sealed in a high-quality, conical glass fibre tube.
- All metal parts in the antenna are DC-grounded to reduce the noise caused by atmospherical discharge. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 5700-3 is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

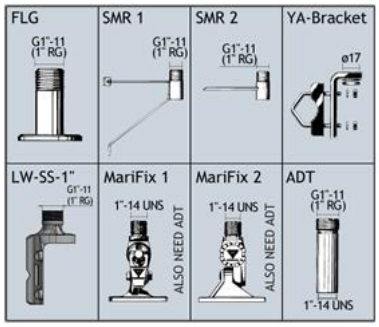
TYPE	PRODUCT NO.
CXL 5700-3	100000199

SPECIFICATIONS

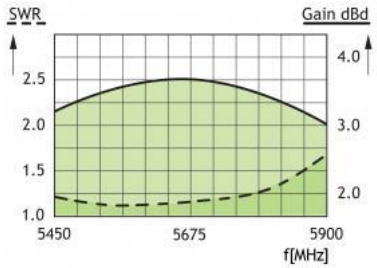
ELECTRICAL	
MODEL	CXL 5700-3
ANTENNA TYPE	Coaxial, collinear antenna, broad-banded
FREQUENCY	5450 - 5900 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd
BANDWIDTH	≥ 450 MHz @ SWR ≤ 2.0
SWR	≤ 1.5
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	

TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.005 m²
WIND LOAD	Approx. 6 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 230 mm
DIA. IN TOP END	14 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 200 g
MOUNTING	On 1” RG (G1”-11) threaded water pipe or on optional mounting brackets

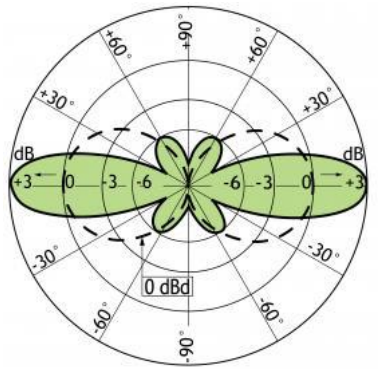
ACCESSORIES (to be ordered separately)



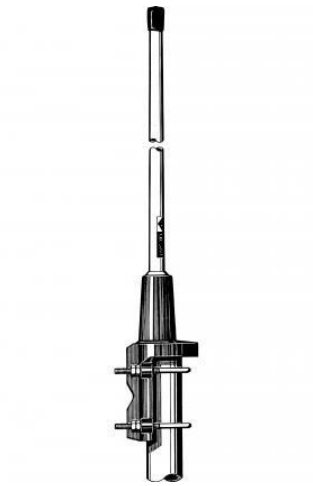
TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



CXL 5200-6LW

6 dBd Omnidirectional Base Station and Marine Antenna for the 5200 MHz Band

- Vertically polarized, omnidirectional base station and marine antenna.
- Approximately 6 dBd gain.

DESCRIPTION

- Highly suitable for duplex operation with large spacing between the TX and the RX frequencies.
- The antenna element is sealed in a high-quality, conical glass fibre tube.
- All metal parts in the antenna are DC-grounded to reduce the noise caused by atmospherical discharge. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 5200-6LW is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

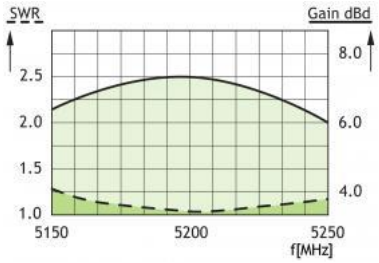
TYPE	PRODUCT NO.
CXL 5200-6LW	100000296

SPECIFICATIONS

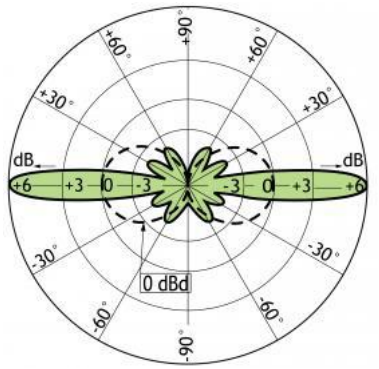
ELECTRICAL	
MODEL	CXL 5200-6LW
ANTENNA TYPE	Coaxial, collinear antenna, broad-banded
FREQUENCY	5150 - 5250 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	8 dBi 6 dBd
BANDWIDTH	≥ 100 MHz @ SWR ≤ 1.5
SWR	≤ 1.5
MAX. POWER	35 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)

MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.009 m²
WIND LOAD	Approx. 12 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 530 mm
DIA. AT TOP END	13 mm
DIA. AT BOTTOM END	16 mm
WEIGHT	Approx. 520 g
MOUNTING	On 16 to 54 mm dia. mast tube

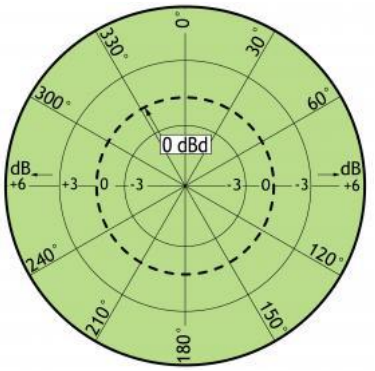
TYPICAL GAIN AND SWR CURVES



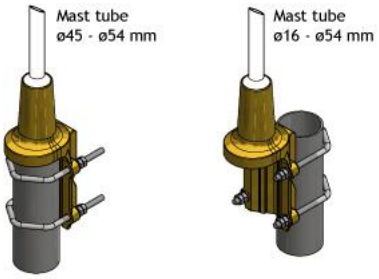
TYPICAL RADIATION PATTERN (E-PLANE)

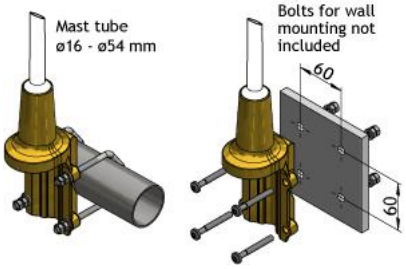


TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET





CXL 5200-6

6 dBd Omnidirectional Base Station and Marine Antenna for the 5200 MHz Band

- Vertically polarized, omnidirectional base station and marine antenna.
- Approximately 6 dBd gain.

DESCRIPTION

- Simple mounting using the 1" revolving nut system.
- Wide variety of accessory mounting brackets available.
- Highly suitable for duplex operation with large spacing between the TX and the RX frequencies.
- The antenna element is sealed in a high-quality, conical glass fibre tube.
- All metal parts in the antenna are DC-grounded to reduce the noise caused by atmospherical discharge. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 5200-6 is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

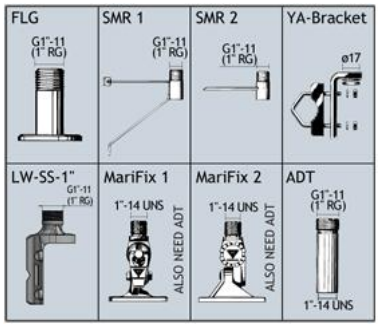
TYPE	PRODUCT NO.
CXL 5200-6	100000216

SPECIFICATIONS

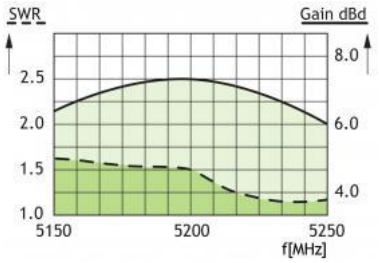
ELECTRICAL	
MODEL	CXL 5200-6
ANTENNA TYPE	Coaxial, collinear antenna, broad-banded
FREQUENCY	5150 - 5250 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	8 dBi 6 dBd
BANDWIDTH	≥ 100 MHz @ SWR ≤ 2.0
SWR	≤ 2.0
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C

CONNECTOR	N-female
WIND SURFACE	Approx. 0.007 m²
WIND LOAD	Approx. 9 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 420 mm
DIA. AT TOP END	13 mm
DIA. AT BOTTOM END	16 mm
WEIGHT	Approx. 200 g
MOUNTING	On 1” RG (G1”-11) threaded water pipe or on optional mounting brackets

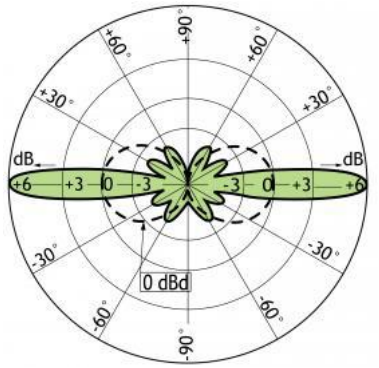
ACCESSORIES (to be ordered separately)



TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)


0
30
60
120
150
180
210
240
300
330
0 dBd
dB
+6
+3
0
-3
-3
0
-3
dB
+6

CXL 5700-1/...

Unity Gain Base Statin and Marine 5700 MHz Antenna for Mounting on Threaded 1

- The CXL 5700-1/... is a 0 dBd, vertically polarized, omnidirectional rod-type base station and marine antenna for the 5700 MHz band.

DESCRIPTION

- The 1” revolving nut mounting system is standard throughout the marine sector, and several different mounting brackets are available, making it possible to install the antenna either on the masthead using FLG or SMR 2, side-mounted on the mast
(SMR 1) or mounted on a cross-beam (FLG). Also, the antenna can be mounted on deck or rooftop by means of the FLG.
- The higher the antenna is mounted, the better coverage. Avoid mounting the antenna parallel to or in the neighbourhood of other metal parts, such as masts, supporting wires etc., otherwise the SWR and the radiation pattern may be strongly influenced.
- A conical glass fibre tube completely encloses the carefully designed radiating element to ensure long dependable service in all climates.

ORDERING DESIGNATIONS

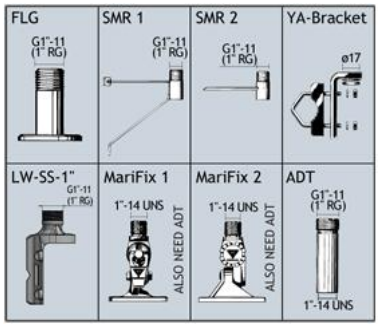
TYPE	FREQUENCY	PRODUCT NO.
CXL 5700-1/l	5150 - 5350 MHz	100000285
CXL 5700-1/m	5300 - 5500 MHz	100000286
CXL 5700-1/h	5450 - 5900 MHz	100000198

SPECIFICATIONS

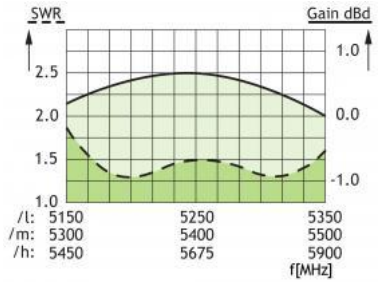
ELECTRICAL	
MODEL	CXL 5700-1/...
ANTENNA TYPE	½ λ coaxial dipole, broad-banded
FREQUENCY	Models within 5150 – 5900 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	≥ 300 MHz @ SWR ≤ 2.0
SWR	≤ 2.0, typ. ≤ 1.5

MAX. POWER	100 W
MECHANICAL	
CONNECTOR	N-female
WIND SURFACE	Approx. 0.006 m²
WIND LOAD	Approx. 8 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 230 mm
DIA. IN TOP END	14 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 180 g
MOUNTING	On 1” RG (G1”-11) threaded water pipe or on optional mounting brackets (see below)
ENVIRONMENTAL	
TEMP. RANGE	-30°C → +70°C

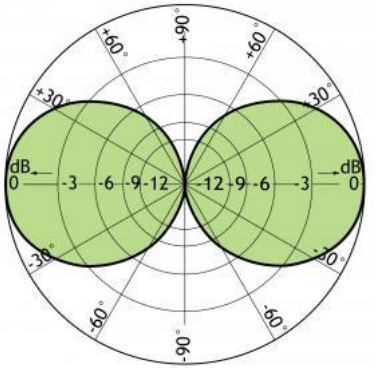
ACCESSORIES (to be ordered separately)



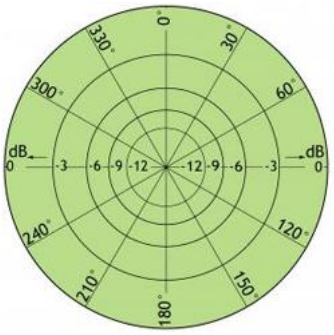
TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



CXL 470-870

0 dBd Broad-Band Base Station and Marine Antenna for the 470 - 870 MHz Band

- Vertically polarized, omnidirectional base station and marine antenna.
- Approximately 0 dBd gain.
- Simple mounting using the 1” revolving nut system.

DESCRIPTION

- Wide variety of accessory mounting brackets available.
- Large bandwidth (470 - 870 MHz) with respect to both SWR and gain.
- The antenna element is sealed in a high-quality, conical glass-fibre tube.
- The CXL 470-870 is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.
- The CXL 470-870 is designed specially for both digital and analog communication systems.

ORDERING DESIGNATIONS

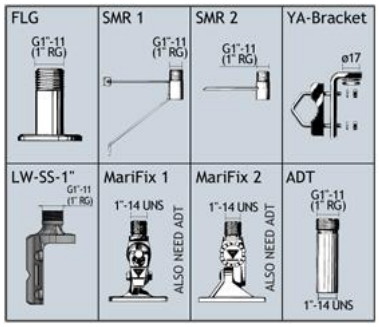
TYPE	PRODUCT NO.
CXL 470-870	100000226

SPECIFICATIONS

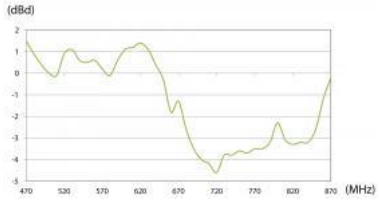
ELECTRICAL	
MODEL	CXL 470-870
ANTENNA TYPE	Coaxial, collinear antenna, broad-band
FREQUENCY	470 - 870 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd (see Gain Curve)
BANDWIDTH	≥ 400 MHz
SWR	≤ 2.5
MAX. POWER	100 W
MECHANICAL	
TEMP. RANGE	-30° C → +70° C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.013 m²

WIND LOAD	Approx. 20 N @ 160 km/h
MAX. WIND SPEED	200 Km/h / 125 mph
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 600 mm / 23.6 in.
DIA. AT TOP END	22.5 mm / 0.8 in.
DIA. AT BOTTOM END	23 mm / 0.9 in.
WEIGHT	Approx. 350 g / 0.7 lb.
MOUNTING	On 1” RG (G1” - 11) threaded water pipe or on optional mounting brackets (see below)

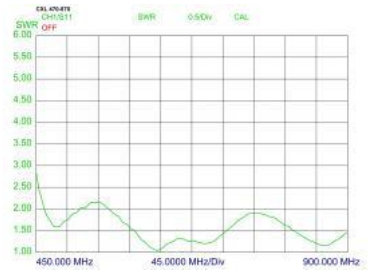
ACCESSORIES (to be ordered separately)



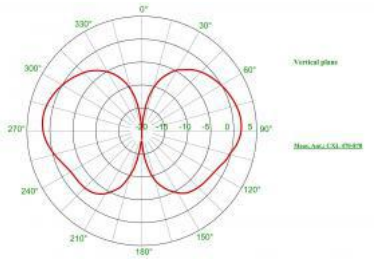
TYPICAL GAIN CURVE



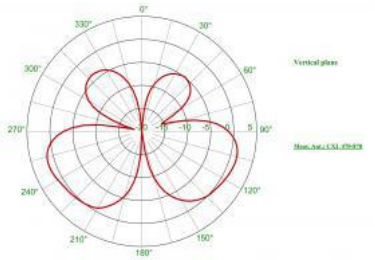
TYPICAL SWR CURVE



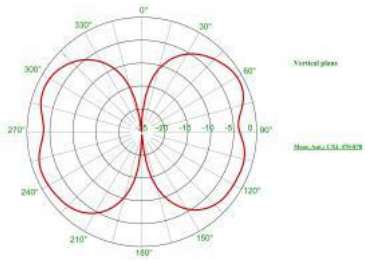
TYPICAL RADIATION PATTERN (E-PLANE) 470 Mhz



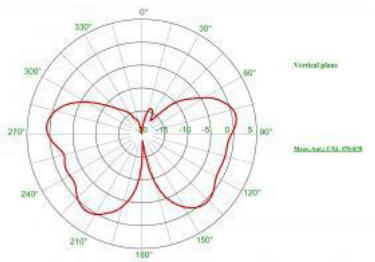
TYPICAL RADIATION PATTERN (E-PLANE) 670 Mhz



TYPICAL RADIATION PATTERN (E-PLANE) 770 Mhz



TYPICAL RADIATION PATTERN (E-PLANE) 870 Mhz



CXL 450-1LW-SS-Ex

ATEX certified, 0 dBd, Omnidirectional Base Station and Marine Antenna for the 450 MHz Band in hazardous areas

- CXL 450-1LW-SS-Ex is a 0 dBd, vertically polarized, omnidirectional base station antenna which covers the 380 - 510 MHz band in three models.
- The antenna is specified as ATEX antenna for use in zone 2 in potentially explosive areas.

DESCRIPTION

- Before installing the antenna, read the ATEX Product Manual carefully.
- The antenna is suitable for use in gas groups IIA, IIB and IIC in zone 2.
- It's only necessary to install a ATEX grounding Kit on the LW-SS-Ex bracket, when the point of installation has a different electrical potential than the system.
- The carefully designed, broadbanded ½ λ-dipole radiating element is made of brass tube and sealed in a high-quality cylindrical glass fibre tube with low wind-load.
- The accompanying U-bolts and fittings are made of stainless steel.
- The antenna element is sealed in a high-quality glass fibre tube.
- All metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.

ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
CXL 450-1LW-SS-Ex/l	380 - 430 MHz	115000010
CXL 450-1LW-SS-Ex/h	420 - 470 MHz	115000011
CXL 450-1LW-SS-Ex/hs	460 - 510 MHz	115000012
ACCESSORIES		
ATEX grounding Kit		115000100

SPECIFICATIONS

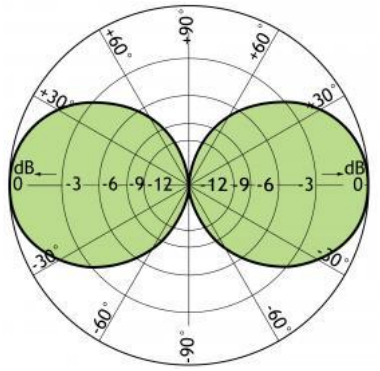
ELECTRICAL	
MODEL	CXL 450-1LW-SS-Ex
ANTENNA TYPE	½ λ coaxial dipole, broad-banded
FREQUENCY	50 MHz wide frequency segments within

	380 - 510 MHz. See ordering designations
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	50 MHz
SWR	≤ 1.5
MAX. RF INPUT POWER DUE TO MAX. EIRP IN ATEX ENVIRONMENT *	
Group IIA	35.6 dBm (3.6 W)
Group IIB	33.3 dBm (2.1 W)
Group IIC	30.8 dBm (1.2 W)
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +60°C
CONNECTOR TIGHTENING TORQUE	N-female 0.7 - 1.1 Nm
WIND SURFACE	0.029 m² / 0.31 ft²
WIND LOAD	33.6 N @ 160 km/h / 99.42 mph.
MAX. WIND SPEED	200 km/h / 124.27 mph.
INGRESS PROTECTION LEVEL	IP66
COLOUR	Blue
MATERIALS	Radome : Polyurethane-coated glass fibre Mounting bracket : Stainless acid-proof steel (AISI 316L) U-bolt and fittings : Stainless steel (AISI 304)
TOTAL HEIGHT	Approx. 1050 mm / 41.34 in.
DIAMETER	25.5 mm / 1.00 in.
WEIGHT	Approx. 1.45 kg / 3.20 lb.
MOUNTING TIGHTENING TORQUE	On 16 - 54 mm / 0.63 - 2.13 in. dia. mast tub 3 Nm
ATEX MARKING	II 3G Ex nA IIC T6

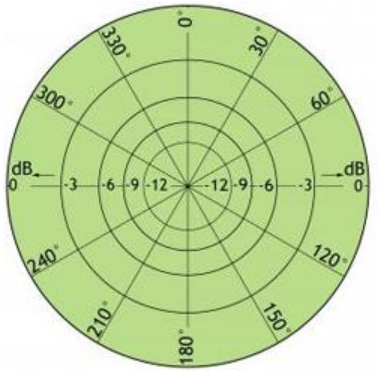
* See the ATEX Product Manual (safety and mounting instructions) and related EU DECLARATION OF CONFORMITY ATEX Directive 2014/34/EU.

TYPICAL GAIN AND SWR CURVES

TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



CALCULATION OF MAX. ANTENNA INPUT POWER IN DIFFERENT ATEX GROUPS

ATEX GROUP	MAX. EIRP POWER	ANTENNA GAIN	MAX INPUT POWER
IIA	37.7 dBm (6.0 W)	0 dBd / 2.15 dBi	35.6 dBm (3.6 W)
IIB	35.4 dBm (3.5 W)	0 dBd / 2.15 dBi	33.3 dBm (2.1 W)
IIC	33.0 dBm (2.0 W)	0 dBd / 2.15 dBi	30.8 dBm (1.2 W)

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MULTI-PURPOSE MOUNTING BRACKET

CXL 4/70C/...

Dual-frequency, Base Station Antenna for the 80 MHz and TETRA BAnd

- CXL 4/70C/... is a dual-frequency base station antenna - two bands with only one antenna.

DESCRIPTION

- This antenna makes it possible to:
  - operate 4 m and TETRA transceivers alternately on the same antenna.
  - operate two transceivers (4 m and TETRA) at the same time on one antenna using a diplexer (type DIPX 225/330 - must be ordered separately).
- CXL 4/70C/... is designed for fixation on supporting tubes with outer diameter between 27 mm and 65 mm.
- The construction of the mount makes it possible to lead the cable either inside or along the outside of the mast tube.
- Atmospherical discharges are immediately led to ground as all metal parts are DC-grounded (consequently, the antenna shows a DC-short across the coaxial cable).

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY
CXL 4/70C/74-87/380-400 MHz	100000376	4 m band: 74 - 87 MHz TETRA: 380 - 400 MHz

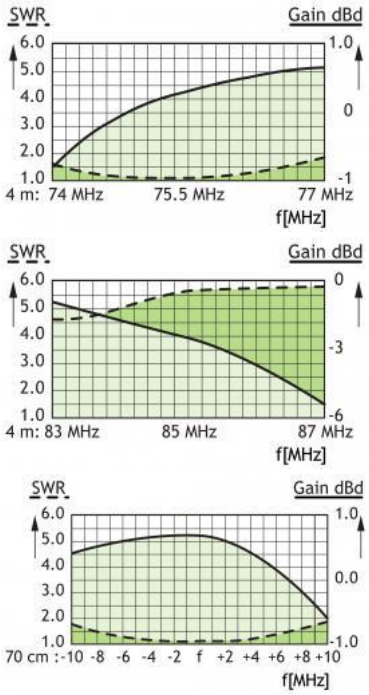
If other frequencies within the 4 m band are required, please contact us for a quotation.

SPECIFICATIONS

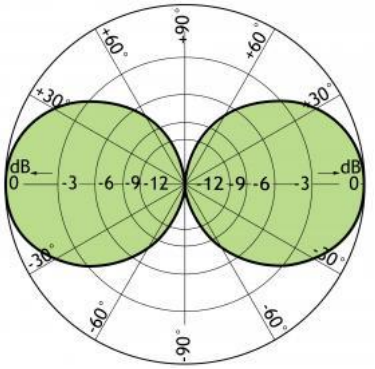
ELECTRICAL	
MODEL	CXL 4/70C/...
ANTENNA TYPE	Coaxial, dual-frequency base station antenna
FREQUENCY	4 m : 74 - 87 MHz TETRA : 380 - 400 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	4 m : 74 - 77 MHz approx. 2 dBi 0 dBd 4 m : 84 - 87 MHz average -6 dBi -4 dBd TETRA : Approx. 2 dBi 0 dBd
SWR BANDWIDTH	4 m : 74 - 77 MHz ≤ SWR 2.0 4 m : 84 - 87 MHz ≤ SWR 6.0 TETRA : 380 - 400 MHz ≤ SWR 2.0
SWR	≤ 1.5 @ f. res. in both bands

MAX. POWER	100 W (for each band)
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
CONNECTOR	N-female
WIND SURFACE	0.14 m²
WIND LOAD	177 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Radome : Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated
TOTAL HEIGHT	Approx. 2.7 m
WEIGHT	Approx. 3.8 kg
MOUNTING	On 27 - 65 mm dia. mast tube

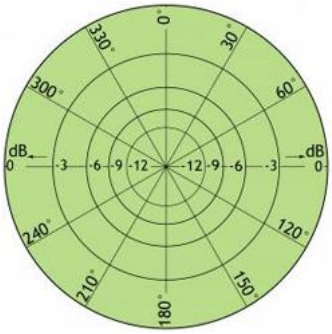
TYPICAL GAIN AND SWR CURVES



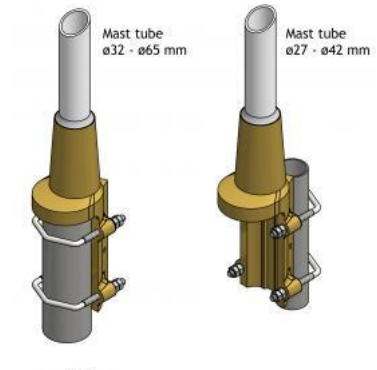
TYPICAL RADIATION PATTERN (E-PLANE)

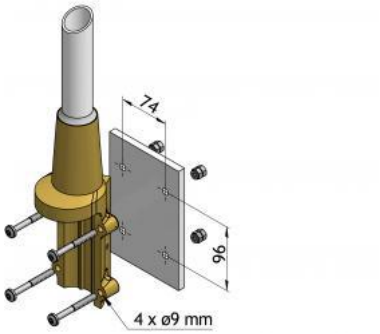


TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET





CXL 4-2C/...

Unity Gain, Broad-banded, Omnidirectional Base Station Antenna for the 80 MHz Band

- CXL 4-2C/... is a 0 dBd gain, omnidirectional rod-type base station antenna for the 80 MHz band.
- The 80 MHz-band is covered in 4 frequency segments: 66 - 80 MHz, 70 - 84 MHz, 74 - 88 MHz and 88 - 108 MHz.

DESCRIPTION

- CXL 4-2C/... is designed for fixation on supporting tubes with outer diameter between 27 mm and 65 mm.
- The construction of the mount makes it possible to lead the cable either inside or along the outside of the mast tube.
- A glass fibre tube completely encloses the carefully designed radiating element to ensure long dependable service in all climates.
- Atmospherical discharges are immediately led to ground as all metal parts are DC-connected. Consequently, the antenna shows a DC-short across the coaxial cable.
- This antenna is used where reliability is of utmost importance. A long lifetime has been taken into consideration when designing this antenna – it is sturdy and strong.

ORDERING DESIGNATIONS

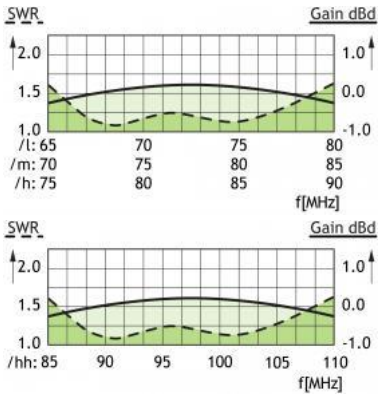
TYPE	PRODUCT NO.	FREQUENCY
CXL 4-2C/l	100000059	66 - 80 MHz
CXL 4-2C/m	100000058	70 - 84 MHz
CXL 4-2C/h	100000057	74 - 88 MHz
CXL 4-2C/hh	100000470	88 - 108 MHz

SPECIFICATIONS

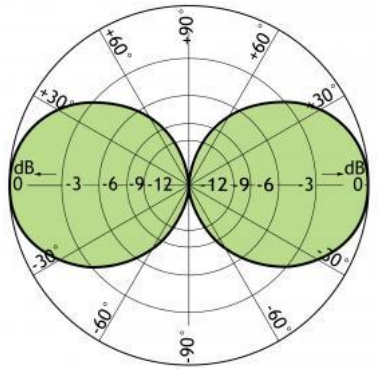
ELECTRICAL	
MODEL	CXL 4-2C/...
ANTENNA TYPE	Coaxial, broad-band dipole
FREQUENCY	Models within 66 - 108 MHz (see model survey)
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	14 - 20 MHz dep. of model
SWR	≤ 1.6

MAX. POWER	600 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
CONNECTOR	N-female
WIND SURFACE	0.15 m²
WIND LOAD	190 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Radiating part: Glass fibre, polyurethane-lacquered Mast clamp : Seawater-resistant aluminium, epoxy-coated
TOTAL HEIGHT	Approx. 3.1 m
WEIGHT	Approx. 4.5 kg
MOUNTING	On 27 - 65 mm dia. mast tube

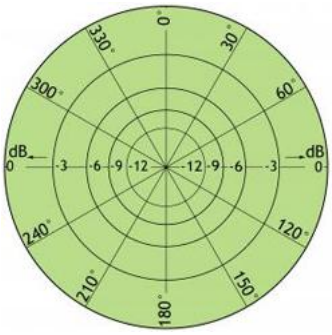
TYPICAL GAIN AND SWR CURVES



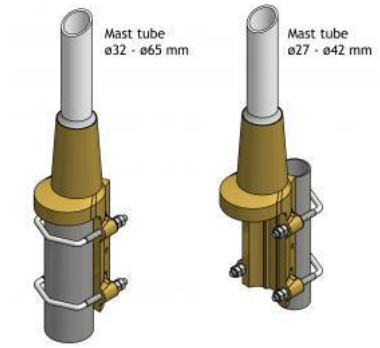
TYPICAL RADIATION PATTERN (E-PLANE)

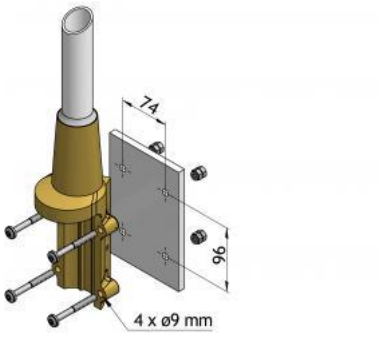


TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET





CXL 4-1LW/...

Unity Gain, Broad-banded, Omnidirectional Base Station Antenna for the 80 MHz Band

- CXL 4-1LW/... is a 0 dBd gain, omnidirectional rod-type base station antenna for the 80 MHz band.
- The 80 MHz-band is covered in 3 frequency segments: 66 - 75 MHz, 72 - 82 MHz and 77 - 88 MHz.

DESCRIPTION

- The construction of the mount makes it possible to lead the cable either inside or along the outside of the mast tube.
- The antenna is provided with our sturdy type “LW” mast mount, which is a lightweight, multi-purpose, epoxy-coated mounting bracket made of non-corrosive aluminium. The accompanying U-bolts and fittings are made of stainless steel.
- The antenna can be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter. Further, the construction of the mount makes it possible to lead the cable either along the inside or on the outside of the mast tube.
- The carefully designed, broad-banded antenna element is sealed in a high-quality, conical glass fibre tube with low wind-load, which will ensure performance undisturbed by corrosive environments.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 4-1LW/... is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station antenna.

ORDERING DESIGNATIONS

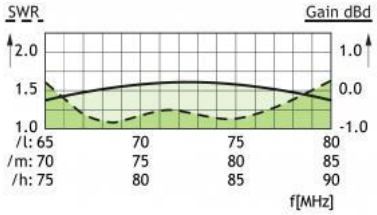
TYPE	PRODUCT NO.	FREQUENCY
CXL 4-1LW/l	100000054	66 - 75 MHz
CXL 4-1LW/m	100000055	72 - 82 MHz
CXL 4-1LW/h	100000056	77 - 88 MHz

SPECIFICATIONS

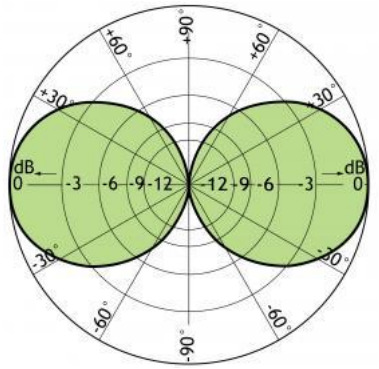
ELECTRICAL	
MODEL	CXL 4-1LW/...
ANTENNA TYPE	Coaxial, broad-band dipole
FREQUENCY	Models within 66 - 88 MHz (see model survey)
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd

BANDWIDTH	9 - 11 MHz
SWR	≤ 1.8
MAX. POWER	150 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
CONNECTOR	N-female
WIND SURFACE	0.056 m²
WIND LOAD	71 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Radiating part: Glass fibre, polyurethane-lacquered Mast clamp : Seawater-resistant aluminium, epoxy-coated
TOTAL HEIGHT	Approx. 2.3 m
WEIGHT	Approx. 1.5 kg
MOUNTING	On 16 - 54 mm dia. mast tube

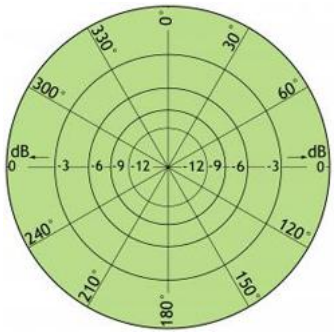
TYPICAL GAIN AND SWR CURVES



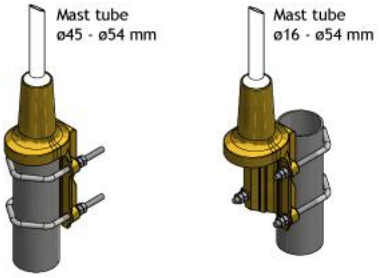
TYPICAL RADIATION PATTERN (E-PLANE)

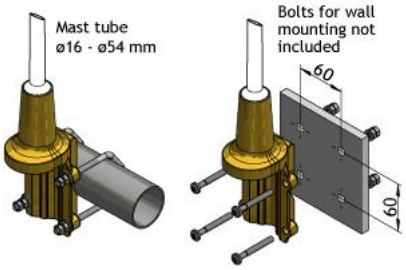


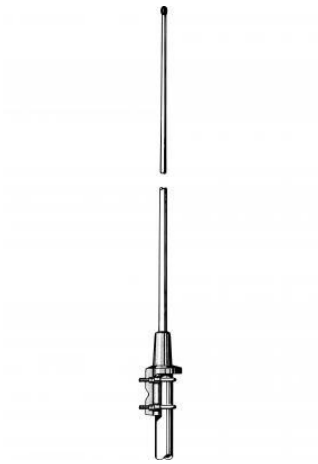
TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET







CXL 3-1LW

Unity-Gain, Omnidirectional Base Station Antenna for the International Aircraft Band

- CXL 3-1LW is a 0 dBd, vertically polarized, omnidirectional base station antenna for the 118 - 137 MHz civil aircraft band.
- The antenna is a broad-banded ½ λ dipole design, and it is equipped with our type “LW” mast mount, which is a lightweight, multi-purpose, epoxy-coated aluminium mounting bracket with stainless steel fittings.

DESCRIPTION

- The antenna can be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter. Further, the construction of the mount makes it possible to lead the cable either along the inside or on the outside of the mast tube.
- A conical glass fibre tube with very low wind-loading completely encloses the carefully designed radiating element to ensure long dependable service in all climates.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- CXL 3-1LW is a vibration-proof, lightweight, slim-line, corrosion-resistant, modern style base station antenna.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
CXL 3-1LW	100000075

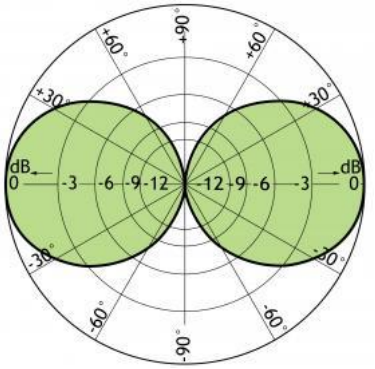
SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 3-1LW
ANTENNA TYPE	½ λ coaxial dipol, broad-banded
FREQUENCY	Covering: 118 - 137 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	19 MHz
SWR	≤ 1.75
MAX. POWER	150 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)

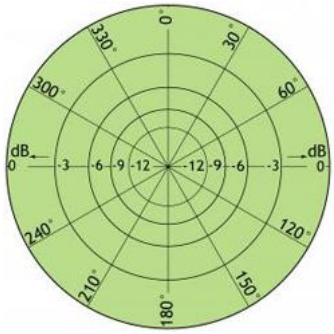
MECHANICAL	
TEMP. RANGE	-40° C → +70° C
CONNECTOR	N-female
WIND SURFACE	0.0162 m²
WIND LOAD	25 N @ 175 km/h
COLOUR	Marine white
MATERIALS	Radome: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated
TOTAL HEIGHT	Approx. 1.5 m
WEIGHT	Approx. 0.80 kg
MOUNTING	On 16 - 54 mm dia. mast tube

TYPICAL GAIN AND SWR CURVES

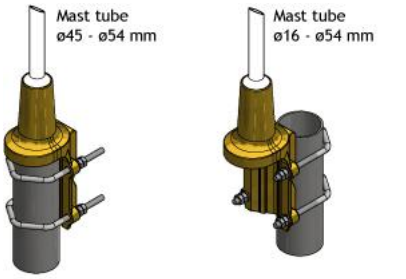
TYPICAL RADIATION PATTERN (E-PLANE)

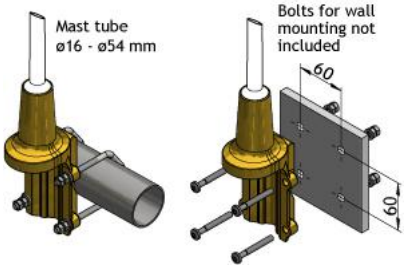


TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET





CXL 3-1

Unity-Gain, Omnidirectional Base Station Antenna for the International Aircraft Band

- CXL 3-1 is a 0 dBd, vertically polarized, omnidirectional base station antenna for the 118 - 137 MHz civil aircraft band.
- The antenna is a broad-banded ½ λ dipole design.
- The antenna can be mounted on threaded 1" water pipe using the supplied 1" revolving nut. In this way, a nice, slim installation is obtained.

DESCRIPTION

- A wide variety of accessory mounting hardware (see below) gives ample choice regarding alternative ways of installation.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- A conical glass fibre tube with very low wind-loading completely encloses the carefully designed radiating element to ensure long dependable service in all climates.

ORDERING DESIGNATIONS

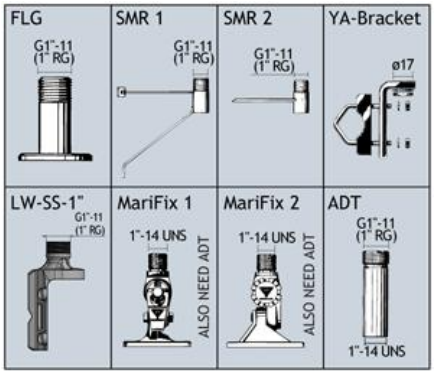
TYPE	PRODUCT NO.
CXL 3-1	100000068

SPECIFICATIONS

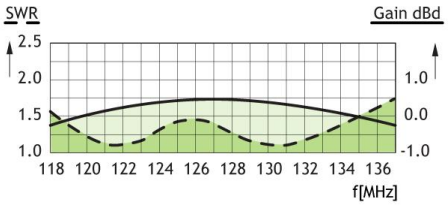
ELECTRICAL	
MODEL	CXL 3-1
ANTENNA TYPE	½ λ coaxial dipol, broad-banded
FREQUENCY	Covering: 118 - 137 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	19 MHz
SWR	≤ 1.75
MAX. POWER	150 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)

MECHANICAL	
CONNECTOR	UHF-female (fitting PL-259)
WIND SURFACE	0.023 m²
WIND LOAD	29 N @ 160 km/h
MAX WIND SPEED	Tested to 200 km/h
COLOUR	Marine white
MATERIALS	Radome: Polyurethane-coated glass fibre Mounting hardware: Bright chromed brass
TOTAL HEIGHT	Approx. 1.5 m
WEIGHT	Approx. 0.85 kg
MOUNTING	On 1” RG (G1” - 11) threaded water pipe or on optional mounting brackets (see below)

ACCESSORIES (to be ordered separately)



TYPICAL GAIN AND SWR CURVES



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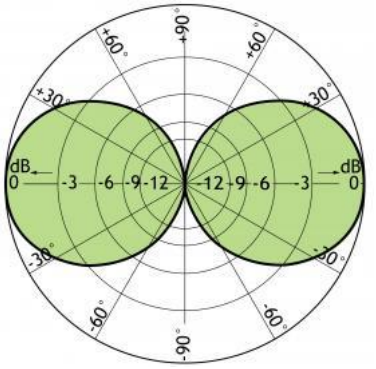
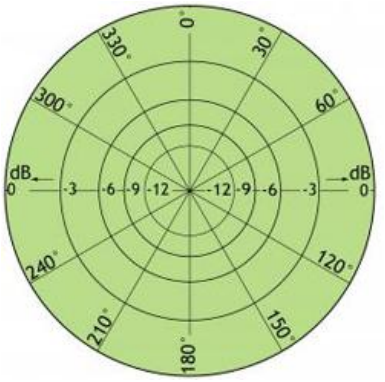
TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



PRO 2.5-001HD/TSV50/...

50 cm Parabolic Antenna for the 2.5 GHz Band with Housing for Electronic Equipment

- Completely assembled parabolic antenna with housing for electronic equipment.
- Ideal for fixed links and point-to-multipoint applications, e.g. RLAN, video link etc.

DESCRIPTION

- The 2.5 GHz band covered in two models.
- Approx. 17 dBd gain.
- Approx. 15° half-power beam width.
- 48 cm parabolic dish with F/D: 0.4.
- Feeding arrangement in PCB technology.
- The antenna is carefully sealed with a radome of outdoor quality plastic.
- The antenna is terminated with an SMA (female) connector (inside the equipment housing).
- The housing is provided with N (female) connector for the downlead cable.
- Heavy-duty stainless steel mast mounting bracket integrated on the housing.
- Bracket adjustable in azimuth (±10°) as well as elevation (±26°).
- For mounting on 50 - 115 mm mast tubes.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY
PRO 2.5-001HD/TSV50/l	150000067	2300 – 2500 MHz
PRO 2.5-001HD/TSV50/h	150000069	2500 – 2700 MHz

ELECTRICAL	
MODEL	PRO 2.5-001HD/TSV50/...
ANTENNA TYPE	Parabolic dish antenna
FREQUENCY	l: 2300 – 2500 MHz h: 2500 – 2700 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	Approx. 19 dBi 17 dBd
BANDWIDTH	200 MHz
SWR	≤ 1.5
MAX. POWER	10 W
MECHANICAL	
CONNECTION	Antenna: SMA (female) (inside housing) Housing: N (female) (for connection of downlead cable)
WIND SURFACE	Approx. 0.25 m²
WIND LOAD	Approx. 316 N @ 160 km/h
COLOUR	Radome: Light grey Housing, brackets: Grey
MATERIALS	Parabolic dish: Aluminium Feeding system: Brass and glass epoxy PCB Housing: Glass reinforced plastic Brackets: Stainless steel
DIMENSIONS	Diameter, dish: 480 mm Depth: (approx.) 400 mm (incl. housing) Housing (H x W x D) outside: 220 x 170 x 150 mm inside: 190 x 135 x 120 mm
WEIGHT	Approx. 10 kg
MOUNTING	Mast mounting with supplied bracket on 50 - 115 mm mast tube

PLEASE NOTE

The PRO 2.5-001HD/... is also available in a 20 dB-version with a 70 cm parabolic dish, type no. PRO 2.5-001HD/TSV 70/... with same frequency segmentation as above.

PRO-145-...

145 GHz Waveguide Section,WR 7

- 145 GHz Waveguide Section,WR 7
- Made of copper.
- L = 91.6 mm (length suiting parabolic dish antenna).
- Frequency range: 110 - 170 GHz

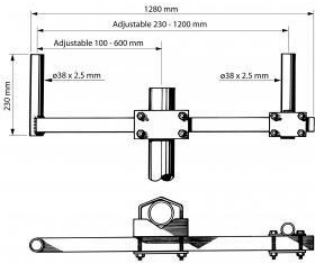
PRO-145-004

PRO-145-006

145 GHz Flange for WR 7
Made of brass.

ORDERING DESIGNATIONS

TYPE NO.	PRODUCT NO.
PRO-145-004	150000051
PRO-145-006	150000048



PMC 1250

Phasing-Mounting-Clamp for Creating a Certain Radiation Pattern using Two Antennas

- The PMC 1250 can be used to create a certain desired radiation pattern in the horizontal plane using two vertically polarised antennas mounted side-by-side in a certain, prescribed distance, and feeding them both in the correct amplitude and phase relationship. The PMC 1250 is mainly designed for the 144 - 175 MHz band.

DESCRIPTION

- The PMC 1250 is equipped with two vertical 38 mm mast tube mounting studs for the two antennas. One of the tubes is welded permanently to one end of the supporting boom, and the other is able to slide along the boom where it can be fastened at an arbitrary distance. The position of the main clamp for the supporting mast can also be adjusted, and it should always be positioned halfway between the two antennas.
- Mostly, the antennas are fed with currents of the same amplitude, and only the phase relationship and the distance between the antennas are varied to produce the desired coverage. The phase relationship is changed by introducing a delay line in one branch of the feeding cable system.
- The figure below shows representative horizontal patterns for various values of distance D and phase delay Pd. Obviously, given a particular antenna site and a certain geographical area to be covered, a system like this offers a large degree of design-freedom to choose the best characteristic possible.
- Please note that the PMC 1250 should always be mounted at the top of the supporting mast. If the PMC 1250 is sidemounted, the radiation pattern will be very difficult to predict.
- Procom offers the service of designing and quoting systems like this especially according to the requirements of our customers.

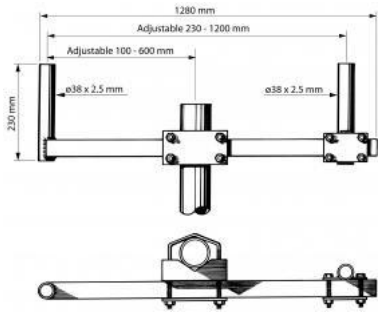
ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PMC 1250	100000039

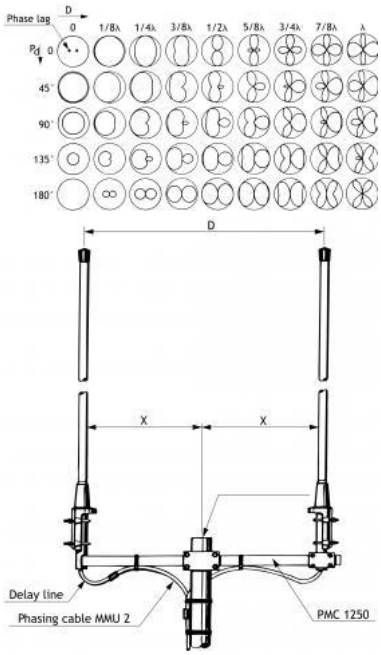
SPECIFICATIONS

APPLICATION	Phasing-Mounting-Clamp for creating a desired coverage
FREQUENCY	66 - 88 MHz: 1/16 λ < D < 1/4 λ 144 - 175 MHz: 1/8 λ < D < 1/2 λ
DISTANCE BETWEEN ANTENNAS (Variation range)	0.23 - 1.20 m
DIAMETER OF MOUNTING STUDS	Ø 38 mm
WIND SURFACE	0.10 m²
WIND LOAD	127 N @ 160 km/h
MATERIALS	Boom: Hot dipped galvanized steel Fittings: Stainless steel
TOTAL HEIGHT	Approx. 1.28 m
WEIGHT	Approx. 8.0 kg
MOUNTING	On 38 - 65 mm outer diameter mast tube

Drawings



SURVEY OF RADIATION PATTERNS (Relative field strength)



Antennas should be mounted symmetrically in relation to the mast.

VHF-DP-ARRAY

VHF-Dipole Array with 2 or 4 Dipoles Combined togehter to a Common Feeder

- The purpose of coupling antennas in a array is to achieve either gain or to create a special shape of the radiation diagram.

DESCRIPTION

- The branches of the cable harness are impedance transforming sections and must not be shortened.
- The cable harnesses are fully waterproof and protected against hostile environments.
- By using these cable matching harnesses, four antennas can be combined together and fed in phase keeping a low SWR and minimum insertion loss.
- The antennas are supplied complete with clamps for mounting on 30 - 58 mm / 1.18 - 2.29 in. diameter mast tube.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
VHF-DP-ARRAY-2	Replaced by S.M2
VHF-DP-ARRAY-4	Replaced by S.M4

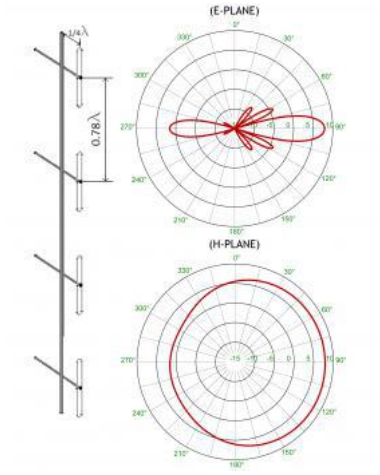
SPECIFICATIONS

ELECTRICAL	
MODEL	VHF-DP-ARRAY
ANTENNA TYPE	Dipole array, 2 or 4 stacked dipole incl. cable harness (splitter/combiner)
FREQUENCY	144 - 175 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Horizontal (adjustable)
GAIN	VHF-DP-ARRAY-2: 3 - 6 dBd VHF-DP-ARRAY-4: 6 - 9 dBd dependent on the spacing to the metal mast
VERTICAL BEAMWIDTH	VHF-DP-ARRAY-2: 36° VHF-DP-ARRAY-4: 18°

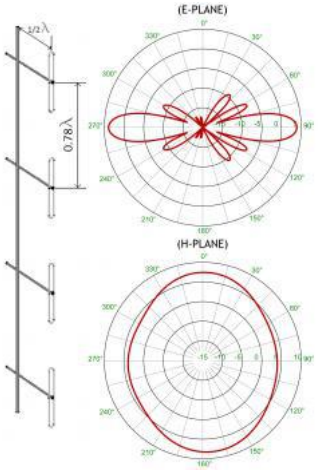
BANDWIDTH	31 MHz
SWR	≤ 1.5
MAX. POWER	150 Watt on the feeder terminal
MECHANICAL	
TEMP. RANGE	-25°C → +65°C
CONNECTOR	N-female on the cable splitter/combiner feeder for the downlead cable
WIND SURFACE	VHF-DP-ARRAY-2: 0.11 m^2 / 1.18 ft^2 VHF-DP-ARRAY-4: 0.24 m^2 / 2.60 ft^2
WIND LOAD	VHF-DP-ARRAY-2: 150 N @ 160 km/h / 150 N @ 100 mph VHF-DP-ARRAY-4: 304 N @ 160 km/h / 304 N @ 100 mph
COLOUR	“Aluminium”, black and bright
MATERIALS	Aluminium
DIMENSIONS	For each dipole : Boom dia. : 31.8 mm / 1.25 in. Dipole element dia. : 19.0 mm / 0.75 in. Boom length : Approx. 1.4 m / 55 in. Element length : Approx. 0.8 m / 31.5 in.
WEIGHT	VHF-DP-ARRAY-2: Approx. 7.5 kg / 16.54 lb. VHF-DP-ARRAY-4: Approx. 15 kg / 33 lb.
MOUNTING	On 30 - 58 mm / 1.18 - 2.29 in. dia. mast tube with the included mast clamps. Cable binders not included

TYPICAL RADIATION PATTERN

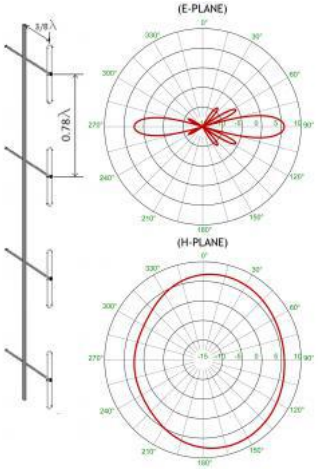
TYPICAL RADIATION PATTERN FOR VHF-DP-ARRAY-4
(Distance between the antennas approx. 0.78 λ)



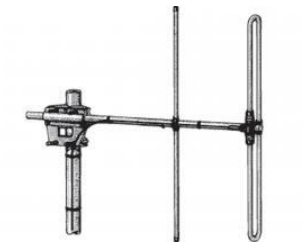
¼ λ spacing from mast ~ 0.161 m



½ λ spacing from mast ~ 0.322 m



3/8 λ spacing from mast ~ 0.242 m



R 2-3/..., R 2-6/...

Directional Antennas with 3 and 6 dBd Gain for the 160 MHz Band

- These antennas are 2- and 3-element Yagi antennas with 3 and 6 dBd gain, respectively.
- When mounted for vertical polarization, the horizontal coverage is R 2-3: 150° and R 2-6: 120°. R 2-3/... and R 2-6/... cover the 160 MHz band in two models.
- These Yagis incorporate baluns optimized for wide bandwidth and accurate matching.

DESCRIPTION

- The entire balun unit and feeder cable inlet are completely sealed in a polythene moulding ensuring permanent waterproof connections. The antennas are supplied with a 3 m “tail” of RG 213 terminated with an N-female connector.
- Radiating elements, supporting booms and adjoining metal castings have been constructed in high-quality aluminium alloys to prevent corrosion. All metal parts are DC-grounded.
- The antennas are designed for back mounting and are provided with rear extended booms.
- These antennas can be stacked and fed in phase with a matching harness for increased gain.
- A mast clamp for fixation on 30 - 58 mm diameter mast tube is supplied.

ORDERING DESIGNATIONS

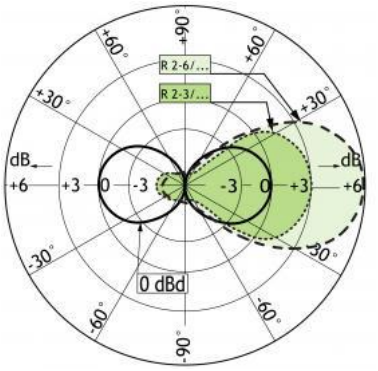
TYPE	FREQUENCY	PRODUCT NO.
2-element Yagi 3 dBd		
R 2-3/l	144 - 162 MHz	Replaced by 7031144
R 2-3/h	156 - 175 MHz	Replaced by 7031156
3-element Yagi 6 dBd		
R 2-6/l	144 - 162 MHz	Replaced by 7049145
R 2-6/h	156 - 175 MHz	Replaced by 7049000

SPECIFICATIONS

ELECTRICAL		
MODEL	R 2-3/...	R 2-6/...
ANTENNA TYPE	2-element Yagi	3-element Yagi
FREQUENCY	"l": 144 - 162 MHz "h": 156 - 175 MHz	"l": 144 - 162 MHz "h": 156 - 175 MHz
IMPEDANCE	Nom. 50 Ω	
POLARIZATION	Vertical or horizontal	
GAIN	5 dBi 3 dBd	8 dBi 6 dBd
FRONT TO BACK RATIO	12 dBd	16 dBd
HALF-POWER BEAMWIDTH	E-plane: 75° H-plane: 150°	E-plane: 70° H-plane: 120°

BANDWIDTH	19 MHz	
SWR	≤ 1.5	
MAX. POWER	150 W	
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)	
MECHANICAL		
TEMP. RANGE	-25°C → +60°C	
CONNECTION	3 m tail of RG 213 terminated with N-female connector	
WIND SURFACE	0.0828 m²	0.0936 m²
WIND LOAD	105 N @ 160 km/h	118 N @ 160 km/h
COLOUR	“Aluminium”	
MATERIALS	Elements/Boom/Saddle clamps: Aluminium alloys. Fittings: Stainless steel	
BOOM LENGTH	Approx. 0.93 m	Approx. 1.2 m
BOOM DIA.	31.8 mm	
MAX. ELEMENT LENGTH	Approx. 1.1 m	
DIA. OF ELEMENTS	19 mm	
WEIGHT	Approx. 3.5 kg	Approx. 4.1 kg
MOUNTING	Supplied with mast bracket suiting 30 - 58 mm dia. mast tube	

TYPICAL RADIATION PATTERN (E-PLANE)



If the antennas are mounted for vertical polarization, these curves show the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)

If the antennas are mounted for vertical polarization, these curves show the radiation patterns in the horizontal plane (horizontal coverage).

R 2-8/..., R 2-10/...

Directional Antennas with 8 and 10 dBd Gain for the 160 MHz Band

- These antennas are 6- and 8-element Yagi antennas with 8 and 10 dBd gain, respectively.

DESCRIPTION

- When mounted for vertical polarisation the horizontal coverage is R 2-8: 64° and R 2-10: 50°. R 2-8/... and R 2-10/... cover the 160 MHz band in two models.
- These Yagis incorporate baluns optimized for wide bandwidth and accurate matching.
- The entire balun unit and feeder cable inlet are completely sealed in a polythene moulding ensuring permanent waterproof connections. The antennas are supplied with a 3 m “tail” of RG 213 terminated with an N-female connector.
- Radiating elements, supporting booms and adjoining metal castings have been constructed in high quality aluminium alloys to prevent corrosion. All metal parts are DC-grounded.
- The antennas are designed for back mounting and are provided with rear extended booms.
- These antennas can be stacked and fed in phase with a matching harness for increased gain.
- A mast clamp for fixation on 30 - 58 mm diameter mast tube is enclosed.

R 2-10/...

ORDERING DESIGNATIONS

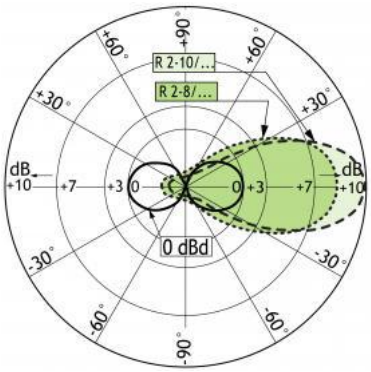
TYPE	FREQUENCY	PRODUCT NO.
6-element Yagi 8 dBd		
R 2-8/l	140 - 155 MHz	Replaced by 7042140
R 2-8/h	155 - 175 MHz	Replaced by 7042155
8-element Yagi 10 dBd		
R 2-10/l	145 - 165 MHz	Replaced by 7043150
R 2-10/h	155 - 175 MHz	Replaced by 7043155

SPECIFICATIONS

ELECTRICAL		
MODEL	R 2-8/...	R 2-10/...
ANTENNA TYPE	6-element Yagi	8-element Yagi
FREQUENCY	"l": 140 - 155 MHz "h": 155 - 175 MHz	"l": 145 - 165 MHz "h": 155 - 175 MHz
IMPEDANCE	Nom. 50 Ω	
POLARIZATION	Vertical or horizontal	

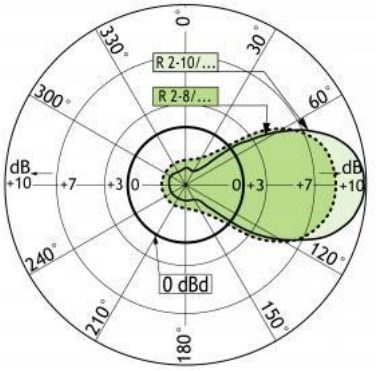
GAIN	10 dBi 8 dBd	12 dBi 10 dBd
FRONT TO BACK RATIO	16 dBd	20 dBd
HALF-POWER BEAMWIDTH	E-plane: 56° H-plane: 64°	E-plane: 40° H-plane: 50°
BANDWIDTH	20 MHz	
SWR	≤ 1.5	
MAX. POWER	150 W	
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)	
MECHANICAL		
MODEL	R 2-8/...	R 2-10/...
TEMP. RANGE	-25°C → +60°C	
CONNECTION	3 m tail of RG 213 terminated with type “N” female connector	
WIND SURFACE	0.139 m²	0.15 m²
WIND LOAD	176 N @ 160 km/h	190 N @ 160 km/h
COLOUR	“Aluminium”	
MATERIALS	Elements/Boom/Saddle clamps: Aluminium alloys. Fittings: Stainless steel	
BOOM LENGTH	Approx. 2.7 m	Approx. 3.4 m
BOOM DIA.	31.8 mm	
MAX. ELEMENT LENGTH	Approx. 1.06 m	
DIA. OF ELEMENTS	19 mm	
WEIGHT	Approx. 4.8 kg	Approx. 5.2 kg
MOUNTING	Supplied with mast bracket suiting 30 - 58 mm dia. mast tube	

TYPICAL RADIATION PATTERN (E-PLANE)

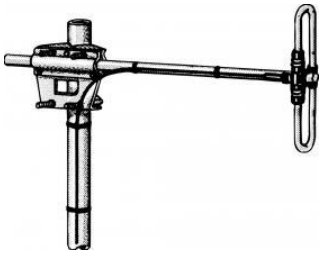


If the antennas are mounted for vertical polarisation these curves show the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)



If the antennas are mounted for vertical polarisation these curves show the radiation patterns in the horizontal plane (horizontal coverage).



DP 70/...

Centre-Fed Folded Dipole for the 450 MHz Band

- Single, 0 dBd folded dipole incorporating a balun optimized for wide bandwidth and accurate matching.
- The entire balun unit and feeder terminations are completely sealed in a polythene moulding ensuring permanent waterproof connections.

DESCRIPTION

- The dipole element, the supporting boom and the adjoining metal castings have been constructed in high quality aluminium alloys to prevent corrosion. All metal parts are DC-grounded.
- DP 70/... may be arranged in a variety of ways to produce higher gain, directional lobes or interference cancellation, and suitable matching harnesses are available.
- The antenna is supplied complete with clamp for mounting on 30 - 58 mm diameter mast tube.

ORDERING DESIGNATIONS

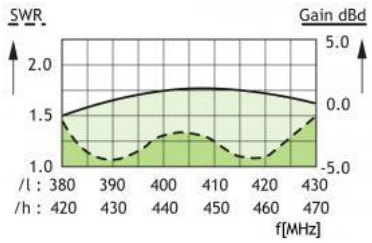
TYPE	FREQUENCY	PRODUCT NO.
DP 70/l	380 – 430 MHz	Replaced by 7051400
DP 70/h	420 - 470 MHz	Replaced by 7051420

SPECIFICATIONS

ELECTRICAL	
MODEL	DP 70/...
ANTENNA TYPE	Centre-fed folded dipole with boom
FREQUENCY	DP 70/l : 380 - 430 MHz DP 70/h: 420 - 470 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical or horizontal
GAIN	2 dBi 0 dBd
BANDWIDTH	50 MHz
SWR	≤ 1.5
MAX. POWER	150 W
MECHANICAL	
TEMP. RANGE	-25°C → +60°C
CONNECTOR	3 m tail of RG 213 terminated with type N-female conn.
WIND SURFACE	0.0396 m²
WIND LOAD	12 N @ 160 km/h
COLOUR	“Aluminium”

MATERIALS	Aluminium
DIMENSIONS	Boom dia. : 31.8 mm Dipole element dia. : 19.0 mm Boom length : Approx. 0.9 m Element length : Approx. 0.3 m
WEIGHT	Approx. 2.6 kg
MOUNTING	On 30 - 58 mm dia. mast tube

TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)

If the antenna is mounted for vertical polarisation this curve shows the radiation pattern in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)

If the antenna is mounted for vertical polarisation this curve shows the radiation pattern in the horizontal plane (horizontal coverage). The assymetry is caused by the presence of the mast.

R 70-3/..., R 70-7/..., R 70-10/...

Directional Antennas with 3, 7 and 10 dBd Gain for the 450 MHz Band

- These antennas are 2-, 4- and 8-element Yagi antennas with 3, 7, and 10 dBd gain, respectively.

DESCRIPTION

- When mounted for vertical polarization, the horizontal coverage is R 70-3: 150°, R 70-7: 90° and R 70-10: 58°.
- These Yagis incorporate baluns optimized for wide bandwidth and accurate matching.
- The entire balun unit and feeder cable inlet are completely sealed in a polythene moulding ensuring permanent waterproof connections. The antennas are supplied with a 3 m "tail" of RG 213 terminated with an N-female connector.
- Radiating elements, supporting booms and adjoining metal castings have been constructed in high-quality aluminium alloys to prevent corrosion. All metal parts are DC-grounded.
- The antennas are designed for back mounting and are provided with rear extended booms.
- These antennas can be stacked and fed in phase with a matching harness for increased gain.
- A mast clamp for fixation on 30 - 58 mm diameter mast tube is supplied.

ORDERING DESIGNATIONS

TYPE	ANTENNA TYPE	FREQUENCY	PRODUCT NO.
R 70-3/s	2-element Yagi 3 dBd	380 – 420 MHz	Replaced by 7039380
R 70-3/l	2-element Yagi 3 dBd	390 – 430 MHz	Replaced by 7039410
R 70-3/h	2-element Yagi 3 dBd	420 – 470 MHz	Replaced by 7039420
R 70-7/l	4-element Yagi 7 dBd	380 – 430 MHz	Replaced by 7041410
R 70-7/h	4-element Yagi 7 dBd	420 – 470 MHz	Replaced by 7041420
R 70-10/l	8-element Yagi 10 dBd	380 – 430 MHz	Replaced by 7043410
R 70-10/h	8-element Yagi 10 dBd	420 – 470 MHz	Replaced by 7043420

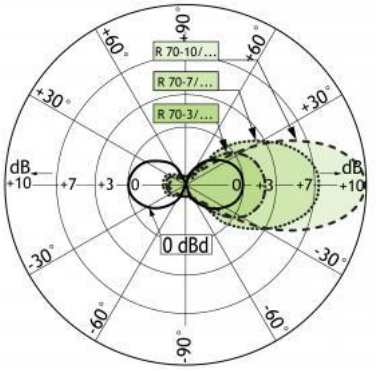
SPECIFICATIONS

ELECTRICAL			
MODEL	R 70-3/...	R 70-7/...	R 70-10/...
ANTENNA TYPE	2-element Yagi	4-element Yagi	8-element Yagi
FREQUENCY	s: 380-420MHz l: 390-430MHz h: 420-470MHz	l: 380-430MHz h: 420-470MHz	l: 380-430MHz h: 420-470MHz
IMPEDANCE	50 Ω		
POLARIZATION	Vertical or horizontal		

GAIN	5 dBi 3 dBd	9 dBi 7 dBd	12 dBi 10 dBd
FRONT TO BACK RATIO	12 dB	15 dB	15.1 dB Typ. better than 19 dB
HALF POWER BEAMWIDTH	E-plane: 75° H-plane: 150°	E-plane: 60° H-plane: 90°	E-plane: 51° H-plane: 58°
BANDWIDTH	40 - 50 MHz		
SWR	≤ 1.5		
MAX. POWER	150 W		
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)		

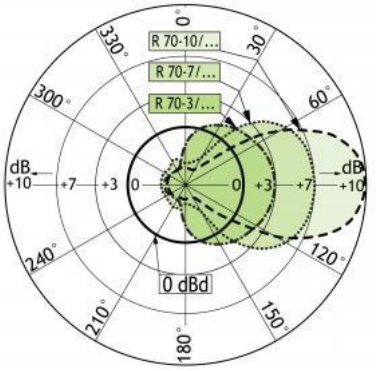
MECHANICAL			
TEMP. RANGE	-25° C → +60° C		
CONNECTION	3 m tail of RG 213 terminated with N-female connector		
WIND SURFACE	0.046 m²	0.061 m²	0.080 m²
WIND LOAD	50 N @ 160 km/h	80 N @ 160 km/h	102 N @ 160 km/h
COLOUR	“Aluminium”		
MATERIALS	Elements/Boom/Saddle clamps: Aluminium alloys. Fittings: Stainless steel. Bracket: Hot-dipped galvanized steel		
BOOM LENGTH	Approx. 0.65 m	Approx. 0.9 m	Approx. 1.4 m
BOOM DIA.	31.8 mm		
MAX. ELEMENT LENGTH	0.43 m		
DIA. OF ELEMENTS	13 mm		
WEIGHT	Approx. 3.1 kg	Approx. 3.4 kg	Approx. 3.7 kg
MOUNTING	Supplied with mast bracket suiting 30 - 58 mm dia. mast tube		

TYPICAL RADIATION PATTERN (E-PLANE)

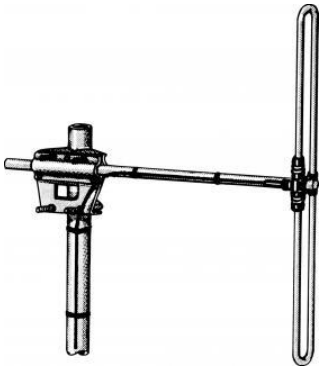


If the antennas are mounted for vertical polarization, these curves show the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)



If the antennas are mounted for vertical polarization, these curves show the radiation patterns in the horizontal plane (horizontal coverage).



DP 4/...

Centre-Fed Folded Dipole for the 80 MHz Band

- Single, 0 dBd folded dipole incorporating a balun optimized for wide bandwidth and accurate matching.

DESCRIPTION

- The entire balun unit and feeder terminations are completely sealed in a polythene moulding ensuring permanent waterproof connections.
- The dipole element, the supporting boom and the adjoining metal castings have been constructed in high quality aluminium alloys to prevent corrosion. All metal parts are DC-grounded.
- These antennas may be arranged in a variety of ways to produce higher gain, directional lobes or interference cancellation, and suitable matching harnesses are available.
- The antenna is supplied complete with clamp for mounting on 30 - 58 mm diameter mast tubes.

ORDERING DESIGNATIONS

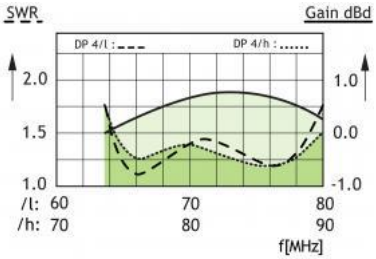
TYPE	FREQUENCY	PRODUCT NO.
DP 4/l	66 - 77 MHz	Replaced by 7050060
DP 4/h	75 - 88 MHz	Replaced by 7050075

SPECIFICATIONS

ELECTRICAL	
MODEL	DP 4/...
ANTENNA TYPE	Folded dipole
FREQUENCY	DP 4/l : 66 – 77 MHz DP 4/h : 75 – 88 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical or horizontal
GAIN	2 dBi 0 dBd
BANDWIDTH	11 - 13 MHz
SWR	≤ 1.5
MAX. POWER	150 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	

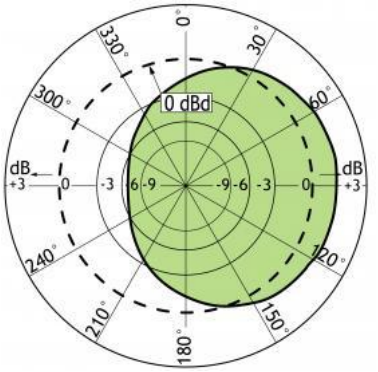
TEMP. RANGE	-25°C → +60°C
CONNECTOR	3 m tail of RG 213 terminated with type N-female connector
WIND SURFACE	0.12 m²
WIND LOAD	152 N @ 160 km/h
COLOUR	“Aluminium”
MATERIALS	Aluminium and environmentproof plastics
DIMENSIONS	Dipole element dia: 19 mm Boom dia. : 31.8 mm Boom length : Approx. 1.4 m Element length : Approx. 1.8 m
WEIGHT	Approx. 4.0 kg
MOUNTING	On 30 - 58 mm dia. mast tube

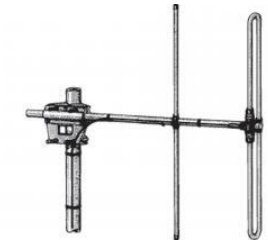
TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)

TYPICAL RADIATION PATTERN (H-PLANE)





R 4-3/..., R 4-6/...

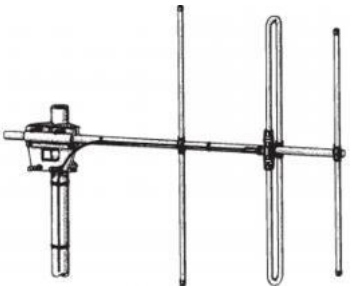
Directional Antennas with 3 and 6 dBd Gain for the 80 MHz Band

- R 4-3/... is a two-element Yagi antenna with 3 dBd gain. R 4-6/... is a three-element Yagi antenna with 6 dBd gain. Both antenna types are delivered in two versions – one covering the low end of the band ("l") and one covering the high end of the band ("h"), see specifications below.

DESCRIPTION

- These Yagis incorporate baluns optimized for wide bandwidth and accurate matching. The entire balun unit and feeder cable inlet are completely sealed in a polythene moulding ensuring permanent waterproof connections. The antennas are supplied with a 3 m "tail" of RG 213 terminated with an N-female connector.
- Radiating elements, supporting booms and adjoining metal castings have been constructed in high quality aluminium alloys to prevent corrosion. All metal parts are DC-grounded.
- The antennas are designed for back mounting and are provided with rear extended booms. These antennas can be stacked and fed in phase with a matching harness for increased gain. A mast clamp for fixation on 30-58 mm diameter mast tube is enclosed.

R 4-6/...



ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY
2-element Yagi 3 dBd		
R 4-3/l	Replaced by 7031050	66 - 78 MHz
R 4-3/h	Replaced by 7031066	75 - 88 MHz
3-element Yagi 6 dBd		
R 4-6/l	Replaced by 7049066	66 - 76 MHz
R 4-6/h	Replaced by 7049075	75 - 88 MHz

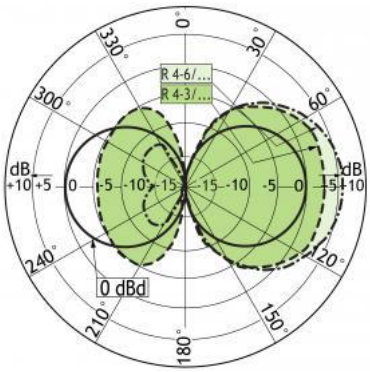
SPECIFICATIONS

ELECTRICAL		
MODEL	R 4-3/...	R-4-6/...
ANTENNA TYPE	2-element Yagi	3-element Yagi
FREQUENCY	l: 66 - 78 MHz h: 75 - 88 MHz	l: 66 - 76 MHz h: 75 - 88 MHz

IMPEDANCE	Nom. 50 Ω	
POLARIZATION	Vertical or horizontal	
GAIN	5 dBi 3 dBd	8 dBi 6 dBd
FRONT TO BACK RATIO	12 dBd	17 dBd
HALF-POWER BEAMWIDTH	E-plane: 75° H-plane: 150°	E-plane: 70° H-plane: 120°
BANDWIDTH	13 MHz	
SWR	≤ 1.5	
MAX. POWER	150 W	
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)	

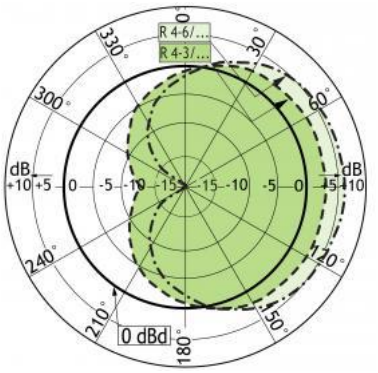
MECHANICAL		
TEMP. RANGE	-25°C → +60°C	
CONNECTION	3 m tail of RG 213 terminated with type “N” female connector	
WIND SURFACE	0.162 m²	0.203 m²
WIND LOAD	205 N @ 160 km/h	257 N @ 160 km/h
COLOUR	“Aluminium”	
MATERIALS	Elements/Boom/Saddle clamps: Aluminium alloys. Fittings: Stainless steel.	
BOOM LENGTH	Approx. 1.6 m	Approx. 1.8 m
BOOM DIA.	31.8 mm	
MAX. ELEMENT LENGTH	Approx. 2.15 m	
DIA. OF ELEMENTS	19 mm	
WEIGHT	Approx. 4.9 kg	Approx. 5.3 kg
MOUNTING	On 30 - 58 mm dia. mast tube	

TYPICAL RADIATION PATTERN (E-PLANE)

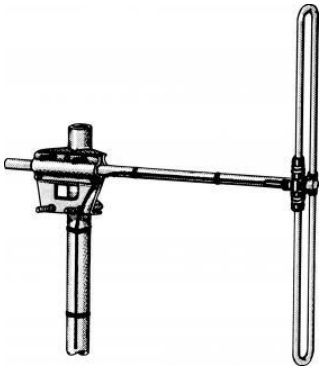


If the antennas are mounted for vertical polarisation these curves show the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)



If the antennas are mounted for vertical polarisation these curves show the radiation patterns in the horizontal plane (horizontal coverage).



DP 2

Centre-Fed Folded Dipole for the 160 MHz Band

- Single, 0 dBd folded dipole incorporating a balun optimized for wide bandwidth and accurate matching.

DESCRIPTION

- The entire balun unit and feeder terminations are completely sealed in a polythene moulding ensuring permanent waterproof connections.
- The dipole element, the supporting boom and the adjoining metal castings have been constructed in high quality aluminium alloys to prevent corrosion. All metal parts are DC-grounded.
- These antennas may be arranged in a variety of ways to produce higher gain, directional lobes or interference cancellation, and suitable matching harnesses are available.
- The antenna is supplied complete with clamp for mounting on 30 - 58 mm diameter mast tubes.

ORDERING DESIGNATIONS

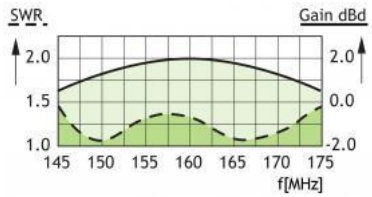
TYPE	PRODUCT NO.
DP 2	Replaced by 7050158

SPECIFICATIONS

ELECTRICAL	
MODEL	DP 2
ANTENNA TYPE	Centre-fed folded dipole with boom
FREQUENCY	Covering: 144 - 175 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical or horizontal
GAIN	2 dBi 0 dBd
BANDWIDTH	31 MHz
SWR	≤ 1.5
MAX. POWER	150 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-25°C → +60°C

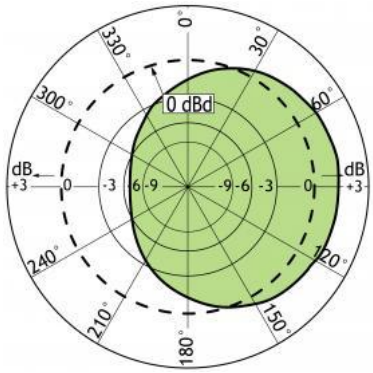
CONNECTOR	3 m tail of RG 213 terminated with type N-female connector
WIND SURFACE	0.060 m²
WIND LOAD	76 N @ 160 km/h
COLOUR	“Aluminium”
MATERIALS	Aluminium
DIMENSIONS	Boom dia. : 31.8 mm Dipole element dia. : 19.0 mm Boom length : Approx. 1.4 m Element length : Approx. 0.8 m
WEIGHT	Approx. 3.3 kg
MOUNTING	On 30 - 58 mm dia. mast tube

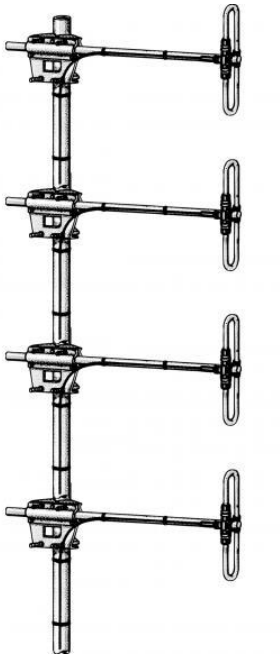
TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)

TYPICAL RADIATION PATTERN (H-PLANE)





UHF-DP-ARRAY

UHF-Dipole Array 2 or 4 Dipoles Combined togethger to a Common Feeder

- The purpose of coupling antennas in a array is to achieve either gain or to create a special shape of the radiation diagram.

DESCRIPTION

- The branches of the cable harness are impedance transforming sections and must not be shortened.
- The cable harnesses are fully waterproof and protected against hostile environments.
- By using these cable matching harnesses, two/four antennas can be combined together and fed in phase keeping a low SWR and
  minimum insertion loss.
- The antennas are supplied complete with clamps for mounting on 30 - 58 mm / 1.18 - 2.29 in. diameter mast tube.

ORDERING DESIGNATIONS

UHF-DP-ARRAY-4/...

Cable harness not shown, support mast is custom-supplied.

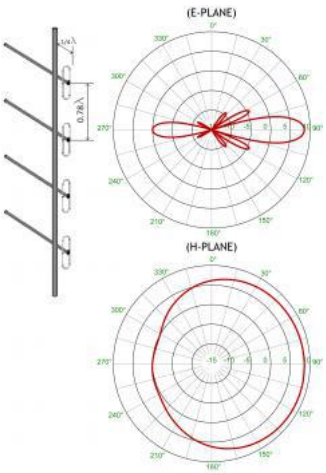
TYPE	PRODUCT NO.
UHF-DP-ARRAY-2/l	Replaced by S.M2
UHF-DP-ARRAY-2/h	
UHF-DP-ARRAY-4/l	Replaced by S.M4
UHF-DP-ARRAY-4/h	

SPECIFICATIONS

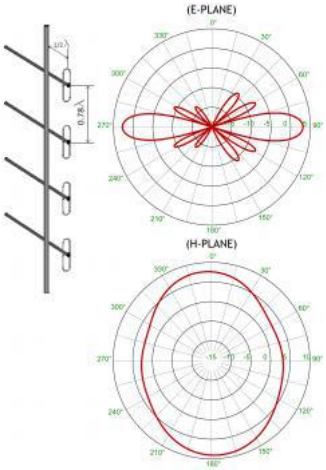
ELECTRICAL	
MODEL	UHF-DP-ARRAY
ANTENNA TYPE	Dipole array, 2 or 4 stacked dipole incl. cable harness (splitter/combiner)

FREQUENCY	UHF-DP-ARRAY-2/l : 380 - 430 MHz UHF-DP-ARRAY-2/h: 420 - 470 MHz UHF-DP-ARRAY-4/l : 380 - 430 MHz UHF-DP-ARRAY-4/h: 420 - 470 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Horizontal (adjustable)
GAIN	UHF-DP-ARRAY-2/...: 3 - 6 dBd UHF-DP-ARRAY-4/...: 6 - 9 dBd dependent on the spacing to the metal mast
VERTICAL BEAMWIDTH	UHF-DP-ARRAY-2/...: 36° UHF-DP-ARRAY-4/...: 18°
BANDWIDTH	50 MHz
SWR	≤ 1.5
MAX. POWER	100 Watt on the feeder terminal
MECHANICAL	
TEMP. RANGE	-25°C → +65°C
CONNECTOR	N-female on the cable splitter/combiner feeder for the downlead cable
WIND SURFACE	UHF-DP-ARRAY-2/...: 0.7 m^2 / 8 ft^2 UHF-DP-ARRAY-4/...: 0.16 m^2 / 1.7 ft^2
WIND LOAD	UHF-DP-ARRAY-2/...: 23 N @ 160 km/h / 23 N @ 100 mph UHF-DP-ARRAY-4/...: 48 N @ 160 km/h / 48 N @ 100 mph
COLOUR	“Aluminium”, black and bright
MATERIALS	Aluminium
DIMENSIONS	For each dipole : Boom dia. : 31.8 mm / 1.25 in. Dipole element dia. : 19.0 mm / 0.75 in. Boom length : Approx. 0.9 m / 35 in. Element length : Approx. 0.3 m / 12 in.
WEIGHT	UHF-DP-ARRAY-2/...: Approx. 5 kg / 11 lb. UHF-DP-ARRAY-4/...: Approx. 12 kg / 26 lb.
MOUNTING	On 30 - 58 mm / 1.18 - 2.29 in. dia. mast tube with the included mast clamps. Cable binders not included

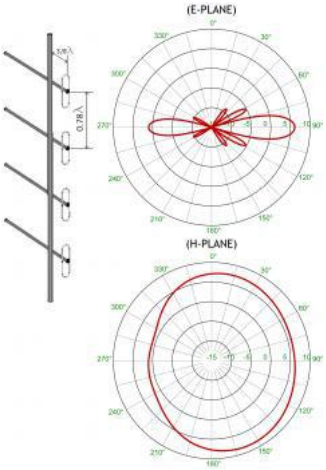
TYPICAL RADIATION PATTERN



1/4 λ spacing from mast



1/2 λ spacing from mast



3/8 λ spacing from mast

CXL 130-1-Ex

ATEX certified, 0 dBd, Omnidirectional Base Station Antenna for the International Aircraft Band in Hazardous areas

- CXL 130-1-Ex is a 0 dBd, vertically polarized, omnidirectional base station antenna for the 118 - 137 MHz civil aircraft band.
- The antenna is specified as ATEX antenna for use in zone 2 in potentially explosive areas.

DESCRIPTION

- Before installing the antenna, read the ATEX Product Manual carefully.
- The antenna is suitable for use in gas groups IIA, IIB and IIC in zone 2.
- The antenna is a broad-banded ½ λ dipole design.
- The antenna can be mounted on threaded 1" water pipe using the supplied 1" revolving nut. In this way, a nice, slim installation is obtained.
- A wide variety of accessory mounting hardware (see below) gives ample choice regarding alternative ways of installation.
- All metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- A conical glass fibre tube with very low wind-loading completely encloses the carefully designed radiating element to ensure long dependable service in all climates.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
CXL 130-1-Ex	115000026
ACCESSORIES	
ATEX grounding kit	1115000100

SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 130-1-Ex
ANTENNA TYPE	½ λ coaxial dipol, broad-banded
FREQUENCY	118 - 137 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	19 MHz
SWR	≤ 1.75

MAX. RF INPUT POWER DUE TO MAX. EIRP IN ATEX ENVIRONMENT *	Group IIA : 35.6 dBm (3.6 W) Group IIB : 33.3 dBm (2.1 W) Group IIC : 30.8 dBm (1.2 W)
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
CONNECTOR TIGHTENING TORQUE	UHF-female (fitting PL-259) 0.7 - 1.1 Nm
WIND SURFACE	0.023 m² / 0.25 ft²
WIND LOAD	29 N @ 160 km/h / 99.42 mph
MAX. WIND SPEED	200 km/h / 124.27 mph
INGRESS PROTECTION LEVEL	IP66
COLOUR	Blue
MATERIALS	Radome: Polyurethane-coated glass fibre Mounting hardware: Black chromed brass
TOTAL HEIGHT	Approx. 1.43 m / 56.3 in.
WEIGHT	Approx. 0.85 kg / 1.87 lb.
MOUNTING	On 1” RG (G1” - 11)
	threaded water pipe or on optional
	mounting brackets (see below)
TIGHTENING TORQUE	20 - 25 Nm
ATEX MARKING	II 3G Ex nA IIC T6

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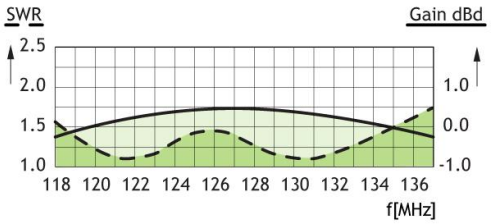
MECHANICAL	
TEMP. RANGE	-30° C → +60° C
CONNECTOR TIGHTENING TORQUE	UHF-female (fitting PL-259) 0.7 - 1.1 Nm
WIND SURFACE	0.023 m² / 0.25 ft²
WIND LOAD	29 N @ 160 km/h / 99.42 mph
MAX. WIND SPEED	200 km/h / 124.27 mph
INGRESS PROTECTION LEVEL	IP66
COLOUR	Blue
MATERIALS	Radome: Polyurethane-coated glass fibre Mounting hardware: Black chromed brass
TOTAL HEIGHT	Approx. 1.43 m / 56.3 in.
WEIGHT	Approx. 0.85 kg / 1.87 lb.
MOUNTING	On 1” RG (G1” - 11)
	threaded water pipe or on optional
	mounting brackets (see below)

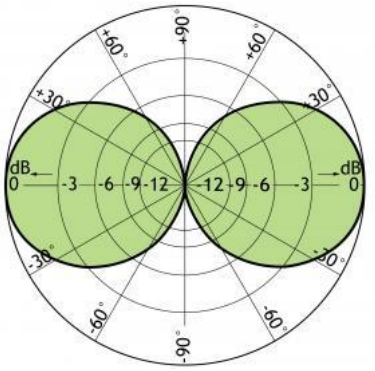
TIGHTENING TORQUE	20 - 25 Nm
ATEX MARKING	II 3G Ex nA IIC T6

* See the ATEX Product Manual (safety and mounting instructions) and related EU DECLARATION OF CONFORMITY ATEX Directive 2014/34/EU.

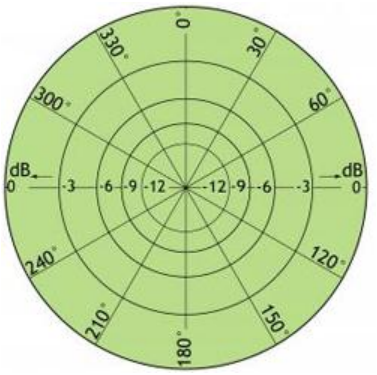
TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



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CALCULATION OF MAX. ANTENNA INPUT POWER IN DIFFERENT ATEX GROUPS

ATEX GROUP	MAX. EIRP POWER	ANTENNA GAIN	MAX INPUT POWER
IIA	37.7 dBm (6.0 W)	0 dBd / 2.15 dBi	35.6 dBm (3.6 W)
IIB	35.4 dBm (3.5 W)	0 dBd / 2.15 dBi	33.3 dBm (2.1 W)
IIC	33.0 dBm (2.0 W)	0 dBd / 2.15 dBi	30.8 dBm (1.2 W)

ACCESSORIES (to be ordered separately)

CXL 130-1LW-SS-Ex

ATEX certified, 0 dBd, Omnidirectional Base Station Antenna for the International AiMHz Band in Hazardousrcraft Band in Hazardous areas

- CXL 130-1LW-SS-Ex is a 0 dBd, vertically polarized, omnidirectional base station antenna witch covers the 118 - 137 MHz band in Hazardous areas.
- The antenna is specified as ATEX antenna for use in zone 2 in potentially explosive areas.

DESCRIPTION

- Before installing the antenna, read the ATEX Product Manual carefully.
- The antenna is suitable for use in gas groups IIA, IIB and IIC in zone 2.
- It’s only necessary to install a ATEX grounding Kit on the LW-SS-Ex bracket, when the point of installation has a different electrical potential than the system.
- The antenna is a broad-banded ½ λ dipole design.
- The accompanying U-bolts and fittings are made of stainless steel.
- The antenna element is sealed in high-quality glass fibre tube.
- All metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
CXL 130-1LW-SS-Ex	115000001
ACCESSORIES	
ATEX grounding kit	115000100

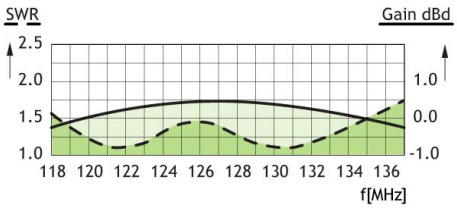
SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 130-1LW-SS-Ex
ANTENNA TYPE	½ λ coaxial dipol, broad-banded
FREQUENCY	118 - 137 MHz wide frequency segments within ?-? MHZ.
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	19 MHz
SWR	≤ 1.75
MAX. RF INPUT POWER DUE TO MAX. EIRP IN ATEX ENVIRONMENT *	

Group IIA	35.6 dBm (3.6 W)
Group IIB	33.3 dBm (2.1 W)
Group IIC	30.8 dBm (1.2 W)
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30° C → +60° C
CONNECTOR TIGHTENING TORQUE	N-female 0.7 - 1.1 Nm
WIND SURFACE	0.023 m² / 0.25 ft²
WIND LOAD	29 N @ 160 km/h / 99.42 mph
MAX. WIND SPEED	200 km/h / 124.27 mph
INGRESS PROTECTION LEVEL	IP66
COLOUR	Blue
MATERIALS	Radome: Polyurethane-coated glass fibre Mounting bracket: Stainless acid-proof steel (AiSi 316L) U-bolt and fittings: Stainless steel (AiSi 304)
TOTAL HEIGHT	Approx. 1.5 m / 59.06 in.
DIA. IN TOP END	17 mm / 0.67 in.
DIA. IN BOTTOM END	23 mm / 0.91 in.
WEIGHT	Approx. 1.25 kg / 2.76 lb.
MOUNTING TIGHTENING TORQUE	On 16 to 54 mm / 0.63 x 2.13 in. dia. mast tube 3 Nm
ATEX MARKING	II 3G Ex nA IIC T6

* See the ATEX Product Manual (safety and mounting instructions) and related EU DECLARATION OF CONFORMITY ATEX Directive 2014/34/EU.

TYPICAL GAIN AND SWR CURVES



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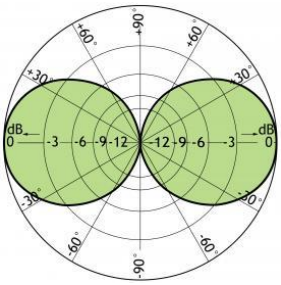
TYPICAL RADIATION PATTERN (E-PLANE)



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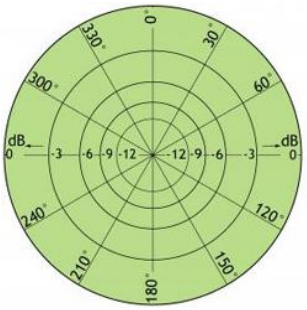
TYPICAL RADIATION PATTERN (H-PLANE)



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CALCULATION OF MAX. ANTENNA INPUT POWER IN DIFFERENT ATEX GROUPS

ATEX GROUP	MAX. EIRP POWER	ANTENNA GAIN	MAX INPUT POWER
IIA	37.7 dBm (6.0 W)	0 dBd / 2.15 dBi	35.6 dBm (3.6 W)
IIB	35.4 dBm (3.5 W)	0 dBd / 2.15 dBi	33.3 dBm (2.1 W)
IIC	33.0 dBm (2.0 W)	0 dBd / 2.15 dBi	30.8 dBm (1.2 W)

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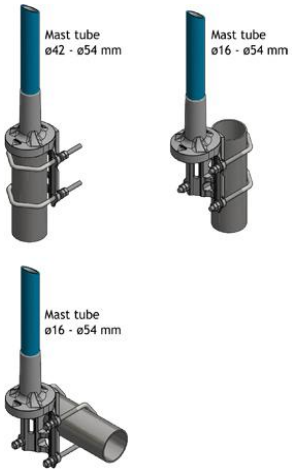
MULTI-PURPOSE MOUNTING BRACKET



CXL 130-1C-Ex

ATEX certified, 0 dBd, Omnidirectional Base Station Antenna for the International Aircraft Band in Hazardous areas

- CXL 130-1C-Ex is a sturdy, 0 dBd, vertically polarized, omnidirectional base station antenna for the 110 - 140 MHz civil aircraft band.
- The antenna is specified as ATEX antenna for use in zone 2 in potentially explosive areas.

DESCRIPTION

- Before installing the antenna, read the ATEX Product Manual carefully.
- The antenna is suitable for use in gas groups IIA, IIB and IIC in zone 2.
- A grounding-kit is supplied with the antenna. See the ATEX Product Manual for further details.
- The accompanying U-bolts and fittings are made of stainless steel.
- All metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- The broad-banded antenna element is completely enclosed in a glass fibre shroud, which will ensure performance undisturbed by corrosive environments.
- CXL 130-1C-Ex is constructed to ensure long dependable service in all climates.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
CXL 130-1C-Ex	115000002
ACCESSORIES	
ATEX grounding kit	115000100

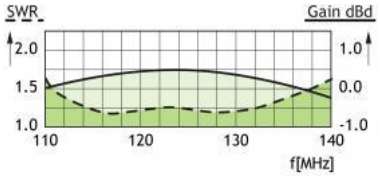
SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 130-1C-Ex
ANTENNA TYPE	Coaxial, broad-band dipole
FREQUENCY	110 - 140 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	30 MHz

SWR	≤ 1.6
MAX. RF INPUT POWER DUE TO MAX. EIRP IN ATEX ENVIRONMENT *	Group IIA : 35.6 dBm (3.6 W) Group IIB : 33.3 dBm (2.1 W) Group IIC : 30.8 dBm (1.2 W)
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	–30° C → +60° C
CONNECTOR TIGHTENING TORQUE	N-female 0.7 - 1.1 Nm
WIND SURFACE	0.12 m² / 1.30 ft²
MAX. WIND LOAD	152 N @ 160 km/h / 99.42 mph.
MAX. WIND SPEED	200 km/h / 124.27 mph.
INGRESS PROTECTION LEVEL	IP66
COLOUR	Blue
MATERIALS	Radome : Polyurethane-coated glass fibre Mounting bracket : Seawater resistant aluminium, black-coated U-bolt and fittings : Stainless steel (AiSi 304)
TOTAL HEIGHT	Approx. 2.3 m / 90.55 in.
WEIGHT	Approx. 3.6 kg / 7.94 lb.
MOUNTING	On 27 - 65 mm / 1.06 - 2.56 in. dia. mast tube
TIGHTENING TORQUE	7 Nm
ATEX MARKING	II 3G Ex nA IIC T6

* See the ATEX Product Manual (safety and mounting instructions) and related EU DECLARATION OF CONFORMITY ATEX Directive 2014/34/EU.

TYPICAL GAIN AND SWR CURVES



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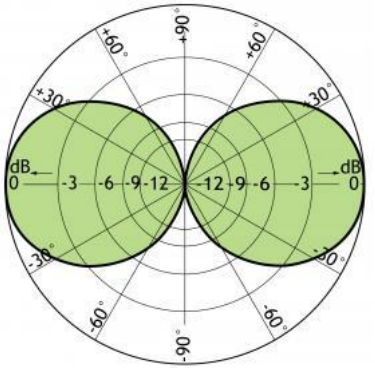
TYPICAL RADIATION PATTERN (E-PLANE)



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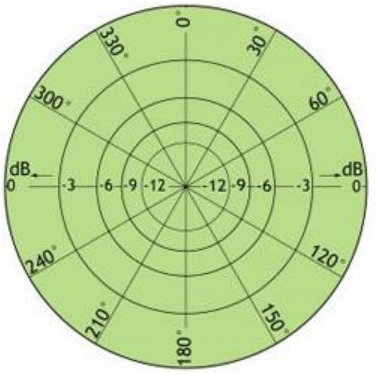
TYPICAL RADIATION PATTERN (H-PLANE)



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CALCULATION OF MAX. ANTENNA INPUT POWER IN DIFFERENT ATEX GROUPS

ATEX GROUP	MAX. EIRP POWER	ANTENNA GAIN	MAX INPUT POWER
IIA	37.7 dBm (6.0 W)	0 dBd / 2.15 dBi	35.6 dBm (3.6 W)
IIB	35.4 dBm (3.5 W)	0 dBd / 2.15 dBi	33.3 dBm (2.1 W)
IIC	33.0 dBm (2.0 W)	0 dBd / 2.15 dBi	30.8 dBm (1.2 W)

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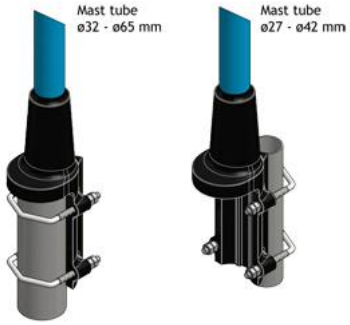
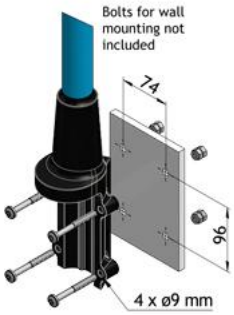
MULTI-PURPOSE MOUNTING BRACKET


Mast tube
ø32 - ø65 mm
Mast tube
ø27 - ø42 mm


Bolts for wall
mounting not
included
74
96
4 x ø9 mm

CXL 150-1LW-SS-Ex

ATEX certified, 0 dBd, Omnidirectional Base Station Antenna for the 138 - 175 MHz Band in Hazardous areas

- CXL 150-1LW-SS-Ex is a 0 dBd, vertically polarized, omnidirectional base station Antenna which covers the 138 - 175 MHz band in three models.
- The antenna is specified as ATEX antenna for use in zone 2 in potentially explosive areas.

Description

- Before installing the antenna, read the ATEX Product Manual carefully.
- The antenna is suitable for use in gas groups IIA, IIB and IIC in zone 2.
- It’s only necessary to install a ATEX grounding Kit on the LW-SS-Ex bracket, when the point of installation has a different electrical potential than the system.
- The accompanying U-bolts and fittings are made of stainless steel.
- All metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.

ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.	
CXL 150-1LW-SS-Ex/s	138 - 156 MHz	115000005	
CXL 150-1LW-SS-Ex/l	144 - 165 MHz	115000004	
CXL 150-1LW-SS-Ex/h	155 - 175 MHz	115000003	
ACCESSORIES			
ATEX grounding kit		115000100	

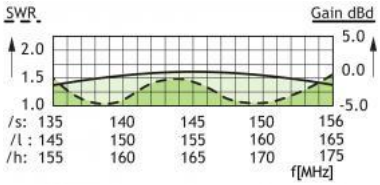
SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 150-1LW-SS-Ex
ANTENNA TYPE	½ λ coaxial dipol, broad-banded
FREQUENCY	18 - 21 MHz wide frequency segments within138 - 175 MHz. See ordering designations
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	18 - 21 MHz depending on model

SWR	≤ 1.5
MAX. RF INPUT POWER DUE TO MAX. EIRP IN ATEX ENVIRONMENT *	
Group IIA	35.6 dBm (3.6 W)
Group IIB	33.3 dBm (2.1 W)
Group IIC	30.8 dBm (1.2 W)
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30° C → +60° C
CONNECTOR TIGHTENING TORQUE	N-female 0.7 - 1.1 Nm
WIND SURFACE	0.027 m² / 0.3 ft²
WIND LOAD	32 N @ 160 km/h / 99.42 mph.
MAX. WIND SPEED	200 km/h / 124.27 mph.
INGRESS PROTECTION LEVEL	IP 66
COLOUR	Blue
MATERIALS	Radome: Polyurethane-coated glass fibre Mounting bracket: Stainless acid-proof steel (AiSi 316L) U-bolt and fittings: Stainless steel (AiSi 304)
TOTAL HEIGHT	Approx. 1.3 m / 51.18 in.
WEIGHT	Approx. 1.25 kg /2.76 lb.
DIA. IN TOP END	17 mm / 0.67 in.
DIA. IN BOTTOM END	23.6 mm / 0.93 in.
MOUNTINGTIGHTENING TORQUE	On 16 to 54 mm / 0.63 x 2.13 in.dia. mast tube3 Nm
ATEX MARKING	II 3G Ex nA IIC T6

*See the ATEX Product Manual (safety and mounting instructions) and related EU DECLARATION OF CONFORMITY ATEX Directive 2014/34/EU.

TYPICAL GAIN AND SWR CURVES



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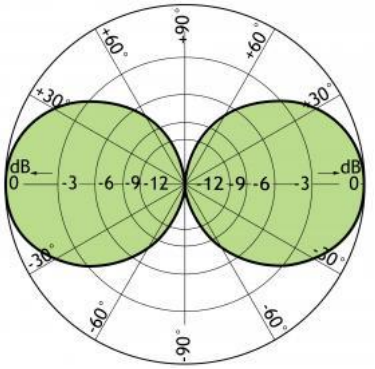
TYPICAL RADIATION PATTERN (E-PLANE)



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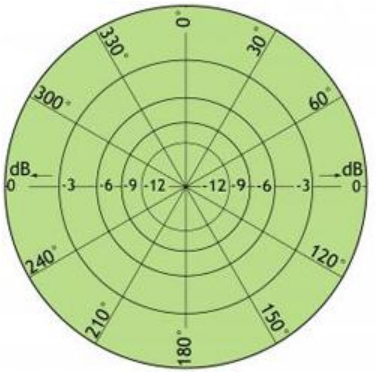
TYPICAL RADIATION PATTERN (H-PLANE)



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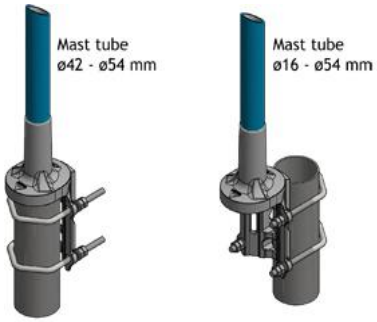
CALCULATION OF MAX. ANTENNA INPUT POWER IN DIFFERENT ATEX GROUPS

ATEX GROUP	MAX. EIRP POWER	ANTENNA GAIN	MAX INPUT POWER
IIA	37.7 dBm (6.0 W)	0 dBd / 2.15 dBi	35.6 dBm (3.6 W)
IIB	35.4 dBm (3.5 W)	0 dBd / 2.15 dBi	33.3 dBm (2.1 W)
IIC	33.0 dBm (2.0 W)	0 dBd / 2.15 dBi	30.8 dBm (1.2 W)

MULTI-PURPOSE MOUNTING BRACKET



CXL 150-3LW-SS-Ex

ATEX certified, 3 dBd, Omnidirectional Base Station Antenna for the 146 - 175 MHz Band in Hazardous areas

- CXL 150-3LW-SS-Ex is a 3 dBd, vertically polarised, omnidirectional base station antenna, which covers the VHF-band in four models.
- The antenna is specified as ATEX antenna for use in zone 2 in potentially explosive areas.

Description

- Before installing the antenna, read the ATEX Product Manual carefully.
- The antenna is suitable for use in gas groups IIA, IIB and IIC in zone 2.
- It’s only necessary to install a ATEX grounding Kit on the LW-SS-Ex bracket, when the point of installation has a different electrical potential than the system.
- The accompanying U-bolts and fittings are made of stainless steel.
- The carefully designed, broad-banded antenna element is sealed in a high-quality conical glass fibre tube with low wind-load, which will ensure performance undisturbed by corrosive environments.
- The antenna element is sealed in a high-quality glass fibre tube.
- All metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.

ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
CXL 150-3LW-SS-Ex/l	146 - 154 MHz	115000006
CXL 150-3LW-SS-Ex/lm	153 - 162 MHz	115000007
CXL 150-3LW-SS-Ex/hm	158 - 167 MHz	115000008
CXL 150-3LW-SS-Ex/h	166 - 175 MHz	115000009
ACCESSORIES		
ATEX grounding kit		115000100

SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 150-3LW-SS-Ex
ANTENNA TYPE	Broad-banded collinear antenna
FREQUENCY	8 - 9 MHz wide frequency segments within 146 - 175 MHz. See ordering designations
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical

GAIN	5 dBi 3 dBd
HALF POWER BEAMWIDTH	30°
BANDWIDTH	8 - 9 MHz depending on model
SWR	≤ 1.5
MAX. RF INPUT POWER DUE TO MAX. EIRP IN ATEX ENVIRONMENT *	Group IIA : 32.6 dBm (1.8 W) Group IIB : 30.3 dBm (1.0 W) Group IIC : 27.8 dBm (0.6 W)
ANTISTATIC PROTECTION	All metal parts DC-grounded (connector shows a DC-short)

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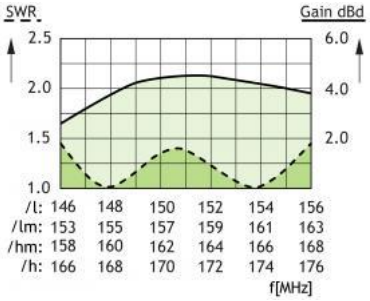
MECHANICAL	
TEMP. RANGE	-30°C → +60°C
CONNECTOR TIGHTENING TORQUE	N-female 0.7 - 1.1 Nm
WIND SURFACE	0.0651 m² / 0.70 ft²
WIND LOAD	82 N @ 160 km/h / 99.42 mph.
MAX. WIND SPEED	200 km/h / 124.27 mph.
INGRESS PROTECTION LEVEL	IP66
COLOUR	Blue
MATERIALS	Radome: Polyurethane-coated glass fibre Mounting bracket: Stainless acid-proof steel (AiSi 316L) U-bolt and fittings: Stainless steel (AiSi 304)
TOTAL HEIGHT	Approx. 2.8 m / 110.24 in.
DIA. IN TOP END	15 mm / 0.59 in.
DIA. IN BOTTOM END	23 mm / 0.91 in.
WEIGHT	Approx. 1.65 kg / 3.64 lb.
MOUNTING TIGHTENING TORQUE	On 16 to 54 mm / 0.63 x 2.13 in. dia. mast tube 3 Nm
ATEX MARKING	II 3G Ex nA IIC T6

*See the ATEX Product Manual (safety and mounting instructions) and related EU DECLARATION OF CONFORMITY ATEX Directive 2014/34/EU.

TYPICAL GAIN AND SWR CURVES



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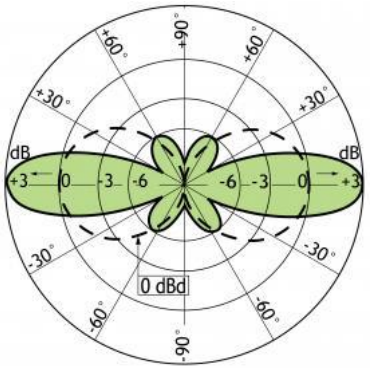
TYPICAL RADIATION PATTERN (E-PLANE)



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TYPICAL RADIATION PATTERN (H-PLANE)

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CALCULATION OF MAX. ANTENNA INPUT POWER IN DIFFERENT ATEX GROUPS

ATEX GROUP	MAX. EIRP POWER	ANTENNA GAIN	MAX INPUT POWER
IIA	37.7 dBm (6.0 W)	3 dBd / 5.15 dBi	32.6 dBm (1.8 W)
IIB	35.4 dBm (3.5 W)	3 dBd / 5.15 dBi	30.3 dBm (1.0 W)
IIC	33.0 dBm (2.0 W)	3 dBd / 5.15 dBi	27.8 dBm (0.6 W)

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MULTI-PURPOSE MOUNTING BRACKET


Mast tube
ø42 - ø54 mm


Mast tube
ø16 - ø54 mm


Mast tube
ø16 - ø54 mm

CXL 150-1LW-SS-R/...

Universal, Unity-Gain Base Station and Marine Antenna for the 160 MHz Band

- This multi-purpose, omnidirectional, 0 dBd, rod-type base station and marine antenna covers the 160 MHz band in three models with 10 MHz overlap and can be used in a wide variety of applications.
- The antenna mount is made from a High Strength low Carbon Steel Alloy.

DESCRIPTION

- The broad-banded ½ λ dipole antenna element is sealed in a high-quality conical glass fibre tube with low wind-load, which will ensure undisturbed performance by corrosive environments.
- The new LW-SS Mount is made from a High Strength low Carbon Steel Alloy well suited for extreme marine environments due to it's superior resistance to corrosion.
- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- CXL 150-1LW-SS-R/... is DC-grounded to substantially reduce noise caused by atmospherical discharges and consequently shows a DC-short across the coaxial cable.
- The CXL 150-1LW-SS-R/... is a vibration-proof, lightweight, slim-line, corrosion-resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

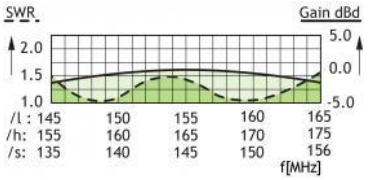
TYPE	FREQUENCY	PRODUCT NO.
CXL 150-1LW-SS-R/s	138 - 156 MHz	110000374
CXL 150-1LW-SS-R/l	146 - 165 MHz	110000375
CXL 150-1LW-SS-R/h	155 - 175 MHz	110000376

SPECIFICATIONS

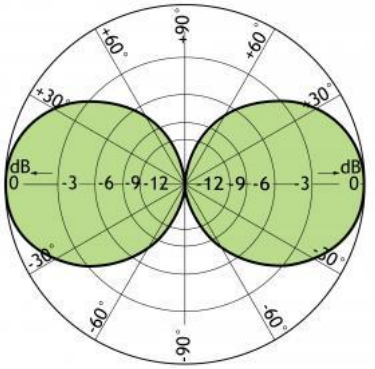
ELECTRICAL	
MODEL	CXL 150-1LW-SS-R/...
ANTENNA TYPE	½ λ coaxial dipol, broad-banded
FREQUENCY:	
CXL 150-1LW-SS-R/s:	138 - 156 MHz
CXL 150-1LW-SS-R/l:	146 - 165 MHz
CXL 150-1LW-SS-R/h:	155 - 175 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical

GAIN	2 dBi 0 dBd
BANDWIDTH	18 - 21 MHz depending on model
SWR:	
CXL 150-1LW-SS-R/s :	138 - 156 MHz ≤ 1.5
CXL 150-1LW-SS-R/l:	146 - 163 MHz ≤ 1.5 146 - 165 MHz ≤ 1.75
CXL 150-1LW-SS-R/h:	156 - 174 MHz ≤ 1.5 155 - 175 MHz ≤ 1.75
MAX. POWER	150 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30° C → +70° C
CONNECTOR	N-female
WIND SURFACE	0.022 m² / 0.24 ft²
WIND LOAD	32 N @ 160 km/h / 99.42 mph.
MAX. WIND SPEED	Tested to 200 km/h / 124.27 mph.
INGRESS PROTECTION LEVEL	IP 66
COLOUR	Marine white
MATERIALS	Radome: Polyurethane-coated glass fibre Mounting bracket: Stainless acid-proof steel U-bolt and fittings: Stainless steel
TOTAL HEIGHT	Approx. 1.3 m / 51.18 in. (Dep. on frequency)
DIA. IN TOP END	17 mm / 0.67 in.
DIA. IN BOTTOM END	23 mm / 0.91 in.
WEIGHT	Approx. 1.0 kg / 2.20 lb.
MOUNTING	On 16 to 54 mm / 0.63 x 2.13 in.dia. mast tube

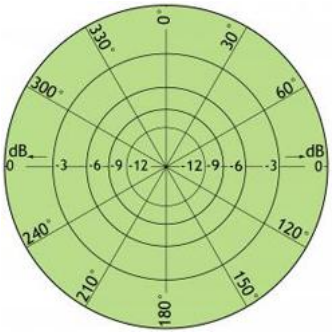
TYPICAL GAIN AND SWR CURVES



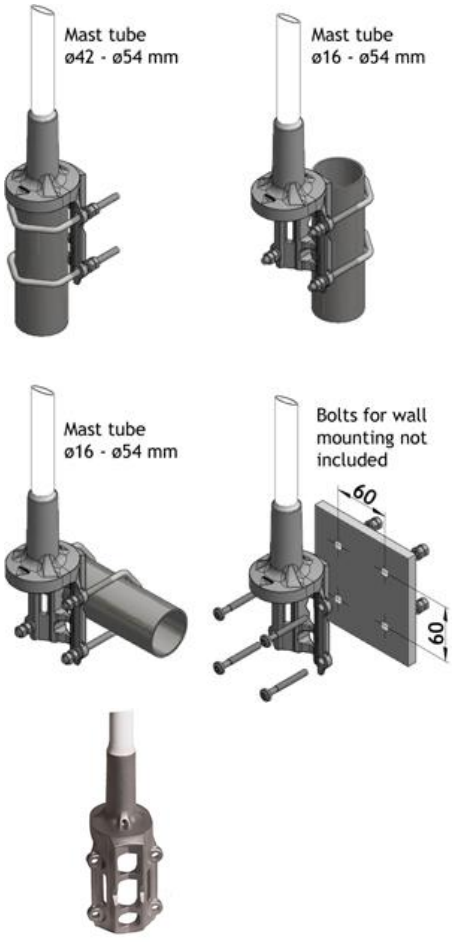
TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET



PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.

R 2600-...

Shrouded Yagi Antennas for the 2600 MHz Band

- Series of three shrouded yagi antennas with 6 – 15 dBd gain.
- Covers the frequency range 2500 – 2700 MHz.
- Can be used for both vertical and horizontal polarisation.

DESCRIPTION

- H-plane beam widths 24° to 80° and E-plane beam widths 23° to 60° depending on model.
- Ideal for fixed links and point-to-multipoint applications.
- A sturdy glass reinforced plastic shroud ensures effective protection against the weather.
- All metal parts are DC grounded for noise reduction and lightning protection.
- Materials carefully chosen for minimum electrolytic corrosion and intermodulation.
- Supplied with fixed Norstell clamp (48.5 mm dia.)
- Reliable and robust design for optimum performance and long lifetime.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
R 2600-6	120000078
R 2600-11	120000077
R 2600-15	120000074

R 2600-11

R 2600-15

GENERAL SPECIFICATIONS

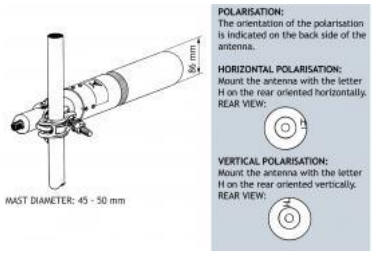
MODEL	R 2600-6	R 2600-11	R 2600-15
ANTENNA TYPE	Shrouded yagi antenna		
FREQUENCY	2500 – 2700 MHz		

GAIN	8 dBi 6 dBd	13 dBi 11 dBd	17 dBi 15 dBd
H-PLANE BEAM WIDTH (-3 DB POINTS)	80°	43°	24–30°
E-PLANE BEAM WIDTH (-3 DB POINTS)	60°	40°	23–27°
MAXIMUM POWER	150 W		

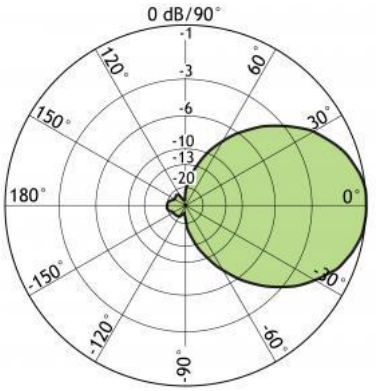
SPECIFICATIONS

MODEL	**R 2600-6**	**R 2600-11**	**R 2600-15**
ELECTRICAL			
ANTENNA TYPE	Shrouded yagi		
FREQUENCY	2500 – 2700 MHz		
IMPEDANCE	50 Ω		
POLARIZATION	Vertical or horizontal		
GAIN	8 dBi 6 dBd	13 dBi 11 dBd	17 dBi 15 dBd
H-PLANE BEAM WIDTH (-3 DB POINTS)	80°	43°	24–30°
E-PLANE BEAM WIDTH (-3 DB POINTS)	60°	40°	23–27°
FRONT TO BACK RATIO	> 20 dB	> 20 dB	20 dB
BANDWIDTH	200 MHz		
SWR	≤ 1.5:1		
MAX. POWER	150 W		
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)		
MECHANICAL			
TEMP. RANGE	-25°C → +60°C		
CONNECTOR	“N” type female		
WIND LOAD @ 160 km/h	34 N	63 N	91 N
WIND SURFACE	0.027 m²	0.0495 m²	0.072 m²
COLOUR	Grey		
SHROUD	86 mm dia. glass fibre tube		
LENGTH	420 mm	620 mm	1000 mm
WEIGHT	1.6 kg	1.8 kg	2.1 kg
MOUNTING	Supplied with fixed Norstell clamp (48.5 mm dia.) for mounting on 45 – 50 mm mast tubes		

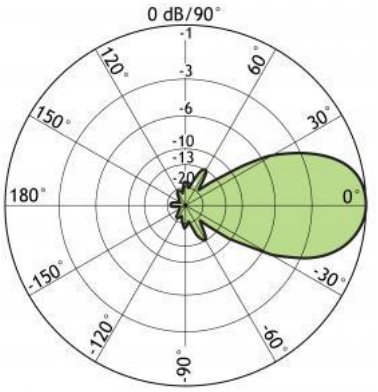
MOUNTING OUTLINE



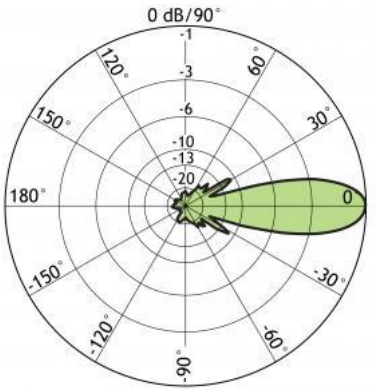
TYPICAL RADIATION PATTERN



H-PLANE: Outer ring 6 dBd

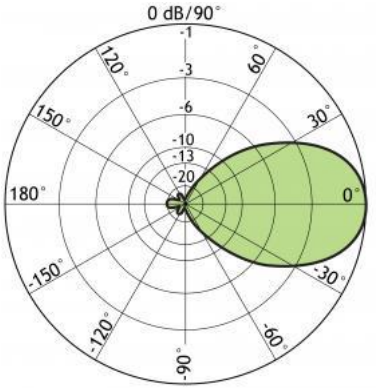


H-PLANE: Outer ring 11 dBd

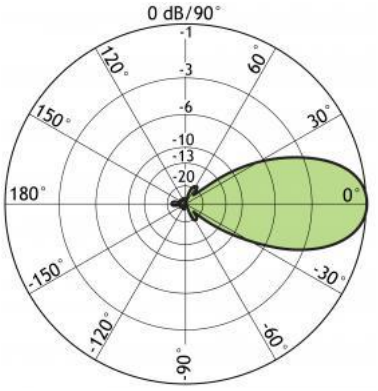


H-PLANE: Outer ring 15 dBd

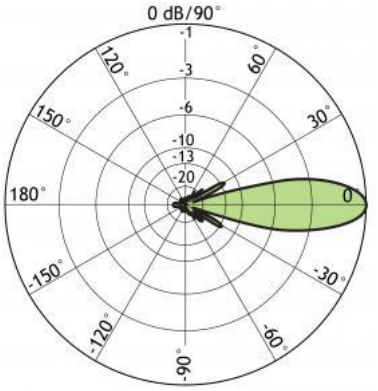
TYPICAL PATTERN (E-PLANE)



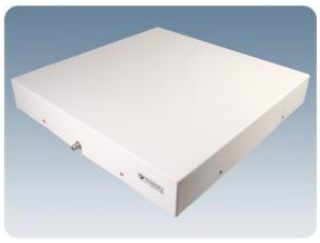
E-PLANE: Outer ring 6 dBd



E-PLANE: Outer ring 11 dBd



E-PLANE: Outer ring 15 dBd



PCPI 434/868/RHCP

Indoor Right Hans Circularly Polarized Antenna for 434 MHz and 868 MHz

- Dual frequency indoor base station antenna - one antenna with two frequencies.
- Low profile antenna for the 434 MHz and 868 MHz frequencies.
- PCPI 434/868/RHCP is a **R**ight **H**and **C**ircularly **P**olarized antenna for indoor use e.g. on ceilings and walls inside ships and houses.
- Circularly polarized antenna is chosen to avoid out-of-phase signals.

DESCRIPTION

- Reduces flutter considerably.
- Specially designed for closed rooms.
- Covers 434 MHz and 868 MHz frequencies with a radiation of approx. 2 dBic 0 dBd.
- The two built-in antennas are combined with a built-in diplexer, with low insertion loss, which makes it possible to have only one downlead cable.
- The antenna is carefully sealed with a discreet cover.
- The antenna is provided with one connector.
- The connector is placed at one side to enable mounting close to a wall or a ceiling.

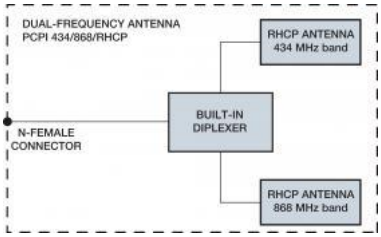
ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PCPI 434/868/RHCP	100000264

SPECIFICATIONS

ELECTRICAL	
MODEL	PCPI 434/868/RHCP
ANTENNA TYPE	Right hand circularly polarized dual frequncy antenna
FREQUENCY	434 / 868 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Circular (right hand)
GAIN	Approx. 2 dBic 0 dBd ± 3 dB
HALF POWER BEAMWIDTH	Approx. 60º (H- and E-plane)
BANDWIDTH	434 MHz: ≥ 8 MHz @ SWR ≤ 2.0 868 MHz: ≥ 20 MHz @ SWR ≤ 2.0
SWR	≤ 1.5 @ f.res.
MAX. POWER	35 W
MECHANICAL	
CONNECTOR	N-female
COLOUR	Marine white
MATERIALS	Cover: PS (white) Chassis: Stainless steel

SIZE (W x L x H)	Approx. 608 x 608 x 90 mm
WEIGHT	Approx. 6.0 kg
MOUNTING	ø 5.5 mm (four holes). For optimum performance a groundplane of 1 x 1 m is required
ELECTRICAL FOR BUILT IN DIPLEXER	
MODEL	DIPX 500/800
FREQUENCY	Low port : 0 - 500 MHz High port : 800 - 1300 MHz
MAX. INPUT POWER	35 W each port
INSERTION LOSS	0 - 500 MHz : ≤ 0.5 dB 800 - 1300 MHz: ≤ 0.5 dB
ISOLATION	Low to high port: ≥ 45 dB
TEMP. RANGE	–30° C → +70° C



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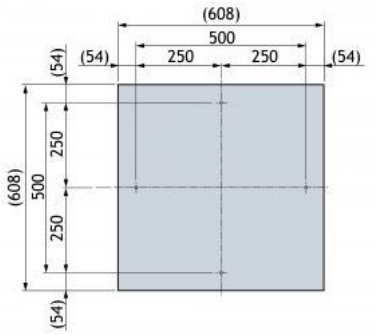
MOUNTING DETAILS

(Dimensions excl. cover)



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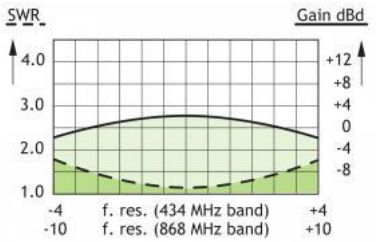
TYPICAL GAIN AND SWR CURVES



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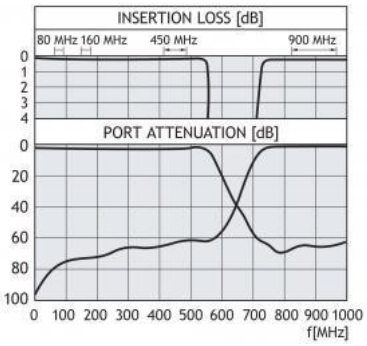
BUILT-IN DIPLEXER



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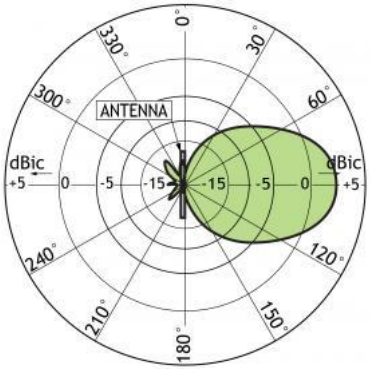
TYPICAL RADIATION PATTERN (E-PLANE)



This curve shows the radiation patterns in the vertical plane.

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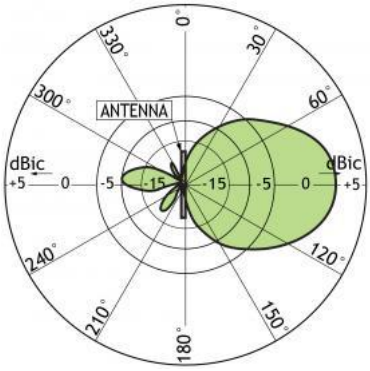
TYPICAL RADIATION PATTERN (H-PLANE)



This curve shows the radiation patterns in the horizontal plane.

G-CXL 900/1800LW

Dual Band Base Station and Marine Antenna for the 900 MHz and the 1800 MHz Bands. Dersigned for defense units.

- Dual band base station and marine antenna – two bands with only one antenna.
- Covering both GSM/NMT-900 and DCS-1800/PCN (GSM 900/1800).
- Particularly suitable for use with dual-band mobile phones.
- Unity gain on both bands.

DESCRIPTION

- Wide variety of accessory mounting brackets available.
- The carefully designed, broad-banded antenna element is sealed in a high-quality, conical glass fibre tube with low wind-load, which will ensure performance undisturbed by corrosive environments.
- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.

ORDERING DESIGNATIONS

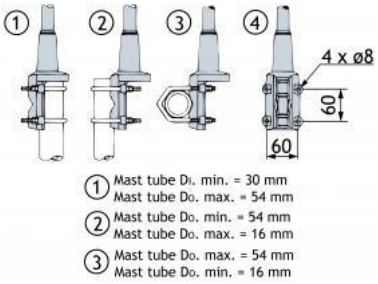
TYPE	PRODUCT NO.
G-CXL 900/1800LW	110000190

SPECIFICATIONS

ELECTRICAL	
MODEL	G-CXL 900/1800LW
ANTENNA TYPE	Dual band base station and marine antenna
FREQUENCY	890 - 960 MHz/1710 - 1880 MHz (GSM 900/1800)
IMPEDANCE	Nom. 50 Ω
POLARISATION	Vertical
GAIN	Unity (both bands)
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.018 m²
WIND LOAD	Approx. 23 N @ 160 km/h

COLOUR	Green
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 500 mm
DIA. IN TOP END	21 mm
DIA. IN BOTTOM END	23 mm
WEIGHT	Approx. 600 g
MOUNTING	On 16 to 54 mm dia. mast tube

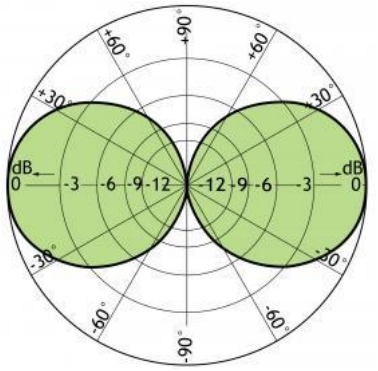
MULTI-PURPOSE MOUNTING BRACKET



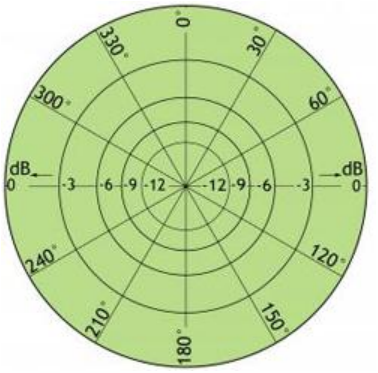
PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.

TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)


0
30
60
120
150
180
210
240
300
330
dB
0
-3
-6
-9
-12
-12
-9
-6
-3
dB
0

G-CXL 1800-1LW

Universalm 0 dBd Base Station and Marine Antenna for the 1800 MHz Band. Designed for defense units.

- G-CXL 1800-1LW is a 0 dBd, vertically polarized, omnidirectional base station and marine antenna for the 1800 MHz band.
- The carefully designed, broad-banded antenna element is sealed in a high-quality, conical glass fibre tube with low wind-load, which will ensure performance undisturbed by corrosive environments.

- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.

ORDERING DESIGNATIONS

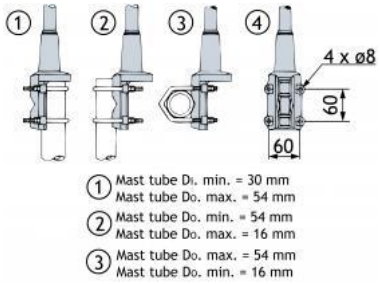
TYPE	PRODUCT NO.
G-CXL 1800-1LW	100000272

SPECIFICATIONS

ELECTRICAL	
MODEL	G-CXL 1800-1LW
ANTENNA TYPE	½ λ coaxial dipole, broad-banded
FREQUENCY	1710 – 1880 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	≥ 170 MHz @ SWR ≤ 2.0
SWR	≤ 2.0
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.018 m²
WIND LOAD	23 N @ 160 km/h

COLOUR	Green
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 490 mm
DIA. IN TOP END	14 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 500 g
MOUNTING	On 16 to 54 mm dia. mast tube

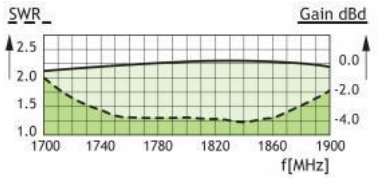
MULTI-PURPOSE MOUNTING BRACKET



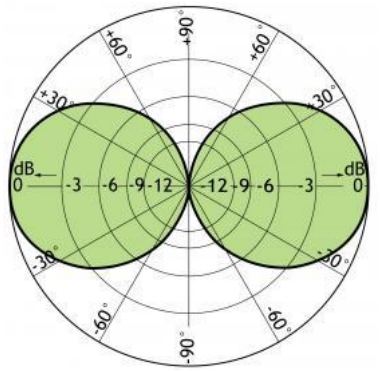
PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.

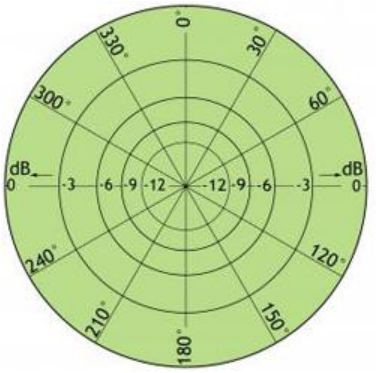
TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)


0
30
60
120
150
180
210
240
300
330
dB
0
-3
-6
-9
-12
-12
-9
-6
-3
dB
0

S.M4

Four element stacked dipole array

- The S.M4 are an array of four dipoles mounted on an aluminium mast.
- Each folded dipole balun assembly and harness junction is completely encapsulated in epoxy resin, totally preventing moisture ingress.
- The balun assembly has been tested to BS5490:IP67.

Description

- The S.M4 offset array is used extensively in UHF and VHF Trunking systems.
- The dipoles can be easily oriented on site or before shipment to adjust between omnidirectional and directional patterns, and beam tilt is easily achieved via the parallel feed.
- The VHF antenna disassembles to reduce shipping costs, and the boom can be supplied in two parts if requested.

ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
S.M4-127-SB	117 - 137 MHz	123003120
S.M4-165-SB	155 - 175 MHz	123003121
S.M4-184-SB	176 - 192 MHz	123003122
S.M4-200-SB	192 - 208 MHz	123003123
S.M4-405	380 - 430 MHz	123003124
S.M4-445	420 - 470 MHz	123003125

SB = SPLIT BOOM

Specifications

TYPE	PRODUCT NO.
UA66-22	123001005
2140.01.00.00	123001012
2141.01.00.00	123001013
ELECTRIAL	
FREQUENCY RANGE	117 - 470 MHz
INPUT IMPEDANCE	50Ω
BANDWIDTH	± 5.5% of centre frequency
SWR	<1.5:1
FRONT TO BACK RATIO	7 dB

MAXIMUM INPUT POWER	250 Watts
POLARISATION	Vertical
FORWARD GAIN	Omni 5.7 dBd Offset 8.7 dBd
3 dB BEAMWIDTH	E Plane 21º H Plane 180º (Offset)
MECHANICAL	
STANDARD CONNECTION	3 m (118.11 in.) Length of RG 213 c/w 'N' type socket
ELEMENTS	12.7 mm dia. x 1.6 mm wall aluminium alloy grade 6063T6
SUPPORT BOOM UHF	UHF 38.1 mm dia. x 3.2 mm wall aluminium alloy grade 6082T6
SUPPORT BOOM VHF	VHF 63.5 mm dia. x 6.3 mm wall aluminium alloy grade 6082T6
FASTENERS	Stainless steel grade A2-70
DIPOLE CLAMPS	Cast aluminium alloy
DIPOLE ADJUSTMENT	M8 stainless steel screws
SADDLE CLAMPS	Diecast zinc alloy
INSULATOR	Epoxy resin encapsulant
LIGHTNING PROTECTION	Direct grounded VHF lightning finial
MOUNTING BRACKETS UHF	UHF fit inside scaffold pole
MOUNTING BRACKETS VHF	VHF to suit structure
TYPICAL WEIGHT (UHF)	UHF 6 kg (13.23 lb.)
TYPICAL WEIGHT (VHF)	VHF 26 kg (57.32 lb.)
TYPICAL LENGTH (UHF)	UHF 2.5 m (98.43 in.)
TYPICAL LENGTH (VHF)	VHF 6 m (236.22 in.)
TYPICAL WIND LOADING @ 162 km/h (UHF)	UHF 180N
TYPICAL WIND LOADING @ 162 km/h (VHF)	VHF 620N

MOUNTING

Mounting accessories to be ordered separately

UA66-22

Very strong square cast alloy clamp, fits up to 50 mm diameter tubes as either a cross-over or parallel clamp. Supplied with two stainless steel ‘U’ bolts.

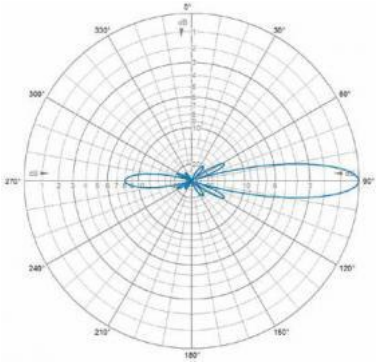
2140.01.00.00

Parallel clamps, in galvanised steel with stainless steel fixings, fits from 25-60 mm diameter tubes.

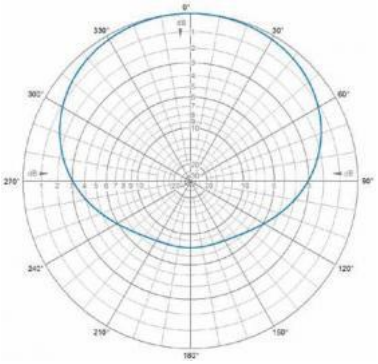
2141.01.00.00

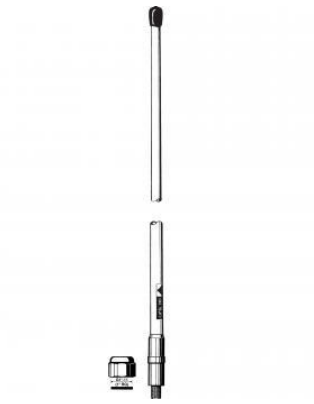
Parallel clamps, in galvanised steel with stainless steel fixings, fits from 38-120 mm diameter tubes.

TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)





CXL 2000-6/...

6 dBd Omdirectional Base Station and Marine Antenna for the 2000 MHz Band

- Vertically polarized, omnidirectional base station and marine antenna.
- Approximately 6 dBd gain.

DESCRIPTION

- Simple mounting using the 1” revolving nut system.
- Wide variety of accessory mounting brackets available.
- Large bandwidth with respect to both SWR and gain.
- Highly suitable for duplex operation with large spacing between the TX and the RX frequencies.
- The antenna element is sealed in a high-quality glass fibre tube.
- All metal parts in the antenna are DC-grounded to reduce the noise caused by atmospherical discharge. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 2000-6/... is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

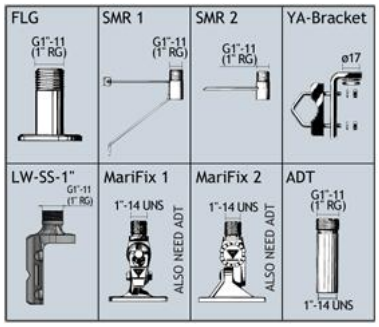
TYPE	PRODUCT NO.	FREQUENCY
CXL 2000-6/l	100000548	1900 - 2050 MHz
CXL 2000-6/m	100000623	2000 - 2150 MHz
CXL 2000-6/h	100000360	2100 - 2200 MHz

SPECIFICATIONS

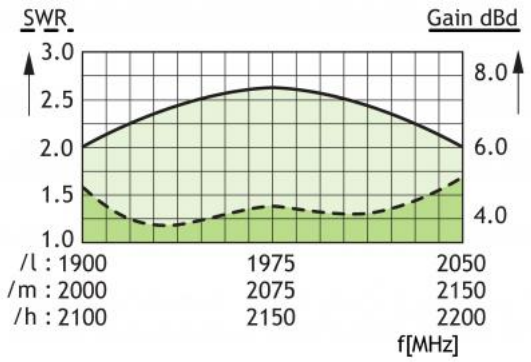
ELECTRICAL	
MODEL	CXL 2000-6/...
ANTENNA TYPE	Coaxial, collinear antenna, broad-banded
FREQUENCY	Models within 1900 – 2200 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	8 dBi 6 dBd
HALF POWER BEAMWIDTH	9°
BANDWIDTH	150≥ MHz @ SWR ≤ 2.0
SWR	≤ 2.0, typ. ≤ 1.5
MAX. POWER	100 W

ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
HCM CODE	HCM000ND00, 007DE60
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.03 m²
WIND LOAD	Approx. 42 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 1.2 m
DIA. IN TOP END	21 mm
DIA. IN BOTTOM END	23 mm
WEIGHT	Approx. 600 g
MOUNTING	On 1” RG (G1”-11) threaded water pipe or on optional mounting brackets (see below)

ACCESSORIES (to be ordered separately)



TYPICAL GAIN AND SWR CURVES



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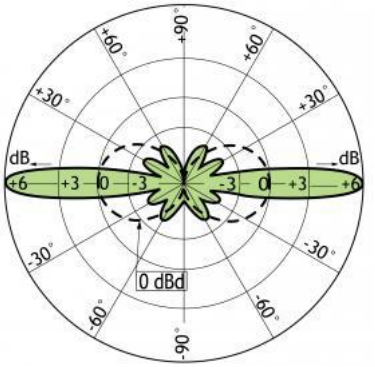
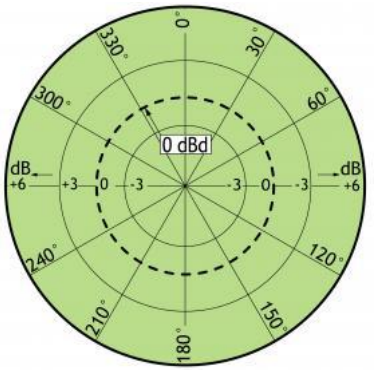
TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE),



CXL 2000-3

3 dBd Omnidirectional Base Station and Marine Antenna for the 2000 MHz Band

- Vertically polarized, omnidirectional base station and marine antenna.
- Approximately 3 dBd gain.

DESCRIPTION

- Simple mounting using the 1” revolving nut system.
- Wide variety of accessory mounting brackets available.
- Large bandwidth with respect to both SWR and gain.
- Highly suitable for duplex operation with large spacing between the TX and the RX frequencies.
- The antenna element is sealed in a high-quality, conical glass fibre tube.
- All metal parts in the antenna are DC-grounded to reduce the noise caused by atmospherical discharge. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 2000-3 is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

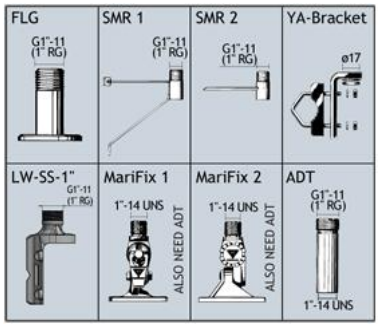
TYPE	PRODUCT NO.	FREQUENCY
CXL 2000-3	100000190	1900 – 2200 MHz

SPECIFICATIONS

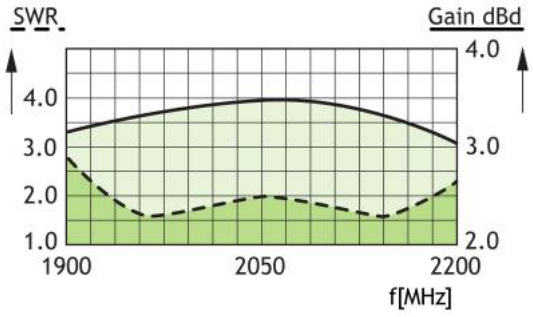
ELECTRICAL	
MODEL	CXL 2000-3
ANTENNA TYPE	Coaxial, collinear antenna, broad-banded
FREQUENCY	1900 – 2200 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd
HALF POWER BEAMWIDTH	22°
BANDWIDTH	≥ 200 MHz @ SWR ≤ 2.0 ≥ 300 MHz @ SWR ≤ 2.5
SWR	≤ 2.5, typ. ≤ 2.0
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)

HCM CODE	HCM000ND00, 015DE50
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.02 m²
WIND LOAD	Approx. 25 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 700 mm
DIA. IN TOP END	22 mm
DIA. IN BOTTOM END	23 mm
WEIGHT	Approx. 400 g
MOUNTING	On 1” RG (G1”-11) threaded water pipe or on optional mounting brackets (see below)

ACCESSORIES (to be ordered separately)



TYPICAL GAIN AND SWR CURVES



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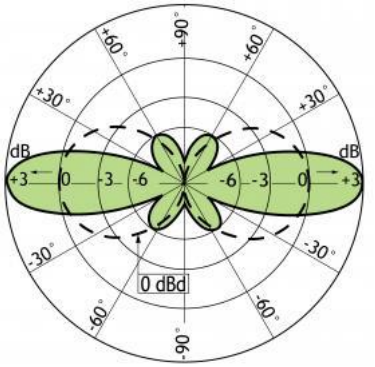
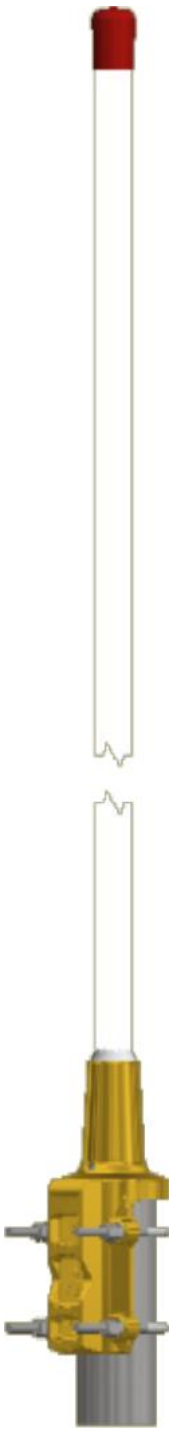
TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



CXL 2000-8LW/...

8 dBd Omnidirectional Base Station and Marine Antenna for the 2000 MHz Band

- Vertically polarized, omnidirectional base station and marine antenna.
- The CXL 2000-8LW/... is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.
- The antenna element is sealed in a high-quality glass fibre tube

DESCRIPTION

- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.
- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- Highly suitable for duplex operation with large spacing between the TX and the RX frequencies.
- All metal parts in the antenna are DC-grounded to reduce the noise caused by atmospherical discharge. Consequently, the antenna shows a DC-short across the coaxial cable.

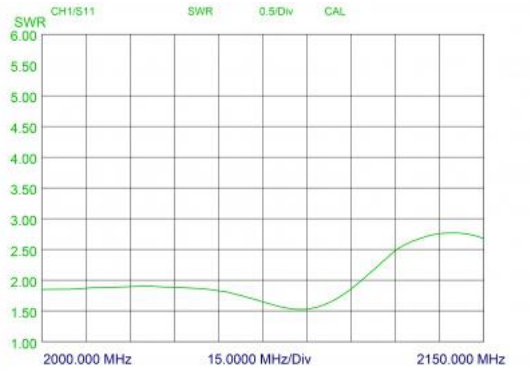
ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY
CXL 2000-8LW/m	100000634	2025 - 2105 MHz

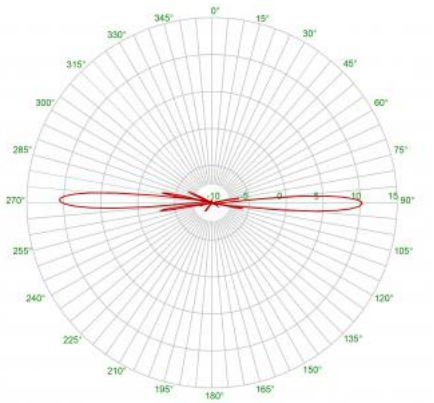
SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 2000-8LW/...
ANTENNA TYPE	Coaxial, collinear antenna, broadbanded
FREQUENCY	2025 – 2105 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	8 dBd (10 dBi)
HALF POWER BEAMWIDTH	6°
BANDWIDTH	≥ 80 MHz @ SWR ≤ 2.0
SWR	≤ 2.0
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
HCM CODE	HCM000ND00, 007DE60
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.037 m²
WIND LOAD	Approx. 53 N @ 160 km/h
MAX WIND SPEED	200km/h/124.27 mph
INGRESS PROTECTION LEVEL	IP66
COLOUR	Marine white (Ral 9010)
MATERIALS	Shroud: Polyurethane-coated glass fiber Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 1.62 m
DIA. IN TOP END	23 mm
DIA. IN BOTTOM END	23 mm
WEIGHT	Approx. 800 g
MOUNTING	On 16 to 54 mm dia. mast tube

TYPICAL SWR CURVE



TYPICAL RADIATION PATTERN (E-PLANE)



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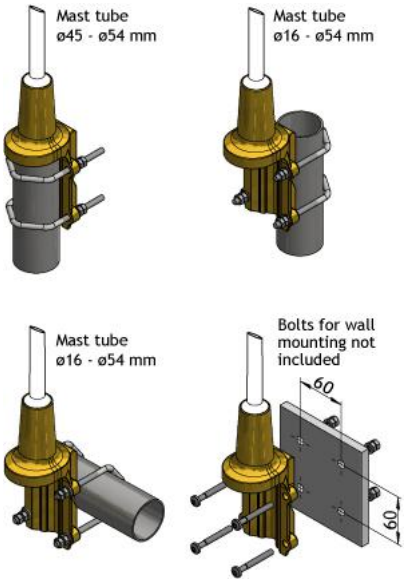
MULTI-PURPOSE MOUNTING BRACKET



CXL 1090-1

Unity Gain Base Station & Marine 1090 MHz Antenna

- The CXL 1090-1 is a 0 dBd, vertically polarized, omnidirectional rod-type base station and marine antenna covering the 1090 MHz band.
- The 1” revolving nut mounting system is standard throughout the base station and maritime sector. Several different mounting brackets are available, making it possible to install the antenna either on the masthead using FLG or SMR 2, side mounted on the mast (using SMR 1) or mounted on a cross-beam (using FLG). Also, the antenna can also be mounted on deck or rooftop by means of the FLG.

DESCRIPTION

- Especially designed for ADS-B aerial surveillance.
- The higher the antenna is mounted, the better coverage. Avoid mounting the antenna parallel with or in the neighbourhood of other metal parts, such as masts, supporting wires etc., as the SWR and the radiation pattern may otherwise be strongly influenced.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- A conical glass fibre tube completely encloses the carefully designed radiating element to ensure long dependable service in all climates.

ORDERING DESIGNATIONS

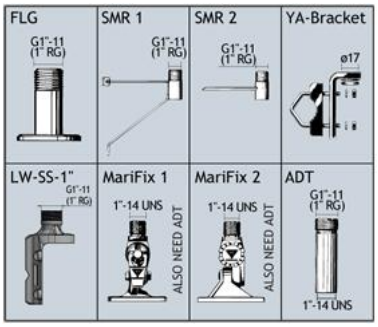
TYPE	PRODUCT NO.	FREQUENCY
CXL 1090-1	110000386	1050 – 1130 MHz

SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 1090-1
ANTENNA TYPE	½ λ coaxial dipole, broad-banded
FREQUENCY	1050 - 1130 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
HALF POWER BEAMWIDTH	80°
BANDWIDTH	80 MHz
SWR	≤ 1.5
MAX. POWER	100 W
MECHANICAL	
TEMP. RANGE	-30°C to +70°C

CONNECTOR	N-female
WIND SURFACE	Approx. 0.0070 m²
WIND LOAD	Approx. 9 N @ 160 km/h
MAX. WIND SPEED	200 km/h (124.27 mph)
INGRESS PROTECTION LEVEL	IP66
COLOUR	Marine white (RAL 9010)
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 420 mm
DIA. IN TOP END	12 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 350 g
MOUNTING	On 1” RG (G1”-11) threaded water pipe or on optional mounting brackets (see below)

ACCESSORIES (to be ordered separately)



CXL 1090-1LW

Universal, 0 dBd Base Station and Marine Antenna for the 1090 MHz Band

- CXL 1090-1LW is a 0 dBd, vertically polarized, omnidirectional base station and marine antenna, which covers the 1090 MHz band.
- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.

Description

- Especially designed for ADS-B aerial surveillance.
- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- The carefully designed, broad-banded antenna element is sealed in a high-quality, conical glass fibre tube with low wind-load, which will ensure performance undisturbed by corrosive environments.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 1090-1LW is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

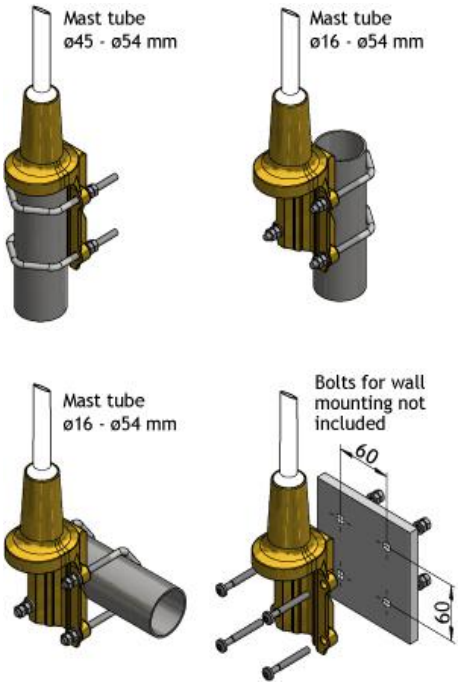
TYPE	FREQUENCY	PRODUCT NO.
CXL 1090-1LW	1050 – 1130 MHz	100000637

SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 1090-1LW
ANTENNA TYPE	½ λ coaxial dipole, broad-banded
FREQUENCY	1050 - 1130 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
HALF POWER BEAMWIDTH	80°
BANDWIDTH	80 MHz
SWR	< 1.5
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded

	(Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C to +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.018 m²
WIND LOAD	23 N @ 160 km/h
MAX. WINDSPEED	200 km/h (124.27 mph)
INGRESS PROTECTION LEVEL	IP66
COLOUR	Marine white (RAL 9010)
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 490 mm
DIA. IN TOP END	13 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 560 g
MOUNTING	On 16 to 54 mm dia. mast tube

MULTI-PURPOSE MOUNTING BRACKET



PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.

CXL 450-3LW-SS-Ex

ATEX certified, 3 dBd, Omnidirectional Base Station Antenna for the 380 - 470 MHz Band in Hazardous areas

- CXL 450-3LW-SS-Ex is a 3 dBd, vertically polarized, omnidirectional base station antenna which covers the 380 - 470 MHz band in four models with up to 10 MHz overlap.
- The antenna is specified as ATEX antenna for use in zone 2 in potentially explosive areas.

DESCRIPTION

- Before installing the antenna, read the ATEX Product Manual carefully.
- The antenna is suitable for use in gas groups IIA, IIB and IIC in zone 2.
- It’s only necessary to install a ATEX grounding Kit on the LW-SS-Ex bracket, when the point of installation has a different electrical potential than the system.
- The carefully designed collinear antenna radiating parts elements is made of brass tube and sealed in a high-quality conical glass fibre tube with low wind-load.
- The accompanying U-bolts and fittings are made of stainless steel.
- All metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.

ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
CXL 450-3LW-SS-Ex/s	380 - 410 MHz	115000013
CXL 450-3LW-SS-Ex/f	406 - 430 MHz	115000014
CXL 450-3LW-SS-Ex/l	420 - 450 MHz	115000015
CXL 450-3LW-SS-Ex/h	440 - 470 MHz	115000016
ACCESSORIES		
ATEX grounding Kit		115000100

SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 450-3LW-SS-Ex
ANTENNA TYPE	½ λ coaxial dipole, broad-banded
FREQUENCY	30 MHz wide frequency segments within 380 - 470 MHz. See ordering designations
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical

HALFPOWER BEAMWIDTH	30°
GAIN	5 dBi 3 dBd
BANDWIDTH	30 MHz
SWR	≤ 1.5
MAX. RF INPUT POWER DUE TO MAX. EIRP IN ATEX ENVIRONMENT *	Group IIA : 32.6 dBm (1.8 W) Group IIB : 30.3 dBm (1.0 W) Group IIC : 27.8 dBm (0.6 W)
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)

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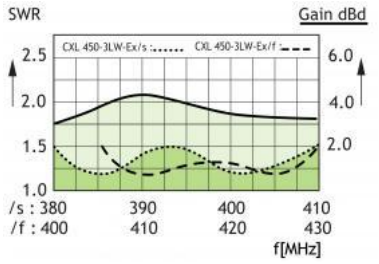
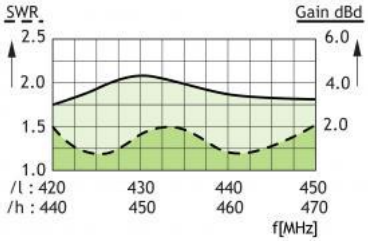
MECHANICAL	
TEMP. RANGE	-30°C → +60°C
CONNECTOR TIGHTENING TORQUE	N-female 0.7 - 1.1 Nm
WIND SURFACE	0.029 m² / 0.31 ft²
WIND LOAD	33.6 N @ 160 km/h / 99.42 mph.
MAX. WIND SPEED	200 km/h / 124.27 mph.
INGRESS PROTECTION LEVEL	IP66
COLOUR	Blue
MATERIALS	Radome : Polyurethane-coated glass fibre Mounting bracket : Stainless acid-proof steel (AiSi 316L) U-bolt and fittings : Stainless steel (AiSi 304)
TOTAL HEIGHT	Approx. 1.4 mm / 55,12 in. (dep. on freq.)
DIA. IN TOP END	17 mm / 0.67 in.
DIA. IN BOTTOM END	23 mm / 0.91 in.
WEIGHT	Approx. 1.55 kg / 3.42 lb.
MOUNTING TIGHTENING TORQUE	On 16 - 54 mm / 0.63 - 2.13 in. dia. mast tub 3 Nm
ATEX MARKING	II 3G Ex nA IIC T6

* See the ATEX Product Manual (safety and mounting instructions) and related EU DECLARATION OF CONFORMITY ATEX Directive 2014/34/EU.

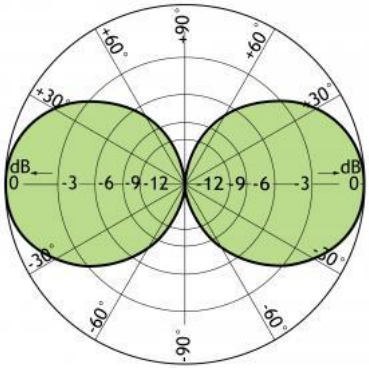
TYPICAL GAIN AND SWR CURVES



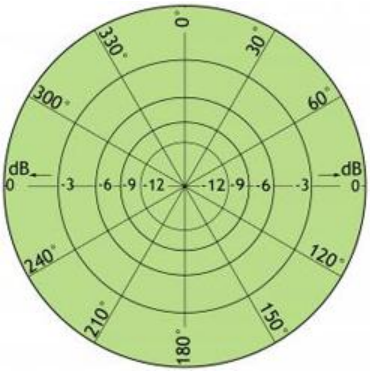
TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



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CALCULATION OF MAX. ANTENNA INPUT POWER IN DIFFERENT ATEX GROUPS

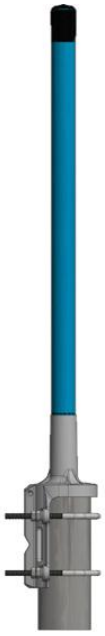
ATEX GROUP	MAX. EIRP POWER	ANTENNA GAIN	MAX INPUT POWER
IIA	37.7 dBm (6.0 W)	3 dBd / 5.15 dBi	32.6 dBm (1.8 W)
IIB	35.4 dBm (3.5 W)	3 dBd / 5.15 dBi	30.3 dBm (1.0 W)
IIC	33.0 dBm (2.0 W)	3 dBd / 5.15 dBi	27.8 dBm (0.6 W)

MULTI-PURPOSE MOUNTING BRACKET


Mast tube
ø42 - ø54 mm


Mast tube
ø16 - ø54 mm


Mast tube
ø16 - ø54 mm



CXL 2400-3LW-SS-Ex

ATEX certified, 3 dBd, Omnidirectional Base Station Antenna for the 2200 - 2700 MHz Band in Hazardous areas

- CXL 2400-3LW-SS-Ex is a 3 dBd, vertically polarized, omnidirectional base station Antenna which covers the 2200 - 2700 MHz band in four models.
- The antenna is specified as ATEX antenna for use in zone 2 in potentially explosive areas.

DESCRIPTION

- Before installing the antenna, read the ATEX Product Manual carefully.
- The antenna is suitable for use in gas groups IIA, IIB and IIC in zone 2.
- It’s only necessary to install a ATEX grounding Kit on the LW-SS-Ex bracket, when the point of installation has a different electrical potential than the system.
- The accompanying U-bolts and fittings are made of stainless steel.
- The antenna element is sealed in a high-quality glass fibre tube.
- All metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.

ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.	
CXL 2400-3LW-SS-Ex/II	2200 - 2300 MHz	115000020	
CXL 2400-3LW-SS-Ex/I	2300 - 2500 MHz	115000021	
CXL 2400-3LW-SS-Ex/m	2400 - 2600 MHz	115000022	
CXL 2400-3LW-SS-Ex/h	2500 - 2700 MHz	115000023	
ACCESSORIES			
ATEX Grounding Kit		115000100	

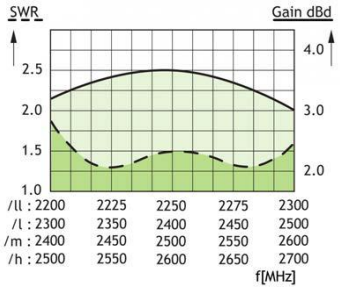
SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 2400-3LW-SS-Ex
ANTENNA TYPE	Coaxial, collinear antenna, broadbanded
FREQUENCY	100 - 200 MHz wide frequency segments within 2200 - 2700 MHz. See ordering designations

IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd
HALF POWER BEAMWIDTH	22°
BANDWIDTH	For l, m and h models: ≥ 200 MHz @ SWR ≤ 2.0 For ll-model: ≥ 100 MHz @ SWR ≤ 2.0
SWR	≤ 2.0, typ. ≤ 1.5
MAX. RF INPUT POWER DUE TO MAX. EIRP IN ATEX ENVIRONMENT *	
Group IIA	32.6 dBm (1.8 W)
Group IIB	30.3 dBm (1.0 W)
Group IIC	27.8 dBm (0.6 W)
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +60°C
CONNECTOR TIGHTENING TORQUE	N-female 0.7 - 1.1 Nm
WIND SURFACE	Approx. 0.02 m² / 0.22 ft²
WIND LOAD	Approx. 26 N @ 160 km/h / 99.42 mph.
MAX. WIND SPEED	200 km/h / 124.27 mph.
INGRESS PROTECTION LEVEL	IP66
COLOUR	Blue
MATERIALS	Radome: Polyurethane-coated glass fibre Mounting bracket: Stainless acid-proof steel (AiSi 316L) U-bolt and fittings: Stainless steel (AiSi 304)
TOTAL HEIGHT	Approx. 700 mm / 27.56 in.
DIA. IN TOP END	22 mm / 0.87 in.
DIA. IN BOTTOM END	23 mm / 0.91 in.
WEIGHT	Approx. 850 g / 1.87 lb.
MOUNTING TIGHTENING TORQUE	On 16 to 54 mm / 0.63 - 2.13 in. dia. mast tube 3 Nm
ATEX MARKING	II 3G Ex nA IIC T6

* See the ATEX Product Manual (safety and mounting instructions) and related EU DECLARATION OF CONFORMITY ATEX Directive 2014/34/EU.

TYPICAL GAIN AND SWR CURVES



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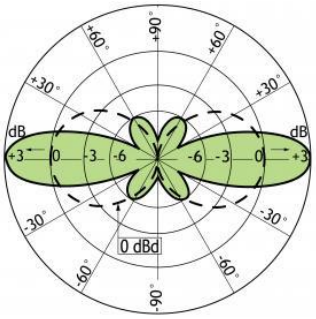
TYPICAL RADIATION PATTERN (E-PLANE)



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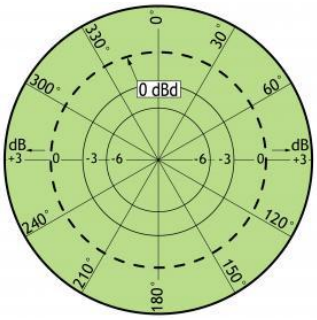
TYPICAL RADIATION PATTERN (H-PLANE)



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CALCULATION OF MAX. ANTENNA INPUT POWER IN DIFFERENT ATEX GROUPS

ATEX GROUP	MAX. EIRP POWER	ANTENNA GAIN	MAX INPUT POWER
IIA	37.7 dBm (6.0 W)	3 dBd / 5.15 dBi	32.6 dBm (1.8 W)
IIB	35.4 dBm (3.5 W)	3 dBd / 5.15 dBi	30.3 dBm (1.0 W)
IIC	33.0 dBm (2.0 W)	3 dBd / 5.15 dBi	27.8 dBm (0.6 W)

MULTI-PURPOSE MOUNTING BRACKET


Mast tube
ø42 - ø54 mm


Mast tube
ø16 - ø54 mm


Mast tube
ø16 - ø54 mm

55143xx Amphenol Jaybeam Antenna

DAB 4-Dipole Colinear, omnidirectional antenna

Single Band, Omni, V-Pol, 217-231 MHz, 8.0 dBi, 3.5,6.5°T, 4-dipole, High Power (Heavy Duty)

For further information please download the datasheet

SPECIFICATIONS

Electrical Characteristics		
Frequency bands	217-231 MHz	
Model number options (xxx)	Model Number 5514335 5514365	Electrical Downtilt 3.5° 6.5°
Polarization	Vertical	
Frequency bandwidth	3.5%	
Horizontal beamwidth	Omnidirectional ± 0.2 dB maximum ripple	
Vertical beamwidth	18° ± 1°	
Gain	5.9 dBd (8.0 dBi)	
Electrical downtilt	see model number options above	
Impedance	50Ω	
VSWR	1.5:1	
Maximum power	250 W	
Connector type	7/16-DIN	
Lightning protection	Direct connection of all conductive components.	
Mechanical Characteristics		
Materials	All brass radiating elements. Teflon insulated distribution network with silver plated conductors. Aluminum top cap and base stub. Alocrome finish. Grey glass reinforced plastic tube shroud. Aluminum tube mounting	
Dimensions @ 224 MHz Length Shroud (length x diameter) Mounting Section (length x diameter)	4650 mm 3927 x 54 mm 500 x 70 mm	183.1 in 154.6 x 2.1 in 19.7 x 2.8 in

Lightning spike (extension from top cap)	148 mm	5.8 in
Weight without mounting brackets	10.0 kg	22.0 lbs
Wind load @ 161 km/hr (100 mph)	330 N	74.2 lbf

Mounting Options	Part Number	Fits Pipe Diameter	
Pole mounting bracket kit	0900638/00	48-115 mm	1.9-4.5 in
Mounting clamps (two clamp set)	0300235/00	48-75 mm mm	1.9-3.0 in

71482xx Amphenol Jaybeam Antenna

An array of four Center Fed Dipole antennas with phasing harness mounted on an aluminium mast designed for TETRA network applications

Single Band, Center-Fed Dipole Array, V-Pol, 380-430 MHz, 160°, 9.0 dBd, 0,5,10,15°T, 4-stack, High Power (Heavy Duty)

For further information please dowload the pdf datasheet

MA411D00 Amphenol Jaybeam Antenna

A VHF Ground Plane antenna with integrated mount designed to attach to the top of a 30-60 mm diameter mast

Single Band, Omni, Ground plane, V-Pol, 31-41 MHz, 0 dBd, High Power (Heavy Duty)

For further information please download the pdf datasheet

A VHF Ground Plane antenna with integrated mount designed to attach to the top of a 30-60 mm diameter mast. The active element is a folded monopole. The ground plane elements are user-tuned to achieve best performance at the operating frequency. Tuning chart provided.

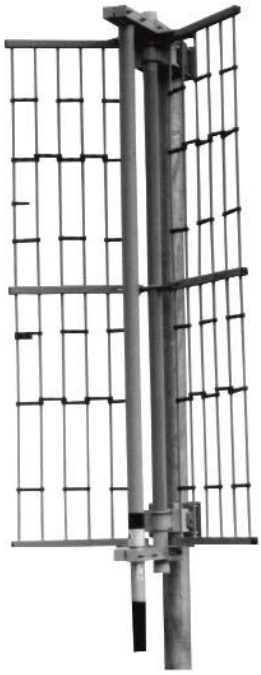
SPECIFICATIONS

Electrical Characteristics	
Frequency band*	31-41 MHz
Bandwidth	±2% (typical)
Polarization	Vertical
Horizontal beamwidth	360°
Vertical beamwidth	86°
Gain	0 dBd
Impedance	50Ω
VSWR	<1.5:1
Maximum power	250 W
Connector type	N-Female
Lightning protection	DC grounded
Electrical Characteristics	
Frequency band*	31-41 MHz
Bandwidth	±2% (typical)
Polarization	Vertical
Horizontal beamwidth	360°
Vertical beamwidth	86°
Gain	0 dBd
Impedance	50Ω
VSWR	<1.5:1
Maximum power	250 W
Connector type	N-Female

Lightning protection	DC grounded

* Tuning chart provided. Trim whips to achieve required center frequency.

Mechanical Characteristics				
Materials	Aluminium alloy, Glass fibre, and Stainless steel			
Dimensions (Whip Length)	82 MHz:	990	mm	39.0 in
Weight with bracket	31 MHz: 82 MHz:	6.5 4.0	kg kg	14.3 lbs 8.8 lbs
Wind load @ 160 km/hr (100 mph)	31 MHz: 82 MHz:	240 120	N N	54.0 lbf 27.0 lbf
Mounting Options				
Mounting bracket	Integral mounting bracket to fit on 30-60 mm dia. mast.			



5004380 Amphenol Jaybeam Antenna

A medium gain, Adjustable Beamwidth antenna designed for TETRA network applications

A medium gain, Adjustable Beamwidth antenna designed for TETRA network applications. These antennas can be deployed as 90, 120, 140 or 160 degree sector antennas or phased together to provide omnidirectional degree coverage on a large structure. Produced to the highest quality standards these robust designs will insure reliable operation in harsh environmental conditions.

- Single Band, Corner Reflector
- V-Pol, 380-400 MHz,
- Adjustable BW 90°-180°, 9.3-6.3 dBd, 11.4-8.4 dBi, 0° or 10°T,
- High Power (Heavy Duty)

Electrical Characteristics		
Frequency range	130..500 MHz	
Model number options (xxx)	Model Number 7043150 7043155 7043390 7043420	Frequency band*145-165 MHz 155-175 MHz 380-410 MHz 420-470 MHz
Bandwidth	±5% (typical)	
Polarization	Vertical or Horizontal	
Horizontal beamwidth	54°	
Vertical beamwidth	45°	
Gain	10 dBd	
Impedance	50Ω	
VSWR	<1.5:1	
Front-to-back ratio	>20 dB	
Maximum power	150 W	
Connector type	N-Female + 3m of RG213 cable	
Lightning protection	DC grounded	
Electrical Characteristics		

Frequency range	130..500 MHz	
Model number options (xxx)	Model Number 7043150 7043155 7043390 7043420	Frequency band*145-165 MHz 155-175 MHz 380-410 MHz 420-470 MHz
Bandwidth	±5% (typical)	
Polarization	Vertical or Horizontal	
Horizontal beamwidth	54°	
Vertical beamwidth	45°	
Gain	10 dBd	
Impedance	50Ω	
VSWR	<1.5:1	
Front-to-back ratio	>20 dB	
Maximum power	150 W	
Connector type	N-Female + 3m of RG213 cable	
Lightning protection	DC grounded	

* Other frequencies available upon request.

Mechanical Characteristics			
Materials	Boom, 32 mm dia., aluminium Elements, 12.7 mm dia., aluminium Balun, fully moulded enclosure		
Dimensions (Length)	155 MHz: 300 MHz:	3410 mm 2030 mm	134.3 in 79.9 in
Weight without bracket	155 MHz: 300 MHz:	6.0 kg 4.5 kg	13.2 lbs 9.9 lbs
Wind load @ 160 km/hr (100 mph)	155 MHz: 300 MHz:	250 N 140 N	56.2 lbf 31.5 lbf

Mounting Options		
Part Number		
Mounting bracket	3202078/68 + 3201079/00	
Alternate mounting brackets	0900912/00, 0302032/68, or 0300064/00 + U-bolts to match mounting pipe diameter	

Please order Mounting Bracket separately.

MA411H02 Amphenol Jaybeam Antenna

A VHF Ground Plane antenna with integrated mount designed to attach to the top of a 30-60 mm diameter mast

Single Band, Omni, Ground plane, V-Pol, 82-88 MHz, 0 dBd, High Power (Heavy Duty)

For further information please dowload the pdf file.

A VHF Ground Plane antenna with integrated mount designed to attach to the top of a 30-60 mm diameter mast. The active element is a folded monopole. The ground plane elements are user-tuned to achieve best performance at the operating frequency. Tuning chart provided.

SPECIFICATIONS

Electrical Characteristics	
Frequency band*	82-88 MHz
Bandwidth	±2% (typical)
Polarization	Vertical
Horizontal beamwidth	360°
Vertical beamwidth	86°
Gain	0 dBd
Impedance	50Ω
VSWR	
Maximum power	250 W
Connector type	N-Female
Lightning protection	DC grounded
Electrical Characteristics	
Frequency band*	82-88 MHz
Bandwidth	±2% (typical)
Polarization	Vertical
Horizontal beamwidth	360°
Vertical beamwidth	86°
Gain	0 dBd
Impedance	50Ω
VSWR	
Maximum power	250 W
Connector type	N-Female

Lightning protection	DC grounded

* Tuning chart provided. Trim whips to achieve required center frequency.

Mechanical Characteristics				
Materials	Aluminium alloy, Glass fibre, and Stainless steel			
Dimensions (Whip Length)	82 MHz:	990 mm	39.0 in	
Weight with bracket	31 MHz: 82 MHz:	6.5 kg 4.0 kg	14.3 lbs 8.8 lbs	
Wind load @ 160 km/hr (100 mph)	31 MHz: 82 MHz:	240 N 120 N	54.0 lbf 27.0 lbf	
Mounting Options				
Mounting bracket	Integral mounting bracket to fit on 30-60 mm dia. mast.			

MA412D00 Amphenol Jaybeam Antrenna

A VHF Ground Plane antenna with integrated mount designed to attach to the top of a 30-60 mm diameter mast

Single Band, Omni, Ground plane, V-Pol, 31-41 MHz, 0 dBd, UHF connector, High Power (Heavy Duty)

For further information please donwload the PDF datasheet

A VHF Ground Plane antenna with integrated mount designed to attach to the top of a 30-60 mm diameter mast. The active element is a folded monopole. The ground plane elements are user-tuned to achieve best performance at the operating frequency. Tuning chart provided.

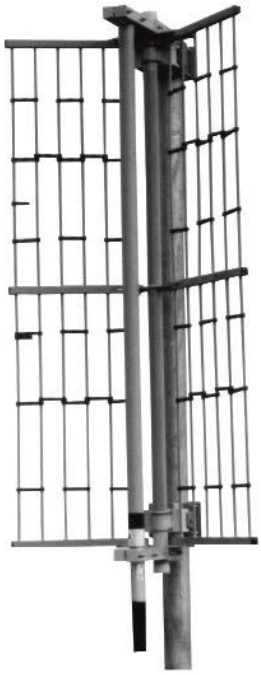
SPECIFICATIONS

Electrical Characteristics	
Frequency band*	31..41 MHz
Bandwidth	±2% (typical)
Polarization	Vertical
Horizontal beamwidth	360°
Vertical beamwidth	86°
Gain	0 dBd
Impedance	50Ω
VSWR	<1.5:1
Maximum power	250 W
Connector type	UHF (SO230) Female
Lightning protection	DC grounded
Electrical Characteristics	
Frequency band*	31..41 MHz
Bandwidth	±2% (typical)
Polarization	Vertical
Horizontal beamwidth	360°
Vertical beamwidth	86°
Gain	0 dBd
Impedance	50Ω
VSWR	<1.5:1
Maximum power	250 W

Connector type	UHF (SO230) Female
Lightning protection	DC grounded

* Tuning chart provided. Trim whips to achieve required center frequency.

Mechanical Characteristics			
Materials	Aluminium alloy, Glass fibre, and Stainless steel		
Dimensions (Whip Length)	31 MHz:	2300 mm	90.6 in
Weight with bracket	31 MHz:	6.5 kg	14.3 lbs
Wind load @ 160 km/hr (100 mph)	31 MHz:	240 N	54.0 lbf
Mounting Options			
Mounting bracket	Integral mounting bracket to fit on 30-60 mm dia. mast.		



5004100 Amphenol Jaybeam Antenna

A medium gain, Adjustable Beamwidth antenna designed for TETRA network applications

A medium gain, Adjustable Beamwidth antenna designed for TETRA network applications. These antennas can be deployed as 90, 120, 140 or 160 degree sector antennas or phased together to provide omnidirectional degree coverage on a large structure. Produced to the highest quality standards these robust

For further information please dowload the pdf datasheet

- Single Band, Corner Reflector,
- V-Pol, 450-470 MHz, Adjustable BW 90°-180°, 9.3-6.3 dBd, 11.4-8.4 dBi, 0° or 10°T,
- High Power (Heavy Duty)

Specifications

Electrical Characteristics		
Frequency range	380..470 MHz	
Model number options (xxx)	Model Number 5004380 5004400 5004100	Frequency band* 380-400 MHz 410-430 MHz 450-470 MHz
Polarization	Vertical	
Horizontal beamwidth	Adjustable to 90°, 120°, 140°, or 180°	
Vertical beamwidth	19°	
Gain	9.3 dBd @ 90° 8.4 dBd @ 120° 7.4 dBd @ 140° 6.3 dBd @ 180°	
Electrical downtilt	0°, 10°	
Impedance	50Ω	
VSWR		
Front-to-back ratio	25 dB @ 90° 22 dB @ 120° 21 dB @ 140° 17 dB @ 180°	
Maximum power	250 W	
Connector type / Location	N-Female / Base	
Lightning protection	DC grounded	

Mechanical Characteristics	
Materials	Radiator element, sealed in glass fibre tube Reflector assembly, polyester coated, Aluminium
Dimensions HxWxD	2600 x 800 x 400 mm 102.4 x 31.5 x 15.7 in
Weight without bracket	16 kg 35.3 lbs
Wind load @ 160 km/hr (100 mph)	800 N 180 lbf
Mounting Options	
Mounting bracket	9250-318
Please order Mounting Bracket separately.	

MA421X61 Amphenol Jaybeam Antenna

120° sector antenna fully housed in a shroud

- Single Band, Corner Reflector, V-Pol, 450-470 MHz
- Adjustable BW 90°-180°, 9.3-6.3 dBd, 11.4-8.4 dBi, 0° or 10°T
- High Power (Heavy Duty)

For further information please dowload the pdf datasheet

Specifications

Electrical Characteristics	
Frequency band	2400-2500 MHz
Polarization	Linear or Vertical
Horizontal beamwidth (-3 dB)	122° ± 3°
Vertical beamwidth (-3 dB)	7° ± 0.5°
Gain	14.0 dBi
VSWR	<1.5:1
Front-to-back ratio	>22 dB
Cross polarisation level	
Maximum power	50 W
Connector type	N Socket / Bottom
Operating temperature	-40 to +70° C -40 to +158° F
Mechanical Characteristics	
Materials	Shroud, UV resistant plastic Colour, grey RAL 7035
Dimensions (Length x Width x Height)	1000 x 170 x 63 mm 39.4 x 6.7 x 2.5 in
Weight without bracket	3.8 kg 8.4 lbs

Maximum wind speed	200 km/hr 125 mph
Wind load @ 160 km/hr (100 mph)	Front: 340 N Side: 128 N Front: 76.4 lbf Side: 28.8 lbf
Mounting Options	
Mounting	Wall mounting
Optional mounting	Tube and cluster mounting

MA431E40 Amphenol Jaybeam Antenna

A rugged and durable VHF End Fed Dipole antenna housed inside a high-strength, glassfibre shroud

Single Band, Omni, End-fed dipole, V-Pol, 39.2-40.8 MHz, 0 dBd, Low Power (Medium Duty)

For further information please dowload the pdf datasheet

A rugged and durable VHF End Fed Dipole antenna housed inside a high-strength, glassfibre shroud. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.
Replace “xx” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	34.3..40.8 MHz	
Model number options (xx)	Model Number MA431E35 MA431E40	Frequency band 34.3-35.7 MHz 39.2-40.8 MHz

Polarization	Vertical	
Horizontal beamwidth	360°	
Vertical beamwidth	84°	
Gain	0 dBd	
Impedance	50Ω	
VSWR	<1.5:1	
Maximum power	100 W	
Connector type	N Female	
Lightning protection	DC grounded	
Mechanical Characteristics		
Materials	Glass fibre Aluminium mounting section	
Dimensions (Length)	4950 mm	194.9 in
Weight without bracket	9.0 kg	19.8 lbs
Wind load @ 160 km/hr (100 mph)	540 N	121.4 lbf
Mounting Options		
Mounting bracket	3 x MA621AZ00 clamps supplied to fit 50-70mm dia. mast.	

MA431H00 Amphenol Jaybeam Antenna

A rugged and durable Colinear antenna designed for VHF Trunked Radio applications

Single Band, Omni, Colinear, V-Pol, 83.0-86.6 MHz, 1.5 dBd, 0°T, Low Power (Medium Duty)

For further information please dowload the pdf datasheet

A rugged and durable Colinear antenna designed for VHF Trunked Radio applications. These antennas are housed inside a high-strength, glassfibre shroud and manufactured to the highest quality standards insuring long term, reliable operation.

SPECIFICATIONS

Electrical Characteristics	
Frequency band	83-86.6 MHz
Polarization	Vertical
Horizontal beamwidth	360°
Vertical beamwidth	68°

Gain	1.5 dBd	
Electrical downtilt	0°	
Impedance	50Ω	
VSWR		
Maximum power	100 W	
Connector type	N Female	
Lightning protection	DC grounded	
Mechanical Characteristics		
Materials	Glass fibre shroud Aluminium mounting section	
Dimensions (Length)	3900 mm	153.5 in
Weight without bracket	4.0 kg	8.8 lbs
Wind load @ 160 km/hr (100 mph)	280 N	62.9 lbf
Mounting Options		
Mounting bracket	2 x MA621AZ00 clamps supplied to fit 50-70mm dia. mast.	

MA431X26 Amphenol Jaybeam Antenna

Omnidirectional colinear antenna

Single Band, Omni, Colinear, Linear or V-Pol, 2400-2485 MHz, 9.5 dBi, 0°T, Low Power (Medium Duty)

For further information please download the pdf datasheet

- Omnidirectional colinear antenna
- Supplied with metallic bracket for pole mounting

SPECIFICATIONS

Electrical Characteristics		
Frequency Band	2400-2485 MHz	
Polarization	Linear or Vertical	
Horizontal Beamwidth	360°	
Vertical Beamwidth	11°	
Gain	9.5 dBi	
Impedance	50Ω	
VSWR	< 1.5:1	
Maximum Power	10W	
Connector(s)	N Socket	
Mechanical Characteristics		
Materials	Colour, Grey; Bracket, metallic	
Dimensions (Length x Diameter)	840 x 23 mm	33.1 x 0.9 in
Weight with bracket	0.8 kg	1.8 lbs
Wind Load @ 160 km/hr (100 mph)	36 N	8.1 lbf
Mounting Options		
Mounting Bracket	TBD	

MA431Z00 Amphenol Jaybeam Antenna

Linear or Vertical polarized colinear antenna

Single Band, Omni, Colinear, Linear or V-Pol, 2400-2485 MHz, 4.2 dBi, 0°T, Low Power (Medium Duty)

For further information please download the pdf datasheet

SPECIFICATIONS

Electrical Characteristics		
Frequency band	2400-2485 MHz	
Polarization	Linear or Vertical	
Horizontal beamwidth	360°	
Vertical beamwidth (-3 dB)	40°	
Gain	4.2 dBi	
Impedance	50Ω	
VSWR	<1.8:1	
Maximum power	5 W	
Connector type	N Socket	
Mechanical Characteristics		
Materials	Colour, Grey Shroud, glassfibre	
Dimensions (Length x Diameter)	360 x 16 mm	14.2 x 0.6 in
Weight with bracket	0.15 kg	0.33 lbs
Wind load @ 160 km/hr (100 mph)	12 N	2.7 lbf
Mounting Options		
Mounting	Antenna comes with integrated mounting bracket	

MA432H00 Amphenol Jaybeam Antenna

A rugged and durable VHF End Fed Dipole antenna constructed from aluminium tubing

Single Band, Omni, End-fed dipole, V-Pol, 68-73 MHz, 0 dBd, Low Power (Medium Duty)

For further information please download the pdf datasheet

A rugged and durable VHF End Fed Dipole antenna constructed from aluminium tubing. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.
Replace “x” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	68..88 MHz	
Model number options (x)	Model Number MA432H00 MA432H01 MA432H02 MA432H03	Frequency band 68-73 MHz 73-78 MHz 78-83 MHz 83-88 MHz
Polarization	Vertical	
Horizontal beamwidth	360°	

Vertical beamwidth	88°
Gain	0 dBd
Impedance	50Ω
VSWR	<1.5:1
Maximum power	50 W
Connector type	N Female

Mechanical Characteristics				
Materials	Aluminium dipole			
Dimensions (Length)	80 MHz:	2400 mm	94.5 in	
Weight without bracket	80 MHz:	2.5 kg	5.5 lbs	
Wind load @ 160 km/hr (100 mph)	80 MHz:	180 N	40.5 lbf	

Mounting Options	
Mounting bracket	MA621AZ40 clamp supplied to fit 30-50mm dia. mast.

MA432H01 Amphenol Jaybeam Antenna

A rugged and durable VHF End Fed Dipole antenna constructed from aluminium tubing

Single Band, Omni, End-fed dipole, V-Pol, 73-78 MHz, 0 dBd, Low Power (Medium Duty)

For further information please download the pdf datasheet

A rugged and durable VHF End Fed Dipole antenna constructed from aluminium tubing. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.
Replace “x” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	68..88 MHz	
Model number options (x)	Model Number MA432H00 MA432H01 MA432H02 MA432H03	Frequency band 68-73 MHz 73-78 MHz 78-83 MHz 83-88 MHz
Polarization	Vertical	
Horizontal beamwidth	360°	

Vertical beamwidth	88°
Gain	0 dBd
Impedance	50Ω
VSWR	<1.5:1
Maximum power	50 W
Connector type	N Female

Mechanical Characteristics				
Materials	Aluminium dipole			
Dimensions (Length)	80 MHz:	2400 mm	94.5 in	
Weight without bracket	80 MHz:	2.5 kg	5.5 lbs	
Wind load @ 160 km/hr (100 mph)	80 MHz:	180 N	40.5 lbf	

Mounting Options	
Mounting bracket	MA621AZ40 clamp supplied to fit 30-50mm dia. mast.

MA432H02 Amphenol Jaybeam Antenna

A rugged and durable VHF End Fed Dipole antenna constructed from aluminium tubing

Single Band, Omni, End-fed dipole, V-Pol, 78-83 MHz, 0 dBd, Low Power (Medium Duty)

For further information please download the pdf datasheet

A rugged and durable VHF End Fed Dipole antenna constructed from aluminium tubing. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.
Replace “x” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	68..88 MHz	
Model number options (x)	Model Number MA432H00 MA432H01 MA432H02 MA432H03	Frequency band 68-73 MHz 73-78 MHz 78-83 MHz 83-88 MHz
Polarization	Vertical	
Horizontal beamwidth	360°	

Vertical beamwidth	88°
Gain	0 dBd
Impedance	50Ω
VSWR	<1.5:1
Maximum power	50 W
Connector type	N Female

Mechanical Characteristics				
Materials	Aluminium dipole			
Dimensions (Length)	80 MHz:	2400 mm	94.5 in	
Weight without bracket	80 MHz:	2.5 kg	5.5 lbs	
Wind load @ 160 km/hr (100 mph)	80 MHz:	180 N	40.5 lbf	

Mounting Options	
Mounting bracket	MA621AZ40 clamp supplied to fit 30-50mm dia. mast.

MA432H03 Amphenol Jaybeam Antenna

A rugged and durable VHF End Fed Dipole antenna constructed from aluminium tubing

Single Band, Omni, End-fed dipole, V-Pol, 83-88 MHz, 0 dBd, Low Power (Medium Duty)

For further information please download the pdf datasheet

A rugged and durable VHF End Fed Dipole antenna constructed from aluminium tubing. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.
Replace “x” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	68..88 MHz	
Model number options (x)	Model Number MA432H00 MA432H01 MA432H02 MA432H03	Frequency band 68-73 MHz 73-78 MHz 78-83 MHz 83-88 MHz
Polarization	Vertical	
Horizontal beamwidth	360°	

Vertical beamwidth	88°
Gain	0 dBd
Impedance	50Ω
VSWR	<1.5:1
Maximum power	50 W
Connector type	N Female

Mechanical Characteristics				
Materials	Aluminium dipole			
Dimensions (Length)	80 MHz:	2400 mm	94.5 in	
Weight without bracket	80 MHz:	2.5 kg	5.5 lbs	
Wind load @ 160 km/hr (100 mph)	80 MHz:	180 N	40.5 lbf	

Mounting Options	
Mounting bracket	MA621AZ40 clamp supplied to fit 30-50mm dia. mast.

MA100LM01 Amphenol Jaybeam Antenna

A high gain panel antenna designed for links in the 2.3 to 2.7 GHz band

An omnidirectional, low profile, fully shrouded VHF antenna for indoor or vehicle roof applications. Although designed to be installed on a metal surface, good performance can also be achieved on non-metallic surfaces. The antenna is usertuned by adjusting a screw under the base to achieve best performance at the operating frequency. This antenna is supplied with 5m coaxial cable with no connector on the end. Please order the desired connector style separately

For further information please download the pdf datasheet

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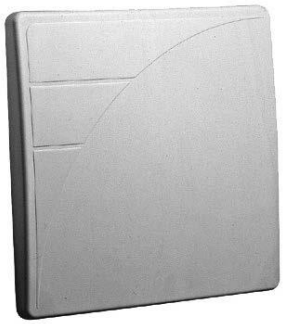
- Single Band, Omni
- Linear Pol, 145..174 MHz, 0 dBd
- Low Power (Medium Duty)

Specifications

Electrical Characteristics	
Frequency range*	145..174 MHz
Polarization	Linear, Perpendicular to base
Horizontal beamwidth	360°
Vertical beamwidth	80°
Gain	0 dBd
VSWR	
Maximum power	50 W
Connector type	No connector** + 5m of RG58 cable

* Adjust tuning screw under base to achieve required center frequency. ** Please order the desired connector style separately.

Mechanical Characteristics	
Materials	Radome, black polypropylene Base, aluminium
Dimensions (Length x Width x Depth)	635 x 190 x 60 mm 25 x 7.5 x 2.4 in
Weight without bracket	1.1 kg 2.4 lbs
Wind load @ 160 km/hr (100 mph)	200 N 45.0 lbf
Mounting Options	
Mounting	16 x 3.3 mm dia. holes in base plate provided for mounting.



MA421X45 Amphenol Jaybeam Antenna

A flat directional antenna fully housed in a plastic shroud.

Single Band, Panel, Linear or V-Pol, 2400-2485 MHz, 28°, 15.0 dBi, Low Power (Medium Duty)

For further information please download the pdf datasheet

DESCRIPTION

- Single Band, Panel, Linear or V-Pol
- 2400-2485 MHz, 28°, 15.0 dBi
- Low Power (Medium Duty)

Specifications

Electrical Characteristics	
Frequency band	2400-2485 MHz
Polarization	Linear or Vertical
Horizontal beamwidth (-3 dB)	28°
Vertical beamwidth (-3 dB)	27°
Gain	15.0 dBi
VSWR	<1.5:1
Front-to-back ratio	>20 dB
Maximum power	10 W
Connector type	N Socket + 1m coaxial cable
Mechanical Characteristics	
Materials	Shroud, plasticColour, grey
Dimensions (Length x Width x Depth)	260 x 260 x 35 mm 10.2 x 10.2 x 1.4 in
Weight without bracket	1.7 kg 3.7 lbs
Wind load @ 160 km/hr (100 mph)	136 N 30.6 lbf
Mounting Options	
Mounting	Pole & wall mounting with orientation
Optional mounting bracket	MA621AZ08

7636000 Amphenol Jaybeam Antenna

A high gain panel antenna designed for links in the 2.3 to 2.7 GHz band

- Single band,
- vertically or horizontally polarized planar
- antenna with fixed electrical downtilt

For further information please download the pdf datasheet

Description

- Single Band, Planar, V or H-Pol
- 1350-1517 MHz, 23°, 17.0 dBi
- Low Power (Medium Duty)

MA432H10 Amphenol Jaybeam Antenna

A rugged and durable VHF End Fed Dipole antenna constructed from stainless steel tubing

Single Band, Omni, Stainless steel end-fed dipole, V-Pol, 68-73 MHz, 0 dBd, Low Power (Medium Duty)

For further information please download the pdf datasheet

A rugged and durable VHF End Fed Dipole antenna constructed from stainless steel tubing. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.
Replace “x” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	68..88 MHz	
Model number options (x)	Model Number MA432H10 MA432H12 MA432H13	Frequency band 68-73 MHz 78-83 MHz 83-88 MHz
Polarization	Vertical	
Horizontal beamwidth	360°	
Vertical beamwidth	88°	

Gain	0 dBd		
Impedance	50Ω		
VSWR	<1.5:1		
Maximum power	50 W		
Connector type	N Female		
Mechanical Characteristics			
Materials	Stainless steel dipole		
Dimensions (Length)	80 MHz:	2400 mm	94.5 in
Weight without bracket	80 MHz:	3.0 kg	6.6 lbs
Wind load @ 160 km/hr (100 mph)	80 MHz:	180 N	40.5 lbf
Mounting Options			
Mounting bracket	MA621AZ38 clamp supplied to fit 30-50mm dia. mast.		

MA432H12 Amphenol Jaybeam Antenna

A rugged and durable VHF End Fed Dipole antenna constructed from stainless steel tubing

Single Band, Omni, Stainless steel end-fed dipole, V-Pol, 78-83 MHz, 0 dBd, Low Power (Medium Duty)

For further information please download the pdf datasheet

A rugged and durable VHF End Fed Dipole antenna constructed from stainless steel tubing. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions. Replace “x” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	68..88 MHz	
Model number options (x)	Model Number MA432H10 MA432H12 MA432H13	Frequency band 68-73 MHz 78-83 MHz 83-88 MHz
Polarization	Vertical	
Horizontal beamwidth	360°	
Vertical beamwidth	88°	

Gain	0 dBd		
Impedance	50Ω		
VSWR	<1.5:1		
Maximum power	50 W		
Connector type	N Female		
Mechanical Characteristics			
Materials	Stainless steel dipole		
Dimensions (Length)	80 MHz:	2400 mm	94.5 in
Weight without bracket	80 MHz:	3.0 kg	6.6 lbs
Wind load @ 160 km/hr (100 mph)	80 MHz:	180 N	40.5 lbf
Mounting Options			
Mounting bracket	MA621AZ38 clamp supplied to fit 30-50mm dia. mast.		

MA432H13 Amphenol Jaybeam Antenna

A rugged and durable VHF End Fed Dipole antenna constructed from stainless steel tubing

Single Band, Omni, Stainless steel end-fed dipole, V-Pol, 83-88 MHz, 0 dBd, Low Power (Medium Duty)

For further information please download the pdf datasheet

A rugged and durable VHF End Fed Dipole antenna constructed from stainless steel tubing. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions. Replace “x” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	68..88 MHz	
Model number options (x)	Model Number MA432H10 MA432H12 MA432H13	Frequency band 68-73 MHz 78-83 MHz 83-88 MHz
Polarization	Vertical	
Horizontal beamwidth	360°	
Vertical beamwidth	88°	

Gain	0 dBd		
Impedance	50Ω		
VSWR	<1.5:1		
Maximum power	50 W		
Connector type	N Female		
Mechanical Characteristics			
Materials	Stainless steel dipole		
Dimensions (Length)	80 MHz:	2400 mm	94.5 in
Weight without bracket	80 MHz:	3.0 kg	6.6 lbs
Wind load @ 160 km/hr (100 mph)	80 MHz:	180 N	40.5 lbf
Mounting Options			
Mounting bracket	MA621AZ38 clamp supplied to fit 30-50mm dia. mast.		

MA432H80 Amphenol Jaybeam Antenna

A rugged and durable Colinear antenna designed for VFH Trunked Radio applications

Single Band, Omni, Colinear, V-Pol, 79-83 MHz, 1.5 dBd, 0°T, Low Power (Medium Duty)

For further information please download the pdf datasheet

A rugged and durable Colinear antenna designed for VFH Trunked Radio applications. These antennas are housed inside a high-strength, glassfibre shroud and manufactured to the highest quality standards insuring long term, reliable operation.
Replace “x” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	79..87 MHz	
Model number options (x)	Model Number MA432H80 MA432H85	Frequency band 79-83 MHz 84-87 MHz

Bandwidth	±1% (typical)	
Polarization	Vertical	
Horizontal beamwidth	360°	
Vertical beamwidth	68°	
Gain	1.5 dBd	
Electrical downtilt	0°	
Impedance	50Ω	
VSWR	<1.5:1	
Maximum power	100 W	
Connector type	N-Female	
Lightning protection	DC grounded	
Mechanical Characteristics		
Materials	Glass fibre shroud Aluminium mounting section	
Dimensions (Length)	3800 mm	149.6 in
Weight without bracket	4.0 kg	8.8 lbs
Wind load @ 160 km/hr (100 mph)	240 N	54.0 lbf
Mounting Options		
Mounting bracket	2 x MA621AZ00 clamps supplied to fit 50-70mm dia. mast.	

MA432H85 Amphenol Jaybeam Antenna

A rugged and durable Colinear antenna designed for VFH Trunked Radio applications

Single Band, Omni, Colinear, V-Pol, 84-87 MHz, 1.5 dBd, 0°T, Low Power (Medium Duty)

For further information please download the pdf datasheet

A rugged and durable Colinear antenna designed for VFH Trunked Radio applications. These antennas are housed inside a high-strength, glassfibre shroud and manufactured to the highest quality standards insuring long term, reliable operation.
Replace “x” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	79..87 MHz	
Model number options (x)	Model Number MA432H80 MA432H85	Frequency band 79-83 MHz 84-87 MHz

Bandwidth	±1% (typical)	
Polarization	Vertical	
Horizontal beamwidth	360°	
Vertical beamwidth	68°	
Gain	1.5 dBd	
Electrical downtilt	0°	
Impedance	50Ω	
VSWR	<1.5:1	
Maximum power	100 W	
Connector type	N-Female	
Lightning protection	DC grounded	
Mechanical Characteristics		
Materials	Glass fibre shroud Aluminium mounting section	
Dimensions (Length)	3800 mm	149.6 in
Weight without bracket	4.0 kg	8.8 lbs
Wind load @ 160 km/hr (100 mph)	240 N	54.0 lbf
Mounting Options		
Mounting bracket	2 x MA621AZ00 clamps supplied to fit 50-70mm dia. mast.	

MA432J00 Amphenol Jaybeam Antenna

A rugged and durable VHF End Fed Dipole antenna constructed from aluminium tubing

Single Band, Omni, End-fed dipole, V-Pol, 139-153 MHz, 0 dBd, Low Power (Medium Duty)

For further information please download the pdf datasheet

A rugged and durable VHF End Fed Dipole antenna constructed from aluminium tubing. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.

SPECIFICATIONS

Electrical Characteristics	
Frequency band	139-153 MHz
Polarization	Vertical
Horizontal beamwidth	360°
Vertical beamwidth	88°
Gain	0 dBd
Impedance	50Ω
VSWR	<1.5:1

Maximum power	50 W	
Connector type	N-Female	
Mechanical Characteristics		
Materials	Aluminium dipole	
Dimensions (Length)	1400 mm	55.1 in
Weight without bracket	1.5 kg	3.3 lbs
Wind load @ 160 km/hr (100 mph)	120 N	27.0 lbf
Mounting Options		
Mounting bracket	MA621AZ40 clamp supplied to fit 30-50mm dia. mast.	

MA432KM00 Amphenol Jaybeam Antenna

A rugged and durable VHF End Fed Dipole antenna constructed from aluminium tubing

Single Band, Omni, End-fed dipole, V-Pol, 144-168 MHz, 0 dBd, Low Power (Medium Duty)

For further information please download the pdf datasheet

A rugged and durable VHF End Fed Dipole antenna constructed from aluminium tubing. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.
Replace “xxx” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	144..174 MHz	
Model number options (xxx)	Model Number MA432KM00 MA432KM01	Frequency band 144-168 MHz 168-174 MHz
Polarization	Vertical	
Horizontal beamwidth	360°	

Vertical beamwidth	88°	
Gain	0 dBd	
Impedance	50Ω	
VSWR	<1.5:1	
Maximum power	50 W	
Connector type	N Female	
Mechanical Characteristics		
Materials	Aluminium dipole	
Dimensions (Length)	1380 mm	54.3 in
Weight without bracket	1.5 kg	3.3 lbs
Wind load @ 160 km/hr (100 mph)	120 N	27.0 lbf
Mounting Options		
Mounting bracket	MA621AZ40 clamp supplied to fit 30-50mm dia. mast.	

MA432KM01 Amphenol Jaybeam Antenna

A rugged and durable VHF End Fed Dipole antenna constructed from aluminium tubing

Single Band, Omni, End-fed dipole, V-Pol, 168-174 MHz, 0 dBd, Low Power (Medium Duty)

For further information please download the pdf datasheet

A rugged and durable VHF End Fed Dipole antenna constructed from aluminium tubing. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.
Replace “xxx” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	144..174 MHz	
Model number options (xxx)	Model Number MA432KM00 MA432KM01	Frequency band 144-168 MHz 168-174 MHz
Polarization	Vertical	
Horizontal beamwidth	360°	

Vertical beamwidth	88°	
Gain	0 dBd	
Impedance	50Ω	
VSWR	<1.5:1	
Maximum power	50 W	
Connector type	N Female	
Mechanical Characteristics		
Materials	Aluminium dipole	
Dimensions (Length)	1380 mm	54.3 in
Weight without bracket	1.5 kg	3.3 lbs
Wind load @ 160 km/hr (100 mph)	120 N	27.0 lbf
Mounting Options		
Mounting bracket	MA621AZ40 clamp supplied to fit 30-50mm dia. mast.	

7636000 Amphenol Jaybeam Antenna

A high gain panel antenna designed for links in the 2.3 to 2.7 GHz band

- A high gain panel antenna designed for links in the 2.3 to 2.7 GHz band
- Planar array of dipole elements concealed inside a low loss radome
- Highly directional performance in a low profi le design
- Produced to highest quality standards, these robust antenna designs will ensure reliable operation in harsh environmental conditions

For further information please download the pdf datasheet

DESCRIPTION

- Single Band, Planar
- V or H-Pol
- 2300-2700 MHz, 22°, 17.0 dBi
- Low Power (Medium Duty)

Specifications

Electrical Characteristics		
Frequency Band		2300-2700 MHz
Polarisation		Vertical or Horizontal
Horizontal Beamwidth (-3 dB)		22°
Vertical Beamwidth (-3 dB)		20°
Gain		17.0 dBi
Impedance		50Ω
VSWR		< 1.3:1 Typical
Front-to-Back Ratio		> 30 dB
Maximum Power		100 W
Connector Type		N-Type Female
Lightning Protection		DC Grounded
Mechanical Characteristics		
Materials	Shroud	Styrosun
	Housing	Aluminium
Dimensions (Length x Width x Depth)		345 x 310 x 50 mm (13.6 x 12.2 x 2.0 in)
Weight without Mounting Bracket		4.0 kg (8.8 lbs)
Wind Load at 160 km/hr (100 mph)		160 N (36.0 lbf)
Mounting Options		

Mounting Bracket	Integral mounting brackets to fit pipes up to 48 mm diameter, allowing mechanical tilt over ±8° to remove tower rake
Mounting Option	0900996/00 - To fit pipes up to 115 mm diameter in addition to the integral mounting bracket

7527xxx Amphenol Jaybeam Antenna

Designed for locations where minimum visual impact is of prime importance.

Designed for locations where minimum visual impact is of prime importance. The antenna provides easy installation and offers impressive performances for its size, making it an ideal microcell antenna for use on both indoor and outdoor sites.

For further information please download the pdf datasheet

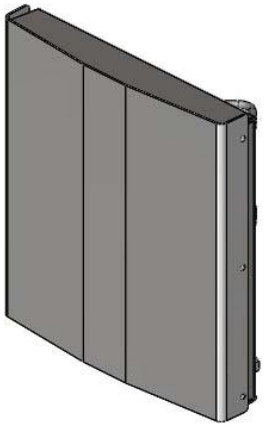
DESCRIPTION

- Single Band, Panel
- V-Pol, 800-1000 MHz
- 140°, 5.7 dBi, 0°T
- Rear & Front Cable Entry
- Low Power (Medium Duty)

Specifications

Electrical Characteristics		
Frequency band	800-1000 MHz	
	Model Number	Cable Entry
Model number options (xxx)	7527422	Rear
	7527423	Front
Polarization	Vertical	
Horizontal beamwidth (-3 dB)	140° (±5°)	
Vertical beamwidth (-3 dB)	73° (±5°)	
Gain	5.7 dBi	
Electrical downtilt	0°	
Input impedance	50Ω	
VSWR	< 2.0:1	
Maximum power	100 W	
Connector type	N-Socket + 0.5m RG58 cable	
Lightning protection	DC grounded	

Mechanical Characteristics		
Materials	Shroud, white UV resistant plastic	
Dimensions Length	260 mm	10.2 in
Weight	0.6 kg	1.3 lbs
Wind load @ 160 km/hr (100 mph)	40 N	9.0 lbf
Mounting Options		
Mounting	4 x 5 mm holes in corners of base plate spacing 200 x 60 mm	



5680000 Amphenol Jaybeam Antenna

A high gain, SHF panel antenna designed for links in the 1.4 GHz band

- A high gain, SHF panel antenna designed for links in the 1.4 GHz band
- Planar array of dipole elements concealed inside a low loss radome
- Highly directional performance in a low profi le design
- Produced to highest quality standards, these robust antenna designs will ensure reliable operation in harsh environmental conditions

For further information please download the pdf datasheet

DESCRIPTION

- Single Band
- Planar
- V or H-Pol
- 1350-1517 MHz
- 37°, 14.0 dBi
- Low Power (Medium Duty)

Specifications

Electrical Characteristics		
Frequency Band		1350-1517 MHz
Polarisation		Vertical or Horizontal
Horizontal Beamwidth (-3 dB)		37°
Vertical Beamwidth (-3 dB)		36°
Gain		14.0 dBi
Impedance		50Ω
VSWR		< 1.3:1
Front-to-Back Ratio		> 25 dB
Maximum Power		100 W
Connector Type		N-Type Female
Lightning Protection		DC Grounded
Mechanical Characteristics		
Materials	Shroud	ASA Capped ABS
	Housing	Aluminium
Dimensions (Length x Width x Depth)		345 x 310 x 50 mm (13.6 x 12.2 x 2.0 in)
Weight without Mounting Bracket		2.5 kg (5.5 lbs)

Wind Load at 160 km/hr (100 mph)	160 N (36.0 lbf)
Mounting Options	
Mounting Bracket	Integral mounting brackets to fit pipes up to 48 mm diameter, allowing mechanical tilt over ±8° to remove tower rake
Mounting Option	0900996/00 - To fit pipes up to 115 mm diameter in addition to the integral mounting bracket

MA461H01 Amphenol Jaybeam Antenna

A VHF Ground Plane antenna with integrated mount designed to attach to the top of a 30-60 mm diameter mast

Single Band, Omni, Ground plane, V-Pol, 83-87 MHz, 0 dBd, Low Power (Medium Duty)

For further information please download the pdf datasheet

A VHF Ground Plane antenna with integrated mount designed to attach to the top of a 30-60 mm diameter mast. The active element is a folded monopole. The ground plane elements are user-tuned to achieve best performance at the operating frequency. Tuning chart provided.

SPECIFICATIONS

Electrical Characteristics		
Frequency band	83-87 MHz	
Polarization	Vertical	
Horizontal beamwidth	360°	
Vertical beamwidth	85°	
Gain	0 dBd	
Impedance	50Ω	
VSWR	<1.5:1	
Maximum power	50 W	
Connector type	N-Female	
Lightning protection	DC grounded	
Mechanical Characteristics		
Materials	Aluminium alloy, Glass fibre, and Stainless steel	
Dimensions (Whip Length)	1540 mm	60.6 in
Weight with bracket	2.2 kg	4.9 lbs
Wind load @ 160 km/hr (100 mph)	78 N	17.5 lbf

Mounting Options	
Mounting bracket	Integral mounting bracket to fit on 30-60 mm dia. mast.

5029000 Amphenol Jaybeam Antenna

Indoor / outdoor, vertically polarized, “Shark Fin” panel antenna

- Indoor / outdoor, vertically polarized, “Shark Fin” panel antenna
- Wide beam coverage with limited gain for near use
- Designed for wall or ceiling mount

For further information please download the pdf datasheet

DESCRIPTION

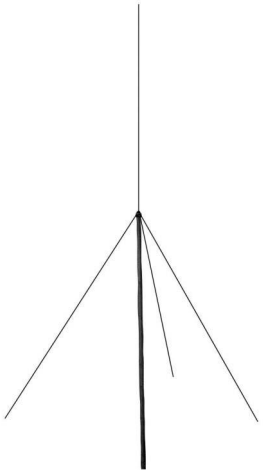
- Single Band
- Panel, V-Pol
- 690-2700 MHz
- 115°, 2.9 dBd, 5.0 dBi, 0°T
- Low Power (Medium Duty)

Specifications

Ordering Options	Model Number	
Antenna with N-Type Connector		5029000
Antenna with 4.1/9.5 Mini-DIN Connector		5029000-mDIN
Antenna with 7/16-DIN Connector		5029000-DIN
Electrical Characteristics		
Frequency Band		690-2700 MHz
Polarization		Vertical
Horizontal Beamwidth		115°
Vertical Beamwidth		70°
Gain		2.9 dBd (5.0 dBi)
Impedance		50Ω
VSWR	Maximum	< 1.8:1
	Typical	< 1.5:1
Passive Intermodulation (2x20W)		-150 dBc* *PIM value for N-type only applicable at date of manufacture
Input Power		50W
Connector(s)		1 port / N-Type, 7/16-DIN, or 4.1/9.5 Mini-DIN / Female with 0.5 m (19.7 in) RG303 cable, white jacket / Bottom
Lightning protection		DC Ground

Mechanical Characteristics			
Materials	Base	Aluminum	
	Radome / Color	ABS / White	
Dimensions (Length x Width x Depth)		282 x 85 x 182 mm	11.1 x 3.3 x 7.2 in
Weight		0.5 kg	1.1 lbs
Wind Load (160 km/hr or 100 mph)		70 N	15.7 lbf
Mounting Options			
Mounting		Screws supplied for mounting on flat wall	

Mounting Options	
Mounting	Screws supplied for mounting on flat wall



MA462DS06 Amphenol Jaybeam Antenna

A VHF/UHF Ground Plane antenna with integrated mount designed to attach to the top of a 40 mm diameter mast

Single Band, Omni, Ground plane, V-Pol, 25..470 MHz, 0 dBd, High Power (Heavy Duty)

For further information please download the pdf datasheet

A VHF/UHF Ground Plane antenna with integrated mount designed to attach to the top of a 40 mm diameter mast. The radiator and ground plane elements are of tapered glassfibre construction and are user-tuned to achieve best performance at the operating frequency. Tuning chart provided.

SPECIFICATIONS

Electrical Characteristics	
Frequency band*	25..470 MHz
Bandwidth	±2% (typical)
Polarization	Vertical
Horizontal beamwidth	360°
Vertical beamwidth	86°
Gain	0 dBd
Impedance	50Ω
VSWR	<1.5:1
Maximum power	250 W
Connector type	UHF (SO239) Female

* Tuning chart provided. Trim whips to achieve required center frequency.

Mechanical Characteristics			
Materials	Aluminium mounting base with glass fibre whips		
Dimensions (Whip Length)	25 MHz:	2600 mm	102.4 in
Weight with bracket	25 MHz:	2.0 kg	4.4 lbs
Wind load @ 160 km/hr (100 mph)	25 MHz:	120 N	27.0 lbf
Mounting Options			
Mounting bracket	Integral bracket to fit the top of a 40 mm dia. tube.		

7363260 Amphenol Jaybeam Antenna

Shrouded Yagi antenna available for the 2.5-2.7 GHz band

- Shrouded Yagi antenna available for the 2.5-2.7 GHz band
- Unit fully shrouded to maintain performance at the highest level
- Light but strong construction makes it easily deployable

For further information please download the pdf datasheet

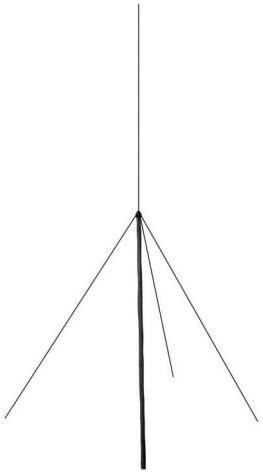
DESCRIPTION

- Single Band
- Shrouded Yagi
- V or H-Pol, 2500-2700 MHz
- 45°, 13.5 dBi
- Low Power (Medium Duty)

Specifications

Electrical Characteristics			
Frequency Band			2500-2700 MHz
Polarization			Linear, Vertical or Horizontal
Horizontal Beamwidth (-3 dB)			45°
Vertical Beamwidth (-3 dB)			40°
Gain			13.5 dBi
Impedance			50Ω
VSWR			< 1.3:1 typical
Front-to-Back Ratio			> 20 dB
Power Rating			100 W
Lightning Protection			DC Grounded
Connector(s)			N-Female
Mechanical Characteristics			
Materials	Shroud	GRP (fire retardant available)	
	Radiating Assembly	Brass	
	Mounting Section	Aluminum, alocrom finish	
Dimensions (Length)		660 mm	26.0 in
Weight without Mounting Bracket		1.3 kg	2.9 lbs
Wind Load (160 km/hr or 100 mph)		65 N	14.6 lbf
Mounting Options			**Part Number**

Mounting brackets are ordered separately.	
Mounting Bracket	3202078/68
Alternate Mounting Bracket	0300284/00 + U-bolts to match mounting pipe diameter



MA462DS08 Amphenol Jaybeam Antenna

A VHF Ground Plane antenna with integrated mount designed to attach to the top of a 40 mm diameter mast

Single Band, Omni, Ground plane, V-Pol, 68..470 MHz, 0 dBd, High Power (Heavy Duty)

For further information please download the pdf datasheet

A VHF Ground Plane antenna with integrated mount designed to attach to the top of a 40 mm diameter mast. The radiator and ground plane elements are of tapered glassfibre construction and are user-tuned to achieve best performance at the operating frequency. Tuning chart provided.

SPECIFICATIONS

Electrical Characteristics	
Frequency band*	68..470 MHz
Bandwidth	±2% (typical)
Polarization	Vertical
Horizontal beamwidth	360°
Vertical beamwidth	84°
Gain	0 dBd
Impedance	50Ω
VSWR	<1.5:1
Maximum power	250 W
Connector type	UHF (SO239) Female

* Tuning chart provided. Trim whips to achieve required center frequency.

Mechanical Characteristics			
Materials	Aluminium mounting base with glass fibre whips		
Dimensions (Whip Length)	68 MHz:	1200 mm	47.2 in
Weight with bracket	68 MHz:	1.2 kg	2.6 lbs
Wind load @ 160 km/hr (100 mph)	68 MHz:	72 N	16.2 lbf
Mounting Options			
Mounting bracket	Integral bracket to fit the top of a 40 mm dia. pipe.		

MA481KM22 Amphenol Jaybeam Antenna

Rugged and durable VHF End Fed Dipole Antenna

Single Band, Omni, Stainless steel end-fed dipole, V-Pol, 168-174 MHz, 0 dBd, Low Power (Medium Duty)

For further information please download the pdf datasheet

- Rugged and durable VHF End Fed Dipole Antenna
- Constructed from stainless steel tubing
- Produced to the highest quality standards
- Ensures reliable operation in harsh environmental conditions

SPECIFICATIONS

Electrical Characteristics	
Frequency Band	168-174 MHz
Polarization	Vertical
Horizontal Beamwidth	360°
Vertical Beamwidth	88°
Gain	0 dBd
Impedance	50Ω
VSWR	< 1.5:1
Maximum Power	50 W

Connector Type	N Female	
Mechanical Characteristics		
Materials	Stainless Steel Dipole	
Dimensions (Length)	1360 mm	53.5 in
Weight without Mounting Brackets	2.0 kg	4.4 lbs
Wind Load @ 160 km/hr (100 mph)	120 N	27.0 lbf
Mounting Options		
Mounting Bracket Kit	MA621AZ38 clamp supplied to fit 30-50 mm diameter mast	

MA481Q02 Amphenol Jaybeam Antenna

A rugged and durable UHF End Fed Dipole antenna housed inside a high-strength, glassfibre shroud

Single Band, Omni, End-fed dipole, V-Pol, 408-428 MHz, 0 dBd, Low Power (Medium Duty)

For further information please download the pdf datasheet

A rugged and durable UHF End Fed Dipole antenna housed inside a high-strength, glassfibre shroud. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.

SPECIFICATIONS

Electrical Characteristics	
Frequency band	408-428 MHz
Polarization	Vertical
Horizontal beamwidth	360°
Vertical beamwidth	88°
Gain	0 dBd
Impedance	50Ω

VSWR	<1.5:1	
Maximum power	50 W	
Connector type	N-Female	
Lightning protection	DC grounded	
Mechanical Characteristics		
Materials	Glass fibre shroud Aluminium mounting section	
Dimensions (Length)	900 mm	35.4 in
Weight without bracket	0.7 kg	1.5 lbs
Wind load @ 160 km/hr (100 mph)	40 N	9.0 lbf
Mounting Options		
Mounting bracket	MA621AZ30 clamp supplied to fit 30-50 mm dia. mast.	

MA481QS06 Amphenol Jaybeam Antenna

A rugged and durable UHF End Fed Dipole antenna housed inside a high-strength, glassfibre shroud

Single Band, Omni, Colinear, V-Pol, 408..470 MHz, 6 dBd, 0°T, Low Power (Medium Duty)

For further information please download the pdf datasheet

A rugged and durable UHF Colinear antenna housed inside a high-strength, glassfibre shroud. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.

SPECIFICATIONS

Electrical Characteristics	
Frequency range*	408..470 MHz
Bandwidth	8 MHz
Polarization	Vertical
Horizontal beamwidth	360°
Vertical beamwidth	16°
Gain	6.0 dBd

Electrical downtilt	0°
Impedance	50Ω
VSWR	<1.5:1
Maximum power	50 W
Connector type	N-Female
Lightning protection	DC grounded

* Specify center frequency at time of order.

Mechanical Characteristics		
Materials	Glass fibre shroud Aluminium mounting section	
Dimensions (Length)	2400 mm	94.5 in
Weight without bracket	2.7 kg	6.0 lbs
Wind load @ 160 km/hr (100 mph)	80 N	18.0 lbf
Mounting Options		
Mounting bracket	MA621AZ30 clamp supplied to fit 30-50 mm dia. mast.	

MA481S02 Amphenol Jaybeam Antenna

A rugged and durable UHF End Fed Dipole antenna housed inside a high-strength, glassfibre shroud

Single Band, Omni, End-fed dipole, V-Pol, 440-470 MHz, 0 dBd, Low Power (Medium Duty)

For further information please download the pdf datasheet

A rugged and durable UHF End Fed Dipole antenna housed inside a high-strength, glassfibre shroud. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.

SPECIFICATIONS

Electrical Characteristics	
Frequency band	440-470 MHz
Polarization	Vertical
Horizontal beamwidth	360°
Vertical beamwidth	88°
Gain	0 dBd
Impedance	50Ω
VSWR	<1.5:1
Maximum power	50 W

Connector type	N-Female	
Lightning protection	DC grounded	
Mechanical Characteristics		
Materials	Glass fibre shroud Aluminium mounting section	
Dimensions (Length)	900 mm	35.4 in
Weight without bracket	0.7 kg	1.5 lbs
Wind load @ 160 km/hr (100 mph)	40 N	9.0 lbf
Mounting Options		
Mounting bracket	MA621AZ30 clamp supplied to fit 30-50 mm dia. mast.	

MA521F00 Amphenol Jaybeam Antenna

A rugged and durable VHF Ground Plane antenna with integrated mount designed to attach to the top of a 30-60 mm diameter mast

Single Band, Omni, Ground plane, V-Pol, 40-48 MHz, 0 dBd, High Power (Heavy Duty)

For further information please download the pdf datasheet

A rugged and durable VHF Ground Plane antenna with integrated mount designed to attach to the top of a 30-60 mm diameter mast. The broadband active element is enclosed inside a glassfibre shroud to provide extra protection in harsh environments.

SPECIFICATIONS

Electrical Characteristics		
Frequency band	40-48 MHz	
Polarization	Vertical	
Horizontal beamwidth	360°	
Vertical beamwidth	84°	
Gain	0 dBd	
Impedance	50Ω	
VSWR	<2.0:1	
Maximum power	250 W	
Connector type	N-Female	
Lightning protection	DC grounded	
Mechanical Characteristics		
Materials	Aluminium alloy and glassfibre	
Dimensions (Length)	3000 mm	118.1 in
Weight without bracket	3.5 kg	7.7 lbs
Wind load @ 160 km/hr (100 mph)	440 N	98.9 lbf
Mounting Options		
Mounting bracket	Integral mounting bracket to fit on 30-60 mm dia. mast.	

MA521J00 Amphenol Jaybeam Antenna

A rugged and durable VHF End Fed Dipole antenna constructed from aluminium tubing

Single Band, Omni, End-fed dipole, V-Pol, 118-136 MHz, 0 dBd, Low Power (Medium Duty)

For further information please download the pdf datasheet

A rugged and durable VHF End Fed Dipole antenna constructed from aluminium tubing. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.

SPECIFICATIONS

Electrical Characteristics	
Frequency band	118-136 MHz
Polarization	Vertical
Horizontal beamwidth	360°
Vertical beamwidth	88°
Gain	0 dBd
Impedance	50Ω

VSWR	<1.5:1	
Maximum power	50 W	
Connector type	N-Female	
Mechanical Characteristics		
Materials	Aluminium dipole	
Dimensions (Length)	1510 mm	59.4 in
Weight without bracket	1.7 kg	3.7 lbs
Wind load @ 160 km/hr (100 mph)	133 N	30.0 lbf
Mounting Options		
Mounting bracket	MA621AZ40 clamp supplied to fit on 30-50 mm dia. mast.	

7825200 Amphenol Jaybeam Antenna

Multi Band omni-directional performance

Single Band, Omni, V-Pol, 800-2700 MHz, 0.4 dBd, 2.5 dBi, Low Power (Medium Duty)

For further information please download the pdf datasheet

- Multi Band omni-directional performance
- Versatile size for a variety of applications

SPECIFICATIONS

Electrical Characteristics			
Frequency Band	800-2700 MHz		
	806-960 MHz	960-1710 MHz	1710-2700 MHz
Polarization	Vertical		
Horizontal Beamwidth	Omnidirectional		
Vertical Beamwidth	50°		
Gain	2.5 dBi		
Impedance	50Ω		
VSWR	< 1.8:1	< 2.5:1	< 1.8:1
Maximum Power	50 W		

Connector(s)	N-Female		
Mechanical Characteristics			
Materials	Radome color, white		
Dimensions (Length x Diameter)	175 x 28 mm	6.9 x 1.1 in	
Weight without Mounting Bracket	0.12 kg	0.26 lbs	
Wind Load @ 160 km/hr (100 mph)	11 N	2.5 lbf	
Mounting Options	Part Number	Fits Pipe Diameter	
Wall Mounting Kit	XSL9254316	--	
Wall or Pole Mounting	XSL9254317	30-53 mm	1.2-2.0 in

7825100 Amphenol Jaybeam Antenna

Multi band, vertically polarized, omni antenna

Single Band, Omni, V-Pol, 800-2700 MHz, 0.4 dBd, 2.5 dBi, Low Power (Medium Duty)

For further information please download the pdf datasheet

- Multi band, vertically polarized, omni antenna
- Various mounting kits available for ceiling, wall or pole mounting

SPECIFICATIONS

Electrical Characteristics		
Frequency Band	800-2700 MHz	
Polarization	Vertical	
Horizontal Beamwidth	Omnidirectional	
Vertical Beamwidth	50°	
Gain	2.5 dBi	
Impedance	50Ω	
VSWR	800-960 MHz	< 1.8:1
	960-1710 MHz	< 2.5:1
	1710-2700 MHz	< 1.8:1
Input Power	50W	
Connector(s)	1 port / N-Type Female / Bottom	
IP Rating	IP65	
Mechanical Characteristics		

Radome Color	White			
Dimensions (Length x Diameter)	175 x Ø28 mm		6.9 x Ø1.1 in	
Dimensions including connector (L x D)	205 x Ø28 kg		8.1 x Ø1.1 in	
Weight	0.12 kg		0.26 lbs	
Wind Load (160 km/hr or 100 mph)	11 N		2.5 lbf	
Mounting Characteristics	Model Number	Image	Fits Pipe Diameter	Weight
All mounting bracket kits are ordered separately unless otherwise indicated. Select from the options listed below.				
Mounting interface is four Ø3.4 mm (0.1 in) holes equally spaced on a Ø41 mm (1.6 in) bolt circle				
Universal Wall / Ceiling Mounting Kit	505-173-5-003		---	2.7 kg 6 lbs
Wall Mounting Kit	XSL9254316		---	0.5 kg 1.1 lbs
Wall or Pole Mounting Kit	XSL9254317		30-53 mm 1.2-2.0 in	0.5 kg 1.1 lbs

7586307 Amphenol Jaybeam Antenna

A heavy duty variable electrical downtilt Colinear antenna designed for use in TETRA networks

Single Band, Omni, V-Pol, 380-400 MHz, 360°, 6.7 dBi, 10°-15°T, High Power (Heavy Duty)

For further information please download the pdf datasheet

A heavy duty variable electrical downtilt Colinear antenna designed for use in TETRA networks. This antenna has been optimized to provide a signal level at the horizon which is -5dB/±3dB below the main beam maximum. This adjustment range allows an operator to fine tune the coverage of each cell and minimize adjacent cell interference. The antenna is housed inside a high-strength glassfibre shroud and manufactured to the highest quality standard insuring long term reliable operation.

SPECIFICATIONS

Electrical Characteristics	
Frequency band	380-400 MHz
Polarization	Vertical
Horizontal beamwidth	360°
Vertical beamwidth	20°
Gain	4.6 dBd
Electrical downtilt*	10°-15°
Impedance	50Ω
VSWR	<1.5:1
Maximum power	250 W
Connector type	7/16-DIN Female

Lightning protection	DC grounded

* Electrical tilt is adjusted by a knob at the bottom of the antenna.

Mechanical Characteristics		
Materials	Glass fibre shroud with 80 mm dia. Aluminium mounting section	
Dimensions (Length) - excluding finial - including finial	2960 mm 3120 mm	116.5 in 122.8 in
Weight without bracket	10.0 kg	22.0 lbs
Wind load @ 160 km/hr (100 mph)	210 N	47.2 lbf
Mounting Options		
Mounting bracket	0900638/00	

7556xxx Amphenol Jaybeam Antenna

A rugged and durable UHF Colinear antenna designed for Telemetry, Paging and Trunked Radio applications

Single Band, Omni, V-Pol, 806..960 MHz, 5.7 dBd, 0°T, Low Power (Medium Duty)

For further information please download the pdf datasheet

A rugged and durable UHF Colinear antenna designed for Telemetry, Paging and Trunked Radio applications. This design is housed inside a high-strength, glassfibre shroud and includes an integrated mounting clamp allowing easy installation on poles or horizontal rails. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.
Replace “xxx” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	800..960 MHz	
Model number options (xxx)	Model Number 7556826 7556855 7556880 7556910 7556940	Frequency band* 806-846 MHz 840-870 MHz 860-900 MHz 890-930 MHz 920-960 MHz

Bandwidth	35 MHz
Polarization	Vertical
Horizontal beamwidth	360°
Vertical beamwidth	17°
Gain	5.7 dBd
Electrical downtilt	0°
Impedance	50Ω
VSWR	<1.5:1
Maximum power	150 W
Connector type	N-Female + 0.5m RG213 cable
Lightning protection	DC grounded

* Other frequencies available upon request.

Mechanical Characteristics		
Materials	Glass fibre shroud Aluminium mounting section	
Dimensions (Length)	1280 mm	50.4 in
Weight without bracket	1.1 kg	2.4 lbs
Wind load @ 160 km/hr (100 mph)	35 N	7.9 lbf
Mounting Options		
Mounting	Integral mounting clamp to fit 38-50 mm dia. pipe or horizontal rail	

7548xxx Amphenol Jaybeam Antenna

A 2-in-1 heavy duty “lightning proof” Colinear antenna designed for use in TETRA networks

Twin Band, Omni, 2x V-Pol, 380-400 MHz, 5.2 dBd, 0,6,12°T, High Power (Heavy Duty)

For further information please download the pdf datasheet

A 2-in-1 heavy duty “lightning proof” Colinear antenna designed for use in TETRA networks. Two separate omnidirectional antennas are contained inside a single high strength, glassfibre shroud. High port to port isolation between the antennas allows for diversity. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions. Replace “xxx” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency band	380-400 MHz	
Model number options (xxx)	Model Number 7548380 7548386 7548392	Electrical downtilt 0° 6° 12°
Polarization	Vertical	
Horizontal beamwidth	360°	
Vertical beamwidth	20.5°	
Gain	Top: 4.3 dBd Bottom: 5.2 dBd	
Electrical downtilt	see model number options above	
Impedance	50Ω	
VSWR	<1.4:1	
Port to port isolation	>37 dB	
Maximum power	300 W	

Connector type	2 x 7/16-DIN Female on cable downleads	
Lightning protection	DC grounded. Antennas remain intact following a lightning strike of 2.5 x 105 Amp2 second. Finial 1/2” stainless steel extending 220 mm (8.7 in) beyond top cap.	
Mechanical Characteristics		
Materials	Glass fibre shroud Aluminium mounting section	
Dimensions (Length)	5780 mm	227.6 in
Weight without bracket	12.5 kg	27.6 lbs
Wind load @ 160 km/hr (100 mph)	430 N	96.7 lbf
Mounting Options		
Mounting bracket	0300120/00	

7530xxx Amphenol Jaybeam Antenna

A heavy duty lightning proof Colinear antenna offered in a variety of frequencies covering the VHF band

For further information please download the pdf datasheet

A heavy duty “lightning proof” Colinear antenna offered in a variety of frequencies covering the VHF band. The high power rating on this design makes it suitable for Trunked Radio and Paging applications. These antennas are housed inside a highstrength, glassfibre shroud and manufactured to the highest quality standards insuring long term, reliable operation.
Replace “xxx” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	118..270 MHz	
Model number options (xxx)	Model Number 7530100 7530110 7530120 7530010 7530011 7530030 7530040 7530200	Frequency band* 118-124 MHz 124-130 MHz 128-134 MHz 150-157 MHz 159-165 MHz 160-168 MHz 166-174 MHz 169-170 MHz
Bandwidth	6 MHz	
Polarization	Vertical	
Horizontal beamwidth	360°	
Vertical beamwidth	35°	
Gain	3.0 dBd	
Electrical downtilt	0°	
Impedance	50Ω	
VSWR	<1.5:1	
Maximum power	500 W	
Connector type	N-Female (7/16-DIN optional)	
Lightning protection	DC grounded. Antennas remain intact following a lightning strike of 2.5 x 105 Amp2 second. Finial 1/2” stainless steel extending 220 mm (8.7 in) beyond top cap.	

* Other frequencies available upon request.

Mechanical Characteristics		
Materials	Glass fibre shroud Aluminium mounting section	
Dimensions (Length)	3800 mm	149.6 in

Weight without bracket	6.5 kg	14.3 lbs
Wind load @ 160 km/hr (100 mph)	270 N	60.7 lbf
Mounting Options		
Mounting bracket	0300120/00	

7511xxx Amphenol Jaybeam Antenna

A UHF End Fed Dipole antenna housed inside a high-strength, glassfibre shroud

Single Band, Omni, V-Pol, 575..970 MHz, 0.0 dBd, Low Power (Medium Duty)

For further information please download the pdf datasheet

A UHF End Fed Dipole antenna housed inside a high-strength, glassfibre shroud.
An integrated mounting clamp allows easy installation on poles or horizontal rails.
Produced to the highest quality standards, these robust antenna designs will insure years of reliable operation.
Replace “xxx” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	500..1175 MHz	
Model number options (xxx)	Model Number 7511600 7511625 7511705 7511835 7511890 7511925 7511950	Frequency band* 575-625 MHz 600-650 MHz 680-730 MHz 810-875 MHz 870-910 MHz 900-950 MHz 930-970 MHz
Polarization	Vertical	
Horizontal beamwidth	360°	
Vertical beamwidth	80°	

Gain	0 dBd
Impedance	50Ω
VSWR	<1.5:1
Maximum power	50 W
Connector type	N-Female + 0.3m RG213 cable
Lightning protection	DC grounded

* Other frequencies available upon request.

Mechanical Characteristics		
Materials	Glass fibre shroud Aluminium mounting section	
Dimensions (Length)	250 mm	9.8 in
Weight without bracket	0.9 kg	2.0 lbs
Wind load @ 160 km/hr (100 mph)	11 N	2.5 lbf
Mounting Options		
Mounting	Integral mounting clamp to fit 38-50 mm dia. pipe or horizontal rail	

7502xxx Amphenol Jaybeam Antenna

A Heavy Duty VHF/UHF End Fed Dipole antenna for high power UHF AIR BAND and Trunked Radio applications

Single Band, Omni, V-Pol, 225..512 MHz, 0.0 dBd, High Power (Heavy Duty)

For further information please download the pdf datasheet

A Heavy Duty VHF/UHF End Fed Dipole antenna for high power UHF AIR BAND and Trunked Radio applications. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	225..512 MHz	
Model number options (xxx)	Model Number 7502000 7502450	Frequency band* 225-400 MHz 340-512 MHz
Polarization	Vertical	
Horizontal beamwidth	360°	
Vertical beamwidth	85°	
Gain	0 dBd	
Impedance	50Ω	
VSWR		
Maximum power	500 W	
Connector type	N-Female	
Lightning protection	DC grounded	

* Other frequencies available upon request.

Mechanical Characteristics	

Materials	Glass fibre shroud Aluminium mounting section	
Dimensions (Length x Diameter)	1216 x Ø52 mm	47.9 x Ø2.0 in
Weight without bracket	2 kg	4.4 lbs
Wind load @ 160 km/hr (100 mph)	150 N	33.7 lbf
Mounting Options		
Mounting bracket	0300120/00	
Alternate mounting bracket	0300066/00	

7548415 Amphenol Jaybeam Antenna

Our “2-in-1” UHF Colinear antenna 7548 are supplied with lightning protection and remain intact after a strike

Twin Band, Omni, 2x V-Pol, 380-430/410-430 MHz, 6.4/7.3 dBi, 5°/5°T, High Power (Heavy Duty)

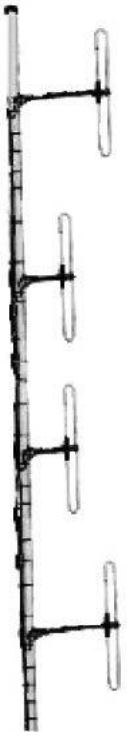
For further information please download the pdf datasheet

Our “2-in-1” UHF Colinear antenna 7548 are supplied with lightning protection and remain intact after a strike. For further details please contact our sales departments directly.

SPECIFICATIONS

Electrical Characteristics		
Frequency bands	380-400 MHz	410-430 MHz
Polarization	Linear, Vertical	
Horizontal beamwidth	360°	
Vertical beamwidth (-3 dB)	17°	
Gain	6.4 dBi	7.3 dBi
Electrical downtilt	5°	
Impedance	50Ω	
VSWR		
Isolation		
Maximum power	300 W per port	
Connector type	2 x N-Female + 0.5 m RG303 cable	
Lightning protection	DC grounded	
Mechanical Characteristics		
Dimensions (Length x Diameter)	5780 x 60 mm	227.6 x 2.4 in

Weight without bracket	12.5 kg	27.6 lbs
Wind load @ 160 km/hr (100 mph)	430 N	96.7 lbf
Mounting Options		
Mounting bracket	0900638/00	



7497390 Amphenol Jaybeam Antenna

4 Stacked Center Fed Dipole Array

Single Band, Center-Fed Dipole Array, V-Pol, 390-430 MHz, 160°, 8.0 dBd, 0°T, 4-stack. Low Power (Medium Duty)

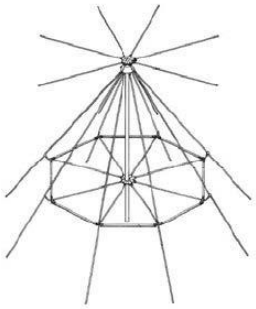
For further information please download the pdf datasheet

Directive Antenna

SPECIFICATIONS

Electrical Characteristics		
Frequency range	390-430 MHz	
Polarization	Linear or Vertical	
Horizontal beamwidth	160°	
Vertical beamwidth	18°	
Gain	8.0 dBd	
Electrical downtilt	0°	
Impedance	50Ω	
VSWR	<1.5:1	
Maximum power	150 W	
Connector type	N-Socket + RG213 cable	
Lightning protection	DC grounded	
Mechanical Characteristics		
Dimensions (Length x Width)	2650 x 475 mm	104.3 x 18.7 in
Weight without bracket	12.0 kg	26.5 lbs
Wind load @ 160 km/hr (100 mph)	340 N	76.4 lbf

Mounting Options	Part Number
Mounting bracket (standard)	0300235/00
Alternate mounting bracket (heavy duty)	0900638/00



7437010 Amphenol Jaybeam Antenna

A Wideband Discone antenna commonly used for ground-to-air and frequency scanning applications

Single Band, Ground Plane Omni, V-Pol, 100-500 MHz, 0.0 dBd, High Power (Heavy Duty)

For further information please download the pdf datasheet

A Wideband Discone antenna commonly used for ground-to-air and frequency scanning applications. The discone element design provides reliable communications over an extremely wide operating bandwidth. The 7437 model is a reinforced version of the popular 7177 model for high wind applications.

SPECIFICATIONS

Electrical Characteristics		
Frequency band	100-500 MHz	
Polarization	Vertical	
Horizontal beamwidth	360°	
Vertical beamwidth	80°	
Gain	0 dBd	
Impedance	50Ω	
VSWR		
Maximum power	250 W	
Connector	N-Female + RG213 cable	
Lightning protection	DC grounded	
Mechanical Characteristics		
Materials	Elements, solid aluminium rod Spine, aluminium tube Bracings, aluminium and PVC Finish, alochrome	
Dimensions (Height x Diameter)	1170 x 1360 mm	46.1 x 53.5 in
Weight without bracket	5.0 kg	11.0 lbs
Wind load @ 160 km/hr (100 mph)	186 N	41.8 lbf
Mounting Options		
Mounting bracket	0900964/00	
Alternate mounting bracket	0300064/00 + U-Bolts to match mounting pipe diameter	

7277010 Amphenol Jaybeam Antenna

A rugged and durable Colinear antenna designed for VHF AIR BAND radio systems

Single Band, Ground Plane Omni, V-Pol, 225-400 MHz, 0 dBd, High Power (Heavy Duty)

For further information please download the pdf datasheet

A rugged and durable Wideband Discone antenna for UHF AIR BAND applications. This design provides low VSWR and stable pattern performance over a wide operating bandwidth. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.

SPECIFICATIONS

Electrical Characteristics		
Frequency band	225-400 MHz	
Polarization	Vertical	
Horizontal beamwidth	360°	
Vertical beamwidth	80°	
Gain	0 dBd	
Impedance	50Ω	
VSWR		
Maximum power	250 W	
Connector type	N-Female on RG213 coaxial downlead	
Lightning protection	DC grounded	
Mechanical Characteristics		
Materials	Elements, solid aluminium Finish, alochrom	
Dimensions (Height x Diameter)	590 x 730 mm	23.2 x 28.7 in
Weight without bracket	3.0 kg	6.6 lbs
Wind load @ 160 km/hr (100 mph)	91 N	20.5 lbf
Mounting Options		
Mounting bracket	0900964/00	
Alternate mounting bracket	0300066/00	

7273xxx Amphenol Jaybeam Antenna

A rugged and durable Colinear antenna designed for VHF AIR BAND radio systems

Single Band, Omni, V-Pol, 120-124 MHz, 4.5 dBd, 0°T, High Power (Heavy Duty)

For further information please download the pdf datasheet

A rugged and durable Colinear antenna designed for VHF AIR BAND radio systems. These antennas are housed inside a high-strength, glassfibre shroud and manufactured to the highest quality standards insuring long term, reliable operation.
Replace “xxx” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	110..138 MHz	
Model number options (xxx)	Model Number 7273122 7273126 7273129 7273131 7273135	Frequency band* 120-124 MHz 124-126 MHz 127-131 MHz 130-133 MHz 133-137 MHz
Bandwidth	±1% (typical)	
Polarization	Vertical	
Horizontal beamwidth	360°	
Vertical beamwidth	30°	

Gain	4.5 dBd
Electrical downtilt	0°
Impedance	50Ω
VSWR	<1.5:1
Maximum power	200 W
Connector type	N-Female
Lightning protection	DC grounded

* Other frequencies available upon request.

Mechanical Characteristics		
Materials	Glass fibre shroud Aluminium mounting section	
Dimensions (Length)	5600 mm	220.5 in
Weight without bracket	7.0 kg	15.4 lbs
Wind load @ 160 km/hr (100 mph)	260 N	58.5 lbf
Mounting Options		
Mounting bracket	0300120/00	

7242xxx Amphenol Jaybeam Antenna

The ubiquitous “4 stack” has long been one of the most popular items in our range

Single Band, Center-Fed Dipole Array, V-Pol, 450..510 MHz, 360°, 5.5 dBd, 0°, 10°T, 4-stack, High Power (Heavy Duty)

For further information please download the pdf datasheet

The ubiquitous “4 stack” has long been one of the most popular items in our range.
Replace “xxx” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	400..470 MHz	
Model numbers options (xxx)	Model Number 7242460 7242490	Frequency band* 450-470 MHz 475-510 MHz
Bandwidth	40 MHz	
No of elements	8 dipoles, 4 tier array, H-configuration	
Polarization	Vertical	
Horizontal beamwidth	360°	
Vertical beamwidth (-3 db)	19°	
Gain	5.5 dBd	
Electrical downtilt	0°, 10°	
Impedance	50Ω	
VSWR	<1.5:1	
Maximum power	250 W	
Connector type	N socket + RG213 coaxial cable	
* Other frequencies available upon request.		
Mechanical Characteristics		
Construction	Boom, 1.5” diameter x 10 SWG Dipole, 0.5” diameter x 16 SWG	
Dimensions (Length)	2450 mm	96.5 in
Weight without bracket	12.0 kg	26.5 lbs
Wind load @ 160 km/hr (100 mph)	270 N	60.7 lbf

Mounting Options	Part Number
Mounting bracket	0300235/00

7177010 Amphenol Jaybeam Antenna

A Wideband Discone antenna commonly used for ground-to-air and frequency scanning applications

Single Band, Ground Plane Omni, V-Pol, 100-500 MHz, 0.0 dBd, High Power (Heavy Duty)

For further information please download the pdf datasheet

A Wideband Discone antenna commonly used for ground-to-air and frequency scanning applications. The discone element design provides reliable communications over an extremely wide operating bandwidth.

SPECIFICATIONS

Electrical Characteristics		
Frequency band	100-500 MHz	
Polarization	Vertical	
Horizontal beamwidth	360°	
Vertical beamwidth	80°	
Gain	0 dBd	
Impedance	50Ω	
VSWR		
Maximum power	250 W	
Connector type	N-Female on RG213 coaxial downlead	
Lightning protection	DC grounded	
Mechanical Characteristics		
Materials	Elements, solid aluminium rod Spine, aluminium tube Finish, alochrom	
Dimensions (Height x Diameter)	900 x 1140 mm	35.4 x 44.9 in
Weight without bracket	4.5 kg	9.9 lbs
Wind load @ 160 km/hr (100 mph)	180 N	40.5 lbf
Mounting Options		
Mounting bracket	0900964/00	
Alternate mounting bracket	0300066/00	

7148xxx Amphenol Jaybeam Antenna

An array of four Center Fed Dipole antennas with phasing harness mounted on an aluminium mast designed for TETRA network applications

Single Band, Center-Fed Dipole Array, V-Pol, 420-470 MHz, 160°, 9.0 dBd, 0,5,10,15°T, 4-stack, High Power (Heavy Duty)

For further information please download the pdf datasheet

An array of four Center Fed Dipole antennas with phasing harness mounted on an aluminium mast designed for TETRA network applications. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.
Replace “xxx” with desired model number option.

SPECIFICATIONS

Electrical Characteristics			
Frequency range	380..470 MHz		
Model numbers options (xxx)	Model Number 7148000 7148005 7148010 7148015	Frequency band* 420-470 MHz 420-470 MHz 420-470 MHz 420-470 MHz	Electrical downtilt 0° 5° 10° 15°
Polarization	Vertical		
Horizontal beamwidth	160°		
Vertical beamwidth	17°		

Gain	9.0 dBd
Electrical downtilt	see model number options above
Impedance	50Ω
VSWR	<1.5:1
Maximum power	200 W
Connector type	N-Female + 3m of RG213 cable
Lightning protection	DC grounded

Mechanical Characteristics		
Construction	Center fed folded dipoles (with baluns) fixed on a one piece vertical boom.	
Dimensions LxWxD	2600 x 132 x 110 mm	102.4 x 5.2 x 4.3 in
Weight without bracket	7.0 kg	15.4 lbs
Wind load @ 160 km/hr (100 mph)	190 N	42.7 lbf

Mounting Options	Part Number
Mounting bracket	0300120/00

71482xxHD Amphenol Jaybeam Antenna

A Heavy Duty array of four Center Fed Dipole antennas with phasing harness mounted on an aluminium mast designed for TETRA network applications

Single Band, Center-Fed Dipole Array, V-Pol, 380-430 MHz, 160°, 9.0 dBd, 0,5,10,15°T, 4-stack, High Power (Heavy Duty)

For further information please download the pdf datasheet

A Heavy Duty array of four Center Fed Dipole antennas with phasing harness mounted on an aluminium mast designed for TETRA network applications. Antennas in this range are carefully designed to provide low passive intermodulation to minimize network interference. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.
Replace “xx” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency band	380-430 MHz	
Model numbers options (xx)	Model Number 7148200HD 7148205HD 7148210HD 7148215HD	Electrical downtilt 0° 5° 10° 15°
Polarization	Vertical	
Horizontal beamwidth	160°	
Vertical beamwidth	17°	
Gain	9.0 dBd	
Electrical downtilt	see model number options above	
Impedance	50Ω	
VSWR	<1.5:1	
IM3 (2x20W carriers)		

Maximum power	200 W	
Connector type	7/16-DIN Female + 4m of RG214 cable	
Lightning protection	DC grounded	
* Other frequencies available upon request.		
Mechanical Characteristics		
Construction	Center fed folded dipoles (with baluns) fixed on a one piece vertical boom.	
Dimensions LxWxD	2600 x 132 x 110 mm	102.4 x 5.2 x 4.3 in
Weight without bracket	8.0 kg	17.6 lbs
Wind load @ 160 km/hr (100 mph)	180 N	40.5 lbf
Mounting Options	Part Number	
Mounting bracket	0300120/00	

71482xx Amphenol Jaybeam Antenna

An array of four Center Fed Dipole antennas with phasing harness mounted on an aluminium mast designed for TETRA network applications

Single Band, Center-Fed Dipole Array, V-Pol, 380-430 MHz, 160°, 9.0 dBd, 0,5,10,15°T, 4-stack, High Power (Heavy Duty)

For further information please download the pdf datasheet

An array of four Center Fed Dipole antennas with phasing harness mounted on an aluminium mast designed for TETRA network applications. Antennas in this range are carefully designed to provide low passive intermodulation to minimize network interference. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.
Replace “xx” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency band	380-430 MHz	
Model numbers options (xx)	Model Number 7148200 7148205 7148210 7148215	Electrical downtilt 0° 5° 10° 15°
Polarization	Vertical	
Horizontal beamwidth	160°	
Vertical beamwidth	17°	

Gain	9.0 dBd	
Electrical downtilt	see model number options above	
Impedance	50Ω	
VSWR	<1.5:1	
IM3 (2x20W carriers)		
Maximum power	200 W	
Connector type	7/16-DIN Female + 4m of RG214 cable	
Lightning protection	DC grounded	
* Other frequencies available upon request.		
Mechanical Characteristics		
Construction	Center fed folded dipoles (with baluns) fixed on a one piece vertical boom.	
Dimensions LxWxD	2600 x 132 x 110 mm	102.4 x 5.2 x 4.3 in
Weight without bracket	7.0 kg	15.4 lbs
Wind load @ 160 km/hr (100 mph)	190 N	42.7 lbf
Mounting Options	Part Number	
Mounting bracket	0300120/00	

7074xxx Amphenol Jaybeam Antenna

A rugged and durable Colinear antenna housed inside a high-strength, glassfibre shroud

Single Band, Omni, V-Pol, 158..172 MHz, 3.0 dBd, 0°T, High Power (Heavy Duty)

For further information please download the pdf datasheet

A rugged and durable Colinear antenna housed inside a high-strength, glassfibre shroud. Produced to the highest quality standards these robust antenna designs will insure reliable operation in harsh environmental condition.
Replace “xxx” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	130..175 MHz	
Model number options (xxx)	Model Number 7074160 7074163 7074166 7074170	Frequency band* 158-162 MHz 162-165 MHz 164-168 MHz 167.6-172.4 MHz
Bandwidth	3% (typical)	
Polarization	Vertical	
Horizontal beamwidth	360°	
Vertical beamwidth	31°	
Gain	3.0 dBd	

Electrical downtilt	0°
Impedance	50Ω
VSWR	<1.5:1
Maximum power	200 W
Connector type	N-Female
Lightning protection	DC grounded

* Other frequencies available upon request.

Mechanical Characteristics		
Materials	Glass fibre shroud Aluminium mounting section	
Dimensions (Length)	3050 mm	120.1 in
Weight without bracket	2.7 kg	6.0 lbs
Wind load @ 160 km/hr (100 mph)	117 N	26.3 lbf
Mounting Options		
Mounting bracket	0300120/00	

7073xxx Amphenol Jaybeam Antenna

A rugged and durable Colinear antenna designed for VHF Trunked Radio applications

Single Band, Omni, V-Pol, 145..173 MHz, 5.5 dBd, 0°T, High Power (Heavy Duty)

For further information please download the pdf datasheet

a rugged and durable Colinear antenna designed for VHF Trunked Radio applications. These antennas are housed inside a highstrength, glassfibre shroud and manufactured to the highest quality standards insuring long term, reliable operation.

SPECIFICATIONS

Ordering Options	
When ordering...	Replace “xxx” with desired model number option for corresponding frequency range*.
7073147	145-150 MHz
7073154	150-158 MHz
7073159	154.2-164.3 MHz
7073164	160-168 MHz
7073169	166-173 MHz

* Other frequencies available upon request.

Electrical Characteristics	

Frequency range	140...250 MHz	
Bandwidth	±2% (typical)	
Polarization	Vertical	
Horizontal beamwidth	360°	
Vertical beamwidth	18°	
Electrical downtilt	0°	
Gain	5.5 dBd	
Impedance	50Ω	
VSWR	<1.5:1	
Maximum power	200 W	
Connector type	N-Female	
Lightning protection	DC grounded	
Mechanical Characteristics		
Materials	Glass fibre shroud Aluminium mounting section	
Dimensions (Length)	5180 mm	203.9 in
Weight without bracket	6.5 kg	14.3 lbs
Wind load @ 160 km/hr (100 mph)	260 N	58.5 lbf
Mounting Options	Part Number	
Mounting bracket	0300120/00	

7051xxx Amphenol Jaybeam Antenna

A UHF Center Fed Dipole antenna for PMR/Trunked Radio and UHF Aircraft Band applications

Single Band, Center-Fed Dipole Array, V or H-Pol, 380-430 MHz, Variable Azimuth, Variable Gain, Low Power (Medium Duty)

A UHF Center Fed Dipole antenna for PMR/Trunked Radio and UHF Aircraft Band applications. Multiple dipoles can be mounted on a tower and connected with a phasing harness to form a high gain, stacked array. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.
Replace “xxx” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	300..500 MHz	
Model number options (xxx)	Model Number 7051400 7051420	Frequency band* 380-430 MHz 420-470 MHz
Bandwidth	±10% (typical)	
Polarization	Vertical or Horizontal	
Horizontal beamwidth	Will depend on mounting distance from mast.	
Vertical beamwidth	80°	
Gain	0 dBd (omni) Will depend on mounting distance from mast.	
Impedance	50Ω	
VSWR	<1.5:1	
Maximum power	150 W	
Connector type	N female + 3m of RG213 cable	
Lightning protection	DC grounded	

* Other frequencies available upon request.

Mechanical Characteristics			
Materials	Boom, 32 mm dia., aluminium Elements, 12 mm dia., aluminium Balun, fully moulded enclosure		
Dimensions LxWxD	400 MHz:	915 x 330 x 100 mm	36.0 x 13.0 x 3.9 in
Weight without bracket	400 MHz:	1.75 kg	3.9 lbs
Wind load @ 160 km/hr (100 mph)	400 MHz:	69 N	15.5 lbf

Mounting Options	
Mounting bracket	3202078/68 + 3201079/00
Alternate mounting brackets	0900912/00, 0302032/68, or 0300064/00 + U-bolts to match mounting pipe diameter.

7050xxx Amphenol Jaybeam Antenna

A VHF center fed dipole antenna for PMR/trunked radio, broadcast and VHF aircraft band applications

Single Band, Center-Fed Dipole Array, V or H-Pol, 48..240 MHz, Variable Azimuth, Variable Gain, Low Power (Medium Duty)

For further information please download the pdf datasheet

- A VHF center fed dipole antenna for PMR/trunked radio, broadcast and VHF aircraft band applications
- Multiple dipoles can be mounted on a tower and connected with a phasing harness to form a high gain stacked array
- Produced to the highest quality standards
- Robust antenna design ensure’s reliable operation in harch environmental conditions

SPECIFICATIONS

Ordering Options	Frequency Band*
Model Numbers	When ordering replace “xxx” in the Model Number with one of the options shown at right.
7050002	48-52 MHz
7050060	60-75 MHz
7050075	75-88 MHz
7050088	88-108 MHz
7050118	118-136 MHz
7050135	135-160 MHz
7050140	145-180 MHz
7050170	176-210 MHz
7050225	210-240 MHz

*Other frequency ranges available upon request.

Electrical Characteristics	
Bandwidth	±10% (typical)
Polarisation	Vertical or Horizontal
Horizontal Beamwidth	Will depend on mounting distance from mast
Vertical Beamwidth	80°
Gain	0 dBd (omni) Will depend on mounting distance from mast
Impedance	50Ω
VSWR	< 1.5:1
Maximum Power	150 W

Lightning Protection		DC Grounded	
Connector(s)		N-Type Female + 3m of RG213 cable	
Mechanical Characteristics			
Materials	Boom	32 mm diameter, aluminium	
	Elements	19 mm diameter, aluminium	
	Balun	Fully moulded enclosure	
Dimensions (Length x Width x Depth at 80 MHz)		1700 x 1370 x 110 mm	66.9 x 53.9 x 4.3 in
Weight without Mounting Brackets (at 80 MHz)		2.8 kg	6.2 lbs
Wind Load (160 km/hr or 100 mph; at 80 MHz)		134 N	30.1 lbf
Mounting Options (ordered separately)			
Mounting Bracket Kit		3202078/68 + 3201079/00	
Alternate Mounting Brackets		0900912/00, 0302032/68 or 0300064/00 + U-bolts to match mounting pipe diameter	

7047xxx Amphenol Jaybeam Antenna

An array of four Center Fed Dipole antennas with phasing harness mounted on an aluminium mast designed for TETRA network applications

Single Band, Center-Fed Dipole Array, V-Pol, 380..500 MHz, 360°/150°, 5.0/9.0 dBd, 4-stack, High Power (Heavy Duty)

For further information please download the pdf datasheet

An array of four Center Fed Dipole antennas with phasing harness mounted on an aluminium mast designed for TETRA network applications. The antenna can be deployed as a directional or omnidirectional antenna by adjusting the dipole orientation around the mast. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions. Low IMP rated models are available upon request.
Replace “xxx” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	380..500 MHz	
Model number options (xxx)	Model Number 7047410 7047419 7047450 7047475	Frequency band* 380-430 MHz 400-440 MHz 440-470 MHz 450-500 MHz

Polarization	Vertical
Horizontal beamwidth	360° Omni / 150° Directional
Vertical beamwidth	17°
Gain	5.0 dBd Omni / 9.0 dBd Directional
Electrical downtilt	0°
Impedance	50Ω
VSWR	
Maximum power	200 W
Connector type	N-Female + 3m of RG213 cable
Lightning protection	DC grounded

Replace “xxx” with desired model number option.

Mechanical Characteristics		
Construction	Center fed folded dipoles (with baluns) fixed on a one piece vertical boom. Dipoles are able to be rotated on the boom to allow for omni or directional mode.	
Dimensions LxWxD	2500 x 132 x 110 mm	98.4 x 5.2 x 4.3 in
Weight without bracket	5.5 kg	12.1 lbs
Wind load @ 160 km/hr (100 mph)	180 N	40.5 lbf
Mounting Options	Part Number	
Mounting bracket	0300120/00	

7047200 Amphenol Jaybeam Antenna

An array of four Center Fed Dipole antennas with phasing harness mounted on an aluminium mast designed for TETRA network applications

Single Band, Center-Fed Dipole Array, V-Pol, 380-430 MHz, 360°/150°, 5.0/9.0 dBd, 4-stack, High Power (Heavy Duty)

For further information please download the pdf datasheet

An array of four Center Fed Dipole antennas with phasing harness mounted on an aluminium mast designed for TETRA network applications. Antennas in this range are carefully designed to provide low passive intermodulation to minimize network interference. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.

SPECIFICATIONS

Electrical Characteristics	
Frequency band	380-430 MHz
Polarization	Vertical
Horizontal beamwidth	360° Omni / 150° Directional
Vertical beamwidth	20°
Gain	5.0 dBd Omni / 9.0 dBd Directional

Electrical downtilt	0°	
Impedance	50Ω	
VSWR		
IM3 (2x20W carriers)		
Maximum power	200 W	
Connector type	7/16-DIN Female + 4m of RG214 cable	
Lightning protection	DC grounded	
Mechanical Characteristics		
Construction	Center fed folded dipoles (with baluns) fixed on a one piece vertical boom. Dipoles are able to be rotated on the boom to allow for omni or directional mode.	
Dimensions LxWxD	2600 x 132 x 110 mm	102.4 x 5.2 x 4.3 in
Weight without bracket	7.0 kg	15.4 lbs
Wind load @ 160 km/hr (100 mph)	190 N	42.7 lbf
Mounting Options	Part Number	
Mounting bracket	0300120/00	

7034xxx Amphenol Jaybeam Antenna

A rugged and durable VHF End Fed Dipole antenna constructed from polished aluminium.

Single Band, Omni, V-Pol, 48..175 MHz, 0 dBd, High Power (Heavy Duty)

For further information please download the pdf datasheet

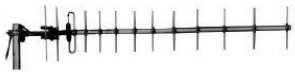
A rugged and durable VHF End Fed Dipole antenna constructed from polished aluminium. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.
Replace “xxx” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	48..200 MHz	
Model number options (xxx)	Model Number 7034048 7034051 7034068 7034070 7034072 7034074 7034078 7034084 7034093 7034097 7034101 7034107 7034164	Frequency band* 48-50 MHz 50-52 MHz 68-72 MHz 70-74 MHz 72-76 MHz 74-78 MHz 78-84 MHz 84-89 MHz 91-95 MHz 94-100 MHz 98-102 MHz 104-110 MHz 164-175 MHz
Bandwidth	±2.5% (typical)	
Polarization	Vertical	
Horizontal beamwidth	360°	
Vertical beamwidth	80°	
Gain	0 dBd	
Impedance	50Ω	
VSWR	<1.5:1,	
Maximum power	250 W	
Connector type	N-Female	
Lightning protection	DC grounded	

* Other frequencies available upon request.

Mechanical Characteristics					
Materials	Polished aluminium with stainless steel fixings				
Dimensions (Length)	50 MHz: 160 MHz:	4300 1460	mm mm	169.3 57.5	in in
Weight without bracket	50 MHz: 160 MHz:	3.2 1.1	kg kg	7.1 2.4	lbs lbs
Wind load @ 160 km/hr (100 mph)	50 MHz: 160 MHz:	113 36	N N	25.4 8.1	lbf lbf
Mounting Options					
Mounting bracket	0300120/00				



7014385 Amphenol Jaybeam Antenna

A 12-element UHF Yagi antenna for PMR/Trunked Radio and Broadcast applications that carries UK R.A. approval to MPT1411 for UHF Telemetry

Single Band, Yagi, V or H-Pol, 370-400 MHz, 36°, 12.0 dBd, 12-element, low IMP, Low Power (Medium Duty)

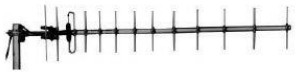
For further information please download the pdf datasheet

A 12-element UHF Yagi antenna for PMR/Trunked Radio and Broadcast applications that carries UK R.A. approval to MPT1411 for UHF Telemetry. Antennas in this range are carefully designed to provide low passive intermodulation to minimize network interference. Produced to the highest quality standards these robust antenna designs will insure reliable operation in harsh environmental conditions.

SPECIFICATIONS

Electrical Characteristics			
Frequency band	370-400 MHz		
Bandwidth	±4% (typical)		
Polarization	Vertical or Horizontal		
Horizontal beamwidth	36°		
Vertical beamwidth	33°		
Gain	12.0 dBd		
Impedance	50Ω		
VSWR	<1.5:1		
Front-to-back ratio	>20 dB		
IM3 (2x20W carriers)			
Maximum power	150 W		
Connector type	N-Female + 3m of RG213 cable		
Lightning protection	DC grounded		
Mechanical Characteristics			
Materials	Boom, 32 mm dia. aluminium, Elements, 12.7 mm dia. aluminium, Balun, fully moulded enclosure		
Dimensions (Length)	300 MHz: 460 MHz:	3160 mm 2150 mm	124.4 in 84.6 in
Weight without bracket	300 MHz: 460 MHz:	5.9 kg 5.0 kg	13.0 lbs 11.0 lbs
Operational wind speed		162 km/hr	100 mph
Wind load @ 160 km/hr	300 MHz:	207 N	46.5 lbf

(100 mph)	460 MHz:	140 N	31.5 lbf
Mounting Options			
Mounting bracket	3202078/68 + 3201079/00		
Alternate mounting brackets	0900912/00, 0302032/68, or 0300064/00 + U-Bolts to match mounting pipe diameter		
Mounting accessory (optional)	0900018/00 Trombone 2-point mount		



7014xxx Amphenol Jaybeam Antenna

A 12-element UHF Yagi antenna for PMR/Trunked Radio and Broadcast applications that carries UK R.A. approval to MPT1411 for UHF Telemetry

Single Band, Yagi, V or H-Pol, 370..470 MHz, 36°, 12.0 dBd, 12-element, 2-bar reflector, Low Power (Medium Duty)

For further information please download the pdf datasheet

A 12-element UHF Yagi antenna for PMR/Trunked Radio and Broadcast applications that carries UK R.A. approval to MPT1411 for UHF Telemetry. Produced to the highest quality standards these robust antenna designs will insure reliable operation in harsh environmental conditions. Low IMP rated models are available upon request.
Replace “xxx” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	300..500 MHz	
Model number options (xxx)	Model Number 7014390 7014400 7014450	Frequency band* 370-400 MHz 400-430 MHz 450-470 MHz
Bandwidth	±4% (typical)	
Polarization	Vertical or Horizontal	
Horizontal beamwidth	36°	
Vertical beamwidth	33°	
Gain	12.0 dBd	
Impedance	50Ω	
VSWR	<1.5:1	
Front-to-back ratio	>20 dB	
Maximum power	150 W	
Connector type	N-Female + 3m of RG213 cable	
Lightning protection	DC grounded	

* Other frequencies available upon request.

Mechanical Characteristics			
Materials	Boom, 32 mm dia. aluminium, Elements, 12.7 mm dia. aluminium, Balun, fully moulded enclosure		
Dimensions (Length)	300 MHz: 460 MHz:	3160 mm 2150 mm	124.4 in 84.6 in

Weight without bracket	300 MHz: 460 MHz:	5.9 kg 5.0 kg	13.0 lbs 11.0 lbs
Operational wind speed		162 km/hr	100 mph
Wind load @ 160 km/hr (100 mph)	300 MHz: 460 MHz:	207 N 140 N	46.5 lbf 31.5 lbf
Mounting Options			
Mounting bracket	3202078/68 + 3201079/00		
Alternate mounting brackets	0900912/00, 0302032/68, or 0300064/00 + U-Bolts to match mounting pipe diameter		
Mounting accessory (optional)	0900018/00 Trombone 2-point mount		

7018xxx Amphenol Jaybeam Antenna

A 12-element UHF Yagi antenna with High F/B ratio for PMR/Trunked Radio and Broadcast applications that carries UK R.A. approval to MPT1411 for UHF Telemetry applications

Single Band, Yagi, V or H-Pol, 375..470 MHz, 36°, 12.0 dBd, 12-element, 4-bar reflector, Low Power (Medium Duty)

For further information please download the pdf datasheet

A 12-element UHF Yagi antenna with High F/B ratio for PMR/Trunked Radio and Broadcast applications that carries UK R.A. approval to MPT1411 for UHF Telemetry applications. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions. Low IMP rated models are available upon request.
Replace “xxx” with desired model number option.

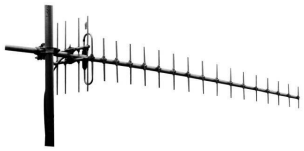
SPECIFICATIONS

Electrical Characteristics		
Frequency range	300..500 MHz	
Model number options (xxx)	Model Number 7018395 7018420 7018450	Frequency band* 375-415 MHz 400-435 MHz 450-470 MHz
Bandwidth	±4% (typical)	
Polarization	Vertical or Horizontal	
Horizontal beamwidth	36°	
Vertical beamwidth	33°	
Gain	12.0 dBd	
Impedance	50Ω	
VSWR	<1.5:1	
Front-to-back ratio	>22 dB	
Maximum power	150 W	
Connector type	N-Female + 3m of RG213 cable	
Lightning protection	DC grounded	

* Other frequencies available upon request.

Mechanical Characteristics			
Materials	Boom, 32 mm dia. aluminium, Elements, 12.7 mm dia. aluminium, Balun, fully moulded enclosure		
Dimensions (Length)	300 MHz:	3200 mm	126.0 in

	460 MHz:	2070 mm	81.5 in
Weight without bracket	300 MHz: 460 MHz:	6.9 kg 6.0 kg	15.2 lbs 13.2 lbs
Wind load @ 160 km/hr (100 mph)	300 MHz: 460 MHz:	230 N 150 N	51.7 lbf 33.7 lbf
Mounting Options			
Mounting bracket	3202078/68 + 3201079/00		
Alternate mounting brackets	0900912/00, 0302032/68, or 0300064/00 + U-Bolts to match mounting pipe diameter		
Mounting accessory (optional)	0900018/00 Trombone 2-point mount		



7019xxx Amphenol Jaybeam Antenna

An 18-element UHF Yagi antenna with High F/B ratio for PMR/Trunked Radio and Broadcast applications

Single Band, Yagi, V or H-Pol, 380..470 MHz, 28°, 14.0 dBd, 18-element, Low Power (Medium Duty)

For further information please download the pdf datasheet

An 18-element UHF Yagi antenna with High F/B ratio for PMR/Trunked Radio and Broadcast applications. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions. Replace “xxx” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	300..500 MHz	
Model number options (xxx)	Model Number 7019405 7019443 7019460	Frequency band* 380-412 MHz 413-455 MHz 440-470 MHz
Bandwidth	±4% (typical)	
Polarization	Vertical or Horizontal	
Horizontal beamwidth	28°	
Vertical beamwidth	27°	
Gain	14.0 dBd	
Impedance	50Ω	
VSWR	<1.5:1	
Front-to-back ratio	>25 dB	
Maximum power	150 W	
Connector type	N-Female + 3m of RG213 cable	
Lightning protection	DC grounded	

* Other frequencies available upon request.

Mechanical Characteristics			
Materials	Boom, 32 mm dia. aluminium, Elements, 12.7 mm dia. aluminium, Balun, fully moulded enclosure		
Dimensions (Length)	380 MHz: 500 MHz:	4680 mm 3800 mm	184.3 in 149.6 in
Weight without bracket	380 MHz: 500 MHz:	10.0 kg 9.0 kg	22.0 lbs 19.8 lbs

Wind load @ 160 km/hr (100 mph)	380 MHz: 500 MHz:	310 N 260 N	70.0 lbf 58.5 lbf
Mounting Options			
Mounting bracket	3202078/68 + 3201079/00		
Alternate mounting brackets	0900912/00, 0302032/68, or 0300064/00 + U-Bolts to match mounting pipe diameter		
Mounting accessory (optional)	0900018/00 Trombone 2-point mount		

7029xxx Amphenol Jaybeam Antenna

A 4-element VHF Yagi antenna for PMR/Trunked Radio, Broadcast and extended range VHF Aircraft Band applications

Single Band, Yagi, V or H-Pol, 68..175 MHz, 90°, 7.0 dBd, 4-element, Low Power (Medium Duty)

For further information please download the pdf datasheet

A 4-element VHF Yagi antenna for PMR/Trunked Radio, Broadcast and extended range VHF Aircraft Band applications. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.
Replace “xxx” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	50..250 MHz	
Model number options (xxx)	Model Number 7029068 7029000 7029092 7029098 7029106 7029145 7029155	Frequency band* 68-78 MHz 75-88 MHz 92-100 MHz 98-106 MHz 102-110 MHz 145-165 MHz 155-175 MHz
Bandwidth	±5% (typical)	
Polarization	Vertical or Horizontal	
Horizontal beamwidth	90°	
Vertical beamwidth	60°	
Gain	7.0 dBd	
Impedance	50Ω	
VSWR	<1.5:1	
Front-to-back ratio	>15 dB	
Maximum power	150 W	
Connector type	N-Female + 3m of RG213 cable	
Lightning protection	DC grounded	

* Other frequencies available upon request.

Mechanical Characteristics	
Materials	Boom, 32 mm dia. aluminium, Elements, 19 mm dia. aluminium, Balun, fully moulded enclosure

Dimensions (Length)	55 MHz: 240 MHz:	3500 mm 1080 mm	137.8 in 42.5 in
Weight without bracket	55 MHz: 240 MHz:	7.1 kg 3.2 kg	15.7 lbs 7.1 lbs
Wind load @ 160 km/hr (100 mph)	55 MHz: 240 MHz:	480 N 130 N	107.9 lbf 29.2 lbf
Mounting Options			
Mounting bracket	3202078/68 + 3201079/00		
Alternate mounting brackets	0900912/00, 0302032/68, or 0300064/00 + U-Bolts to match mounting pipe diameter		

7031xxx Amphenol Jaybeam Antenna

A 2-element VHF Yagi antenna for PMR/Trunked Radio, Broadcast and extended range VHF Aircraft Band applications

Single Band, Yagi, V or H-Pol, 68..175 MHz, 150°, 3.0 dBd, 2-element, Low Power (Medium Duty)

For further information please download the pdf datasheet

A 2-element VHF Yagi antenna for PMR/Trunked Radio, Broadcast and extended range VHF Aircraft Band applications. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.
Replace “xxx” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	50..250 MHz	
Model number options (xxx)	Model Number 7031050 7031066 7031075 7031088 7031105 7031139 7031144 7031156 7031220	Frequency band* 68-78 MHz 75-88 MHz 92-100 MHz 98-106 MHz 100-110 MHz 139.5-149 MHz 145-165 MHz 155-175 MHz 215-225 MHz
Bandwidth	±6% (typical)	
Polarization	Vertical or Horizontal	
Horizontal beamwidth	150°	
Vertical beamwidth	75°	
Gain	3.0 dBd	
Impedance	50Ω	
VSWR	<1.5:1	
Front-to-back ratio	>12 dB	
Maximum power	150 W	
Connector type	N-Female + 3m of RG213 cable	
Lightning protection	DC grounded	

* Other frequencies available upon request.

Mechanical Characteristics	
Materials	Boom, 32 mm dia. aluminium, Elements, 19 mm dia. aluminium,

	Balun, fully moulded enclosure		
Dimensions (Length)	55 MHz: 200 MHz:	1800 mm 850 mm	70.9 in 33.5 in
Weight without bracket	55 MHz: 200 MHz:	4.2 kg 1.9 kg	9.3 lbs 4.2 lbs
Wind load @ 160 km/hr (100 mph)	55 MHz: 200 MHz:	260 N 90 N	58.5 lbf 20.2 lbf
Mounting Options			
Mounting bracket	3202078/68 + 3201079/00		
Alternate mounting brackets	0900912/00, 0302032/68, or 0300064/00 + U-Bolts to match mounting pipe diameter		

7039xxx Amphenol Jaybeam Antenna

A 2-element VHF/UHF Yagi antenna for PMR/Trunked Radio, Broadcast and extended range VHF Aircraft Band applications

Single Band, Yagi, V or H-Pol, 380..470 MHz, 150°, 3.0 dBd, 2-element, Low Power (Medium Duty)

For further information please download the pdf datasheet

A 2-element VHF/UHF Yagi antenna for PMR/Trunked Radio, Broadcast and extended range VHF Aircraft Band applications. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions. Low IMP rated models are available upon request. Replace “xxx” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	140..500 MHz	
Model number options (xxx)	Model Number 7039380 7039420	Frequency band* 380-420 MHz 420-470 MHz
Bandwidth	±6% (typical)	
Polarization	Vertical or Horizontal	
Horizontal beamwidth	150°	
Vertical beamwidth	75°	
Gain	3 dBd	
Impedance	50Ω	
VSWR	<1.5:1	
Front-to-back ratio	>12 dB	
Maximum power	150 W	
Connector type	N-Female + 3m of RG213 cable	
Lightning protection	DC grounded	

* Other frequencies available upon request.

Mechanical Characteristics			
Materials	Boom, 32 mm dia. Aluminium Elements, 12.7 mm dia. Aluminium Balun, Fully moulded enclosure		
Dimensions (Length)	90 MHz: 400 MHz:	1360 mm 690 mm	53.5 in 27.2 in
Weight without bracket	90 MHz: 400 MHz:	2.3 kg 1.3 kg	5.1 lbs 2.9 lbs

Wind load @ 160 km/hr (100 mph)	90 MHz: 400 MHz:	140 N 50 N	31.5 lbf 11.2 lbf
Mounting Options			
Mounting bracket	3202078/68 + 3201079/00		
Alternate mounting brackets	0900912/00, 0302032/68, or 0300064/00 + U-Bolts to match mounting pipe diameter		

7040444 Amphenol Jaybeam Antenna

A 3-element UHF Yagi antenna for PMR/Trunked Radio and Broadcast applications

Single Band, Yagi, V or H-Pol, 430-450 MHz, 120°, 5.0 dBd, 3-element

For further information please download the pdf datasheet

A 3-element UHF Yagi antenna for PMR/Trunked Radio and Broadcast applications. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions. Low IMP rated models are available upon request.

SPECIFICATIONS

Electrical Characteristics			
Frequency band	430-450 MHz		
Bandwidth	±5% (typical)		
Polarization	Vertical or Horizontal		
Horizontal beamwidth	120°		
Vertical beamwidth	70°		
Gain	5 dBd		
Impedance	50Ω		
VSWR	<1.5:1		
Front-to-back ratio	>15 dB		
Maximum power	150 W		
Connector type	N-Female + 3m of RG213 cable		
Lightning protection	DC grounded		
Mechanical Characteristics			
Materials	Boom, 32 mm dia. Aluminium Elements, 12.7 mm dia. Aluminium Balun, Fully moulded enclosure		
Dimensions (Length)	100 MHz: 480 MHz:	1700 mm 550 mm	66.9 in 21.7 in
Weight without bracket	100 MHz: 480 MHz:	2.6 kg 1.6 kg	5.7 lbs 3.5 lbs
Wind load @ 160 km/hr (100 mph)	100 MHz: 480 MHz:	160 N 52 N	36.0 lbf 11.7 lbf
Mounting Options			
Mounting bracket	3202078/68 + 3201079/00		

Alternate mounting brackets	0900912/00, 0302032/68, or 0300064/00 + U-Bolts to match mounting pipe diameter

7040xxx Amphenol Jaybeam Antenna

A 3-element UHF Yagi antenna for PMR/Trunked Radio and Broadcast applications

Single Band, Yagi, V or H-Pol, 380..470 MHz, 120°, 5.0 dBd, 3-element, Low Power (Medium Duty)

For further information please download the pdf datasheet.

A 3-element UHF Yagi antenna for PMR/Trunked Radio and Broadcast applications. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions. Low IMP rated models are available upon request.
Replace “xxx” with desired model number option.

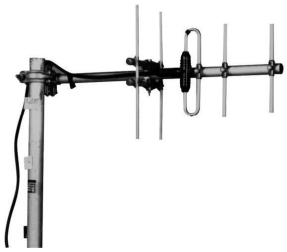
SPECIFICATIONS

Electrical Characteristics		
Frequency range	300..500 MHz	
Model number options (xxx)	Model Number 7040380 7040440	Frequency band* 380-430 MHz 440-470 MHz
Bandwidth	±5% (typical)	
Polarization	Vertical or Horizontal	
Horizontal beamwidth	120°	
Vertical beamwidth	70°	
Gain	5 dBd	
Impedance	50Ω	
VSWR	<1.5:1	
Front-to-back ratio	>15 dB	
Maximum power	150 W	
Connector type	N-Female + 3m of RG213 cable	
Lightning protection	DC grounded	

* Other frequencies available upon request.

Mechanical Characteristics			
Materials	Boom, 32 mm dia. Aluminium Elements, 12.7 mm dia. Aluminium Balun, Fully moulded enclosure		
Dimensions (Length)	100 MHz: 480 MHz:	1700 mm 550 mm	66.9 in 21.7 in
Weight without bracket	100 MHz: 480 MHz:	2.6 kg 1.6 kg	5.7 lbs 3.5 lbs

Wind load @ 160 km/hr (100 mph)	100 MHz: 480 MHz:	160 N 52 N	36.0 lbf 11.7 lbf
Mounting Options			
Mounting bracket	3202078/68 + 3201079/00		
Alternate mounting brackets	0900912/00, 0302032/68, or 0300064/00 + U-Bolts to match mounting pipe diameter		



7041xxx Amphenol Jaybeam Antenna

A 4-element UHF Yagi antenna for PMR/Trunked Radio and Broadcast applications

Single Band, Yagi, V or H-Pol, 380..470 MHz, 90°, 7.0 dBd, 4-element, Low Power (Medium Duty)

For further information please download the pdf datasheet

A 4-element UHF Yagi antenna for PMR/Trunked Radio and Broadcast applications. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions. Low IMP rated models are available upon request.
Replace “xxx” with desired model number option.

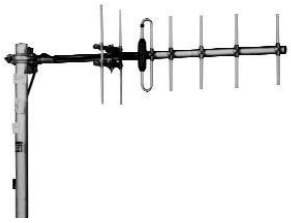
SPECIFICATIONS

Electrical Characteristics		
Frequency range	300..500 MHz	
Model number options (xxx)	Model Number 7041380 7041420	Frequency band* 380-420 MHz 420-470 MHz
Bandwidth	±5% (typical)	
Polarization	Vertical or Horizontal	
Horizontal beamwidth	90°	
Vertical beamwidth	60°	
Gain	7.0 dBd	
Impedance	50Ω	
VSWR	<1.5:1	
Front-to-back ratio	>15 dB	
Maximum power	150 W	
Connector type	N-Female + 3m of RG213 cable	
Lightning protection	DC grounded	

* Other frequencies available upon request.

Mechanical Characteristics			
Materials	Boom, 32 mm dia., aluminium Elements, 12.7 mm dia., aluminium Balun, fully moulded enclosure		
Dimensions (Length)	100 MHz: 480 MHz:	2200 mm 800 mm	86.6 in 31.5 in
Weight without bracket	100 MHz: 480 MHz:	3.2 kg 1.5 kg	7.1 lbs 3.3 lbs

Wind load @ 160 km/hr (100 mph)	100 MHz: 480 MHz:	204 N 65 N	45.9 lbf 14.6 lbf
Mounting Options	Part Number		
Mounting bracket	3202078/68 + 3201079/00		
Alternate mounting brackets	0900912/00, 0302032/68, or 0300064/00 + U-bolts to match mounting pipe diameter		



7042488 Amphenol Jaybeam Antenna

A 6-element VHF/UHF Yagi antenna for PMR/Trunked Radio and Broadcast applications

Single Band, Yagi, V or H-Pol, 470-512 MHz, 64°, 8.5 dBd, 6-element

For further information please download the pdf datasheet

A 6-element VHF/UHF Yagi antenna for PMR/Trunked Radio and Broadcast applications. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions. Low IMP rated models are available upon request.

SPECIFICATIONS

Electrical Characteristics		
Frequency band	470-512 MHz	
Bandwidth	±5% (typical)	
Polarization	Vertical or Horizontal	
Horizontal beamwidth	64°	
Vertical beamwidth	56°	
Gain	8.5 dBd	
Impedance	50Ω	
VSWR	<1.5:1	
Front-to-back ratio	>16 dB	
Maximum power	150 W	
Connector type	N-Female + 3m of RG213 cable	
Lightning protection	DC grounded	
Mechanical Characteristics		
Materials	Boom, 32 mm dia., aluminium Elements, 12.7 mm dia., aluminium Balun, fully moulded enclosure	
Dimensions (Length)	1150 mm	45.3 in
Weight without bracket	2 kg	4.4 lbs
Wind load @ 160 km/hr (100 mph)	85 N	19.1 lbf
Mounting Options	Part Number	
Mounting bracket	3202078/68 + 3201079/00	
Alternate mounting brackets	0900912/00, 0302032/68, or 0300064/00 + U-bolts to match mounting pipe diameter	

7043360 Amphenol Jaybeam Antenna

8-Element VHF/UHF Yagi Antenna for PMR/Trunked radio and Broadcast applications

Single Band, Yagi, V or H-Pol, 330-375 MHz, 54°, 10.0 dBd, 8-element

For further information please download the pdf datasheet

- 8-Element VHF/UHF Yagi Antenna for PMR/Trunked radio and Broadcast applications
- Robust antenna design will insure reliable operation in harsh environmental conditions
- Low IMP rated models available

SPECIFICATIONS

Electrical Characteristics			
Frequency Band		330-375 MHz*	
Bandwidth (typical)		±5%	
Polarization		Vertical or Horizontal	
Horizontal Beamwidth		54°	
Vertical Beamwidth		45°	
Gain		10.0 dBd	
Impedance		50Ω	
VSWR		< 1.5:1	
Front-to-Back Ratio		> 20 dB	
Power Rating		150 W	
Connector(s)		N-Female + 3m of RG213 Cable	
Lightning Protection		DC Grounded	
*Other frequencies available upon request			
Mechanical Characteristics			
Materials	Boom	Aluminium Ø32.0 mm (Ø1.26 in)	
	Elements	Aluminium Ø12.7 mm (Ø0.5 in)	
	Balun	Fully Moulded Enclosure	
Dimensions (Length)		1578 mm	62.1 in
Weight without Mounting Brackets		4.4 kg	9.7 lbs

Wind Load (160 km/hr or 100 mph)	135 N	30.3 lbf
Survival Wind Speed	200 km/hr	125 mph
Mounting Options	Part Number	
Mounting brackets are ordered separately.		
Mounting Bracket Kit	3202078/68 + 3201079/00	
Alternate Mounting Brackets	0900912/00 + U-Bolts to Match Mounting Pipe Diameter 0302032/68 + U-Bolts to Match Mounting Pipe Diameter 0300064/00 + U-Bolts to Match Mounting Pipe Diameter	

7043481 Amphenol Jaybeam Antenna

An 8-element VHF/UHF Yagi antenna for PMR/Trunked Radio and Broadcast applications

Single Band, Yagi, V or H-Pol, 455-512 MHz, 54°, 10.0 dBd, 8-element

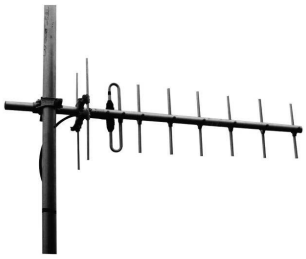
For further information please download the pdf datasheet

An 8-element VHF/UHF Yagi antenna for PMR/Trunked Radio and Broadcast applications. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions. Low IMP rated models are available upon request.

SPECIFICATIONS

Electrical Characteristics			
Frequency range	455-512 MHz		
Bandwidth	±5% (typical)		
Polarization	Vertical or Horizontal		
Horizontal beamwidth	54°		
Vertical beamwidth	45°		
Gain	10 dBd		
Impedance	50Ω		
VSWR	<1.5:1		
Front-to-back ratio	>20 dB		
Maximum power	150 W		
Connector type	N-Female + 3m of RG213 cable		
Lightning protection	DC grounded		
Mechanical Characteristics			
Materials	Boom, 32 mm dia., aluminium Elements, 12.7 mm dia., aluminium Balun, fully moulded enclosure		
Dimensions (Length)	155 MHz: 300 MHz:	3410 mm 2030 mm	134.3 in 79.9 in
Weight without bracket	155 MHz: 300 MHz:	6.0 kg 4.5 kg	13.2 lbs 9.9 lbs
Wind load @ 160 km/hr (100 mph)	155 MHz: 300 MHz:	250 N 140 N	56.2 lbf 31.5 lbf
Mounting Options	Part Number		
Mounting bracket	3202078/68 + 3201079/00		

Alternate mounting brackets	0900912/00, 0302032/68, or 0300064/00 + U-bolts to match mounting pipe diameter



7043xxx Amphenol Jaybeam Antenna

An 8-element VHF/UHF Yagi antenna for PMR/Trunked Radio and Broadcast applications

Single Band, Yagi, V or H-Pol, 145..470 MHz, 54°, 10.0 dBd, 8-element, Low Power (Medium Duty)

For further information please download the pdf datasheet

An 8-element VHF/UHF Yagi antenna for PMR/Trunked Radio and Broadcast applications. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions. Low IMP rated models are available upon request.
Replace “xxx” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	130..500 MHz	
Model number options (xxx)	Model Number 7043150 7043155 7043390 7043420	Frequency band* 145-165 MHz 155-175 MHz 380-410 MHz 420-470 MHz
Bandwidth	±5% (typical)	
Polarization	Vertical or Horizontal	
Horizontal beamwidth	54°	
Vertical beamwidth	45°	
Gain	10 dBd	
Impedance	50Ω	
VSWR		
Front-to-back ratio	>20 dB	
Maximum power	150 W	
Connector type	N-Female + 3m of RG213 cable	
Lightning protection	DC grounded	

* Other frequencies available upon request.

Mechanical Characteristics			
Materials	Boom, 32 mm dia., aluminium Elements, 12.7 mm dia., aluminium Balun, fully moulded enclosure		
Dimensions (Length)	155 MHz: 300 MHz:	3410 mm 2030 mm	134.3 in 79.9 in

Weight without bracket	155 MHz: 300 MHz:	6.0 kg 4.5 kg	13.2 lbs 9.9 lbs
Wind load @ 160 km/hr (100 mph)	155 MHz: 300 MHz:	250 N 140 N	56.2 lbf 31.5 lbf
Mounting Options	Part Number		
Mounting bracket	3202078/68 + 3201079/00		
Alternate mounting brackets	0900912/00, 0302032/68, or 0300064/00 + U-bolts to match mounting pipe diameter		

7049xxx Amphenol Jaybeam Antenna

A 3-element VHF Yagi antenna for PMR/Trunked Radio, Broadcast and extended range VHF Aircraft Band applications

Single Band, Yagi, V or H-Pol, 66..175 MHz, 120°, 5.0 dBd, 3-element, Low Power (Medium Duty)

For further information please download the pdf datasheet

A 3-element VHF Yagi antenna for PMR/Trunked Radio, Broadcast and extended range VHF Aircraft Band applications. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.
Replace “xxx” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	50..250 MHz	
Model number options (xxx)	Model Number 7049066 7049075 7049098 7049145 7049000 7049220	Frequency band* 66-76 MHz 75-88 MHz 88-108 MHz 144-165 MHz 155-175 MHz 215-225 MHz
Bandwidth	±6% (typical)	
Polarization	Vertical or Horizontal	
Horizontal beamwidth	120°	
Vertical beamwidth	70°	
Gain	5 dBd	
Impedance	50Ω	
VSWR	<1.5:1	
Front-to-back ratio	>15 dB	
Maximum power	150 W	
Connector type	N-Female + 3m of RG213 cable	
Lightning protection	DC grounded	

* Other frequencies available upon request.

Mechanical Characteristics			
Materials	Boom, 32 mm dia., aluminium Elements, 19 mm dia., aluminium Balun, fully moulded enclosure		
Dimensions (Length)	55 MHz:	2800 mm	110.2 in

	240 MHz:	900 mm	35.4 in
Weight without bracket	55 MHz: 240 MHz:	5.8 kg 2.0 kg	12.8 lbs 4.4 lbs
Wind load @ 160 km/hr (100 mph)	55 MHz: 240 MHz:	385 N 95 N	86.6 lbf 21.4 lbf
Mounting Options	Part Number		
Mounting bracket	3202078/68 + 3201079/00		
Alternate mounting brackets	0900912/00, 0302032/68, or 0300064/00 + U-bolts to match mounting pipe diameter		

7051440 Amphenol Jaybeam Antenna

A UHF Center Fed Dipole antenna for PMR/Trunked Radio and UHF Aircraft Band applications

Single Band, Center-Fed Dipole Array, V or H-Pol, 406-512 MHz, Variable Azimuth, Variable Gain

For further information please download the pdf datasheet

A UHF Center Fed Dipole antenna for PMR/Trunked Radio and UHF Aircraft Band applications. Multiple dipoles can be mounted on a tower and connected with a phasing harness to form a high gain, stacked array. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.

SPECIFICATIONS

Electrical Characteristics			
Frequency band	406-512 MHz		
Bandwidth	±10% (typical)		
Polarization	Vertical or Horizontal		
Horizontal beamwidth	Will depend on mounting distance from mast.		
Vertical beamwidth	80°		
Gain	0 dBd (omni) Will depend on mounting distance from mast.		
Impedance	50Ω		
VSWR	<1.5:1		
Maximum power	150 W		
Connector type	N-Female + 3m of RG213 cable		
Lightning protection	DC grounded		
Mechanical Characteristics			
Materials	Boom, 32 mm dia., aluminium Elements, 12 mm dia., aluminium Balun, fully moulded enclosure		
Dimensions LxWxD	400 MHz:	915 x 330 x 100 mm	36.0 x 13.0 x 3.9 in
Weight without bracket	400 MHz:	1.75 kg	3.9 lbs
Wind load @ 160 km/hr (100 mph)	400 MHz:	69 N	15.5 lbf
Mounting Options			
Mounting bracket	3202078/68 + 3201079/00		
Alternate mounting brackets	0900912/00, 0302032/68, or 0300064/00 + U-bolts to match mounting pipe diameter.		

7130xxx Amphenol Jaybeam Antenna

A 6-element heavy-duty VHF yagi antenna

Single Band, Yagi, V or H-Pol, 88..172 MHz, 64°, 8.5 dBd, 6-element, Low Power (Medium Duty)

For further information please download the pdf datasheet

- A 6-element heavy-duty VHF yagi antenna
- For high power Broadcast and extended range VHF Aircraft Band applications
- Produced to the highest quality standards
- Robust antenna design ensure’s reliable operation in harch environmental conditions

SPECIFICATIONS

Ordering Options		Frequency Band*
Model Numbers	7130088	88-108 MHz
When ordering	7130110	105-115 MHz
replace “xxx”		
	7130150	140-160 MHz
in the Model		
Number with one		
	7130156	148.5-163.5 MHz
of the options		
shown at right.		
	7130165	158-172 MHz

*Other frequency ranges available upon request.

Electrical Characteristics	
Bandwidth	±5% (typical)
Polarisation	Vertical or Horizontal
Horizontal Beamwidth	64°
Vertical Beamwidth	56°
Gain	8.5 dBd
Impedance	50Ω

VSWR	7130088	< 1.5:1 Typical; < 2.0:1 at Band Edges	
	7130110	< 1.5:1	
	7130150	< 1.5:1	
	7130156	< 1.5:1	
	7130165	< 1.5:1	
Front-to-Back Ratio		> 17 dB	
Maximum Power		150 W	
Lightning Protection		DC Grounded	
Connector(s)		N-Type Female + 3m of RG213 cable	
Mechanical Characteristics			
Materials		Boom	38 mm diameter, aluminum
		Elements	19 mm diameter, aluminum
		Balun	Fully moulded enclosure
Dimensions (Length x Width x Depth)		4000 x 1730 x 120 mm	157.5 x 68.1 x 4.7 in
Weight without Mounting Brackets		10.7 kg	23.6 lbs
Wind Load (160 km/hr or 100 mph)		410 N	92.2 lbf
Mounting Options (ordered separately)			
Mounting Bracket Kit		3202078/68 + 3201079/00	
Alternate Mounting Brackets		0300064/00 + U-Bolts to match mounting pipe diameter	

7148438 Amphenol Jaybeam Antenna

An array of four Center Fed Dipole antennas with phasing harness mounted on an aluminum mast designed for TETRA network applications

Single Band, Center-Fed Dipole Array, V-Pol, 406-470 MHz, 160°, 9.0 dBd, 0°T, 4-stack

For further information please download the pdf datasheet

An array of four Center Fed Dipole antennas with phasing harness mounted on an aluminum mast designed for TETRA network applications. Antennas in this range are carefully designed to provide low passive intermodulation to minimize network interference. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.
Replace “xx” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	406..512 MHz	
Model number options (xx)	Model Number 7148438 7148481	Frequency band* 406-470 MHz 450-512 MHz
Polarization	Vertical	
Horizontal beamwidth	160°	
Vertical beamwidth	17°	
Gain	9.0 dBd	
Electrical downtilt	0°	
Impedance	50Ω	
VSWR	<1.5:1	
IM3 (2x20W carriers)	< -143 dBc	
Maximum power	200 W	
Connector type	7/16-DIN Female + 4m of RG214 cable	

Lightning protection	DC grounded

* Other frequencies available upon request.

Mechanical Characteristics		
Construction	Center fed folded dipoles (with baluns) fixed on a one piece vertical boom	
Dimensions (Length x Width x Depth)	2600 x 132 x 110 mm	102.4 x 5.2 x 4.3 in
Weight without bracket	7.0 kg	15.4 lbs
Wind load @ 160 km/hr (100 mph)	190 N	42.7 lbf
Mounting Options	Part Number	
Mounting bracket	0300120/00	

7148481 Amphenol Jaybeam Antenna

An array of four Center Fed Dipole antennas with phasing harness mounted on an aluminum mast designed for TETRA network applications

Single Band, Center-Fed Dipole Array, V-Pol, 450-512 MHz, 160°, 9.0 dBd, 0°T, 4-stack

For further information please download the pdf datasheet

An array of four Center Fed Dipole antennas with phasing harness mounted on an aluminum mast designed for TETRA network applications. Antennas in this range are carefully designed to provide low passive intermodulation to minimize network interference. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.
Replace “xx” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	406..512 MHz	
Model number options (xx)	Model Number 7148438 7148481	Frequency band* 406-470 MHz 450-512 MHz
Polarization	Vertical	
Horizontal beamwidth	160°	
Vertical beamwidth	17°	
Gain	9.0 dBd	
Electrical downtilt	0°	
Impedance	50Ω	
VSWR	<1.5:1	
IM3 (2x20W carriers)	< -143 dBc	
Maximum power	200 W	
Connector type	7/16-DIN Female + 4m of RG214 cable	

Lightning protection	DC grounded

* Other frequencies available upon request.

Mechanical Characteristics		
Construction	Center fed folded dipoles (with baluns) fixed on a one piece vertical boom	
Dimensions (Length x Width x Depth)	2600 x 132 x 110 mm	102.4 x 5.2 x 4.3 in
Weight without bracket	7.0 kg	15.4 lbs
Wind load @ 160 km/hr (100 mph)	190 N	42.7 lbf
Mounting Options	Part Number	
Mounting bracket	0300120/00	

7157400 Amphenol Jaybeam Antenna

An 8-element UHF Yagi antenna for PMR/Trunked Radio, Broadcast, and TETRA applications

Single Band, Crossed Yagi, RHCP or dual linear, 380-430 MHz, 58°, 10.0 dBd, 8-element

For further information please download the pdf datasheet

An 8-element UHF Yagi antenna for PMR/Trunked Radio, Broadcast, and TETRA applications. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions. Low IMP rated models provide consistently lower noise floor over the life of the antenna. Essentials for multi carrier transmission.

SPECIFICATIONS

Electrical Characteristics		
Frequency band	380-430 MHz	
Bandwidth	±6% (typical)	
Polarization	RHCP* or dual linear	
Horizontal beamwidth	58°	
Vertical beamwidth	51°	
Gain	10 dBd	
Impedance	50Ω	
VSWR	<1.4:1	
Front-to-back ratio	15.1 dB max (typically better than 19 dB)	
Maximum power	150 W	
Connector type	2 / N-Female forward dipole - 2.9 m (9.5 ft) RG213 cable rear dipole - 3 m (9.8 ft) RG213 cable	
Lightning protection	DC grounded	
Mechanical Characteristics		
Materials	Boom, 32 mm (1.3 in) dia., aluminium Elements, 12.7 mm (0.5 in) dia., aluminium Balun, fully moulded enclosure	
Dimensions (Length)	1500 mm	59.1 in
Weight without bracket	5.0 kg	6.6 lbs
Wind load @ 160 km/hr (100 mph)	102 N	22.9 lbf
Mounting Options	Part Number	
Mounting bracket	3202078/68 + 3201079/00	

Alternate mounting brackets	0900912/00, 0302032/68, or 0300064/00 + U-bolts to match mounting pipe diameter

7170xxx Amphenol Jaybeam Antenna

A linear array of two VHF dipole elements with phasing harness mounted on an aluminium boom

Single Band, Cardiod Dipole Array, V-Pol, 106..470 MHz, 180°, 2.8 dBd, Low Power (Medium Duty)

For further information please download the pdf datasheet

A linear array of two VHF dipole elements with phasing harness mounted on an aluminium boom. Careful attention to element phasing results in a “Cardiod” shaped radiation pattern with high F/B ratio compared to an equivalent sized Yagi antenna. Antennas of this type find use in PMR/Trunked Radio and Broadcast applications needing very high F/B performance. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions. Replace “xxx” with desired model number option.

SPECIFICATIONS

Electrical Characteristics		
Frequency range	100..470 MHz	
Model number options (xxx)	Model Number 7170108 7170130 7170169 7170190 7170435 7170460	Frequency band* 106-110 MHz 139.5-149 MHz 167-172 MHz 192-208 MHz 428-433 MHz 450-470 MHz
Bandwidth	±1.5% (typical) Wide band versions available to meet specific needs	
Polarization	Vertical	
Horizontal beamwidth	180°	
Vertical beamwidth	75°	
Gain	2.8 dBd	
Impedance	50Ω	
VSWR	<1.5:1	
Front-to-back ratio	>20 dB	
Maximum power	150 W	
Connector type	N-Female + 3m of RG213 cable	
Lightning protection	DC grounded	

* Other frequencies available upon request.

Mechanical Characteristics	
Materials	Boom, 32 mm dia., aluminium Elements, 19 mm dia., aluminium Balun, fully moulded enclosure

Dimensions LxWxD	150 MHz:	2100 x 900 x 100 mm	82.7 x 35.4 x 3.9 in
Weight without bracket	150 MHz:	5.5 kg	6.2 lbs
Wind load @ 160 km/hr (100 mph)	150 MHz:	190 N	30.1 lbf
Mounting Options			
Mounting bracket	3202078/68 + 3201079/00		
Alternate mounting brackets	0900912/00, 0302032/68, or 0300064/00 + U-bolts to match mounting pipe diameter.		

7175872 Amphenol Jaybeam Antenna

An 8-element Yagi antenna for Cellular communications applications utilizing Amphenol's "Parabeam" slot radiator feed design to achieve higher directivity than comparable models

Single Band, Yagi, V or H-Pol, 820-900 MHz, 52°, 10.0 dBd, 8-element

For further information please download the pdf datasheet

An 8-element Yagi antenna for Cellular communications applications utilizing Amphenol's "Parabeam" slot radiator feed design to achieve higher directivity than comparable models. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.

SPECIFICATIONS

Electrical Characteristics			
Frequency band	820-900 MHz		
Bandwidth	±5% (typical)		
Polarization	Linear, Vertical, or Horizontal		
Horizontal beamwidth	52°		
Vertical beamwidth	48°		
Gain	10 dBd / 12.1 dBi		
Impedance	50Ω		
VSWR	<1.5:1		
Front-to-back ratio	>20 dB		
Maximum power	150 W		
Connector type	N-Female + 1m of RG213 cable		
Lightning protection	DC grounded		
Mechanical Characteristics			
Materials	Boom: Elements: Balun:	25 mm diameter, aluminium 10 mm diameter, aluminium 'Parabeam' slot radiator	
Dimensions (Length)	990 mm	39.0 in	
Weight without bracket	1.7 kg	3.7 lbs	
Wind load @ 160 km/hr (100 mph)	55 N	12.4 lbf	
Mounting Options	Image	Part Number/Description	Fits Pipe Diameter
Mounting bracket		3202078/68 + 0900174/00	48 mm (1.9 in)

		Fixed 90° Norstel with increasing sleeve (Use to increase antenna boom or mast diameter from 25-48.3 mm.	
Alternate mounting bracket		0302063/68 Use to attach 25-50 mm diameter antenna mast or boom to 25-50 mm diameter mounting pipe.	25-50 mm (1-2 in)

7175890 Amphenol Jaybeam Antenna

An 8-element Yagi antenna for Cellular communications applications utilizing Amphenol’s “Parabeam” slot radiator feed design to achieve higher directivity than comparable models

Single Band, Yagi, V or H-Pol, 790-960 MHz, 52°, 10.0 dBd, 8-element

For further information please download the pdf datasheet

An 8-element Yagi antenna for Cellular communications applications utilizing Amphenol’s “Parabeam” slot radiator feed design to achieve higher directivity than comparable models. Produced to the highest quality standards, these robust antenna designs will insure reliable operation in harsh environmental conditions.

SPECIFICATIONS

Electrical Characteristics			
Frequency band	790-960 MHz		
Bandwidth	±5% (typical)		
Polarization	Linear, Vertical, or Horizontal		
Horizontal beamwidth	52°		
Vertical beamwidth	48°		
Gain	10 dBd / 12.1 dBi		
Impedance	50Ω		
VSWR	<1.5:1		
Front-to-back ratio	>20 dB		
Maximum power	150 W		
Connector type	N-Female + 1m of RG213 cable		
Lightning protection	DC grounded		
Mechanical Characteristics			
Materials	Boom: Elements: Balun:	25 mm diameter, aluminium 10 mm diameter, aluminium ‘Parabeam’ slot radiator	
Dimensions (Length)	970 mm	38.2 in	
Weight without bracket	1.7 kg	3.7 lbs	
Wind load @ 160 km/hr (100 mph)	55 N	12.4 lbf	
Mounting Options	Image	Part Number/Description	Fits Pipe Diameter
Mounting bracket		3202078/68 + 0900174/00	48 mm (1.9 in)

		Fixed 90° Norstel with increasing sleeve (Use to increase antenna boom or mast diameter from 25-48.3 mm.	
Alternate mounting bracket		0302063/68 Use to attach 25-50 mm diameter antenna mast or boom to 25-50 mm diameter mounting pipe.	25-50 mm (1-2 in)

7176xxx Amphenol Jaybeam Antenna

18-element UHF Yagi antenna for broadcast, TETRA, and cellular communication applications

Single Band, Yagi, V or H-Pol, 471..960 MHz, 25°, 14.4 dBd, 18-element, Low Power (Medium Duty)

For further information please download the pdf datasheet

- 18-element UHF Yagi antenna for broadcast, TETRA, and cellular communication applications
- Utilizes Amphenol’s “Parabeam” slot radiator feed design
- Achieves higher directivity than comparable models
- The robust antenna design insures reliable operation in harsh environmental conditions
- Produced to the highest quality standards

SPECIFICATIONS

Frequency Range*	Model Number
471-523 MHz	7176500
505-581 MHz	7176550
550-610 MHz	7176580
600-685 MHz	7176648
630-700 MHz	7176665
640-711 MHz	7176680
720-790 MHz	7176755
740-835 MHz	7176810
820-900 MHz	7176870
870-960 MHz	7176890

Mounting bracket kits and other accessories are ordered separately.

Electrical Characteristics	
Frequency Bands (MHz)	470...960 MHz
Bandwidth (typical)	±5%
Polarization	Vertical or Horizontal
Horizontal Beamwidth	25°
Vertical Beamwidth	23°

Gain		14.4 dBd	
Impedance		50Ω	
VSWR		< 1.5:1	
Front-to-Back Ratio		> 20 dB	
Maximum Input Power		150 W	
Number of Connectors, Type		1 Connector / N Female with 3m (9.8 feet) of RG213 cable	
Lightning Protection		Direct Ground	
Mechanical Characteristics			
Materials		Boom	Aluminium; 25 mm diameter
		Elements	Aluminium; 10 mm diameter
		Balun	‘Parabeam’ slot radiator
700 MHz	Dimensions (Length)	2500 mm	98.4 in
	Weight without Mounting Brackets	3.3 kg	7.3 lbs
	Wind Loads (160 km/hr or 100 mph)	171 N	38.4 lbf
Mechanical Characteristics			
Mounting Bracket		3202078/68 + 0900174/00	
Alternate Mounting Brackets		3202063/68 + 0900174/00	
		3202032/68 + 0900174/00	

7227000 Amphenol Jaybeam Antenna

Shrouded Yagi antenna avaliable for SHF Links in the 1.4 GHz band

Single Band, Shrouded Yagi, V or H-Pol, 1427-1530 MHz, 26°, 17 dBd, Low Power (Medium Duty)

For further information please download the pdf datasheet

- Shrouded Yagi antenna avaliable for SHF Links in the 1.4 GHz band
- All elements enclosed in a weather resistant, glassfibre shroud
- Able to provide consistent, reliable performance in all weather conditions

SPECIFICATIONS

Electrical Characteristics			
Frequency Band		1427-1530 MHz	
Polarization		Vertical or Horizontal	
Horizontal Beamwidth		26°	
Vertical Beamwidth		25°	
Gain		17.0 dBd	
Impedance		50Ω	
VSWR		<1.3:1	
Front-to-Back Ratio		> 25 dB	
Power Rating		100 W	
Lightning Protection		DC Grounded	
Connector(s)		N-Female	
Mechanical Characteristics			
Materials	Shroud	GRP	
	Radiating Assembly	Aluminum	
	Mounting Section (diameter)	Aluminum, 50 mm (1.9 in) diameter	
Dimensions (Length)		1360 mm	53.5 in
Weight without Mounting Bracket		3.0 kg	6.6 lbs
Wind Load (160 km/hr or 100 mph)		150 N	33.7 lbf
Mounting Options		Part Number	

Mounting brackets are ordered separately.	
Mounting Bracket	3202078/68
Alternate Mounting Bracket	0300064/00 + U-bolts to match mounting pipe diameter

7249071 Amphenol Jaybeam Antenna

3-Element Community BTS Yagi

Single Band, Yagi, V or H-Pol, 71.5-85 MHz, 130°, 4.5 dBd, 3-element, Low Power (Medium Duty)

For further information please download the pdf datasheet

A range of yagis meeting Radiocommunication Agency requirements for community base station systems in the UK. Although they use a slightly lighter construction than our standard range, to allow for easier mounting, they retain high quality features to ensure reliable and dependable service.

SPECIFICATIONS

Electrical Characteristics	
Frequency band	71.5-85 MHz
Polarization	Vertical or Horizontal
Horizontal beamwidth (-3 dB)	130°
Vertical beamwidth (-3 dB)	70°
Gain	4.5 dBd
Impedance	50Ω
VSWR	<1.5:1
Front-to-back ratio	14 dB typical
Maximum power	150 W
Connector type	N-Socket + 1m of RG213 cable
Lightning protection	DC grounded
Mechanical Characteristics	
Dimensions (Length)	2000 mm 78.7 in
Weight without bracket	4.3 kg 9.5 lbs
Wind load @ 160 km/hr (100 mph)	190 N 33.7 lbf
Mounting Options	**Part Number**
Mounting bracket (standard)	0302292/68, 0302032/68 , 0302063/68, or 0300066/00
Alternate mounting bracket (heavy duty)	3201079/00 + 3202078/68

7335000 Amphenol Jaybeam Antenna

Shrouded Yagi Antenna

Single Band, Shrouded Yagi, V or H-Pol, 1427-1530 MHz, 48°, 13 dBi, Low Power (Medium Duty)

For further information please download the pdf datasheet

- Shrouded Yagi antennas avaliable for use in many communication systems
- Robust antenna design will ensure reliable operation and excellent performance

SPECIFICATIONS

Electrical Characteristics		
Frequency Band	1427-1530 MHz	
Polarization	Vertical or Horizontal	
Horizontal Beamwidth (-3 dB)	48°	
Vertical Beamwidth (-3 dB)	42°	
Gain	13.0 dBi	
Impedance	50Ω	
VSWR	<1.3:1	
Power Rating	100 W	
Lightning Protection	DC Grounded	
Connector(s)	N-Socket	
Mechanical Characteristics		
Dimensions Length x Diameter	560 x 110 mm	22.0 x 4.3 in
Weight without Mounting Bracket	2.6 kg	5.7 lbs
Wind Load (160 km/hr or 100 mph)	105 N	23.6 lbf
Mounting Options	Part Number	
Mounting brackets are ordered separately.		
Mounting Bracket	3202078/68	

7356561 Amphenol Jaybeam Antenna

An 18-Element Yagi antenna of well proven design, available for UHF TV bands

Single Band, Yagi, V or H-Pol, 471-581 MHz, 25°, 14.4 dBd, 16.5 dBi, 18-element, Low Power (Medium Duty)

For further information please download the pdf datasheet

An 18-Element Yagi antenna of well proven design, available for UHF TV bands. Jaybeam's famous 'Parabeam' slot radiator is used giving a performance advantage over similar sized antennas. Its light but strong construction makes it easily deployable.
Replace "xxx" with desired model number option.

SPECIFICATIONS

Electrical Characteristics			
Frequency range	471..855 MHz		
Model number options (xxx)	Model Number 7356561 7356710 7356825	Frequency band 471-581 MHz 615-733 MHz 685-855 MHz	Channels 21-34 39-53 47-68
Polarization	Linear, Vertical, or Horizontal		
Horizontal beamwidth (-3 dB)	25°		
Vertical beamwidth (-3 dB)	23°		
Gain	16.5 dBi		
Impedance	50Ω		
VSWR	<2.0:1		
Front-to-back ratio	20 dB (typical)		
Maximum power	150 W		
Connector type	N-Female on RG213 downlead (downlead fitted with protective sleeve)		
Lightning protection	DC grounded		
Mechanical Characteristics			
Materials	Boom, 25 mm dia., aluminium tube Elements, 10 mm dia., solid aluminium 'Parabeam' slot radiator Polyester, powder coated finish is optional		
Dimensions (Length)	2380 mm	93.7 in	
Weight without bracket	4.5 kg	9.9 lbs	
Wind load @ 160 km/hr (100 mph)	196 N	44.0 lbf	

Mounting Options	
Mounting bracket	0900174/00 + 3202078/68

7356710 Amphenol Jaybeam Antenna

An 18-Element Yagi antenna of well proven design, available for UHF TV bands

Single Band, Yagi, V or H-Pol, 615-733 MHz, 25°, 14.4 dBd, 16.5 dBi, 18-element, Low Power (Medium Duty)

For further information please download the pdf datasheet

An 18-Element Yagi antenna of well proven design, available for UHF TV bands. Jaybeam's famous 'Parabeam' slot radiator is used giving a performance advantage over similar sized antennas. Its light but strong construction makes it easily deployable.
Replace "xxx" with desired model number option.

SPECIFICATIONS

Electrical Characteristics			
Frequency range	471..855 MHz		
Model number options (xxx)	Model Number 7356561 7356710 7356825	Frequency band 471-581 MHz 615-733 MHz 685-855 MHz	Channels 21-34 39-53 47-68
Polarization	Linear, Vertical, or Horizontal		
Horizontal beamwidth (-3 dB)	25°		
Vertical beamwidth (-3 dB)	23°		
Gain	16.5 dBi		
Impedance	50Ω		
VSWR	<2.0:1		
Front-to-back ratio	20 dB (typical)		
Maximum power	150 W		
Connector type	N-Female on RG213 downlead (downlead fitted with protective sleeve)		
Lightning protection	DC grounded		
Mechanical Characteristics			
Materials	Boom, 25 mm dia., aluminium tube Elements, 10 mm dia., solid aluminium 'Parabeam' slot radiator Polyester, powder coated finish is optional		
Dimensions (Length)	2380 mm	93.7 in	
Weight without bracket	4.5 kg	9.9 lbs	
Wind load @ 160 km/hr (100 mph)	196 N	44.0 lbf	

Mounting Options	
Mounting bracket	0900174/00 + 3202078/68

7356825 Amphenol Jaybeam Antenna

An 18-Element Yagi antenna of well proven design, available for UHF TV bands

Single Band, Yagi, V or H-Pol, 685-855 MHz, 25°, 14.4 dBd, 16.5 dBi, 18-element, Low Power (Medium Duty)

For further information please download the pdf datasheet

An 18-Element Yagi antenna of well proven design, available for UHF TV bands. Jaybeam's famous 'Parabeam' slot radiator is used giving a performance advantage over similar sized antennas. Its light but strong construction makes it easily deployable.
Replace "xxx" with desired model number option.

SPECIFICATIONS

Electrical Characteristics			
Frequency range	471..855 MHz		
Model number options (xxx)	Model Number 7356561 7356710 7356825	Frequency band 471-581 MHz 615-733 MHz 685-855 MHz	Channels 21-34 39-53 47-68
Polarization	Linear, Vertical, or Horizontal		
Horizontal beamwidth (-3 dB)	25°		
Vertical beamwidth (-3 dB)	23°		
Gain	16.5 dBi		
Impedance	50Ω		
VSWR	<2.0:1		
Front-to-back ratio	20 dB (typical)		
Maximum power	150 W		
Connector type	N-Female on RG213 downlead (downlead fitted with protective sleeve)		
Lightning protection	DC grounded		
Mechanical Characteristics			
Materials	Boom, 25 mm dia., aluminium tube Elements, 10 mm dia., solid aluminium 'Parabeam' slot radiator Polyester, powder coated finish is optional		
Dimensions (Length)	2380 mm	93.7 in	
Weight without bracket	4.5 kg	9.9 lbs	
Wind load @ 160 km/hr (100 mph)	196 N	44.0 lbf	

Mounting Options	
Mounting bracket	0900174/00 + 3202078/68

7360010 Amphenol Jaybeam Antenna

Shrouded Yagi antenna for Links in the 2.1-2.3 GHz band

Single Band, Shrouded Yagi, V or H-Pol, 2100-2300 MHz, 27°, 17 dBi, Low Power (Medium Duty)

For further information please download the pdf datasheet

- Shrouded Yagi antenna for Links in the 2.1-2.3 GHz band
- All elements enclosed in a weather resistant, glassfibre shroud
- Able to provide consistent, reliable performance in all weather conditions

SPECIFICATIONS

Electrical Characteristics			
Frequency Band		2100-2300 MHz	
Polarization		Vertical or Horizontal	
Horizontal Beamwidth		27°	
Vertical Beamwidth		26°	
Gain		17.0 dBi	
Impedance		50Ω	
VSWR		< 1.5:1 (	
Front-to-Back Ratio		> 20 dB	
Power Rating		100 W	
Lightning Protection		DC Grounded	
Connector(s)		N-Female	
Mechanical Characteristics			
Materials	Shroud	GRP	
	Radiating Assembly	Brass	
	Mounting Section (diameter)	Aluminum	
		50 mm	1.9 in
Dimensions (Length)		1090 mm	42.9 in
Weight without Mounting Bracket		1.6 kg	3.5 lbs
Wind Load (160 km/hr or 100 mph)		100 N	22.5 lbf

Mounting Options	Part Number
Mounting brackets are ordered separately.	
Mounting Bracket	3202078/68
Alternate Mounting Bracket	0300064/00 + U-bolts to match mounting pipe diameter

7360012 Amphenol Jaybeam Antenna

Shrouded Yagi antenna for Links in the 2.3-2.5 GHz band

Single Band, Shrouded Yagi, V or H-Pol, 2300-2500 MHz, 26°, 17 dBi, Low Power (Medium Duty)

For further information please download the pdf datasheet

- Shrouded Yagi antenna for Links in the 2.3-2.5 GHz band
- All elements enclosed in a weather resistant, glassfibre shroud

SPECIFICATIONS

Electrical Characteristics			
Frequency Band		2300-2500 MHz	
Polarization		Vertical or Horizontal	
Horizontal Beamwidth		26°	
Vertical Beamwidth		24°	
Gain		17.0 dBi	
Impedance		50Ω	
VSWR		< 1.5:1	
Front-to-Back Ratio		> 20 dB	
Power Rating		100 W	
Lightning Protection		DC Grounded	
Connector(s)		N-Female	
Mechanical Characteristics			
Materials	Shroud	GRP	
	Radiating Assembly	Brass	
	Mounting Section (diameter)	Aluminum	
		50 mm	1.9 in
Dimensions (Length)		1000 mm	39.4 in
Weight without Mounting Bracket		1.7 kg	3.7 lbs
Wind Load (160 km/hr or 100 mph)		91 N	20.5 lbf
Mounting Options		Part Number	

Mounting brackets are ordered separately.	
Mounting Bracket	3202078/68
Alternate Mounting Bracket	0300064/00 + U-bolts to match mounting pipe diameter

7360016 Amphenol Jaybeam Antenna

Shrouded Yagi antenna for Links in the 2.5-2.7 GHz band

Single Band, Shrouded Yagi, V or H-Pol, 2500-2700 MHz, 27°, 17 dBi, Low Power (Medium Duty)

For further information please download the pdf datasheet

- Shrouded Yagi antenna for Links in the 2.5-2.7 GHz band
- All elements enclosed in a weather resistant, glassfibre shroud
- Able to provide consistent, reliable performance in all weather conditions

SPECIFICATIONS

Electrical Characteristics			
Frequency Band		2500-2700 MHz	
Polarization		Vertical or Horizontal	
Horizontal Beamwidth		23°-27°	
Vertical Beamwidth		24°-30°	
Gain		17.0 dBi	
Impedance		50Ω	
VSWR			
Power Rating		150 W	
Lightning Protection		DC Grounded	
Connector(s)		N-Female	
Mechanical Characteristics			
Materials	Shroud	GRP	
	Radiating Assembly	Brass	
	Mounting Section (diameter)	Aluminum	
		50 mm	1.9 in
Dimensions (Length)		1000 mm	39.4 in
Weight without Mounting Bracket		1.7 kg	3.7 lbs
Wind Load (160 km/hr or 100 mph)		91 N	20.5 lbf
Mounting Options		Part Number	

Mounting brackets are ordered separately.	
Mounting Bracket	3202078/68
Alternate Mounting Bracket	0300064/00 + U-bolts to match mounting pipe diameter

7362240 Amphenol Jaybeam Antenna

Yagi antennas avaliable for use in many communication systems

Single Band, Shrouded Yagi, V or H-Pol, 2300-2500 MHz, 80°, 8.0 dBi, Low Power (Medium Duty)

For further information please download the pdf datasheet

- Yagi antennas avaliable for use in many communication systems
- Robust antenna design will ensure reliable operation and excellent performance

SPECIFICATIONS

Electrical Characteristics			
Frequency Band		2300-2500 MHz	
Polarization		Vertical or Horizontal	
Horizontal Beamwidth (-3 dB)		80°	
Vertical Beamwidth (-3 dB)		60°	
Gain		8.0 dBi	
Impedance		50Ω	
VSWR	100 MHz Center	< 1.3:1	
	200 MHz Center	< 1.5:1	
Power Rating		150 W	
Lightning Protection		DC Grounded	
Connector(s)		N-Female	
Mechanical Characteristics			
Dimensions Length x Diameter		420 x 86 mm	16.5 x 3.4 in
Weight without Mounting Bracket		1.6 kg	3.5 lbs
Wind Load (160 km/hr or 100 mph)		34 N	7.6 lbf
Mounting Options		Part Number	
Mounting brackets are ordered separately.			
Mounting Bracket			3202078/68

7363240 Amphenol Jaybeam Antenna

Yagi antennas avaliable for use in many communication systems

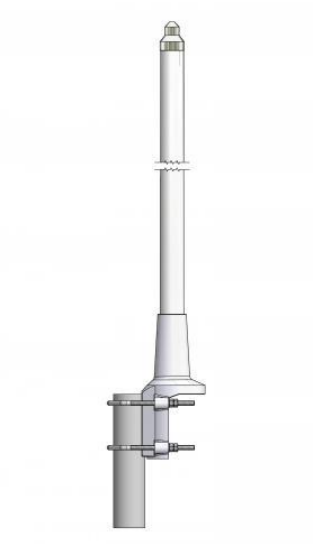
Single Band, Shrouded Yagi, V or H-Pol, 2300-2500 MHz, 43°, 13.0 dBi, Low Power (Medium Duty)

For further information please download the pdf datasheet

- Yagi antennas avaliable for use in many communication systems
- Robust antenna design will ensure reliable operation and excellent performance

SPECIFICATIONS

Electrical Characteristics			
Frequency Band		2300-2500 MHz	
Polarization		Vertical or Horizontal	
Horizontal Beamwidth (-3 dB)		43°	
Vertical Beamwidth (-3 dB)		40°	
Gain		13.0 dBi	
Impedance		50Ω	
VSWR	100 MHz Center	< 1.3:1	
	200 MHz Center	< 1.5:1	
Power Rating		150 W	
Lightning Protection		DC Grounded	
Connector(s)		N-Female	
Mechanical Characteristics			
Dimensions Length x Diameter		620 x 86 mm	24.4 x 3.4 in
Weight without Mounting Bracket		1.8 kg	4.0 lbs
Wind Load (160 km/hr or 100 mph)		65 N	14.6 lbf
Mounting Options		Part Number	
Mounting brackets are ordered separately.			
Mounting Bracket			3202078/68



CXL 70-3HD/...-PT

Sturdy, 3 dBd, Omnidirectional lightning protected Base Station Antenna for the TETRA Bands

- CXL 70-3HD/...-PT is 3 dBd, vertically polarized, omnidirectional base station antenna for the TETRA bands with two models.
- The antenna has been approved to withstand lightning (10/350 µs impulses/200 kA) according to EN 61643-11, VDE 0855-300 and VDE 0185-305-114 in FH-Kiel Laboratory in Germany.

DESCRIPTION

- The antenna is provided with our sturdy type “HD” mast mount - a heavy-duty, multipurpose mounting bracket made of non-corrosive aluminium. The accompanying U-bolts and fittings are made of stainless steel.
- The antenna can be mounted on mast tubes of 58 to 105 mm in outer diameter. Furthermore, the construction of the mount makes it possible to lead the cable either along the inside or on the outside of the mast tube.
- The antenna element is sealed in a high-quality, conical glass fibre tube with low wind load, ensuring undisturbed performance in all climates.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- CXL 70-3HD/...-PT is a vibration-proof, slim-line, corrosion-resistant, modern style base station antenna.

ORDERING DESIGNATIONS

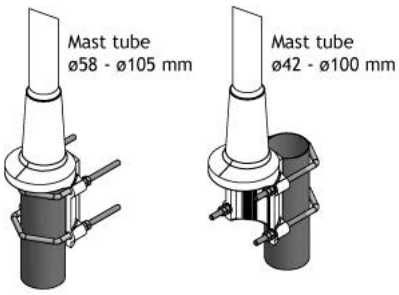
TYPE	PRODUCT NO.	FREQUENCY
CXL 70-3HD/l-PT	100000373	380 - 400 MHz
CXL 70-3HD/h-PT	100000380	410 - 430 MHz

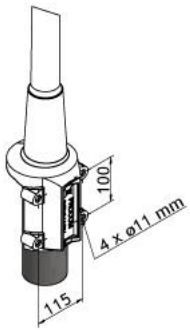
SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 70-3HD/...-PT
ANTENNA TYPE	Medium-gain collinear
FREQUENCY	380 - 400 MHz and 410 - 430 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd
HALF POWER BEAMWIDTH	25°

SWR	≤ 1.5
MAX. POWER	250 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	0.11 m²
WIND LOAD	139 N @ 160 km/h
WIND VELOCITY	Tested to 200 km/h
COLOUR	Marine white
MATERIALS	Radome: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, polyester-coated
TOTAL HEIGHT	Approx. 1.75 m
WEIGHT	Approx. 4.75 kg
MOUNTING	On 58 - 105 mm dia. mast tube

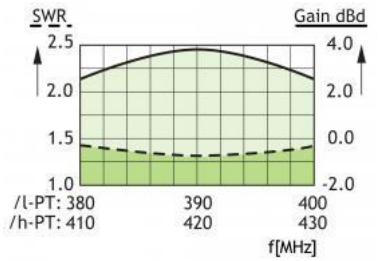
MULTI-PURPOSE MOUNTING BRACKET



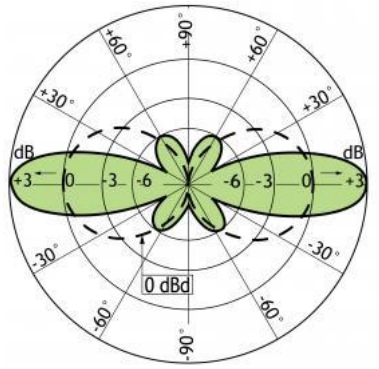


MOUNTING DESCRIPTION FOR GROUND CONNECTION

TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)

CXL 450-3HD/T-X/...

Sturdy, 3 dBd, Omnidirectional lightning protected Base Station Antenna for 450 MHz Bands

- CXL 450-3HD/T-X/... is a 3 dBd, vertically polarized, omnidirectional base station antenna for 450 MHz bands with three models.
- The antenna has been approved to withstand lightning.

DESCRIPTION

- The antenna is provided with our sturdy type “HD” mast mount - a heavy-duty, multipurpose mounting bracket made of non-corrosive aluminium. The accompanying U-bolts and fittings are made of stainless steel.
- The antenna can be mounted on mast tubes of 58 to 105 mm in outer diameter. Furthermore, the construction of the mount makes it possible to lead the cable either along the inside or on the outside of the mast tube.
- The antenna element is sealed in a high-quality, cylindrical glass fibre tube, ensuring undisturbed performance in all climates.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- CXL 450-3HD/T-X/... is a vibration-proof, slim-line, corrosion-resistant, modern style base station antenna.
- The centre fed dipole design and feed network gives a stable radiation pattern across a wide bandwidth, and allows tilted beam designs to be effectively employed without large pattern distortions.

ORDERING DESIGNATIONS

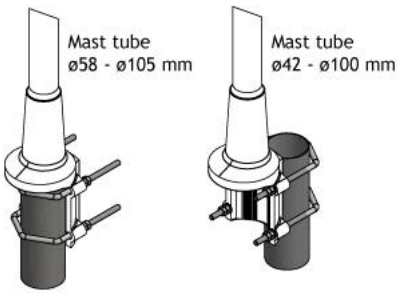
TYPE	PRODUCT NO.	FREQUENCY	TILT
CXL 450-3HD/T-0/l	100000641	340 - 370 MHz	0°
CXL 450-3HD/T-0/m	100000642	380 - 430 MHz	0°
CXL 450-3HD/T-0/h	100000643	420 - 470 MHz	0°
CXL 450-3HD/T-6/l	100000644	340 - 370 MHz	6°
CXL 450-3HD/T-6/m	100000645	380 - 430 MHz	6°
CXL 450-3HD/T-6/h	100000646	420 - 470 MHz	6°
CXL 450-3HD/T-8/l	100000647	340 - 370 MHz	8°
CXL 450-3HD/T-8/m	100000648	380 - 430 MHz	8°
CXL 450-3HD/T-8/h	100000649	420 - 470 MHz	8°
CXL 450-3HD/T-12/l	100000650	340 - 370 MHz	12°
CXL 450-3HD/T-12/m	100000651	380 - 430 MHz	12°
CXL 450-3HD/T-12/h	100000652	420 - 470 MHz	12°

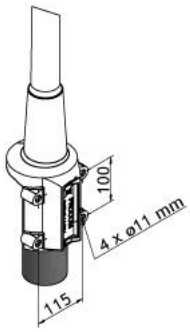
SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 450-3HD/T-X/...
ANTENNA TYPE	Medium-gain collinear

FREQUENCY	340 - 470 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd
HALF POWER BEAMWIDTH	35°
SWR	≤ 1.5
MAX. POWER	300 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
AVAILABLE BEAMTILTS	0, 6, 8 and 12°
PIM	-153 dBc @ 2x43 dBm
MECHANICAL	
TEMP. RANGE	-30°C to +70°C
CONNECTOR	7/16 DIN female
WIND SURFACE	0.09 m²
WIND LOAD	113 N @ 160 km/h
WIND VELOCITY	Tested to 200 km/h
COLOUR	Marine white
MATERIALS	Radome: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, polyester-coated
TOTAL HEIGHT	Approx. 1.74 m / 68.5 in.
WEIGHT	Approx. 6.35 kg / 14 lb.
MOUNTING	On 58 - 105 mm dia. mast tube

MULTI-PURPOSE MOUNTING BRACKET


Mast tube
ø58 - ø105 mm
Mast tube
ø42 - ø100 mm


100
4 x ø11 mm
115

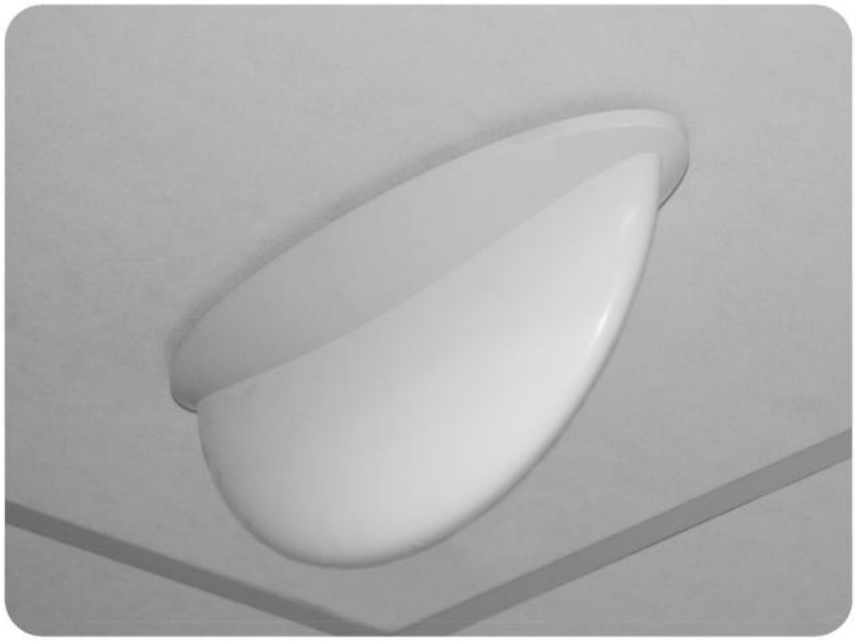
UWB-I 380-6000

Ultra Wideband Omnidirectional Antenna capable of supporting TETRA, GSM, DCS, PCS, UMTS, WiFi 2.4 and 5.6 GHz, 4G LTE, and WiMax

- Ground plane independent indoor DAS antenna .
- Omnidirectional coverage for the 380 - 6000 MHz band.
- Installation from abowe or below the ceiling.

DESCRIPTION

- Provided with external coaxial cable with N-female connector.
- No need for external ground plane.
- Two installation options.



ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
UWB-I 380-6000	100000545

SPECIFICATIONS

ELECTRICAL	
MODEL	UWB-I 380-6000
ANTENNA TYPE	Low profile multiband
FREQUENCY	380 - 6000 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Linear (Vertical polarized)

COVERAGE	Omnidirectional
GAIN	Approx. 0 dBi
SWR	TETRA (380-470 MHz) : ≤ 2 4G LTE (698-960 MHz) (2500-2700 MHz) : ≤ 2 GSM (880-960 MHz) (1710-1880 MHz) : ≤ 2 UMTS (1910-2200 MHz) : ≤ 2 WiFi (2400-2500 MHz) : ≤ 2 WiMax (5000-6000 MHz) : ≤ 2
MAX. POWER	50 W
IM3	< - 140 dBc (2 x 37 dBm)
MECHANICAL	
TEMP. RANGE	-30° C → +70° C
MATERIALS	Radome: Lexan Flame retardent: UL 94 HB recognized Chasis : Aluminium
CABLE	RG400 (length : 400 mm)
COLOUR	White RAL 9003
CONNECTOR	N-female
HEIGHT	146 mm (ex. connector)
WIDTH / DEPTH	107 / 325 mm
WEIGHT	Approx. 650 g

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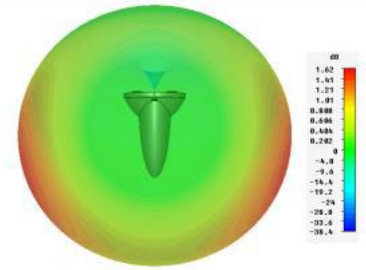
3D Gain Plot

TETRA 380 MHz



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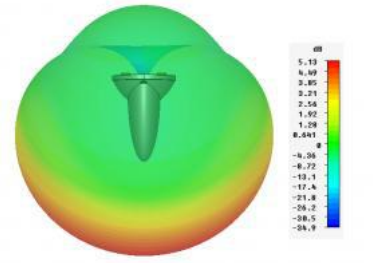
LTE 750 MHz



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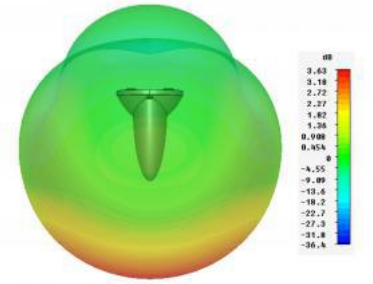
GSM 900 MHz



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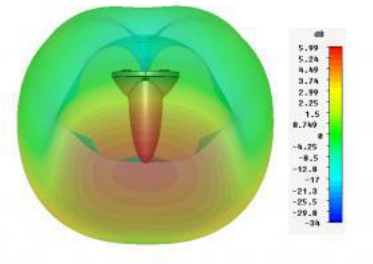
GSM 1850 MHz



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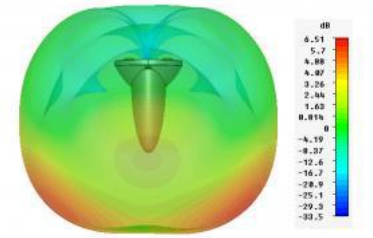
UMTS 2100 MHz



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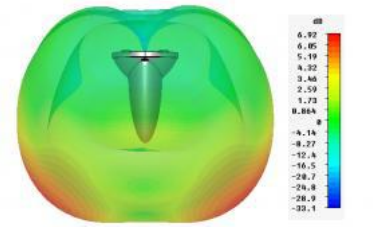
WIFI 2400 MHz



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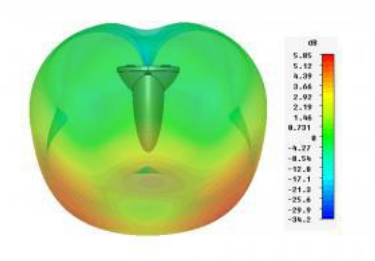
LTE 2600 MHz



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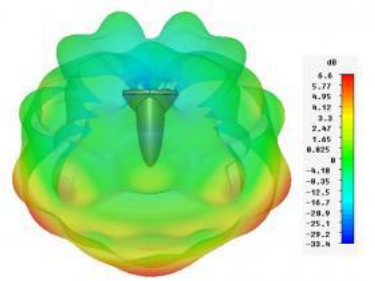
WIMAX 5500 MHz



INSTALLATION - METHOD A (Gland installation)

(Ceiling thickness 3-44 mm)

- Screw the gland unit on to the bottom.
- Drill a hole in the ceiling (ø23-25mm).
- Pull the cable through the hole.
- Mount the antenna with the nut and the washer

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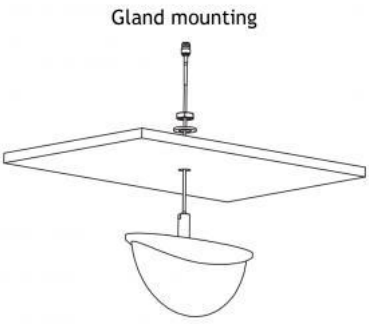

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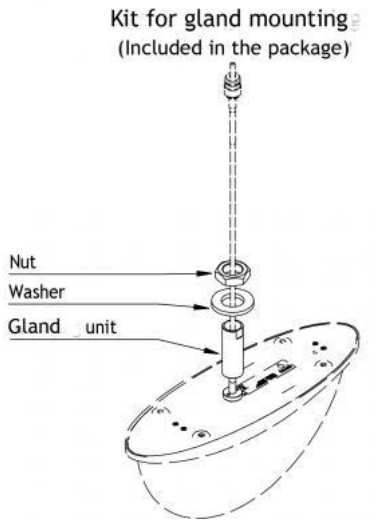

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INSTALLATION - METHOD B

- Separate the radome part (white plastic) from the base part by pulling the 2 parts from each other.
- Drill 5 holes in the ceiling. 4 pcs. ø 6.3 mm and 1 pcs. ø 23-25 mm.
- Pull the cable through the ø23 mm hole.
- Mount the base part to the ceiling with 4 screws (e.g. M6 screws) Screw height max 5 mm.
- Snap the radome part to the base part

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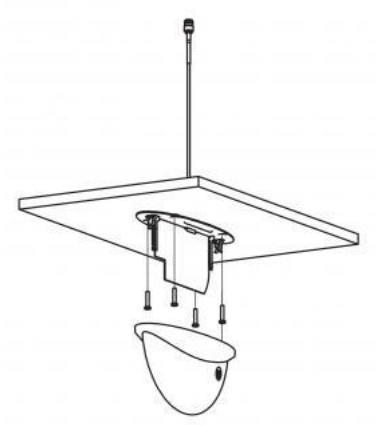

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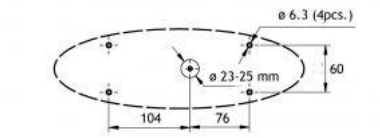

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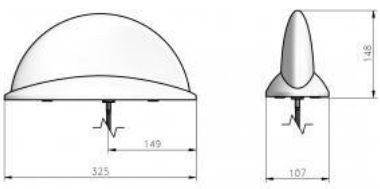
ANTENNA DIMENSIONS



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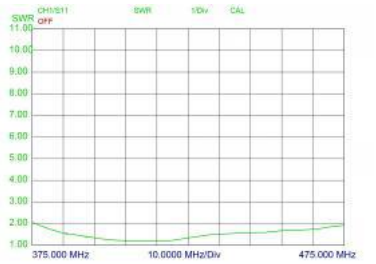
TYPICAL SWR CURVE (375-475 MHz)



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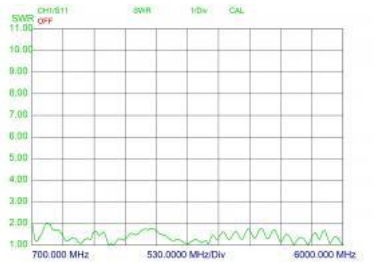
TYPICAL SWR CURVE (700-6000 MHz)



MA 160-Ex

ATEX certified, End-fed ½ λ dipole marine and base station antenna for the International Maritime VHF band in Hazardous areas

- MA 160-Ex is a 0 dBd, vertically polarized, omnidirectional marine and base station antenna for the 156 - 161 MHz Maritime VHF band.
- Full-size, end-fed ½ λ, black-chromed stainless steel whip.

DESCRIPTION

- Before installing the antenna, read the ATEX Product Manual carefully.
- The antenna is suitable for use in gas groups IIA, IIB and IIC in zone 2.
- The antenna can be mounted on threaded 1" water pipe using the supplied 1" revolving nut. In this way, a nice, slim installation is obtained.
- A wide variety of accessory mounting hardware (see below) gives ample choice regarding alternative ways of installation.
- All metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- The antenna is a ½ λ design and this means that it needs neither loading coils, ground-plane, radials nor other auxiliary arrangements.

ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
MA 160-Ex	156 - 161 MHz	115000027
ACCESSORIES		
LW-SS-1"-Ex *		115000102

* ATEX Grounding Kit included

SPECIFICATIONS

ELECTRICAL	
MODEL	MA 160-Ex
ANTENNA TYPE	½ λ antenna
FREQUENCY	156 - 161 MHz
IMPEDANCE	Nom. 50 Ω

RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	5 MHz
SWR	≤ 2.0
MAX. RF INPUT POWER DUE TO MAX. EIRP IN ATEX ENVIRONMENT *	
Group IIA	35.6 dBm (3.6 W)
Group IIB	33.3 dBm (2.1 W)
Group IIC	30.8 dBm (1.2 W)
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30° C → +60° C
CONNECTOR TIGHTENING TORQUE	N-female 0.7 - 1.1 Nm
WIND SURFACE	0.004 m² / 0.043 ft²
WIND LOAD	4.6 N @ 160 km/h / 99.42 mph
MAX. WIND SPEED	200 km/h / 124.27 mph
INGRESS PROTECTION LEVEL	IP66
COLOUR	Black
MATERIALS	Whip: Black-chromed stainless steel (AiSi 630) Mounting: Blackchromed brass
TOTAL HEIGHT	Approx. 940 mm / Approx. 37.01 in.
WEIGHT	Approx. 220 g / Approx. 0.49 lb.
MOUNTING	On 1” RG (G1” - 11) threaded water pipe or on optional mounting brackets (see below)
TIGHTENING TORQUE	20 - 25 Nm
ATEX MARKING	II 3G Ex nA IIC T6

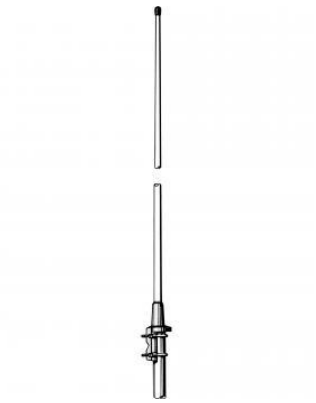
* See the ATEX Product Manual (safety and mounting instructions) and related EU DECLARATION OF CONFORMITY ATEX Directive 2014/34/EU.

CALCULATION OF MAX. ANTENNA INPUT POWER IN DIFFERENT ATEX GROUPS

ATEX GROUP	MAX. EIRP POWER	ANTENNA GAIN	MAX INPUT POWER
IIA	37.7 dBm (6.0 W)	0 dBd / 2.15 dBi	35.6 dBm (3.6 W)
IIB	35.4 dBm (3.5 W)	0 dBd / 2.15 dBi	33.3 dBm (2.1 W)
IIC	33.0 dBm (2.0 W)	0 dBd / 2.15 dBi	30.8 dBm (1.2 W)

ACCESSORIES (to be ordered separately)

ATEX GROUNDING KIT



CXL 70-3LW/...

Lightweight, Medium Duty, 3 dBd Base Station and Marine Antenna for the 450 MHz Band

- CXL 70-3LW/... is a 3 dBd, vertically polarised, omnidirectional base station and marine antenna, which covers the UHF band in 4 models with up to 10 MHz overlap.
- The antenna meets the demand for a medium duty, cost-effective antenna to be chosen, when the exceptional mechanical capabilities of our extremely rugged heavy-duty model CXL 70-3C/... are not needed.

DESCRIPTION

- The carefully designed radiating element is sealed in a high-quality, conical glass fibre tube with low wind-load, which will ensure performance undisturbed by corrosive environments.
- Provided with the sturdy “LW” mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.
- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 70-3LW/... is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

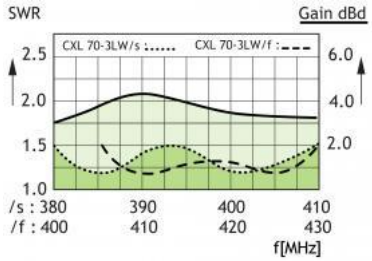
TYPE	PRODUCT NO.	FREQUENCY
CXL 70-3LW/s	110000092	380 – 410 MHz
CXL 70-3LW/f	110000088	406 – 430 MHz
CXL 70-3LW/l	110000091	420 – 450 MHz
CXL 70-3LW/h	110000089	440 – 470 MHz

SPECIFICATIONS

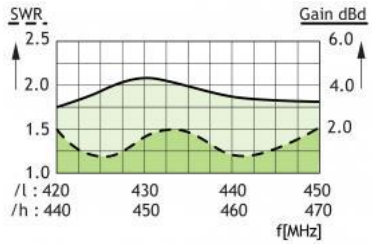
ELECTRICAL	
MODEL	CXL 70-3LW/...
ANTENNA TYPE	Collinear, broad-banded
FREQUENCY	30 MHz wide frequency segments within 380 – 470 MHz. See model survey.
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd

HALFPOWER BEAMWIDTH	30°
BANDWIDTH	30 MHz
SWR	≤ 1.5
MAX. POWER	150 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-35°C → +70°C
CONNECTOR	N-female
WIND SURFACE	0.026 m²
WIND LOAD	33 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 1.4 m (dep. on freq.)
DIA. IN TOP END	16 mm
DIA. IN BOTTOM END	23 mm
WEIGHT	Approx. 1.3 kg
MOUNTING	On 16 to 54 mm dia. mast tube

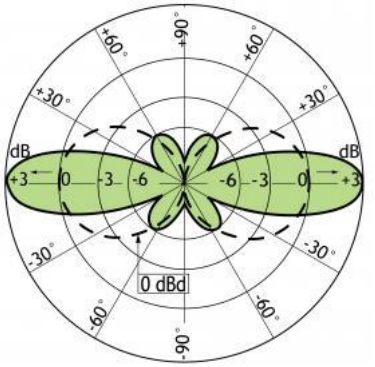
TYPICAL GAIN AND SWR CURVES



TYPICAL GAIN AND SWR CURVES

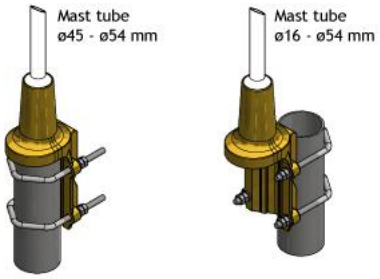


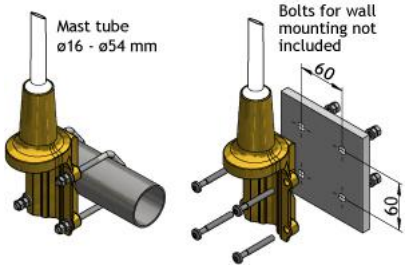
TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)

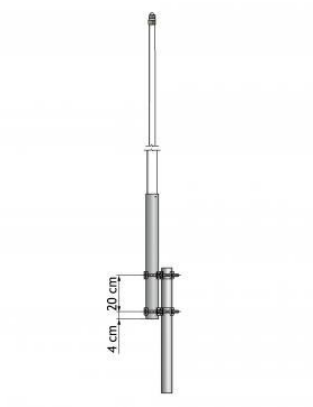
MULTI-PURPOSE MOUNTING BRACKET





PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.



CXL 2-5SL/171 MHz

Sturdy, 5.25 dBd Gain, Base Station Antenna for the 171 MHz

Customized

- CXL 2-5SL/171 MHz is a 5.25 dBd, vertically polarized, omnidirectional base station antenna.
- The antenna has a bandwidth of 6 MHz.

DESCRIPTION

- The antenna is provided with our type "SL" (Slim Line) mast mount, which is a multipurpose mounting tube made of non-corrosive aluminium. The accompanying clamp set and fittings are made of hot galvanized steel.
- The antenna can be mounted on mast tubes of 33 to 70 mm in outer diameter.
- In designing this antenna, special emphasis has been laid on obtaining a large bandwidth both in relation to SWR and gain. The phasing of the radiating elements is carefully adjusted to yield maximum gain in the horizontal plane, with the level of the side lobes reduced to a minimum.
- The antenna element is sealed in a high-quality, conical glass fibre tube with low wind-load, which will ensure performance undisturbed in all climates.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- CXL 2-5SL/171 MHz is a vibration-proof, lightweight, slim-line, corrosion-resistant, modern style base station antenna.

ORDERING DESIGNATIONS

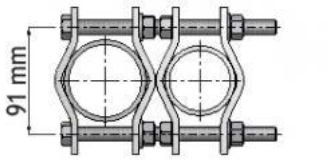
TYPE	PRODUCT NO.
CXL 2-5SL/171	100000686

SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 2-5SL/171 MHz
ANTENNA TYPE	High-gain collinear
FREQUENCY	168 - 174 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	5.25 dBd
HALF POWER BEAMWIDTH	15º - 18°
BANDWIDTH	6 MHz
SWR	≤ 1.75
MAX. POWER	500 W

ANTISTATIC PROTECTION	All metal parts DC-grounded (connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	0.374 m²
WIND LOAD	473 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Radome : Polyurethane-coated glass fibre Procom Clamp Set: Hot galvanized steel
TOTAL HEIGHT	Approx. 6.5 m
WEIGHT	Approx. 10 kg
MOUNTING	On 33 - 70 mm mast tube

PROCOM CLAMP SET



PLEASE NOTE

When using the CXL 2-5SL/171 MHz at windy locations where wind speeds of more than 150 km/h can be expected, the antenna must be mounted on the side of the mast and the top section of the glass fibre tube stabilized with a bracket.

CXL 900-1/...

Unity Gain Base Station and Marine 900 MHz Antenna for Mounting on Threaded 1

- The CXL 900-1/... is a 0 dBd, vertically polarized, omnidirectional rod-type base station and marine antenna which covers the 900 MHz band in three models.
- The 1” revolving nut mounting system is standard throughout the base station or maritime sector, and several different mounting brackets are available, making it possible to install the antenna either on the masthead using FLG or SMR 2, side mounted on the mast (SMR 1) or mounted on a cross-beam (FLG). Also, the antenna can be mounted on deck or rooftop by means of the FLG.

DESCRIPTION

- CXL 900-1/... is especially suitable for use in connection with 900 MHz CELLULAR systems – as for instance the Nordic Mobile Telephone system NMT 900 – making it possible to extend the normally land-based cellular telephone system for maritime mobile service as well.
- The higher the antenna is mounted, the better coverage. Avoid mounting the antenna parallel with or in the neighbourhood of other metal parts, such as masts, supporting wires etc., otherwise the SWR and the radiation pattern may be strongly influenced.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- A conical glass fibre tube completely encloses the carefully designed radiating element to ensure long dependable service in all climates.

ORDERING DESIGNATIONS

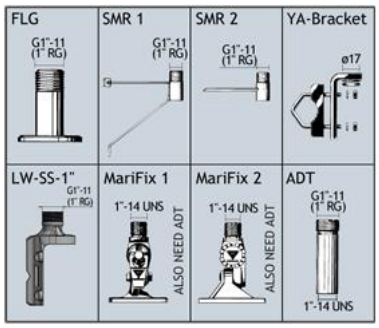
TYPE	PRODUCT NO.	FREQUENCY
CXL 900-1/l	110000146	824 – 894 MHz
CXL 900-1/m	110000145	870 – 950 MHz
CXL 900-1/h	110000144	890 – 960 MHz

SPECIFICATIONS

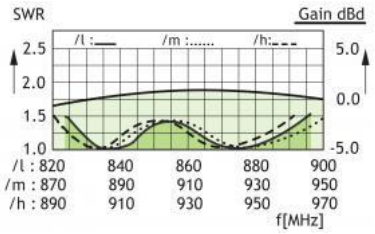
ELECTRICAL	
MODEL	CXL 900-1/...
ANTENNA TYPE	½ λ coaxial dipole, broad-banded
FREQUENCY	Models within 824 – 960 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	70 – 80 MHz
SWR	≤ 1.5
MAX. POWER	100 W
MECHANICAL	

TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.0070 m²
WIND LOAD	Approx. 9 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 420 mm
DIA. IN TOP END	12 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 350 g
MOUNTING	On 1” RG (G1”-11) threaded water pipe or on optional mounting brackets (see accessories)

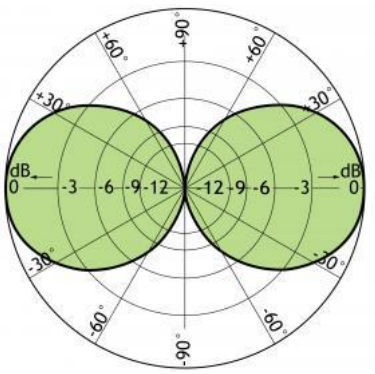
ACCESSORIES (to be ordered separately)



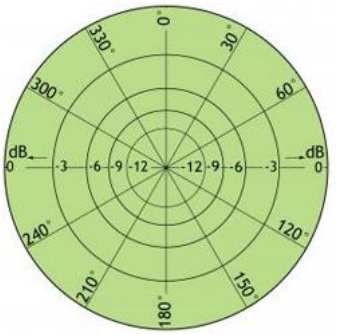
TYPICAL GAIN AND SWR CURVES

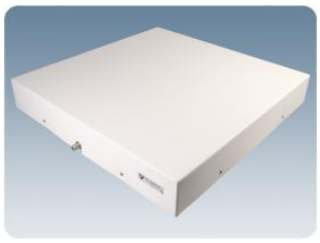


TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)


0°
30°
60°
120°
150°
180°
210°
240°
300°
330°
dB
0
-3
-6
-9
-12
-12
-9
-6
-3
dB
0



XCPI 160/RHCP

Indoor Right Hand Circular Polarized Antenna for the 160 Mhz Band

- Low profile antenna for the 160 MHz band.
- XCPI 160/RHCP is a Right Hand Circularly Polarized antenna for indoor use e.g. ceilings and walls inside ships and houses.
- Circularly polarization is chosen to avoid out-of-phase signals.

DESCRIPTION

- Reduces flutter considerably.
- Specially designed for closed rooms.
- Covers 144 - 175 MHz with a radiation of approx. 2 dBic.
- The antenna is carefully sealed with a discreet cover.
- The connector is placed at one side to enable mounting close to a wall or a ceiling.

ORDERING DESIGNATIONS

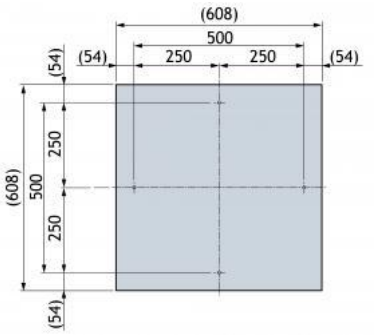
TYPE	PRODUCT NO.
XCPI 160/RHCP	100000154

SPECIFICATIONS

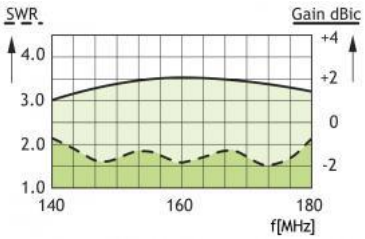
ELECTRICAL	
MODEL	XCPI 160/RHCP
ANTENNA TYPE	Right hand circularly polarized single band antenna
FREQUENCY	144 - 175 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Circular (Right hand)
GAIN	Approx. 2 dBic
HALF POWER BEAMWIDTH	Approx. 60º (H- and E-plane)
BANDWIDTH	≥ 31 MHz @ SWR ≤ 2
SWR	≤ 1.5 f.res.
MAX. POWER	50 W
MECHANICAL	
TEMP. RANGE	-30°C → +75°C
CONNECTOR	N-female
COLOUR	Marine white
MATERIALS	Cover: PS (white) Chassis: Stainless steel
SIZE (W x L x H)	Approx. 608 x 608 x 90 mm

WEIGHT	Approx. 5.5 kg
MOUNTING	ø 5.5 mm (4 holes) For optimum performance a groundplane of 1 x 1 m is required

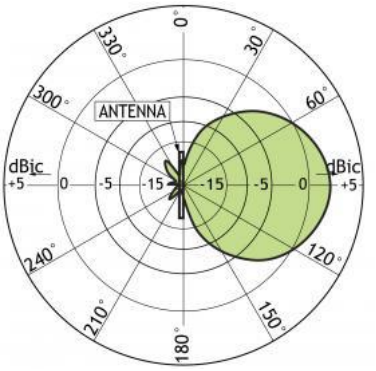
MOUNTING DETAILS (Dimensions excl. cover)



TYPICAL GAIN AND SWR CURVES

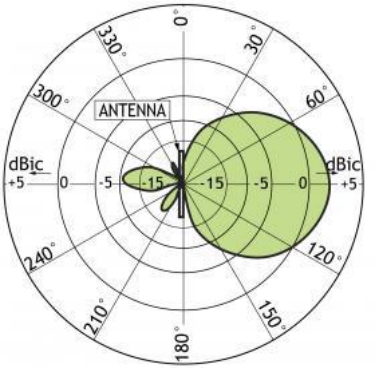


TYPICAL RADIATION PATTERN (E-PLANE)

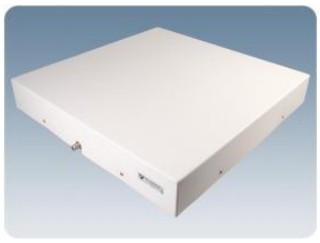


This curve shows the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)



This curve shows the radiation patterns in the horizontal plane (horizontal coverage).



XCPI 160/450/RHCP

Indoor Right Hand Circularly Polarized Antenna for the 160 Mhz and 450 MHz Bands

- Dual band indoor base station antenna - one antenna with two bands.
- Low profile antenna for the 160 MHz and 450 MHz bands.
- XCPI 160/450/RHCP/... is a Right Hand Circularly Polarized antenna for indoor use e.g. for ceilings and walls inside ships and houses.

DESCRIPTION

- Circularly polarized antenna to optimize indoor coverage.
- Reduces flutter considerably.
- Specially designed for closed rooms.
- Covers 160 MHz and 450 MHz bands with a gain of approx. 2 dBic for 160 MHz band and 5 dBic for 450 MHz band.
- The two built-in antennas are combined with a diplexer, built in diplexer, with low insertion loss, which makes it possible to have only one downlead cable.
- The antenna is carefully sealed with a discreet cover.
- The antenna is provided with one connector.
- The connector is placed at one side to enable mounting close to a wall or a ceiling.

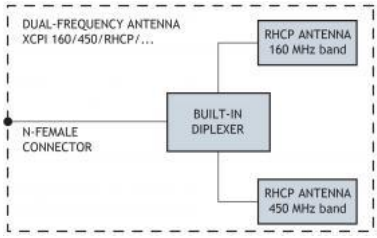
ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY
XCPI 160/450/RHCP/s	100000495	380 - 400 MHz
XCPI 160/450/RHCP/f	100000498	410 - 430 MHz
XCPI 160/450/RHCP/h	100000496	450 - 470 MHz

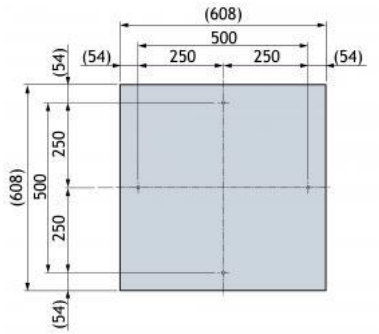
SPECIFICATIONS

ELECTRICAL	
MODEL	XCPI 160/450/RHCP/...
ANTENNA TYPE	Right hand circularly polarized dual band antenna
FREQUENCY Other frequency band available on request	160 MHz : 144 - 175 MHz 450 MHz : 380 - 400 MHz, 410 - 430 MHz, 450 - 470 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Circular (Right hand)

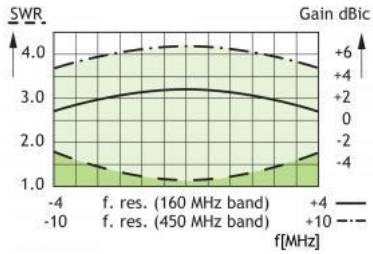
GAIN	
160 MHz :	Approx. 2 dBic
450 MHz :	Approx. 5 dBic
BANDWIDTH	160 MHz: ≥ 8 MHz 450 MHz: ≥ 20 MHz
HALF POWER BEAMWIDTH	Approx. 60º (H- and E-plane)
SWR	≤ 2
MAX. POWER	25 W
MECHANICAL	
TEMP. RANGE	-30°C → +75°C
CONNECTOR	N-female
COLOUR	Marine white
MATERIALS	Cover: PS (white) Chassis: Stainless steel
SIZE (W x L x H)	Approx. 608 x 608 x 90mm
WEIGHT	Approx. 6.0 kg
MOUNTING	ø 5.5 mm (four holes) For optimum performance a groundplane of 1 x 1 m is required
ELECTRICAL FOR BUILT-IN DIPLEXER	
FREQUENCY	Low port : 0 - 225 MHz High port : 330 - 1300 MHz
MAX. INPUT POWER	25 watts each port
INSERTION LOSS	0 - 225 MHz : < 0.5 dB 330 - 1300 MHz: < 0.5 dB
ISOLATION	Low to high port: > 45 dB



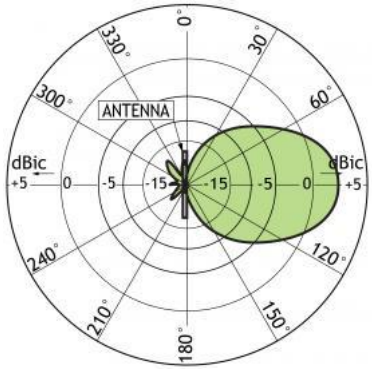
MOUNTING DETAILS (Dimensions excl. cover)



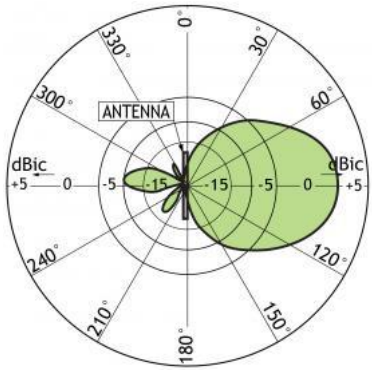
TYPICAL GAIN AND SWR CURVES



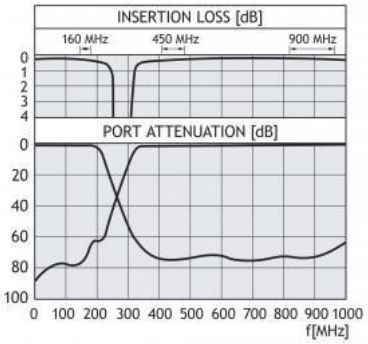
TYPICAL RADIATION PATTERN (E-PLANE) (160 MHz band)



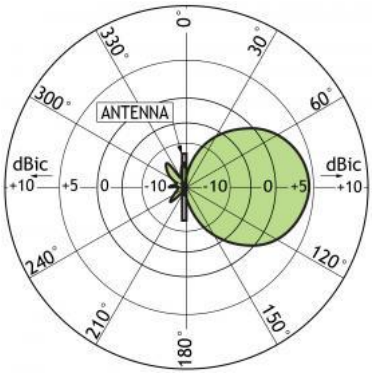
TYPICAL RADIATION PATTERN (H-PLANE) (160 MHz band)



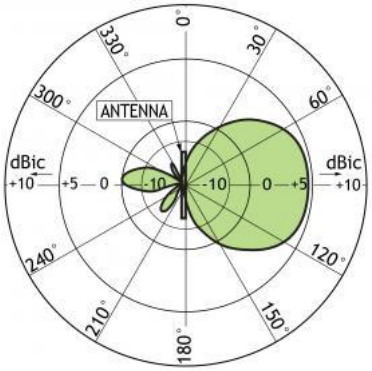
BUILT-IN DIPLEXER

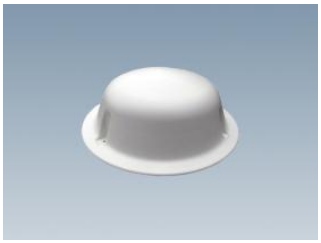


TYPICAL RADIATION PATTERN (E-PLANE) (450 MHz band)



TYPICAL RADIATION PATTERN (H-PLANE) (450 MHz band)





LPO TETRA/380-470

Indoor linearly polarized low-profile antennas for ceiling mounting.

- Low-profile antenna for the 380 - 470 MHz band.
- LPO TETRA/380-470 is a vertically polarized antenna for indoor use.

DESCRIPTION

- Specially designed for closed rooms.
- Covers 90 MHz with a radiation of approx. 1 dBi.
- The antenna is carefully sealed with a discreet cover.

ORDERING DESIGNATIONS

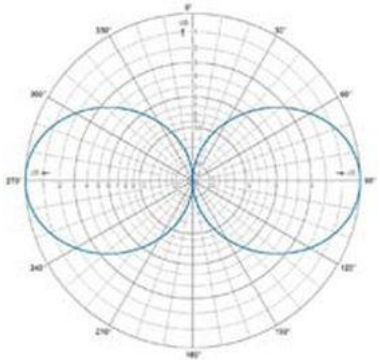
TYPE	FREQUENCY	PRODUCT NO.
LPO TETRA/380-470	380 - 470 MHz	802.00.05.00

SPECIFICATIONS

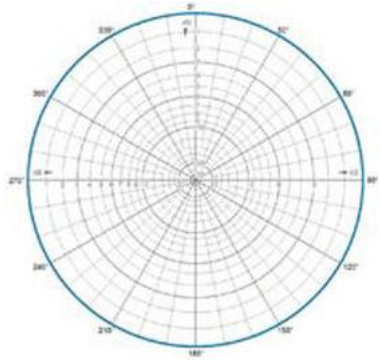
ELETRICAL			
MODEL	LPO TETRA/380-470		
ANTENNA TYPE	Vertically polarized low-profile antenna		
FREQUENCY	380 - 470 MHz		
IMPEDANCE	Nom. 50 Ω		
POLARIZATION	Linear (Vertically polarized)		
GAIN	1 dBi		
BANDWIDTH	≥ 90 MHz		
HALF-POWER BEAMWIDTH	E-plane 80° H-plane 360°		
SWR	≤ 2.0		
MAX. POWER	50 W		
IM3			
MECHANICAL			
CONNECTOR	500 mm / 19.69 in. RG 303 term; "N"-type socket		
RADOME	ABS White fire retardant		
MATERIALS	Element: FR4 Printed circuit		
SIZE (D x H)	ø231 mm x 81 mm / ø9.09 in. x 3.19 in.		
WEIGHT	Approx. 0.4 kg / 0.88 lb.		
MOUNTING	Via 3 screws on 180 mm / 7.09 in. PCD		

IP-RATING	IP65	

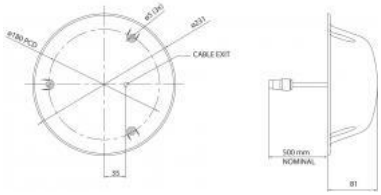
TYPICAL RADIATION PATTERN (E-plane)

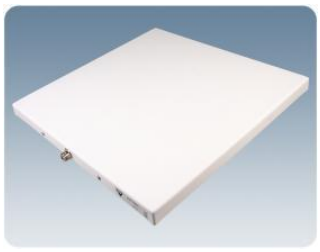


TYPICAL RADIATION PATTERN (H-plane)



DIMENSIONS



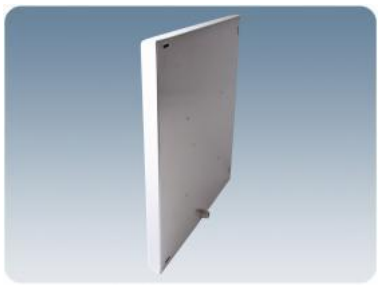


PCPI 70/xH/

Indoor Left or Right Hand Circularly Polarized Patch Antennas for mounting on Wall or Ceiling

- Low-profile antenna for the 450 MHz band.
- PCPI 70/xH/... is a Left or Right Hand Circularly Polarized patch antenna for indoor use.
- Circularly polarized antenna is chosen to avoid out-of-phase signals.

- Reduces flutter considerably.
- Specially designed for closed rooms.
- Covers approx. 20 MHz with a radiation of approx. 7 dBic 3 dBd.
- Full size ½ λ patch antennas.
- The antennas are carefully sealed with a discrete cover.
- The connector is placed at one side to enable mounting close to a wall or a ceiling.
- Chassis also available in stainless steel PCPI 70R/xH/... (see ordering designations below).
- Connection also available on backside (see overleaf).



ORDERING DESIGNATIONS

STANDARD VERSION ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY
PCPI 70/LH/s	100000146	380 - 400 MHz
PCPI 70/LH/f	100000147	410 - 430 MHz
PCPI 70/LH/l	100000148	430 - 450 MHz
PCPI 70/LH/h	100000149	450 - 470 MHz
PCPI 70/RH/s	100000145	380 - 400 MHz
PCPI 70/RH/f	100000143	410 - 430 MHz
PCPI 70/RH/l	100000144	430 - 450 MHz
PCPI 70/RH/h	100000150	450 - 470 MHz

STAINLESS STEEL VERSION ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY
PCPI 70R/LH/s	100000302	380 - 400 MHz
PCPI 70R/LH/f	100000303	410 - 430 MHz

PCPI 70R/LH/l	100000304	430 - 450 MHz
PCPI 70R/LH/h	100000305	450 - 470 MHz
PCPI 70R/RH/s	100000306	380 - 400 MHz
PCPI 70R/RH/f	100000151	410 - 430 MHz
PCPI 70R/RH/l	100000307	430 - 450 MHz
PCPI 70R/RH/h	100000152	450 - 470 MHz

BC VERSION ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY
PCPI 70/LH/s-BC	100000337	380 - 400 MHz
PCPI 70/LH/f-BC	100000338	410 - 430 MHz
PCPI 70/LH/l-BC	100000339	430 - 450 MHz
PCPI 70/LH/h-BC	100000340	450 - 470 MHz
PCPI 70/RH/s-BC	100000333	380 - 400 MHz
PCPI 70/RH/f-BC	100000334	410 - 430 MHz
PCPI 70/RH/l-BC	100000335	430 - 450 MHz
PCPI 70/RH/h-BC	100000336	450 - 470 MHz

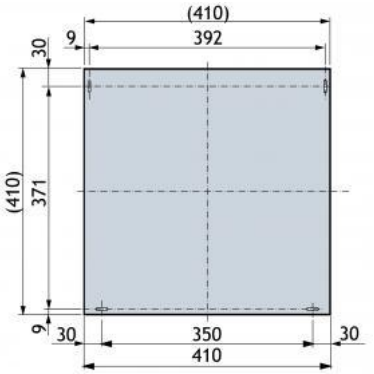
SPECIFICATIONS

ELETRICAL	
MODEL	PCPI 70/xH/...
ANTENNA TYPE	Left or right hand circularly polarized patch antenna
FREQUENCY	380 - 470 MHz covered by four models
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Circular
GAIN	Approx. 7 dBic 3 dBd
BANDWIDTH	≥ 20 MHz @ SWR ≤ 1.8
HALF POWER BEAMWIDTH	Approx. 80° (H- and E-plane)
SWR	≤ 1.5 f.res.
MAX. POWER	100 W
MECHANICAL	
TEMP. RANGE	-30°C → +75°C
CONNECTOR	N-female

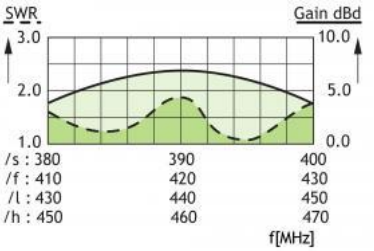
COLOUR	Marine white
MATERIALS	Cover: PS (white) Chassis: Aluminium
SIZE (L x W x H)	Approx. 415 x 415 x 25 mm
WEIGHT	Approx. 1.8 kg
MOUNTING	For mounting on wall or ceiling ø4.5 x 20 mm (four holes)

MOUNTING & PATTERN

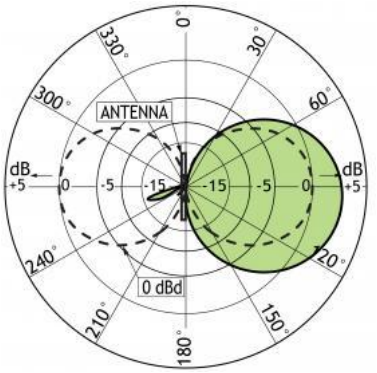
MOUNTING DETAILS (Dimensions excl. cover)



TYPICAL GAIN AND SWR CURVES



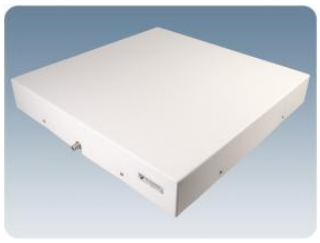
TYPICAL RADIATION PATTERN (E-PLANE)



This curve shows the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)

This curve shows the radiation patterns in the horizontal plane (horizontal coverage).



XCPI 160/900/1800/1900/2100/R

Indoor Right Hand Circularly Polarized Antenna for the 160 Mhz, GSM, DCS, PCS and UMTS Bands

- Quin band indoor base station antenna - one antenna with five bands.
- Low profile antenna for the 160 MHz, GSM, DCS, PCS and UMTS bands.
- XCPI 160/900/1800/1900/2100/R is a right hand circularly polarized antenna for indoor use e.g. on ceilings and walls inside ships and houses.

DESCRIPTION

- Circularly polarized antenna is chosen to avoid out-of-phase signals.
- Reduces flutter considerably.
- Specially designed for closed rooms.
- Covers 160 MHz, GSM, DCS, PCS and UMTS bands with a radiation of approx. 2 dBic.
- The built-in antennas are combined with built in diplexers, with low insertion loss, which make it possible to have only one downlead cable.
- The antenna is carefully sealed with a discreet cover.
- The antenna is provided with one connector.
- The connector is placed at one side to enable mounting close to a wall or a ceiling.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
XCPI 160/900/1800/1900/2100/R	100000203

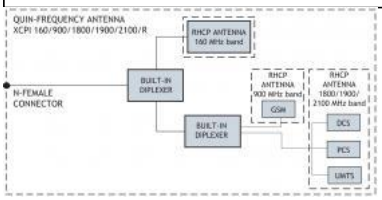
SPECIFICATIONS

ELECTRICAL	
MODEL	XCPI 160/900/1800/1900/2100/R
ANTENNA TYPE	Right hand circularly polarzsed quin band antenna
FREQUENCY	160 MHz: 144 - 175 MHz GSM: 880 - 960 MHz DCS: 1710 - 1880 MHz PCS: 1850 - 1990 MHz UMTS: 1910 - 2200 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Circular (right hand)
GAIN	Approx. 2 dBic
BANDWIDTH	160 MHz: ≥ 31 MHz @ SWR ≤ 2.5 GSM: ≥ 80 MHz @ SWR ≤ 2.5

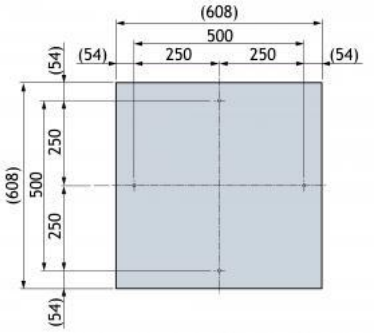
	DCS: ≥ 170 MHz @ SWR ≤ 2.0 PCS: ≥ 140 MHz @ SWR ≤ 2.0 UMTS: ≥ 240 MHz @ SWR ≤ 3.0
HALF POWER BEAMWIDTH	Approx. 60º (H- and E-plane)
SWR	≤ 1.5 f.res.
MAX. POWER	25 W
MECHANICAL	
CONNECTOR	N-female
COLOUR	Marine white
MATERIALS	Cover: PS (white) Chassis: Stainless steel
SIZE (W x L x H)	Approx. 608 x 608 x 90 mm
WEIGHT	Approx. 10 kg
MOUNTING	ø 5.5 mm (four holes). For optimum performance a groundplane of 1 x 1 m is required

SPECIFICATIONS DIPLEXER

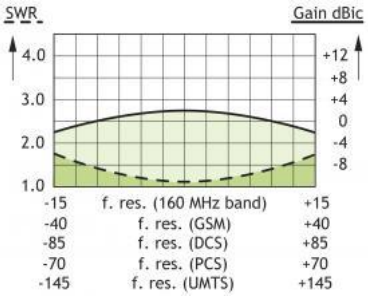
ELECTRICAL FOR BUILT-IN DIPLEXER DIPX 225/330	
FREQUENCY	Low port : 0 - 225 MHz High port : 330 - 1300 MHz
MAX. INPUT POWER	25 W each port
INSERTION LOSS	0 - 225 MHz : ≤ 0.5 dB 330 - 1300 MHz : ≤ 0.5 MHz
ISOLATION	Low to high port : ≥45 dB
ELECTRICAL FOR BUILT-IN DIPLEXER DIPX 1000/1550	
FREQUENCY	Low port : 0 - 1000 MHz High port : 1550 - 2500 MHz
MAX. INPUT POWER	35 W each port
INSERTION LOSS	0 - 1000 MHz : ≤ 0.5 dB 1550 - 2500 MHz : ≤ 0.5 MHz
ISOLATION	Low to high port : ≥ 45 dB



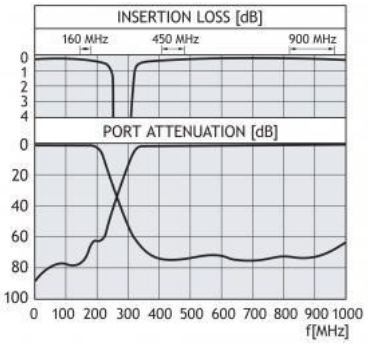
MOUNTING DETAILS



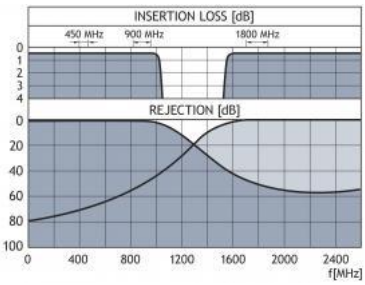
TYPICAL GAIN AND SWR CURVES



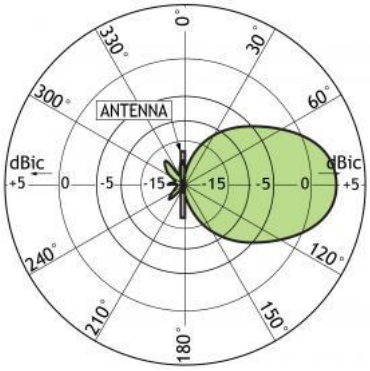
BUILT-IN DIPLEXER



BUILT-IN DIPLEXER

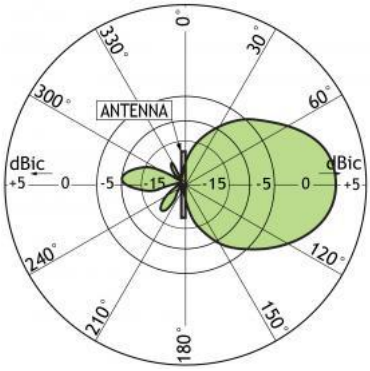


TYPICAL RADIATION PATTERN (E-PLANE)

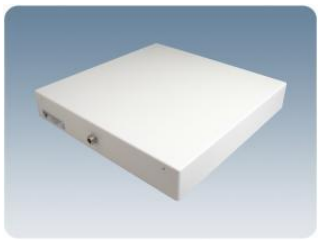


This curve shows the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)



This curve shows the radiation patterns in the horizontal plane.



PCPI xH/TETRA/...

Indoor Left or Right Hand Circularly Polarized Patch Antennas for mounting on Wall or Ceiling

- Low-profile antenna for the 380 - 470 MHz band.
- PCPI xH/TETRA/... is a Left or Right Hand Circularly Polarized patch antenna for indoor use.
- Circular polarization is chosen to avoid out-of-phase signals.
- Reduces flutter considerably.

- Specially designed for closed rooms.
- Covers approx. 50 MHz with a radiation of approx. 7 dBic.
- The antennas are carefully sealed with a discreet cover.
- The connector is placed at one side to enable mounting close to a wall or a ceiling.
- Including mounting bracket.
- Connection also available on backside (see overleaf).

ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
PCPI RH/TETRA/s-f	380 - 430 MHz	100000426
PCPI LH/TETRA/s-f	380 - 430 MHz	100000425
PCPI RH/TETRA/l-h	430 - 470 MHz	100000442
PCPI LH/TETRA/l-h	430 - 470 MHz	100000441
ACCESSORIES		
PATCH-WAMO		100000511

BACK CONNECTOR VERSION ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
PCPI RH/TETRA/s-f-BC	380 - 430 MHz	100000468
PCPI LH/TETRA/s-f-BC	380 - 430 MHz	
PCPI RH/TETRA/l-h-BC	430 - 470 MHz	
PCPI LH/TETRA/l-h-BC	430 - 470 MHz	

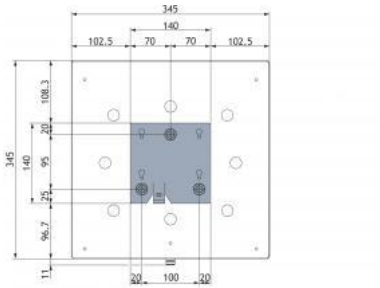
SPECIFICATIONS

ELETRICAL	
MODEL	PCPI xH/TETRA/...
ANTENNA TYPE	Left or right hand circularly polarized patch antenna
FREQUENCY	380 - 470 MHz covered by two models
IMPEDANCE	Nom. 50 Ω

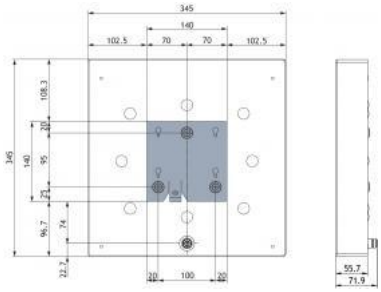
POLARIZATION	Circular
GAIN	Approx. 7 dBic
BANDWIDTH	≥ 50 MHz
HALF POWER BEAMWIDTH	Approx. 80° (H- and E-plane)
SWR	≤ 2
MAX. POWER	100 W
MECHANICAL	
TEMP. RANGE	-30° C → +75° C
CONNECTOR	N-female
COLOUR	Marine white
MATERIALS	Cover: ABS (white) Chassis: Aluminium
SIZE (L x W x H)	Approx. 345 x 345 x 60 mm / 13.58 x 13.58 x 2.36 in.
WEIGHT	Approx. 2.3 kg / 5.07 lb.
MOUNTING	For mounting on wall or ceiling ø5 mm / 0.20 in. (three holes) (see mounting details)

MOUNTING & PATTERN

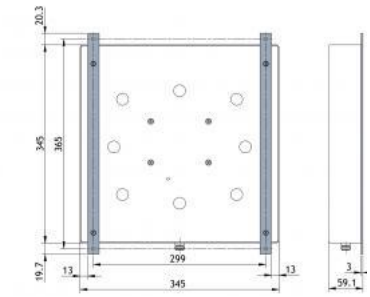
MOUNTING DETAILS (wall mounting bracket included)



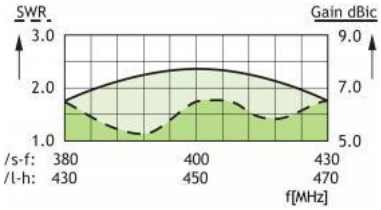
MOUNTING DETAILS BACK CONNECTOR VERSION (wall mounting bracket included)



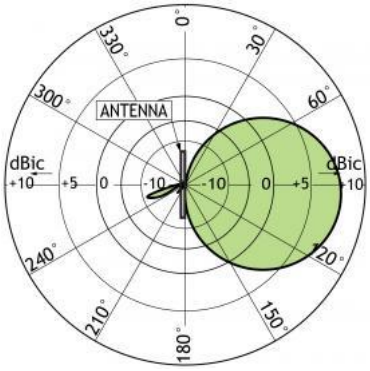
MOUNTING DETAILS PATCH-WAMO (ordered separately)



TYPICAL GAIN AND SWR CURVES



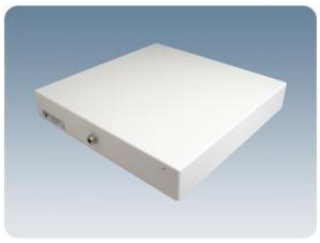
TYPICAL RADIATION PATTERN (E-PLANE)



This curve shows the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)

This curve shows the radiation patterns in the horizontal plane (horizontal coverage).



PCPO xH/TETRA/

Outdoor Left or Right Hand Circularly Polarized Patch Antennas for mounting on Wall or Mast

- Low-profile antenna for the 380 - 470 MHz band.
- PCPO xH/TETRA/... is a Left or Right Hand Circularly Polarized patch antenna for outdoor use.
- Circular polarization is chosen to avoid out-of-phase signals.

- Reduces flutter considerably.
- Covers approx. 50 MHz with a radiation of approx. 7 dBic.
- The antennas are carefully sealed with a discrete cover.
- The connector is placed at one side to enable mounting close to a wall.
- Including wall mounting bracket. PATCH-MAMO and PATCH/WAMO to be ordered separately.

ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
PCPO RH/TETRA/s-f	380 - 430 MHz	100000428
PCPO LH/TETRA/s-f	380 - 430 MHz	100000427
PCPO RH/TETRA/l-h	430 - 470 MHz	100000443
PCPO LH/TETRA/l-h	430 - 470 MHz	100000444
ACCESSORIES		
PATCH-MAMO		100000447
PATCH-WAMO		100000511

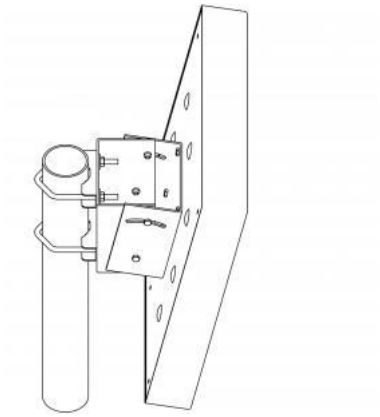
SPECIFICATIONS

ELETRICAL	
MODEL	PCPO xH/TETRA/...
ANTENNA TYPE	Left or right hand circularly polarized patch antenna
FREQUENCY	380 - 470 MHz covered by two models
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Circular
GAIN	Approx. 7 dBic
BANDWIDTH	≥ 50 MHz
HALF-POWER BEAMWIDTH	Approx. 80° (H- and E-plane)
SWR	≤ 2
MAX. POWER	100 W

MECHANICAL	
TEMP. RANGE	-30° C → +75° C
CONNECTOR	N-female
WIND LOAD	173 N @ 160 km/h / 173 N @ 100 mph.
COLOUR	Marine white
MATERIALS	Cover: ABS (white) Chassis: Aluminium
SIZE (L x W x H)	Approx. 345 x 345 x 60 mm / 13.58 x 13.58 x 2.36 in.
WEIGHT	Approx. 2.3 kg / 5.07 lb.
MOUNTING	For mounting on wall ø5 mm (three holes) (see mounting details) or mast on 40 - 55 mm / 1.57 x 2.17 in. dia. mast tube.

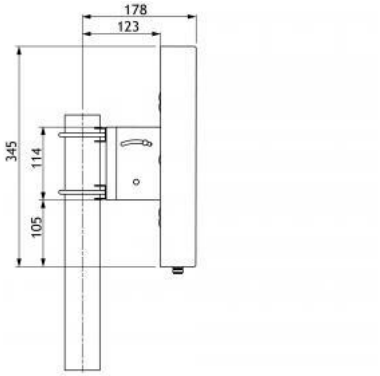
MOUNTING & GAIN

Mast mounting bracket: PATCH-MAMO (ordered separately)

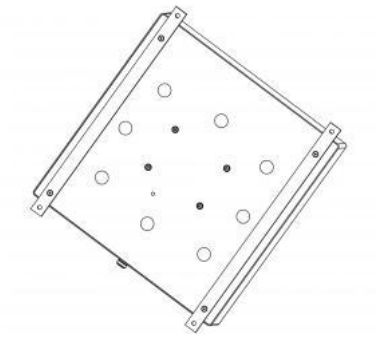


Tilt adjustable from +5˚/-30˚.

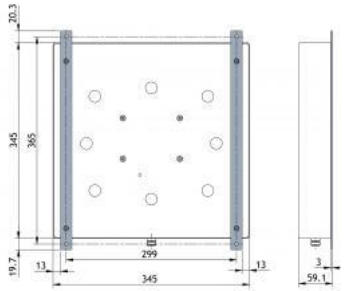
MOUNTING DETAILS (PATCH-MAMO)



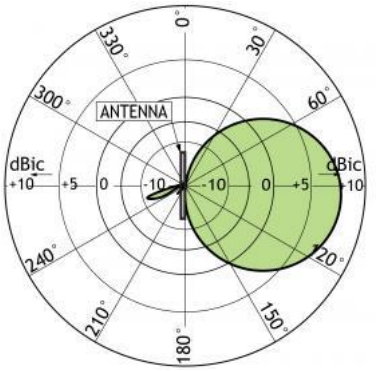
Wall mounting bracket: PATCH-WAMO (ordered separately)



MOUNTING DETAILS (PATCH-WAMO)

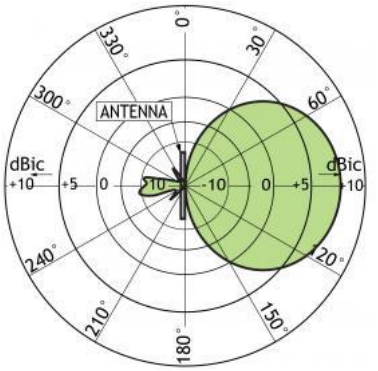


TYPICAL RADIATION PATTERN (E-PLANE)

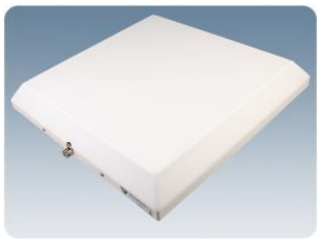


This curve shows the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)



This curve shows the radiation patterns in the horizontal plane (horizontal coverage).



PCPI TETRA/LTE 800/RH

Indoor Right Hand Circularly Polarized Antenna for the TETRA and LTE Bands

- Dual-band low-profile antenna for indoor use.
- Right hand circulary polarized, 7 dBic antenna specially designed for closed rooms. For use e.g. on ceilings and walls inside ships and buildings.

- Circular polarization is chosen to improve link quality.
- Built-in diplexers with low insertion loss make it possible to have only one connector.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PCPI TETRA/LTE 800/RH	100000522

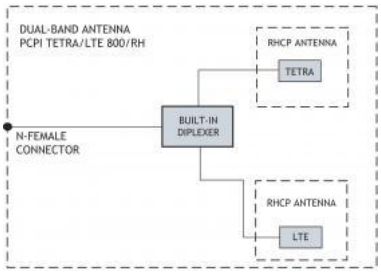
SPECIFICATIONS

ELECTRICAL	
MODEL	PCPI TETRA/LTE 800/RH
ANTENNA TYPE	Right hand circularly polarized antenna
FREQUENCY	TETRA: 380 - 430 MHz LTE: 790 - 850 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Circular (right hand)
GAIN	Approx. 7 dBic
HALF POWER BEAMWIDTH	Approx. 60º (H- and E-plane)
SWR	≤ 2
MAX. POWER	35 W
MECHANICAL	
TEMP. RANGE	-30°C → +75°C
CONNECTOR	N-female
COLOUR	Marine white
MATERIALS	Cover: PS (white) Chassis: Aluminium
SIZE (L x W x H)	Approx. 415 x 415 x 70 mm / 16.34 x 16.34 x 2.76 in.
WEIGHT	Approx. 1.9 kg / 4.19 lb.
MOUNTING	ø 4.5 mm (four holes)

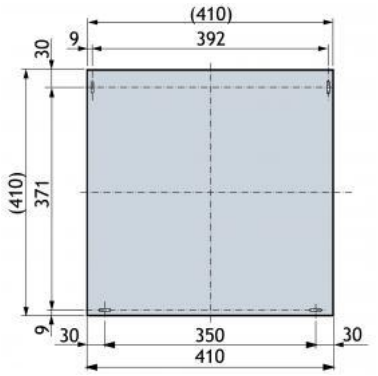
SPECIFICATIONS DIPLEXER

ELECTRICAL FOR BUILT-IN DIPLEXER DIPX 500/800	
FREQUENCY	Low port : 0 - 500 MHz High port : 800 - 1300 MHz
MAX. INPUT POWER	35 W each port
INSERTION LOSS	0 - 500 MHz : ≤ 0.7 dB 800 - 1300 MHz : ≤ 0.7 dB
ISOLATION	Low to high port : ≥45 dB

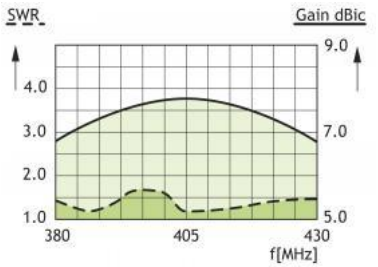
MOUNTING & PATTERN



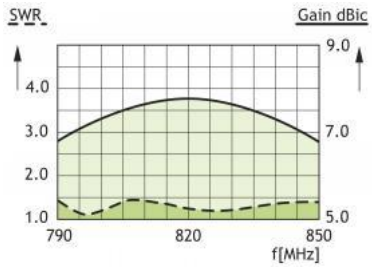
MOUNTING DETAILS (Dimensions excl. cover)



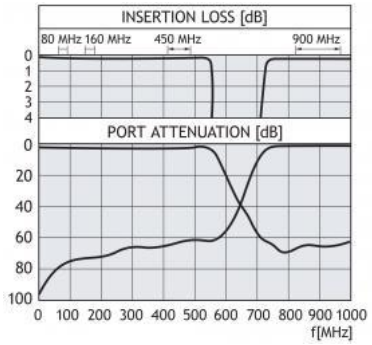
TYPICAL GAIN AND SWR CURVES



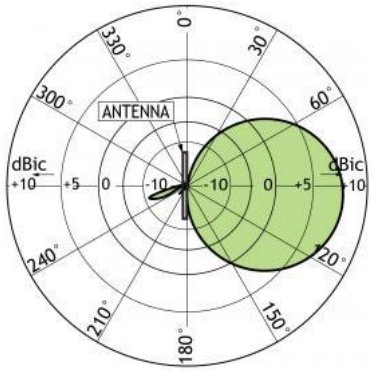
TYPICAL GAIN AND SWR CURVES



BUILT-IN DIPLEXER

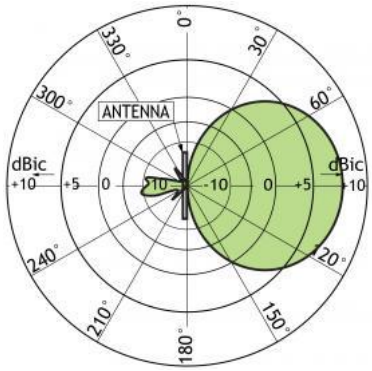


TYPICAL RADIATION PATTERN (E-PLANE)

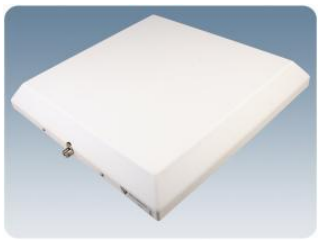


This curve shows the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)



This curve shows the radiation patterns in the horizontal plane (horizontal coverage).



PCPI 70/900/xHCP

Indoor Left or Right Hand Circularly Polarized Antenna for the 450 MHz and RHCP for 900 MHz Bands

- Dual band indoor base station antenna - one antenna with two bands.
- Low profile antenna for the 450 MHz and 900 MHz bands.
- PCPI 70/900/xHCP/... is a Left or Right Hand Circularly Polarized antenna for indoor use e.g. on ceilings and walls inside ships and houses.

- 900 MHz band is fixed RHCP.
- Circularly polarized antenna is chosen to avoid out-of-phase signals.
- Reduces flutter considerably.
- Specially designed for closed rooms.
- Covers 450 MHz and 900 MHz bands with a radiation of approx. 2 dBic 0 dBd.
- The two built in antennas are combined with a built in diplexer, with low insertion loss, which makes it possible to have only one downlead cable.
- The antenna is carefully sealed with a discreet cover.
- The antenna is provided with one connector.
- The connector is placed at one side to enable mounting close to a wall or a ceiling.
- Chassis also available in stainless steel PCPI 70R/900/xHCP/... (see ordering designations below).

ORDERING DESIGNATIONS

STANDARD VERSION ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
PCPI 70/900/LHCP/s	380 - 400 MHz	100000248
PCPI 70/900/LHCP/f	410 - 430 MHz	100000249
PCPI 70/900/LHCP/l	430 - 450 MHz	100000250
PCPI 70/900/LHCP/h	450 - 470 MHz	100000251
TYPE	FREQUENCY	PRODUCT NO.
PCPI 70/900/RHCP/s	380 - 400 MHz	100000252
PCPI 70/900/RHCP/f	410 - 430 MHz	100000253
PCPI 70/900/RHCP/l	430 - 450 MHz	100000254
PCPI 70/900/RHCP/h	450 - 470 MHz	100000255

STAINLESS STEEL VERSION ORDERING DESIGNATIONS

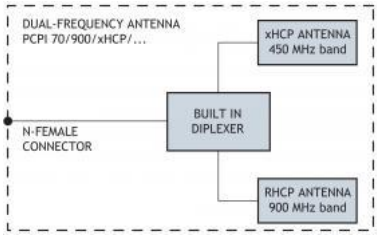
TYPE	FREQUENCY	PRODUCT NO.
PCPI 70R/900/LHCP/s	380 - 400 MHz	100000256
PCPI 70R/900/LHCP/f	410 - 430 MHz	100000257
PCPI 70R/900/LHCP/l	430 - 450 MHz	100000258
PCPI 70R/900/LHCP/h	450 - 470 MHz	100000259
TYPE	FREQUENCY	PRODUCT NO.
PCPI 70R/900/RHCP/s	380 - 400 MHz	100000260

PCPI 70R/900/RHCP/f	410 - 430 MHz	100000261
PCPI 70R/900/RHCP/l	430 - 450 MHz	100000262
PCPI 70R/900/RHCP/h	450 - 470 MHz	100000263

SPECIFICATIONS

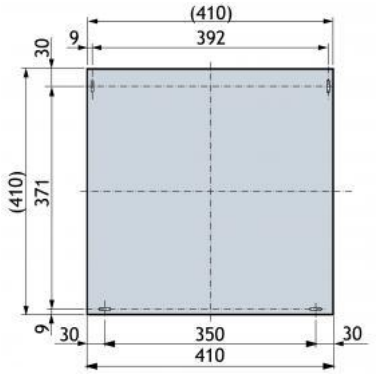
ELECTRICAL	
MODEL	PCPI 70/900/xHCP/...
ANTENNA TYPE	Left or right hand circularly polarized dual band antenna
FREQUENCY	450 MHz freq. to be stated within: 380 - 470 MHz 900 MHz freq. to be stated within: 880 - 960 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Circular
GAIN	Approx. 2 dBic 0 dBd ± 3 dB
BANDWIDTH	450 MHz: ≥ 20 MHz @ SWR ≤ 2.0 900 MHz: ≥ 80 MHz @ SWR ≤ 2.0
HALF POWER BEAMWIDTH	Approx. 60º (H- and E-plane)
SWR	≤ 1.5 f.res.
MAX. POWER	35 W
MECHANICAL	
CONNECTOR	N-female
COLOUR	Marine white
MATERIALS	Cover: PS (white) Chassis: Aluminium
SIZE (W x L x H)	Approx. 415 x 415 x 70 mm
WEIGHT	Approx. 2.0 kg
MOUNTING	For mounting on wall or ceiling ø4.5 x 20 mm (four holes)
ELECTRICAL FOR BUILT IN DIPLEXER	
MODEL	DIPX 500/800
FREQUENCY	Low port : 0 - 500 MHz High port : 800 - 1300 MHz
MAX. INPUT POWER	35 W each port
INSERTION LOSS	0 - 500 MHz : ≤ 0.5 dB 800 - 1300 MHz: ≤ 0.5 dB
ISOLATION	Low to high port: ≥ 45 dB
TEMP. RANGE	–30° C → +70° C

MOUNTING & PATTERN

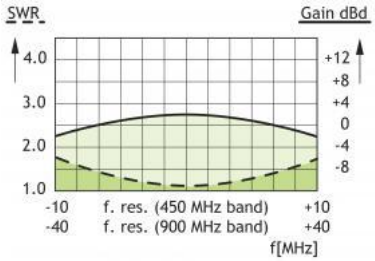


MOUNTING DETAILS

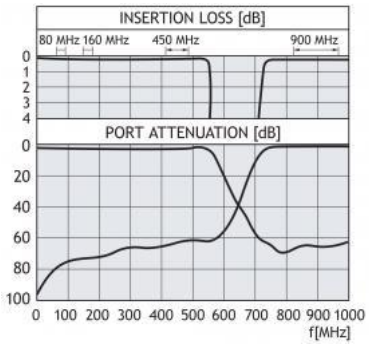
(Dimensions excl. cover)



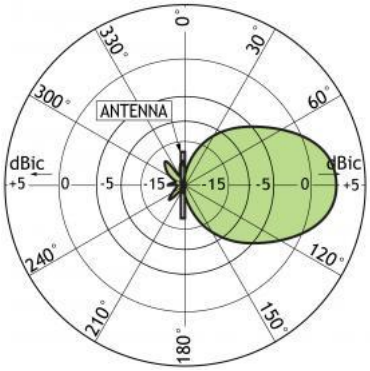
TYPICAL GAIN AND SWR CURVES



BUILT-IN DIPLEXER

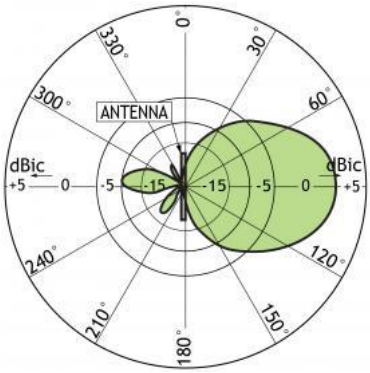


TYPICAL RADIATION PATTERN (E-PLANE)

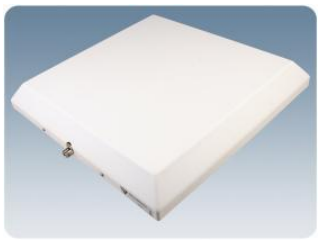


This curve shows the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)



This curve shows the radiation patterns in the horizontal plane.



PCPI 70/900/1800/PCS/UMTS/R/...

Indoor Right Hand Circular Polarized Antenna for the 450 MHz, GSM, DCS, PCS and UMTS Bands

- 5-band indoor base station antenna - one antenna with five bands.
- Right hand circular polarized, 7 dBic antenna specially designed for closed rooms. For use e.g. on ceilings and walls inside ships and buildings.

- Circular polarization is chosen to improve link quality.
- Built-in diplexers with low insertion loss make it possible to have only one connector.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY
PCPI 70/900/1800/PCS/UMTS/R/s	100000391	380 - 400 MHz
PCPI 70/900/1800/PCS/UMTS/R/f	100000392	410 - 430 MHz
PCPI 70/900/1800/PCS/UMTS/R/l	100000393	430 - 450 MHz
PCPI 70/900/1800/PCS/UMTS/R/h	100000394	450 - 470 MHz

SPECIFICATIONS

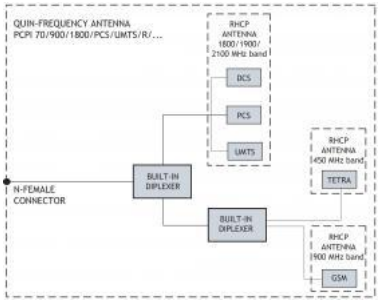
ELECTRICAL	
MODEL	PCPI 70/900/1800/PCS/UMTS/R/...
ANTENNA TYPE	Right hand circular polarized 5-band antenna
FREQUENCY	450 MHz: 380 - 470 MHz GSM: 880 - 960 MHz DCS: 1710 - 1880 MHz PCS: 1850 - 1990 MHz UMTS: 1910 - 2200 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Circular (right hand)
GAIN	Approx. 7 dBic
BANDWIDTH	450 MHz: ≥ 20 MHz @ SWR ≤ 2.0 GSM: ≥ 80 MHz @ SWR ≤ 2.0 DCS: ≥ 170 MHz @ SWR ≤ 3.0 PCS: ≥ 140 MHz @ SWR ≤ 3.0 UMTS: ≥ 290 MHz @ SWR ≤ 3.0

HALF POWER BEAMWIDTH	Approx. 60º (H- and E-plane)
SWR	≤ 1.5 f.res.
MAX. POWER	25 W
MECHANICAL	
CONNECTOR	N-female
COLOUR	Marine white
MATERIALS	Cover: PS (white) Chassis: Aluminium
SIZE (L x W x H)	Approx. 415 x 415 x 70 mm
WEIGHT	Approx. 2 kg
MOUNTING	ø 4.5 mm (4 holes)

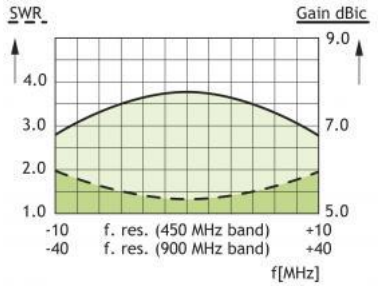
SPECIFICATIONS DIPLEXER

ELECTRICAL FOR BUILT-IN DIPLEXER DIPX 500/800	
FREQUENCY	Low port : 0 - 500 MHz High port : 800 - 1300 MHz
MAX. INPUT POWER	35 W each port
INSERTION LOSS	0 - 500 MHz : ≤ 0.7 dB 800 - 1300 MHz : ≤ 0.7 dB
ISOLATION	Low to high port : ≥45 dB
ELECTRICAL FOR BUILT-IN DIPLEXER DIPX 1000/1550	
FREQUENCY	Low port : 0 - 1000 MHz High port : 1550 - 2500 MHz
MAX. INPUT POWER	35 W each port
INSERTION LOSS	0 - 1000 MHz : ≤ 0.8 dB 1550 - 2500 MHz : ≤ 1.0 dB
ISOLATION	Low to high port : ≥ 45 dB

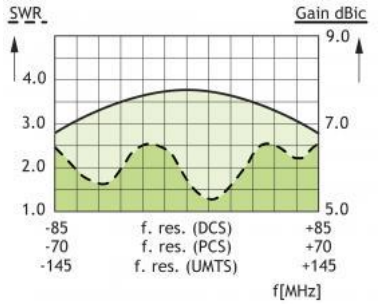
GAIN & PATTERN



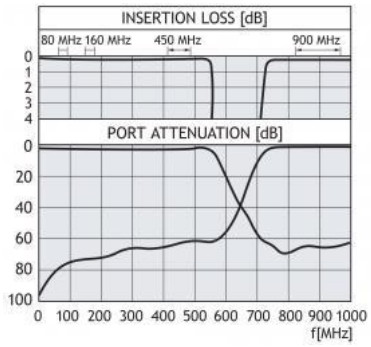
TYPICAL GAIN AND SWR CURVES



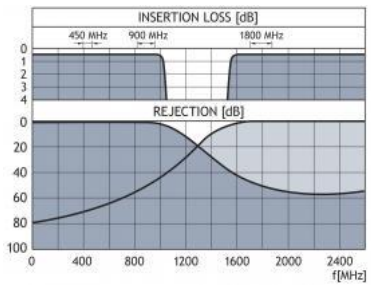
TYPICAL GAIN AND SWR CURVES



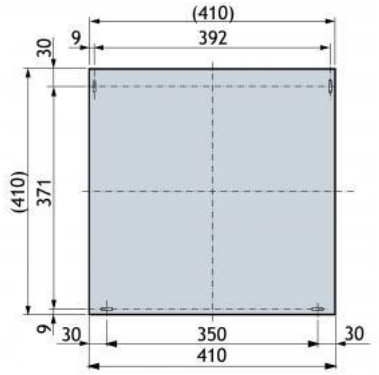
BUILT-IN DIPLEXER



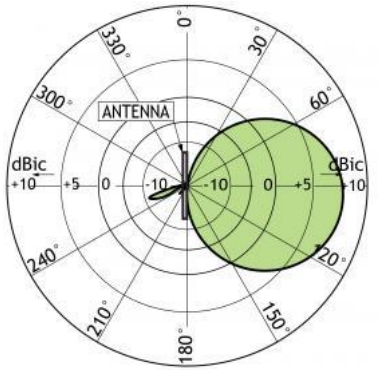
BUILT-IN DIPLEXER



MOUNTING DETAILS (Dimensions excl. cover)



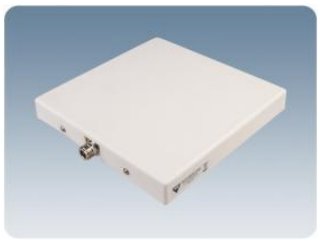
TYPICAL RADIATION PATTERN (E-PLANE)



This curve shows the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)

This curve shows the radiation patterns in the horizontal plane (horizontal coverage).



PCPI 800/xH

Indoor Left or Right Hand Circularly Polarized Patch Antenna for mounting on Wall or Ceiling

- Low profile antenna for the 800 MHz Band.
- PCPI 800/xH is a Left or Right Hand Circularly Polarized patch antenna for indoor use.
- Circularly polarized antenna is chosen to avoid out-of-phase signals.

- Specially designed for closed rooms.
- Covers approx. 80 MHz with a radiation of approx. 7 dBic.
- The antenna is carefully sealed with a discreet white cover.
- The connector is placed at one side to enable mounting close to a wall or a ceiling.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PCPI 800/LH	100000396
PCPI 800/RH	100000397

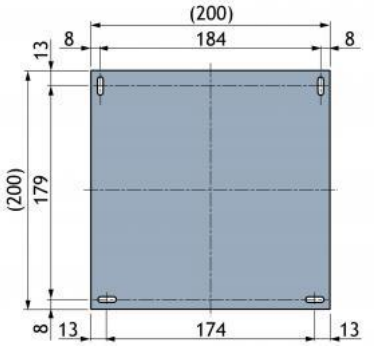
SPECIFICATIONS

ELECTRICAL	
MODEL	PCPI 800/xH
ANTENNA TYPE	Left or right hand circularly polarized patch antenna
FREQUENCY	800 - 880 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Circular
GAIN	Approx. 7 dBic
BANDWIDTH	≥ 80 MHz @ SWR ≤ 2.0
HALF-POWER BEAMWIDTH	Approx. 80° (H- and E-plane)
SWR	≤ 1.5 f.res.
MAX. POWER	50 W
MECHANICAL	
CONNECTOR	N-female
COLOUR	Marine white
MATERIALS	Cover: ABS Chassis: Aluminium
SIZE (L x W x H)	Approx. 204 x 204 x 28 mm
WEIGHT	Approx. 0.4 kg

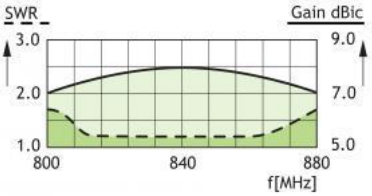
MOUNTING	For mounting on wall or ceiling ø4.5 x 20 mm (4 holes)

MOUNTING & PATTERN

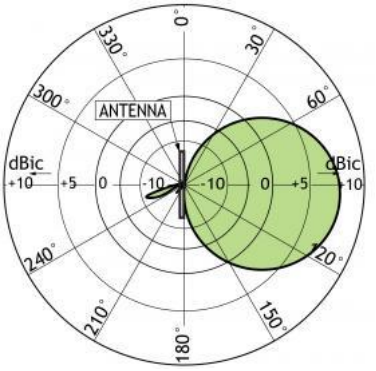
MOUNTING DETAILS (Dimensions excl. cover)



TYPICAL GAIN AND SWR CURVES

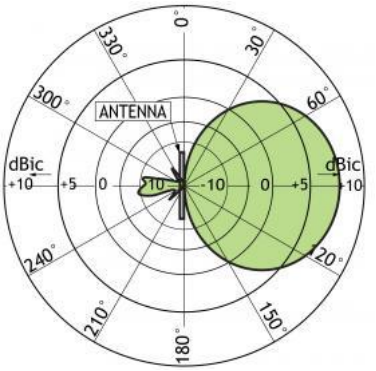


TYPICAL RADIATION PATTERN (E-PLANE)

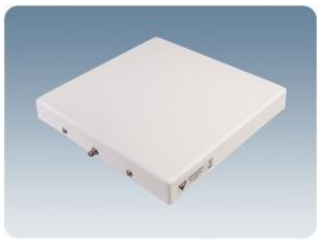


This curve shows the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)



This curve shows the radiation patterns in the horizontal plane (horizontal coverage).



PCPI 900/RHCP

Indoor Right Hand Circularly Polarized Patch Antenna for mounting on Wall or Ceiling

- Low profile antenna for the 900 MHz Band.
- PCPI 900/RHCP is a Right Hand Circularly Polarized patch antenna for indoor use.
- Circularly polarized antenna is chosen to avoid out-of-phase signals.

- Specially designed for closed rooms.
- Covers approx. 80 MHz with a radiation of approx. 7 dBic.
- Full size 2 λ circular patch antenna.
- The antenna is carefully sealed with a discreet white cover.
- The connector is placed at one side to enable mounting close to a wall or a ceiling.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PCPI 900/RHCP	100000159

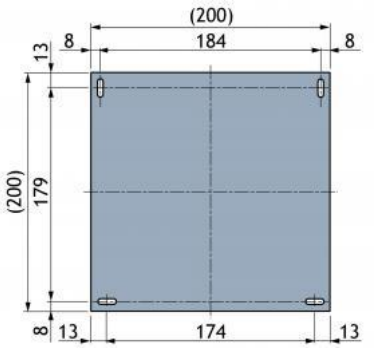
SPECIFICATIONS

ELECTRICAL	
MODEL	PCPI 900/RHCP
ANTENNA TYPE	Right Hand Circularly Polarized patch antenna
FREQUENCY	880 - 960 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Circular
GAIN	Approx. 7 dBic
BANDWIDTH	≥ 80 MHz
HALF-POWER BEAMWIDTH	Approx. 80° (H- and E-plane)
SWR	≤ 2.0
MAX. POWER	50 W
MECHANICAL	
CONNECTOR	SMA-female
COLOUR	Marine white
MATERIALS	Cover: ABS Chassis: Aluminium
SIZE (L x W x H)	Approx. 204 x 204 x 28 mm
WEIGHT	Approx. 0.4 kg

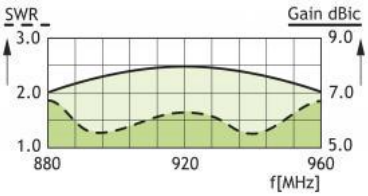
MOUNTING	For mounting on wall or ceiling ø4.5 x 20 mm (4 holes)

MOUNTING & PATTERN

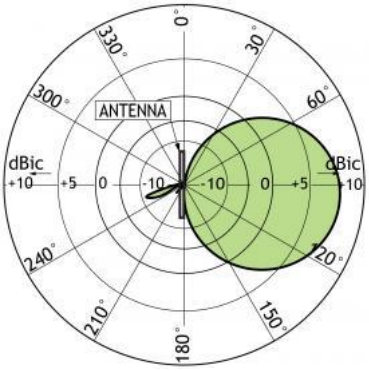
MOUNTING DETAILS (Dimensions excl. cover)



TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



This curve shows the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)

This curve shows the radiation patterns in the horizontal plane (horizontal coverage).

PCPI GPS

Indoor Right Hand Circularly Polarized Patch Antenna for mounting on Wall or Ceiling

- Low profile antenna for the GPS band.
- PCPI GPS is a Right Hand Circularly Polarized patch antenna for indoor use.
- Circularly polarized antenna is chosen to avoid out-of-phase signals.

- Specially designed for closed rooms.
- Covers the GPS frequency 1575 MHz with a radiation of approx. 5 dBic 3 dBd.
- Full size 2 λ circular patch antenna.
- The antenna is carefully sealed with a discreet white cover.
- The connector is placed at one side to enable mounting close to a wall or a ceiling.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PCPI GPS	102000001

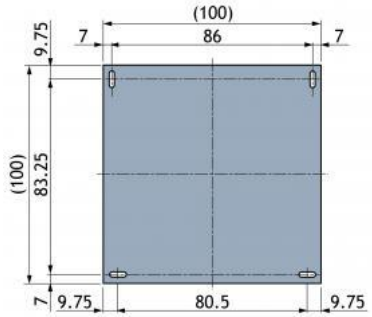
SPECIFICATIONS

ELECTRICAL	
MODEL	PCPI GPS
ANTENNA TYPE	Right Hand Circularly Polarized patch antenna
FREQUENCY	1575 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Circular
GAIN	Approx. 5 dBic 3 dBd ±2 dB
HALF-POWER BEAMWIDTH	Approx. 70° (H- and E-plane)
SWR	≤ 1.5 f.res.
MAX. POWER	50 W
MECHANICAL	
CONNECTOR	N-female
COLOUR	Marine white
MATERIALS	Cover: PS Chassis: Aluminium
SIZE (L x W x H)	Approx. 104 x 104 x 40 mm
WEIGHT	Approx. 0.4 kg
MOUNTING	For mounting on wall or ceiling

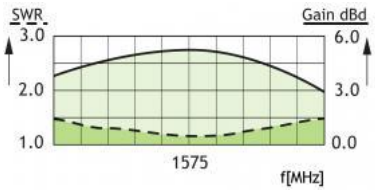
	ø4.5 x 10 mm (4 holes)

MOUNTING & PATTERN

MOUNTING DETAILS (Dimensions excl. cover)



TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)

This curve shows the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)

This curve shows the radiation patterns in the horizontal plane (horizontal coverage).

PCPI GPS EXTEND

Indoor Right Hand Circularly Polarized Patch Antenna for extending GPS coverage

- To be used where GPS-signals are missing.
- Outdoor GPS antenna is necessary.
- Recommended outdoor GPS antenna: GPS 4/...

DESCRIPTION

- Low profile antenna for reradiating the GPS signal.
- Specially designed for closed rooms.
- Covers the GPS frequency 1575 MHz with a radiation of approx.5 dBic 3 dBd.
- Full size 2 λ circular patch antenna.
- The antenna is carefully sealed with a discreet white cover.
- Internal 25 dB selective amplifier.
- PCPI GPS EXTEND 12V/5V-N has 5V DC output on N-connector for feeding outside GPS antenna with built-in amplifier.
- PCPI GPS EXTEND 12V/12V-N has 12V DC on N-connector for phantom powering the unit via the signal line.

ORDERING DESIGNATIONS

TYPE	SUPPLY VOLTAGE	PRODUCT NO.	
PCPI GPS EXTEND 12V/5V-N		102000002	
PCPI GPS EXTEND 12V/12V-N		102000005	
ADAPTOR AC/DC 12V EU		240000040	
ADAPTOR AC/DC 12V UK		240000041	
GPS 4	5 V DC (4.5 - 5.5 V)	112000017	

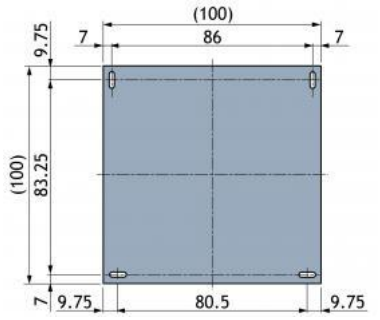
SPECIFICATIONS

ELECTRICAL	
MODEL	PCPI GPS EXTEND
ANTENNA TYPE	Right Hand Circularly Polarized patch antenna
FREQUENCY	1575 MHz
IMPEDANCE	Nom. 50 Ω
COVERAGE	10 - 16 m *
GAIN	Approx. 5 dBic 3 dBd ±2 dB
HALF-POWER BEAMWIDTH	Approx. 70° (H- and E-plane)
SWR	≤ 1.5 f.res.
SUPPLY VOLTAGE PCPI GPS EXTEND 12V/5V-N	12V on DC connector, 5V out on N-connector for GPS

	outdoor antenna
SUPPLY VOLTAGE PCPI GPS EXTEND 12V/12V-N	12V phantom voltage on N-connector, or 12V on DC-connector
SUPPLY CURRENT	Approx. 150 mA
MECHANICAL	
CONNECTOR	N-female
DC-CONNECTOR	ø2.5 mm - centre pin
COLOUR	Marine white
MATERIALS	Cover: ABS Chassis: Aluminium
SIZE (L x W x H)	104 x 104 x 40 mm / 4.1 x 4.1 x 1.5 in.
WEIGHT	Approx. 200 g / 0.4 lb
MOUNTING	For mounting on wall or ceiling ø4.5 x 10 mm (4 holes)

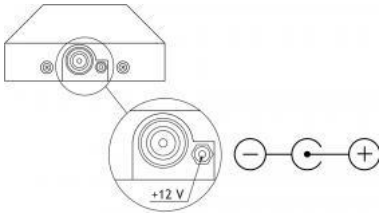
* To achieve 10-16 m coverage the cable loss between the PCPI-GPS EXTEND and the outdoor antenna must be ≤7 dB. (Provided outdoor antenna gain of ≥30 dB)

MOUNTING DETAILS (Dimensions excl. cover)

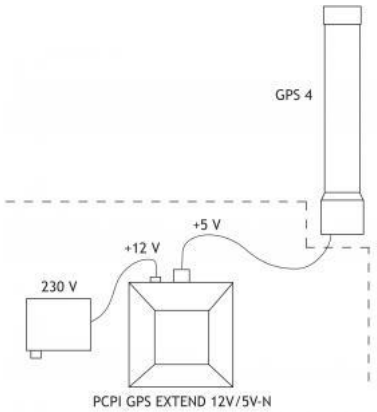


INSTALLATION

DETAILS

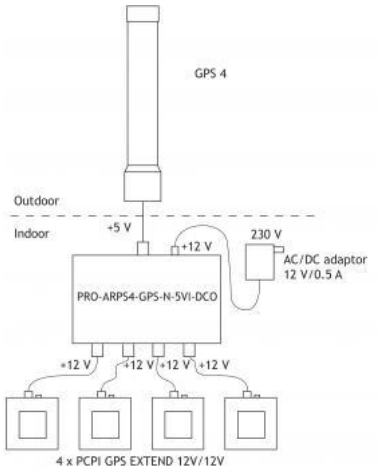


EXAMPLE



PLEASE NOTE: GPS 4/... + power supply to be ordered separately.

EXAMPLE PCPI GPS EXTEND 12V/12V-N



* To achieve 10-16 m coverage the total cable losses between the outdoor antenna, PRO-ARPS4-GPS-N-5VI-DCO and the 4 individual PCPI GPS EXTEND 12V/12V must be ≤12 dB. (Provided outdoor antenna gain of ≥30 dB).

PCPI PCS

Indoor Right Hand Circularly Polarized Patch Antenna for mounting on Wall or Ceiling

- Low profile antenna for the 1850 - 1990 MHz band.
- PCPI PCS is a Right Hand Circularly Polarized patch antenna for indoor use.
- Circularly polarized antenna is chosen to avoid out-of-phase signals.

- Specially designed for closed rooms.
- Covers the PCS frequency range 1850 - 1990 MHz with a radiation of approx. 5 dBic 3 dBd.
- Full size 2 λ circular patch antenna.
- The antenna is carefully sealed with a discreet white cover.
- The connector is placed at one side to enable mounting close to a wall or a ceiling.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PCPI PCS	100000230

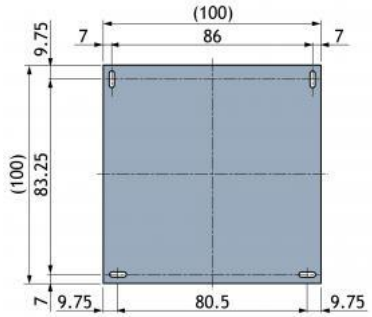
SPECIFICATIONS

ELECTRICAL	
MODEL	PCPI PCS
ANTENNA TYPE	Right Hand Circularly Polarized patch antenna
FREQUENCY	1850 - 1990 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Circular
GAIN	Approx. 5 dBic 3 dBd ±2 dB
HALF-POWER BEAMWIDTH	Approx. 70° (H- and E-plane)
SWR	≤ 1.5 f.res.
MAX. POWER	50 W
MECHANICAL	
CONNECTOR	N-female
COLOUR	Marine white
MATERIALS	Cover: PS Chassis: Aluminium
SIZE (L x W x H)	Approx. 104 x 104 x 40 mm
WEIGHT	Approx. 0.2 kg
MOUNTING	For mounting on wall or ceiling

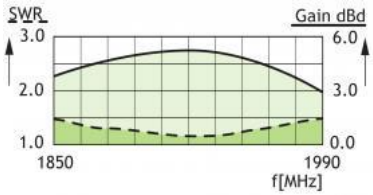
	ø4.5 x 10 mm (4 holes)

MOUNTING & PATTERN

MOUNTING DETAILS (Dimensions excl. cover)



TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)

This curve shows the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)

This curve shows the radiation patterns in the horizontal plane (horizontal coverage).

PCPI DECT

Indoor Right Hand Circularly Polarized Patch Antenna for mounting on Wall or Ceiling

- Low profile antenna for the 1880 - 1900 MHz band.
- PCPI DECT is a Right Hand Circularly Polarized patch antenna for indoor use.
- Circularly polarized antenna is chosen to avoid out-of-phase signals.

- Specially designed for closed rooms.
- Covers the Dect frequency range 1880 - 1900 MHz with a radiation of approx. 5 dBic 3 dBd.
- Full size 2 λ circular patch antenna.
- The antenna is carefully sealed with a discreet white cover.
- The connector is placed at one side to enable mounting close to a wall or a ceiling.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PCPI DECT	100000158

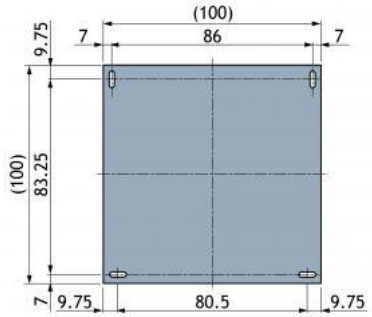
SPECIFICATIONS

ELECTRICAL	
MODEL	PCPI DECT
ANTENNA TYPE	Right Hand Circularly Polarized patch antenna
FREQUENCY	1880 - 1900 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Circular
GAIN	Approx. 5 dBic 3 dBd ±2 dB
HALF-POWER BEAMWIDTH	Approx. 70° (H- and E-plane)
SWR	≤ 1.5 f.res.
MAX. POWER	50 W
MECHANICAL	
CONNECTOR	N-female
COLOUR	Marine white
MATERIALS	Cover: PS Chassis: Aluminium
SIZE (L x W x H)	Approx. 104 x 104 x 40 mm
WEIGHT	Approx. 0.2 kg
MOUNTING	For mounting on wall or ceiling

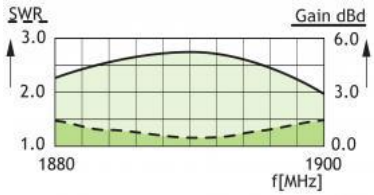
	ø4.5 x 10 mm (4 holes)

MOUNTING & PATTERN

MOUNTING DETAILS (Dimensions excl. cover)



TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)

This curve shows the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)

This curve shows the radiation patterns in the horizontal plane (horizontal coverage).

PCPI DCS

Indoor Right Hand Circularly Polarized Patch Antenna for mounting on Wall or Ceiling

- Low profile antenna for the 1710 - 1880 MHz band.
- PCPI DCS is a Right Hand Circularly Polarized patch antenna for indoor use.
- Circularly polarized antenna is chosen to avoid out-of-phase signals.

- Specially designed for closed rooms.
- Covers the DCS frequency range 1710 - 1880 MHz with a radiation of approx. 5 dBic 3 dBd.
- Full size 2 λ circular patch antenna.
- The antenna is carefully sealed with a discreet white cover.
- The connector is placed at one side to enable mounting close to a wall or a ceiling.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PCPI DCS	100000229

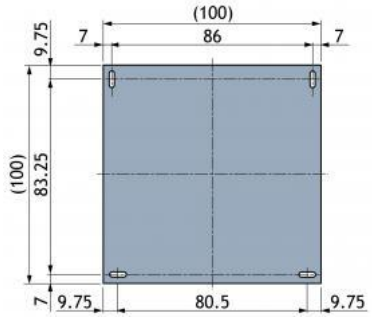
SPECIFICATIONS

ELECTRICAL	
MODEL	PCPI DCS
ANTENNA TYPE	Right Hand Circularly Polarized patch antenna
FREQUENCY	1710 - 1880 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Circular
GAIN	Approx. 5 dBic 3 dBd ±2 dB
HALF-POWER BEAMWIDTH	Approx. 70° (H- and E-plane)
SWR	≤ 1.5 f.res.
MAX. POWER	50 W
MECHANICAL	
CONNECTOR	N-female
COLOUR	Marine white
MATERIALS	Cover: PS Chassis: Aluminium
SIZE (L x W x H)	Approx. 104 x 104 x 40 mm
WEIGHT	Approx. 0.2 kg
MOUNTING	For mounting on wall or ceiling

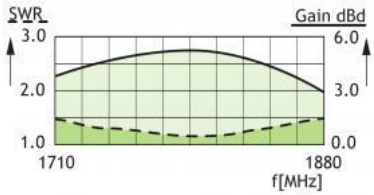
	ø4.5 x 10 mm (4 holes)

MOUNTING & PATTERN

MOUNTING DETAILS (Dimensions excl. cover)



TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)

This curve shows the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)

This curve shows the radiation patterns in the horizontal plane (horizontal coverage).

PCPI UMTS

Indoor Right Hand Circularly Polarized Patch Antenna for mounting on Wall or Ceiling

- Low profile antenna for the 1910 - 2200 MHz band.
- PCPI UMTS is a Right Hand Circularly Polarized patch antenna for indoor use.
- Circularly polarized antenna is chosen to avoid out-of-phase signals.

- Specially designed for closed rooms.
- Covers the UMTS frequency range 1910 - 2200 MHz with a radiation of approx. 5 dBic 3 dBd.
- Full size 2 λ circular patch antenna.
- The antenna is carefully sealed with a discreet white cover.
- The connector is placed at one side to enable mounting close to a wall or a ceiling.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PCPI UMTS	100000231

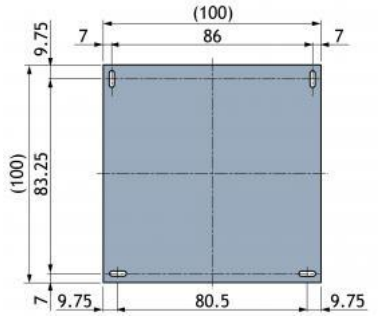
SPECIFICATIONS

ELECTRICAL	
MODEL	PCPI UMTS
ANTENNA TYPE	Right Hand Circularly Polarized patch antenna
FREQUENCY	1910 - 2200 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Circular
GAIN	Approx. 5 dBic 3 dBd ±2 dB
HALF-POWER BEAMWIDTH	Approx. 70° (H- and E-plane)
SWR	≤ 1.5 f.res.
MAX. POWER	50 W
MECHANICAL	
CONNECTOR	N-female
COLOUR	Marine white
MATERIALS	Cover: PS Chassis: Aluminium
SIZE (L x W x H)	Approx. 104 x 104 x 40 mm
WEIGHT	Approx. 0.2 kg
MOUNTING	For mounting on wall or ceiling

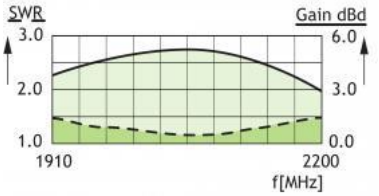
	ø4.5x10 mm (4 holes)

MOUNTING & PATTERN

MOUNTING DETAILS (Dimensions excl. cover)



TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)

This curve shows the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)

This curve shows the radiation patterns in the horizontal plane.

PCPI DCS/UMTS

Indoor Right Hand Circularly Polarized Patch Antenna for mounting on Wall or Ceiling

- Low profile antenna for the 1710 - 2200 MHz band.
- PCPI DCS/UMTS is a 2 λ Right Hand Circularly Polarized patch antenna for indoor use.
- Circularly polarized antenna is chosen to avoid out-of-phase signals.

- Specially designed for closed rooms.
- Covers the DCS and the UMTS frequency range 1710 - 2200 MHz with a radiation of approx. 5 dBic 3 dBd.
- The antenna is carefully sealed with a discreet white cover.
- The connector is placed at one side to enable mounting close to a wall or a ceiling.

ORDERING DESIGNATIONS

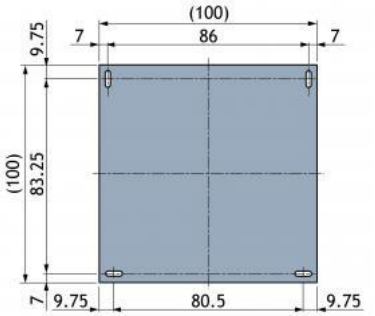
TYPE	PRODUCT NO.
PCPI DCS/UMTS	100000242

SPECIFICATIONS

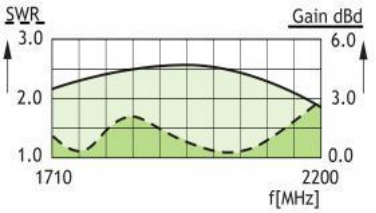
ELECTRICAL	
MODEL	PCPI DCS/UMTS
ANTENNA TYPE	Right Hand Circularly Polarized patch antenna
FREQUENCY	DCS + UMTS: 1710 - 2200 MHz
IMPEDANCE	Nom. 50 Ω
POLARISATION	Circular
GAIN	Approx. 5 dBic 3 dBd
HALF-POWER BEAMWIDTH	Approx. 70° (H- and E-plane)
SWR	≤ 2.0
MAX. POWER	50 W
MECHANICAL	
CONNECTOR	N-female
COLOUR	Marine white
MATERIALS	Cover: PS Chassis: Aluminium
SIZE (W x L x H)	Approx. 104 x 104 x 40 mm
WEIGHT	Approx. 0.2 kg
MOUNTING	For mounting on wall or ceiling ø4.5 x 10 mm (four holes)

MOUNTING & PATTERN

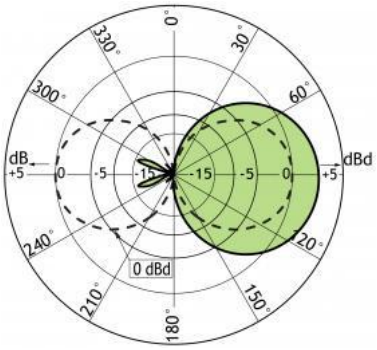
MOUNTING DETAILS



TYPICAL GAIN AND SWR CURVES

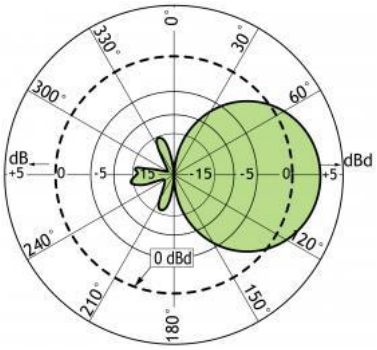


TYPICAL RADIATION PATTERN (E-PLANE)



This curve shows the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTEN (H-PLANE)



This curve shows the radiation patterns in the horizontal plane.

PCPI WIFI

Indoor Right Hand Circularly Polarized Patch Antenna for mounting on Wall or Ceiling

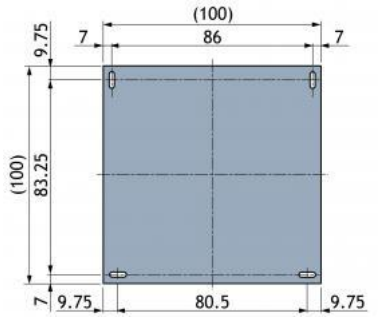
- Low profile antenna for the 2400 - 2500 MHz band.
- PCPI WIFI is a Right Hand Circularly Polarized patch antenna for indoor use.
- Circularly polarized antenna is chosen to avoid out-of-phase signals.

- Specially designed for closed rooms.
- The antenna is carefully sealed with a discrete white cover.
- The connector is placed at one side to enable mounting close to a wall or a ceiling.

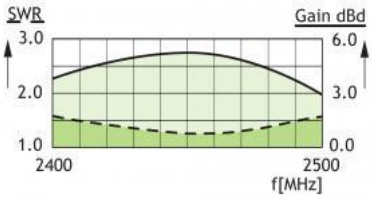
SPECIFICATIONS

ELECTRICAL	
MODEL	PCPI WIFI
ANTENNA TYPE	Right Hand Circularly Polarized patch antenna
FREQUENCY	2400 - 2500 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Circular
GAIN	Approx. 5 dBic 3 dBd ±2 dB
HALF-POWER BEAMWIDTH	Approx. 70° (H- and E-plane)
SWR	≤ 2
MAX. POWER	50 W
MECHANICAL	
CONNECTOR	N-female
COLOUR	Marine white
MATERIALS	Cover: PS Chassis: Aluminium
SIZE (L x W x H)	Approx. 104 x 104 x 40 mm
WEIGHT	Approx. 0.2 kg
MOUNTING	For mounting on wall or ceiling ø4.5 x 10 mm (4 holes)

MOUNTING DETAILS (Dimensions excl. cover)



TYPICAL GAIN AND SWR CURVES

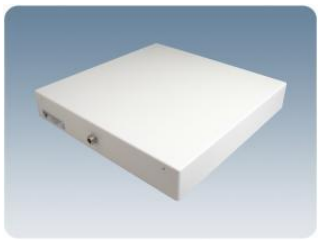


TYPICAL RADIATION PATTEN (E-PLANE)

This curve shows the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTEN (H-PLANE)

This curve shows the radiation patterns in the horizontal plane (horizontal coverage).



PLPI/TETRA/

Indoor Linearly Polarized Patch Antennas for mounting on Wall or Ceiling

- Low-profile antenna for the 380 - 470 MHz band.
- PLPI/TETRA/... is a patch antenna for indoor use.
- Specially designed for closed rooms.

- Covers 50 MHz with a radiation of approx. 7 dBi.
- The antenna is carefully sealed with a discreet cover.
- The connector is placed at one side to enable mounting close to a wall or a ceiling.
- Including mounting bracket.
- Connection also available on backside (see overleaf).

ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
PLPI/TETRA/s-f	380 - 430 MHz	100000423
PLPI/TETRA/l-h	430 - 470 MHz	100000445
ACCESSORIES		
PATCH-WAMO		100000511

BACK CONNECTOR VERSION ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
PLPI/TETRA/s-f-BC	380 - 430 MHz	100000581
PLPI/TETRA/l-h-BC	430 - 470 MHz	

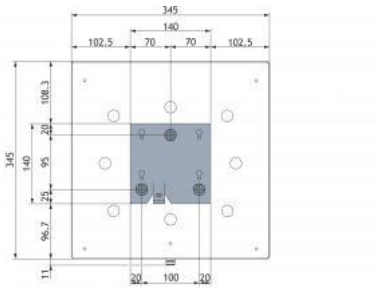
SPECIFICATIONS

ELETRICAL	
MODEL	PLPI/TETRA/...
ANTENNA TYPE	Linearly polarized patch antenna
FREQUENCY	380 - 470 MHz covered by two models
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Linear
GAIN	Approx. 7 dBi
BANDWIDTH	≥ 50 MHz
HALF POWER BEAMWIDTH	Approx. 80° (H- and E-plane)
SWR	≤ 2
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded

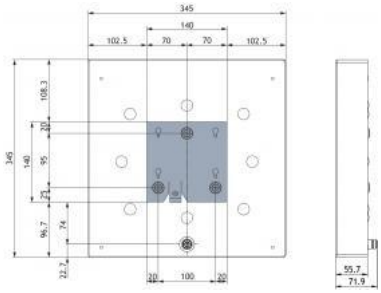
	(Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30° C → +75° C
CONNECTOR	N-female
COLOUR	Marine white
MATERIALS	Cover: ABS (white) Chassis: Aluminium
SIZE (L x W x H)	Approx. 345 x 345 x 60 mm / 13.58 x 13.58 x 2.36 in.
WEIGHT	Approx. 2.3 kg / 5.07 lb.
MOUNTING	For mounting on wall or ceiling ø5 mm / 0.20 in. (three holes) (see mounting details)

MOUNTING & PATTERN

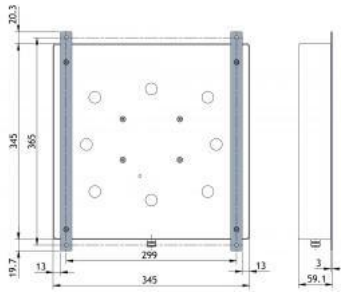
MOUNTING DETAILS (wall mounting bracket included)



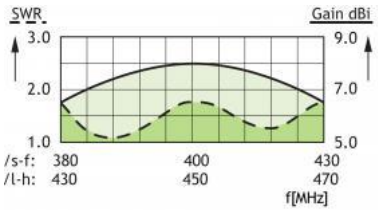
MOUNTING DETAILS BACK CONNECTOR VERSION (wall mounting bracket included)



MOUNTING DETAILS PATCH-WAMO (ordered separately)



TYPICAL GAIN AND SWR CURVES

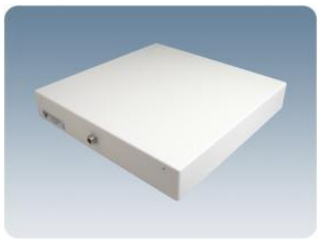


TYPICAL RADIATION PATTERN (E-PLANE)

This curve shows the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)

This curve shows the radiation patterns in the horizontal plane (horizontal coverage).



PLPO/TETRA/

Outdoor Linearly Polarized low profile Antennas for mounting on Ceiling or Mast

- Low-profile antenna for the 380 - 470 MHz band.
- PLPO/TETRA/... is a patch antenna for outdoor use.
- Covers approx. 50 MHz with a radiation of 7 dBi.

- The antenna is carefully sealed with a discreet cover.
- The connector is placed at one side to enable mounting closed to a wall.
- Including wall mounting bracket. PATCH-MAMO and PATCH/WAMO to be ordered separately.

ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
PLPO/TETRA/s-f	380 - 430 MHz	100000424
PLPO/TETRA/l-h	430 - 470 MHz	100000446
PLPO/TETRA/s	380 - 410 MHz	100000476
ACCESSORIES		
PATCH-MAMO		100000447
PATCH-WAMO		100000511

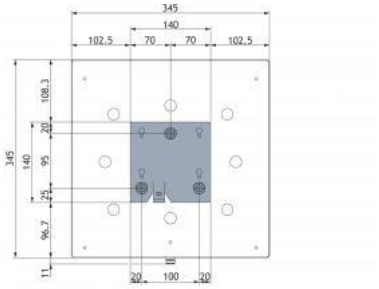
SPECIFICATIONS

ELETRICAL			
MODEL	PLPO/TETRA/s-f	PLPO/TETRA/l-h	PLPO/TETRA/s
ANTENNA TYPE	Linearly polarized patch antenna		
FREQUENCY	380 - 430 MHz	430 - 470 MHz	380 - 410 MHz
IMPEDANCE	Nom. 50 Ω		
POLARIZATION	Linear		
GAIN	Approx. 7 dBi		
BANDWIDTH	≥ 50 MHz @ SWR ≤ 2	≥ 50 MHz @ SWR ≤ 2	≥ 30 MHz @ SWR ≤ 1.6
HALF-POWER BEAMWIDTH	Approx. 80° (H- and E-plane)		
SWR	≤ 2	≤ 2	≤ 1.6
MAX. POWER	100 W		
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)		
MECHANICAL			

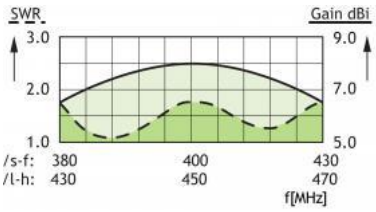
CONNECTOR	N-female	
WIND LOAD	173 N @ 160 km/h / 173 N @ 100 mph.	
COLOUR	Marine white	
MATERIALS	Cover: ABS (white) Chassis: Aluminium	
SIZE (L x W x H)	Approx. 345 x 345 x 60 mm / 13.58 x 13.58 x 2.36 in.	
WEIGHT	Approx. 2.3 kg / 5.07 lb.	
MOUNTING	For mounting on wall ø5 mm / 0.20 in. (three holes) (see mounting details) or mast on 40 - 55 mm / 1.57 x 2.17 in. dia. mast tube	

MOUNTING & PATTERN

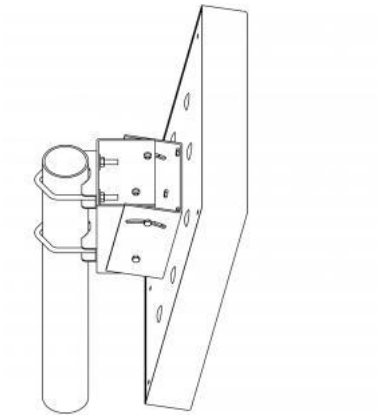
MOUNTING DETAILS (wall mounting bracket included)



TYPICAL GAIN AND SWR CURVES

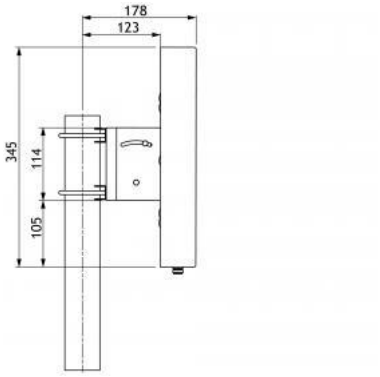


Mast mounting bracket: PATCH-MAMO (ordered separately)

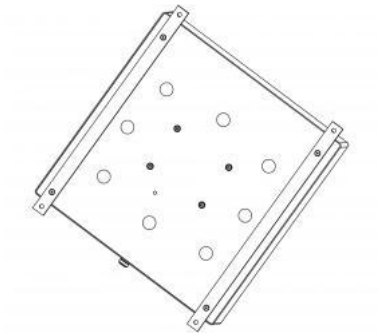


Tilt adjustable from +5˚/-30˚

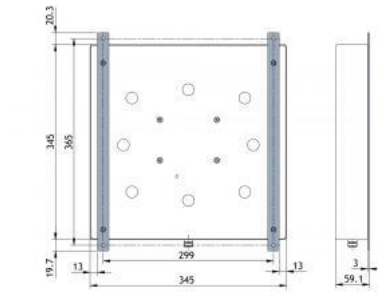
MOUNTING DETAILS (PATCH-MAMO)



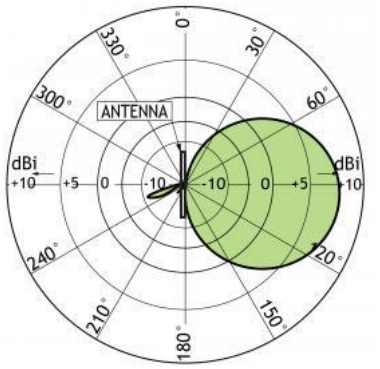
Wall mounting bracket: PATCH-WAMO (ordered separately)



MOUNTING DETAILS (PATCH-WAMO)



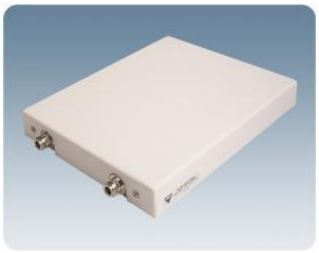
TYPICAL RADIATION PATTERN (E-PLANE)



This curve shows the radiation patterns in the vertical plane.

TYPICAL RADIATION PATTERN (H-PLANE)

This curve shows the radiation patterns in the horizontal plane (horizontal coverage).



PLPI 900/1800

Indoor dual Patch Antenna for mounting on Wall or Ceiling

- Low profile antenna for the 900 and 1800 MHz Band.
- PLPI 900/1800 is a patch antenna for indoor use.
- Covers 80 MHz at 900 MHz and 170 MHz at 1800 MHz with a radiation of approx. 8 dBi.

- The antenna is carefully sealed with a discreet white cover.
- The two connectors are placed at one side to enable mounting close to a wall or a ceiling.

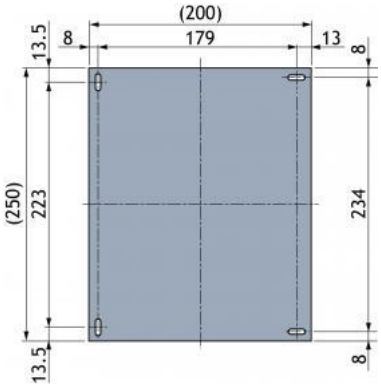
ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PLPI 900/1800	100000322

SPECIFICATIONS

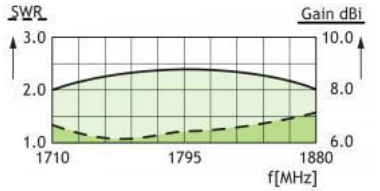
ELECTRICAL	
MODEL	PLPI 900/1800
ANTENNA TYPE	Linearly Polarized patch antenna
FREQUENCY	880 - 960 MHz / 1710 - 1880 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Linear
GAIN	8 dBi
BANDWIDTH	880 - 960 ≥ 80 MHz @ SWR ≤ 2 1710 - 1880 ≥ 170 MHz @ SWR ≤ 2
HALF-POWER BEAMWIDTH	65° - 85° in azimuth plane 60° - 80° in elevation plane
SWR	≤ 2
MAX. POWER	100 W
MECHANICAL	
CONNECTOR	2 x N-female
COLOUR	Marine white
MATERIALS	Cover: PS Chassis: Aluminium
SIZE (L x W x H)	Approx. 250 x 200 x 30 mm
WEIGHT	Approx. 0.4 kg
MOUNTING	For mounting on wall or ceiling ø4.5 x 20 mm (four holes)

MOUNTING & PATTERN

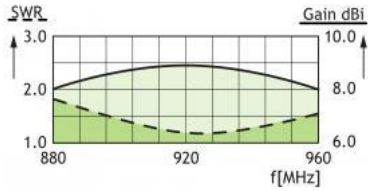


(Dimensions excl. cover)

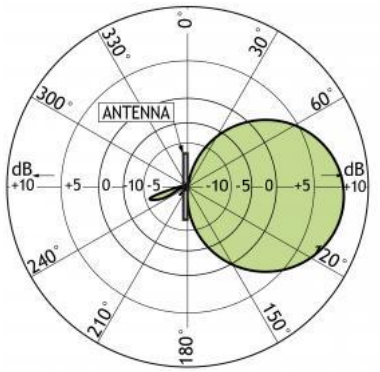
overskrift



overskrift

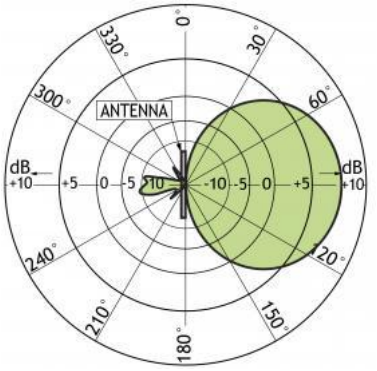


overskrift

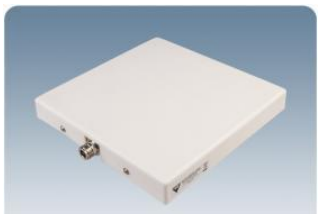


This curve shows the radiation patterns in the vertical plane.

overskrift



This curve shows the radiation patterns in the horizontal plane.



PLPI UMTS 2100

Indoor Linearly Polarized Patch Antenna for mounting on Wall or Ceiling

- Low-profile antenna for the UMTS 2100 band.
- PLPI UMTS 2100 is a linear patch antenna for indoor use.

- The antenna is carefully sealed with a discreet white cover.
- The connector is placed at one side to enable mounting close to a wall or a ceiling.

ORDERING DESIGNATIONS

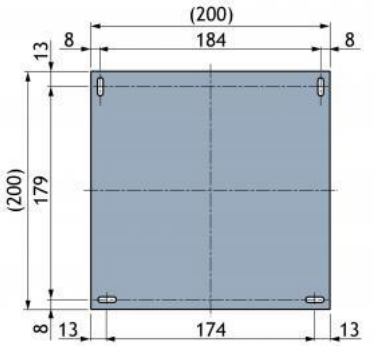
TYPE	PRODUCT NO.
PLPI UMTS 2100	100000323

SPECIFICATIONS

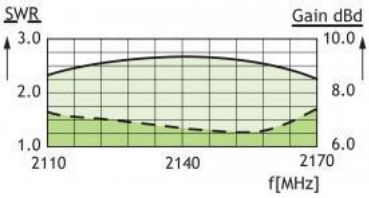
ELECTRICAL	
MODEL	PLPI UMTS 2100
ANTENNA TYPE	Linearly polarized patch antenna
FREQUENCY	2110 - 2170 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Linear
GAIN	6 - 9 dBi
BANDWIDTH	≥ 80 MHz @ SWR ≤ 2.0
HALF-POWER BEAMWIDTH	Approx. 60° (H- and E-plane)
SWR	1.5 f.res.
MAX. POWER	25 W
MECHANICAL	
CONNECTOR	N-female
COLOUR	Marine white
MATERIALS	Cover: PS Chassis: Aluminium
SIZE (L x W x H)	Approx. 204 x 204 x 28 mm / 8.03 x 8.03 x 1.10 in.
WEIGHT	Approx. 0.4 kg / 0.88 lb.
MOUNTING	For mounting on wall or ceiling ø4.5 x 20 mm (4 holes)

MOUNTING & GAIN

MOUNTING DETAILS (Dimensions excl. cover)



TYPICAL GAIN AND SWR CURVES



GP 450 B

Broad-banded, antistatic ground-plane antenna for the 450 MHz band

- GP 450 B is a broad-banded, 0 dBd, ground-plane antenna of the triple-leg type.
- The antenna is fully universal as it covers the complete band: 380 - 470 MHz.

DESCRIPTION

- Atmospherical discharges are immediately led to gound, as all metal parts are DC-grounded. (Consequently, the antenna shows a DC-short across the coaxial cable).
- GP 450 B is made from corrosion-resistant aluminium, whitch together with a special anodizing process gives this antenna a very long lifetime.

ORDERING DESIGNATIONS

TYPE NO.	PRODUCT NO.
GP 450 B	100000588

SPECIFICATIONS

ELECTRICAL	
MODEL	GP 450 B
ANTENNA TYPE	¼ λ ground-plane, broad-banded
FREQUENCY	Covering: 380 - 470 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	90 MHz
SWR	≤ 1.7
MAX. POWER	1 kW
ANTISTATIC PROTECTION	All metal parts DC-grounded (Shows a DC-short over the coaxial cable)
HCM CODE	HCM00ND00, 030DE00
MECHANICAL	
CONNECTOR	0.5 m tail of RG 213 terminated witch an N-femail connector
WIND SURFACE	0.019 m^2 (0.21 $feet^2$)

WIND LOAD	22 N @ 160 km/h (22 N @ 99.42 miles/h)
COLOUR	Black
MATERIALS	Black anodized, corrosion-resistant aluminium
TOTAL HEIGHT	Approx. 320 mm (approx. 12.6 in.)
WEIGHT	Approx. 1.0 kg (approx. 2.2 lb.)
MOUNTING	On 38 mm dia. mast tube (1.5 in.)
ENVIRONMENTAL	
TEMP. RANGE	-35° C → +70° C

TYPICAL SWR CURVE

CXL 150-1/...

Base Station and Marine VHF Antenna

- This base station and maritime VHF antenna is developed for use on board ships as well as on masts and thanks to the 1” revolving nut mounting system it can be mounted in the mast, in the auxilliary mast as well as on the cross-beam. By means of Procom’s flange mount it can also be mounted on deck or rooftop.

DESCRIPTION

- Bear in mind that the higher the antenna is mounted the better coverage.
- Avoid mounting the antenna parallel with and in the neighbourhood of other metal parts, such as mast, supporting wires etc. Free mounting and as high as possible is most preferable, otherwise the SWR and the radiation diagram will be influenced.
- The antenna is a ½ λ design and this means that it needs neither loading coils, ground-plane, radials nor other auxiliary arrangements.
- CXL 150-1/... can, without problems, operate with duplex radioes and on the semi-duplex channels, owing to the fact that it is broad-banded (see SWR diagram). In other words, CXL 150-1/... has a shipshape SWR on the RX-frequencies, which is just as important as it is for the TX-frequencies.
- Furthermore, the antenna is a grounded radiator antenna and therefore it shows a DC-short across the coaxial cable.
- A conical glass fibre tube completely encloses the carefully designed radiating element to assure long dependable service in all climates.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY	CONNECTOR
CXL 150-1/l CXL 150-1/h	100000550 100000549	144 - 165 MHz 155 - 175 MHz	"UHF"-female
CXL 150-1/l-N CXL 150-1/h-N	100000631 100000632	144 - 165 MHz 155 - 175 MHz	"N"-female

SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 150-1/...
ANTENNA TYPE	½ λ coaxial dipol, broad-banded
FREQUENCY	CXL 150-1/l; 144 - 165 MHz CXL 150-1/h: 155 - 175 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	18 - 21 MHz depending on model
SWR	CXL 150-1/l: 146 - 163 MHz ≤ 1.5 144 - 165 MHz ≤ 1.75 CXL 150-1/h: 156 - 174 MHz ≤ 1.5 155 - 175 MHz≤ 1.75
MAX. POWER	150 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
HCM CODE	HCM000ND00, 040DE00

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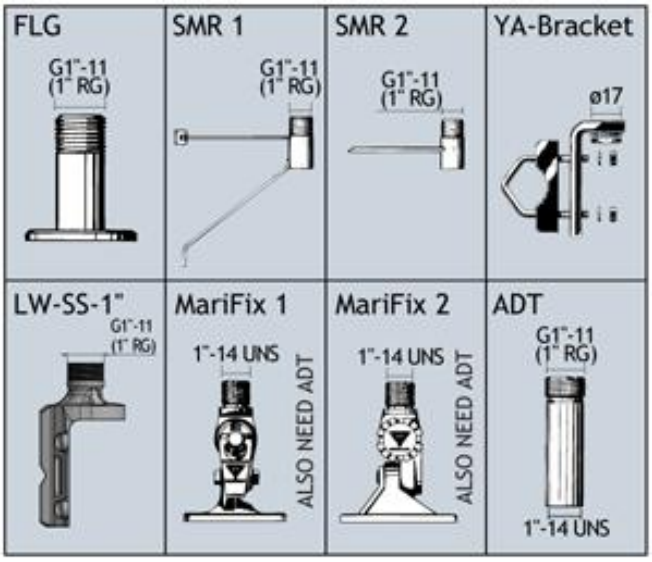
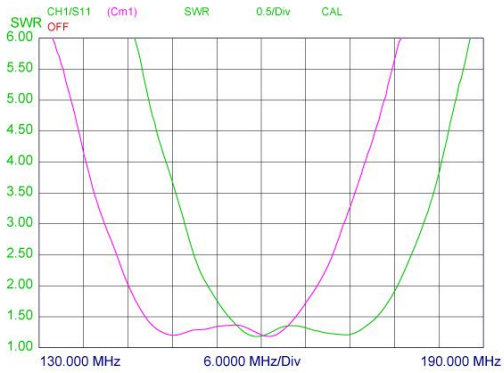
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	UHF-female (standard)
WIND SURFACE	0.018 m²
WIND LOAD	25 N @ 160 km/h
MAX. WIND SPEED	Tested to 200 km/h
IP RATING	IP 66
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 1.21 m
DIA. IN TOP END	8 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 300 g
MOUNTING	On 1” RG (G1” - 11) threaded water pipe or on optional mounting brackets (see below)

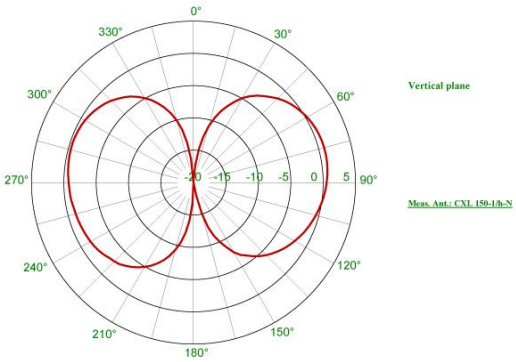
ACCESSORIES (to be ordered separately)



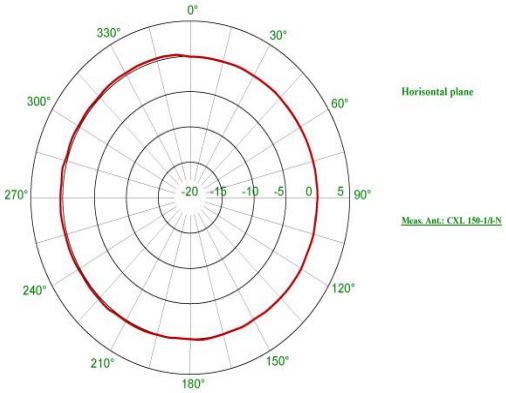
TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



CXL 450-1LW-SS

CXL 450-1LW-SS is a 0 dBd, Omnidirectional Base Station and Marine Antenna for the 450 MHz Band in hazardous areas

PRELIMINARY DATASHEET

- CXL 450-1LW-SS is a 0 dBd, vertically polarized, omnidirectional base station antenna which covers the 380 - 510 MHz band in three models.

DESCRIPTION

- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
-
-
- The carefully designed, broadbanded ½ λ-dipole radiating element is made of brass tube and sealed in a high-quality cylindrical glass fibre tube with low wind-load.
- The mounting bracket and accompanying U-bolts and fittings are made of stainless steel.
- The antenna element is sealed in a high-quality glass fibre tube.
- All metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.

ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.	
CXL 450-1LW-SS/l	380 - 430 MHz	100000697	
CXL 450-1LW-SS/h	420 - 470 MHz	100000698	
CXL 450-1LW-SS/hs	460 - 510 MHz	100000699	

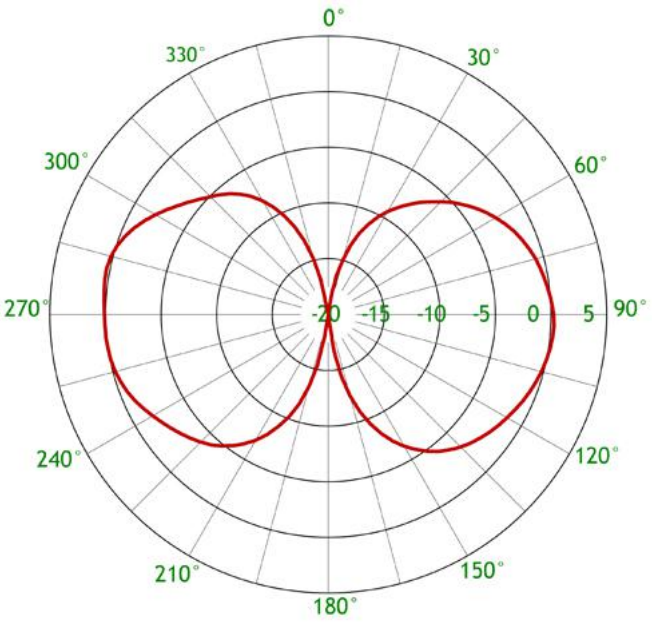
SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 450-1LW-SS
ANTENNA TYPE	½ λ coaxial dipole, broad-banded
FREQUENCY	50 MHz wide frequency segments within 380 - 510 MHz. See ordering designations
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	50 MHz
SWR	≤ 1.5
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)

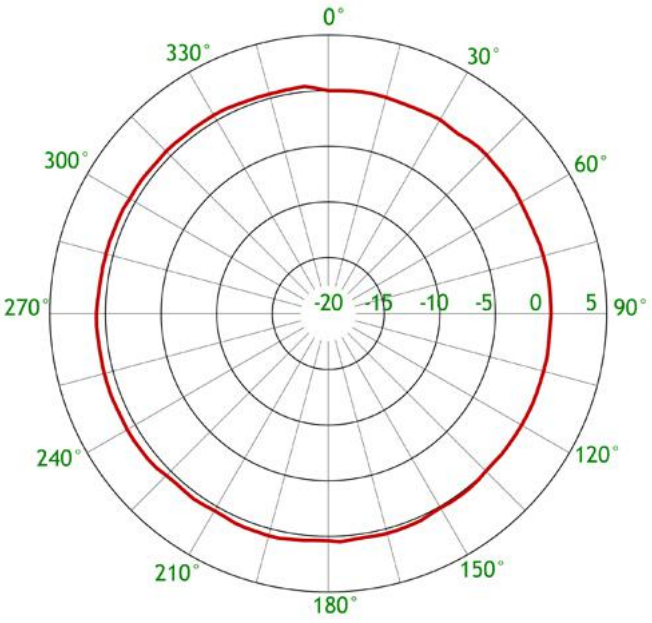
MECHANICAL	
CONNECTOR TIGHTENING TORQUE	N-female 0.7 - 1.1 Nm
WIND SURFACE	0.029 m² / 0.31 ft²
WIND LOAD	33.6 N @ 160 km/h / 99.42 mph.
MAX. WIND SPEED	200 km/h / 124.27 mph.
COLOUR	Marine white
MATERIALS	Radome : Polyurethane-coated glass fibre
	Mounting bracket : Stainless acid-proof steel (AISI 316L)
	U-bolt and fittings : Stainless steel (AISI 304)
TOTAL HEIGHT	Approx. 1050 mm / 41.34 in.
DIAMETER	25.5 mm / 1.00 in.
WEIGHT	Approx. 1.45 kg / 3.20 lb.
MOUNTING TIGHTENING TORQUE	On 16 - 54 mm / 0.63 - 2.13 in. dia. mast tub 3 Nm
HMC CODE	HCM000ND00, 040DE00
ENVIRONMENTAL	
TEMP. RANGE	-35°C → +70°C
INGRESS PROTECTION LEVEL	IP 66

TYPICAL GAIN AND SWR CURVES

TYPICAL RADIATION PATTERN (E-PLANE)

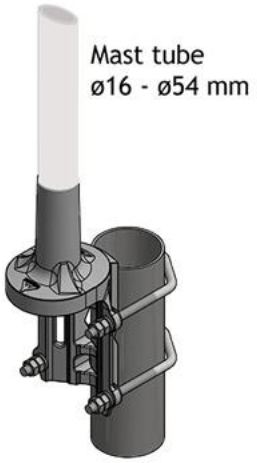


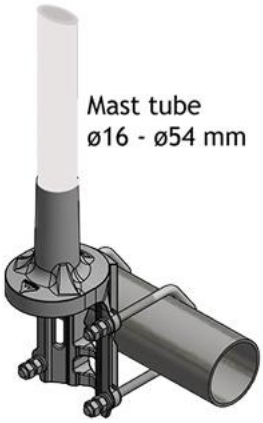
TYPICAL RADIATION PATTERN (H-PLANE)

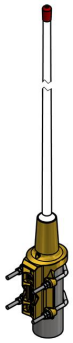


MULTI-PURPOSE MOUNTING BRACKET


Mast tube
ø42 - ø54 mm


Mast tube
ø16 - ø54 mm


Mast tube
ø16 - ø54 mm



CXL 5700-1LW/...

Unity Gain Base Station and Marine 5700 MHz Antenna

- The CXL 5700-1LW/... is a 0 dBd, vertically polarized, omnidirectional base station and marine antenna for the 5700 MHz band.

DESCRIPTION

- The CXL 5700-1LW/... is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.
- Use a higher mount for better coverage. Avoid mounting the antenna parallel to or in the vicinity of other metal parts, such as masts, supporting wires etc., as the SWR and the radiation pattern can be strongly affected.
- A conical glass fibre tube completely encloses the carefully designed radiating element, to ensure long dependable service in all climates.

ORDERING DESIGNATIONS

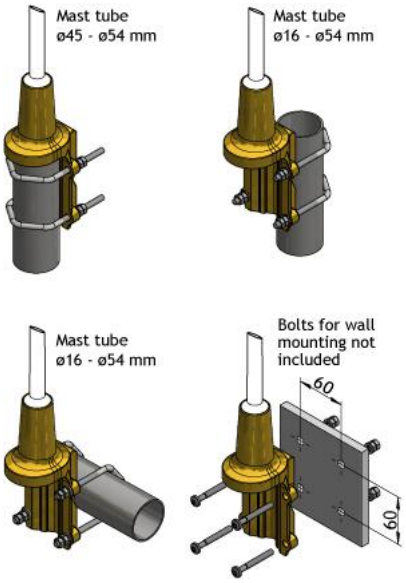
TYPE	FREQUENCY	PRODUCT NO.
CXL 5700-1LW/l	5150 - 5350 MHz	100000310
CXL 5700-1LW/m	5300 - 5500 MHz	100000311
CXL 5700-1LW/h	5450 - 5900 MHz	100000219

SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 5700-1LW/...
ANTENNA TYPE	½ λ coaxial dipole, broad-banded
FREQUENCY	Models within 5150 – 5900 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	≥ 300 MHz @ SWR ≤ 2.0
SWR	≤ 2.0, typ. ≤ 1.5
MAX. POWER	100 W
MECHANICAL	
CONNECTOR	N-female
WIND SURFACE	Approx. 0.006 m²

WIND LOAD	Approx. 8 N @ 160 km/h
MAX. WIND SPEED	200 km/h (125 mph)
COLOUR	Marine white (RAL 9010)
MATERIALS	Shroud: Polyurethane-coated glass fibre
	Mounting bracket: Sea water resistant aluminium, epoxy-coated
CLAMPS	Stainless steel
TOTAL HEIGHT	Approx. 330 mm
DIA. IN TOP END	14 mm
DIA. IN BOTTOM END	16 mm
WEIGHT	Approx. 550 g
MOUNTING	On 16 to 54 mm dia. mast tube
HCM CODE	HCM000ND00, 040DE00
ENVIRONMENTAL	
TEMP. RANGE	-30°C → +70°C
INGRESS PROTECTION LEVEL	IP 66

MULTI-PURPOSE MOUNTING BRACKET



CXL 2000-8/...

8 dBd Omnidirectional Base Station and Marine Antenna for the 2000 MHz Band

- Vertically polarized, omnidirectional base station and marine antenna.
- The CXL 2000-8/... is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.
- The antenna element is sealed in a high-quality glass fibre tube

DESCRIPTION

- Simple mounting using the 1” revolving nut system
- Wide variety of accessory mounting brackets available.
- Large bandwidth with respect to both SWR and gain.
- Highly suitable for duplex operation with large spacing between the TX and the RX frequencies.
- The antenna element is sealed in a high-quality glass fibre tube.
- All metal parts in the antenna are DC-grounded to reduce the noise caused by atmospherical discharge. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 2000-8/... is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING DESIGNATIONS

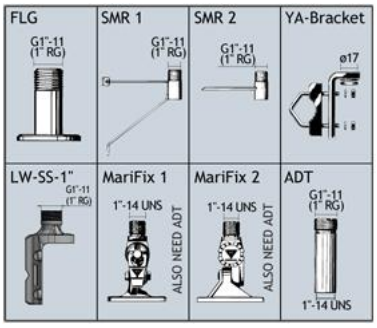
TYPE	PRODUCT NO.	FREQUENCY
CXL 2000-8/m	100000621	2025 - 2105 MHz

SPECIFICATIONS

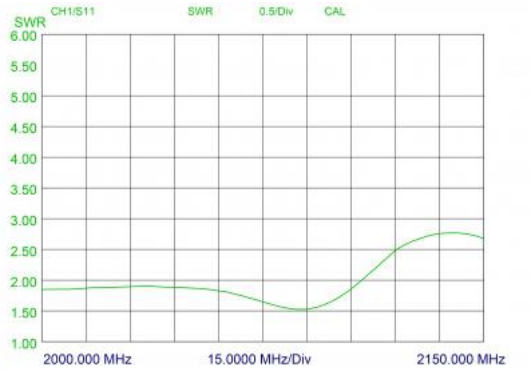
ELECTRICAL	
MODEL	CXL 2000-8
ANTENNA TYPE	Coaxial, collinear antenna, broadbanded
FREQUENCY	2025 – 2105 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	8 dBd (10 dBi)
HALF POWER BEAMWIDTH	6°
BANDWIDTH	≥ 80 MHz @ SWR ≤ 2.0

SWR	≤ 2.0
MAX. POWER	100 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
HCM CODE	HCM000ND00, 007DE60
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.037 m²
WIND LOAD	Approx. 53 N @ 160 km/h
MAX WIND SPEED	200km/h/124.27 mph
INGRESS PROTECTION LEVEL	IP66
COLOUR	Marine white (Ral 9010)
MATERIALS	Shroud: Polyurethane-coated glass fiber Mounting bracket: Chromed brass
TOTAL HEIGHT	Approx. 1.55 m
DIA. IN TOP END	23 mm
DIA. IN BOTTOM END	23 mm
WEIGHT	Approx. 900 g
MOUNTING	On 1" RG (G1"-11) threaded water pibe or on optinal mounting brackets (see below)

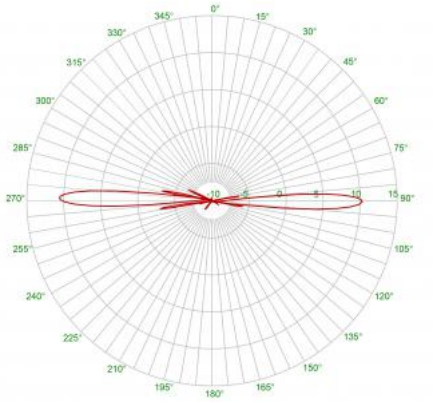
ACCESSORIES (to be ordered separately)



TYPICAL SWR CURVE



TYPICAL RADIATION PATTERN (E-PLANE)



PROCOM A/S

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