

- 1/2" Foam Insulation Leaky Cable
- Slotted copper foil outer conductor
- Black flame retardant polyolefin jacket
- Recommended operating frequency: 75~2700 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 | Copper-Clad Aluminium Wire                      |
| Dielectric material      | Foam PE                                         |
| Outer conductor material | Copper foil                                     |
| Jacket material          | Flame retardant polyolefin, Black, Halogen free |

## Dimensions

|                     |           |
|---------------------|-----------|
| Nominal size        | 1/2"      |
| Inner conductor OD. | Ø 4.8 mm  |
| Dielectric OD.      | Ø 12.3 mm |
| Outer conductor OD. | Ø 12.6 mm |
| Jacket OD.          | Ø 15.5 mm |

## Reference standard

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

## Electrical Specification

|                                  |                   |
|----------------------------------|-------------------|
| Impedance                        | 50 ± 2 Ω          |
| Capacitance                      | 75 pF/m           |
| Insulation Resistance            | ≥5000 MΩx km      |
| Insulation Voltage               | 6000 V            |
| Jacket Spark Test Voltage        | 8000 V            |
| Relative Velocity of Propagation | 86 %              |
| Operating Frequency Band         | 75MHz to 2700 MHz |

|                                  |                               |
|----------------------------------|-------------------------------|
| Optimum Operating Frequency Band | 700MHz to 2700MHz             |
| Stop Band                        | 1110~1140 MHz & 2220~2280 MHz |
| VSWR                             | ≤1.4 75 MHz to 150MHz         |
|                                  | ≤1.4 800MHz to 960MHz         |
|                                  | ≤1.4 1700MHz to 2025MHz       |
|                                  | ≤1.4 2110MHz to 2170MHz       |
|                                  | ≤1.4 2300MHz to 2700MHz       |

## 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 | 5-150MHz    | Radial   |
|              | 570-2700MHz | Vertical |

## Mechanical Specification

|                            |               |
|----------------------------|---------------|
| Minimum Bend Radius:       |               |
| Single Bend                | 75 mm         |
| Multiple Bend              | 150 mm        |
| Bending Moment             | 13.5 N·m      |
| Minimum Distance to Wall   | 50 mm         |
| Recommended Hanger Spacing | 0.8 m to 1.2m |
| Tensile Strength           | 1000 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<br>(MHz) | Attenuation<br>(dB/100m) | Coupling Loss (2m) 50%<br>(dB) | Coupling Loss (2m) 95%<br>(dB) |
|--------------------|--------------------------|--------------------------------|--------------------------------|
| 75                 | 2.2                      | 80                             | 85                             |
| 100                | 2.5                      | 82                             | 86                             |
| 150                | 3.2                      | 81                             | 86                             |
| 700                | 6.8                      | 73                             | 78                             |
| 800                | 7.2                      | 69                             | 73                             |
| 900                | 7.7                      | 68                             | 72                             |
| 960                | 8.3                      | 68                             | 71                             |
| 1800               | 11.8                     | 65                             | 68                             |
| 1900               | 12.3                     | 66                             | 68                             |
| 2000               | 12.8                     | 67                             | 70                             |
| 2100               | 13.5                     | 66                             | 69                             |
| 2400               | 15.5                     | 63                             | 67                             |
| 2600               | 16.9                     | 64                             | 68                             |
| 2620               | 17.8                     | 64                             | 68                             |
| 2700               | 18.1                     | 65                             | 68                             |

## Marking on cable

|                                                                    |
|--------------------------------------------------------------------|
| PROSE _ PRC50FR-12 _ 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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