L4A-NMDM-12-P

LDF4-50A SureFlex® Jumper with interface types N Male and 7-16 DIN

Male, 3.658 m

Product Classification

Product Type SureFlex® Premium, static PIM

Product Brand HELIAX® | SureFlex®

Product Series LDF4-50A

General Specifications

Body Style, Connector AStraightBody Style, Connector BStraightInterface, Connector AN Male

Interface, Connector B 7-16 DIN Male

Specification Sheet Revision Level B

Dimensions

Length 3.658 m | 12.001 ft

Nominal Size 1/2 in

Electrical Specifications

3rd Order IMD Static -112 dBm

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

DTF, Connector A -34 dB

DTF, Connector B -34 dB

VSWR/Return Loss

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



L4A-NMDM-12-P

Jumper Assembly Sample Label



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)





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 NoteAttenuation values typical, quaranteed 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

Inductance $0.19 \, \mu H/m \, \mid \, 0.058 \, \mu H/ft$

Insulation Resistance 100000 MOhms-km

Jacket Spark Test Voltage (rms) 8000 V



Operating Frequency Band 1 – 8800 MHz

Peak Power40 kWVelocity88 %

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

| 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 0.463 502 85.0 1.995 0.608 3.82 88.0 2.031 0.619 3.76 100.0 2.169 0.661 3.52 174.0 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 5.033 1.686 1.38 <th>Frequency (MHz)</th> <th>Attenuation (dB/100 m)</th> <th>Attenuation (dB/100 ft)</th> <th>Average Power (kW)</th> | Frequency (MHz) | Attenuation (dB/100 m) | Attenuation (dB/100 ft) | Average Power (kW) |
|--|-----------------|------------------------|-------------------------|--------------------|
| 2.00.2990.09125.510.00.6720.20511.3520.00.9540.2917.9930.01.1720.3576.5150.01.5210.4635.0285.01.9950.6083.8288.02.0310.6193.76100.02.1690.6613.52108.02.2560.6883.38150.02.6730.8152.85174.02.8870.882.64200.03.1030.9462.46204.03.1350.9562.43300.03.8351.1691.99400.04.4621.361.71450.04.7491.4471.61460.04.8041.4641.59500.05.0211.531.52512.05.0851.551.5 | 1.0 | 0.211 | 0.064 | 36.11 |
| 10.00.6720.20511.3520.00.9540.2917.9930.01.1720.3576.5150.01.5210.4635.0285.01.9950.6083.8288.02.0310.6193.76100.02.1690.6613.52108.02.2560.6883.38150.02.6730.8152.85174.02.8870.882.64200.03.1030.9462.46204.03.1350.9562.43300.03.8351.1691.99400.04.4621.361.71450.04.7491.4471.61460.04.8041.4641.59500.05.0211.531.52512.05.0851.551.55 | 1.5 | 0.259 | 0.079 | 29.46 |
| 20.00.9540.2917.9930.01.1720.3576.5150.01.5210.4635.0285.01.9950.6083.8288.02.0310.6193.76100.02.1690.6613.52108.02.2560.6883.38150.02.6730.8152.85200.03.1030.9462.46204.03.1350.9562.43300.03.8351.1691.99400.04.4621.361.71450.04.7491.4471.61460.04.8041.4641.59500.05.0211.531.52512.05.0851.551.5 | 2.0 | 0.299 | 0.091 | 25.5 |
| 30.01.1720.3576.5150.01.5210.4635.0285.01.9950.6083.8288.02.0310.6193.76100.02.1690.6613.52108.02.2560.6883.38150.02.6730.8152.85174.02.8870.882.64200.03.1030.9462.46204.03.1350.9562.43300.03.8351.1691.99400.04.4621.361.71450.04.7491.4471.61460.04.8041.4641.59500.05.0211.531.52512.05.0851.551.5 | 10.0 | 0.672 | 0.205 | 11.35 |
| 50.01.5210.4635.0285.01.9950.6083.8288.02.0310.6193.76100.02.1690.6613.52108.02.2560.6883.38150.02.6730.8152.85174.02.8870.882.64200.03.1030.9462.46204.03.1350.9562.43300.03.8351.1691.99400.04.4621.361.71450.04.7491.4471.61460.04.8041.4641.59500.05.0211.531.52512.05.0851.551.5 | 20.0 | 0.954 | 0.291 | 7.99 |
| 85.01.9950.6083.8288.02.0310.6193.76100.02.1690.6613.52108.02.2560.6883.38150.02.6730.8152.85174.02.8870.882.64200.03.1030.9462.46204.03.1350.9562.43300.03.8351.1691.99400.04.4621.361.71450.04.7491.4471.61460.04.8041.4641.59500.05.0211.531.52512.05.0851.551.5 | 30.0 | 1.172 | 0.357 | 6.51 |
| 88.02.0310.6193.76100.02.1690.6613.52108.02.2560.6883.38150.02.6730.8152.85174.02.8870.882.64200.03.1030.9462.46204.03.1350.9562.43300.03.8351.1691.99400.04.4621.361.71450.04.7491.4471.61460.04.8041.4641.59500.05.0211.531.52512.05.0851.551.5 | 50.0 | 1.521 | 0.463 | 5.02 |
| 100.02.1690.6613.52108.02.2560.6883.38150.02.6730.8152.85174.02.8870.882.64200.03.1030.9462.46204.03.1350.9562.43300.03.8351.1691.99400.04.4621.361.71450.04.7491.4471.61460.04.8041.4641.59500.05.0211.531.52512.05.0851.551.5 | 85.0 | 1.995 | 0.608 | 3.82 |
| 108.02.2560.6883.38150.02.6730.8152.85174.02.8870.882.64200.03.1030.9462.46204.03.1350.9562.43300.03.8351.1691.99400.04.4621.361.71450.04.7491.4471.61460.04.8041.4641.59500.05.0211.531.52512.05.0851.551.5 | 88.0 | 2.031 | 0.619 | 3.76 |
| 150.02.6730.8152.85174.02.8870.882.64200.03.1030.9462.46204.03.1350.9562.43300.03.8351.1691.99400.04.4621.361.71450.04.7491.4471.61460.04.8041.4641.59500.05.0211.531.52512.05.0851.551.5 | 100.0 | 2.169 | 0.661 | 3.52 |
| 174.02.8870.882.64200.03.1030.9462.46204.03.1350.9562.43300.03.8351.1691.99400.04.4621.361.71450.04.7491.4471.61460.04.8041.4641.59500.05.0211.531.52512.05.0851.551.5 | 108.0 | 2.256 | 0.688 | 3.38 |
| 200.03.1030.9462.46204.03.1350.9562.43300.03.8351.1691.99400.04.4621.361.71450.04.7491.4471.61460.04.8041.4641.59500.05.0211.531.52512.05.0851.551.5 | 150.0 | 2.673 | 0.815 | 2.85 |
| 204.03.1350.9562.43300.03.8351.1691.99400.04.4621.361.71450.04.7491.4471.61460.04.8041.4641.59500.05.0211.531.52512.05.0851.551.5 | 174.0 | 2.887 | 0.88 | 2.64 |
| 300.03.8351.1691.99400.04.4621.361.71450.04.7491.4471.61460.04.8041.4641.59500.05.0211.531.52512.05.0851.551.5 | 200.0 | 3.103 | 0.946 | 2.46 |
| 400.04.4621.361.71450.04.7491.4471.61460.04.8041.4641.59500.05.0211.531.52512.05.0851.551.5 | 204.0 | 3.135 | 0.956 | 2.43 |
| 450.04.7491.4471.61460.04.8041.4641.59500.05.0211.531.52512.05.0851.551.5 | 300.0 | 3.835 | 1.169 | 1.99 |
| 460.04.8041.4641.59500.05.0211.531.52512.05.0851.551.5 | 400.0 | 4.462 | 1.36 | 1.71 |
| 500.05.0211.531.52512.05.0851.551.5 | 450.0 | 4.749 | 1.447 | 1.61 |
| 512.0 5.085 1.55 1.5 | 460.0 | 4.804 | 1.464 | 1.59 |
| | 500.0 | 5.021 | 1.53 | 1.52 |
| 600.0 5.533 1.686 1.38 | 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 |
| 3000.0 | 10.01 | 0.409 | 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, minimum15Number of Bends, typical50

 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 Temperature $68 \, ^{\circ}\text{F} \mid 20 \, ^{\circ}\text{C}$ Average Power, Ambient Temperature $104 \, ^{\circ}\text{F} \mid 40 \, ^{\circ}\text{C}$ Average Power, Inner Conductor Temperature $212 \, ^{\circ}\text{F} \mid 100 \, ^{\circ}\text{C}$

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

ANDREW® an Amphenol company

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

ROHS Compliant UK-ROHS Compliant



