RCT7, RADIAX® Coaxial Radiating Cable with Bump, 800–960 MHz, tuned foil, 1-5/8 in, black non-halogenated, fire retardant polyolefin jacket

**Product Classification**
- **Brand**: RADIAX®
- **Product Series**: RCT7
- **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**: 1-5/8 in
- **Diameter Over Jacket, maximum**: 49.784 mm | 1.960 in
- **Inner Conductor OD**: 0.7150 in | 18.1600 mm
- **Outer Conductor OD**: 1.725 in | 43.820 mm
- **Cable Weight**: 0.54 lb/ft | 0.83 kg/m

**Electrical Specifications**
- **Operating Frequency Band**: 50 – 1000 MHz
- **Optimum Operating Frequency Band**: 800 – 960 MHz
- **Polarization**: Vertical
- **Velocity**: 93 %
- **VSWR Installed, typical, 50–960 MHz**: 1.30
- **VSWR on Reel, typical**: 1.43
- **Stop Bands**: 715 – 770 MHz
- **Cable Impedance**: 50 ohm ±2 ohm
- **dc Resistance, Inner Conductor**: 0.437 ohms/kft | 1.435 ohms/km
- **dc Resistance, Outer Conductor**: 0.600 ohms/kft | 1.969 ohms/km
- **dc Test Voltage**: 15000 V
- **Insulation Resistance**: 100000 Mohms•km
Jacket Spark Test Voltage (rms) 10000 V
Peak Power 302.0 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 16.0 N-m | 12.0 ft lb
Flat Plate Crush Strength 46.0 lb/in | 0.8 kg/mm
Indication of Slot Alignment Yes; bumps face the wall
Minimum Bend Radius, Single Bend 508.00 mm | 20.00 in
Recommended Distance from the Wall 101.6 mm | 4.0 in
Recommended Hanger Spacing 1.3 m | 4.3 ft
Tensile Strength 215 kg | 475 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>
</tr>
</thead>
<tbody>
<tr>
<td>75 MHz</td>
<td>0.50</td>
<td>0.15</td>
<td>73</td>
<td>85</td>
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<tr>
<td>100 MHz</td>
<td>0.60</td>
<td>0.18</td>
<td>70</td>
<td>79</td>
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<tr>
<td>150 MHz</td>
<td>0.70</td>
<td>0.21</td>
<td>76</td>
<td>89</td>
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<tr>
<td>350 MHz</td>
<td>1.20</td>
<td>0.37</td>
<td>85</td>
<td>97</td>
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<tr>
<td>450 MHz</td>
<td>1.40</td>
<td>0.43</td>
<td>75</td>
<td>82</td>
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<tr>
<td>600 MHz</td>
<td>1.60</td>
<td>0.49</td>
<td>68</td>
<td>71</td>
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<tr>
<td>700 MHz</td>
<td>1.70</td>
<td>0.52</td>
<td>64</td>
<td>66</td>
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## Regulatory Compliance/Certifications

<table>
<thead>
<tr>
<th>Agency</th>
<th>Classification</th>
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<tbody>
<tr>
<td>RoHS 2011/65/EU</td>
<td>Compliant</td>
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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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### Magnetic Field Strengths

<table>
<thead>
<tr>
<th>Frequency</th>
<th>800 MHz</th>
<th>850 MHz</th>
<th>900 MHz</th>
<th>960 MHz</th>
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<tbody>
<tr>
<td></td>
<td>2.00</td>
<td>2.20</td>
<td>2.40</td>
<td>2.70</td>
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<tr>
<td></td>
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<td>0.73</td>
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