

F2A-DMDR-P

FSJ2-50 Jumper with interface types 7/16 DIN Male and 7/16 DIN Male Right Angle, 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 | Right angle |
| Interface, Connector A | 7-16 DIN Male |
| Interface, Connector B | 7-16 DIN Male |
| 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 |

Jumper Assembly Sample Label

F2A-DMDR-P



Environmental Specifications

Immersion Test Method

Meets IEC 60529:2001, IP68 in mated condition

Included Products

- F2TDM-LS - 7-16 DIN Male for 3/8 in foam and air coaxial cable, factory attached
- F2TDR-LS - 7-16 DIN Male Right Angle for 3/8 in foam and air coaxial cable, factory attached
- FSJ2-50 - FSJ2-50, HELIAX[®] Superflexible Foam Coaxial Cable, corrugated copper, 3/8 in, black PE jacket

F2TDM-LS



7-16 DIN Male 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

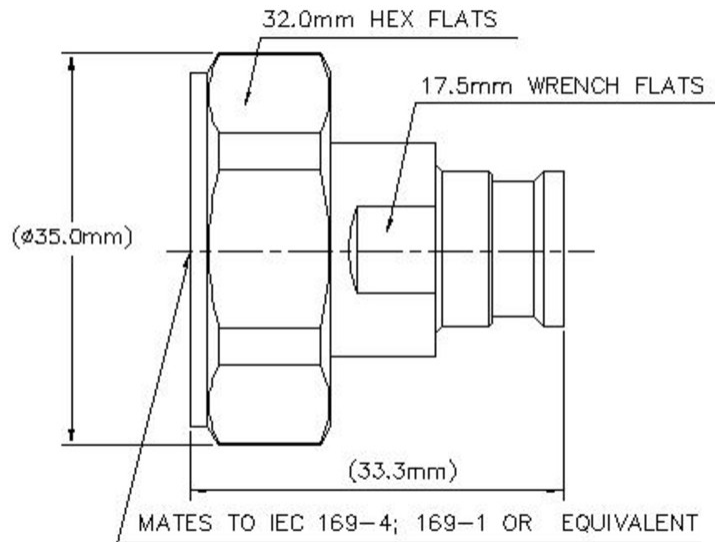
| | |
|--|---------------|
| Body Style | Straight |
| Inner Contact Attachment Method | Solder |
| Inner Contact Plating | Silver |
| Interface | 7-16 DIN Male |
| Outer Contact Attachment Method | Solder |
| Outer Contact Plating | Trimetal |
| Pressurizable | No |

Dimensions

| | |
|---------------------|--------------------|
| Length | 33.27 mm 1.31 in |
| Diameter | 35.05 mm 1.38 in |
| Nominal Size | 3/8 in |

F2TDM-LS

Outline Drawing



Electrical Specifications

| | |
|---|----------------------|
| 3rd Order IMD at Frequency | -112 dBm @ 910 MHz |
| 3rd Order IMD Test Method | Two +43 dBm carriers |
| Insertion Loss, typical | 0.05 dB |
| 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) |
|----------------|------|------------------|
|----------------|------|------------------|

F2TDM-LS

| | | |
|----------------------|------|----|
| 0–960 MHz | 1.04 | 35 |
| 1710–2200 MHz | 1.05 | 33 |
| 2200–2700 MHz | 1.07 | 30 |
| 2700–3000 MHz | 1.07 | 30 |
| 3000–6000 MHz | 1.16 | 23 |

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 |

F2TDM-LS

Packaging and Weights

Weight, net

59.81 g | 0.132 lb

Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|--|
| CHINA-ROHS | Below maximum concentration value |
| REACH-SVHC | Compliant as per SVHC revision on www.commscope.com/ProductCompliance |
| ROHS | Compliant |



* Footnotes

Insertion Loss, typical 0.05v~freq (GHz) (not applicable for elliptical waveguide)

Immersion Depth Immersion at specified depth for 24 hours

F2TDR-LS



7-16 DIN Male Right Angle 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

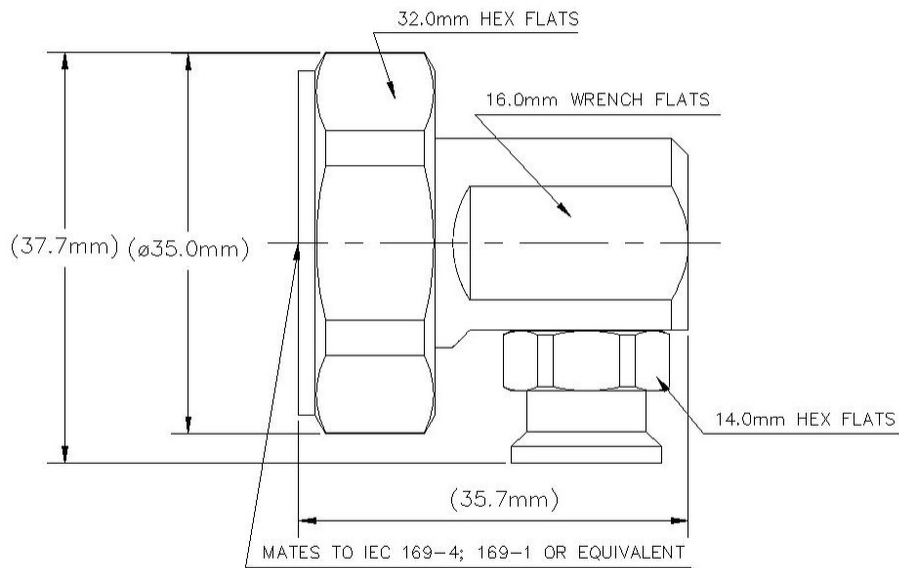
| | |
|--|---------------|
| Body Style | Right angle |
| Inner Contact Attachment Method | Solder |
| Inner Contact Plating | Silver |
| Interface | 7-16 DIN Male |
| Outer Contact Attachment Method | Solder |
| Outer Contact Plating | Trimetal |
| Pressurizable | No |

Dimensions

| | |
|---------------------|--------------------|
| Height | 37.59 mm 1.48 in |
| Width | 35.05 mm 1.38 in |
| Length | 35.81 mm 1.41 in |
| Nominal Size | 3/8 in |

Outline Drawing

F2TDR-LS



Electrical Specifications

| | |
|---|----------------------|
| 3rd Order IMD at Frequency | -112 dBm @ 910 MHz |
| 3rd Order IMD Test Method | Two +43 dBm carriers |
| Insertion Loss, typical | 0.05 dB |
| 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

F2TDR-LS

| Frequency Band | VSWR | Return Loss (dB) |
|----------------|------|------------------|
| 0–960 MHz | 1.04 | 35 |
| 1710–2200 MHz | 1.05 | 33 |
| 2200–2700 MHz | 1.07 | 30 |
| 2700–3000 MHz | 1.07 | 30 |
| 3000–6000 MHz | 1.23 | 20 |

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 |
| 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 |

F2TDR-LS

Packaging and Weights

Weight, net

79.34 g | 0.175 lb

Regulatory Compliance/Certifications

Agency

Classification

CHINA-ROHS

Below maximum concentration value

REACH-SVHC

Compliant as per SVHC revision on www.commscope.com/ProductCompliance

ROHS

Compliant



* Footnotes

Insertion Loss, typical 0.05v~freq (GHz) (not applicable for elliptical waveguide)

Immersion Depth Immersion at specified depth for 24 hours

FSJ2-50



FSJ2-50, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 3/8 in, black PE jacket

Product Classification

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

General Specifications

| | |
|---------------------|---------------|
| Flexibility | Superflexible |
| Jacket Color | Black |

Dimensions

| | |
|---------------------------------|----------------------|
| Diameter Over Dielectric | 7.112 mm 0.28 in |
| Diameter Over Jacket | 10.541 mm 0.415 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 ±1 ohm |
| Capacitance | 79.7 pF/m 24.293 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 µH/m 0.061 µH/ft |
| Insulation Resistance | 100000 MOhms-km |
| Jacket Spark Test Voltage (rms) | 4000 V |
| Operating Frequency Band | 1 – 13400 MHz |

FSJ2-50

| | |
|-------------------|---------|
| Peak Power | 13.2 kW |
| Velocity | 83 % |

VSWR/Return Loss

| Frequency Band | VSWR | Return Loss (dB) |
|-----------------------|-------------|-------------------------|
| 2.5–2.7 GHz | 1.11 | 26 |
| 680–800 MHz | 1.11 | 26 |
| 800–960 MHz | 1.11 | 26 |
| 1700–2200 MHz | 1.1 | 26.45 |

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 | 20 |
| 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 | -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 |

Packaging and Weights

FSJ2-50

Cable weight

0.12 kg/m | 0.081 lb/ft

Regulatory Compliance/Certifications

Agency

Classification

CHINA-ROHS

Below maximum concentration value

ISO 9001:2015

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

ROHS

Compliant

