

Product Specifications



LDF5RN-50A

LDF5-50A, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 7/8 in, gray non-halogenated, fire retardant polyolefin jacket



CHARACTERISTICS

Construction Materials

Jacket Material	Non-halogenated, fire retardant polyolefin
Dielectric Material	Foam PE
Flexibility	Standard
Inner Conductor Material	Copper tube
Jacket Color	Gray
Outer Conductor Material	Corrugated copper

Dimensions

Nominal Size	7/8 in
Cable Weight	0.38 lb/ft
Diameter Over Dielectric	0.930 in 23.622 mm
Diameter Over Jacket	1.090 in 27.686 mm
Inner Conductor OD	0.350 in 8.890 mm
Outer Conductor OD	0.980 in 24.892 mm

Electrical Specifications

Cable Impedance	50 ohm \pm 1 ohm
Capacitance	23 pF/ft 7480 pF/m
dc Resistance, Inner Conductor	0.320 ohms/kft
dc Resistance, Outer Conductor	0.360 ohms/kft
dc Test Voltage	6000 V
Inductance	0.057 μ H/ft 0.187 μ H/m
Insulation Resistance	100000 MOhm
Jacket Spark Test Voltage (rms)	5000 V
Operating Frequency Band	1 – 5000 MHz
Peak Power	91.0 kW
Pulse Reflection	0.5%
Velocity	89%

Environmental Specifications

Installation Temperature	-25 °C to +60 °C (-13 °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)

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Mechanical Specifications

Bending Moment	16.5 ft lb 22.4 N-m
Flat Plate Crush Strength	80.0 lb/in
Minimum Bend Radius, Multiple Bends	10.00 in 254.00 mm
Minimum Bend Radius, Single Bend	5.00 in 127.00 mm
Number of Bends, minimum	15
Number of Bends, typical	50
Tensile Strength	350 lb 159 kg

Standard Conditions

Attenuation, Ambient Temperature	68 °F 20 °C
Average Power, Ambient Temperature	104 °F 40 °C
Average Power, Inner Conductor Temperature	212 °F 100 °C

Attenuation

Frequency (MHz)	Attenuation (dB/100 ft)	Attenuation (dB/100 m)	Average Power (kW)
0.5	0.025	0.081	91.00
1	0.035	0.115	79.19
1.5	0.043	0.141	64.60
2	0.05	0.163	55.89
10	0.112	0.366	24.81
20	0.159	0.521	17.44
30	0.195	0.641	14.18
50	0.254	0.833	10.91
88	0.34	1.116	8.14
100	0.364	1.193	7.62
108	0.378	1.242	7.32
150	0.449	1.475	6.16
174	0.486	1.595	5.70
200	0.523	1.716	5.30
300	0.649	2.13	4.27
400	0.758	2.486	3.66
450	0.808	2.65	3.43
500	0.855	2.806	3.24
512	0.866	2.843	3.20
600	0.945	3.1	2.93
700	1.029	3.375	2.69
800	1.107	3.633	2.50
824	1.126	3.694	2.46
894	1.178	3.865	2.35
960	1.226	4.022	2.26
1000	1.254	4.115	2.21
1250	1.423	4.667	1.95
1500	1.578	5.178	1.76
1700	1.696	5.565	1.63

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1800	1.753	5.751	1.58
2000	1.863	6.114	1.49
2100	1.917	6.29	1.44
2200	1.97	6.464	1.41
2300	2.022	6.634	1.37
2500	2.124	6.968	1.30
2700	2.223	7.293	1.25
3000	2.366	7.764	1.17
3400	2.551	8.369	1.09
4000	2.815	9.235	0.98
5000	3.228	10.59	0.86

Regulatory Compliance/Certifications

Agency

UL/ETL Certification
RoHS 2002/95/EC

Classification

CATVR
Compliant