

PFAC50FR-12A

1/2"R Coaxial Cable

PROSE

- 1/2" Foam Insulation Coaxial Cable
- Corrugated aluminium outer conductor
- Black flame retardant polyolefin jacket
- Recommended operating frequency: 1~3900 MHz
- This product is used for telecommunication system
- Indoor application, flame retardant, low smoke, halogen free



Photo for reference

Material

Inner conductor material	Copper-Clad Aluminium Wire
Dielectric material	Foam PE
Outer conductor material	Corrugated aluminium (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 13.9 mm
Jacket OD.	Ø 15.8 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	86 %
Capacitance	76 pF/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	4000 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)	50 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 2700MHz
Return loss(Band C)	≤ -21dB 3300 to 4000MHz

Attenuation

Frequency (MHz)	Attenuation (dB/100m)	Average Power(kW)
100	2.35	3.53
200	3.35	2.45
300	4.11	1.99
400	4.86	1.72
450	5.14	1.59
800	6.92	1.17
900	7.40	1.10
1000	7.75	1.04

1800	10.6	0.75
2000	11.2	0.71
2200	11.8	0.67
2500	12.67	0.62
2700	13.18	0.58
3000	13.99	0.52
3500	15.68	0.49
3600	15.99	0.48
3800	16.70	0.46
4000	17.20	0.45

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

Marking on cable

PROSE _ PFAC50FR-12A _ 50Ω _ _ _ _ (DD+MM+SS+YY+NNNNN) _ _ _ _ XXXXm
Remark1: Printing Interval: 1m, within $\pm 0.5\%$ accuracy.
Remark2: (DD+MM+SS+YY+NNNNN) means cable code.
Remark3: XXXXm means cable meter.

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