



Coaxial Cable

PRODUCT SPECIFICATION

LDF4-50A

Standard coaxial cable, 1/2", 50 ohm foam HELIX (Wideband from 0.5-8800 MHz)

CHARACTERISTICS

Mechanical Specifications

Pressurizable:	No
Weight (lb/ft):	0.15
Weight (kg/m):	0.22
Tensile Strength (lb):	250.00
Tensile Strength (kg):	113.00
Flat Plate Crush Strength (lb/in):	110.00
Flat Plate Crush Strength (kg/mm):	2.00
Minimum Bending Radius (inches):	5.00
Minimum Bend Radius (millimeters):	125.00
Bending Moment (lb-ft):	2.80
Bending Moment (N-m):	3.80
Number of Bends (minimum):	15.00
Number of Bends (typical):	50.00

Electrical Specifications

Cable Impedance (ohms):	50.00
Maximum Frequency (GHz):	8.80
Velocity percentage:	88.00
Peak Power Rating (kW):	40.00
DC Resistance Inner (ohms/1000ft):	0.45
DC Resistance Inner (ohms/1000m):	1.48
DC Resistance Outer (ohms/1000ft):	0.58
DC Resistance Outer (ohms/1000m):	1.90
Cable Test Voltage (VDC):	4000.00
Jacket Spark volts (RMS):	8000.00
Capacitance (pF/ft):	23.10
Capacitance (pF/m):	75.80
Inductance (microH/ft):	0.06
Inductance (microH/m):	0.20
Insulation Resistance (Meg-Ohms):	100000.00

Construction Materials

Dielectric Type:	Low Density Foam Dielectric
Dielectric Material:	Polyethylene Foam
Jacket Color:	Black
Jacket Description:	Polyethylene

Customer Support Center:

From North America: 1-800-255-1479
International: +1-708-873-2307

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Jacket Material:	Polyethylene
Outer Conductor Material:	Corrugated Copper
Inner Conductor Material:	Copper-Clad Aluminum Wire

Dimensions

Diameter Over Jacket (inches):	0.62
Diameter Over Jacket (millimeters):	15.70
Outer Conductor Outside Diameter (inches):	0.55
Outer Conductor Outside Diameter (millimeters):	14.00
Outer Conductor Inside Diameter (inches):	0.53
Outer Conductor Inside Diameter (millimeters):	13.50
Inner Conductor Outside Diameter (inches):	0.19
Inner Conductor Outside Diameter (millimeters):	4.80

General Specifications

Cable Grade:	Standard
NEC Classification Type:	N/A
Nominal Size (inches):	1/2
Short Description:	1/2" 50 ohm HELIX foam coaxial cable

Available Connectors

Part Number	Connector Type	Special Characteristics	Inner Contact	Grade
124990-1	7/8 EIA Flange	Right Angle	N/A	Standard
209865	F Flange Female	N/A	Solder	Standard
L44F	F Flange Male	N/A	Solder	Standard
L44J	HN Male	N/A	Solder	Standard
L44M	LC Male	N/A	Solder	Standard
L44NT	TNC Female	N/A	Solder	Standard
L44P	UHF Male	N/A	Solder	Standard
L44R	7/8 EIA Flange	N/A	Solder	Standard
L44U	UHF Female	N/A	Solder	Standard
L4PDF	7-16 DIN Female	N/A	Solder	Plated
L4PDF-A	7-16 DIN Female	N/A	Solder	Plated
L4PDF-BH	7-16 DIN Female	Bulkhead	Solder	Plated
L4PDF-PM	7-16 DIN Female	Panel Mount	Solder	Plated
L4PDF-RC	7-16 DIN Female	Ring Flare	Captivated	Plated
L4PDM	7-16 DIN Male	N/A	Solder	Plated
L4PDM-A	7-16 DIN Male	N/A	Solder	Plated

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CHARACTERISTICS

L4PDM-RC	7-16 DIN Male	Ring Flare	Captivated	Plated
L4PDR	7-16 DIN Male	Right Angle	Solder	Plated
L4PDR-C	7-16 DIN Male	Right Angle	Captivated	Plated
L4PNF	N Female	N/A	Solder	Plated
L4PNF-A	N Female	N/A	Solder	Plated
L4PNF-BH	N Female	Bulkhead	Solder	Plated
L4PNF-PM	N Female	Panel Mount	Solder	Plated
L4PNF-RC	N Female	Ring Flare	Captivated	Plated
L4PNM-H	N Male	Hex Head	Solder	Plated
L4PNM-HA	N Male	Hex Head	Solder	Plated
L4PNM-RC	N Male	Ring Flare	Captivated	Plated
L4PNR-H	N Male	Right Angle	Solder	Plated
L4PNR-HC	N Male	Right Angle	Captivated	Plated

Attenuation and Average Power Ratings

Frequency (MHz)	Attenuation (dB/100ft)	Attenuation (dB/100m)	Average Power (kW)
0.5	0.045	0.149	40.00
1	0.064	0.211	36.11
1.5	0.079	0.259	29.46
2	0.091	0.299	25.50
10	0.205	0.672	11.35
20	0.291	0.954	7.99
30	0.357	1.172	6.51
50	0.463	1.520	5.02
88	0.619	2.031	3.76
100	0.661	2.168	3.52
108	0.688	2.256	3.38
150	0.815	2.673	2.85
174	0.880	2.887	2.64
200	0.946	3.103	2.46
300	1.169	3.835	1.99
400	1.360	4.462	1.71
450	1.447	4.748	1.61
500	1.530	5.021	1.52
512	1.550	5.085	1.50
600	1.686	5.533	1.38
700	1.831	6.009	1.27

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Attenuation and Average Power Ratings

Frequency (MHz)	Attenuation (dB/100ft)	Attenuation (dB/100m)	Average Power (kW)
800	1.968	6.456	1.18
824	1.999	6.559	1.16
860	2.046	6.712	1.14
894	2.089	6.855	1.11
960	2.171	7.124	1.07
1000	2.220	7.283	1.05
1250	2.507	8.225	0.93
1500	2.771	9.092	0.84
1640	2.911	9.551	0.80
1700	2.970	9.743	0.78
1800	3.066	10.057	0.76
2000	3.251	10.666	0.72
2100	3.341	10.960	0.70
2200	3.429	11.250	0.68
2300	3.516	11.534	0.66
2500	3.685	12.089	0.63
2700	3.849	12.627	0.60
3000	4.086	13.406	0.57
3300	4.315	14.156	0.54
3400	4.389	14.400	0.53
4000	4.820	15.814	0.48
4900	5.425	17.797	0.43
5000	5.489	18.009	0.42
5200	5.617	18.429	0.41
5300	5.680	18.636	0.41
5600	5.868	19.251	0.40
6000	6.113	20.054	0.38
6100	6.173	20.252	0.38
6600	6.469	21.224	0.36
8000	7.262	23.824	0.32
8800	7.694	25.243	0.30

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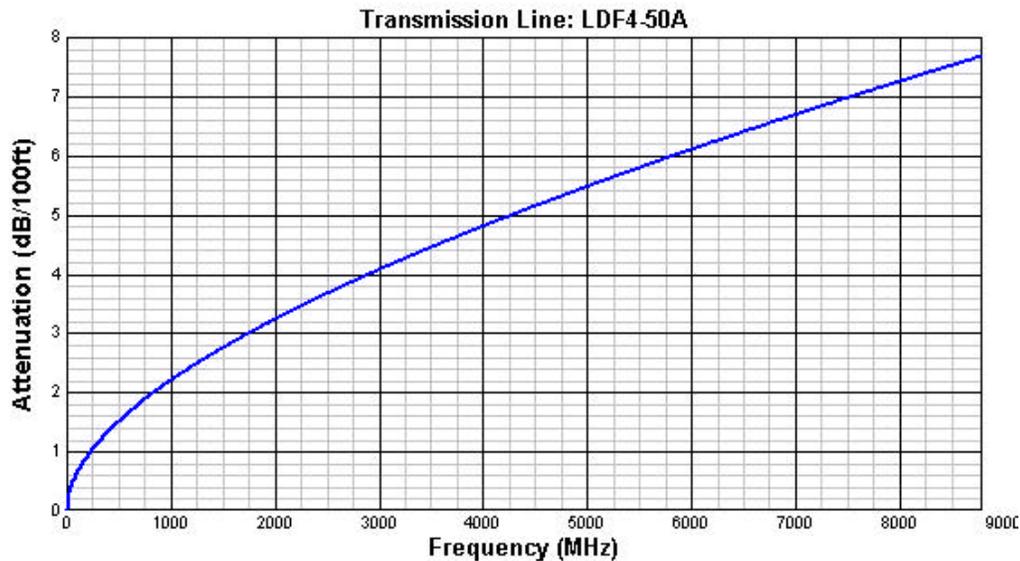


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CHARACTERISTICS



Standard Conditions:

For Attenuation. VSWR 1.0, ambient temperature 20°C (68°F).

For Average Power. VSWR 1.0, ambient temperature 40°C (104°F), inner conductor temperature 100°C (212°F); no solar loading.

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