# L4A-HPHMDM-3M-SGW



LDF4-50A SureFlex® Jumper with interface types 4.3-10 Male and 7-16 DIN Male with HELIAX® SureGuard weatherproofing, 3 m

- If there are threads along the entire device port length, the HELIAX® SureGuard weatherproofing solutions will only seal properly if the HSG-M29-ADPT adapter is installed on the device port
- WARNING: DO NOT MATE WITH 4.1-9.5 DIN

### **Product Classification**

**Product Type** SureFlex® HP, HELIAX® performance

Product Series LDF4-50A

# General Specifications

Body Style, Connector AStraightBody Style, Connector BStraightInterface, Connector A4.3-10 MaleInterface, Connector B7-16 DIN Male

Specification Sheet Revision Level A

#### Dimensions

**Length** 3 m | 9.843 ft

Nominal Size 1/2 in

# Electrical Specifications

**3rd Order IMD Static Test Method** Two +43 dBm carriers

 3rd Order IMD, typical
 -116 dBm

 DTF, Connector A
 -34 dB

 DTF, Connector B
 -34 dB

### VSWR/Return Loss

| Frequency Band | VSWR, typical | Return Loss, typical (dB |
|----------------|---------------|--------------------------|
| 698-960 MHz    | 1.065         | 30.04                    |
| 1700-2200 MHz  | 1.065         | 30.04                    |
| 2200-2700 MHz  | 1.106         | 25.96                    |

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## Jumper Assembly Sample Label



## **Environmental Specifications**

**Immersion Test Method**Meets IEC 60529:2001, IP68 in mated condition

Weatherproofing Method HELIAX® SureGuard weatherproofing boot

Packaging and Weights

**Included** Weatherproofing boot

Regulatory Compliance/Certifications

Agency Classification

CHINA-ROHS Above maximum concentration value

ROHS Compliant/Exempted



#### 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)

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

#### **Product Classification**

Product Type Coaxial wireless cable

Product Brand HELIAX®

Product Series LDF4-50A

Ordering Note CommScope® standard product (Global)

General Specifications

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 Conductor1.9 ohms/km | 0.579 ohms/kft

dc Test Voltage 4000 V

**Inductance** 0.19  $\mu$ H/m | 0.058  $\mu$ H/ft

**COMMSCOPE®** 

**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               |
| 500.0           | 5.021                  | 1.53                    | 1.52               |
|                 |                        |                         |                    |

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| 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 |
| 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 MaterialFoam PEJacket MaterialPE

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

COMMSCOPE®

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

