

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

Brand	RADIAX®
Product Series	RCT6
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	1-1/4 in
Diameter Over Jacket, maximum	39.116 mm 1.540 in
Inner Conductor OD	0.5200 in 14.2080 mm
Outer Conductor OD	1.340 in 34.030 mm
Cable Weight	0.43 lb/ft 0.64 kg/m

Electrical Specifications

Operating Frequency Band	50 – 3800 MHz
Optimum Operating Frequency Band	50 – 3800 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
Cable Impedance	50 ohm ±2 ohm
dc Resistance, Inner Conductor	0.530 ohms/kft 1.740 ohms/km
dc Resistance, Outer Conductor	0.900 ohms/kft 2.953 ohms/km
dc Test Voltage	8500 V
Insulation Resistance	100000 Mohms•km
Jacket Spark Test Voltage (rms)	10000 V

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Peak Power	180.0 kW
Velocity	91%

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	Coupled Mode Series
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Mechanical Specifications

Bending Moment	15.5 N-m 11.4 ft lb
Flat Plate Crush Strength	80.0 lb/in 1.4 kg/mm
Indication of Slot Alignment	No cable/slot orientation needed
Minimum Bend Radius, Single Bend	381.00 mm 15.00 in
Recommended Distance from the Wall	101.6 mm 4.0 in
Recommended Hanger Spacing	1.3 m 4.3 ft
Tensile Strength	168 kg 370 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	0.80	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

