

FR1500

Low Loss

Features:

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

Applications:

- * Wireless Communication
- * Microwave Interconnect

Electrical

Frequency:	DC~5.8GHz
Cut-off Frequency:	10.3GHz
Impedance:	50Ω
Velocity of Propagation:	87%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	4000V DC

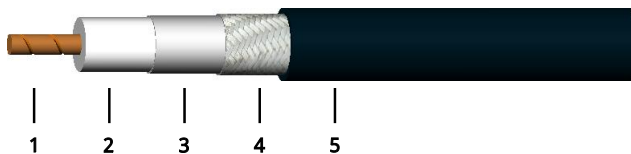
Mechanical

Bend Radius (installation):	38.0mm
Bend Radius (repeated):	152.0mm
Weight:	200g/m

Environmental

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

Construction



No.	Name	Size (mm)	Material
1	Inner Conductor	4.47	Copper-clad aluminum
2	Dielectric	11.56	Foam PE
3	Outer Conductor	11.72	Double-edged aluminum foil
4	Outer Shield	12.45	Tin-plated copper braid
5	Jacket	15.00	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* ¹ (dB/100m)	1.4	1.8	3.2	3.9	5.7	8.4	11.1	12.3	13.0	14.8	24.2
Average Power* ² (W)	5510	4240	2410	1970	1350	930	700	630	590	520	320

[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) = $0.2526247 * \sqrt{F} \text{ (MHz)} + 0.0008530 * F \text{ (MHz)}$

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

How To Order

FR1500-X-Y-Z

X: Frequency in GHz

Y: Connector type

Z: Length in meters

Examples:

To order a FR1500 cable assembly, DC-5.8GHz, 7/16 DIN male, 1.5 meters, specify FR1500-5.8-77-1.5.

Connector naming rules:

7 - 7/16 DIN (L29) (6GHz, 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-R1500-1

SMA male, Crimping type,
Ternary alloy plated brass

FCS-MRCB-R1500-1

SMA male, Right angle,
Crimping type, Ternary
alloy plated brass & Nickel
plated brass

FCN-MCB-R1500-1

N male, Crimping type,
Ternary alloy plated brass

FCN-MRCB-R1500-1

N male, Right angle,
Crimping type, Nickel
plated brass

