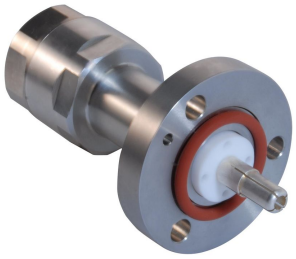
AL5E78-PS



7/8 in EIA Positive Stop™ for 7/8 in AVA5-50 and AL5-50 cable

Product Classification

Product Type	Wireless and radiating connector
Product Brand	HELIAX® | Positive Stop™
Product Series	AVA5-50 | AVA5RK-50

General Specifications

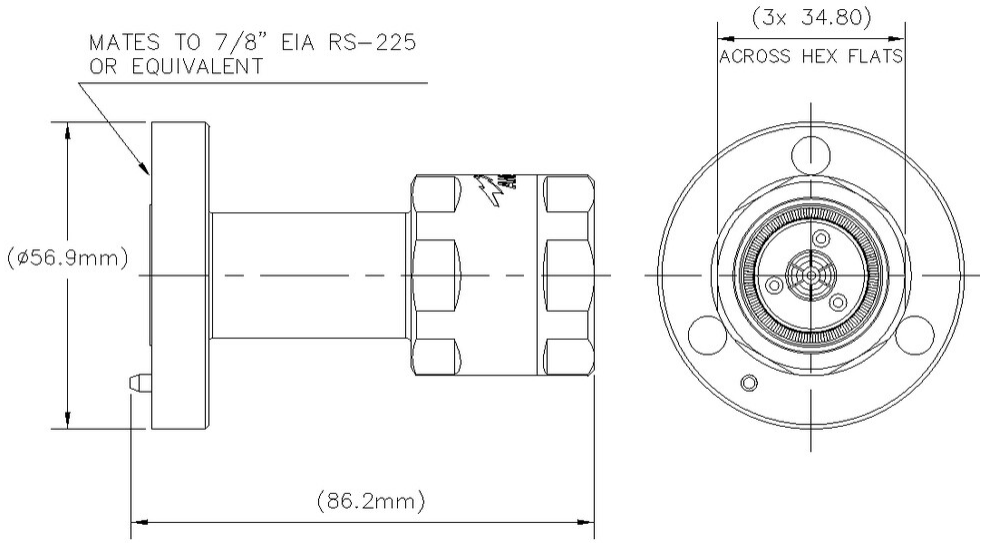
Body Style	Straight
Cable Family	AL5-50 | AVA5-50
Inner Contact Attachment Method	Captivated
Inner Contact Plating	Silver
Interface	7/8 in EIA Flange
Mounting Angle	Straight
Outer Contact Attachment Method	Ring-flare
Outer Contact Plating	Trimetal
Pressurizable	No

Dimensions

Length	88.65 mm | 3.49 in
Diameter	57.15 mm | 2.25 in
Nominal Size	7/8 in

Outline Drawing

AL5E78-PS



Electrical Specifications

3rd Order IMD at Frequency	-116 dBm @ 910 MHz
3rd Order IMD Test Method	Two +43 dBm carriers
Insertion Loss, typical	0.05 dB
Average Power at Frequency	2.3 kW @ 900 MHz
Cable Impedance	50 ohm
Connector Impedance	50 ohm
dc Test Voltage	6000 V
Inner Contact Resistance, maximum	1.5 mOhm
Insulation Resistance, minimum	5000 MOhm
Operating Frequency Band	0 – 5000 MHz
Outer Contact Resistance, maximum	1.5 mOhm
Peak Power, maximum	90 kW
RF Operating Voltage, maximum (vrms)	2120 V
Shielding Effectiveness	-130 dB

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
50–1000 MHz	1.036	35.05

1700–2200 MHz	1.036	35.05
2400–2700 MHz	1.065	30.04
3400–3600 MHz	1.119	25.01

Mechanical Specifications

Attachment Durability	25 cycles
Connector Retention Tensile Force	1,334.47 N | 300 lbf
Connector Retention Torque	8.1 N-m | 71.691 in lb
Coupling Nut Proof Torque	24.86 N-m | 220.003 in lb
Insertion Force	66.72 N | 15 lbf
Insertion Force Method	IEC 61169-1:15.2.4
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 °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	MIL-STD-202F, Method 204D, Test Condition B
Water Jetting Test Mating	Unmated
Water Jetting Test Method	IEC 60529:2001, IP66

Packaging and Weights

Weight, net	340.21 g | 0.75 lb

Regulatory Compliance/Certifications

Agency	**Classification**

AL5E78-PS

CHINA-ROHS	Above maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
ROHS	Compliant/Exempted

* Footnotes

Insertion Loss, typical	0.05√¯freq (GHz) (not applicable for elliptical waveguide)
Immersion Depth	Immersion at specified depth for 24 hours