

RCT7-WBC-3A-RNA



RCT7, RADIAX® Coaxial Radiating Cable with Bump, 50–2400 MHz, tuned foil, 1-5/8 in, black non-halogenated, fire retardant polyolefin jacket

Product Classification

Brand	RADIAX®
Product Series	RCT7
Product Type	Radiating cable

Construction Materials

Jacket Material	Non-halogenated, fire retardant polyolefin
Dielectric Material	Foam PE
Inner Conductor Material	Corrugated copper tube
Jacket Color	Black
Outer Conductor Material	Copper foil

Dimensions

Nominal Size	1-5/8 in
Diameter Over Jacket, maximum	49.784 mm 1.960 in
Inner Conductor OD	0.7150 in 18.1600 mm
Outer Conductor OD	1.725 in 43.820 mm
Cable Weight	0.54 lb/ft 0.83 kg/m

Electrical Specifications

Operating Frequency Band	50 – 2400 MHz
Optimum Operating Frequency Band	1700 – 2400 MHz 70 – 960 MHz
Polarization	Vertical
VSWR Installed, typical, 1700–2700 MHz	1.38
VSWR Installed, typical, 50–960 MHz	1.30
VSWR on Reel, typical	1.43
Stop Bands	1090 – 1145 MHz 1635 – 1705 MHz 545 – 570 MHz
Cable Impedance	50 ohm ±2 ohm
dc Resistance, Inner Conductor	0.437 ohms/kft 1.435 ohms/km
dc Resistance, Outer Conductor	0.600 ohms/kft 1.969 ohms/km
dc Test Voltage	15000 V
Insulation Resistance	100000 Mohms•km

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

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)

General Specifications

Cable Type	Radiating Mode (RCT) Series
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Mechanical Specifications

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

Standard Conditions

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

Electrical Performance

Frequency	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Coupling Loss 50%	Coupling Loss 95%
75 MHz	0.50	0.15	70	84
100 MHz	0.60	0.18	64	75
150 MHz	0.80	0.24	73	83
350 MHz	1.10	0.34	75	82
450 MHz	1.20	0.36	72	77
600 MHz	1.60	0.49	68	75

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700 MHz	1.80	0.55	69	74
800 MHz	1.90	0.58	69	72
900 MHz	2.00	0.61	67	70
960 MHz	2.10	0.64	70	75
1700 MHz	3.20	0.97	62	69
1800 MHz	3.60	1.10	60	64
1900 MHz	3.90	1.20	61	66
2000 MHz	4.10	1.25	60	64
2100 MHz	4.50	1.37	58	65
2200 MHz	5.00	1.52	59	64
2400 MHz	6.00	1.83	56	62

Regulatory Compliance/Certifications

Agency

RoHS 2011/65/EU

Classification

Compliant

