

F2A-DMDF-P

FSJ2-50 Jumper with interface types 7/16 DIN 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	7-16 DIN 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
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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-DMDF-P



Environmental Specifications

Immersion Test Method

Meets IEC 60529:2001, IP68 in mated condition

Included Products

- F2TDF-LS - 7-16 DIN Female for 3/8 in foam and air coaxial cable, factory attached
- F2TDM-LS - 7-16 DIN Male 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

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

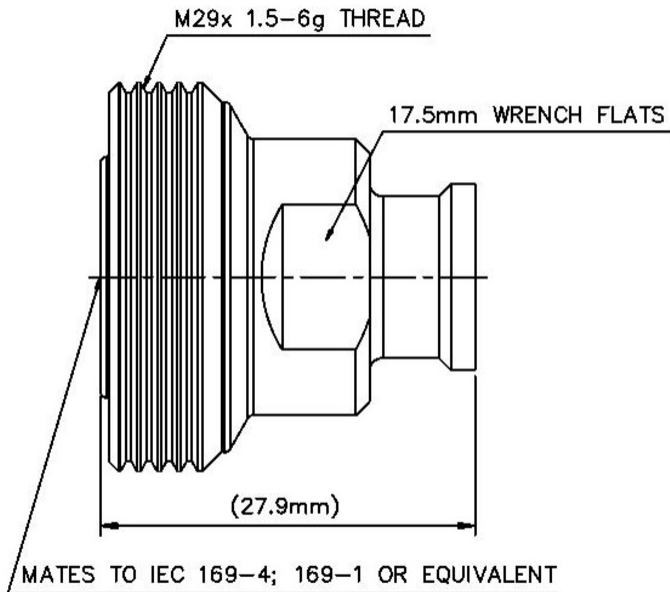
Body Style	Straight
Inner Contact Attachment Method	Solder
Inner Contact Plating	Silver
Interface	7-16 DIN Female
Outer Contact Attachment Method	Solder
Outer Contact Plating	Trimetal
Pressurizable	No

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, 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)
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F2TDF-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

F2TDF-LS

Packaging and Weights

Weight, net 44.69 g | 0.099 lb

* Footnotes

Insertion Loss, typical 0.05v̄freq (GHz) (not applicable for elliptical waveguide)

Immersion Depth Immersion at specified depth for 24 hours

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

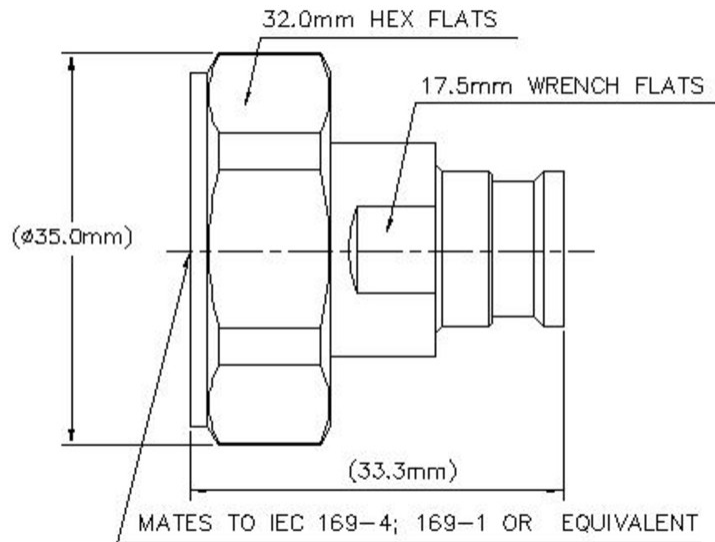
Body Style	Straight
Inner Contact Attachment Method	Solder
Inner Contact Plating	Silver
Interface	7-16 DIN Male
Outer Contact Attachment Method	Solder
Outer Contact Plating	Trimetal
Pressurizable	No

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)
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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

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

