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

Product Classification

Product Type	Radiating cable
Product Brand	RADIAX®
Product Series	RCT7

General Specifications

Polarization	Vertical
Cable Type	Radiating Mode (RCT) Series
Jacket Color	Black

Dimensions

Diameter Over Jacket, maximum	49.784 mm | 1.96 in
Inner Conductor OD	18.161 mm | 0.715 in
Outer Conductor OD	43.815 mm | 1.725 in
Nominal Size	1-5/8 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	1.435 ohms/km | 0.437 ohms/kft
dc Resistance, Outer Conductor	1.969 ohms/km | 0.6 ohms/kft
dc Test Voltage	15000 V

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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	0.53	0.16	69	79
100.0	0.6	0.18	67	77
150.0	0.75	0.23	76	82
350.0	1.2	0.37	78	84
450.0	1.34	0.41	74	78
500.0	1.44	0.44	76	86
600.0	1.6	0.48	72	81
700.0	1.75	0.53	72	77
800.0	1.9	0.58	70	74
900.0	2.05	0.62	71	76
960.0	2.14	0.65	69	73
1700.0	3.2	0.98	64	71
1800.0	3.32	1.01	64	69
1900.0	3.46	1.05	61	68
2000.0	3.6	1.1	59	69
2100.0	3.79	1.16	61	69
2200.0	4.02	1.23	61	68
2300.0	4.29	1.31	61	67
2400.0	4.49	1.37	61	67
2500.0	4.81	1.47	61	68
2600.0	5.11	1.56	60	69

2700.0	5.6	1.71	58	67

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	508 mm | 20 in
Tensile Strength	215 kg | 473.993 lb
Bending Moment	16 N-m | 141.612 in lb
Coupling Loss Test Method	IEC 61196-4
Coupling Loss Tolerance	±5 dB
Flat Plate Crush Strength	0.8 kg/mm | 44.798 lb/in
Indication of Slot Alignment	Yes–bumps face the wall

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	0.78 kg/m | 0.524 lb/ft

Regulatory Compliance/Certifications

Agency	**Classification**
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

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REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

ISO 9001:2015