

# L6PDF-RPC



7-16 DIN Female OnePiece™ for 1-1/4 in LDF6-50 cable

## OBSOLETE

This product was discontinued on: March 31, 2008

### Replaced By:

|           |   |
|-----------|---|
| AL6DF-PSA | 7-16 DIN Female Positive Stop™ for 1-1/4 in AVA6-50 cable |
| L6TDF-PS  | 7-16 DIN Female Positive Stop™ for 1-1/4 in LDF6-50 cable |

## Product Classification

|                      |                                  |
|----------------------|----------------------------------|
| <b>Product Type</b>  | Wireless and radiating connector |
| <b>Product Brand</b> | HELIAX®   OnePiece™              |

## General Specifications

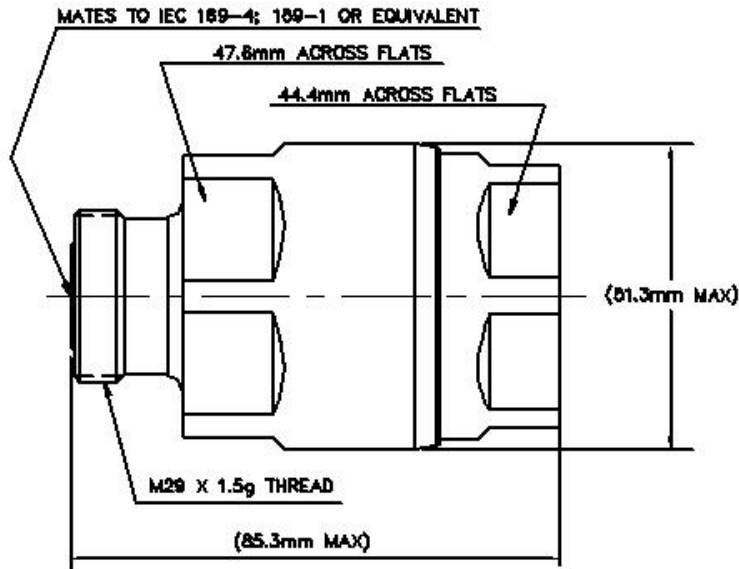
|  |                 |
|--|-----------------|
| <b>Body Style</b>                      | Straight        |
| <b>Cable Family</b>                    | LDF6-50         |
| <b>Inner Contact Attachment Method</b> | Captivated      |
| <b>Inner Contact Plating</b>           | Silver          |
| <b>Interface</b>                       | 7-16 DIN Female |
| <b>Mounting Angle</b>                  | Straight        |
| <b>Outer Contact Attachment Method</b> | Ball clamp      |
| <b>Outer Contact Plating</b>           | Trimetal        |
| <b>Pressurizable</b>                   | No              |

## Dimensions

|                     |                    |
|---------------------|--------------------|
| <b>Length</b>       | 86.11 mm   3.39 in |
| <b>Diameter</b>     | 52.07 mm   2.05 in |
| <b>Nominal Size</b> | 1-1/4 in           |

## Outline Drawing

# L6PDF-RPC



## Electrical Specifications

|   |                      |
|---|----------------------|
| <b>3rd Order IMD at Frequency</b>           | -120 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>           | 3.0 kW @ 900 MHz     |
| <b>Cable Impedance</b>                      | 50 ohm               |
| <b>Connector Impedance</b>                  | 50 ohm               |
| <b>dc Test Voltage</b>                      | 4000 V               |
| <b>Inner Contact Resistance, maximum</b>    | 0.8 mOhm             |
| <b>Insulation Resistance, minimum</b>       | 5000 MOhm            |
| <b>Operating Frequency Band</b>             | 0 – 3300 MHz         |
| <b>Outer Contact Resistance, maximum</b>    | 1.5 mOhm             |
| <b>Peak Power, maximum</b>                  | 40 kW                |
| <b>RF Operating Voltage, maximum (vrms)</b> | 1415 V               |
| <b>Shielding Effectiveness</b>              | -130 dB              |

## VSWR/Return Loss

| Frequency Band | VSWR  | Return Loss (dB) |
|----------------|-------|------------------|
| 40–1000 MHz    | 1.032 | 36.06            |

# L6PDF-RPC

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|                      |       |       |
|----------------------|-------|-------|
| <b>1010–2200 MHz</b> | 1.03  | 36.61 |
| <b>2210–3300 MHz</b> | 1.041 | 33.94 |

## Mechanical Specifications

|  |   |
|--|---|
| <b>Attachment Durability</b>             | 25 cycles                                   |
| <b>Connector Retention Tensile Force</b> | 1,779.29 N   400 lbf                        |
| <b>Connector Retention Torque</b>        | 10.85 N-m   96.004 in lb                    |
| <b>Insertion Force</b>                   | 200.17 N   45 lbf                           |
| <b>Insertion Force Method</b>            | IEC 61169-1:15.2.4                          |
| <b>Interface Durability</b>              | 50 cycles                                   |
| <b>Interface Durability Method</b>       | IEC 61169-4:9.5                             |
| <b>Mechanical Shock Test Method</b>      | MIL-STD-202F, Method 213B, Test Condition C |

## Environmental Specifications

|   |   |
|---|---|
| <b>Operating Temperature</b>              | -55 °C to +85 °C (-67 °F to +185 °F)                                  |
| <b>Storage Temperature</b>                | -55 °C to +85 °C (-67 °F to +185 °F)                                  |
| <b>Attenuation, Ambient Temperature</b>   | 20 °C   68 °F   |
| <b>Average Power, Ambient Temperature</b> | 40 °C   104 °F  |
| <b>Corrosion Test Method</b>              | MIL-STD-1344A, Method 1001.1, Test Condition A                        |
| <b>Immersion Depth</b>                    | 1 m   |
| <b>Immersion Test Mating</b>              | Unmated   |
| <b>Immersion Test Method</b>              | IEC 60529:2001, IP68  |
| <b>Moisture Resistance Test Method</b>    | MIL-STD-202F, Method 106F   |
| <b>Thermal Shock Test Method</b>          | MIL-STD-202F, Method 107G, Test Condition A-1, Low Temperature -55 °C |
| <b>Vibration Test Method</b>              | IEC 60068-2-6   |
| <b>Water Jetting Test Mating</b>          | Unmated   |
| <b>Water Jetting Test Method</b>          | IEC 60529:2001, IP66  |

## Packaging and Weights

|                    |                  |
|--------------------|------------------|
| <b>Weight, net</b> | 484 g   1.067 lb |
|--------------------|------------------|

## \* Footnotes

|  |   |
|--|---|
| <b>Insertion Loss Coefficient, typical</b> | 0.05√freq (GHz) (not applicable for elliptical waveguide) |
|--|---|

# L6PDF-RPC

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**Immersion Depth**

Immersion at specified depth for 24 hours