



Heat Treated LDF2RK-50, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 3/8 in, black non-halogenated, fire retardant polyolefin jacket

Product Classification

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

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
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
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
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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
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
3700	24.136	7.356	0.32
3800	24.514	7.471	0.31
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

* Values typical, guaranteed within 5%

Regulatory Compliance/Certifications

Agency

RoHS 2011/65/EU
 China RoHS SJ/T 11364-2006
 ISO 9001:2015

Classification

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

