

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

Replaced By:

AL7NF-PSB Type N Female Positive Stop™ Black Series for 1-58 in AVA7-50 cable

AL7NM-PS Type N Male Positive Stop™ for 1-5/8 in cable

AL7NM-PSB Type N Male Positive Stop™ Black Series 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 CommScope® standard product in the United States and Canada

General Specifications

Body Style Straight

Inner Contact Attachment Method Captivated

Inner Contact Plating Silver

Interface N Male

Mounting Angle Straight

Outer Contact Attachment Method Ring-flare

Outer Contact Plating Trimetal

Pressurizable No

Dimensions

 Length
 114.3 mm | 4.5 in

 Diameter
 62.74 mm | 2.47 in

COMMSCSPE®

Nominal Size 1-5/8 in

Outline Drawing

13/18" WRENCH FLATS

2 1/4" WRENCH FLATS

(#62.6mm)

(114.2mm)

MATES TO MIL-STD-348, 304.2 OR EQUIVALENT

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 0.6 kW @ 900 MHz

50 ohm **Cable Impedance** 50 ohm **Connector Impedance** 2000 V dc Test Voltage Inner Contact Resistance, maximum 2 m0hm Insulation Resistance, minimum 5000 MOhm **Operating Frequency Band** 0 - 2700 MHz **Outer Contact Resistance, maximum** 0.3 m0hm 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	1.03	39
401-805 MHz	1.03	39
806-960 MHz	1.03	39
961-1709 MHz	1.03	37
1710-2170 MHz	1.04	35
2170-2399 MHz	1.07	30
2400-2700 MHz	1.09	28

Mechanical Specifications

Attachment Durability 25 cycles

Connector Retention Tensile Force 2,224.11 N | 500 lbf

Connector Retention Torque13.56 N-m119.998 in lbCoupling Nut Proof Torque4.52 N-m39.997 in lb

Coupling Nut Retention Force 444.82 N | 100 lbf

Coupling Nut Retention Force Method MIL-C-39012C-3.25, 4.6.22

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 $20 \, ^{\circ}\text{C} \mid 68 \, ^{\circ}\text{F}$ 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 Depth 1 m

Immersion Test Mating Unmated

COMMSCOPE®

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

Weight, net 768 g | 1.693 lb

Compliant

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.commscope.com/ProductCompliance

ISO

ROHS

Included Products

A7TNM-PS - Type N Male Positive Stop™ for 1-5/8 in AVA7-50

cable

* Footnotes

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

Immersion Depth Immersion at specified depth for 24 hours

