

# R7PNM

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Type N Male Low PIM for 1-5/8 in RCT RADIAX® Radiating cable

## Product Classification

<b>Product Type</b>	Wireless and radiating connector
<b>Product Brand</b>	RADIAX®

## General Specifications

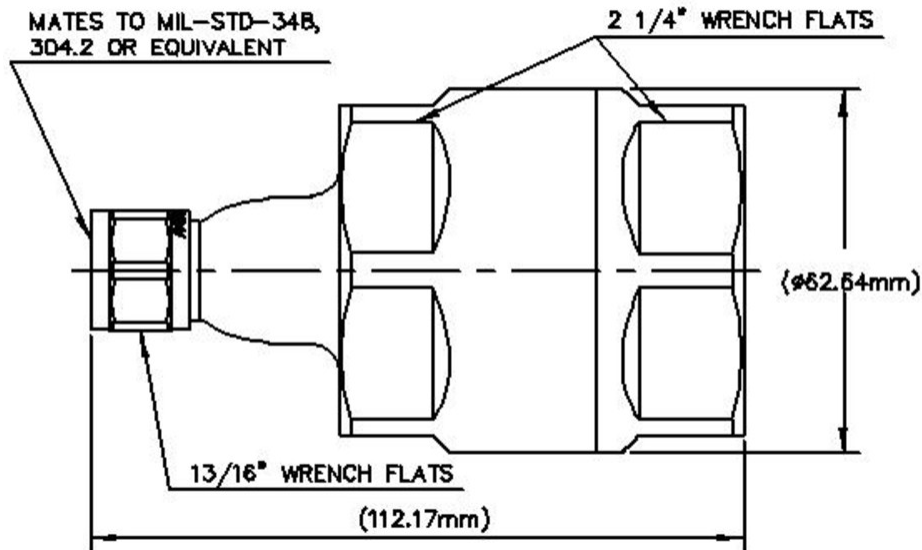
<b>Body Style</b>	Straight
<b>Cable Family</b>	RCT7
<b>Inner Contact Attachment Method</b>	Thread-in stub
<b>Inner Contact Plating</b>	Silver
<b>Interface</b>	N Male
<b>Mounting Angle</b>	Straight
<b>Outer Contact Attachment Method</b>	Clamp
<b>Outer Contact Plating</b>	Trimetal
<b>Pressurizable</b>	No

## Dimensions

<b>Length</b>	112.01 mm   4.41 in
<b>Diameter</b>	62.99 mm   2.48 in
<b>Nominal Size</b>	1-5/8 in

## Outline Drawing

# R7PNM



## Electrical Specifications

<b>3rd Order IMD at Frequency</b>	-107 dBm @ 910 MHz
<b>3rd Order IMD Test Method</b>	Two +43 dBm carriers
<b>Insertion Loss Coefficient, typical</b>	0.05
<b>Average Power at Frequency</b>	0.6 kW @ 900 MHz
<b>Cable Impedance</b>	50 ohm
<b>Connector Impedance</b>	50 ohm
<b>dc Test Voltage</b>	2000 V
<b>Inner Contact Resistance, maximum</b>	2 mOhm
<b>Insulation Resistance, minimum</b>	5000 MOhm
<b>Operating Frequency Band</b>	0 – 2700 MHz
<b>Outer Contact Resistance, maximum</b>	0.3 mOhm
<b>Peak Power, maximum</b>	10 kW
<b>RF Operating Voltage, maximum (vrms)</b>	707 V

## VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
45–1000 MHz	1.141	23.63
1010–2000 MHz	1.228	19.8

# R7PNM

2010–2400 MHz 1.29 18

## Mechanical Specifications

<b>Attachment Durability</b>	25 cycles
<b>Connector Retention Tensile Force</b>	889.64 N   200 lbf
<b>Connector Retention Torque</b>	4.52 N-m   39.997 in lb
<b>Coupling Nut Proof Torque</b>	4.52 N-m   39.997 in lb
<b>Coupling Nut Retention Force</b>	444.82 N   100 lbf
<b>Coupling Nut Retention Force Method</b>	MIL-C-39012C-3.25, 4.6.22
<b>Insertion Force</b>	66.72 N   15 lbf
<b>Insertion Force Method</b>	MIL-C-39012C-3.12, 4.6.9
<b>Interface Durability</b>	500 cycles
<b>Interface Durability Method</b>	IEC 61169-16:9.5
<b>Mechanical Shock Test Method</b>	MIL-STD-202F, Method 213B, Test Condition C

## Environmental Specifications

<b>Operating Temperature</b>	-55 °C to +85 °C (-67 °F to +185 °F)
<b>Storage Temperature</b>	-55 °C to +85 °C (-67 °F to +185 °F)
<b>Attenuation, Ambient Temperature</b>	20 °C   68 °F
<b>Average Power, Ambient Temperature</b>	40 °C   104 °F
<b>Corrosion Test Method</b>	MIL-STD-1344A, Method 1001.1, Test Condition A
<b>Thermal Shock Test Method</b>	MIL-STD-202F, Method 107G, Test Condition A-1, Low Temperature -55 °C

## Packaging and Weights

<b>Weight, net</b>	846.18 g   1.866 lb
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## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

## \* Footnotes

**Insertion Loss Coefficient, typical**  $0.05\sqrt{\text{freq (GHz)}}$  (not applicable for elliptical waveguide)