LDF2-50

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

Product Classification

Brand	HELIAX® | SureFlex®
Product Series	LDF2-50
Product Type	Coaxial wireless cable

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	3.0480 mm | 0.1200 in
Outer Conductor OD	9.652 mm | 0.380 in

Electrical Specifications

Cable Impedance	50 ohm ±1 ohm
Capacitance	23.0 pF/ft | 75.5 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	2500 V
Inductance	0.190 µH/m | 0.058 µH/ft
Insulation Resistance	100000 Mohms•km
Jacket Spark Test Voltage (rms)	5000 V
Operating Frequency Band	1 – 13000 MHz
Peak Power	15.6 kW
Velocity	85 %

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)
Storage Temperature	-70 °C to +85 °C (-94 °F to +185 °F)

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

Note

Performance Note	Values typical, unless otherwise stated

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
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

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	**Classification**
RoHS 2011/65/EU	Compliant
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
China RoHS SJ/T 11364-2014	Below Maximum Concentration Value (MCV)