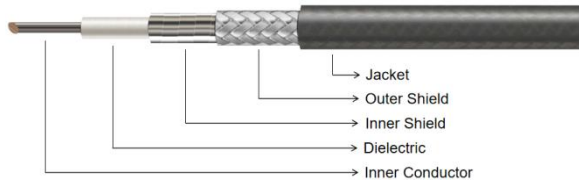


FS1000A

18GHz, 50 Ohm, 10.0mm OD, Low-Loss Phase-Stable Flexible Cable, FEP Jacket.

Cable Construction



Construction Details

Description	Dia. (mm)	Material
Inner Conductor	3.00	Silver-plated copper
Dielectric	8.24	Low-density PTFE
Inner Shield	8.48	Silver-plated copper strip
Outer Shield	9.20	Silver-plated copper braid
Jacket	10.00	FEP

Electrical Specifications:

Operating Frequency: DC to 10 GHz

Cutoff Frequency: 13.5 GHz

Nominal Impedance: 50 Ω

Velocity of Propagation: 83%

Shielding Effectiveness: ≥ 90 dB

Dielectric Withstanding Voltage: 3000 V DC

Passive Intermodulation (PIM): ≤ -155 dBc

Phase Change vs. Temperature: ≤ 750 ppm over -55 $^{\circ}\text{C}$ to $+85$ $^{\circ}\text{C}$

Mechanical Specifications:

Minimum Static Bend Radius: 50 mm

Minimum Dynamic Bend Radius: 100 mm

Weight: 206 g/m

Environmental Specifications:

Temperature: -55 $^{\circ}\text{C}$ to $+105$ $^{\circ}\text{C}$

Typical Attenuation(dB/100m)¹ and Power handling (W)²

Freq. (GHz)	1	2	3	6	8	10	12.4	16	18
Attenuation ¹	10.4	15	18.7	27.2	31.9	36.1	40.8	47.2	50.5
Avg. Power ²	3512	2440	1996	1350	1151	1016	900	778	727
K1: 0.316177; K2: 0.000448									

1: Typical values at $+25$ $^{\circ}\text{C}$ with VSWR=1.0.

2: Typical values at $+40$ $^{\circ}\text{C}$, sea level, with VSWR=1.0.

3: Typical Cable Attenuation Calculation Formula: $K1 * \sqrt{F(\text{MHz})} + K2 * F(\text{MHz})$.

4: Typical Connector insertion loss: $0.03 * \sqrt{F(\text{GHz})}$; multiply by the number of connectors.

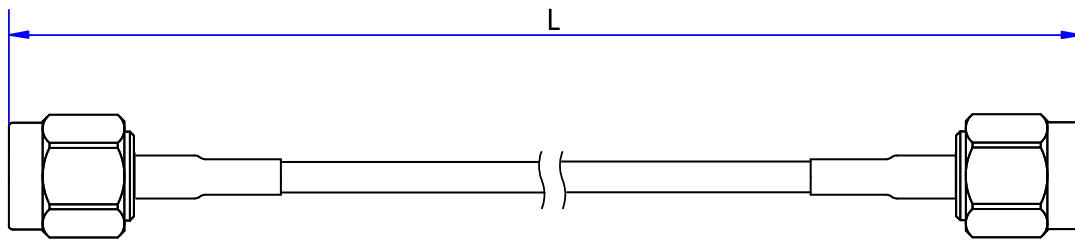
Connector Options

Connector Type	Male Code	Female Code	Max. Frequency	Max. VSWR
N	NM	NF	18 GHz	1.25:1
TNC	TM	TF	18 GHz	1.25:1
SC	GM	GF	6 GHz	1.25:1

Notes:

- Other connector types and configurations are available upon request.
- Add suffix "R" for a right-angle connector and "H" for a bulkhead connector, e.g., SMR and SFH.

Typical Cable Assembly Outline



Notes:

- Connector styles shown are for illustration only. Actual connector types and geometries depend on the selected configuration.
- L = cable assembly length. For straight and bulkhead connectors, L is measured end to end. For right-angle connectors, L is measured from the connector centerline.
- Standard label content includes the part number, serial number, and company logo, unless otherwise specified.

Ordering Information

PN: Cable-Max. Freq.-Connector Configuration-Length (m)

E.g.: *FS1000A-10-NMNF-1* means an FS1000A cable assembly, DC to 10 GHz, N(m)-N(f), 1m.

For identical connectors on both ends, add "2" to the connector code, e.g., NM2; otherwise, list both codes in End A-to-End B order, e.g., NMNF.