

# L1TNM-PL

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

## Product Classification

<b>Product Type</b>	Wireless and radiating connector
<b>Product Brand</b>	HELIAX®
<b>Product Series</b>	LDF1-50

## General Specifications

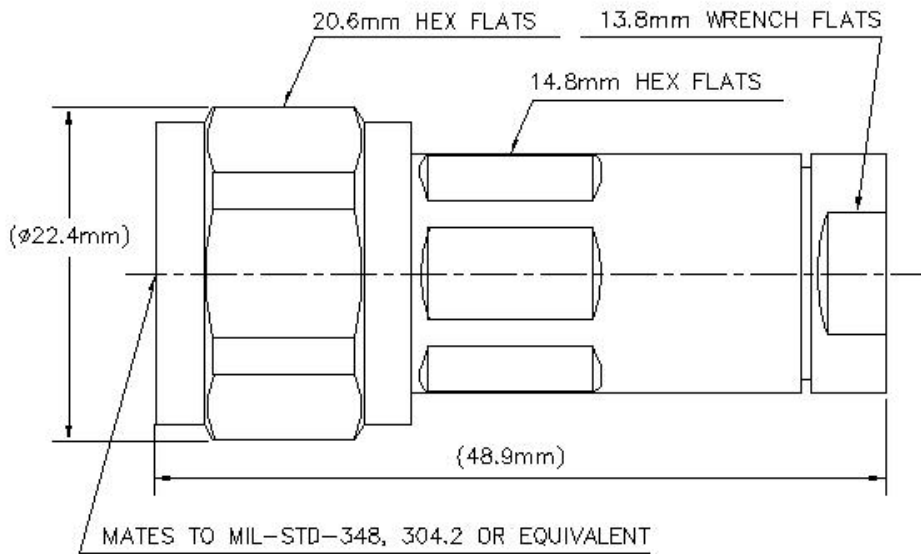
<b>Body Style</b>	Straight
<b>Cable Family</b>	LDF1-50
<b>Inner Contact Attachment Method</b>	Captivated
<b>Inner Contact Plating</b>	Silver
<b>Interface</b>	N Male
<b>Mounting Angle</b>	Straight
<b>Outer Contact Attachment Method</b>	Self-flare
<b>Outer Contact Plating</b>	Trimetal
<b>Pressurizable</b>	No

## Dimensions

<b>Height</b>	22.35 mm   0.88 in
<b>Width</b>	22.35 mm   0.88 in
<b>Length</b>	48.77 mm   1.92 in
<b>Diameter</b>	22.35 mm   0.88 in
<b>Nominal Size</b>	1/4 in

## Outline Drawing

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## Electrical Specifications

<b>3rd Order IMD at Frequency</b>	-107 dBm @ 910 MHz
<b>3rd Order IMD Test Method</b>	Two +43 dBm carriers
<b>Insertion Loss Coefficient, typical</b>	0.05
<b>Average Power at Frequency</b>	0.6 kW @ 900 MHz
<b>Cable Impedance</b>	50 ohm
<b>Connector Impedance</b>	50 ohm
<b>dc Test Voltage</b>	2200 V
<b>Inner Contact Resistance, maximum</b>	1 mOhm
<b>Insulation Resistance, minimum</b>	5000 MOhm
<b>Operating Frequency Band</b>	0 – 12000 MHz
<b>Outer Contact Resistance, maximum</b>	0.25 mOhm
<b>Peak Power, maximum</b>	10 kW
<b>RF Operating Voltage, maximum (vrms)</b>	707 V
<b>Shielding Effectiveness</b>	-110 dB

## VSWR/Return Loss

<b>Frequency Band</b>	<b>VSWR</b>	<b>Return Loss (dB)</b>
<b>0–960 MHz</b>	1.024	38.52

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960–2200 MHz	1.035	35.29
2200–2700 MHz	1.035	35.29
2700–4000 MHz	1.094	26.96
4000–6000 MHz	1.21	20.5
6000–8000 MHz	1.33	17
8000–10000 MHz	1.33	17
10000–12000 MHz	1.4	15.7

## Mechanical Specifications

<b>Attachment Durability</b>	25 cycles
<b>Connector Retention Tensile Force</b>	449.27 N   101 lbf
<b>Coupling Nut Proof Torque</b>	1.7 N-m   15.046 in lb
<b>Coupling Nut Retention Force</b>	449.98 N   101.16 lbf
<b>Coupling Nut Retention Force Method</b>	MIL-C-39012C-3.25, 4.6.22
<b>Insertion Force</b>	27.98 N   6.29 lbf
<b>Insertion Force Method</b>	IEC 61169-1:15.2.4
<b>Interface Durability</b>	500 cycles
<b>Interface Durability Method</b>	IEC 61169-16:9.5
<b>Mechanical Shock Test Method</b>	IEC 60068-2-27

## 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>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
<b>Corrosion Test Method</b>	IEC 60068-2-11
<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>Thermal Shock Test Method</b>	IEC 60068-2-14
<b>Vibration Test Method</b>	IEC 60068-2-6

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## Packaging and Weights

**Weight, net** 61.77 g | 0.136 lb

## Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant



## \* Footnotes

**Insertion Loss Coefficient, typical** 0.05√freq (GHz) (not applicable for elliptical waveguide)

**Immersion Depth** Immersion at specified depth for 24 hours