

RCT7-LTC-4A-RNAM



RCT7, RADIAX® Coaxial Radiating Cable with Bump, 70–960 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

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|---------------------------------|--|
| 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 |
| Tape Barrier | Mica |

Dimensions

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|--------------------------------------|------------------------|
| 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

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|--|--------------------------------|
| Operating Frequency Band | 50 – 1000 MHz |
| Optimum Operating Frequency Band | 70 – 960 MHz |
| Polarization | Vertical |
| VSWR Installed, typical, 50–960 MHz | 1.30 |
| VSWR on Reel, typical | 1.43 |
| Stop Bands | 515 – 545 MHz |
| Cable Impedance | 50 ohm ±2 ohm |
| dc Resistance, Inner Conductor | 0.410 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 |

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| Jacket Spark Test Voltage (rms) | 10000 V |
| Peak Power | 302.0 kW |
| Velocity | 93% |

Environmental Specifications

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|---------------------------------|--------------------------------------|
| 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

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|-------------------|-----------------------------|
| Cable Type | Radiating Mode (RCT) Series |
|-------------------|-----------------------------|

Mechanical Specifications

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|---|---|
| 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 NFPA 130-2010 |
| Smoke Index Test Method | IEC 61034 |
| Toxicity Index Test Method | IEC 60754-1 IEC 60754-2 |

Standard Conditions

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|---|-----------------|
| 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 | 63 | 74 |
| 100 MHz | 0.60 | 0.18 | 64 | 77 |
| 150 MHz | 0.70 | 0.21 | 71 | 84 |
| 350 MHz | 1.10 | 0.34 | 72 | 79 |
| 450 MHz | 1.30 | 0.40 | 68 | 72 |
| 800 MHz | 1.90 | 0.58 | 63 | 66 |

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|---------|------|------|----|----|
| 900 MHz | 2.20 | 0.67 | 63 | 66 |
| 960 MHz | 2.30 | 0.70 | 64 | 69 |

Regulatory Compliance/Certifications

Agency

RoHS 2011/65/EU

ISO 9001:2015

Classification

Compliant

Designed, manufactured and/or distributed under this quality management system

