RCT6, RADIAX® Coaxial Radiating Cable with Bump, 1700-2500 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**: 1700 – 2500 MHz
- **Optimum Operating Frequency Band**: 2300 – 2500 MHz
- **Polarization**: Vertical
- **Velocity**: 91 %
- **VSWR Installed, typical, 1700–2500 MHz**: 1.30
- **VSWR on Reel, typical**: 1.43
- **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
RCT6-S-1A-RNA

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>
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<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>
</tr>
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<td>1700 MHz</td>
<td>3.50</td>
<td>1.07</td>
<td>75</td>
<td>77</td>
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<tr>
<td>1800 MHz</td>
<td>3.60</td>
<td>1.10</td>
<td>72</td>
<td>76</td>
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<tr>
<td>1900 MHz</td>
<td>3.80</td>
<td>1.16</td>
<td>70</td>
<td>72</td>
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<tr>
<td>2000 MHz</td>
<td>3.90</td>
<td>1.19</td>
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<tr>
<td>2100 MHz</td>
<td>4.10</td>
<td>1.25</td>
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<td>70</td>
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<tr>
<td>2200 MHz</td>
<td>4.30</td>
<td>1.31</td>
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</tr>
<tr>
<td>2300 MHz</td>
<td>4.50</td>
<td>1.37</td>
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<td>69</td>
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<tr>
<td>2400 MHz</td>
<td>4.80</td>
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Regulatory Compliance/Certifications

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