

RCT7-WBC-1X-AXA



RCT7, RADIAX® Coaxial Radiating Cable, 50–2700 MHz, foil, 1-5/8 in, black PE jacket

OBSOLETE

This product was discontinued on: February 29, 2012

Replaced By:

RCT7-WBC-1X-RNA RCT7, RADIAX® Coaxial Radiating Cable, 50–2700 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

Polarization	Vertical
Cable Type	Coupled Mode 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

RCT7-WBC-1X-AXA

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
Insulation Resistance	100000 MOhms-km
Jacket Spark Test Voltage (rms)	10000 V
Operating Frequency Band	50 – 2700 MHz
Peak Power	302 kW
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

RCT7-WBC-1X-AXA

2600.0	4.2	1.28	66	77
2700.0	4.5	1.37	66	77

Material Specifications

Dielectric Material	Foam PE
Jacket Material	PE
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	±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	-40 °C to +60 °C (-40 °F to +140 °F)
Operating Temperature	-55 °C to +85 °C (-67 °F to +185 °F)
Storage Temperature	-70 °C to +85 °C (-94 °F to +185 °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
Toxicity Index Test Method	IEC 60754-1 IEC 60754-2

Packaging and Weights

Cable weight	0.6 kg/m 0.403 lb/ft
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Regulatory Compliance/Certifications

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

RCT7-WBC-1X-AXA

