# L4-HMHR-4M-D



WARNING: DO NOT MATE WITH 4.1-9.5 DIN

#### **Product Classification**

**Product Type** SureFlex® D-CLASS, dynamic PIM

Product Brand HELIAX® | SureFlex®

Product Series LDF4-50A

### General Specifications

Body Style, Connector AStraightBody Style, Connector BRight angleInterface, Connector A4.3-10 MaleInterface, Connector B4.3-10 Male

Specification Sheet Revision Level B

#### Dimensions

**Length** 4 m | 13.123 ft

Nominal Size 1/2 in

## Logo Image



# L4-HMHR-4M-D



## **Electrical Specifications**

**3rd Order IMD Dynamic** -119 dBm

**3rd Order IMD Dynamic Test Method**Two +43 dBm carriers per IEC 62037

DTF, Connector A -34 dB

DTF, Connector B -32 dB

#### VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
698-960 MHz	1.083	28
1700-2200 MHz	1.083	28
2200-2700 MHz	1.135	24
3400-3800 MHz	1.222	20

Jumper Assembly Sample Label



# L4-HMHR-4M-D



## **Environmental Specifications**

Immersion Test Method

Meets IEC 60529:2001, IP68 in mated condition

#### Regulatory Compliance/Certifications

**Agency** 

Classification

ISO 9001:2015

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

#### Included Products

LDF4-50A

LDF4-50A, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 1/2 in, black PE jacket Halogen free jacketing non-fire-retardant (General propose cable for outdoor use only)





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#### **Product Classification**

Product Type Coaxial wireless cable

Product Brand HELIAX®

Product Series LDF4-50A

Ordering Note CommScope® standard product (Global)

General Specifications

**Product Number** 520094002/00 | SZ520094902/00

Flexibility Standard

Jacket Color Black

Performance Note Attenuation values typical, guaranteed within 5%

**Dimensions** 

 Diameter Over Dielectric
 12.954 mm | 0.51 in

 Diameter Over Jacket
 15.875 mm | 0.625 in

 Inner Conductor OD
 4.826 mm | 0.19 in

 Outer Conductor OD
 13.97 mm | 0.55 in

Nominal Size 1/2 in

**Electrical Specifications** 

**Cable Impedance** 50 ohm ±1 ohm

**Capacitance** 75.8 pF/m | 23.104 pF/ft

dc Resistance, Inner Conductor1.48 ohms/km | 0.451 ohms/kftdc Resistance, Outer Conductor2.69 ohms/km | 0.82 ohms/kft

dc Test Voltage 4000 V



 $\label{eq:local_potential} \mbox{Inductance} \qquad \qquad 0.19 \ \mu\mbox{H/m} \ \mid \ 0.058 \ \mu\mbox{H/ft}$ 

**Insulation Resistance** 100000 MOhms-km

Jacket Spark Test Voltage (rms) 8000 V

**Operating Frequency Band** 1 – 8800 MHz

 Peak Power
 40 kW

 Velocity
 88 %

#### VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
680-800 MHz	1.13	24.3
800-960 MHz	1.13	24.3
1700-2200 MHz	1.13	24.3
2300-2700 MHz	1.13	24.3

### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
1.0	0.211	0.064	36.11
1.5	0.259	0.079	29.46
2.0	0.299	0.091	25.5
10.0	0.672	0.205	11.35
20.0	0.954	0.291	7.99
30.0	1.172	0.357	6.51
50.0	1.521	0.463	5.02
85.0	1.995	0.608	3.82
88.0	2.031	0.619	3.76
100.0	2.169	0.661	3.52
108.0	2.256	0.688	3.38
150.0	2.673	0.815	2.85
174.0	2.887	0.88	2.64
200.0	3.103	0.946	2.46
204.0	3.135	0.956	2.43
300.0	3.835	1.169	1.99
400.0	4.462	1.36	1.71
450.0	4.749	1.447	1.61
460.0	4.804	1.464	1.59

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500.0	F 001	1.50	1.50
500.0	5.021	1.53	1.52
512.0	5.085	1.55	1.5
600.0	5.533	1.686	1.38
700.0	6.009	1.831	1.27
800.0	6.456	1.968	1.18
824.0	6.56	1.999	1.16
894.0	6.855	2.089	1.11
960.0	7.124	2.171	1.07
1000.0	7.284	2.22	1.05
1218.0	8.11	2.472	0.94
1250.0	8.226	2.507	0.93
1500.0	9.093	2.771	0.84
1700.0	9.744	2.97	0.78
1794.0	10.039	3.06	0.76
1800.0	10.058	3.066	0.76
2000.0	10.666	3.251	0.72
2100.0	10.961	3.341	0.7
2200.0	11.251	3.429	0.68
2300.0	11.535	3.516	0.66
2500.0	12.09	3.685	0.63
2700.0	12.627	3.849	0.6
3000.0	13.407	4.086	0.57
3400.0	14.401	4.389	0.53
3600.0	14.882	4.536	0.51
3700.0	15.118	4.608	0.5
3800.0	15.353	4.679	0.5
3900.0	15.585	4.75	0.49
4000.0	15.815	4.82	0.48
4100.0	16.042	4.889	0.48
4200.0	16.268	4.958	0.47
4300.0	16.492	5.027	0.46
4400.0	16.714	5.094	0.46
4500.0	16.934	5.161	0.45
4600.0	17.153	5.228	0.44
4700.0	17.37	5.294	0.44

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4800.0	17.585	5.36	0.43
4900.0	17.798	5.425	0.43
5000.0	18.01	5.489	0.42
6000.0	20.055	6.113	0.38
8000.0	23.826	7.262	0.32
8800.0	25.244	7.694	0.3

### Material Specifications

**Dielectric Material** Foam PE

Jacket Material PE

Inner Conductor Material Copper-clad aluminum wire

Outer Conductor Material Corrugated copper

## Mechanical Specifications

Minimum Bend Radius, multiple Bends127 mm | 5 inMinimum Bend Radius, single Bend50.8 mm | 2 in

Number of Bends, minimum 15 Number of Bends, typical 50

 Tensile Strength
 113 kg | 249.122 lb

 Bending Moment
 3.8 N-m | 33.633 in lb

 Flat Plate Crush Strength
 2 kg/mm | 111.995 lb/in

## **Environmental Specifications**

Installation temperature $-40 \,^{\circ}\text{C to} +60 \,^{\circ}\text{C (}-40 \,^{\circ}\text{F to} +140 \,^{\circ}\text{F)}$ Operating Temperature $-55 \,^{\circ}\text{C to} +85 \,^{\circ}\text{C (}-67 \,^{\circ}\text{F to} +185 \,^{\circ}\text{F)}$ Storage Temperature $-70 \,^{\circ}\text{C to} +85 \,^{\circ}\text{C (}-94 \,^{\circ}\text{F to} +185 \,^{\circ}\text{F)}$ 

Attenuation, Ambient Temperature68 °F | 20 °CAverage Power, Ambient Temperature104 °F | 40 °CAverage Power, Inner Conductor Temperature212 °F | 100 °C

Packaging and Weights

**Cable weight** 0.22 kg/m | 0.148 lb/ft

Regulatory Compliance/Certifications



#### Agency Classification

CENELEC EN 50575 compliant, Declaration of Performance (DoP) available

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 www.commscope.com/ProductCompliance

ROHS Compliant UK-ROHS Compliant

