



Radiating cable, slotted and corrugated copper tube for outer conductor and smooth copper tube for inner conductor, foam PE dielectric, 1-1/4 in, FRNC jacket

General Specifications

Flexibility Standard Jacket Color Black

Performance Note Attenuation guaranteed within the tolerance ±10% Structure Note Dimension guaranteed within the tolerance ±5%

Nominal Size 1-1/4 in

Material Specifications

Inner Conductor Smooth Copper Tube

Dielectric Foam PE

Outer Conductor Slotted and Corrugated Copper Tube

Jacket FRNC
Diameter of Inner Conductor 13.20 mm
Diameter of Dielectric 32.60 mm
Diameter of Outer Conductor 35.80 mm
Diameter of Jacket 38.80 mm

Electrical Specifications

Impedance 50 ohms±1 ohm Maximum Available Frequence 50-2500 MHz

Velocity Ratio 88%
Peak Power 205 kW

Insulation Resistance 100,000 MΩ·km

DC Breakdown Voltage 9000 V
Nominal Capacitance 70 pF/m
Nominal Inductance 0.19 µH/m

FC50R-114-FRNC-01 HLCTYZ-50-32



Attenuations

| Frequency | Attenuation | Attenuation | Coupling Loss, 2m |
|-----------|-------------|-------------|-------------------|
| (MHz) | (dB/100 m) | (dB/100 ft) | (dB, 50%) |
| 150 | 1.2 | 0.37 | 73/84 |
| 450 | 2.8 | 0.85 | 73/83 |
| 900 | 4.0 | 1.22 | 76/86 |
| 1800 | 5.2 | 1.58 | 73/79 |
| 2400 | 6.4 | 1.95 | 72/80 |

Return Loss / VSWR

| Frequency Band | VSWR | Return Loss (dB) | Tolerance |
|----------------|------|------------------|-----------|
| 50-2500MHz | 1.30 | 17.7 | 5% |

Mechanical Specifications

| Bending Radius (Single) | ≥400 mm |
|-----------------------------|---------|
| Bending Radius (Repeated) | ≥580 mm |
| Number of Bending (Typical) | ≤15 |
| Tensile Strength | 2500N |

Environmental Specifications

| Installation Temperature | -20 °C to +55 °C |
|--------------------------|------------------|
| Operating Temperature | -20 °C to +85 °C |
| Storage Temperature | -25 °C to +85 °C |

Regulatory Compliances

| ISO 9001:2015 | Compliant |
|---------------|-----------|
| ROHS | Compliant |
| China RoHS | Compliant |
| UK RoHS | Compliant |
| REACH | Compliant |
| EU/CE | Compliant |

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