

# L1TNM-PL

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



## Product Classification

Product Type	Wireless and radiating connector
Product Brand	HELIAX®

## General Specifications

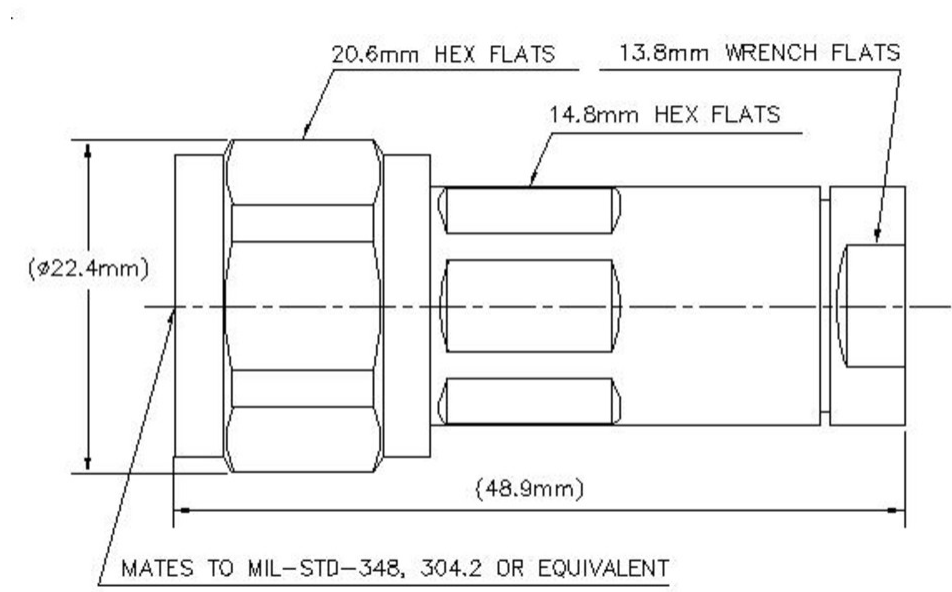
Body Style	Straight
Cable Family	LDF1-50
Inner Contact Attachment Method	Captivated
Inner Contact Plating	Silver
Interface	N Male
Mounting Angle	Straight
Outer Contact Attachment Method	Self-flare
Outer Contact Plating	Trimetal
Pressurizable	No

## Dimensions

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

## Outline Drawing

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## Electrical Specifications

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

## VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
0–960 MHz	1.03	38.4

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960–2200 MHz	1.04	35.3
2200–2700 MHz	1.04	35.3
2700–4000 MHz	1.1	27
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

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

## 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)
Attenuation, Ambient Temperature	20 °C   68 °F
Average Power, Ambient Temperature	40 °C   104 °F
Average Power, Inner Conductor Temperature	100 °C   212 °F
Corrosion Test Method	IEC 60068-2-11
Immersion Depth	1 m
Immersion Test Mating	Mated
Immersion Test Method	IEC 60529:2001, IP68
Moisture Resistance Test Method	IEC 60068-2-3
Thermal Shock Test Method	IEC 60068-2-14
Vibration Test Method	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



## \* Footnotes

<b>Insertion Loss, typical</b>	0.05v~freq (GHz) (not applicable for elliptical waveguide)
<b>Immersion Depth</b>	Immersion at specified depth for 24 hours