Product Specifications

Andrew Solutions

F1TNR-HC

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

General Specifications

Interface	N Male
Body Style	Right angle
Brand	HELIAX®
Mounting Angle	Right angle

Electrical Specifications

Connector Impedance	50 ohm
Operating Frequency Band	0 – 6000 MHz
Cable Impedance	50 ohm
3rd Order IMD, typical	-112 dBm @ 910 MHz
3rd Order IMD Test Method	Two +43 dBm carriers
RF Operating Voltage, maximum (vrms)	565.00 V
dc Test Voltage	1600 V
Outer Contact Resistance, maximum	0.25 mOhm
Inner Contact Resistance, maximum	1.00 mOhm
Insulation Resistance, minimum	5000 MOhm
Average Power	0.4 kW @ 900 MHz
Peak Power, maximum	6.40 kW
Shielding Effectiveness	-110 dB

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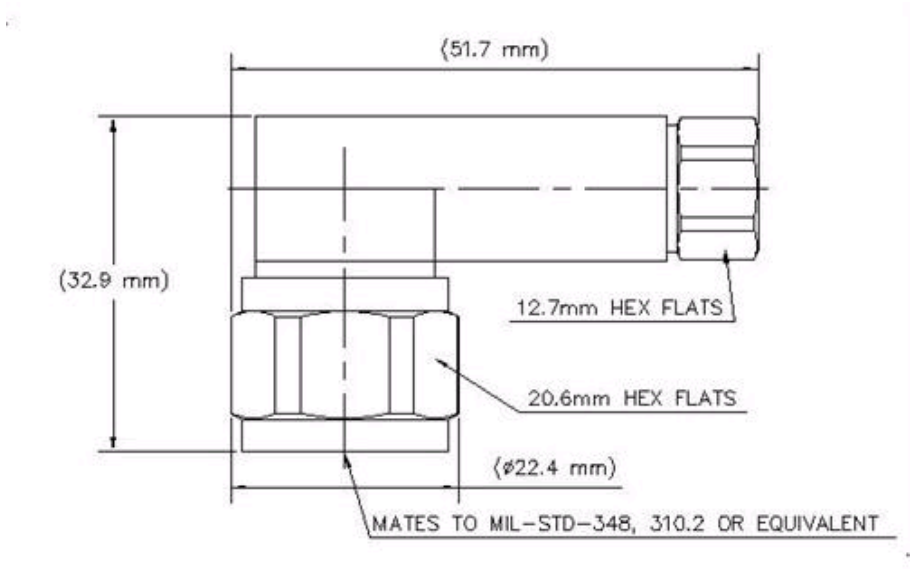
Outline Drawing



Mechanical Specifications

Outer Contact Attachment Method	Self-clamping
Inner Contact Attachment Method	Captivated
Outer Contact Plating	Trimetal
Inner Contact Plating	Gold
Interface Durability	500 cycles
Interface Durability Method	IEC 61169-4:17
Connector Retention Tensile Force	450 N | 101 lbf
Connector Retention Torque	1.40 N-m | 1.03 ft lb
Insertion Force	124.55 N | 28.00 lbf
Insertion Force Method	IEC 61169-16:9.3.5
Pressurizable	No
Coupling Nut Proof Torque	1.70 N-m | 1.25 ft lb
Coupling Nut Proof Torque Method	IEC 61169-16:9.3.11
Coupling Nut Retention Force	445.00 N | 100.04 lbf
Coupling Nut Retention Force Method	IEC 61169-16:9.3.11

Dimensions

Nominal Size	1/4 in
Diameter	22.35 mm | 0.88 in
Height	20.62 mm | 0.81 in
Length	51.70 mm | 2.04 in
Weight	78.65 g | 0.17 lb
Width	32.90 mm | 1.30 in

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Environmental Specifications

Operating Temperature	-55 °C to +85 °C (-67 °F to +185 °F)
Storage Temperature	-65 °C to +125 °C (-85 °F to +257 °F)
Immersion Depth	1 m
Immersion Test Mating	Mated
Immersion Test Method	IEC 60529:2001, IP68
Moisture Resistance Test Method	IEC 60068-2-3
Mechanical Shock Test Method	IEC 60068-2-27
Thermal Shock Test Method	IEC 60068-2-14
Vibration Test Method	IEC 60068-2-6
Corrosion Test Method	IEC 60068-2-11

Standard Conditions

Attenuation, Ambient Temperature	20 °C | 68 °F
Average Power, Ambient Temperature	40 °C | 104 °F
Average Power, Inner Conductor Temperature	100 °C | 212 °F

Return Loss/VSWR

Frequency Band	VSWR	Return Loss (dB)
824–960 MHz	1.08	28.3
1710–1880 MHz	1.12	24.94
1850–1990 MHz	1.12	24.94
1910–2200 MHz	1.14	23.69
2200–2700 MHz	1.16	22.61
3000–5000 MHz	1.18	21.66
5000–6000 MHz	1.25	19.08

Regulatory Compliance/Certifications

Agency	Classification
RoHS 2011/65/EU	Compliant by Exemption
China RoHS SJ/T 11364-2006	Above Maximum Concentration Value (MCV)
ISO 9001:2008	Designed, manufactured and/or distributed under this quality management system

* Footnotes

Immersion Depth	Immersion at specified depth for 24 hours