

PFC50FR-12A2BA

1/2"R Coaxial Cable

PROSE

- 1/2" Foam Insulation Coaxial Cable
- Corrugated copper outer conductor
- Black flame retardant polyolefin jacket
- Recommended operating frequency: 1~6000 MHz
- CPR B2ca s1a,d0,a1
- 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 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
CPR	B2ca-s1a,d0,a1

Electrical Specification

Impedance	50 ± 1 Ω
Relative Velocity of Propagation	86 %
Capacitance	76 pF/m
Inductance	0.190 μH/m
Maximum Operating Frequency	8.8 GHz
Cut-off Frequency	8.8 GHz

Peak Power Rating	40 kW
Insulation Resistance	$\geq 10 \text{ G}\Omega \times \text{km}$
DC Breakdown Voltage	6000 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	1100 N
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)	$\geq 26\text{dB}$ 617 to 960MHz
Return loss(Band B)	$\geq 26\text{dB}$ 1700 to 2200MHz
Return loss(Band C)	$\geq 24\text{dB}$ 2200 to 2700MHz
Return loss(Band D)	$\geq 23\text{dB}$ 3400 to 4200MHz
Return loss(Band E)	$\geq 22\text{dB}$ 5150 to 5925MHz

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
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
2200	11.10	0.77
2500	11.95	0.73
2700	12.47	0.69
3000	13.20	0.65
3500	14.40	0.59
3600	14.64	0.58
3800	15.12	0.56
4000	15.50	0.55
5000	17.60	0.48
6000	19.60	0.43

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

Marking on cable

PROSE _ PFC50FR-12A2BA _ 50Ω _ _ _ _ "B2ca, s1a, d0, a1" _ _ CE _ _ _ _ (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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