# Product Specifications

## L1TNM-PL

**Type N Male Positive Lock for 1/4 in LDF1-50 cable**

## General Specifications

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

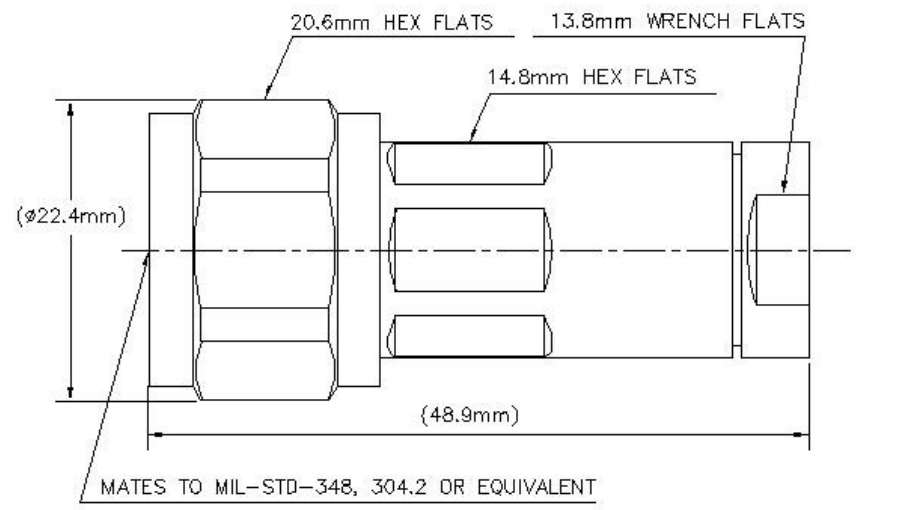
## Electrical Specifications

| | |
|---|---|
| Connector Impedance | 50 ohm |
| Operating Frequency Band | 0 – 12000 MHz |
| Cable Impedance | 50 ohm |
| 3rd Order IMD, typical | -107 dBm @ 910 MHz |
| 3rd Order IMD Test Method | Two +43 dBm carriers |
| RF Operating Voltage, maximum (vrms) | 707.00 V |
| dc Test Voltage | 2200 V |
| Outer Contact Resistance, maximum | 0.25 mOhm |
| Inner Contact Resistance, maximum | 1.00 mOhm |
| Insulation Resistance, minimum | 5000 MOhm |
| Average Power | 0.6 kW @ 900 MHz |
| Peak Power, maximum | 10.00 kW |
| Insertion Loss, typical | 0.05 dB |
| Shielding Effectiveness | -110 dB |

# Product Specifications

L1TNM-PL

## Outline Drawing




## Mechanical Specifications

| | |
|---|---|
| Outer Contact Attachment Method | Self-flare |
| Inner Contact Attachment Method | Captivated |
| Outer Contact Plating | Trimetal |
| Inner Contact Plating | Silver |
| Attachment Durability | 25 cycles |
| Interface Durability | 500 cycles |
| Interface Durability Method | IEC 61169-16:9.5 |
| Connector Retention Tensile Force | 450 N \| 101 lbf |
| Connector Retention Torque | 1.40 N-m \| 1.03 ft lb |
| Insertion Force | 28.00 N \| 6.29 lbf |
| Insertion Force Method | IEC 61169-1:15.2.4 |
| Pressurizable | No |
| Coupling Nut Proof Torque | 1.70 N-m \| 1.25 ft lb |
| Coupling Nut Retention Force | 450.00 N \| 101.16 lbf |
| Coupling Nut Retention Force Method | MIL-C-39012C-3.25, 4.6.22 |

## Dimensions

| | |
|---|---|
| Nominal Size | 1/4 in |
| Diameter | 22.35 mm \| 0.88 in |
| Height | 22.35 mm \| 0.88 in |
| Length | 48.88 mm \| 1.92 in |
| Weight | 61.77 g \| 0.14 lb |
| Width | 22.35 mm \| 0.88 in |

## Environmental Specifications

| | |
|---|---|
| Operating Temperature | -55 °C to +85 °C (-67 °F to +185 °F) |

# Product Specifications

L1TNM-PL

| | |
|---|---|
| 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) |
|---|---|---|
| 0–960 MHz | 1.02 | 38.40 |
| 960–2200 MHz | 1.03 | 35.30 |
| 2200–2700 MHz | 1.03 | 35.30 |
| 2700–4000 MHz | 1.09 | 27.00 |
| 4000–6000 MHz | 1.21 | 20.50 |
| 6000–8000 MHz | 1.33 | 17.00 |
| 8000–10000 MHz | 1.33 | 17.00 |
| 10000–12000 MHz | 1.39 | 15.70 |

## 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 |
| Insertion Loss, typical | $0.05\sqrt{\text{freq (GHz)}}$ (not applicable for elliptical waveguide) |