

F1-XMHF-3-D



D-CLASS FSJ1-50A SureFlex® Jumper with interface types Nex10 Male and 4.3-10 Female, 3 ft

Logo Image



Product Classification

| | |
|-----------------------|--------------------------------------|
| Product Series | FSJ1-50A |
| Product Type | Wireless transmission cable assembly |

General Specifications

| | |
|---|--------------------|
| Body Style, Connector A | Straight |
| Body Style, Connector B | Straight |
| Interface, Connector A | Nex10 Male |
| Interface, Connector B | 4.3-10 Female |
| Length | 0.914 m 3.000 ft |
| Nominal Size | 1/4 in |
| Specification Sheet Revision Level | A |

Electrical Specifications

| | |
|--|------------------------------------|
| 3rd Order IMD Dynamic | -162.00 dBc -119.00 dBm |
| 3rd Order IMD Dynamic Test Method | Two +43 dBm carriers per IEC 62037 |

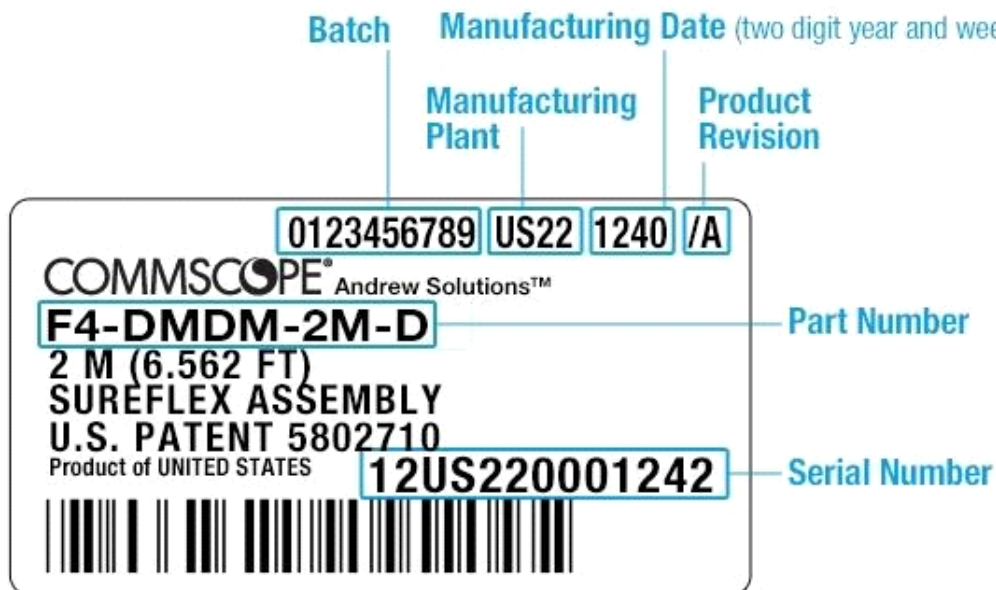
Environmental Specifications

F1-XMHF-3-D

Immersion Test Method

Meets IEC 60529:2001, IP68 in mated condition

Jumper Assembly Sample Label



Return Loss/VSWR

| Frequency Band | VSWR | Return Loss (dB) |
|----------------|------|------------------|
| 698–960 MHz | 1.07 | 30.00 |
| 1700–2200 MHz | 1.08 | 28.00 |
| 2200–2700 MHz | 1.11 | 26.00 |
| 3400–3800 MHz | 1.22 | 20.00 |
| 4000–6000 MHz | 1.22 | 20.00 |

Regulatory Compliance/Certifications

Agency

RoHS 2011/65/EU

ISO 9001:2015

China RoHS SJ/T 11364-2014

Classification

Compliant by Exemption

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

Above Maximum Concentration Value (MCV)



Included Products

FSJ1-50A — FSJ1-50A, HELIAX® Superflexible Low Density Foam Coaxial Cable, corrugated copper, 1/4 in, black PE jacket

FSJ1-50A



FSJ1-50A, HELIAX® Superflexible Low Density Foam Coaxial Cable, corrugated copper, 1/4 in, black PE jacket

Product Classification

| | |
|-----------------------|------------------------|
| Brand | HELIAX® SureFlex® |
| Product Series | FSJ1-50A |
| Product Type | Coaxial wireless cable |

Construction Materials

| | |
|---------------------------------|---------------------------|
| Jacket Material | PE |
| Outer Conductor Material | Corrugated copper |
| Dielectric Material | Foam PE |
| Flexibility | Superflexible |
| Inner Conductor Material | Copper-clad aluminum wire |
| Jacket Color | Black |

Dimensions

| | |
|---------------------------------|------------------------|
| Nominal Size | 1/4 in |
| Cable Length | 0 km |
| Cable Weight | 0.05 lb/ft 0.07 kg/m |
| Diameter Over Dielectric | 4.826 mm 0.190 in |
| Diameter Over Jacket | 7.366 mm 0.290 in |
| Inner Conductor OD | 1.9050 mm 0.0750 in |
| Outer Conductor OD | 6.350 mm 0.250 in |

Electrical Specifications

| | |
|--|--------------------------------|
| Cable Impedance | 50 ohm ±1 ohm |
| Capacitance | 24.2 pF/ft 79.4 pF/m |
| dc Resistance, Inner Conductor | 3.000 ohms/kft 9.843 ohms/km |
| dc Resistance, Outer Conductor | 2.200 ohms/kft 7.216 ohms/km |
| dc Test Voltage | 1600 V |
| Inductance | 0.200 μH/m 0.061 μH/ft |
| Insulation Resistance | 100000 Mohms•km |
| Jacket Spark Test Voltage (rms) | 5000 V |

FSJ1-50A

| | |
|---------------------------------|---------------|
| Operating Frequency Band | 1 – 18000 MHz |
| Peak Power | 6.4 kW |
| Velocity | 82 % |

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) |

Mechanical Specifications

| | |
|--|-------------------------|
| Bending Moment | 0.7 N-m 0.5 ft lb |
| Flat Plate Crush Strength | 100.0 lb/in 1.8 kg/mm |
| Minimum Bend Radius, Multiple Bends | 25.40 mm 1.00 in |
| Minimum Bend Radius, Single Bend | 25.40 mm 1.00 in |
| Number of Bends, minimum | 15 |
| Number of Bends, typical | 20 |
| Tensile Strength | 68 kg 150 lb |

Note

| | |
|-------------------------|---|
| Performance Note | Values typical, unless otherwise stated |
|-------------------------|---|

Standard Conditions

| | |
|---|-----------------|
| Attenuation, Ambient Temperature | 20 °C 68 °F |
| Average Power, Ambient Temperature | 40 °C 104 °F |
| Average Power, Inner Conductor Temperature | 100 °C 212 °F |

Return Loss/VSWR

| Frequency Band | VSWR | Return Loss (dB) |
|-----------------------|-------------|-------------------------|
| 680–960 MHz | 1.2 | 20.80 |
| 1700–2200 MHz | 1.2 | 20.80 |
| 2200–2700 MHz | 1.43 | 15.00 |

Attenuation

| Frequency (MHz) | Attenuation (dB/100 m) | Attenuation (dB/100 ft) | Average Power (kW) |
|-----------------|------------------------|-------------------------|--------------------|
| 0.5 | 0.407 | 0.124 | 6.40 |
| 1 | 0.577 | 0.176 | 6.40 |
| 1.5 | 0.707 | 0.215 | 6.40 |
| 2 | 0.816 | 0.249 | 6.40 |
| 10 | 1.833 | 0.559 | 3.99 |
| 20 | 2.6 | 0.792 | 2.81 |
| 30 | 3.192 | 0.973 | 2.29 |
| 50 | 4.136 | 1.261 | 1.77 |
| 85 | 5.419 | 1.652 | 1.35 |
| 88 | 5.516 | 1.681 | 1.33 |
| 100 | 5.889 | 1.795 | 1.24 |
| 108 | 6.125 | 1.867 | 1.19 |
| 150 | 7.25 | 2.21 | 1.01 |
| 174 | 7.825 | 2.385 | 0.93 |
| 200 | 8.408 | 2.563 | 0.87 |
| 204 | 8.495 | 2.589 | 0.86 |
| 300 | 10.373 | 3.162 | 0.71 |
| 400 | 12.051 | 3.673 | 0.61 |
| 450 | 12.817 | 3.906 | 0.57 |
| 460 | 12.965 | 3.952 | 0.56 |
| 460 | 12.965 | 3.952 | 0.56 |
| 500 | 13.545 | 4.128 | 0.54 |
| 512 | 13.715 | 4.18 | 0.53 |
| 600 | 14.909 | 4.544 | 0.49 |
| 700 | 16.175 | 4.93 | 0.45 |
| 800 | 17.362 | 5.292 | 0.42 |
| 824 | 17.637 | 5.376 | 0.41 |
| 894 | 18.42 | 5.614 | 0.40 |
| 960 | 19.134 | 5.832 | 0.38 |
| 1000 | 19.556 | 5.96 | 0.37 |
| 1218 | 21.738 | 6.626 | 0.34 |
| 1250 | 22.044 | 6.719 | 0.33 |
| 1500 | 24.326 | 7.414 | 0.30 |
| 1700 | 26.038 | 7.936 | 0.28 |
| 1794 | 26.813 | 8.172 | 0.27 |
| 1800 | 26.862 | 8.187 | 0.27 |
| 2000 | 28.455 | 8.673 | 0.26 |
| 2100 | 29.227 | 8.908 | 0.25 |
| 2200 | 29.984 | 9.139 | 0.24 |
| 2300 | 30.727 | 9.365 | 0.24 |
| 2500 | 32.174 | 9.806 | 0.23 |
| 2700 | 33.576 | 10.233 | 0.22 |
| 3000 | 35.602 | 10.851 | 0.21 |
| 3400 | 38.183 | 11.638 | 0.19 |
| 3600 | 39.428 | 12.017 | 0.19 |

FSJ1-50A

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|-------|---------|--------|------|
| 3700 | 40.041 | 12.204 | 0.18 |
| 3800 | 40.647 | 12.389 | 0.18 |
| 3900 | 41.247 | 12.571 | 0.18 |
| 4000 | 41.841 | 12.753 | 0.17 |
| 4100 | 42.429 | 12.932 | 0.17 |
| 4200 | 43.012 | 13.11 | 0.17 |
| 4300 | 43.59 | 13.286 | 0.17 |
| 4400 | 44.163 | 13.46 | 0.17 |
| 4500 | 44.73 | 13.633 | 0.16 |
| 4600 | 45.293 | 13.805 | 0.16 |
| 4700 | 45.852 | 13.975 | 0.16 |
| 4800 | 46.405 | 14.144 | 0.16 |
| 4900 | 46.955 | 14.311 | 0.16 |
| 5000 | 47.5 | 14.477 | 0.15 |
| 6000 | 52.747 | 16.077 | 0.14 |
| 8000 | 62.37 | 19.01 | 0.12 |
| 8800 | 65.974 | 20.108 | 0.11 |
| 10000 | 71.173 | 21.693 | 0.10 |
| 12000 | 79.393 | 24.198 | 0.09 |
| 14000 | 87.172 | 26.569 | 0.08 |
| 15800 | 93.872 | 28.611 | 0.08 |
| 16000 | 94.601 | 28.833 | 0.08 |
| 18000 | 101.745 | 31.01 | 0.07 |

* Values typical, guaranteed within 5%

Regulatory Compliance/Certifications

Agency

UL/ETL Certification

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ISO 9001:2015

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Compliant

Compliant

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