# L4-HRDR-5M-D

D-CLASS LDF4-50A SureFlex® Jumper with interface types 4.3-10 Male Right Angle and 7-16 DIN Right Male, 5 m

• 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 A            | Right angle                    |
| Body Style, Connector B            | Right angle                    |
| Interface, Connector A             | 4.3-10 Male                    |
| Interface, Connector B             | 7-16 DIN Male                  |
| Specification Sheet Revision Level | A                              |
| Dimensions                         |                                |
| Length                             | 5 m   16.404 ft                |
| Nominal Size                       | 1/2 in                         |
| Logo Image                         |                                |

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# L4-HRDR-5M-D



#### **Electrical Specifications**

| 3rd Order IMD Dynamic             | -116 dBm                           |
|-----------------------------------|------------------------------------|
| 3rd Order IMD Dynamic Test Method | Two +43 dBm carriers per IEC 62037 |
| DTF, Connector A                  | -32 dB                             |
| DTF, Connector B                  | -32 dB                             |

#### VSWR/Return Loss

| Frequency Band | VSWR  | Return Loss (dB) | VSWR, typical | Return Loss, typical (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



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# L4-HRDR-5M-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 |
| REACH-SVHC    | Compliant as per SVHC revision on www.andrew.com/ProductCompliance             |

#### 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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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)

#### Product Classification

| Product Type                    | Coaxial wireless cable                              |
|---------------------------------|---|
| Product Brand                   | HELIAX®   |
| Product Series                  | LDF4-50A  |
| Ordering Note                   | ANDREW® 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 Conductor  | 1.48 ohms/km   0.451 ohms/kft                       |
| dc Resistance, Outer Conductor  | 2.69 ohms/km   0.82 ohms/kft                        |
| dc Test Voltage                 | 4000 V  |
| Inductance                      | 0.19 μH/m   0.058 μH/ft                             |
| Insulation Resistance           | 100000 MOhms-km                                     |
| Jacket Spark Test Voltage (rms) | 8000 V  |

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| 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               |
| 512.0           | 5.085                  | 1.55                    | 1.5                |
| 600.0           | 5.533                  | 1.686                   | 1.38               |

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| 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 |
|        |        |       |      |

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| 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 Bends | 127 mm   5 in           |
|-------------------------------------|-------------------------|
| Minimum Bend Radius, single Bend    | 50.8 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 °C to +60 °C (-40 °F to +140 °F) |
|--|--------------------------------------|
| Operating Temperature                      | -55 °C to +85 °C (-67 °F to +185 °F) |
| Storage Temperature                        | -70 °C to +85 °C (-94 °F to +185 °F) |
| Attenuation, Ambient Temperature           | 68 °F   20 °C                        |
| Average Power, Ambient Temperature         | 104 °F   40 °C                       |
| Average Power, Inner Conductor Temperature | 212 °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 |

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ROHS

UK-ROHS



Compliant as per SVHC revision on www.andrew.com/ProductCompliance

Compliant

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