RCT4-WBC-1X-RNA

RCT4, RADIAX® Coaxial Radiating Cable with Bump, 50–3500 MHz, foil, 1/2 in, black non-halogenated, fire retardant polyolefin jacket

Product Classification

Brand	RADIAX®
Product Series	RCT4
Product Type	Radiating cable

Construction Materials

Jacket Material	Non-halogenated, fire retardant polyolefin
Dielectric Material	Foam PE
Inner Conductor Material	Copper-clad aluminum wire
Jacket Color	Black
Outer Conductor Material	Copper foil

Dimensions

Nominal Size	1/2 in
Diameter Over Jacket, maximum	16.256 mm | 0.640 in
Inner Conductor OD	4.8260 mm | 0.1900 in
Outer Conductor OD	12.954 mm | 0.510 in
Cable Weight	0.13 lb/ft | 0.19 kg/m

Electrical Specifications

Operating Frequency Band	50 – 3500 MHz
Polarization	Vertical
VSWR Installed, typical, 1700–2700 MHz	1.38
VSWR Installed, typical, 50–960 MHz	1.30
VSWR on Reel, typical	1.43
Cable Impedance	50 ohm ±3 ohm
dc Resistance, Inner Conductor	0.450 ohms/kft | 1.480 ohms/km
dc Resistance, Outer Conductor	1.617 ohms/kft | 5.305 ohms/km
dc Test Voltage	4000 V
Insulation Resistance	100000 Mohms•km
Jacket Spark Test Voltage (rms)	8000 V
Peak Power	40.0 kW

Velocity	88%

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)

General Specifications

Cable Type	Coupled Mode Series

Mechanical Specifications

Bending Moment	3.7 N-m | 2.7 ft lb
Flat Plate Crush Strength	40.0 lb/in | 0.7 kg/mm
Indication of Slot Alignment	Yes; bumps face the wall
Minimum Bend Radius, Single Bend	127.00 mm | 5.00 in
Recommended Distance from the Wall	50.8 mm | 2.0 in
Recommended Hanger Spacing	1.0 m | 3.3 ft
Tensile Strength	45 kg | 100 lb
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

Standard Conditions

Attenuation Test Method	IEC 61196-4
Attenuation Tolerance	±5%
Attenuation, Ambient Temperature	20 °C | 68 °F
Average Power, Ambient Temperature	40 °C | 104 °F
Average Power, Inner Conductor Temperature	100 °C | 212 °F
Coupling Loss Test Method	IEC 61196-4
Coupling Loss Tolerance	±10 dB

Electrical Performance

Frequency	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Coupling Loss 50%	Coupling Loss 95%
75 MHz	1.80	0.54	59	67
100 MHz	2.10	0.65	52	63
150 MHz	2.60	0.79	61	71
350 MHz	3.90	1.19	72	83
450 MHz	4.40	1.34	74	84
700 MHz	6.40	1.95	73	83
800 MHz	6.90	2.10	73	84
900 MHz	7.40	2.30	73	85

960 MHz	7.70	2.40	73	85
1700 MHz	10.70	3.30	70	81
1800 MHz	11.20	3.40	69	80
1900 MHz	11.50	3.50	71	82
2000 MHz	11.60	3.60	69	81
2100 MHz	12.30	3.70	72	84
2200 MHz	12.50	3.80	70	82
2300 MHz	13.30	4.10	64	75
2400 MHz	13.80	4.20	66	77
2500 MHz	14.30	4.40	66	77
2600 MHz	14.70	4.50	65	75
2700 MHz	15.40	4.70	63	75
2800 MHz	16.00	4.90	60	70
3300 MHz	18.20	5.50	56	65
3400 MHz	18.60	5.70	56	65
3500 MHz	19.10	5.80	56	65

Regulatory Compliance/Certifications

Agency	**Classification**
RoHS 2011/65/EU	Compliant
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system