

# FR280

## Low Loss

**Features:**

- \* Low Insertion Loss
- \* High Weatherability
- \* UV Resistant

**Applications:**

- \* Wireless Communication
- \* Microwave Interconnect

**Electrical**

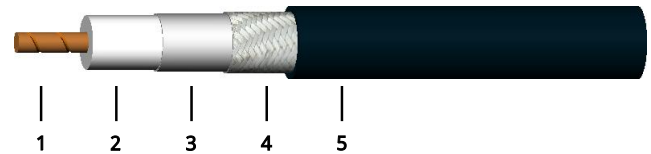
Frequency:	DC~5.8GHz
Cut-off Frequency:	63GHz
Impedance:	50Ω
Velocity of Propagation:	66%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	500V DC

**Mechanical**

Bend Radius (installation):	6.4mm
Bend Radius (repeated):	28.0mm
Weight:	10g/m

**Environmental**

Temperature:	-40~+85°C
Outdoor Life:	20 or 10 years

**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	0.46	Copper-clad steel
2	Dielectric	1.52	PE
3	Outer Conductor	1.65	Double-edged aluminum foil
4	Outer Shield	2.11	Tin-plated copper braid
5	Jacket	2.80	PE or PVC

**Attenuation & Power Handling**

Frequency (GHz)	0.03	0.05	0.15	0.22	0.45	0.9	1.5	1.8	2	2.5	5.8
Attenuation* <sup>1</sup> (dB/100m)	12.9	16.7	29.4	35.8	52.0	75.1	99.0	109.3	115.8	131.1	211.4
Average Power* <sup>2</sup> (W)	230	180	100	83	57	39	29	27	25	22	13

[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) =  $2.3261155 * \sqrt{F} \text{ (MHz)} + 0.0059055 * F \text{ (MHz)}$

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

**How To Order**
**FR280-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a FR280 cable assembly, DC-5.8GHz, SMA male to SMA female, 1.5 meters, specify FR280-5.8-SSF-1.5.

**Connector naming rules:**

3 - 3.5mm (6GHz, VSWR 1.35)

S - SMA (6GHz, VSWR 1.35)

N - N (6GHz, VSWR 1.35)

X - MMCX (6GHz, VSWR 1.35)

M - MCX (6GHz, VSWR 1.35)

B - BNC (4Hz, VSWR 1.4)

D - SMB (4GHz, VSWR 1.35)

Female Connector - Add 'F' after connector name

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