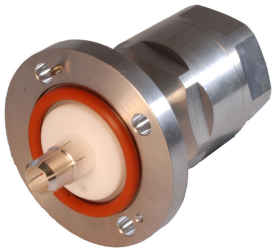
AL7E158-PS



1-5/8 in EIA Flange for 1-5/8 in AVA7-50, AL7-50 and LDF7-50 cable

Product Classification

Product Type	Wireless and radiating connector
Product Brand	HELIAX®

General Specifications

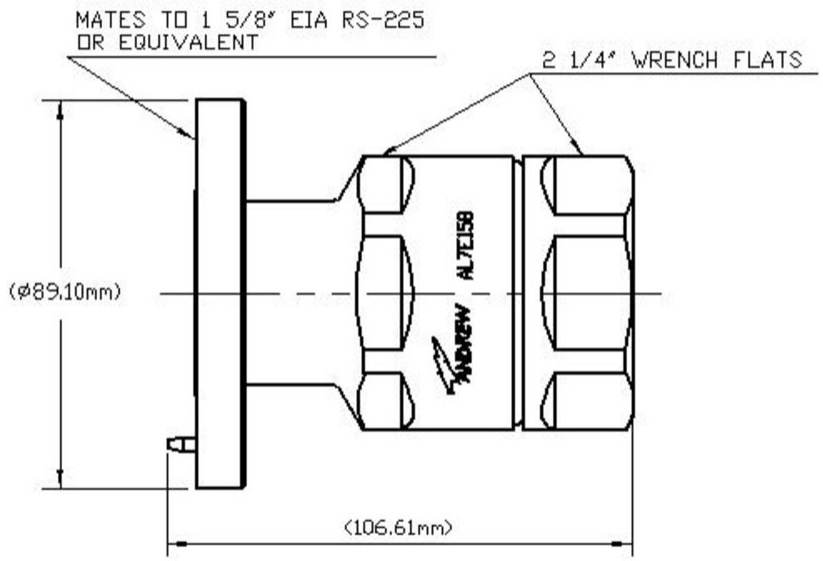
Body Style	Straight
Cable Family	AL7-50 | AVA7-50
Inner Contact Attachment Method	Thread-in stub
Inner Contact Plating	Silver
Interface	1-5/8 in EIA Flange
Mounting Angle	Straight
Outer Contact Attachment Method	Self-flare
Outer Contact Plating	Trimetal
Pressurizable	No

Dimensions

Length	4.2 in | 106.68 mm
Diameter	3.51 in | 89.154 mm
Nominal Size	1-5/8 in

Outline Drawing

AL7E158-PS



Electrical Specifications

Insertion Loss, typical	0.05 dB
Attenuation, Ambient Temperature	20 °C | 68 °F
Average Power at Frequency	3.4 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 – 2500 MHz
Outer Contact Resistance, maximum	1.5 mOhm
Peak Power, maximum	90 kW

RF Operating Voltage, maximum (vrms)	2120 V
Shielding Effectiveness	-110 dB

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
45–1000 MHz	1.04	35
1010–2200 MHz	1.04	35
2210–2500 MHz	1.07	30

Mechanical Specifications

Attachment Durability	25 cycles
Connector Retention Tensile Force	500 lbf | 2,224.11 N
Connector Retention Torque	120 in lb | 13.558 N-m
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)
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	Mated
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

AL7E158-PS

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