F1-PSMSR-HF

FSJ1-50A Jumper with interface types SMA Male and SMA Male Right Angle, variable length

Product Classification

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

General Specifications

Body Style, Connector A	Straight
Body Style, Connector B	Right angle
Interface, Connector A	SMA Male
Interface, Connector B	SMA Male
Nominal Size	1/4 in
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

Environmental Specifications

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

Jumper Assembly Sample Label

Return Loss/VSWR

F1-PSMSR-HF

Frequency Band	VSWR	Return Loss (dB)
10–18000 MHz	1.63	12.00

Regulatory Compliance/Certifications

Agency	Classification
RoHS 2011/65/EU	Compliant by Exemption
China RoHS SJ/T 11364-2014	Above Maximum Concentration Value (MCV)

Included Products

F1TSM-HF — SMA Male for 1/4 in FSJ1-50A cable

F1TSR-HF — SMA Male Right Angle for 1/4 in FSJ1-50A cable

F1TSM-HF

SMA Male for 1/4 in FSJ1-50A cable

Product Classification

Brand	HELIAX®
Product Type	Wireless and radiating connector

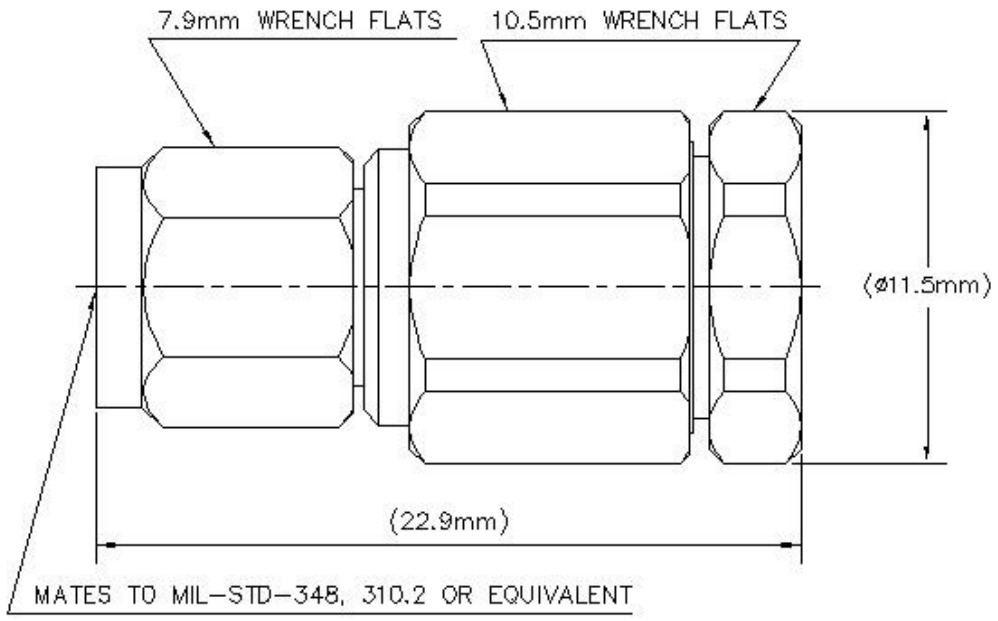
General Specifications

Interface	SMA Male
Body Style	Straight
Mounting Angle	Straight

Electrical Specifications

Connector Impedance	50 ohm
Operating Frequency Band	0 – 18000 MHz
Cable Impedance	50 ohm
RF Operating Voltage, maximum (vrms)	500.00 V
dc Test Voltage	1000 V
Outer Contact Resistance, maximum	2.50 mOhm
Inner Contact Resistance, maximum	3.00 mOhm
Insulation Resistance, minimum	5000 MOhm
Average Power	0.4 kW @ 900 MHz
Peak Power, maximum	5.00 kW
Shielding Effectiveness	-110 dB

Outline Drawing



Mechanical Specifications

Outer Contact Attachment Method	Tab-flare
Inner Contact Attachment Method	Solder
Outer Contact Plating	Trimetal
Inner Contact Plating	Gold
Interface Durability	500 cycles
Interface Durability Method	IEC 61169-4:17
Connector Retention Tensile Force	450 N | 101 lbf
Insertion Force	97.86 N | 22.00 lbf
Insertion Force Method	IEC 61169-16:9.3.5
Pressurizable	No
Coupling Nut Proof Torque	1.70 N-m | 1.25 ft lb
Coupling Nut Proof Torque Method	IEC 61169-16:9.3.11
Coupling Nut Retention Force	267.00 N | 60.02 lbf
Coupling Nut Retention Force Method	IEC 61169-15:9.3.11

Dimensions

Nominal Size	1/4 in
Diameter	11.50 mm | 0.45 in

Height	11.50 mm | 0.45 in
Length	22.89 mm | 0.90 in
Weight	15.88 g | 0.04 lb
Width	11.50 mm | 0.45 in

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)
Moisture Resistance Test Method	IEC 60068-2-3
Mechanical Shock Test Method	IEC 60068-2-27
Thermal Shock Test Method	IEC 60068-2-14
Vibration Test Method	IEC 60068-2-6
Corrosion Test Method	IEC 60068-2-11

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)
824–2700 MHz	1.02	40.00
3000–6000 MHz	1.04	34.00
6000–12000 MHz	1.11	26.00
12000–19000 MHz	1.33	17.00

Regulatory Compliance/Certifications

Agency	Classification
RoHS 2011/65/EU	Compliant by Exemption
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
China RoHS SJ/T 11364-2014	Above Maximum Concentration Value (MCV)

F1TSR-HF

SMA Male Right Angle for 1/4 in FSJ1-50A cable

Product Classification

Brand	HELIAX®
Product Type	Wireless and radiating connector

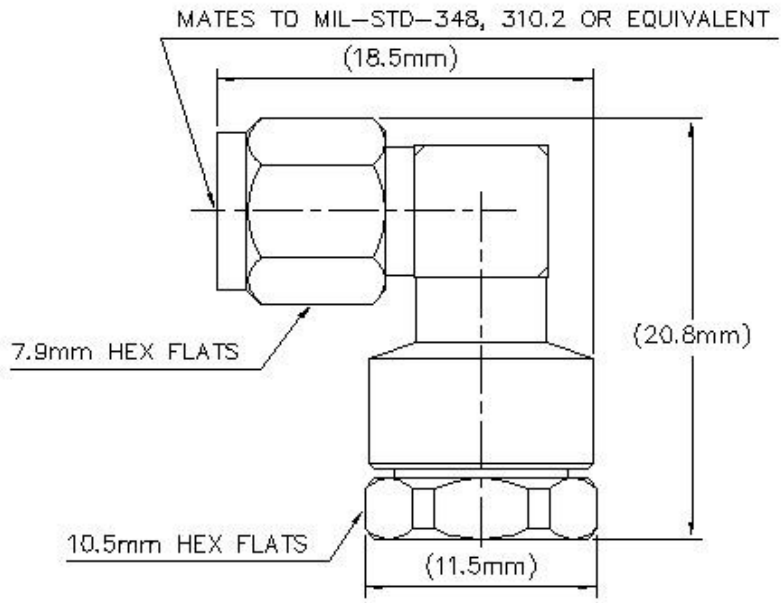
General Specifications

Interface	SMA Male
Body Style	Right angle

Electrical Specifications

Connector Impedance	50 ohm
Operating Frequency Band	0 – 18000 MHz
Cable Impedance	50 ohm
RF Operating Voltage, maximum (vrms)	565.00 V
dc Test Voltage	1000 V
Outer Contact Resistance, maximum	2.50 mOhm
Inner Contact Resistance, maximum	3.00 mOhm
Insulation Resistance, minimum	5000 MOhm
Average Power	0.4 kW @ 900 MHz
Peak Power, maximum	2.50 kW

Outline Drawing



Mechanical Specifications

Outer Contact Attachment Method	Clamp
Inner Contact Attachment Method	Solder
Outer Contact Plating	Trimetal
Inner Contact Plating	Gold
Interface Durability	500 cycles
Interface Durability Method	IEC 61169-15:9.5
Connector Retention Tensile Force	450 N | 101 lbf
Insertion Force	22.00 N | 4.95 lbf
Insertion Force Method	IEC 61169-15:9.3.5
Pressurizable	No
Coupling Nut Proof Torque	1.70 N-m | 1.25 ft lb
Coupling Nut Proof Torque Method	IEC 61169-15:9.3.6
Coupling Nut Retention Force	180.00 N | 40.47 lbf
Coupling Nut Retention Force Method	IEC 61169-15:9.3.11

Dimensions

Nominal Size	1/4 in
Height	18.78 mm | 0.74 in

Length	20.80 mm | 0.82 in
Right Angle Length	18.78 mm | 0.74 in
Weight	8.76 g | 0.02 lb
Width	11.00 mm | 0.43 in

Environmental Specifications

Operating Temperature	-40 °C to +85 °C (-40 °F to +185 °F)
Storage Temperature	-65 °C to +125 °C (-85 °F to +257 °F)
Water Jetting Test Mating	Mated
Water Jetting Test Method	IEC 60529:2001, IP65
Moisture Resistance Test Method	IEC 60068-2-3
Mechanical Shock Test Method	IEC 60068-2-27
Thermal Shock Test Method	IEC 60068-2-14
Vibration Test Method	IEC 60068-2-6
Corrosion Test Method	IEC 60068-2-11

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)
45–2700 MHz	1.06	31.00
2700–4000 MHz	1.07	30.00
4000–6000 MHz	1.12	25.00
6000–9000 MHz	1.2	21.00
9000–10200 MHz	1.22	20.00
10000–12000 MHz	1.25	19.00
12000–16200 MHz	1.29	18.00
16200–18000 MHz	1.43	15.00

Regulatory Compliance/Certifications

Agency	Classification
RoHS 2011/65/EU	Compliant by Exemption
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
China RoHS SJ/T 11364-2014	Above Maximum Concentration Value (MCV)