

# LDF2-50



LDF2-50, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 3/8 in, black PE jacket

## Product Classification

<b>Brand</b>	HELIAX®   SureFlex®
<b>Product Series</b>	LDF2-50
<b>Product Type</b>	Coaxial wireless cable

## Construction Materials

<b>Jacket Material</b>	PE
<b>Outer Conductor Material</b>	Corrugated copper
<b>Dielectric Material</b>	Foam PE
<b>Flexibility</b>	Standard
<b>Inner Conductor Material</b>	Copper-clad aluminum wire
<b>Jacket Color</b>	Black

## Dimensions

<b>Nominal Size</b>	3/8 in
<b>Cable Weight</b>	0.08 lb/ft   0.12 kg/m
<b>Diameter Over Dielectric</b>	8.636 mm   0.340 in
<b>Diameter Over Jacket</b>	11.176 mm   0.440 in
<b>Inner Conductor OD</b>	3.0480 mm   0.1200 in
<b>Outer Conductor OD</b>	9.652 mm   0.380 in

## Electrical Specifications

<b>Cable Impedance</b>	50 ohm ±1 ohm
<b>Capacitance</b>	23.0 pF/ft   75.5 pF/m
<b>dc Resistance, Inner Conductor</b>	1.060 ohms/kft   3.478 ohms/km
<b>dc Resistance, Outer Conductor</b>	0.870 ohms/kft   2.854 ohms/km
<b>dc Test Voltage</b>	2500 V
<b>Inductance</b>	0.190 µH/m   0.058 µH/ft
<b>Insulation Resistance</b>	100000 Mohms•km
<b>Jacket Spark Test Voltage (rms)</b>	5000 V
<b>Operating Frequency Band</b>	1 – 13000 MHz
<b>Peak Power</b>	15.6 kW
<b>Velocity</b>	85 %

## Environmental Specifications

<b>Installation Temperature</b>	-40 °C to +60 °C (-40 °F to +140 °F)
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<b>Operating Temperature</b>	-55 °C to +85 °C (-67 °F to +185 °F)
<b>Storage Temperature</b>	-70 °C to +85 °C (-94 °F to +185 °F)

## Mechanical Specifications

<b>Bending Moment</b>	1.9 N-m   1.4 ft lb
<b>Flat Plate Crush Strength</b>	110.0 lb/in   2.0 kg/mm
<b>Minimum Bend Radius, Multiple Bends</b>	95.25 mm   3.75 in
<b>Minimum Bend Radius, Single Bend</b>	40.64 mm   1.60 in
<b>Number of Bends, minimum</b>	15
<b>Number of Bends, typical</b>	50
<b>Tensile Strength</b>	113 kg   250 lb

## Note

<b>Performance Note</b>	Values typical, unless otherwise stated
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## Standard Conditions

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

## Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
0.5	0.235	0.072	15.60
1	0.332	0.101	15.60
1.5	0.407	0.124	15.60
2	0.471	0.143	15.60
10	1.059	0.323	7.28
20	1.503	0.458	5.13
30	1.847	0.563	4.17
50	2.397	0.73	3.22
85	3.146	0.959	2.45
88	3.203	0.976	2.41
100	3.421	1.043	2.25
108	3.559	1.085	2.17
150	4.219	1.286	1.83
174	4.558	1.389	1.69
200	4.901	1.494	1.57
204	4.952	1.509	1.56
300	6.062	1.847	1.27
400	7.057	2.151	1.09
450	7.513	2.29	1.03
460	7.601	2.317	1.01
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500	7.947	2.422	0.97
512	8.048	2.453	0.96
600	8.761	2.67	0.88
700	9.519	2.901	0.81
800	10.232	3.119	0.75
824	10.398	3.169	0.74
894	10.869	3.313	0.71
960	11.299	3.444	0.68
1000	11.554	3.521	0.67
1218	12.874	3.924	0.60
1250	13.059	3.98	0.59
1500	14.446	4.403	0.53
1700	15.49	4.721	0.50
1794	15.964	4.866	0.48
1800	15.994	4.875	0.48
2000	16.97	5.172	0.45
2100	17.443	5.316	0.44
2200	17.908	5.458	0.43
2300	18.365	5.597	0.42
2500	19.257	5.869	0.40
2700	20.122	6.133	0.38
3000	21.376	6.515	0.36
3400	22.978	7.003	0.34
3600	23.754	7.24	0.32

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3700	24.136	7.356	0.32
3800	24.514	7.471	0.31
3900	24.888	7.586	0.31
4000	25.26	7.699	0.31
4100	25.627	7.811	0.30
4200	25.992	7.922	0.30
4300	26.354	8.032	0.29
4400	26.713	8.142	0.29
4500	27.069	8.25	0.28
4600	27.422	8.358	0.28
4700	27.773	8.465	0.28
4800	28.12	8.571	0.27
4900	28.466	8.676	0.27
5000	28.809	8.781	0.27
6000	32.121	9.79	0.24
8000	38.244	11.656	0.20
8800	40.551	12.359	0.19
10000	43.894	13.378	0.18
12000	49.209	14.998	0.16

\* Values typical, guaranteed within 5%

## Regulatory Compliance/Certifications

### Agency

RoHS 2011/65/EU  
ISO 9001:2015  
China RoHS SJ/T 11364-2014

### Classification

Compliant  
Designed, manufactured and/or distributed under this quality management system  
Below Maximum Concentration Value (MCV)

