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 | 70 – 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
1090 – 1145 MHz | 1635 – 1705 MHz | 545 – 570 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
RCT7-WBC-3A-RNA

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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<tbody>
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<td>75 MHz</td>
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<td>100 MHz</td>
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<td>150 MHz</td>
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<td>600 MHz</td>
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Regulatory Compliance/Certifications

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<th>Agency</th>
<th>Classification</th>
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<tr>
<td>RoHS 2011/65/EU</td>
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