

LS2-XMDM-3M-P



LSF2-50 SureFlex® Jumper with interface types NEX10 Male and 7/16DIN Male, 3m

Product Classification

| | |
|-----------------------|-------------------------------|
| Product Type | SureFlex® Premium, static PIM |
| Product Brand | HELIAX® SureFlex® |
| Product Series | LSF2-50 |

General Specifications

| | |
|---|---------------|
| Body Style, Connector A | Straight |
| Body Style, Connector B | Straight |
| Interface, Connector A | NEX10 Male |
| Interface, Connector B | 7-16 DIN Male |
| Specification Sheet Revision Level | A |

Dimensions

| | |
|---------------------|----------------|
| Length | 3 m 9.843 ft |
| Nominal Size | 3/8 in |

Electrical Specifications

| | |
|----------------------------------|----------------------|
| 3rd Order IMD | -112 dBm |
| 3rd Order IMD Test Method | Two +43 dBm carriers |

VSWR/Return Loss

| Frequency Band | VSWR | Return Loss (dB) |
|----------------|-------|------------------|
| 698–960 MHz | 1.065 | 30 |
| 1700–2200 MHz | 1.083 | 28 |
| 2500–2700 MHz | 1.106 | 26 |
| 3400–3800 MHz | 1.222 | 20 |

LS2-XMDM-3M-P

Jumper Assembly Sample Label



Environmental Specifications

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

Regulatory Compliance/Certifications

| Agency | Classification |
|------------|--|
| REACH-SVHC | Compliant as per SVHC revision on www.commscope.com/ProductCompliance |

Included Products

- LS2DM-S2 — 7/16 Male for 3/8 in LSF2-50 cable, factory attached
- LS2XM-P — NEX10 Male for 3/8 in LSF2-50 cable, factory attached
- LSF2-50 — LSF2-50, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 3/8 in, black PE jacket (Not for Individual Sale - Jumpers only)

LS2DM-S2

7/16 Male for 3/8 in LSF2-50 cable, factory attached

Product Classification

| | |
|----------------------|----------------------------------|
| Product Type | Wireless and radiating connector |
| Product Brand | HELIAX® |

General Specifications

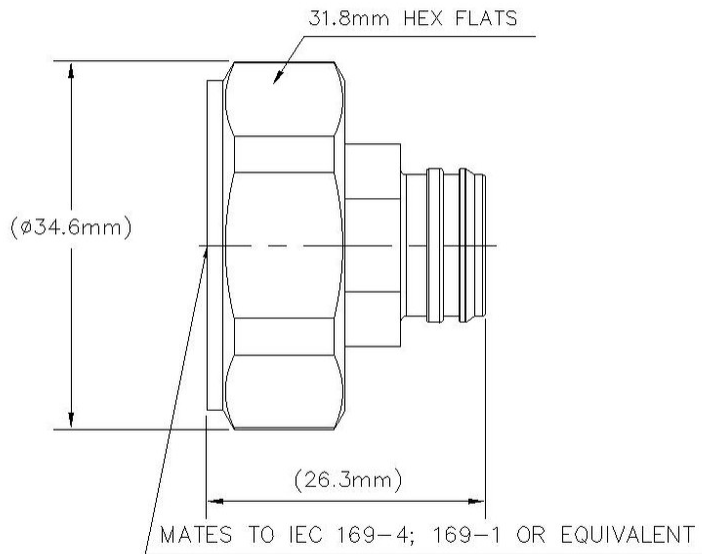
| | |
|--|---------------|
| Body Style | Straight |
| Cable Family | FSJ4-50B |
| Inner Contact Attachment Method | Solder |
| Inner Contact Plating | Silver |
| Interface | 7-16 DIN Male |
| Outer Contact Attachment Method | Solder |
| Outer Contact Plating | Trimetal |

Dimensions

| | |
|---------------------|--------------------|
| Length | 26.16 mm 1.03 in |
| Diameter | 34.54 mm 1.36 in |
| Nominal Size | 3/8 in |

Outline Drawing

LS2DM-S2



Electrical Specifications

| | |
|--|----------------------|
| 3rd Order IMD at Frequency | -119 dBm @ 910 MHz |
| 3rd Order IMD Test Method | Two +43 dBm carriers |
| Insertion Loss Coefficient, typical | 0.05 |
| Cable Impedance | 50 ohm |
| Connector Impedance | 50 ohm |
| dc Test Voltage | 2500 V |
| Inner Contact Resistance, maximum | 1.5 mOhm |
| Insulation Resistance, minimum | 5000 MOhm |
| Operating Frequency Band | 0 – 7500 MHz |
| Outer Contact Resistance, maximum | 0.4 mOhm |
| Peak Power, maximum | 15 kW |

VSWR/Return Loss

| Frequency Band | VSWR | Return Loss (dB) |
|----------------|------|------------------|
| 0–3.8 GHz | 1.07 | 30.71 |
| 3.8–6 GHz | 1.07 | 29.42 |

LS2DM-S2

Mechanical Specifications

| | |
|--|------------------------|
| Connector Retention Tensile Force | 200.17 N 45 lbf |
| Connector Retention Torque | 2.7 N-m 23.897 in lb |
| Coupling Nut Proof Torque | 35 N-m 309.776 in lb |
| Coupling Nut Retention Force | 1000 N 224.81 lbf |
| Interface Durability | 500 cycles |
| Mechanical Shock Test Method | IEC 60068-2-27 |

Environmental Specifications

| | |
|---|---------------------------------------|
| Operating Temperature | -55 °C to +85 °C (-67 °F to +185 °F) |
| Storage Temperature | -65 °C to +125 °C (-85 °F to +257 °F) |
| Attenuation, Ambient Temperature | 20 °C 68 °F |
| Average Power, Ambient Temperature | 40 °C 104 °F |
| Corrosion Test Method | IEC 60068-2-11 |
| Immersion Depth | 1 m |
| Immersion Test Mating | Mated |
| Immersion Test Method | IEC 60529:2001, IP68 |
| Moisture Resistance Test Method | IEC 60068-2-3 |
| Thermal Shock Test Method | IEC 60068-2-14 |
| Vibration Test Method | IEC 60068-2-6 |

Packaging and Weights

| | |
|--------------------|--------------------|
| Weight, net | 47.97 g 0.106 lb |
|--------------------|--------------------|

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 www.commscope.com/ProductCompliance |
| ROHS | Compliant |



LS2DM-S2

* Footnotes

Insertion Loss Coefficient, typical $0.05\sqrt{\text{freq}}$ (GHz) (not applicable for elliptical waveguide)

Immersion Depth Immersion at specified depth for 24 hours

LS2XM-P



NEX10 Male for 3/8 in LSF2-50 cable, factory attached

Product Classification

| | |
|-----------------------|----------------------------------|
| Product Type | Wireless and radiating connector |
| Product Brand | HELIAX® |
| Product Series | LSF2-50 |

General Specifications

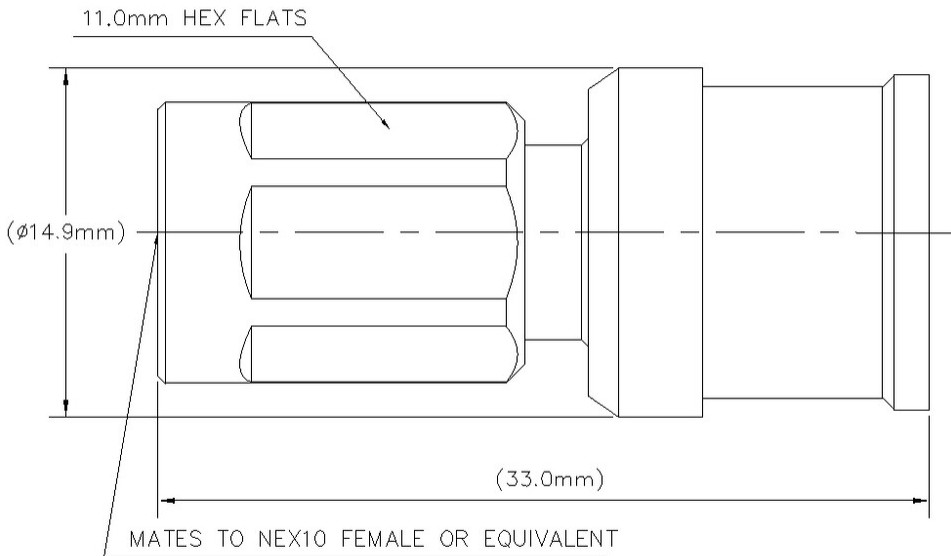
| | |
|--|------------|
| Body Style | Straight |
| Cable Family | LSF2-50 |
| Inner Contact Attachment Method | Solder |
| Inner Contact Plating | Silver |
| Interface | NEX10 Male |
| Outer Contact Attachment Method | Solder |
| Outer Contact Plating | Trimetal |

Dimensions

| | |
|---------------------|--------------------|
| Length | 33 mm 1.299 in |
| Diameter | 14.9 mm 0.587 in |
| Nominal Size | 3/8 in |

Outline Drawing

LS2XM-P



Electrical Specifications

| | |
|--|----------------------|
| 3rd Order IMD at Frequency | -119 dBm @ 910 MHz |
| 3rd Order IMD Test Method | Two +43 dBm carriers |
| Insertion Loss Coefficient, typical | 0.05 |
| Cable Impedance | 50 ohm |
| Connector Impedance | 50 ohm |
| dc Test Voltage | 1500 V |
| Inner Contact Resistance, maximum | 2 mOhm |
| Insulation Resistance, minimum | 5000 MOhm |
| Operating Frequency Band | 0 – 6000 MHz |
| Outer Contact Resistance, maximum | 1 mOhm |
| Peak Power, maximum | 5 kW |

VSWR/Return Loss

| Frequency Band | VSWR | Return Loss (dB) |
|-----------------------|-------------|-------------------------|
| 698–970 MHz | 1.029 | 36.9 |
| 1700–2700 MHz | 1.058 | 31 |

LS2XM-P

3000–6000 MHz 1.222 20.01

Mechanical Specifications

| | |
|--|----------------------|
| Connector Retention Tensile Force | 200.17 N 45 lbf |
| Connector Retention Torque | 23.9 in lb 2.7 N-m |
| Coupling Nut Proof Torque | 5 N-m 44.254 in lb |
| Coupling Nut Retention Force | 500 N 112.405 lbf |
| Interface Durability | 100 cycles |
| Mechanical Shock Test Method | IEC 60068-2-27 |

Environmental Specifications

| | |
|--|---------------------------------------|
| Operating Temperature | -55 °C to +85 °C (-67 °F to +185 °F) |
| Storage Temperature | -65 °C to +125 °C (-85 °F to +257 °F) |
| Corrosion Test Method | IEC 60068-2-11 |
| Immersion Depth | 1 m |
| Immersion Test Mating | Mated |
| Immersion Test Method | IEC 60529:2001, IP68 |
| Moisture Resistance Test Method | IEC 60068-2-3 |
| Thermal Shock Test Method | IEC 60068-2-14 |
| Vibration Test Method | IEC 60068-2-6 |

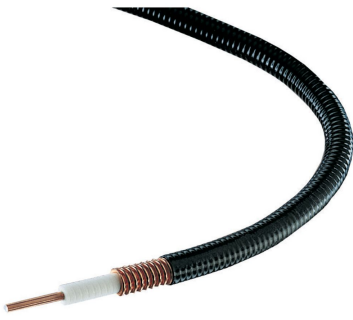
Packaging and Weights

| | |
|--------------------|--------------------|
| Weight, net | 17.61 g 0.039 lb |
|--------------------|--------------------|

* Footnotes

| | |
|--|---|
| Insertion Loss Coefficient, typical | 0.05√freq (GHz) (not applicable for elliptical waveguide) |
| Immersion Depth | Immersion at specified depth for 24 hours |

LSF2-50



LSF2-50, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 3/8 in, black PE jacket (Not for Individual Sale - Jumpers only)

Product Classification

| | |
|-----------------------|--------------------------------------|
| Product Type | Coaxial wireless cable |
| Product Brand | HELIAX® SureFlex® |
| Product Series | LSF2-50 MLOC |
| Ordering Note | CommScope® standard product (Global) |

General Specifications

| | |
|-------------------------|--|
| Flexibility | Superflexible |
| Jacket Color | Black |
| Performance Note | Attenuation values typical, guaranteed within 5% |

Dimensions

| | |
|---------------------------------|----------------------|
| Diameter Over Dielectric | 7.645 mm 0.301 in |
| Diameter Over Jacket | 11.024 mm 0.434 in |
| Inner Conductor OD | 3.048 mm 0.12 in |
| Outer Conductor OD | 9.906 mm 0.39 in |
| Nominal Size | 3/8 in |

Electrical Specifications

| | |
|---------------------------------------|-------------------------------|
| Cable Impedance | 50 ohm ±1 ohm |
| Capacitance | 80.7 pF/m 24.597 pF/ft |
| dc Resistance, Inner Conductor | 3.65 ohms/km 1.113 ohms/kft |
| dc Resistance, Outer Conductor | 4.64 ohms/km 1.414 ohms/kft |
| dc Test Voltage | 2500 V |
| Inductance | 0.202 µH/m 0.062 µH/ft |

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| | |
|--|-----------------|
| Insulation Resistance | 100000 MOhms-km |
| Jacket Spark Test Voltage (rms) | 5000 V |
| Operating Frequency Band | 1 – 10200 MHz |
| Peak Power | 15.6 kW |
| Velocity | 82 % |

VSWR/Return Loss

| Frequency Band | VSWR | Return Loss (dB) |
|-----------------------|-------------|-------------------------|
| 680–800 MHz | 1.201 | 20.79 |
| 800–960 MHz | 1.201 | 20.79 |
| 1700–2200 MHz | 1.201 | 20.79 |
| 2300–2700 MHz | 1.201 | 20.79 |
| 3400–3800 MHz | 1.201 | 20.79 |

Attenuation

| Frequency (MHz) | Attenuation (dB/100 m) | Attenuation (dB/100 ft) | Average Power (kW) |
|------------------------|-------------------------------|--------------------------------|---------------------------|
| 1.0 | 0.422 | 0.129 | 15.6 |
| 1.5 | 0.501 | 0.153 | 15.6 |
| 2.0 | 0.567 | 0.173 | 14.27 |
| 10.0 | 1.179 | 0.359 | 6.86 |
| 20.0 | 1.641 | 0.5 | 4.93 |
| 30.0 | 1.998 | 0.609 | 4.05 |
| 50.0 | 2.567 | 0.782 | 3.15 |
| 85.0 | 3.342 | 1.019 | 2.42 |
| 88.0 | 3.4 | 1.036 | 2.38 |
| 100.0 | 3.625 | 1.105 | 2.23 |
| 108.0 | 3.768 | 1.148 | 2.15 |
| 150.0 | 4.447 | 1.355 | 1.82 |
| 174.0 | 4.795 | 1.461 | 1.69 |
| 200.0 | 5.147 | 1.569 | 1.57 |
| 204.0 | 5.199 | 1.585 | 1.56 |
| 300.0 | 6.336 | 1.931 | 1.28 |
| 400.0 | 7.351 | 2.241 | 1.1 |
| 450.0 | 7.815 | 2.382 | 1.03 |
| 460.0 | 7.905 | 2.409 | 1.02 |

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|---------------|--------|-------|------|
| 500.0 | 8.257 | 2.517 | 0.98 |
| 512.0 | 8.36 | 2.548 | 0.97 |
| 600.0 | 9.084 | 2.769 | 0.89 |
| 700.0 | 9.851 | 3.003 | 0.82 |
| 800.0 | 10.572 | 3.222 | 0.77 |
| 824.0 | 10.739 | 3.273 | 0.75 |
| 894.0 | 11.214 | 3.418 | 0.72 |
| 960.0 | 11.648 | 3.55 | 0.69 |
| 1000.0 | 11.904 | 3.628 | 0.68 |
| 1218.0 | 13.231 | 4.033 | 0.61 |
| 1250.0 | 13.417 | 4.089 | 0.6 |
| 1500.0 | 14.806 | 4.512 | 0.55 |
| 1700.0 | 15.848 | 4.83 | 0.51 |
| 1794.0 | 16.32 | 4.974 | 0.5 |
| 1800.0 | 16.35 | 4.983 | 0.49 |
| 2000.0 | 17.321 | 5.279 | 0.47 |
| 2100.0 | 17.791 | 5.423 | 0.45 |
| 2200.0 | 18.253 | 5.563 | 0.44 |
| 2300.0 | 18.706 | 5.701 | 0.43 |
| 2500.0 | 19.589 | 5.97 | 0.41 |
| 2700.0 | 20.445 | 6.231 | 0.4 |
| 3000.0 | 21.682 | 6.608 | 0.37 |
| 3400.0 | 23.26 | 7.089 | 0.35 |
| 3600.0 | 24.022 | 7.321 | 0.34 |
| 3700.0 | 24.396 | 7.436 | 0.33 |
| 3800.0 | 24.767 | 7.549 | 0.33 |
| 3900.0 | 25.134 | 7.661 | 0.32 |
| 4000.0 | 25.498 | 7.771 | 0.32 |
| 4100.0 | 25.858 | 7.881 | 0.31 |
| 4200.0 | 26.215 | 7.99 | 0.31 |
| 4300.0 | 26.569 | 8.098 | 0.3 |
| 4400.0 | 26.92 | 8.205 | 0.3 |
| 4500.0 | 27.267 | 8.311 | 0.3 |
| 4600.0 | 27.612 | 8.416 | 0.29 |
| 4700.0 | 27.954 | 8.52 | 0.29 |

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| | | | |
|----------------|--------|--------|------|
| 4800.0 | 28.294 | 8.623 | 0.29 |
| 4900.0 | 28.63 | 8.726 | 0.28 |
| 5000.0 | 28.965 | 8.828 | 0.28 |
| 6000.0 | 32.183 | 9.809 | 0.25 |
| 8000.0 | 38.096 | 11.611 | 0.21 |
| 8800.0 | 40.314 | 12.287 | 0.2 |
| 10000.0 | 43.516 | 13.263 | 0.19 |

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 | 25.4 mm 1 in |
| Minimum Bend Radius, single Bend | 25.4 mm 1 in |
| Number of Bends, minimum | 15 |
| Tensile Strength | 118 kg 260.145 lb |
| Bending Moment | 2.2 N-m 19.472 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 |
| EN50575 CPR Cable EuroClass Fire Performance | Fca |

Packaging and Weights

| | |
|---------------------|-------------------------|
| Cable weight | 0.11 kg/m 0.074 lb/ft |
|---------------------|-------------------------|

LSF2-50

Regulatory Compliance/Certifications

Agency

CENELEC

ISO 9001:2015

**Classification**

EN 50575 compliant, Declaration of Performance (DoP) available

Designed, manufactured and/or distributed under this quality management system