

Product Specifications



LDF7RN-50A

LDF7-50A, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 1-5/8 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	Corrugated copper tube
Jacket Color	Gray
Outer Conductor Material	Corrugated copper

Dimensions

Nominal Size	1-5/8 in
Cable Weight	1.02 lb/ft
Diameter Over Dielectric	1.740 in 44.196 mm
Diameter Over Jacket	1.980 in 50.292 mm
Inner Conductor OD	0.680 in 17.272 mm
Outer Conductor OD	1.830 in 46.482 mm

Electrical Specifications

Cable Impedance	50 ohm $\pm$ 1 ohm
Capacitance	23 pF/ft 7579 pF/m
dc Resistance, Inner Conductor	0.250 ohms/kft
dc Resistance, Outer Conductor	0.160 ohms/kft
dc Test Voltage	11000 V
Inductance	0.058 μ H/ft 0.190 μ H/m
Insulation Resistance	100000 MOhm
Jacket Spark Test Voltage (rms)	8000 V
Operating Frequency Band	1 – 2700 MHz
Peak Power	315.0 kW
Pulse Reflection	0.5%
Velocity	88%

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	40.0 ft lb 54.2 N-m
Flat Plate Crush Strength	120.0 lb/in
Minimum Bend Radius, Multiple Bends	20.00 in 508.00 mm
Minimum Bend Radius, Single Bend	8.00 in 203.20 mm
Number of Bends, minimum	15
Number of Bends, typical	50
Tensile Strength	700 lb 318 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	0.014	0.044	247.25
1	0.019	0.063	174.46
1.5	0.024	0.077	142.22
2	0.027	0.089	122.99
10	0.062	0.202	54.32
20	0.088	0.289	38.05
30	0.109	0.356	30.85
50	0.142	0.465	23.63
88	0.191	0.627	17.53
100	0.205	0.671	16.38
108	0.213	0.699	15.72
150	0.254	0.834	13.17
174	0.276	0.904	12.15
200	0.297	0.976	11.26
300	0.372	1.22	9.01
400	0.437	1.433	7.67
450	0.467	1.532	7.17
500	0.496	1.627	6.76
512	0.503	1.649	6.67
600	0.55	1.806	6.09
700	0.602	1.974	5.57
800	0.65	2.134	5.15
824	0.662	2.171	5.06
894	0.694	2.278	4.83
960	0.724	2.376	4.63
1000	0.742	2.434	4.52
1250	0.848	2.781	3.95
1500	0.947	3.106	3.54

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1700	1.022	3.354	3.28
1800	1.059	3.474	3.16
2000	1.131	3.709	2.96
2100	1.165	3.824	2.87
2200	1.2	3.937	2.79
2300	1.234	4.049	2.71
2500	1.301	4.267	2.58
2700	1.366	4.481	2.45

Regulatory Compliance/Certifications

Agency

UL/ETL Certification
RoHS 2002/95/EC

Classification

CATVR
Compliant