

# 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

## 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>	50 – 3800 MHz
<b>Optimum Operating Frequency Band</b>	50 – 3800 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>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

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<b>Peak Power</b>	180.0 kW
<b>Velocity</b>	91%

## 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>	Coupled Mode Series
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## Mechanical Specifications

<b>Bending Moment</b>	15.5 N-m   11.4 ft lb
<b>Flat Plate Crush Strength</b>	80.0 lb/in   1.4 kg/mm
<b>Indication of Slot Alignment</b>	No cable/slot orientation needed
<b>Minimum Bend Radius, Single Bend</b>	381.00 mm   15.00 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>	168 kg   370 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	0.80	0.24	56	68
100 MHz	0.90	0.27	57	68
150 MHz	1.10	0.33	62	76
350 MHz	1.70	0.52	75	86
450 MHz	2.00	0.61	76	86
800 MHz	2.65	0.81	75	86
900 MHz	2.85	0.87	75	86

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1700 MHz	4.30	1.31	71	82
1800 MHz	4.45	1.36	70	81
1900 MHz	4.60	1.40	67	79
2000 MHz	4.80	1.46	67	77
2100 MHz	5.00	1.52	69	79
2200 MHz	5.30	1.62	69	79
2300 MHz	5.40	1.64	66	77
2400 MHz	5.60	1.71	66	76
2500 MHz	5.90	1.80	65	77
2600 MHz	6.10	1.86	66	77
2700 MHz	6.40	1.95	66	76
2800 MHz	6.50	1.98	66	78
3400 MHz	9.00	2.70	60	66
3500 MHz	9.30	2.80	59	65
3600 MHz	9.50	2.90	60	65
3700 MHz	9.70	2.96	60	66
3800 MHz	10.10	3.10	44	49

## Regulatory Compliance/Certifications

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

