

# L2-PSMSM-7M-HF

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LDF2-50 Jumper with interface types SMA Male and SMA Male, 7 M



## Product Classification

|                       |                                      |
|-----------------------|--------------------------------------|
| <b>Product Type</b>   | Wireless transmission cable assembly |
| <b>Product Brand</b>  | HELIAX®                              |
| <b>Product Series</b> | LDF2-50                              |

## General Specifications

|   |          |
|---|----------|
| <b>Body Style, Connector A</b>            | Straight |
| <b>Body Style, Connector B</b>            | Straight |
| <b>Interface, Connector A</b>             | SMA Male |
| <b>Interface, Connector B</b>             | SMA Male |
| <b>Specification Sheet Revision Level</b> | A        |

## Dimensions

|                     |                 |
|---------------------|-----------------|
| <b>Length</b>       | 7 m   22.966 ft |
| <b>Nominal Size</b> | 3/8 in          |

## VSWR/Return Loss

| Frequency Band | VSWR | Return Loss (dB) |
|----------------|------|------------------|
| 45–13000 MHz   | 1.58 | 13               |

## Jumper Assembly Sample Label

# L2-PSMSM-7M-HF



## 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

- LDF2-50 – LDF2-50, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 3/8 in, black PE jacket

# LDF2-50

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LDF2-50, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 3/8 in, black PE jacket



## Product Classification

|                       |                        |
|-----------------------|------------------------|
| <b>Product Type</b>   | Coaxial wireless cable |
| <b>Product Brand</b>  | HELIAX®   SureFlex®    |
| <b>Product Series</b> | LDF2-50                |

## General Specifications

|                         |  |
|-------------------------|--|
| <b>Product Number</b>   | 520098202/00   SZ520098202/00                    |
| <b>Flexibility</b>      | Standard   |
| <b>Jacket Color</b>     | Black  |
| <b>Performance Note</b> | Attenuation values typical, guaranteed within 5% |

## Dimensions

|                                 |                     |
|---------------------------------|---------------------|
| <b>Diameter Over Dielectric</b> | 8.636 mm   0.34 in  |
| <b>Diameter Over Jacket</b>     | 11.176 mm   0.44 in |
| <b>Inner Conductor OD</b>       | 3.124 mm   0.123 in |
| <b>Outer Conductor OD</b>       | 9.652 mm   0.38 in  |
| <b>Nominal Size</b>             | 3/8 in              |

## Electrical Specifications

|                                       |                                   |
|---------------------------------------|-----------------------------------|
| <b>Cable Impedance</b>                | 50 ohm $\pm$ 1 ohm                |
| <b>Capacitance</b>                    | 75.5 pF/m   23.012 pF/ft          |
| <b>dc Resistance, Inner Conductor</b> | 3.478 ohms/km   1.06 ohms/kft     |
| <b>dc Resistance, Outer Conductor</b> | 2.854 ohms/km   0.87 ohms/kft     |
| <b>dc Test Voltage</b>                | 2500 V                            |
| <b>Inductance</b>                     | 0.19 $\mu$ H/m   0.058 $\mu$ H/ft |

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|  |                 |
|--|-----------------|
| <b>Insulation Resistance</b>           | 100000 MOhms-km |
| <b>Jacket Spark Test Voltage (rms)</b> | 5000 V          |
| <b>Operating Frequency Band</b>        | 1 – 13000 MHz   |
| <b>Peak Power</b>                      | 15.6 kW         |
| <b>Velocity</b>                        | 85 %            |

## Attenuation

| <b>Frequency (MHz)</b> | <b>Attenuation (dB/100 m)</b> | <b>Attenuation (dB/100 ft)</b> | <b>Average Power (kW)</b> |
|------------------------|-------------------------------|--------------------------------|---------------------------|
| 1.0                    | 0.332                         | 0.101                          | 15.6                      |
| 1.5                    | 0.407                         | 0.124                          | 15.6                      |
| 2.0                    | 0.471                         | 0.143                          | 15.6                      |
| 10.0                   | 1.059                         | 0.323                          | 7.28                      |
| 20.0                   | 1.503                         | 0.458                          | 5.13                      |
| 30.0                   | 1.847                         | 0.563                          | 4.17                      |
| 50.0                   | 2.397                         | 0.73                           | 3.22                      |
| 85.0                   | 3.146                         | 0.959                          | 2.45                      |
| 88.0                   | 3.203                         | 0.976                          | 2.41                      |
| 100.0                  | 3.421                         | 1.043                          | 2.25                      |
| 108.0                  | 3.559                         | 1.085                          | 2.17                      |
| 150.0                  | 4.219                         | 1.286                          | 1.83                      |
| 174.0                  | 4.558                         | 1.389                          | 1.69                      |
| 200.0                  | 4.901                         | 1.494                          | 1.57                      |
| 204.0                  | 4.952                         | 1.509                          | 1.56                      |
| 300.0                  | 6.062                         | 1.847                          | 1.27                      |
| 400.0                  | 7.057                         | 2.151                          | 1.09                      |
| 450.0                  | 7.513                         | 2.29                           | 1.03                      |
| 460.0                  | 7.601                         | 2.317                          | 1.01                      |
| 500.0                  | 7.947                         | 2.422                          | 0.97                      |
| 512.0                  | 8.048                         | 2.453                          | 0.96                      |
| 600.0                  | 8.761                         | 2.67                           | 0.88                      |
| 700.0                  | 9.519                         | 2.901                          | 0.81                      |
| 800.0                  | 10.232                        | 3.119                          | 0.75                      |
| 824.0                  | 10.398                        | 3.169                          | 0.74                      |
| 894.0                  | 10.869                        | 3.313                          | 0.71                      |
| 960.0                  | 11.299                        | 3.444                          | 0.68                      |

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|                |        |        |      |
|----------------|--------|--------|------|
| <b>1000.0</b>  | 11.554 | 3.521  | 0.67 |
| <b>1218.0</b>  | 12.874 | 3.924  | 0.6  |
| <b>1250.0</b>  | 13.059 | 3.98   | 0.59 |
| <b>1500.0</b>  | 14.446 | 4.403  | 0.53 |
| <b>1700.0</b>  | 15.49  | 4.721  | 0.5  |
| <b>1794.0</b>  | 15.964 | 4.866  | 0.48 |
| <b>1800.0</b>  | 15.994 | 4.875  | 0.48 |
| <b>2000.0</b>  | 16.97  | 5.172  | 0.45 |
| <b>2100.0</b>  | 17.443 | 5.316  | 0.44 |
| <b>2200.0</b>  | 17.908 | 5.458  | 0.43 |
| <b>2300.0</b>  | 18.365 | 5.597  | 0.42 |
| <b>2500.0</b>  | 19.257 | 5.869  | 0.4  |
| <b>2700.0</b>  | 20.122 | 6.133  | 0.38 |
| <b>3000.0</b>  | 21.376 | 6.515  | 0.36 |
| <b>3400.0</b>  | 22.978 | 7.003  | 0.34 |
| <b>3600.0</b>  | 23.754 | 7.24   | 0.32 |
| <b>3700.0</b>  | 24.136 | 7.356  | 0.32 |
| <b>3800.0</b>  | 24.514 | 7.471  | 0.31 |
| <b>3900.0</b>  | 24.888 | 7.586  | 0.31 |
| <b>4000.0</b>  | 25.26  | 7.699  | 0.31 |
| <b>4100.0</b>  | 25.627 | 7.811  | 0.3  |
| <b>4200.0</b>  | 25.992 | 7.922  | 0.3  |
| <b>4300.0</b>  | 26.354 | 8.032  | 0.29 |
| <b>4400.0</b>  | 26.713 | 8.142  | 0.29 |
| <b>4500.0</b>  | 27.069 | 8.25   | 0.28 |
| <b>4600.0</b>  | 27.422 | 8.358  | 0.28 |
| <b>4700.0</b>  | 27.773 | 8.465  | 0.28 |
| <b>4800.0</b>  | 28.12  | 8.571  | 0.27 |
| <b>4900.0</b>  | 28.466 | 8.676  | 0.27 |
| <b>5000.0</b>  | 28.809 | 8.781  | 0.27 |
| <b>6000.0</b>  | 32.121 | 9.79   | 0.24 |
| <b>8000.0</b>  | 38.244 | 11.656 | 0.2  |
| <b>8800.0</b>  | 40.551 | 12.359 | 0.19 |
| <b>10000.0</b> | 43.894 | 13.378 | 0.18 |
| <b>12000.0</b> | 49.209 | 14.998 | 0.16 |

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## Material Specifications

|                                 |                           |
|---------------------------------|---------------------------|
| <b>Dielectric Material</b>      | Foam PE                   |
| <b>Jacket Material</b>          | PE                        |
| <b>Inner Conductor Material</b> | Copper-clad aluminum wire |
| <b>Outer Conductor Material</b> | Corrugated copper         |

## Mechanical Specifications

|  |                         |
|--|-------------------------|
| <b>Minimum Bend Radius, multiple Bends</b> | 95.25 mm   3.75 in      |
| <b>Minimum Bend Radius, single Bend</b>    | 40.64 mm   1.6 in       |
| <b>Number of Bends, minimum</b>            | 15                      |
| <b>Number of Bends, typical</b>            | 50                      |
| <b>Tensile Strength</b>                    | 113 kg   249.122 lb     |
| <b>Bending Moment</b>                      | 1.9 N-m   16.816 in lb  |
| <b>Flat Plate Crush Strength</b>           | 2 kg/mm   111.995 lb/in |

## Environmental Specifications

|   |                                      |
|---|--------------------------------------|
| <b>Installation temperature</b>                   | -40 °C to +60 °C (-40 °F to +140 °F) |
| <b>Operating Temperature</b>                      | -55 °C to +85 °C (-67 °F to +185 °F) |
| <b>Storage Temperature</b>                        | -70 °C to +85 °C (-94 °F to +185 °F) |
| <b>Attenuation, Ambient Temperature</b>           | 68 °F   20 °C                        |
| <b>Average Power, Ambient Temperature</b>         | 104 °F   40 °C                       |
| <b>Average Power, Inner Conductor Temperature</b> | 212 °F   100 °C                      |

## Packaging and Weights

|                     |                         |
|---------------------|-------------------------|
| <b>Cable weight</b> | 0.12 kg/m   0.081 lb/ft |
|---------------------|-------------------------|

## Regulatory Compliance/Certifications

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

