

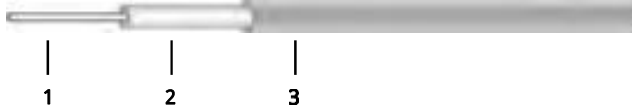
Description

SF series is a kind of semi-flexible RF cable, whose shape could be formed manually. It is easy to assembly and often used for equipment interconnection.

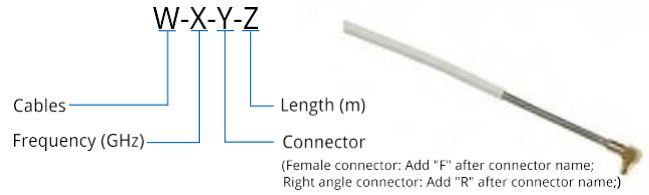
Features

- * Hand Formable
- * Quick and Easy Assembly

Construction



1	Inner Conductor	Silver-plated copper
2	Dielectric	PTFE
3	Inner Shield	Tin-plated copper braid



Examples: SF-141 cable assembly, DC-4GHz, SMA male to SMA female, 0.5 meter, specify SF-141-4-SSF-0.5.

Connector Naming Rules

K - 2.92mm (40GHz)	N - N (18GHz)
P - SMP (26.5GHz)	T - TNC (18GHz)
A - SSMA (26.5GHz)	M - MCX (6GHz)
3 - 3.5mm (26.5GHz)	X - MMCX (6GHz)
S - SMA (26.5GHz)	B - BNC (4GHz)
G - Mini-SMP (mateable with GPPO & SSMP, 18GHz)	D - SMB (4GHz)
I - BMA (18GHz)	

Cables	Dimensions (mm)			Connector Options
	Inner Conductor	Dielectric	Inner Shield	
SF-086	0.53	1.65	2.17	2.92mm, SMP, SSMA, SMA, Mini-SMP, BMA, N, MMCX, MCX, BNC, SMB
SF-141	0.94	2.98	3.55	3.5mm, SMP, SSMA, SMA, BMA, N, MMCX, MCX, BNC, SMB
SF-250	1.65	5.25	6.30	SMA, N

Specifications

Cables	Freq. (GHz)	Cut-off Freq. (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Shielding Effectiveness (dB)	Voltage Withstand (V DC)	Outer Diameter (mm)	Installation / Repeated Bend Radius (mm)	Weight (g/m)	Temperature (°C)
SF-086	40	61	50	70	> 100	1000	2.17	10.0 / 20.0	20	-55~+150
SF-141	6	34.4				1500	3.55	17.75 / 35.5	50	-55~+150
SF-250	6	19				2500	6.30	20.0 / 40.0	140	-55~+225

Attenuation and Power Handling

Attenuation ¹ & Power Handling ²	Freq. (G) Cables	0.3	0.5	1	2	6	8	10	12.4	18	26.5	40	Coefficient K
		Attenuation (dB/100m)	SF-086	38.2	49.8	71.9	104.6	193.8	229.1	261.4	297.4	373.6	
Avg. Power (W)	SF-086	135	103	72	49	27	22	20	17	14	11	8	K2=0.004990
Attenuation (dB/100m)	SF-141	20.6	27.0	39.4	58.1	110.7	-	-	-	-	-	-	K1=1.119870
Avg. Power (W)	SF-141	311	237	163	110	58	-	-	-	-	-	-	K2=0.003986
Attenuation (dB/100m)	SF-250	12.1	16.03	23.60	35.23	69.09	-	-	-	-	-	-	K1=0.645600
Avg. Power (W)	SF-250	4	713	540	367	246	125	-	-	-	-	-	K2=0.003180

[1] VSWR:1.0 ; Ambient: +25°C (77°F); Raw cable

[2] VSWR:1.0 ; Ambient: +40°C (104°F); Sea level

$$\text{Calculation Cable Attenuation: Attenuation (dB/100m)} = K1 * \sqrt{f \text{ (MHz)}} + K2 * f \text{ (MHz)}$$

$$\text{Calculation Connector attenuation of single connector: Attenuation (dB)} = 0.03 * \sqrt{f \text{ (GHz)}}$$