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

Product Type
Radiating cable

Product Brand
RADIAx®

Product Series
RCT6

General Specifications

Polarization
Vertical

Cable Type
Radiating Mode (RCT) Series

Jacket Color
Black

Dimensions

Diameter Over Jacket, maximum
39.116 mm | 1.54 in

Inner Conductor OD
14.208 mm | 0.559 in

Outer Conductor OD
34.036 mm | 1.34 in

Nominal Size
1-1/4 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
1.74 ohms/km | 0.53 ohms/kft

dc Resistance, Outer Conductor
2.953 ohms/km | 0.9 ohms/kft

dc Test Voltage
8500 V
### Insulation Resistance
100000 MOhms-km

### Jacket Spark Test Voltage (rms)
10000 V

### Operating Frequency Band
50 – 1000 MHz

### Optimum Operating Frequency Band
70 – 960 MHz

### Peak Power
180 kW

### Stop Bands
520 – 600 MHz

### Velocity
91 %

### 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>
<tbody>
<tr>
<td>75.0</td>
<td>0.8</td>
<td>0.24</td>
<td>59</td>
<td>71</td>
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<tr>
<td>100.0</td>
<td>0.9</td>
<td>0.27</td>
<td>61</td>
<td>70</td>
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<td>150.0</td>
<td>1.1</td>
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<td>80</td>
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<td>350.0</td>
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<td>0.52</td>
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<td>450.0</td>
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<td>70</td>
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<tr>
<td>800.0</td>
<td>2.7</td>
<td>0.83</td>
<td>62</td>
<td>66</td>
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<tr>
<td>900.0</td>
<td>3</td>
<td>0.91</td>
<td>63</td>
<td>67</td>
</tr>
</tbody>
</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**: 381 mm | 15 in
- **Tensile Strength**: 168 kg | 370.376 lb
- **Bending Moment**: 15.5 N-m | 137.187 in lb
- **Coupling Loss Test Method**: IEC 61196-4
- **Coupling Loss Tolerance**: ±5 dB
- **Flat Plate Crush Strength**: 1.4 kg/mm | 78.396 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**  
0.64 kg/m | 0.43 lb/ft

Regulatory Compliance/Certifications

<table>
<thead>
<tr>
<th>Agency</th>
<th>Classification</th>
</tr>
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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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