

# F1TNM-HC



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

## Product Classification

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

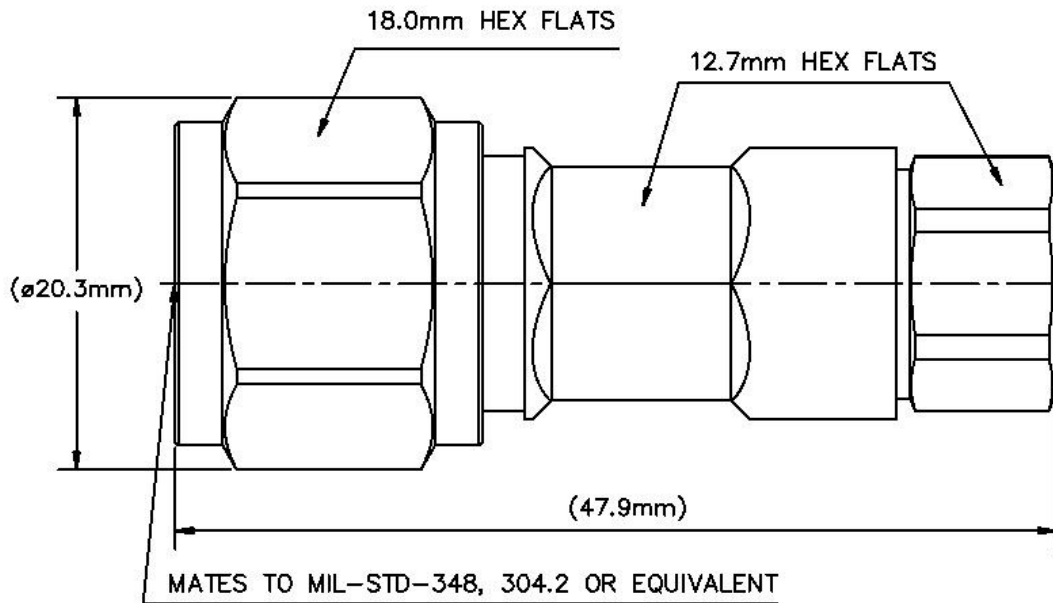
## General Specifications

<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>3rd Order IMD, typical</b>	-116 dBm @ 910 MHz
<b>3rd Order IMD Test Method</b>	Two +43 dBm carriers
<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>	Self-clamping
<b>Inner Contact Attachment Method</b>	Captivated
<b>Outer Contact Plating</b>	Trimetal
<b>Inner Contact Plating</b>	Silver
<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>	450.00 N   101.16 lbf
<b>Coupling Nut Retention Force Method</b>	IEC 61169-16:9.3.11

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## Dimensions

<b>Nominal Size</b>	1/4 in
<b>Diameter</b>	20.25 mm   0.80 in
<b>Length</b>	47.94 mm   1.89 in
<b>Weight</b>	43.83 g   0.10 lb

## 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>
450–2200 MHz	1.07	30.00
2200–3000 MHz	1.07	30.00
3000–6000 MHz	1.18	21.66
6000–9000 MHz	1.38	15.94
9000–15000 MHz	1.43	15.04

## 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)



## \* Footnotes

### **Immersion Depth**

Immersion at specified depth for 24 hours