

PRC50FR-114A

1-1/4" Leaky Cable

PROSE

- 1-1/4" Foam Insulation Leaky Cable
- Slotted copper foil outer conductor
- Black flame retardant polyolefin jacket
- Recommended operating frequency: 700~3800 MHz
- The leaky cable is used in tunnels and subway, etc.
- Indoor application, flame retardant, low smoke, halogen free



Photo for reference

Material

Inner conductor material	Helical Copper Tube
Dielectric material	Foam PE
Outer conductor material	Copper foil
Jacket material	Flame retardant polyolefin, Black, Halogen free

Dimensions

Nominal size	1-1/4"
Inner conductor OD.	Ø 12.8 mm
Dielectric OD.	Ø 32.4 mm
Outer conductor OD.	Ø 32.8 mm
Jacket OD.	Ø 37.0 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 ± 2 Ω
Capacitance	75 pF/m
Insulation Resistance	≥5000 MΩx km
Insulation Voltage	10000 V
Jacket Spark Test Voltage	10000 V
Relative Velocity of Propagation	89 %
Peak power rating	200 kW
Operating Frequency Band	75~3800 MHz

Optimum Operating Frequency Band	700~3800MHz
Stop Band	1090-1100MHz & 2170-2200MHz & 2725-2750MHz & 3270-3300MHz
VSWR	≤1.3 75 MHz to 150MHz
	≤1.3 800MHz to 960MHz
	≤1.3 1710MHz to 2025MHz
	≤1.3 2110MHz to 2170MHz
	≤1.3 2300MHz to 2400MHz
	≤1.3 2515MHz to 2675MHz
	≤1.3 3400MHz to 3800MHz

Environmental Specification

Installation Temperature	-40°C to +80°C
Operating Temperature	-55°C to +85°C
Storage Temperature	-55°C to +85°C
RoHS	Compliant

Polarization mode

Polarization	5-500MHz	Radial
	698-3800MHz	Vertical

Mechanical Specification

Minimum Bend Radius:	
Single Bend	350 mm
Multiple Bend	600 mm
Bending Moment	15.5 N·m
Minimum Distance to Wall	50 mm
Recommended Hanger Spacing	1.0 m
Tensile Strength	2500 N

Standard Conditions

Attenuation Test Method	IEC 61196-4
Attenuation Tolerance	±5 %
Attenuation Ambient Temperature	20 °C
Average power, ambient temperature	40 °C
Average power, inner conductor temperature	100 °C

Coupling Loss Test Method	IEC 61196-4
Coupling Loss Tolerance	±5 dB

Attenuation and Coupling Loss

Frequency (MHz)	Attenuation (dB/100m)	Coupling Loss (2m) 50% (dB)	Coupling Loss (2m) 95% (dB)
700	2.7	80	85
800	2.8	75	78
900	3.0	73	76
960	3.2	72	74
1800	4.6	69	72
1900	4.8	67	71
2000	5.0	66	70
2100	5.2	66	70
2200	5.4	65	70
2300	5.6	64	69
2400	5.8	64	69
2600	6.2	64	69
2700	6.5	63	68
3400	8.4	62	67
3500	9.0	62	67
3600	9.8	62	67
3800	12.0	62	67

Marking on cable

PROSE _ PRC50FR-114A _ 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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