TNC Female for 1/4 in FSJ1-50A cable

Product Classification

Product Type: Wireless and radiating connector
Product Brand: HELIAX®
Product Series: FSJ1-50A

General Specifications

Body Style: Straight
Cable Family: FSJ1-50A
Inner Contact Attachment Method: Captivated
Inner Contact Plating: Gold
Interface: TNC Female
Mounting Angle: Straight
Outer Contact Attachment Method: Tab-flare
Outer Contact Plating: Trimetal
Pressurizable: No

Dimensions

Width: 20.57 mm | 0.81 in
Length: 51.82 mm | 2.04 in
Diameter: 20.57 mm | 0.81 in
Nominal Size: 1/4 in

Outline Drawing
Electrical Specifications

3rd Order IMD at Frequency: -102 dBm @ 910 MHz
3rd Order IMD Test Method: Two +43 dBm carriers
Average Power at Frequency: 396.0 W @ 900 MHz
Cable Impedance: 50 ohm
Connector Impedance: 50 ohm
dc Test Voltage: 1500 V
Inner Contact Resistance, maximum: 1.5 mOhm
Insulation Resistance, minimum: 5000 MOhm
Operating Frequency Band: 0 – 18000 MHz
Outer Contact Resistance, maximum: 0.4 mOhm
Peak Power, maximum: 5 kW
RF Operating Voltage, maximum (vrms): 500 V
Shielding Effectiveness: -110 dB

VSWR/Return Loss

<table>
<thead>
<tr>
<th>Frequency Band</th>
<th>VSWR</th>
<th>Return Loss (dB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>45–3600 MHz</td>
<td>1.15</td>
<td>23.13</td>
</tr>
<tr>
<td>3600–7200 MHz</td>
<td>1.2</td>
<td>20.83</td>
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</tbody>
</table>
7200–10800 MHz  1.2  20.83
10800–14400 MHz  1.29  17.95
14400–18000 MHz  1.92  10.04

Mechanical Specifications
Attachment Durability  500 cycles
Connector Retention Tensile Force  449.27 N | 101 lbf
Insertion Force  27.98 N | 6.29 lbf
Insertion Force Method  IEC 61169-17:9.3.5
Interface Durability  500 cycles
Interface Durability Method  IEC 61169-17:17
Mechanical Shock Test Method  IEC 60068-2-27

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)
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
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  56.68 g | 0.125 lb

Regulatory Compliance/Certifications
Agency  Classification
ISO 9001:2015  Designed, manufactured and/or distributed under this quality management system
* Footnotes

**Immersion Depth**

Immersion at specified depth for 24 hours