RCT7-WBC-3A-RVD

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

OBSOLETE

This product was discontinued on: July 30, 2021

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	49.022 mm | 1.93 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

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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
Insulation Resistance	100000 MOhms-km
Jacket Spark Test Voltage (rms)	10000 V
Operating Frequency Band	50 – 2400 MHz
Optimum Operating Frequency Band	1700 – 2400 MHz | 70 – 960 MHz
Peak Power	302 kW
Stop Bands	1090 – 1145 MHz | 1635 – 1705 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	0.5	0.15	70	84
100.0	0.6	0.18	64	75
150.0	0.8	0.24	73	83
350.0	1.1	0.34	75	82
450.0	1.2	0.36	72	77
600.0	1.6	0.49	68	75
700.0	1.8	0.55	69	74
800.0	1.9	0.58	69	72
900.0	2	0.61	67	70
960.0	2.1	0.64	70	75
1700.0	3.2	0.97	62	69
1800.0	3.6	1.1	60	64
1900.0	3.9	1.2	61	66
2000.0	4.1	1.25	60	64
2100.0	4.5	1.37	58	65
2200.0	5	1.52	59	64
2400.0	6	1.83	56	62

Material Specifications

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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
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