

F2R-HMDF-P

Base Product

FSJ2RK-50 Jumper with interface types 4.3-10 Male and 7/16 DIN Female, variable length



Product Classification

| | |
|-----------------------|--------------------------------------|
| Product Type | Wireless transmission cable assembly |
| Product Series | FSJ2-50 |

General Specifications

| | |
|---|---|
| Body Style, Connector A | Straight |
| Body Style, Connector B | Straight |
| Interface, Connector A | 4.3-10 Male |
| Interface, Connector B | 7-16 DIN Female |
| Specification Sheet Revision Level | A |
| Variable Length | For custom lengths contact 828-324-2200 or 1-800-982-1708 (toll free), or your local CommScope representative |

Dimensions

| | |
|---------------------|--------|
| Nominal Size | 3/8 in |
|---------------------|--------|

Electrical Specifications

| | |
|---|----------------------|
| 3rd Order IMD Static | -110 dBm |
| 3rd Order IMD Static Test Method | Two +43 dBm carriers |

VSWR/Return Loss

| Frequency Band | VSWR | Return Loss (dB) |
|----------------|------|------------------|
| 698–960 MHz | 1.11 | 26.4 |
| 1700–2200 MHz | 1.11 | 26.4 |
| 2200–2700 MHz | 1.11 | 26.4 |

F2R-HMDF-P

Jumper Assembly Sample Label



Environmental Specifications

| | |
|---|---|
| EN50575 CPR Cable EuroClass Fire Performance | B2ca |
| EN50575 CPR Cable EuroClass Smoke Rating | s1a |
| EN50575 CPR Cable EuroClass Droplets Rating | d0 |
| EN50575 CPR Cable EuroClass Acidity Rating | a1 |
| Immersion Test Method | Meets IEC 60529:2001, IP68 in mated condition |

Included Products

| | | |
|-----------|---|--|
| F2HM-S2 | - | 4.3-10 Male for 3/8 in foam coaxial cable, factory attached |
| F2TDF-LS | - | 7-16 DIN Female for 3/8 in foam and air coaxial cable, factory attached |
| FSJ2RK-50 | - | FSJ2-50, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 3/8 in, black non-halogenated, fire retardant polyolefin jacket B2ca s1a d0 a1 Compliant |

F2HM-S2

4.3-10 Male for 3/8 in foam coaxial cable, factory attached

Product Classification

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

General Specifications

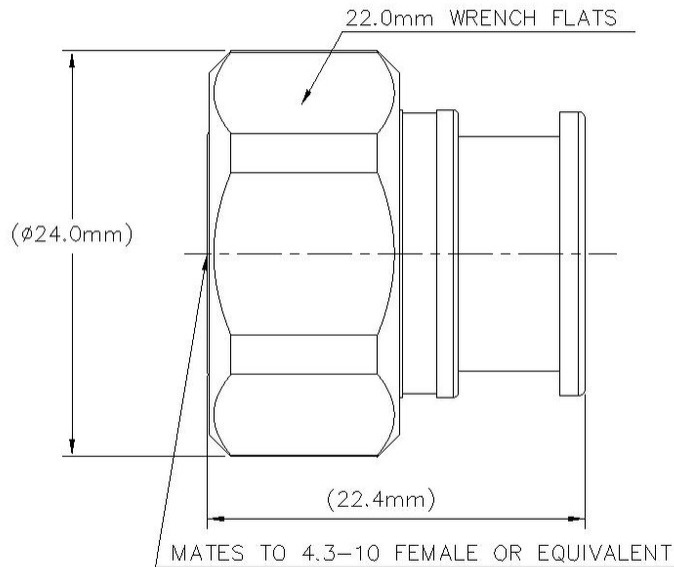
| | |
|--|-------------|
| Body Style | Straight |
| Inner Contact Attachment Method | Solder |
| Inner Contact Plating | Silver |
| Interface | 4.3-10 Male |
| Outer Contact Attachment Method | Solder |
| Outer Contact Plating | Trimetal |

Dimensions

| | |
|---------------------|--------------------|
| Length | 25.91 mm 1.02 in |
| Diameter | 23.88 mm 0.94 in |
| Nominal Size | 3/8 in |

Outline Drawing

F2HM-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 | 2300 V |
| Inner Contact Resistance, maximum | 1 mOhm |
| Insulation Resistance, minimum | 5000 MOhm |
| Operating Frequency Band | 0 – 6000 MHz |
| Outer Contact Resistance, maximum | 1 mOhm |
| Peak Power, maximum | 13.2 kW |
| RF Operating Voltage, maximum (vrms) | 813 V |

VSWR/Return Loss

| Frequency Band | VSWR | Return Loss (dB) |
|----------------|-------|------------------|
| 0-3000 MHz | 1.041 | 33.94 |

F2HM-S2

| | | |
|----------------------|-------|-------|
| 3000–4000 MHz | 1.065 | 30.04 |
| 4000–6000 MHz | 1.119 | 25.01 |

Mechanical Specifications

| | |
|--|------------------------|
| Connector Retention Tensile Force | 671.68 N 151 lbf |
| Connector Retention Torque | 2.7 N-m 23.897 in lb |
| Coupling Nut Proof Torque | 8 N-m 70.806 in lb |
| Coupling Nut Retention Force | 449.98 N 101.16 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) |
| Attenuation, Ambient Temperature | 20 °C 68 °F |
| Average Power, Ambient Temperature | 40 °C 104 °F |
| Average Power, Inner Conductor Temperature | 100 °C 212 °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 | 32.3 g 0.071 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 |

F2HM-S2

UK-ROHS

Compliant



* 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

F2TDF-LS

7-16 DIN Female for 3/8 in foam and air coaxial cable, factory attached

Product Classification

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

General Specifications

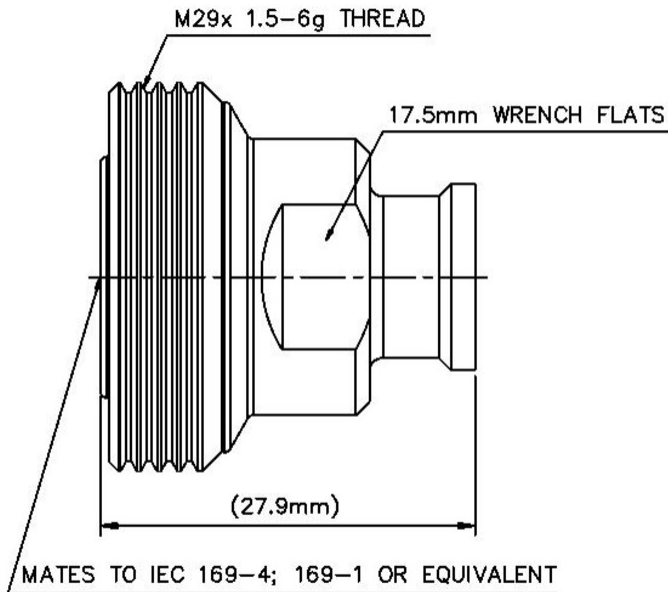
| | |
|--|-----------------|
| Body Style | Straight |
| Inner Contact Attachment Method | Solder |
| Inner Contact Plating | Silver |
| Interface | 7-16 DIN Female |
| Outer Contact Attachment Method | Solder |
| Outer Contact Plating | Trimetal |
| Pressurizable | No |

Dimensions

| | |
|---------------------|--------------------|
| Length | 27.94 mm 1.1 in |
| Diameter | 28.96 mm 1.14 in |
| Nominal Size | 3/8 in |

Outline Drawing

F2TDF-LS



Electrical Specifications

| | |
|---|----------------------|
| 3rd Order IMD at Frequency | -112 dBm @ 910 MHz |
| 3rd Order IMD Test Method | Two +43 dBm carriers |
| Insertion Loss Coefficient, typical | 0.05 |
| Average Power at Frequency | 0.7 kW @ 900 MHz |
| Cable Impedance | 50 ohm |
| Connector Impedance | 50 ohm |
| dc Test Voltage | 2300 V |
| Inner Contact Resistance, maximum | 0.4 mOhm |
| Insulation Resistance, minimum | 10000 MOhm |
| Operating Frequency Band | 0 – 6000 MHz |
| Outer Contact Resistance, maximum | 1.5 mOhm |
| Peak Power, maximum | 13.2 kW |
| RF Operating Voltage, maximum (vrms) | 813 V |
| Shielding Effectiveness | -110 dB |

VSWR/Return Loss

| Frequency Band | VSWR | Return Loss (dB) |
|----------------|------|------------------|
|----------------|------|------------------|

F2TDF-LS

| | | |
|----------------------|-------|-------|
| 0–960 MHz | 1.036 | 35.05 |
| 1710–2200 MHz | 1.046 | 32.96 |
| 2200–2700 MHz | 1.065 | 30.04 |
| 2700–3000 MHz | 1.065 | 30.04 |
| 3000–6000 MHz | 1.152 | 23.02 |

Mechanical Specifications

| | |
|--|------------------------|
| Connector Retention Tensile Force | 934.13 N 210 lbf |
| Connector Retention Torque | 2.3 N-m 20.357 in lb |
| Coupling Nut Proof Torque | 35 N-m 309.776 in lb |
| Coupling Nut Proof Torque Method | IEC 61169-16:9.3.11 |
| Coupling Nut Retention Force | 1000 N 224.81 lbf |
| Coupling Nut Retention Force Method | IEC 61169-15:9.3.11 |
| Insertion Force | 199.99 N 44.96 lbf |
| Insertion Force Method | IEC 61169-15:9.3.5 |
| Interface Durability | 500 cycles |
| Interface Durability Method | IEC 61169-4:17 |
| 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 |
| Average Power, Inner Conductor Temperature | 100 °C 212 °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 |

F2TDF-LS

Packaging and Weights

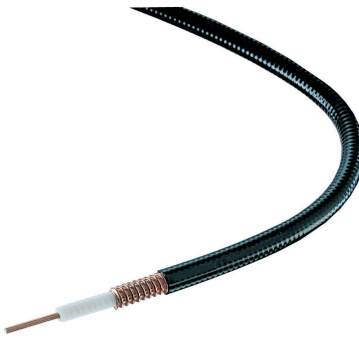
Weight, net 44.69 g | 0.099 lb

* 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

FSJ2RK-50



FSJ2-50, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 3/8 in, black non-halogenated, fire retardant polyolefin jacket B2ca sladd0 a1 Compliant

Product Classification

| | |
|-----------------------|------------------------|
| Product Type | Coaxial wireless cable |
| Product Brand | HELIAX® SureFlex® |
| Product Series | FSJ2-50 |

General Specifications

| | |
|-------------------------|--|
| Product Number | 520102002/00 SZ520102002/00 |
| Flexibility | Superflexible |
| Jacket Color | Black |
| Performance Note | Attenuation values typical, guaranteed within 5% |

Dimensions

| | |
|---------------------------------|---------------------|
| Diameter Over Dielectric | 7.112 mm 0.28 in |
| Diameter Over Jacket | 10.922 mm 0.43 in |
| Inner Conductor OD | 2.794 mm 0.11 in |
| Outer Conductor OD | 9.652 mm 0.38 in |
| Nominal Size | 3/8 in |

Electrical Specifications

| | |
|---------------------------------------|----------------------------------|
| Cable Impedance | 50 ohm \pm 1 ohm |
| Capacitance | 80 pF/m 24.384 pF/ft |
| dc Resistance, Inner Conductor | 4.232 ohms/km 1.29 ohms/kft |
| dc Resistance, Outer Conductor | 4.987 ohms/km 1.52 ohms/kft |
| dc Test Voltage | 2300 V |
| Inductance | 0.2 μ H/m 0.061 μ H/ft |

FSJ2RK-50

| | |
|--|-----------------|
| Insulation Resistance | 100000 MOhms-km |
| Jacket Spark Test Voltage (rms) | 4000 V |
| Operating Frequency Band | 1 – 13400 MHz |
| Peak Power | 13.2 kW |
| Velocity | 83 % |

VSWR/Return Loss

| Frequency Band | VSWR | Return Loss (dB) |
|-----------------------|-------------|-------------------------|
| 680–960 MHz | 1.201 | 20.79 |
| 1700–2200 MHz | 1.201 | 20.79 |
| 2200–2700 MHz | 1.433 | 14.99 |

Material Specifications

| | |
|---------------------------------|--|
| Dielectric Material | Foam PE |
| Jacket Material | Non-halogenated, fire retardant polyolefin |
| 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 | 30 |
| Number of Bends, typical | 50 |
| Tensile Strength | 95 kg 209.439 lb |
| Bending Moment | 2.3 N-m 20.357 in lb |
| Flat Plate Crush Strength | 1.8 kg/mm 100.795 lb/in |

Environmental Specifications

| | |
|---|--------------------------------------|
| Installation temperature | -40 °C to +60 °C (-40 °F to +140 °F) |
| Operating Temperature | -40 °C to +60 °C (-40 °F to +140 °F) |
| Storage Temperature | -40 °C to +60 °C (-40 °F to +140 °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 |

FSJ2RK-50

| | |
|---|---|
| EN50575 CPR Cable EuroClass Fire Performance | B2ca |
| EN50575 CPR Cable EuroClass Smoke Rating | s1a |
| EN50575 CPR Cable EuroClass Droplets Rating | d0 |
| EN50575 CPR Cable EuroClass Acidity Rating | a1 |
| Fire Retardancy Test Method | IEC 60332-1-2 IEC 60332-3-24 NFPA 130-2010 UL 1666/CATVR /CMR UL 1685 |
| Smoke Index Test Method | IEC 61034 |
| Toxicity Index Test Method | IEC 60754-1 IEC 60754-2 |

Packaging and Weights

| | |
|---------------------|-------------------------|
| Cable weight | 0.13 kg/m 0.087 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 |
| REACH-SVHC | Compliant as per SVHC revision on www.commscope.com/ProductCompliance |
| ROHS | Compliant |
| UK-ROHS | Compliant |

