RCT6, RADIAX® Coaxial Radiating Cable with Bump, 50–2400 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 – 2400 MHz

**Optimum Operating Frequency Band**
1700 – 2400 MHz | 800 – 960 MHz

**Peak Power**
180 kW

**Stop Bands**
1110 – 1650 MHz

**Velocity**
91%

**VSWR Installed, typical, 1700–2700 MHz**
1.38

**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>
</tr>
</thead>
<tbody>
<tr>
<td>75.0</td>
<td>0.8</td>
<td>0.24</td>
<td>72</td>
<td>85</td>
</tr>
<tr>
<td>100.0</td>
<td>0.9</td>
<td>0.27</td>
<td>73</td>
<td>83</td>
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<tr>
<td>150.0</td>
<td>1.1</td>
<td>0.33</td>
<td>78</td>
<td>90</td>
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<td>350.0</td>
<td>1.6</td>
<td>0.49</td>
<td>89</td>
<td>101</td>
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<td>450.0</td>
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<td>0.58</td>
<td>91</td>
<td>102</td>
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<td>800.0</td>
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<td>0.79</td>
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<td>68</td>
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<tr>
<td>900.0</td>
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<td>0.85</td>
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<td>67</td>
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<tr>
<td>1700.0</td>
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<td>1.6</td>
<td>56</td>
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<td>1800.0</td>
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<td>69</td>
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<td>2200.0</td>
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<td>1.67</td>
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<td>70</td>
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<td>2300.0</td>
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<td>1.74</td>
<td>59</td>
<td>65</td>
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<tr>
<td>2400.0</td>
<td>6.4</td>
<td>1.95</td>
<td>57</td>
<td>69</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

<table>
<thead>
<tr>
<th>Specification</th>
<th>Range</th>
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</thead>
<tbody>
<tr>
<td>Installation temperature</td>
<td>-30 °C to +60 °C (-22 °F to +140 °F)</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-30 °C to +80 °C (-22 °F to +176 °F)</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-30 °C to +80 °C (-22 °F to +176 °F)</td>
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<tr>
<td>Attenuation, Ambient Temperature</td>
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<tr>
<td>Average Power, Ambient Temperature</td>
<td>104 °F</td>
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<td>Average Power, Inner Conductor Temperature</td>
<td>212 °F</td>
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<tr>
<td>Fire Retardancy Test Method</td>
<td>IEC 60332-1</td>
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<tr>
<td>Smoke Index Test Method</td>
<td>IEC 61034</td>
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<tr>
<td>Toxicity Index Test Method</td>
<td>IEC 60754-1</td>
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</tbody>
</table>

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