

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>Product Type</b>	Coaxial wireless cable
<b>Product Brand</b>	HELIAX®   SureFlex®
<b>Product Series</b>	LDF2-50

## General Specifications

<b>Flexibility</b>	Standard
<b>Jacket Color</b>	Black
<b>Performance Note</b>	Attenuation values typical, guaranteed within 5%

## Dimensions

<b>Diameter Over Dielectric</b>	8.636 mm   0.34 in
<b>Diameter Over Jacket</b>	11.176 mm   0.44 in
<b>Inner Conductor OD</b>	3.048 mm   0.12 in
<b>Outer Conductor OD</b>	9.652 mm   0.38 in
<b>Nominal Size</b>	3/8 in

## Electrical Specifications

<b>Cable Impedance</b>	50 ohm ±1 ohm
<b>Capacitance</b>	75 pF/m   22.86 pF/ft
<b>dc Resistance, Inner Conductor</b>	3.478 ohms/km   1.06 ohms/kft
<b>dc Resistance, Outer Conductor</b>	2.854 ohms/km   0.87 ohms/kft
<b>dc Test Voltage</b>	2500 V
<b>Inductance</b>	0.19 µH/m   0.058 µH/ft
<b>Insulation Resistance</b>	100000 MOhms-km

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<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 %

## VSWR/Return Loss

<b>Frequency Band</b>	<b>VSWR</b>	<b>Return Loss (dB)</b>
<b>680–960 MHz</b>	1.201	20.79
<b>1700–2200 MHz</b>	1.201	20.79
<b>2200–2700 MHz</b>	1.433	14.99

## Attenuation

<b>Frequency (MHz)</b>	<b>Attenuation (dB/100 m)</b>	<b>Attenuation (dB/100 ft)</b>	<b>Average Power (kW)</b>
<b>1.0</b>	0.332	0.101	16.6
<b>1.5</b>	0.407	0.124	16.6
<b>2.0</b>	0.471	0.143	16.38
<b>10.0</b>	1.059	0.323	7.28
<b>20.0</b>	1.503	0.458	5.13
<b>30.0</b>	1.847	0.563	4.17
<b>50.0</b>	2.397	0.73	3.22
<b>85.0</b>	3.146	0.959	2.45
<b>88.0</b>	3.203	0.976	2.41
<b>100.0</b>	3.421	1.043	2.25
<b>108.0</b>	3.559	1.085	2.17
<b>150.0</b>	4.219	1.286	1.83
<b>174.0</b>	4.558	1.389	1.69
<b>200.0</b>	4.901	1.494	1.57
<b>204.0</b>	4.952	1.509	1.56
<b>300.0</b>	6.062	1.847	1.27
<b>400.0</b>	7.057	2.151	1.09
<b>450.0</b>	7.513	2.29	1.03
<b>460.0</b>	7.601	2.317	1.01
<b>500.0</b>	7.947	2.422	0.97
<b>512.0</b>	8.048	2.453	0.96
<b>600.0</b>	8.761	2.67	0.88

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<b>700.0</b>	9.519	2.901	0.81
<b>800.0</b>	10.232	3.119	0.75
<b>824.0</b>	10.398	3.169	0.74
<b>894.0</b>	10.869	3.313	0.71
<b>960.0</b>	11.299	3.444	0.68
<b>1000.0</b>	11.554	3.521	0.67
<b>1218.0</b>	12.874	3.924	0.6
<b>1250.0</b>	13.059	3.98	0.59
<b>1500.0</b>	14.446	4.403	0.53
<b>1700.0</b>	15.49	4.721	0.5
<b>1794.0</b>	15.964	4.866	0.48
<b>1800.0</b>	15.994	4.875	0.48
<b>2000.0</b>	16.97	5.172	0.45
<b>2100.0</b>	17.443	5.316	0.44
<b>2200.0</b>	17.908	5.458	0.43
<b>2300.0</b>	18.365	5.597	0.42
<b>2500.0</b>	19.257	5.869	0.4
<b>2700.0</b>	20.122	6.133	0.38
<b>3000.0</b>	21.376	6.515	0.36
<b>3400.0</b>	22.978	7.003	0.34
<b>3600.0</b>	23.754	7.24	0.32
<b>3700.0</b>	24.136	7.356	0.32
<b>3800.0</b>	24.514	7.471	0.31
<b>3900.0</b>	24.888	7.586	0.31
<b>4000.0</b>	25.26	7.699	0.31
<b>4100.0</b>	25.627	7.811	0.3
<b>4200.0</b>	25.992	7.922	0.3
<b>4300.0</b>	26.354	8.032	0.29
<b>4400.0</b>	26.713	8.142	0.29
<b>4500.0</b>	27.069	8.25	0.28
<b>4600.0</b>	27.422	8.358	0.28
<b>4700.0</b>	27.773	8.465	0.28
<b>4800.0</b>	28.12	8.571	0.27
<b>4900.0</b>	28.466	8.676	0.27
<b>5000.0</b>	28.809	8.781	0.27

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<b>6000.0</b>	32.121	9.79	0.24
<b>8000.0</b>	38.244	11.656	0.2
<b>8800.0</b>	40.551	12.359	0.19
<b>10000.0</b>	43.894	13.378	0.18
<b>12000.0</b>	49.209	14.998	0.16

## Material Specifications

<b>Dielectric Material</b>	Foam PE
<b>Jacket Material</b>	Non-halogenated, fire retardant polyolefin
<b>Inner Conductor Material</b>	Copper-clad aluminum wire
<b>Outer Conductor Material</b>	Corrugated copper

## Mechanical Specifications

<b>Minimum Bend Radius, multiple Bends</b>	95.25 mm   3.75 in
<b>Minimum Bend Radius, single Bend</b>	40.64 mm   1.6 in
<b>Number of Bends, minimum</b>	15
<b>Number of Bends, typical</b>	50
<b>Tensile Strength</b>	113 kg   249.122 lb
<b>Bending Moment</b>	1.9 N-m   16.816 in lb
<b>Flat Plate Crush Strength</b>	2 kg/mm   111.995 lb/in

## 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)
<b>Attenuation, Ambient Temperature</b>	68 °F   20 °C
<b>Average Power, Ambient Temperature</b>	104 °F   40 °C
<b>Average Power, Inner Conductor Temperature</b>	212 °F   100 °C
<b>Fire Retardancy Test Method</b>	IEC 60332-1   IEC 60332-3C-24   NFPA 130-2010   UL 1666/CATVR
<b>Smoke Index Test Method</b>	IEC 61034
<b>Toxicity Index Test Method</b>	IEC 60754-1   IEC 60754-2

## Packaging and Weights

<b>Cable weight</b>	0.12 kg/m   0.081 lb/ft
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## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant

