



F1TNM-HC  
Type N Male for 1/4 in FSJ1-50A cable

## General Specifications

|                |          |
|----------------|----------|
| Interface      | N Male   |
| Body Style     | Straight |
| Brand          | HELIAX®  |
| Mounting Angle | Straight |

## Electrical Specifications

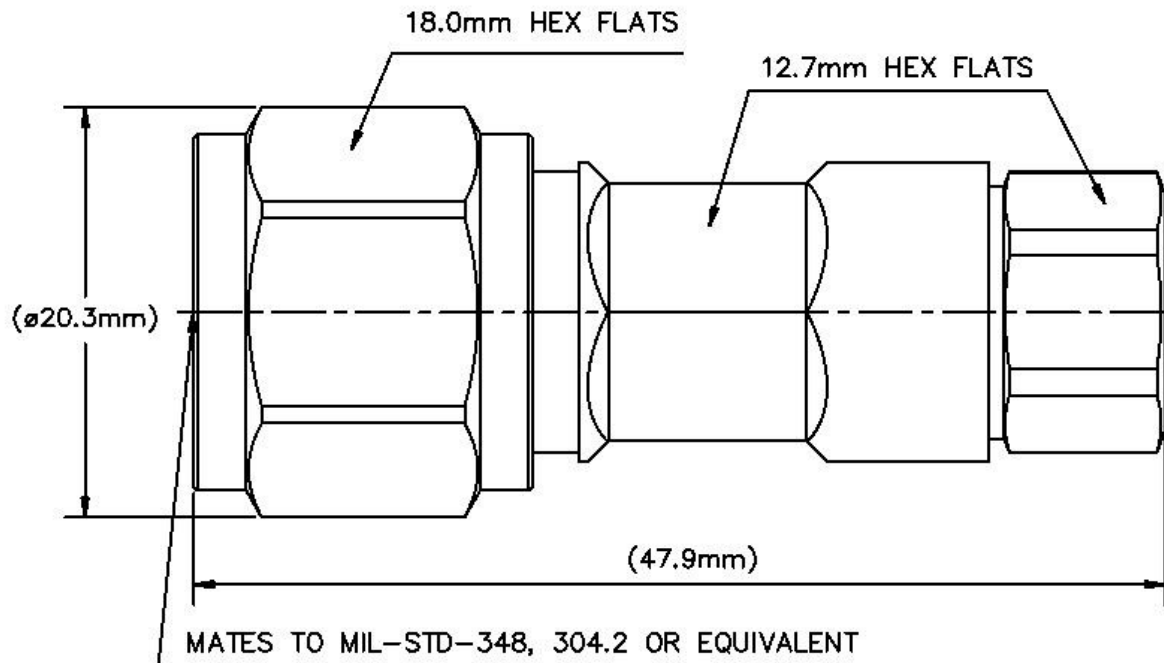
|                                      |                      |
|--------------------------------------|----------------------|
| Connector Impedance                  | 50 ohm               |
| Operating Frequency Band             | 0 – 18000 MHz        |
| Cable Impedance                      | 50 ohm               |
| 3rd Order IMD, typical               | -116 dBm @ 910 MHz   |
| 3rd Order IMD Test Method            | Two +43 dBm carriers |
| RF Operating Voltage, maximum (vrms) | 565.00 V             |
| dc Test Voltage                      | 1600 V               |
| Outer Contact Resistance, maximum    | 0.25 mOhm            |
| Inner Contact Resistance, maximum    | 1.00 mOhm            |
| Insulation Resistance, minimum       | 5000 MOhm            |
| Average Power                        | 0.4 kW @ 900 MHz     |
| Peak Power, maximum                  | 6.40 kW              |
| Shielding Effectiveness              | -110 dB              |

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## Outline Drawing



## Mechanical Specifications

|                                     |                       |
|-------------------------------------|-----------------------|
| Outer Contact Attachment Method     | Self-clamping         |
| Inner Contact Attachment Method     | Captivated            |
| Outer Contact Plating               | Trimetal              |
| Inner Contact Plating               | Silver                |
| Interface Durability                | 500 cycles            |
| Interface Durability Method         | IEC 61169-4:17        |
| Connector Retention Tensile Force   | 450 N   101 lbf       |
| Connector Retention Torque          | 1.40 N-m   1.03 ft lb |
| Insertion Force                     | 124.55 N   28.00 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        | 450.00 N   101.16 lbf |
| Coupling Nut Retention Force Method | IEC 61169-16:9.3.11   |

## Dimensions

|              |                    |
|--------------|--------------------|
| Nominal Size | 1/4 in             |
| Diameter     | 20.25 mm   0.80 in |

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Length 47.94 mm | 1.89 in  
Weight 43.83 g | 0.10 lb

## 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) |
| Immersion Depth                 | 1 m                                   |
| Immersion Test Mating           | Mated                                 |
| Immersion Test Method           | IEC 60529:2001, IP68                  |
| 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) |
|----------------|------|------------------|
| 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                     | Classification   |
|----------------------------|--|
| RoHS 2011/65/EU            | Compliant by Exemption   |
| China RoHS SJ/T 11364-2006 | Above Maximum Concentration Value (MCV)  |
| ISO 9001:2008              | Designed, manufactured and/or distributed under this quality management system |



## \* Footnotes

|                 |   |
|-----------------|---|
| Immersion Depth | Immersion at specified depth for 24 hours |
|-----------------|---|