

LDF2RK-50



LDF2-50, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 3/8 in, black non-halogenated, fire retardant polyolefin jacket, B2ca s1a d0 a1 Compliant

Product Classification

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

Standards And Qualifications

EN50575 CPR Cable EuroClass	B2ca s1a d0 a1
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Construction Materials

Jacket Material	Non-halogenated, fire retardant polyolefin
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 75.0 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)	6000 V
Operating Frequency Band	1 – 13000 MHz
Peak Power	16.6 kW

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Velocity 85 %

Environmental Specifications

Installation Temperature -40 °C to +60 °C (-40 °F to +140 °F)
Operating Temperature -40 °C to +60 °C (-40 °F to +140 °F)
Storage Temperature -40 °C to +60 °C (-40 °F to +140 °F)

Mechanical Specifications

Bending Moment 1.9 N-m | 1.4 ft lb
Fire Retardancy Test Method IEC 60332-1 | IEC 60332-3C-24 | NFPA 130-2010 | UL 1666/CATVR/CMR | UL 1685
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
Smoke Index Test Method IEC 61034
Tensile Strength 113 kg | 250 lb
Toxicity Index Test Method IEC 60754-1 | IEC 60754-2

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

Return Loss/VSWR

Frequency Band	VSWR	Return Loss (dB)
680–960 MHz	1.2	20.80
1700–2200 MHz	1.2	20.80
2200–2700 MHz	1.43	15.00

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
0.5	0.235	0.072	16.60
1	0.332	0.101	16.60
1.5	0.407	0.124	16.60
2	0.471	0.143	16.38
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
CENELEC

Classification

Compliant by Exemption
Designed, manufactured and/or distributed under this quality management system
Below Maximum Concentration Value (MCV)
EN 50575 compliant, Declaration of Performance (DoP) available

