

PFC50FR-12A

1/2"R Coaxial Cable

PROSE

- 1/2" Foam Insulation Coaxial Cable
- Corrugated copper outer conductor
- Black flame retardant polyolefin jacket
- Recommended operating frequency: 1~4000 MHz
- This product is used for telecommunication system



Photo for reference

Material

Inner conductor material	Copper-Clad Aluminium Wire
Dielectric material	Foam PE
Outer conductor material	Corrugated copper(Annularly)
Jacket material	Flame retardant polyolefin, Black, Halogen free

Dimensions

Nominal size	1/2"
Inner conductor OD.	Ø 4.8 mm
Dielectric OD.	Ø 12.2 mm
Outer conductor OD.	Ø 13.8 mm
Jacket OD.	Ø 15.9 mm

Reference standard

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

Impedance	50 ± 1 Ω
Relative Velocity of Propagation	87 %
Capacitance	76 pF/m
Inductance	0.190 μH/m
Maximum Operating Frequency	8.8 GHz
Cut-off Frequency	10.0 GHz
Peak Power Rating	40 kW
Insulation Resistance	≥ 10 GΩx km
DC Breakdown Voltage	6000 V
Jacket Spark Test Voltage	8000 Vrms

Environmental Specification

Installation Temperature	-20°C to +60°C
Operating Temperature	-40°C to +85°C
Storage Temperature	-70°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	1150N
Min. bending radius (single)	70 mm
Min. bending radius (repeated)	125 mm
Number of bends, minimum (typical)	15 (50)
Bending moment	5 Nm
Recommended hanger spacing	0.8 m

Return Loss

Return loss(Band A)	≤ -26dB 800 to 1000MHz
Return loss(Band B)	≤ -24dB 1700 to 1900MHz
Return loss(Band C)	≤ -24dB 1900 to 2200MHz
Return loss(Band D)	≤ -24dB 2200 to 2500MHz
Return loss(Band E)	≤ -24dB 2500 to 2700MHz
Return loss(Band F)	≤ -23dB 3300 to 4000MHz

Attenuation

Frequency (MHz)	Attenuation (dB/100m)	Average Power(kW)
100	2.15	3.94
200	3.08	2.75
300	3.81	1.99
400	4.46	1.80
450	4.70	1.75
700	6.00	1.42

800	6.35	1.33
900	6.75	1.25
1000	7.20	1.18
1800	9.90	0.86
2000	10.50	0.81
2100	10.96	0.79
2200	11.10	0.77
2500	11.95	0.73
2700	12.47	0.69
3000	13.20	0.65
3500	14.65	0.58
3600	14.80	0.57
3800	15.32	0.55
4000	15.76	0.53
5000	18.20	0.47
6000	21.00	0.41
*Maximum attenuation value shall be 105% of the nominal attenuation value.		

Marking on cable

Prose _ PFC50FR-12A _ 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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