

Product Specifications



A7PDM-RPC

7-16 DIN Male OnePiece™ for 1-5/8 in AVA7-50 cable

OBSOLETE

Replaced By:

AL7DM-PS	7-16 DIN Male Positive Stop™ for 1-5/8 in cable
AL7DM-PSA	7-16 DIN Male Positive Stop™ for 1-5/8 in cable

CHARACTERISTICS

General Specifications

Interface	7-16 DIN Male
Body Style	Straight
Brand	HELIAX® OnePiece™
Mounting Angle	Straight

Electrical Specifications

Connector Impedance	50 ohm
Operating Frequency Band	0 – 2500 MHz
Cable Impedance	50 ohm
3rd Order IMD	-120 dBm @ 910 MHz
3rd Order IMD Test Method	Two +43 dBm carriers
RF Operating Voltage, maximum (vrms)	1415.00 V
dc Test Voltage	4000 V
Outer Contact Resistance, maximum	1.50 mOhm
Inner Contact Resistance, maximum	0.80 mOhm
Insulation Resistance, minimum	5000 MOhm
Average Power	3.0 kW @ 900 MHz
Peak Power, maximum	40.00 kW
Insertion Loss, typical	0.05 dB
Shielding Effectiveness	-130 dB

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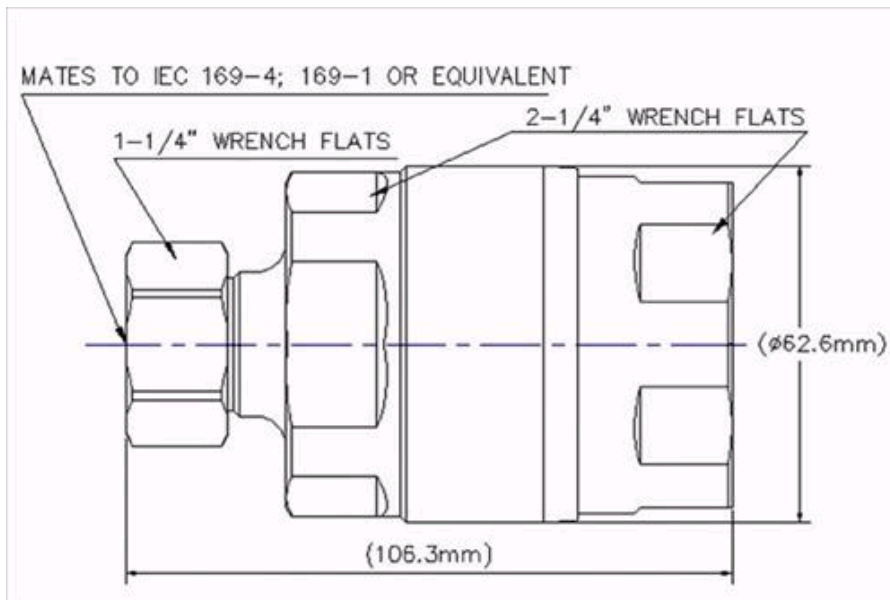
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page 1 of 3
7/22/2010

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Outline Drawing



Mechanical Specifications

Outer Contact Attachment Method	Ball clamp
Inner Contact Attachment Method	Captivated
Outer Contact Plating	Trimetal
Inner Contact Plating	Silver
Attachment Durability	25 cycles
Interface Durability	500 cycles
Interface Durability Method	IEC 61169-4:9.5
Connector Retention Tensile Force	2225 N 500 lbf
Connector Retention Torque	13.60 N-m 120.37 in lb
Insertion Force	200.17 N 45.00 lbf
Insertion Force Method	IEC 61169-1:15.2.4
Pressurizable	No
Coupling Nut Proof Torque	25.00 N-m 221.27 in lb
Coupling Nut Retention Force	1000.00 N 224.81 lbf
Coupling Nut Retention Force Method	MIL-C-39012C-3.25, 4.6.22

Dimensions

Nominal Size	1-5/8 in
Diameter	62.79 mm 2.47 in
Length	105.99 mm 4.17 in

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Weight 730.00 g | 1.61 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
Immersion Test Mating	Unmated
Immersion Test Method	IEC 60529:2001, IP68
Water Jetting Test Mating	Unmated
Water Jetting Test Method	IEC 60529:2001, IP66
Moisture Resistance Test Method	MIL-STD-202F, Method 106F
Mechanical Shock Test Method	MIL-STD-202F, Method 213B, Test Condition C
Thermal Shock Test Method	MIL-STD-202F, Method 107G, Test Condition A-1, Low Temperature -55 °C
Vibration Test Method	IEC 60068-2-6
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

Frequency Band	VSWR	Return Loss (dB)
824–960 MHz	1.02	40.00
1710–1880 MHz	1.02	40.00
1850–1990 MHz	1.02	40.00
1910–2200 MHz	1.02	39.00
2210–2500 MHz	1.04	34.20

* Footnotes

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