



Heat Treated LDF2RK-50, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 3/8 in, black non-halogenated, fire retardant polyolefin 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>	Non-halogenated, fire retardant polyolefin
<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   75.0 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>	6000 V
<b>Operating Frequency Band</b>	1 – 13000 MHz
<b>Peak Power</b>	16.6 kW
<b>Velocity</b>	85%

## Environmental Specifications

<b>Installation Temperature</b>	-40 °C to +60 °C (-40 °F to +140 °F)
<b>Operating Temperature</b>	-40 °C to +60 °C (-40 °F to +140 °F)
<b>Storage Temperature</b>	-40 °C to +60 °C (-40 °F to +140 °F)

## Mechanical Specifications

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

## 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

## Return Loss/VSWR

<b>Frequency Band</b>	<b>VSWR</b>	<b>Return Loss (dB)</b>
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
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

ISO 9001:2015

China RoHS SJ/T 11364-2014

### Classification

Compliant by Exemption

Designed, manufactured and/or distributed under this quality management system

Below Maximum Concentration Value (MCV)

