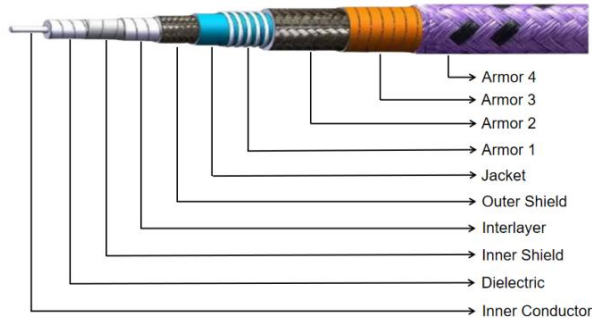


FS18TR

18GHz, 50 Ohm, 10.4mm OD, Flexible Test Cable with Integrated Armor Construction

Cable Construction



Construction Details

Description	OD (mm)	Material
Inner Conductor	2.39	Silver-plated copper
Dielectric	6.16	Low-density PTFE
Inner Shield	6.40	Silver-plated copper strip
Interlayer	6.70	Low-density PTFE
Outer Shield	7.25	Silver-plated copper braid
Jacket	7.80	FEP
Armor Layers 1-2	9.45	Silver-plated copper
Armor Layers 3-4	10.40	PTFE

Electrical Specifications:

Frequency Range: DC-18 GHz

Nominal Impedance: 50 Ω

Phase Stability vs. Flexure⁵: ±5° @ 18 GHz

Amplitude Stability vs Flexure⁵: ±0.1dB @ 18 GHz

Velocity of Propagation: 84% nominal

Shielding Effectiveness: ≥90 dB

Dielectric Withstanding Voltage: 2500 VDC

Mechanical Specifications:

Minimum Static Bend Radius: 52 mm

Minimum Dynamic Bend Radius: 104 mm

Flex Life: ≥200,000 cycles

Durability (Mating): ≥2,000 cycles

Weight: 220 g/m

Environmental Specifications:

Operating Temperature: -55°C to +125°C

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

Freq. (GHz)	1	2	3	6	8	10	12.4	18
Attenuation	16.7	23.8	29.3	42.1	48.9	55.0	61.7	75.3
CW Power	1602	1124	912	636	547	486	434	356
K1: 0.518300; K2: 0.000320								

1: Typical values at +25°C with VSWR=1.0.

2: Typical values at +40°C, sea level, with VSWR=1.0.

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

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

5: Measured with 360° bending around a Ø104 mm mandrel.

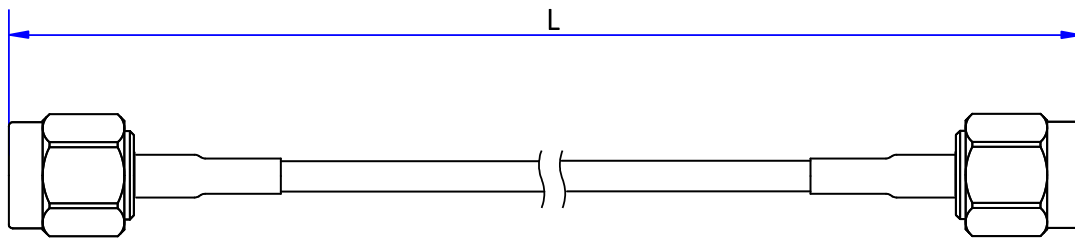
Connector Options

Connector Type	Male Code	Female Code	Max. Frequency	Max. VSWR
SMA	SM	SF	18 GHz	1.25:1
N	NM	NF	18 GHz	1.30:1
TNC	TM	TF	18 GHz	1.30:1

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.: *FS18TR-18-SMSF-1* means an FS18TR armored cable assembly, DC to 18GHz, SMA(m)-SMA(f), 1m.

For identical connectors on both ends, add “2” to the connector code, e.g., SM2; otherwise, list both codes in End A-to-End B order, e.g., SMSF.