



## RCT7-C-2A-RNA

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

### 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                       |
| 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                       |
| Velocity                            | 93%                            |

### 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 |
|------------|-----------------------------|

RCT7-C-2A-RNA

Brand

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## 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

| Frequency | Attenuation (dB/100 m) | Attenuation (dB/100 ft) | Coupling Loss 50% | Coupling Loss 95% |
|-----------|------------------------|-------------------------|-------------------|-------------------|
| 75 MHz    | 0.50                   | 0.15                    | 73                | 85                |
| 100 MHz   | 0.60                   | 0.18                    | 70                | 79                |
| 150 MHz   | 0.70                   | 0.21                    | 76                | 89                |
| 350 MHz   | 1.20                   | 0.37                    | 85                | 97                |
| 450 MHz   | 1.40                   | 0.43                    | 75                | 82                |
| 600 MHz   | 1.60                   | 0.49                    | 68                | 71                |
| 700 MHz   | 1.70                   | 0.52                    | 64                | 66                |
| 800 MHz   | 2.00                   | 0.61                    | 63                | 65                |
| 850 MHz   | 2.20                   | 0.67                    | 61                | 63                |
| 900 MHz   | 2.40                   | 0.73                    | 59                | 61                |
| 960 MHz   | 2.70                   | 0.81                    | 57                | 60                |

## Regulatory Compliance/Certifications

| Agency          | Classification                                                                 |
|-----------------|--------------------------------------------------------------------------------|
| RoHS 2011/65/EU | Compliant                                                                      |
| ISO 9001:2008   | Designed, manufactured and/or distributed under this quality management system |

