

AL7NF-PSA



Type N Female Positive Stop™ for 1-5/8 in cable

Product Classification

| | |
|-----------------------|--|
| Product Type | Wireless and radiating connector |
| Product Brand | HELIAX® Positive Stop™ |
| Product Series | AVA7-50 AVA7RK-50 |
| Ordering Note | ANDREW® standard product in the United States and Canada |

General Specifications

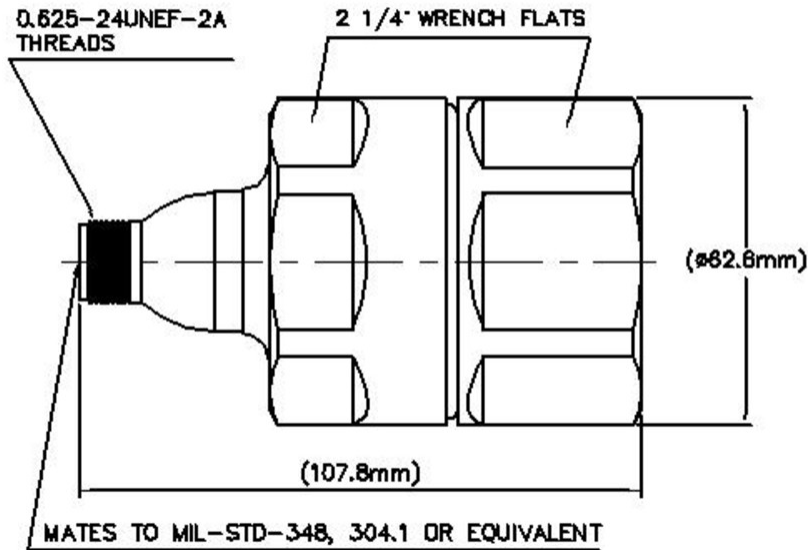
| | |
|--|------------|
| Body Style | Straight |
| Inner Contact Attachment Method | Captivated |
| Inner Contact Plating | Gold |
| Interface | N Female |
| Mounting Angle | Straight |
| Outer Contact Attachment Method | Ring-flare |
| Outer Contact Plating | Trimetal |
| Pressurizable | No |

Dimensions

| | |
|---------------------|--------------------|
| Length | 107.7 mm 4.24 in |
| Diameter | 62.74 mm 2.47 in |
| Nominal Size | 1-5/8 in |

Outline Drawing

AL7NF-PSA



Electrical Specifications

| | |
|---|----------------------|
| 3rd Order IMD at Frequency | -116 dBm @ 910 MHz |
| 3rd Order IMD Test Method | Two +43 dBm carriers |
| Insertion Loss Coefficient, typical | 0.05 |
| Average Power at Frequency | 0.6 kW @ 900 MHz |
| Cable Impedance | 50 ohm |
| Connector Impedance | 50 ohm |
| dc Test Voltage | 2000 V |
| Inner Contact Resistance, maximum | 2 mOhm |
| Insulation Resistance, minimum | 5000 MOhm |
| Operating Frequency Band | 0 – 2700 MHz |
| Outer Contact Resistance, maximum | 0.3 mOhm |
| Peak Power, maximum | 10 kW |
| RF Operating Voltage, maximum (vrms) | 707 V |
| Shielding Effectiveness | -130 dB |

VSWR/Return Loss

| Frequency Band | VSWR | Return Loss (dB) |
|----------------|-------|------------------|
| 45-400 MHz | 1.023 | 38.89 |

AL7NF-PSA

| | | |
|----------------------|-------|-------|
| 401–805 MHz | 1.023 | 38.89 |
| 806–960 MHz | 1.023 | 38.89 |
| 961–1709 MHz | 1.032 | 36.06 |
| 1710–2170 MHz | 1.036 | 35.05 |
| 2170–2399 MHz | 1.065 | 30.04 |
| 2400–2700 MHz | 1.083 | 27.99 |

Mechanical Specifications

| | |
|--|---|
| Attachment Durability | 25 cycles |
| Connector Retention Tensile Force | 2,224.11 N 500 lbf |
| Connector Retention Torque | 13.56 N-m 119.998 in lb |
| Insertion Force | 66.72 N 15 lbf |
| Insertion Force Method | MIL-C-39012C-3.12, 4.6.9 |
| Interface Durability | 500 cycles |
| Interface Durability Method | IEC 61169-16:9.5 |
| Mechanical Shock Test Method | MIL-STD-202F, Method 213B, Test Condition C |

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

Packaging and Weights

AL7NF-PSA

Weight, net

753 g | 1.66 lb

Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|--|
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |
| REACH-SVHC | Compliant as per SVHC revision on www.andrew.com/ProductCompliance |
| ROHS | Compliant |
| UK-ROHS | Compliant |

* Footnotes

Insertion Loss Coefficient, typical 0.05√freq (GHz) (not applicable for elliptical waveguide)

Immersion Depth Immersion at specified depth for 24 hours