

# RCT7-WBC-2A-RNA



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

## OBSOLETE

This product was discontinued on: April 1, 2013

### Replaced By:

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
RCT7-WBC-4A-RVD	RCT7, RADIAX® Coaxial Radiating Cable with Bump, 50–2700 MHz, tuned foil, 1-5/8 in, black non-halogenated, fire retardant polyolefin jacket
RCT7-WBC-5A-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>Product Type</b>	Radiating cable
<b>Product Brand</b>	RADIAX®
<b>Product Series</b>	RCT7

## General Specifications

<b>Polarization</b>	Vertical
<b>Cable Type</b>	Radiating Mode (RCT) Series
<b>Jacket Color</b>	Black

## Dimensions

<b>Diameter Over Jacket, maximum</b>	49.784 mm   1.96 in
<b>Inner Conductor OD</b>	18.161 mm   0.715 in
<b>Outer Conductor OD</b>	43.815 mm   1.725 in
<b>Nominal Size</b>	1-5/8 in
<b>Recommended Distance from the Wall</b>	101.6 mm   4 in

# RCT7-WBC-2A-RNA

**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

**dc Resistance, Inner Conductor** 1.435 ohms/km | 0.437 ohms/kft

**dc Resistance, Outer Conductor** 1.969 ohms/km | 0.6 ohms/kft

**dc Test Voltage** 15000 V

**Insulation Resistance** 100000 MOhms-km

**Jacket Spark Test Voltage (rms)** 10000 V

**Operating Frequency Band** 50 – 2700 MHz

**Optimum Operating Frequency Band** 1710 – 2700 MHz | 698 – 960 MHz

**Peak Power** 302 kW

**Stop Bands** 1090 – 1145 MHz | 1635 – 1705 MHz | 2180 – 2270 MHz | 545 – 570 MHz

**Velocity** 93 %

**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	0.5	0.15	69	79
100.0	0.6	0.18	68	79
150.0	0.7	0.21	75	82
350.0	1.2	0.37	79	85
450.0	1.3	0.39	76	80
500.0	1.4	0.42	78	88
600.0	1.6	0.48	72	82
700.0	1.7	0.52	72	77
800.0	1.9	0.58	71	73
900.0	2	0.61	70	74
960.0	2.1	0.643	70	73

# RCT7-WBC-2A-RNA

1700.0	3.2	0.97	66	72
1800.0	3.3	1	64	69
1900.0	3.5	1.06	62	68
2000.0	3.6	1.1	61	68
2100.0	3.8	1.16	62	68
2200.0	4	1.22	61	67
2300.0	4.3	1.31	61	67
2400.0	4.5	1.37	60	68
2500.0	4.8	1.46	60	68
2600.0	5.2	1.58	59	68
2700.0	5.7	1.73	57	67

## Material Specifications

<b>Dielectric Material</b>	Foam PE
<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>	508 mm   20 in
<b>Tensile Strength</b>	215 kg   473.993 lb
<b>Bending Moment</b>	16 N-m   141.612 in lb
<b>Coupling Loss Test Method</b>	IEC 61196-4
<b>Coupling Loss Tolerance</b>	±5 dB
<b>Flat Plate Crush Strength</b>	0.8 kg/mm   44.798 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

# RCT7-WBC-2A-RNA

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**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

## Packaging and Weights

**Cable weight** 0.78 kg/m | 0.524 lb/ft

## Regulatory Compliance/Certifications

### Agency

ISO 9001:2015



### Classification

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