RCT6, RADIA**X**® Coaxial Radiating Cable with Bump, 50–2400 MHz, tuned foil, 1-1/4 in, black non-halogenated, fire retardant polyolefin jacket

**Product Classification**
- **Brand**: RADIA**X**®
- **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 – 2400 MHz
- **Optimum Operating Frequency Band**: 1700 – 2400 MHz | 800 – 960 MHz
- **Polarization**: Vertical
- **Velocity**: 91 %
- **VSWR Installed, typical, 1700–2700 MHz**: 1.38
- **VSWR Installed, typical, 50–960 MHz**: 1.30
- **VSWR on Reel, typical**: 1.43
- **Stop Bands**: 1110 – 1650 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>Coupling Loss 50%</th>
<th>Coupling Loss 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>75 MHz</td>
<td>0.80</td>
<td>72</td>
<td>85</td>
</tr>
<tr>
<td>100 MHz</td>
<td>0.90</td>
<td>73</td>
<td>83</td>
</tr>
<tr>
<td>150 MHz</td>
<td>1.10</td>
<td>78</td>
<td>90</td>
</tr>
<tr>
<td>350 MHz</td>
<td>1.60</td>
<td>89</td>
<td>101</td>
</tr>
<tr>
<td>450 MHz</td>
<td>1.90</td>
<td>91</td>
<td>102</td>
</tr>
<tr>
<td>800 MHz</td>
<td>2.60</td>
<td>67</td>
<td>68</td>
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</table>

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### 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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</table>

### Frequency Range

<table>
<thead>
<tr>
<th>Frequency (MHz)</th>
<th>1G PIM (dBm)</th>
<th>2G PIM (dBm)</th>
<th>3G PIM (dBm)</th>
<th>4G PIM (dBm)</th>
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</thead>
<tbody>
<tr>
<td>900 MHz</td>
<td>2.80</td>
<td>0.85</td>
<td>66</td>
<td>67</td>
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<tr>
<td>1700 MHz</td>
<td>5.30</td>
<td>1.60</td>
<td>56</td>
<td>59</td>
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<tr>
<td>1800 MHz</td>
<td>5.10</td>
<td>1.50</td>
<td>58</td>
<td>61</td>
</tr>
<tr>
<td>1900 MHz</td>
<td>5.10</td>
<td>1.50</td>
<td>59</td>
<td>62</td>
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<tr>
<td>2000 MHz</td>
<td>5.10</td>
<td>1.50</td>
<td>59</td>
<td>62</td>
</tr>
<tr>
<td>2100 MHz</td>
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<tr>
<td>2400 MHz</td>
<td>6.40</td>
<td>1.95</td>
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<td>69</td>
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