RCT6, RADIAX® Coaxial Radiating Cable with Bump, 70–960 MHz, tuned foil, 1-1/4 in, black non-halogenated, fire retardant polyolefin jacket

Product Classification
Brand
RADIAX®
Product Series
RCT6
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
1-1/4 in
Diameter Over Jacket, maximum
39.116 mm | 1.540 in
Inner Conductor OD
0.5200 in | 14.2080 mm
Outer Conductor OD
1.340 in | 34.030 mm
Cable Weight
0.43 lb/ft | 0.64 kg/m

Electrical Specifications
Operating Frequency Band
50 – 1000 MHz
Optimum Operating Frequency Band
70 – 960 MHz
Polarization
Vertical
Velocity
91 %
VSWR Installed, typical, 50–960 MHz
1.30
VSWR on Reel, typical
1.43
Stop Bands
520 – 600 MHz
Cable Impedance
50 ohm ±2 ohm
dc Resistance, Inner Conductor
0.530 ohms/kft | 1.740 ohms/km
dc Resistance, Outer Conductor
0.900 ohms/kft | 2.953 ohms/km
dc Test Voltage
8500 V
Insulation Resistance
100000 Mohms•km
Jacket Spark Test Voltage (rms) 10000 V
Peak Power 180.0 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 15.5 N-m | 11.4 ft lb
Flat Plate Crush Strength 80.0 lb/in | 1.4 kg/mm
Indication of Slot Alignment Yes; bumps face the wall
Minimum Bend Radius, Single Bend 381.00 mm | 15.00 in
Recommended Distance from the Wall 101.6 mm | 4.0 in
Recommended Hanger Spacing 1.3 m | 4.3 ft
Tensile Strength 168 kg | 370 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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</thead>
<tbody>
<tr>
<td>75 MHz</td>
<td>0.80</td>
<td>0.24</td>
<td>59</td>
<td>71</td>
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<tr>
<td>100 MHz</td>
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<tr>
<td>150 MHz</td>
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<td>80</td>
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<td>350 MHz</td>
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<td>0.52</td>
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<tr>
<td>450 MHz</td>
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<td>800 MHz</td>
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<tr>
<td>900 MHz</td>
<td>3.00</td>
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<td>63</td>
<td>67</td>
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## Regulatory Compliance/Certifications

<table>
<thead>
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<th>Agency</th>
<th>Classification</th>
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<tbody>
<tr>
<td>ISO 9001:2015</td>
<td>Designed, manufactured and/or distributed under this quality management system</td>
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