

F1TNR-HC

Type N Male Right Angle for 1/4 in FSJ1-50A cable



Product Classification

| | |
|----------------------|----------------------------------|
| Product Type | Wireless and radiating connector |
| Product Brand | HELIAX® |

General Specifications

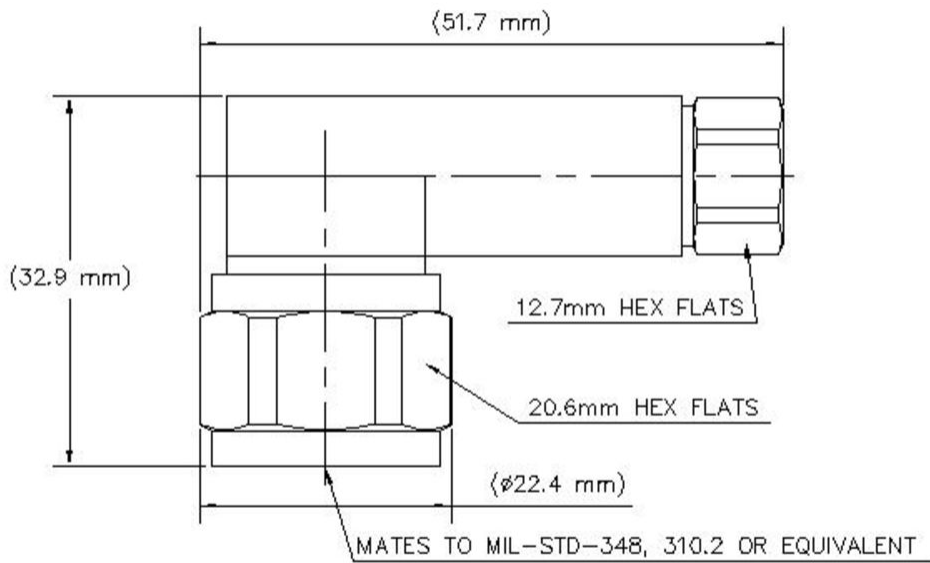
| | |
|--|---------------|
| Body Style | Right angle |
| Cable Family | FSJ1-50A |
| Inner Contact Attachment Method | Captivated |
| Inner Contact Plating | Gold |
| Interface | N Male |
| Mounting Angle | Right angle |
| Outer Contact Attachment Method | Self-clamping |
| Outer Contact Plating | Trimetal |
| Pressurizable | No |

Dimensions

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|---------------------|--------------------|
| Height | 20.57 mm 0.81 in |
| Width | 33.02 mm 1.3 in |
| Length | 51.82 mm 2.04 in |
| Diameter | 22.35 mm 0.88 in |
| Nominal Size | 1/4 in |

Outline Drawing

F1TNR-HC



Electrical Specifications

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|--|----------------------|
| 3rd Order IMD at Frequency | -112 dBm @ 910 MHz |
| 3rd Order IMD Test Method | Two +43 dBm carriers |
| Average Power at Frequency | 0.4 kW @ 900 MHz |
| Cable Impedance | 50 ohm |
| Connector Impedance | 50 ohm |
| dc Test Voltage | 1600 V |
| Inner Contact Resistance, maximum | 1 mOhm |
| Insulation Resistance, minimum | 5000 MOhm |
| Operating Frequency Band | 0 – 6000 MHz |
| Outer Contact Resistance, maximum | 0.25 mOhm |
| Peak Power, maximum | 6.4 kW |

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| RF Operating Voltage, maximum (vrms) | 565 V |
| Shielding Effectiveness | -110 dB |

VSWR/Return Loss

| Frequency Band | VSWR | Return Loss (dB) |
|-----------------------|-------------|-------------------------|
| 824–960 MHz | 1.08 | 28.3 |
| 1710–1880 MHz | 1.12 | 24.95 |
| 1850–1990 MHz | 1.12 | 24.95 |
| 1910–2200 MHz | 1.14 | 23.69 |
| 2200–2700 MHz | 1.16 | 22.61 |
| 3000–5000 MHz | 1.18 | 21.67 |
| 5000–6000 MHz | 1.25 | 19.09 |

Mechanical Specifications

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|--|------------------------|
| Connector Retention Tensile Force | 449.27 N 101 lbf |
| Coupling Nut Proof Torque | 1.7 N-m 15.046 in lb |
| Coupling Nut Proof Torque Method | IEC 61169-16:9.3.11 |
| Coupling Nut Retention Force | 445 N 100.04 lbf |
| Coupling Nut Retention Force Method | IEC 61169-16:9.3.11 |
| Insertion Force | 124.55 N 28 lbf |
| Insertion Force Method | IEC 61169-16:9.3.5 |
| Interface Durability | 500 cycles |
| Interface Durability Method | IEC 61169-4:17 |
| Mechanical Shock Test Method | IEC 60068-2-27 |

Environmental Specifications

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

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| 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 |

Packaging and Weights

Weight, net 78.65 g | 0.173 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 |
| ROHS | Compliant |



* Footnotes

Immersion Depth Immersion at specified depth for 24 hours