

# RCT6-S-1A-RNA



RCT6, RADIAX® Coaxial Radiating Cable with Bump, 1700–2500 MHz, tuned foil, 1-1/4 in, black non-halogenated, fire retardant polyolefin jacket

## Product Classification

<b>Brand</b>	RADIAX®
<b>Product Series</b>	RCT6
<b>Product Type</b>	Radiating cable

## Construction Materials

<b>Jacket Material</b>	Non-halogenated, fire retardant polyolefin
<b>Dielectric Material</b>	Foam PE
<b>Inner Conductor Material</b>	Corrugated copper tube
<b>Jacket Color</b>	Black
<b>Outer Conductor Material</b>	Copper foil

## Dimensions

<b>Nominal Size</b>	1-1/4 in
<b>Diameter Over Jacket, maximum</b>	39.116 mm   1.540 in
<b>Inner Conductor OD</b>	0.5200 in   14.2080 mm
<b>Outer Conductor OD</b>	1.340 in   34.030 mm
<b>Cable Weight</b>	0.43 lb/ft   0.64 kg/m

## Electrical Specifications

<b>Operating Frequency Band</b>	1700 – 2500 MHz
<b>Optimum Operating Frequency Band</b>	2300 – 2500 MHz
<b>Polarization</b>	Vertical
<b>VSWR Installed, typical, 1700–2500 MHz</b>	1.30
<b>VSWR on Reel, typical</b>	1.43
<b>Cable Impedance</b>	50 ohm ±2 ohm
<b>dc Resistance, Inner Conductor</b>	0.530 ohms/kft   1.740 ohms/km
<b>dc Resistance, Outer Conductor</b>	0.900 ohms/kft   2.953 ohms/km
<b>dc Test Voltage</b>	8500 V
<b>Insulation Resistance</b>	100000 Mohms•km
<b>Jacket Spark Test Voltage (rms)</b>	10000 V
<b>Peak Power</b>	180.0 kW

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**Velocity** 91%

## 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

Frequency	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Coupling Loss 50%	Coupling Loss 95%
1700 MHz	3.50	1.07	75	77
1800 MHz	3.60	1.10	72	76
1900 MHz	3.80	1.16	70	72
2000 MHz	3.90	1.19	69	73
2100 MHz	4.10	1.25	67	70
2200 MHz	4.30	1.31	67	70
2300 MHz	4.50	1.37	66	69
2400 MHz	4.80	1.46	63	66

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2500 MHz 5.20

1.58

62

65

## Regulatory Compliance/Certifications

**Agency**

ISO 9001:2015

**Classification**

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

