

# RCT7-WBC-4A-RNA



RCT7, RADIAX® Coaxial Radiating Cable with Bump, 50–2700 MHz, tuned foil, 1-5/8 in, black non-halogenated, fire retardant polyolefin jacket

## Product Classification

<b>Brand</b>	RADIAX®
<b>Product Series</b>	RCT7
<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>	1-5/8 in
<b>Diameter Over Jacket, maximum</b>	49.784 mm   1.960 in
<b>Inner Conductor OD</b>	0.7150 in   18.1600 mm
<b>Outer Conductor OD</b>	1.725 in   43.820 mm
<b>Cable Weight</b>	0.52 lb/ft   0.78 kg/m

## Electrical Specifications

<b>Operating Frequency Band</b>	50 – 2700 MHz
<b>Optimum Operating Frequency Band</b>	1710 – 2700 MHz   698 – 960 MHz
<b>Polarization</b>	Vertical
<b>VSWR Installed, typical, 1700–2700 MHz</b>	1.38
<b>VSWR Installed, typical, 50–960 MHz</b>	1.30
<b>VSWR on Reel, typical</b>	1.43
<b>Stop Bands</b>	1090 – 1145 MHz   1635 – 1705 MHz   2180 – 2270 MHz   545 – 570 MHz
<b>Cable Impedance</b>	50 ohm ±2 ohm
<b>dc Resistance, Inner Conductor</b>	0.437 ohms/kft   1.435 ohms/km
<b>dc Resistance, Outer Conductor</b>	0.600 ohms/kft   1.969 ohms/km
<b>dc Test Voltage</b>	15000 V
<b>Insulation Resistance</b>	100000 Mohms•km

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<b>Jacket Spark Test Voltage (rms)</b>	10000 V
<b>Peak Power</b>	302.0 kW
<b>Velocity</b>	93%

## 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)

## General Specifications

<b>Cable Type</b>	Radiating Mode (RCT) Series
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## Mechanical Specifications

<b>Bending Moment</b>	16.0 N-m   12.0 ft lb
<b>Flat Plate Crush Strength</b>	46.0 lb/in   0.8 kg/mm
<b>Indication of Slot Alignment</b>	Yes; bumps face the wall
<b>Minimum Bend Radius, Single Bend</b>	508.00 mm   20.00 in
<b>Recommended Distance from the Wall</b>	101.6 mm   4.0 in
<b>Recommended Hanger Spacing</b>	1.3 m   4.3 ft
<b>Tensile Strength</b>	215 kg   475 lb
<b>Fire Retardancy Test Method</b>	IEC 60332-1   IEC 60332-3C-24
<b>Smoke Index Test Method</b>	IEC 61034
<b>Toxicity Index Test Method</b>	IEC 60754-1   IEC 60754-2

## Standard Conditions

<b>Attenuation Test Method</b>	IEC 61196-4
<b>Attenuation Tolerance</b>	±5%
<b>Attenuation, Ambient Temperature</b>	20 °C   68 °F
<b>Average Power, Ambient Temperature</b>	40 °C   104 °F
<b>Average Power, Inner Conductor Temperature</b>	100 °C   212 °F
<b>Coupling Loss Test Method</b>	IEC 61196-4
<b>Coupling Loss Tolerance</b>	±5 dB

## Electrical Performance

Frequency	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Coupling Loss 50%	Coupling Loss 95%
75 MHz	0.53	0.16	69	79
100 MHz	0.60	0.18	67	77
150 MHz	0.75	0.23	76	82
350 MHz	1.20	0.37	78	84
450 MHz	1.34	0.41	74	78
500 MHz	1.44	0.44	76	86

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600 MHz	1.60	0.48	72	81
700 MHz	1.75	0.53	72	77
800 MHz	1.90	0.58	70	74
900 MHz	2.05	0.62	71	76
960 MHz	2.14	0.65	69	73
1700 MHz	3.20	0.98	64	71
1800 MHz	3.32	1.01	64	69
1900 MHz	3.46	1.05	61	68
2000 MHz	3.60	1.10	59	69
2100 MHz	3.79	1.16	61	69
2200 MHz	4.02	1.23	61	68
2300 MHz	4.29	1.31	61	67
2400 MHz	4.49	1.37	61	67
2500 MHz	4.81	1.47	61	68
2600 MHz	5.11	1.56	60	69
2700 MHz	5.60	1.71	58	67

## Regulatory Compliance/Certifications

### Agency

RoHS 2011/65/EU  
ISO 9001:2015

### Classification

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

