

# L1TDF-PL

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7-16 DIN Female 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

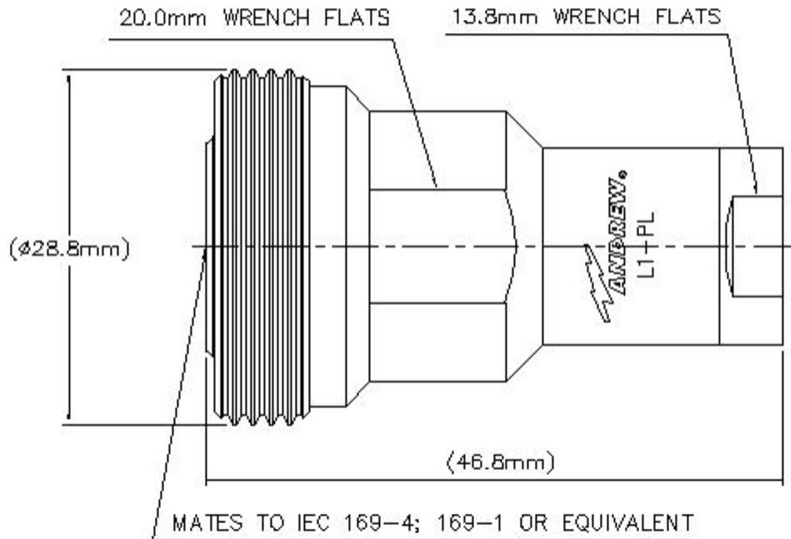
|  |                 |
|--|-----------------|
| <b>Body Style</b>                      | Straight        |
| <b>Cable Family</b>                    | LDF1-50         |
| <b>Inner Contact Attachment Method</b> | Captivated      |
| <b>Inner Contact Plating</b>           | Silver          |
| <b>Interface</b>                       | 7-16 DIN Female |
| <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>       | 28.96 mm   1.14 in |
| <b>Width</b>        | 28.96 mm   1.14 in |
| <b>Length</b>       | 46.74 mm   1.84 in |
| <b>Diameter</b>     | 28.96 mm   1.14 in |
| <b>Nominal Size</b> | 1/4 in             |

## Outline Drawing

# L1TDF-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 – 6000 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) |
|----------------|-------|------------------|
| 824–2200 MHz   | 1.041 | 33.94            |

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|                      |       |       |
|----------------------|-------|-------|
| <b>2200–2700 MHz</b> | 1.041 | 33.94 |
| <b>3000–4000 MHz</b> | 1.036 | 35.05 |
| <b>4000–6000 MHz</b> | 1.173 | 21.98 |

## 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>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

|                    |                    |
|--------------------|--------------------|
| <b>Weight, net</b> | 87.02 g   0.192 lb |
|--------------------|--------------------|

## Regulatory Compliance/Certifications

| <b>Agency</b> | <b>Classification</b>             |
|---------------|-----------------------------------|
| CHINA-ROHS    | Below maximum concentration value |

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|               |  |
|---------------|--|
| 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