

# Product Specifications

F4PDR-C

7-16 DIN Male Right Angle for 1/2 in FSJ4-50B cable

## **OBSOLETE**

### Replaced By:

F4DR-C

7-16 DIN Male Right Angle for 1/2 in FSJ4-50B cable



## CHARACTERISTICS

### General Specifications

|                |                     |
|----------------|---------------------|
| Interface      | 7-16 DIN Male       |
| Body Style     | Right angle         |
| Brand          | HELIAX <sup>®</sup> |
| Mounting Angle | Right angle         |

### Electrical Specifications

|                                      |                      |
|--------------------------------------|----------------------|
| Connector Impedance                  | 50 ohm               |
| Operating Frequency Band             | 0 – 5200 MHz         |
| Cable Impedance                      | 50 ohm               |
| 3rd Order IMD, typical               | -120 dBm @ 910 MHz   |
| 3rd Order IMD Test Method            | Two +43 dBm carriers |
| RF Operating Voltage, maximum (vrms) | 884.00 V             |
| dc Test Voltage                      | 2500 V               |
| Outer Contact Resistance, maximum    | 1.50 mOhm            |
| Inner Contact Resistance, maximum    | 0.80 mOhm            |
| Insulation Resistance, minimum       | 5000 MOhm            |
| Average Power                        | 1.0 kW @ 900 MHz     |
| Peak Power, maximum                  | 15.60 kW             |
| Insertion Loss, typical              | 0.05 dB              |
| Shielding Effectiveness              | -110 dB              |

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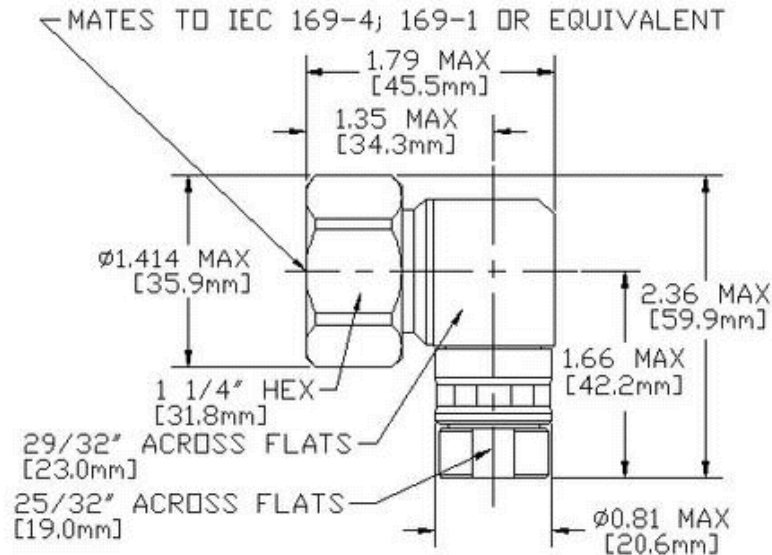
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## Outline Drawing



## Mechanical Specifications

|                                     |                           |
|-------------------------------------|---------------------------|
| Outer Contact Attachment Method     | Crush-flare               |
| Inner Contact Attachment Method     | Captivated                |
| Outer Contact Plating               | Trimetal                  |
| Inner Contact Plating               | Gold                      |
| Attachment Durability               | 25 cycles                 |
| Interface Durability                | 500 cycles                |
| Interface Durability Method         | IEC 61169-4:9.5           |
| Connector Retention Tensile Force   | 890 N   200 lbf           |
| Connector Retention Torque          | 5.42 N-m   48.00 in lb    |
| Insertion Force                     | 200.17 N   45.00 lbf      |
| Insertion Force Method              | IEC 61169-1:15.2.4        |
| Pressurizable                       | No                        |
| Coupling Nut Proof Torque           | 24.86 N-m   220.00 in lb  |
| Coupling Nut Retention Force        | 1000.85 N   225.00 lbf    |
| Coupling Nut Retention Force Method | MIL-C-39012C-3.25, 4.6.22 |

## Dimensions

|                    |                    |
|--------------------|--------------------|
| Nominal Size       | 1/2 in             |
| Diameter           | 40.34 mm   1.59 in |
| Length             | 60.96 mm   2.40 in |
| Right Angle Length | 45.72 mm   1.80 in |

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Weight 207.36 g | 0.46 lb  
Width 31.75 mm | 1.25 in

## Environmental Specifications

|                                 |   |
|---------------------------------|---|
| Operating Temperature           | -55 °C to +85 °C (-67 °F to +185 °F)                                |
| Storage Temperature             | -55 °C to +85 °C (-67 °F to +185 °F)                                |
| Immersion Depth                 | 1 m   |
| Immersion Test Mating           | Mated   |
| Immersion Test Method           | IEC 60529:2001, IP68  |
| Water Jetting Test Mating       | Mated   |
| Water Jetting Test Method       | IEC 60529:2001, IP66  |
| Moisture Resistance Test Method | MIL-STD-202F, Method 106F   |
| Mechanical Shock Test Method    | MIL-STD-202F, Method 213B, Test Condition C                         |
| Thermal Shock Test Method       | MIL-STD-202, Method 107, Test Condition A-1, Low Temperature -55 °C |
| Vibration Test Method           | IEC 60068-2-6   |
| Corrosion Test Method           | MIL-STD-1344A, Method 1001.1, Test Condition A                      |

## Standard Conditions

|                                    |                |
|------------------------------------|----------------|
| Attenuation, Ambient Temperature   | 20 °C   68 °F  |
| Average Power, Ambient Temperature | 40 °C   104 °F |

## Return Loss/VSWR

| Frequency Band | VSWR | Return Loss (dB) |
|----------------|------|------------------|
| 50–1000 MHz    | 1.04 | 33.00            |
| 1000–1900 MHz  | 1.04 | 33.00            |
| 1900–2200 MHz  | 1.07 | 29.00            |
| 2000–2700 MHz  | 1.10 | 26.00            |
| 2700–3600 MHz  | 1.13 | 24.00            |
| 3600–5000 MHz  | 1.25 | 19.00            |

## Regulatory Compliance/Certifications

| Agency                     | Classification                          |
|----------------------------|---|
| RoHS 2002/95/EC            | Compliant by Exemption                  |
| China RoHS SJ/T 11364-2006 | Above Maximum Concentration Value (MCV) |



## \* Footnotes

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Immersion Depth      Immersion at specified depth for 24 hours  
Insertion Loss, typical       $0.05\sqrt{\text{freq (GHz)}}$  (not applicable for elliptical waveguide)



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