

# F1-PNMSM-HF



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

## Product Classification

**Product Series** FSJ1-50A  
**Product Type** SureFlex® standard

## General Specifications

**Body Style, Connector A** Straight  
**Body Style, Connector B** Straight  
**Interface, Connector A** SMA Male  
**Interface, Connector B** N Male  
**Length** 0.000 m | 0.000 ft  
**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

**Batch** 0123456789 **Manufacturing Date** (two digit year and week) 1240 **Manufacturing Plant** US22 **Product Revision** /A

**Part Number** F4-DMDM-2M-D

**Serial Number** 12US220001242

COMMSCOPE® Andrew Solutions™  
2 M (6.562 FT)  
SUREFLEX ASSEMBLY  
U.S. PATENT 5802710  
Product of UNITED STATES

# F1-PNMSM-HF

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## Return Loss/VSWR

**Frequency Band**

10–18000 MHz

**VSWR**

1.78

**Return Loss (dB)**

11.00

## Regulatory Compliance/Certifications

**Agency**

RoHS 2011/65/EU

China RoHS SJ/T 11364-2014

**Classification**

Compliant by Exemption

Above Maximum Concentration Value (MCV)



## Included Products

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

F1PNM-HF — Type N Male for 1/4 in FSJ1-50A cable

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



### Product Classification

<b>Brand</b>	HELIAX®
<b>Product Type</b>	Wireless and radiating connector

### General Specifications

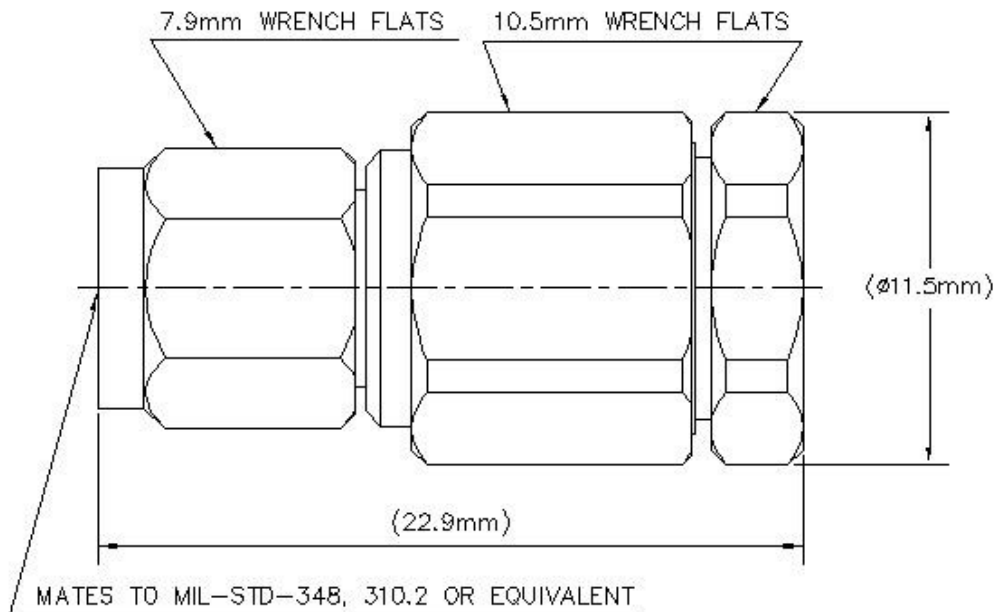
<b>Interface</b>	SMA Male
<b>Body Style</b>	Straight
<b>Mounting Angle</b>	Straight

### Electrical Specifications

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

# F1TSM-HF

## Outline Drawing



## Mechanical Specifications

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

## Dimensions

<b>Nominal Size</b>	1/4 in
<b>Diameter</b>	11.50 mm   0.45 in

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<b>Height</b>	11.50 mm   0.45 in
<b>Length</b>	22.89 mm   0.90 in
<b>Weight</b>	15.88 g   0.04 lb
<b>Width</b>	11.50 mm   0.45 in

## Environmental Specifications

<b>Operating Temperature</b>	-55 °C to +85 °C (-67 °F to +185 °F)
<b>Storage Temperature</b>	-65 °C to +125 °C (-85 °F to +257 °F)
<b>Moisture Resistance Test Method</b>	IEC 60068-2-3
<b>Mechanical Shock Test Method</b>	IEC 60068-2-27
<b>Thermal Shock Test Method</b>	IEC 60068-2-14
<b>Vibration Test Method</b>	IEC 60068-2-6
<b>Corrosion Test Method</b>	IEC 60068-2-11

## Standard Conditions

<b>Attenuation, Ambient Temperature</b>	20 °C   68 °F
<b>Average Power, Ambient Temperature</b>	40 °C   104 °F
<b>Average Power, Inner Conductor Temperature</b>	100 °C   212 °F

## Return Loss/VSWR

<b>Frequency Band</b>	<b>VSWR</b>	<b>Return Loss (dB)</b>
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

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)



Type N Male for 1/4 in FSJ1-50A cable



## Product Classification

<b>Brand</b>	HELIAX®
<b>Product Type</b>	Wireless and radiating connector

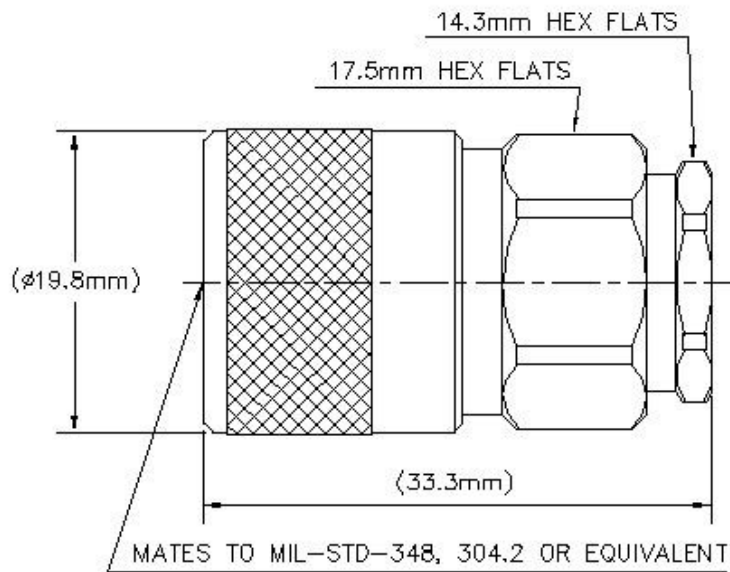
## General Specifications

<b>Interface</b>	N Male
<b>Body Style</b>	Straight
<b>Mounting Angle</b>	Straight

## Electrical Specifications

<b>Connector Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	0 – 18000 MHz
<b>Cable Impedance</b>	50 ohm
<b>RF Operating Voltage, maximum (vrms)</b>	565.00 V
<b>dc Test Voltage</b>	1600 V
<b>Outer Contact Resistance, maximum</b>	0.25 mOhm
<b>Inner Contact Resistance, maximum</b>	1.00 mOhm
<b>Insulation Resistance, minimum</b>	5000 MOhm
<b>Average Power</b>	0.4 kW @ 900 MHz
<b>Peak Power, maximum</b>	6.40 kW
<b>Shielding Effectiveness</b>	-110 dB

## Outline Drawing



## Mechanical Specifications

<b>Outer Contact Attachment Method</b>	Tab-flare
<b>Inner Contact Attachment Method</b>	Solder
<b>Outer Contact Plating</b>	Silver
<b>Inner Contact Plating</b>	Gold
<b>Interface Durability</b>	500 cycles
<b>Interface Durability Method</b>	IEC 61169-4:17
<b>Connector Retention Tensile Force</b>	450 N   101 lbf
<b>Insertion Force</b>	124.55 N   28.00 lbf
<b>Insertion Force Method</b>	IEC 61169-16:9.3.5
<b>Pressurizable</b>	No
<b>Coupling Nut Proof Torque</b>	1.70 N-m   1.25 ft lb
<b>Coupling Nut Proof Torque Method</b>	IEC 61169-16:9.3.11
<b>Coupling Nut Retention Force</b>	445.00 N   100.04 lbf
<b>Coupling Nut Retention Force Method</b>	IEC 61169-16:9.3.11

## Dimensions

<b>Nominal Size</b>	1/4 in
<b>Diameter</b>	20.24 mm   0.80 in

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<b>Height</b>	20.24 mm   0.80 in
<b>Length</b>	33.32 mm   1.31 in
<b>Weight</b>	49.18 g   0.11 lb
<b>Width</b>	20.24 mm   0.80 in

## Environmental Specifications

<b>Operating Temperature</b>	-55 °C to +85 °C (-67 °F to +185 °F)
<b>Storage Temperature</b>	-65 °C to +125 °C (-85 °F to +257 °F)
<b>Immersion Depth</b>	1 m
<b>Immersion Test Mating</b>	Mated
<b>Immersion Test Method</b>	IEC 60529:2001, IP68
<b>Moisture Resistance Test Method</b>	IEC 60068-2-3
<b>Mechanical Shock Test Method</b>	IEC 60068-2-27
<b>Thermal Shock Test Method</b>	IEC 60068-2-14
<b>Vibration Test Method</b>	IEC 60068-2-6
<b>Corrosion Test Method</b>	IEC 60068-2-11

## Standard Conditions

<b>Attenuation, Ambient Temperature</b>	20 °C   68 °F
<b>Average Power, Ambient Temperature</b>	40 °C   104 °F
<b>Average Power, Inner Conductor Temperature</b>	100 °C   212 °F

## Return Loss/VSWR

<b>Frequency Band</b>	<b>VSWR</b>	<b>Return Loss (dB)</b>
45–4100 MHz	1.05	33.00
4100–6200 MHz	1.08	28.00
6200–11000 MHz	1.17	22.00
11000–18000 MHz	1.22	20.00

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
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)



\* Footnotes



**Immersion Depth**

Immersion at specified depth for 24 hours