

# Product Specifications

## LDF2-50

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



## CHARACTERISTICS

### Construction Materials

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

### Dimensions

Nominal Size	3/8 in
Cable Weight	0.08 lb/ft   0.12 kg/m
Diameter Over Dielectric	8.636 mm   0.340 in
Diameter Over Jacket	11.176 mm   0.440 in
Inner Conductor OD	3.048 mm   0.120 in
Outer Conductor OD	9.652 mm   0.380 in

### Electrical Specifications

Cable Impedance	50 ohm $\pm$ 1 ohm
Capacitance	23 pF/ft   75 pF/m
dc Resistance, Inner Conductor	1.060 ohms/kft   3.478 ohms/km
dc Resistance, Outer Conductor	0.870 ohms/kft   2.854 ohms/km
dc Test Voltage	4000 V
Inductance	0.190 $\mu$ H/m   0.058 $\mu$ H/ft
Insulation Resistance	100000 MOhm
Jacket Spark Test Voltage (rms)	5000 V
Operating Frequency Band	1 – 13000 MHz
Peak Power	15.6 kW
Pulse Reflection	0.5%
Velocity	88%

### Environmental Specifications

Installation Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Operating Temperature	-55 °C to +85 °C (-67 °F to +185 °F)

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Storage Temperature

-70 °C to +85 °C (-94 °F to +185 °F)

## General Specifications

Brand HELIAX®

## Mechanical Specifications

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

## Standard Conditions

Attenuation, Ambient Temperature	20 °C   68 °F
Average Power, Ambient Temperature	40 °C   104 °F
Average Power, Inner Conductor Temperature	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
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
300	6.062	1.847	1.27
400	7.057	2.151	1.09
450	7.513	2.29	1.03
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

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1250	13.059	3.98	0.59
1500	14.446	4.403	0.53
1700	15.49	4.721	0.50
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
3700	24.136	7.356	0.32
4000	25.26	7.699	0.31
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

## Regulatory Compliance/Certifications

### Agency

RoHS 2002/95/EC

China RoHS SJ/T 11364-2006

### Classification

Compliant

Below Maximum Concentration Value (MCV)

