

# RCT6-WBC-1X-RNA



RCT6, RADIAX® Coaxial Radiating Cable with Bump, 50–3800 MHz, tuned foil, 1-1/4 in, black non-halogenated, fire retardant polyolefin jacket

**OBSOLETE**  
This product was discontinued on: January 30, 2024

## Product Classification

|                |                 |
|----------------|-----------------|
| Product Type   | Radiating cable |
| Product Brand  | RADIAX®         |
| Product Series | RCT6            |

## General Specifications

|              |                     |
|--------------|---------------------|
| Polarization | Vertical            |
| Cable Type   | Coupled Mode 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 |

# RCT6-WBC-1X-RNA

|  |                              |
|--|------------------------------|
| 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 – 3800 MHz                |
| Optimum Operating Frequency Band       | 50 – 3800 MHz                |
| Peak Power                             | 180 kW                       |
| 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

| Frequency (MHz) | Attenuation (dB/100 m) | Attenuation (dB/100 ft) | Coupling Loss 50% | Coupling Loss 95% |
|-----------------|------------------------|-------------------------|-------------------|-------------------|
| 75.0            | 0.8                    | 0.24                    | 56                | 68                |
| 100.0           | 0.9                    | 0.27                    | 57                | 68                |
| 150.0           | 1.1                    | 0.33                    | 62                | 76                |
| 350.0           | 1.7                    | 0.52                    | 75                | 86                |
| 450.0           | 2                      | 0.61                    | 76                | 86                |
| 800.0           | 2.65                   | 0.81                    | 75                | 86                |
| 900.0           | 2.85                   | 0.87                    | 75                | 86                |
| 1700.0          | 4.3                    | 1.31                    | 71                | 82                |
| 1800.0          | 4.45                   | 1.36                    | 70                | 81                |
| 1900.0          | 4.6                    | 1.4                     | 67                | 79                |
| 2000.0          | 4.8                    | 1.46                    | 67                | 77                |
| 2100.0          | 5                      | 1.52                    | 69                | 79                |
| 2200.0          | 5.3                    | 1.62                    | 69                | 79                |
| 2300.0          | 5.4                    | 1.64                    | 66                | 77                |
| 2400.0          | 5.6                    | 1.71                    | 66                | 76                |
| 2500.0          | 5.9                    | 1.8                     | 65                | 77                |
| 2600.0          | 6.1                    | 1.86                    | 66                | 77                |
| 2700.0          | 6.4                    | 1.95                    | 66                | 76                |
| 2800.0          | 6.5                    | 1.98                    | 66                | 78                |

# RCT6-WBC-1X-RNA

|        |      |      |    |    |
|--------|------|------|----|----|
| 3400.0 | 9    | 2.7  | 60 | 66 |
| 3500.0 | 9.3  | 2.8  | 59 | 65 |
| 3600.0 | 9.5  | 2.9  | 60 | 65 |
| 3700.0 | 9.7  | 2.96 | 60 | 66 |
| 3800.0 | 10.1 | 3.1  | 44 | 49 |

## 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     | No cable/slot orientation needed |

## 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) |
| Attenuation, Ambient Temperature           | 68 °F   20 °C                        |
| Average Power, Ambient Temperature         | 104 °F   40 °C                       |
| Average Power, Inner Conductor Temperature | 212 °F   100 °C                      |
| Fire Retardancy Test Method                | IEC 60332-1-2   IEC 60332-3C-24      |
| Smoke Index Test Method                    | IEC 61034                            |
| Toxicity Index Test Method                 | IEC 60754-1   IEC 60754-2            |

## Packaging and Weights

|              |                        |
|--------------|------------------------|
| Cable weight | 0.64 kg/m   0.43 lb/ft |
|--------------|------------------------|

# RCT6-WBC-1X-RNA

---

## Regulatory Compliance/Certifications

| Agency        | Classification   |
|---------------|--|
| CHINA-ROHS    | Below maximum concentration value  |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system   |
| REACH-SVHC    | Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a> |
| ROHS          | Compliant  |
| UK-ROHS       | Compliant  |

