

RCT7-CPUS-4A-RNAM



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: April 30, 2024

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
Tape Barrier	Mica

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%

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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
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 800 – 960 MHz
Peak Power	302 kW
Stop Bands	1110 – 1650 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	65	75
100.0	0.6	0.18	68	77
150.0	0.8	0.24	77	86
350.0	1.2	0.36	89	99
450.0	1.4	0.43	86	98
700.0	1.7	0.52	83	93
800.0	1.9	0.58	65	69
900.0	2.2	0.67	63	66
1700.0	5.2	1.59	54	58
1800.0	4.8	1.46	55	59
1900.0	4.7	1.43	56	61
2000.0	4.5	1.37	57	61
2100.0	4.5	1.37	59	63
2200.0	4.5	1.37	60	65
2300.0	4.5	1.37	60	66
2400.0	4.6	1.4	60	67

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 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	0.83 kg/m 0.558 lb/ft
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Regulatory Compliance/Certifications

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