

## FTE Low Cost

Features:  
\* Phase Stability  
\* Low PIM

Applications:  
\* Laboratory Test  
\* Interconnection in and between equipment

### Electrical

Frequency:	DC~18GHz
Cut-off Frequency:	34GHz
Impedance:	50Ω
Velocity of Propagation:	70%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	1500V DC

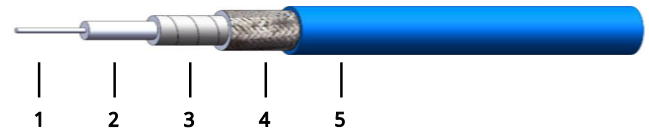
### Mechanical

Bend Radius (installation):	20.0mm
Bend Radius (repeated):	40.0mm
Weight:	49g/m

### Environmental

Temperature: -55~+125°C

### Construction



No.	Name	Size (mm)	Material
1	Inner Conductor	0.94	Silver-plated copper
2	Dielectric	3.00	PTFE
3	Inner Shield	3.20	Silver-plated copper tape
4	Outer Shield	3.55	Silver-plated copper braid
5	Jacket	4.00	FEP

### Attenuation & Power Handling

Frequency (GHz)	0.3	0.5	1	2.4	3	6	8	10	12.4	18
Attenuation*1 (dB/100m)	19.9	26.2	38.2	62.5	71.1	107.5	128.3	147.6	169.4	216.1
Average Power*2 (W)	512	423	290	177	156	103	86	75	65	51

[1] VSWR:1.0; Ambient: +25°C (77°F)

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

Calculate Cable Attenuation: Attenuation (dB/100m) =  $1.082677 * \sqrt{F} \text{ (MHz)} + 0.003937 * F \text{ (MHz)}$

Calculate Connector Attenuation: Attenuation (dB) =  $0.03 * \sqrt{F} \text{ (GHz)}$

### How To Order

#### FTE-X-Y-Z

X: Frequency in GHz

Y: Connector type

Z: Length in meters

Examples:

To order a FTE cable assembly, DC-18GHz, SMA male to SMA female, 0.5 meter, specify FTE-18-SSF-0.5.

Connector naming rules:

S - SMA (18GHz, VSWR 1.25)

N - N (18GHz, VSWR 1.3)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

**Mating Connector**

---

**FCS-MG-141-3**

SMA male, Stainless steel

**FCN-MB-141-3**

N male, Nickel Plated Brass

**FCS-FB-141-1**SMA female, Gold plated  
brass**FCN-FB-141-1**N female, Nickel Plated  
Brass