RCT7, RADIAX® Coaxial Radiating Cable with Bump, 800–960 MHz, tuned foil, 1-5/8 in, black non-halogenated, fire retardant polyolefin jacket

Product Classification

Product Type: Radiating cable
Product Brand: RADIAX®
Product Series: RCT7

General Specifications

Polarization: Vertical
Cable Type: Radiating Mode (RCT) Series
Jacket Color: Black

Dimensions

Diameter Over Jacket, maximum: 49.784 mm | 1.96 in
Inner Conductor OD: 18.161 mm | 0.715 in
Outer Conductor OD: 43.815 mm | 1.725 in
Nominal Size: 1-5/8 in
Recommended Distance from the Wall: 101.6 mm | 4 in
Recommended Hanger Spacing: 1.3 m | 4.265 ft

Electrical Specifications

Attenuation Test Method: IEC 61196-4
Attenuation Tolerance: ±5%
Cable Impedance: 50 ohm ±2 ohm
dc Resistance, Inner Conductor: 1.435 ohms/km | 0.437 ohms/kft
dc Resistance, Outer Conductor: 1.969 ohms/km | 0.6 ohms/kft
dc Test Voltage: 15000 V
Insulation Resistance: 100000 MOhms-km
Jacket Spark Test Voltage (rms): 10000 V
Operating Frequency Band: 50 – 1000 MHz
Optimum Operating Frequency Band: 800 – 960 MHz
Peak Power: 302 kW
Stop Bands: 715 – 770 MHz
Velocity: 93 %
VSWR Installed, typical, 50–960 MHz: 1.3
VSWR on Reel, typical: 1.43

Attenuation

<table>
<thead>
<tr>
<th>Frequency (MHz)</th>
<th>Attenuation (dB/100 m)</th>
<th>Attenuation (dB/100 ft)</th>
<th>Coupling Loss 50%</th>
<th>Coupling Loss 95%</th>
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</thead>
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<td>0.81</td>
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</table>

Material Specifications

- **Dielectric Material**: Foam PE
- **Jacket Material**: Non-halogenated, fire retardant polyolefin
- **Inner Conductor Material**: Corrugated copper tube
- **Outer Conductor Material**: Copper foil

Mechanical Specifications

- **Minimum Bend Radius, single Bend**: 508 mm | 20 in
- **Tensile Strength**: 215 kg | 473.993 lb
- **Bending Moment**: 16 N-m | 141,612 in lb
- **Coupling Loss Test Method**: IEC 61196-4
RCT7-C-2A-RNA

Coupling Loss Tolerance ±5 dB
Flat Plate Crush Strength 0.8 kg/mm | 44.798 lb/in
Indication of Slot Alignment Yes—bumps face the wall

Environmental Specifications

Installation temperature -30 °C to +60 °C (-22 °F to +140 °F)
Operating Temperature -30 °C to +80 °C (-22 °F to +176 °F)
Storage Temperature -30 °C to +80 °C (-22 °F to +176 °F)
Attenuation, Ambient Temperature 68 °F | 20 °C
Average Power, Ambient Temperature 104 °F | 40 °C
Average Power, Inner Conductor Temperature 212 °F | 100 °C
Fire Retardancy Test Method IEC 60332-1-2 | IEC 60332-3C-24
Smoke Index Test Method IEC 61034
Toxicity Index Test Method IEC 60754-1 | IEC 60754-2

Packaging and Weights

Cable weight 0.83 kg/m | 0.558 lb/ft

Regulatory Compliance/Certifications

Agency Classification
ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system