

# RCT4-WBC-1X-RNA



RCT4, RADIAX® Coaxial Radiating Cable with Bump, 50–3800 MHz, foil, 1/2 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	RCT4

## General Specifications

Polarization	Vertical
Cable Type	Coupled Mode Series
Jacket Color	Black

## Dimensions

Diameter Over Jacket, maximum	16.256 mm   0.64 in
Inner Conductor OD	4.826 mm   0.19 in
Outer Conductor OD	12.954 mm   0.51 in
Nominal Size	1/2 in
Recommended Distance from the Wall	50.8 mm   2 in
Recommended Hanger Spacing	1 m   3.281 ft

## Electrical Specifications

Attenuation Test Method	IEC 61196-4
Attenuation Tolerance	±5%
Cable Impedance	50 ohm ±3 ohm

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dc Resistance, Inner Conductor	1.48 ohms/km   0.451 ohms/kft
dc Resistance, Outer Conductor	5.305 ohms/km   1.617 ohms/kft
dc Test Voltage	4000 V
Insulation Resistance	100000 MOhms-km
Jacket Spark Test Voltage (rms)	8000 V
Operating Frequency Band	50 – 3800 MHz
Peak Power	40 kW
Velocity	88 %
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	1.8	0.54	59	67
100.0	2.1	0.65	52	63
150.0	2.6	0.79	61	71
350.0	3.9	1.19	72	83
450.0	4.4	1.34	74	84
700.0	6.4	1.95	73	83
800.0	6.9	2.1	73	84
900.0	7.4	2.3	73	85
960.0	7.7	2.4	73	85
1700.0	10.7	3.3	70	81
1800.0	11.2	3.4	69	80
1900.0	11.5	3.5	71	82
2000.0	11.6	3.6	69	81
2100.0	12.3	3.7	72	84
2200.0	12.5	3.8	70	82
2300.0	13.3	4.1	64	75
2400.0	13.8	4.2	66	77
2500.0	14.3	4.4	66	77
2600.0	14.7	4.5	65	75
2700.0	15.4	4.7	63	75

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2800.0	16	4.9	60	70
3300.0	18.2	5.5	56	65
3400.0	18.6	5.7	56	65
3500.0	19.1	5.8	56	65
3600.0	20.8	6.33	58	65
3700.0	21.4	6.52	60	65
3800.0	22.2	6.76	61	67

## Material Specifications

Dielectric Material	Foam PE
Jacket Material	Non-halogenated, fire retardant polyolefin
Inner Conductor Material	Copper-clad aluminum wire
Outer Conductor Material	Copper foil

## Mechanical Specifications

Minimum Bend Radius, single Bend	127 mm   5 in
Tensile Strength	45 kg   99.208 lb
Bending Moment	3.7 N-m   32.748 in lb
Coupling Loss Test Method	IEC 61196-4
Coupling Loss Tolerance	±10 dB
Flat Plate Crush Strength	0.7 kg/mm   39.198 lb/in
Indication of Slot Alignment	Yes—bumps face the wall

## 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

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## Packaging and Weights

**Cable weight** 0.19 kg/m | 0.128 lb/ft

## 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

