# Product Specifications

ANDREW®
A CommScope Company

## AL7E158-PS

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

## CHARACTERISTICS

### General Specifications

| | |
|---|---|
| Interface | 1-5/8 in EIA Flange |
| Body Style | Straight |
| Brand | HELIAX® |
| Mounting Angle | Straight |

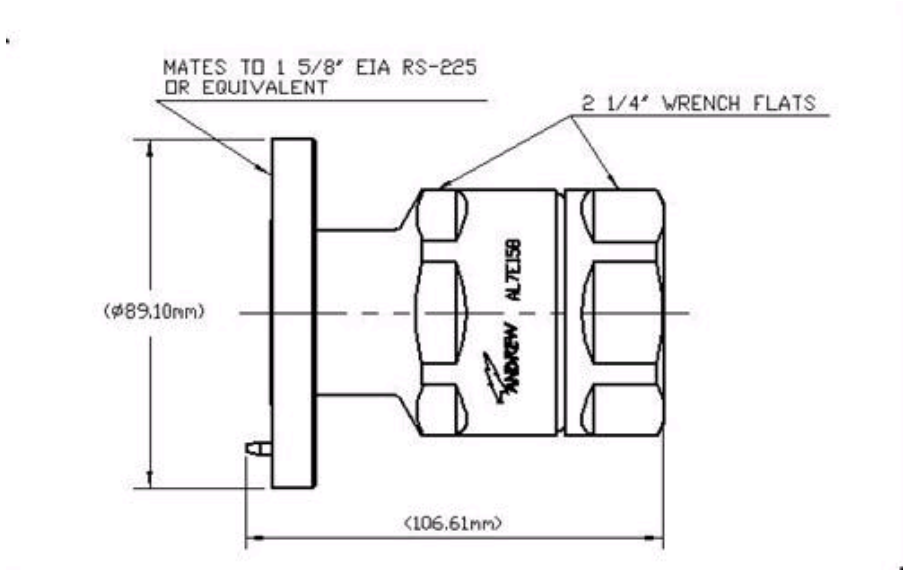
### Electrical Specifications

| | |
|---|---|
| Connector Impedance | 50 ohm |
| Operating Frequency Band | 0 – 2500 MHz |
| Cable Impedance | 50 ohm |
| RF Operating Voltage, maximum (vrms) | 2120.00 V |
| dc Test Voltage | 6000 V |
| Outer Contact Resistance, maximum | 1.50 mOhm |
| Inner Contact Resistance, maximum | 1.50 mOhm |
| Insulation Resistance, minimum | 5000 MOhm |
| Average Power | 3.4 kW @ 900 MHz |
| Peak Power, maximum | 90.00 kW |
| Insertion Loss, typical | 0.05 dB |
| Shielding Effectiveness | -110 dB |

# Product Specifications

AL7E158-PS

## Outline Drawing




## Mechanical Specifications

| | |
|---|---|
| Outer Contact Attachment Method | Self-flare |
| Inner Contact Attachment Method | Thread-in stub |
| Outer Contact Plating | Trimetal |
| Inner Contact Plating | Silver |
| Attachment Durability | 25 cycles |
| Interface Durability | 50 cycles |
| Connector Retention Tensile Force | 2224 N \| 500 lbf |
| Connector Retention Torque | 13.56 N-m \| 120.00 in lb |
| Pressurizable | No |

## Dimensions

| | |
|---|---|
| Nominal Size | 1-5/8 in |
| Diameter | 89.10 mm \| 3.51 in |
| Length | 106.61 mm \| 4.20 in |
| Weight | 1097.40 g \| 2.42 lb |

## 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) |
| Immersion Depth | 1 m |

# Product Specifications

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| | |
|---|---|
| Immersion Test Mating | Mated |
| Immersion Test Method | IEC 60529:2001, IP68 |
| Water Jetting Test Mating | Mated |
| Water Jetting Test Method | IEC 60529:2001, IP66 |
| Moisture Resistance Test Method | MIL-STD-202, Method 106 |
| Mechanical Shock Test Method | MIL-STD-202, Method 213, Test Condition I |
| 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 |
| Corrosion Test Method | MIL-STD-1344A, Method 1001.1, Test Condition A |

## Standard Conditions

| | |
|---|---|
| Attenuation, Ambient Temperature | 20 °C \| 68 °F |
| Average Power, Ambient Temperature | 40 °C \| 104 °F |

## Return Loss/VSWR

| Frequency Band | VSWR | Return Loss (dB) |
|---|---|---|
| 45–1000 MHz | 1.04 | 35.00 |
| 1010–2200 MHz | 1.04 | 35.00 |
| 2210–2500 MHz | 1.07 | 30.00 |

## * Footnotes

| | |
|---|---|
| Immersion Depth | Immersion at specified depth for 24 hours |
| Insertion Loss, typical | $0.05\sqrt{}$freq (GHz) (not applicable for elliptical waveguide) |