Product Specifications

RCT7-WBC-1X-RNA

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

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 – 2700 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	0.437 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
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	Coupled Mode Series
Brand	RADIAX®

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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	No cable/slot orientation needed
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	±10 dB

Electrical Performance

Frequency	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Coupling Loss 50%	Coupling Loss 95%
75 MHz	0.60	0.18	62	79
100 MHz	0.70	0.21	58	69
150 MHz	0.80	0.24	66	77
350 MHz	1.20	0.37	78	88
450 MHz	1.40	0.43	80	90
800 MHz	1.90	0.58	78	89
900 MHz	2.10	0.64	79	89
960 MHz	2.20	0.67	78	88
1700 MHz	3.00	0.91	72	83
1800 MHz	3.10	0.94	75	86
1900 MHz	3.20	0.98	72	83
2000 MHz	3.30	1.01	69	81
2100 MHz	3.50	1.07	68	80
2200 MHz	3.60	1.10	70	81
2300 MHz	3.80	1.16	68	79
2400 MHz	3.80	1.16	68	80
2500 MHz	4.00	1.22	69	79
2600 MHz	4.20	1.28	66	77
2700 MHz	4.50	1.37	66	77

Regulatory Compliance/Certifications

Agency	Classification
RoHS 2011/65/EU	Compliant
ISO 9001:2008	Designed, manufactured and/or distributed under this quality management system

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