

SHF cable range
Ultra low loss flexible cable



Cable	VP	Max Dia.	Attenuation	Bending radius	Weight
SHF2.4M DC - 40GHz	76%	2.45mm 0.095in.	4.59 dB/m @40GHz 139 dB/100ft	10 mm 0.394 in.	20 g/m 6.1 g/ft
SHF2.9M ⁽²⁾ DC - 67GHz	75%	2.90mm 0.114in.	5.92 dB/m @67GHz 179 dB/100ft	25 mm 0.984 in.	23 g/m 7.01 g/ft
SHF3M DC - 40GHz	76%	3.64mm 0.139in.	2.76 dB/m @40GHz 84 dB/100ft	12.5 mm 0.492 in.	35 g/m 10.6 g/ft
SHF4M ⁽²⁾ DC - 40GHz	84%	4.15mm 0.160in.	2.05 dB/m @40GHz 62 dB/100ft	20 mm 0.788 in.	40 g/m 12.2 g/ft
SHF4.2M DC - 26.5GHz	76%	4.20mm 0.165in.	1.96 dB/m @26.5GHz 60 dB/100ft	25 mm 0.984 in.	45 g/m 13.6 g/ft
SHF5M DC - 26.5GHz	84%	5.20mm 0.201in.	1.27 dB/m @26.5GHz 39 dB/100ft	25 mm 0.984 in.	60 g/m 18.2 g/ft
SHF8M DC - 18GHz	84%	7.78mm 0.302in.	0.68 dB/m @18GHz 21 dB/100ft	40 mm 1.575 in.	130 g/m 39.4g/ft
SHF13 DC - 9.5GHz	85%	13.80mm 0.543in.	0.33 dB/m @9.5GHz 9 dB/100ft	60 mm 2.362 in.	280 g/m 84.8 g/ft

⁽¹⁾ SPC: Silver Plated Copper

⁽²⁾ Triple shield structure

Stranded inner conductor cable



Using stranded center conductor allow better flexibility while keeping good IL performance level

Longer flex life
SHF3, SHF5, SHF8

Ultra Flexible cable



Unique design of center conductor as well as braiding and jacketing provide a unique flexibility behavior to SHF UF

Low bending moment
Up to 1 million flexures
SHF2,2UF, SHF3UF, SHF5UF

Armored cable



In many customer applications mechanical stress may damage cable assemblies. Radiall has designed several levels of armored structures embedding SHF core lines.

Crush & Abrasion resistant
UV resistant, Watertightness
SHF4MPJ, SHF5MPJ, SHF8MPJ
SHF5PJ, SHF8PJ

LSZH Outdoor cable



Designed to be used in outdoor environments, Radiall's OutDoor cables are typically chosen for Ground Radars and Navy systems. Halogen free jacket according to IEC60754-1

UV resistant
Watertightness
SHF5ZH, SHF8ZH
SHF5MZH, SHF8MZH

Light Weight & Air Frame cable



Radiall's LightWeight range is the best choice for on-board equipments, where weight and density are critical. SHF AirFrame cables moto is: Robustness for long life in extreme condition. Radiall's AirFrame cables are used in non-pressurized or not-protected areas.

30% weight saving
Hermetically sealed
15 Km (50,000 ft) - 150°C
Fluid resistant
SHF5MLW-2, SHF8MLW-2
SHF5MAF-2, SHF8MAF-2

TestPro cables



Radiall full range of test bench cables provides outstanding performances and durability. Radiall Test cables are the perfect solution for component/ assembly shops, labs, automatic test equipments and test benches

Excellent Stability
Long durability
TestPro4.2S, TestPro4.2
TestPro3, TestPro3 Low Profile
TestPro2, TestPro VNA

Space qualified cable



To resist to the extreme conditions in space, Space qualified range includes several jacket material options. Our cable radiation resistance is up to 80Mrads with Fluorinated ethylene propylene (FEP) jackets, whilst ETFE version resist to more than 120Mrads.

Ultra-light-weight
Non-outgassing materials
High radiation resistance
SHF2.4MS, SHF5MS, SHF8MS
SHF3MS, SHF4.8MS (eTFE jacketed)

Connectors

The unique design of SHF cables dictates the use of custom-designed connectors. We pay particular attention to design of the compensation area and to termination techniques to assure low VSWR and thus to complement our superior cable performance. Our Cable/Connector terminations are designed to maintain shield integrity into the connectors to get the lowest leakage attainable in a flexible assembly. All electrical connections (center contact and inner tape shield) are soldered. Most popular connector interfaces fitting to SHF cables are SMPM, SMP, SMP Lock, SMA, QRE, TNC and N Type.

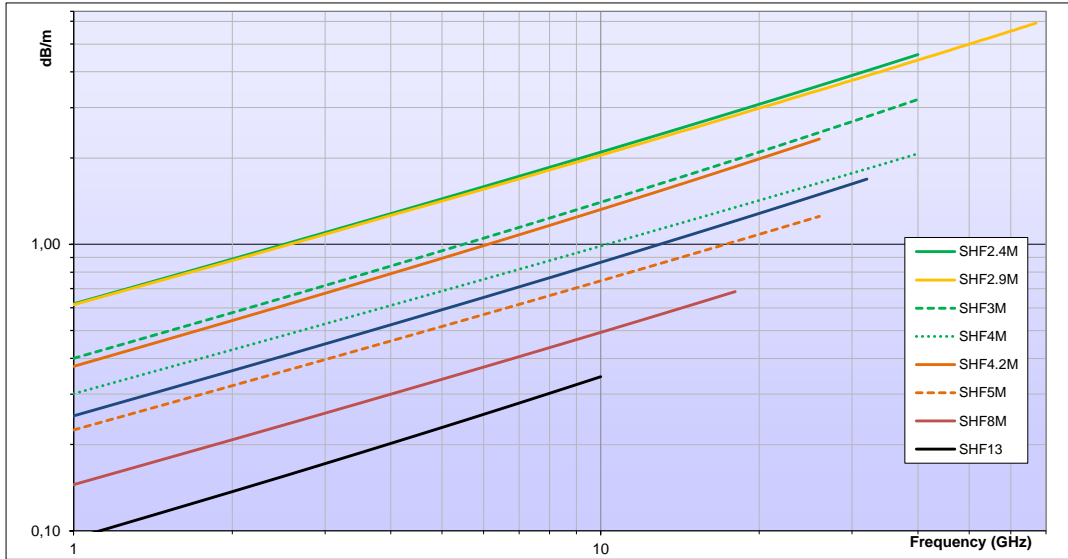
SHF Cable

Attenuation (dB/m)

GHz	SHF2.4M	SHF2.9M	SHF3M	SHF4M	SHF4.2M	SHF5M	SHF8M	SHF13
1,0	0,62	0,62	0,40	0,30	0,38	0,23	0,15	0,09
2,0	0,89	0,88	0,58	0,43	0,54	0,32	0,21	0,14
4,0	1,28	1,26	0,84	0,61	0,79	0,46	0,30	0,20
6,0	1,59	1,56	1,05	0,76	0,99	0,57	0,37	0,26
8,0	1,86	1,82	1,23	0,88	1,16	0,66	0,44	0,30
12,4	2,36	2,30	1,59	1,10	1,50	0,84	0,55	-
18,0	2,91	2,82	1,97	1,35	1,87	1,02	0,68	-
26,5	3,62	3,49	2,49	1,66	2,36	1,27	-	-
32,0	4,03	3,87	2,79	1,83	-	-	-	-
40,0	4,59	4,39	3,20	2,07	-	-	-	-
50,0	-	4,99	-	-	-	-	-	-
67,0	-	5,92	-	-	-	-	-	-

Attenuation (dB/100 ft)

GHz	SHF2.4M	SHF2.9M	SHF3M	SHF4M	SHF4.2M	SHF5M	SHF8M	SHF13
1,0	18,90	18,90	12,19	9,14	11,58	7,01	4,57	2,74
2,0	27,13	26,82	17,68	13,11	16,46	9,75	6,40	4,27
4,0	39,01	38,40	25,60	18,59	24,08	14,02	9,14	6,10
6,0	48,46	47,55	32,00	23,16	30,18	17,37	11,28	7,92
8,0	56,69	55,47	37,49	26,82	35,36	20,12	13,41	9,14
12,4	71,93	70,10	48,46	33,53	45,72	25,60	16,76	-
18,0	88,70	85,95	60,05	41,15	57,00	31,09	-	-
26,5	110,34	106,38	75,90	50,60	71,93	38,71	-	-
32,0	122,83	117,96	85,04	55,78	-	-	-	-
40,0	139,90	133,81	97,54	63,09	-	-	-	-
50,0	-	152,10	-	-	-	-	-	-
67,0	-	180,44	-	-	-	-	-	-



Power (W)

GHz	SHF2.4M	SHF2.9M	SHF3M	SHF4M	SHF4.2M	SHF5M	SHF8M	SHF13
1,0	260	260	400	475	630	850	1600	2500
2,0	184	184	283	336	445	601	1131	1768
4,0	130	130	200	238	315	425	800	1250
6,0	106	106	163	194	257	347	653	1021
8,0	92	92	141	168	223	301	566	884
12,4	74	74	114	135	179	241	454	-
18,0	61	61	94	112	148	200	377	-
26,5	51	51	78	92	122	165	-	-
32,0	46	46	71	84	-	-	-	-
40,0	41	41	63	75	-	-	-	-
50,0	-	37	-	-	-	-	-	-
67,0	-	32	-	-	-	-	-	-

(*) CW max power calculated at sea level / 40°C and V.S.W.R. 1:1
Cable assembly power rating may be limited by connector type

