

# R7PHM

---



Type 4.3-10 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

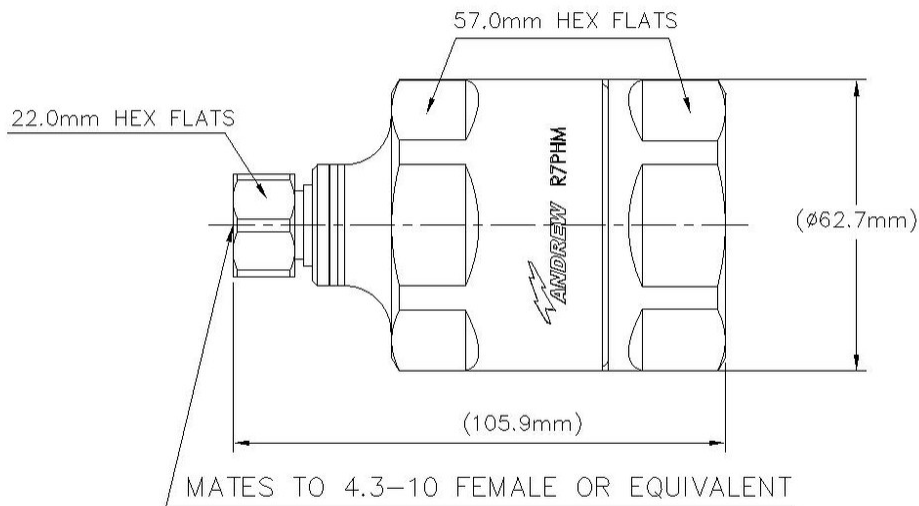
<b>Body Style</b>	Straight
<b>Cable Family</b>	RCT7
<b>Inner Contact Attachment Method</b>	Thread-in stub
<b>Inner Contact Plating</b>	Silver
<b>Interface</b>	4.3-10 Male
<b>Mounting Angle</b>	Straight
<b>Outer Contact Attachment Method</b>	Clamp
<b>Outer Contact Plating</b>	Trimetal

## Dimensions

<b>Length</b>	105.92 mm   4.17 in
<b>Diameter</b>	62.74 mm   2.47 in
<b>Nominal Size</b>	1-5/8 in

## Outline Drawing

# R7PHM



## Electrical Specifications

<b>3rd Order IMD at Frequency</b>	-155 -dBc @ 1800 MHz   -155 -dBc @ 700 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>	0.5 kW @ 2,000 MHz
<b>Cable Impedance</b>	50 ohm
<b>Connector Impedance</b>	50 ohm
<b>dc Test Voltage</b>	2500 V
<b>Inner Contact Resistance, maximum</b>	1 mOhm
<b>Insulation Resistance, minimum</b>	5000 MOhm
<b>Operating Frequency Band</b>	0 – 2700 MHz
<b>Outer Contact Resistance, maximum</b>	1 mOhm
<b>Peak Power, maximum</b>	15 kW
<b>RF Operating Voltage, maximum (vrms)</b>	884 V

## VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
----------------	------	------------------

# R7PHM

---

<b>45–1000 MHz</b>	1.022	39.27
<b>1010–2000 MHz</b>	1.02	40.2
<b>2010–2400 MHz</b>	1.029	36.9

## 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>	10 N-m   88.499 in lb
<b>Coupling Nut Retention Force</b>	449.98 N   101.16 lbf
<b>Interface Durability</b>	500 cycles
<b>Interface Durability Method</b>	IEC 61169-16:9.5
<b>Mechanical Shock Test Method</b>	IEC 60068-2-27

## 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>	IEC 60068-2-11
<b>Moisture Resistance Test Method</b>	IEC 60068-2-3
<b>Thermal Shock Test Method</b>	IEC 60068-2-14
<b>Vibration Test Method</b>	IEC 60068-2-6

## Packaging and Weights

<b>Weight, net</b>	874.99 g   1.929 lb
--------------------	---------------------

## Regulatory Compliance/Certifications

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



## \* Footnotes

# R7PHM

---

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