

FR600U

Low Loss, Ultra Flexible

Features:

- * Low Insertion Loss
- * High Weatherability
- * UV Resistant
- * Ultra Flexible

Applications:

- * Wireless Communication
- * Microwave Interconnect

Electrical

Frequency:	DC~5.8GHz
Cut-off Frequency:	31GHz
Impedance:	50Ω
Velocity of Propagation:	84%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	1500V DC

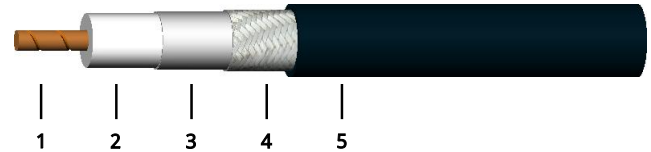
Mechanical

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

Environmental

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

Construction



No.	Name	Size (mm)	Material
1	Inner Conductor	1.42	Stranded 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	TPE

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* ¹ (dB/100m)	5.3	6.9	12.1	14.6	21.1	30.2	39.5	43.4	45.9	51.7	81.3
Average Power* ² (W)	1240	960	550	450	310	220	170	150	140	130	80

[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) = $0.9678478 * \sqrt{F} \text{ (MHz)} + 0.0013123 * F \text{ (MHz)}$

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

How To Order

FR600U-X-Y-Z

X: Frequency in GHz

Y: Connector type

Z: Length in meters

Examples:

To order a FR600U cable assembly, DC-5.8GHz, SMA male to SMA female, 1.5 meters, specify FR600U-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 (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)

Mating Connector

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
