AL7E78-PS



7/8 in EIA Flange Positive Stop™ for 1-5/8 in AVA7-50, AL7-50 and LDF7-50A coaxial cable

Product Classification

Product Type Wireless and radiating connector

Product Brand HELIAX®

General Specifications

Body Style Straight

Cable Family AL7-50 | AVA7-50 | LDF7-50A

Inner Contact Attachment Method Captivated

Inner Contact Plating Silver

Interface 7/8 in EIA Flange

Mounting AngleStraightOuter Contact Attachment MethodRing-flareOuter Contact PlatingTrimetal

Pressurizable No

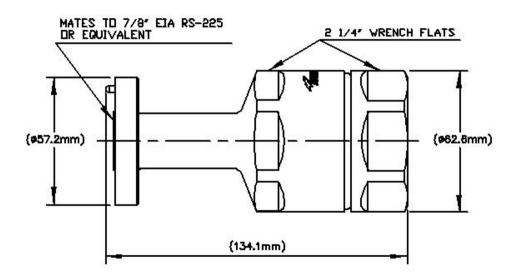
Dimensions

Length 134.11 mm | 5.28 in **Diameter** 62.74 mm | 2.47 in

Nominal Size 1-5/8 in

Outline Drawing





Electrical Specifications

3rd Order IMD at Frequency -120 dBm @ 1800 MHz
3rd Order IMD Test Method Two +43 dBm carriers

Insertion Loss Coefficient, typical 0.05

Average Power at Frequency 2.3 kW @ 900 MHz

Cable Impedance50 ohmConnector Impedance50 ohmdc Test Voltage6000 V

Inner Contact Resistance, maximum1.5 mOhmInsulation Resistance, minimum5000 MOhm

Operating Frequency Band 0 – 2500 MHz

Outer Contact Resistance, maximum 1.5 mOhm

Peak Power, maximum90 kWRF Operating Voltage, maximum (vrms)2120 V

Shielding Effectiveness -130 dB

VSWR/Return Loss

Frequency Band VSWR Return Loss (dB)

45–1000 MHz 1.036 35.05

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1010–2200 MHz 1.036 35.05 **2210–2500 MHz** 1.065 30.04

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

Interface Durability 50 cycles

Mechanical Shock Test Method MIL-STD-202, Method 213, Test Condition I

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 $20 \, ^{\circ}\text{C} \mid 68 \, ^{\circ}\text{F}$ Average Power, Ambient Temperature $40 \, ^{\circ}\text{C} \mid 104 \, ^{\circ}\text{F}$

Corrosion Test Method MIL-STD-1344A, Method 1001.1, Test Condition A

Immersion Depth1 mImmersion Test MatingMated

Immersion Test Method IEC 60529:2001, IP68

Moisture Resistance Test Method MIL-STD-202, Method 106

Thermal Shock Test Method MIL-STD-202F, Method 107G, Test Condition A-1, Low Temperature -55 °C

Vibration Test Method MIL-STD-202, Method 204, Test Condition B

Water Jetting Test Mating Mated

Water Jetting Test Method IEC 60529:2001, IP66

Packaging and Weights

Weight, net 1,097.4 g | 2.419 lb

Regulatory Compliance/Certifications

Agency Classification

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

* Footnotes

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

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Immersion Depth

Immersion at specified depth for 24 hours

