

# L4-HMHM-3-D



D-CLASS LDF4-50A SureFlex® Jumper with interface types 4.3-10 Male and 4.3-10 Male, 3 ft

- 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            | Straight    |
| Body Style, Connector B            | Straight    |
| Interface, Connector A             | 4.3-10 Male |
| Interface, Connector B             | 4.3-10 Male |
| Specification Sheet Revision Level | B           |

## Dimensions

|              |                    |
|--------------|--------------------|
| Length       | 0.914 m   2.999 ft |
| Nominal Size | 1/2 in             |

## Logo Image

# L4-HM3M-3-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                  | -34 dB                             |

## VSWR/Return Loss

| Frequency Band | VSWR  | Return Loss (dB) |
|----------------|-------|------------------|
| 698–970 MHz    | 1.065 | 30               |
| 1700–2200 MHz  | 1.065 | 30               |
| 2200–2700 MHz  | 1.083 | 28               |
| 3400–3800 MHz  | 1.222 | 20               |

## Jumper Assembly Sample Label

# L4-HMHM-3-D



## Environmental Specifications

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

## Regulatory Compliance/Certifications

| Agency        | Classification                                                                                                           |
|---------------|--------------------------------------------------------------------------------------------------------------------------|
| 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.andrew.com/ProductCompliance">www.andrew.com/ProductCompliance</a> |
| ROHS          | Compliant                                                                                                                |
| UK-ROHS       | Compliant                                                                                                                |



## Included Products

|          |                                                                                                                                                                                                   |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LDF4-50A | - LDF4-50A, HELIAX <sup>®</sup> 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) |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

# 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)

## 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                        |

# LDF4-50A

|                          |              |
|--------------------------|--------------|
| 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               |

# LDF4-50A

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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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|            |                                                                                                                          |
|------------|--------------------------------------------------------------------------------------------------------------------------|
| REACH-SVHC | Compliant as per SVHC revision on <a href="http://www.andrew.com/ProductCompliance">www.andrew.com/ProductCompliance</a> |
| ROHS       | Compliant                                                                                                                |
| UK-ROHS    | Compliant                                                                                                                |

