

SHF Cable Range

Ultra low loss flexible cable



Cable	VP	Max. Dia.	Attenuation	Bending Radius	Weight
<b>SHF2.2UF</b> DC - 40 GHz	79%	2.25mm 0.089in.	5.20 dB/m @ 40 GHz 158 dB/100ft	10 mm 0.394in.	14 g/m 4.3 g/ft
<b>SHF2.4M</b> DC - 40 GHz	76%	2.45mm 0.095in.	4.59 dB/m @ 40 GHz 139 dB/100ft	10 mm 0.394in.	20 g/m 6.1 g/ft
<b>SHF3</b> DC - 40 GHz	76%	3.50mm 0.138in.	3.7 dB/m @ 40 GHz 113 dB/100ft	12.5 mm 0.492in.	29 g/m 8.8 g/ft
<b>SHF3M</b> DC - 40 GHz	76%	3.64mm 0.139in.	2.76 dB/m @ 40 GHz 139 dB/100ft	12.5 mm 0.492in.	35 g/m 10.6 g/ft
<b>SHF4M</b> DC - 40 GHz	84%	4.15mm 0.160in.	2.05 dB/m @ 40 GHz 62 dB/100ft	20 mm 0.788in.	40 g/m 12.2 g/ft
<b>SHF4.2M</b> DC - 26.5 GHz	76%	4.20mm 0.165in.	1.96 dB/m @ 26.5 GHz 62 dB/100ft	25 mm 0.984in.	45 g/m 13.6 g/ft
<b>SHF4.6M</b> DC - 32.3 GHz	84%	4.65mm 0.183in.	1.69 dB/m @ 32 GHz 51 dB/100ft	25 mm 0.984in.	41 g/m 12.5 g/ft
<b>SHF5</b> DC - 26.5 GHz	78%	5.25mm 0.203in.	1.55 dB/m @ 26.5 GHz 47 dB/100ft	25 mm 0.984in.	72 g/m 21.8 g/ft
<b>SHF5M</b> DC - 26.5 GHz	84%	5.20mm 0.201in.	1.27 dB/m @ 26.5 GHz 39 dB/100ft	25 mm 0.984in.	60 g/m 18.2 g/ft
<b>SHF5UF</b> DC - 26.5 GHz	77%	5.47mm 0.215in.	1.63 dB/m @ 26.5 GHz 50 dB/100ft	25 mm 0.984in.	72 g/m 21.8 g/ft
<b>SHF8</b> DC - 18 GHz	78%	7.80mm 0.303in.	0.9 dB/m @ 18 GHz 27 dB/100ft	40 mm 1.575in.	140 g/m 42.4 g/ft
<b>SHF8M</b> DC - 18 GHz	84%	7.78mm 0.302in.	0.68 dB/m @ 18 GHz 21 dB/100ft	40 mm 1.575in.	130 g/m 39.4 g/ft
<b>SHF13</b> 100 kHz - 9.5 GHz	85%	13.8mm 0.543in.	0.3 dB/m @ 8 GHz 9 dB/100ft	60 mm 2.362in.	280 g/m 84.8 g/ft

<sup>(1)</sup> SPC: Silver Plated Copper

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

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 resistant**  
**Abrasion resistant**  
**UV resistant**  
**Watertightness**

Outdoor cable



Designed to be used in outdoor environments, Radiall's Outdoor cables are typically chosen for Ground Radars and Navy systems.

**UV resistant**  
**Watertightness**

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**

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-low-weight**  
**Non-outgassing materials**  
**High radiation resistance**

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, SSMA, SMA, QRE, TNC and N Type.