

# RCT6-CPUS-1A-RNA



RCT6, RADIAX® Coaxial Radiating Cable with Bump, 50–2400 MHz, tuned foil, 1-1/4 in, black non-halogenated, fire retardant polyolefin jacket

**OBSOLETE**  
This product was discontinued on: July 30, 2021

## Product Classification

Product Type	Radiating cable
Product Brand	RADIAX®
Product Series	RCT6

## General Specifications

Polarization	Vertical
Cable Type	Radiating Mode (RCT) 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

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<b>dc Resistance, Inner Conductor</b>	1.74 ohms/km   0.53 ohms/kft
<b>dc Resistance, Outer Conductor</b>	2.953 ohms/km   0.9 ohms/kft
<b>dc Test Voltage</b>	8500 V
<b>Insulation Resistance</b>	100000 MOhms-km
<b>Jacket Spark Test Voltage (rms)</b>	10000 V
<b>Operating Frequency Band</b>	50 – 2400 MHz
<b>Optimum Operating Frequency Band</b>	1700 – 2400 MHz   800 – 960 MHz
<b>Peak Power</b>	180 kW
<b>Stop Bands</b>	1110 – 1650 MHz
<b>Velocity</b>	91 %
<b>VSWR Installed, typical, 1700–2700 MHz</b>	1.38
<b>VSWR Installed, typical, 50–960 MHz</b>	1.3
<b>VSWR on Reel, typical</b>	1.43

## Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Coupling Loss 50%	Coupling Loss 95%
<b>75.0</b>	0.8	0.24	72	85
<b>100.0</b>	0.9	0.27	73	83
<b>150.0</b>	1.1	0.33	78	90
<b>350.0</b>	1.6	0.49	89	101
<b>450.0</b>	1.9	0.58	91	102
<b>800.0</b>	2.6	0.79	67	68
<b>900.0</b>	2.8	0.85	66	67
<b>1700.0</b>	5.3	1.6	56	59
<b>1800.0</b>	5.1	1.5	58	61
<b>1900.0</b>	5.1	1.5	59	62
<b>2000.0</b>	5.1	1.5	59	62
<b>2100.0</b>	5.4	1.65	58	69
<b>2200.0</b>	5.5	1.67	61	70
<b>2300.0</b>	5.7	1.74	59	65
<b>2400.0</b>	6.4	1.95	57	69

## Material Specifications

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

## Mechanical Specifications

<b>Minimum Bend Radius, single Bend</b>	381 mm   15 in
<b>Tensile Strength</b>	168 kg   370.376 lb
<b>Bending Moment</b>	15.5 N-m   137.187 in lb
<b>Coupling Loss Test Method</b>	IEC 61196-4
<b>Coupling Loss Tolerance</b>	±5 dB
<b>Flat Plate Crush Strength</b>	1.4 kg/mm   78.396 lb/in
<b>Indication of Slot Alignment</b>	Yes—bumps face the wall

## Environmental Specifications

<b>Installation temperature</b>	-30 °C to +60 °C (-22 °F to +140 °F)
<b>Operating Temperature</b>	-30 °C to +80 °C (-22 °F to +176 °F)
<b>Storage Temperature</b>	-30 °C to +80 °C (-22 °F to +176 °F)
<b>Attenuation, Ambient Temperature</b>	68 °F   20 °C
<b>Average Power, Ambient Temperature</b>	104 °F   40 °C
<b>Average Power, Inner Conductor Temperature</b>	212 °F   100 °C
<b>Fire Retardancy Test Method</b>	IEC 60332-1-2   IEC 60332-3C-24
<b>Smoke Index Test Method</b>	IEC 61034
<b>Toxicity Index Test Method</b>	IEC 60754-1   IEC 60754-2

## Packaging and Weights

<b>Cable weight</b>	0.64 kg/m   0.43 lb/ft
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## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

