

PLC50FR-78CBF

7/8"R Low Loss Coaxial Cable

PROSE

- 7/8" Foam Insulation Low Loss Coaxial Cable
- Corrugated copper outer conductor
- Black flame retardant polyolefin jacket
- Recommended operating frequency: 1~5000 MHz
- This product is used for telecommunication system
- Indoor application, flame retardant, low smoke, halogen free



Photo for reference

Material

Inner conductor material	Smooth copper tube
Dielectric material	Foam PE
Outer conductor material	Corrugated copper(Annularly)
Jacket material	Flame retardant polyolefin, Black, Halogen free

Dimensions

Nominal size	7/8" Low Loss
Inner conductor OD.	Ø 9.4 mm
Dielectric OD.	Ø 22.6 mm
Outer conductor OD.	Ø 25.4 mm
Jacket OD.	Ø 27.8 mm

Reference standard

Flame retardant property	IEC 60332-1-2, IEC 60332-3-24 IEC 60754-1/-2, IEC 61034-2
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Electrical Specification

Impedance	50 ± 1 Ω
Relative Velocity of Propagation	88 %
Capacitance	74 pF/m
Inductance	0.19 μH/m
Maximum Operating Frequency	4.9 GHz
Cut-off Frequency	4.9 GHz
Peak Power Rating	95 kW
Insulation Resistance	≥ 10 GΩ x km

DC Breakdown Voltage	10000 V
Jacket Spark Test Voltage	8000 Vrms

Environmental Specification

Installation Temperature	-30°C to +60°C
Operating Temperature	-40°C to +85°C
Storage Temperature	-50°C to +85°C
RoHS	Compliant

Standard Conditions

Attenuation, Ambient Temperature	20°C
Average Power, Ambient Temperature	40°C
Average Power, Inner Conductor Temp	100°C

Mechanical Specification

Tensile strength	1450 N
Min. bending radius (single)	120 mm
Min. bending radius (repeated)	250 mm
Number of bends, minimum (typical)	15 (50)
Bending moment	18 Nm
Recommended hanger spacing	1.0 m

Return Loss

Return loss(Band A)	≤ -26dB 800 to 1000MHz
Return loss(Band B)	≤ -24dB 1700 to 2700MHz
Return loss(Band C)	≤ -21dB 3300 to 4000MHz
Return loss(Band D)	≤ -20.8dB 4800 to 5000MHz

Attenuation

Frequency (MHz)	Attenuation (dB/100m)	Average Power(kW)
100	1.11	9.30
200	1.60	6.40
300	1.99	4.82
400	2.31	4.16
450	2.49	3.81

700	3.25	2.80
800	3.42	2.75
900	3.61	2.62
960	3.73	2.59
1000	3.84	2.56
1800	5.35	1.79
2000	5.62	1.70
2100	5.83	1.64
2200	6.01	1.60
2500	6.48	1.48
2600	6.72	1.35
2700	6.75	1.25
3000	7.20	1.17
3500	7.72	1.09
3600	7.85	1.07
3800	8.05	1.05
4000	8.36	1.01
5000	9.56	0.88

*Maximum attenuation value shall be 105% of the nominal attenuation value.

Marking on cable

PROSE _ PLC50FR-78CBF _ 50Ω _ _ _ _ (DD+MM+SS+YY+NNNNN) _ _ _ _ XXXXm
Remark1: Printing Interval: 1m, within ±0.5% accuracy.
Remark2: (DD+MM+SS+YY+NNNNN) means cable code.
Remark3: XXXXm means cable meter.

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