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

Product Type	Radiating cable
Product Brand	RADIAX®
Product Series	RCT6

General Specifications

Polarization	Vertical
Cable Type	Coupled Mode Series
Jacket Color	Black

Dimensions

Diameter Over Jacket, maximum	39.116 mm | 1.54 in
Inner Conductor OD	14.208 mm | 0.559 in
Outer Conductor OD	34.036 mm | 1.34 in
Nominal Size	1-1/4 in
Recommended Distance from the Wall	101.6 mm | 4 in
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	1.74 ohms/km | 0.53 ohms/kft
dc Resistance, Outer Conductor	2.953 ohms/km | 0.9 ohms/kft
dc Test Voltage	8500 V

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Insulation Resistance	100000 MOhms-km
Jacket Spark Test Voltage (rms)	10000 V
Operating Frequency Band	50 – 3800 MHz
Optimum Operating Frequency Band	50 – 3800 MHz
Peak Power	180 kW
Velocity	91 %
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	0.8	0.24	56	68
100.0	0.9	0.27	57	68
150.0	1.1	0.33	62	76
350.0	1.7	0.52	75	86
450.0	2	0.61	76	86
800.0	2.65	0.81	75	86
900.0	2.85	0.87	75	86
1700.0	4.3	1.31	71	82
1800.0	4.45	1.36	70	81
1900.0	4.6	1.4	67	79
2000.0	4.8	1.46	67	77
2100.0	5	1.52	69	79
2200.0	5.3	1.62	69	79
2300.0	5.4	1.64	66	77
2400.0	5.6	1.71	66	76
2500.0	5.9	1.8	65	77
2600.0	6.1	1.86	66	77
2700.0	6.4	1.95	66	76
2800.0	6.5	1.98	66	78
3400.0	9	2.7	60	66
3500.0	9.3	2.8	59	65
3600.0	9.5	2.9	60	65
3700.0	9.7	2.96	60	66

3800.0	10.1	3.1	44	49

Material Specifications

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

Mechanical Specifications

Minimum Bend Radius, single Bend	381 mm | 15 in
Tensile Strength	168 kg | 370.376 lb
Bending Moment	15.5 N-m | 137.187 in lb
Coupling Loss Test Method	IEC 61196-4
Coupling Loss Tolerance	±5 dB
Flat Plate Crush Strength	1.4 kg/mm | 78.396 lb/in
Indication of Slot Alignment	No cable/slot orientation needed

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

Packaging and Weights

Cable weight	0.64 kg/m | 0.43 lb/ft

Regulatory Compliance/Certifications

Agency	**Classification**
CHINA-ROHS	Below maximum concentration value

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ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant