

RCT7-WBC-1X-RNA



RCT7, RADIAX® Coaxial Radiating Cable, 50–2 700 MHz, 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

Cable Type	Coupled Mode Series
Jacket Color	Black

Dimensions

Diameter Over Jacket, maximum	1.96 in 49.784 mm
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	4 in 101.6 mm
Recommended Hanger Spacing	1.3 m 4.265 ft

Electrical Specifications

Attenuation Test Method	IEC 61196-4
Attenuation Tolerance	±5%
Attenuation, Ambient Temperature	68 °F 20 °C
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

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Jacket Spark Test Voltage (rms)	10000 V
Operating Frequency Band	50 – 2700 MHz
Peak Power	302 kW
Polarization	Vertical
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	0.6	0.18	62	79
100.0	0.7	0.21	58	69
150.0	0.8	0.24	66	77
350.0	1.2	0.37	78	88
450.0	1.4	0.43	80	90
800.0	1.9	0.58	78	89
900.0	2.1	0.64	79	89
960.0	2.2	0.67	78	88
1700.0	3	0.91	72	83
1800.0	3.1	0.94	75	86
1900.0	3.2	0.98	72	83
2000.0	3.3	1.01	69	81
2100.0	3.5	1.07	68	80
2200.0	3.6	1.1	70	81
2300.0	3.8	1.16	68	79
2400.0	3.8	1.16	68	80
2500.0	4	1.22	69	79
2600.0	4.2	1.28	66	77
2700.0	4.5	1.37	66	77

Material Specifications

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

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Outer Conductor Material Copper foil

Mechanical Specifications

Minimum Bend Radius, single Bend 20 in | 508 mm
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 ±10 dB
Flat Plate Crush Strength 0.8 kg/mm | 44.798 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)
Average Power, Ambient Temperature 104 °F | 40 °C
Average Power, Inner Conductor Temperature 212 °F | 100 °C
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

Packaging and Weights

Cable weight 0.83 kg/m | 6.003 lb/ft

Regulatory Compliance/Certifications

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

