

# FR600

## Low Loss

**Features:**

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

**Applications:**

- \* Wireless Communication
- \* Microwave Interconnect

**Electrical**

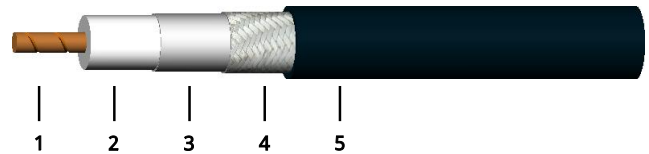
Frequency:	DC~5.8GHz
Cut-off Frequency:	30GHz
Impedance:	50Ω
Velocity of Propagation:	83%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	1500V DC

**Mechanical**

Bend Radius (installation):	20.0mm
Bend Radius (repeated):	65.0mm
Weight:	50g/m

**Environmental**

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

**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	1.42	Copper
2	Dielectric	3.81	Foam PE
3	Outer Conductor	3.94	Double-edged aluminum foil
4	Outer Shield	4.52	Tin-plated copper braid
5	Jacket	6.00	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)	4.4	5.7	10.0	12.2	17.5	25.1	32.8	36.1	38.1	42.9	67.5
Average Power* <sup>2</sup> (W)	1490	1150	660	540	380	260	200	180	170	150	100

[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) =  $0.8038058 * \sqrt{F} \text{ (MHz)} + 0.0010827 * F \text{ (MHz)}$

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

**How To Order**
**FR600-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a FR600 cable assembly, DC-5.8GHz, SMA male to SMA female, 1.5 meters, specify FR600-5.8-SSF-1.5.

**Connector naming rules:**

S - SMA (6GHz, VSWR 1.35)

N - N (6GHz, VSWR 1.35)

T - TNC (6GHz, VSWR 1.35)

X - MMCX (6GHz, VSWR 1.35)

M - MCX (6GHz, VSWR 1.35)

B - BNC (4GHz, 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)

**Mating Connector**

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**FCS-MCB-R600-2**

SMA male, Crimping type,  
Ternary alloy plated brass

**FCN-MCB-R600-2**

N male, Crimping type,  
Brass

**FCS-FCB-R600-1**

SMA female, Crimping type,  
Brass

**FCB-MCB-R600-3**

BNC male, Crimping type,  
Brass

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