RCT7, RADIAX® Coaxial Radiating Cable with Bump, 50–2400 MHz, tuned foil, 1-5/8 in, black non-halogenated, fire retardant polyolefin jacket

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

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

Dimensions
Nominal Size: 1-5/8 in
Diameter Over Jacket, maximum: 49.784 mm | 1.960 in
Inner Conductor OD: 0.7150 in | 18.1600 mm
Outer Conductor OD: 1.725 in | 43.820 mm
Cable Weight: 0.54 lb/ft | 0.83 kg/m

Electrical Specifications
Operating Frequency Band: 50 – 2400 MHz
Optimum Operating Frequency Band: 1700 – 2400 MHz | 800 – 960 MHz
Polarization: Vertical
Velocity: 93 %
VSWR Installed, typical, 1700–2700 MHz: 1.38
VSWR Installed, typical, 50–960 MHz: 1.30
VSWR on Reel, typical: 1.43
Stop Bands: 1110 – 1650 MHz
Cable Impedance: 50 ohm ±2 ohm
dc Resistance, Inner Conductor: 0.437 ohms/kft | 1.435 ohms/km
dc Resistance, Outer Conductor: 0.600 ohms/kft | 1.969 ohms/km
dc Test Voltage: 15000 V
Insulation Resistance
100000 Mohms•km

Jacket Spark Test Voltage (rms)
10000 V

Peak Power
302.0 kW

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)

General Specifications

Cable Type
Radiating Mode (RCT) Series

Mechanical Specifications

Bending Moment
16.0 N-m | 12.0 ft lb

Flat Plate Crush Strength
46.0 lb/in | 0.8 kg/mm

Indication of Slot Alignment
Yes; bumps face the wall

Minimum Bend Radius, Single Bend
508.00 mm | 20.00 in

Recommended Distance from the Wall
101.6 mm | 4.0 in

Recommended Hanger Spacing
1.3 m | 4.3 ft

Tensile Strength
215 kg | 475 lb

Fire Retardancy Test Method
IEC 60332-1 | IEC 60332-3C-24

Smoke Index Test Method
IEC 61034

Toxicity Index Test Method
IEC 60754-1 | IEC 60754-2

Standard Conditions

Attenuation Test Method
IEC 61196-4

Attenuation Tolerance
±5%

Attenuation, Ambient Temperature
20 °C | 68 °F

Average Power, Ambient Temperature
40 °C | 104 °F

Average Power, Inner Conductor Temperature
100 °C | 212 °F

Coupling Loss Test Method
IEC 61196-4

Coupling Loss Tolerance
±5 dB

Electrical Performance

<table>
<thead>
<tr>
<th>Frequency</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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### Regulatory Compliance/Certifications

<table>
<thead>
<tr>
<th>Agency</th>
<th>Classification</th>
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<tr>
<td>RoHS 2011/65/EU</td>
<td>Compliant</td>
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<td>ISO 9001:2015</td>
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<th>Frequency (MHz)</th>
<th>Emission Limit</th>
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