

# L1TDM-PL

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7-16 DIN 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

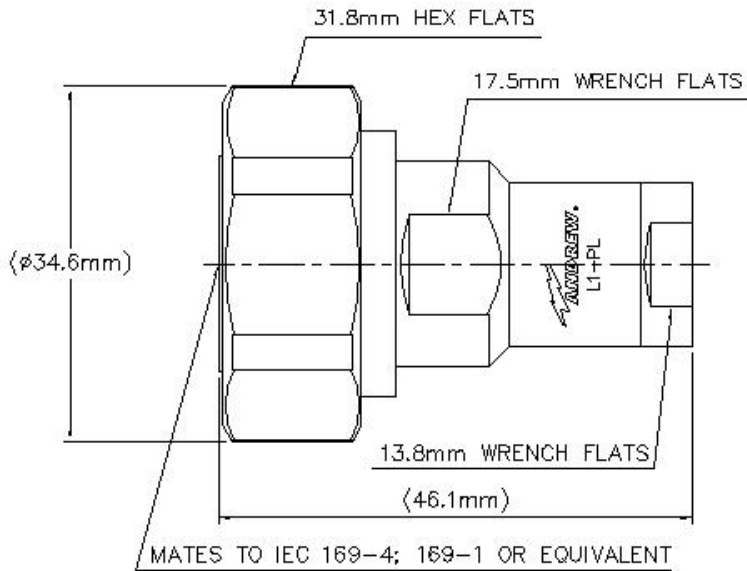
<b>Body Style</b>	Straight
<b>Cable Family</b>	LDF1-50
<b>Inner Contact Attachment Method</b>	Captivated
<b>Inner Contact Plating</b>	Silver
<b>Interface</b>	7-16 DIN Male
<b>Mounting Angle</b>	Straight
<b>Outer Contact Attachment Method</b>	Self-flare
<b>Outer Contact Plating</b>	Trimetal
<b>Pressurizable</b>	No

## Dimensions

<b>Height</b>	34.54 mm   1.36 in
<b>Width</b>	34.54 mm   1.36 in
<b>Length</b>	45.97 mm   1.81 in
<b>Diameter</b>	34.54 mm   1.36 in
<b>Nominal Size</b>	1/4 in

## Outline Drawing

# L1TDM-PL



## 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>	0.4 mOhm
<b>Insulation Resistance, minimum</b>	10000 MOhm
<b>Operating Frequency Band</b>	0 – 8000 MHz
<b>Outer Contact Resistance, maximum</b>	1.5 mOhm
<b>Peak Power, maximum</b>	12.1 kW
<b>RF Operating Voltage, maximum (vrms)</b>	778 V
<b>Shielding Effectiveness</b>	-110 dB

## VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
0–960 MHz	1.052	31.92

# L1TDM-PL

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<b>960–2200 MHz</b>	1.075	28.84
<b>2200–2700 MHz</b>	1.081	28.2
<b>2700–4000 MHz</b>	1.083	27.99
<b>4000–6000 MHz</b>	1.26	19
<b>6000–8000 MHz</b>	1.433	14.99

## 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>	35 N-m   309.776 in lb
<b>Coupling Nut Retention Force</b>	1000 N   224.81 lbf
<b>Coupling Nut Retention Force Method</b>	MIL-C-39012C-3.25, 4.6.22
<b>Insertion Force</b>	199.99 N   44.96 lbf
<b>Insertion Force Method</b>	IEC 61169-1:15.2.4
<b>Interface Durability</b>	500 cycles
<b>Interface Durability Method</b>	IEC 61169-4:17
<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

## Packaging and Weights

# L1TDM-PL

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**Weight, net**

109.66 g | 0.242 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 [www.commscope.com/ProductCompliance](http://www.commscope.com/ProductCompliance)

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