

R7PHM



Type 4.3-10 Male Low PIM for 1-5/8 in RCT RADIAX® Radiating cable

Product Classification

Product Type	Wireless and radiating connector
Product Brand	RADIAX®

General Specifications

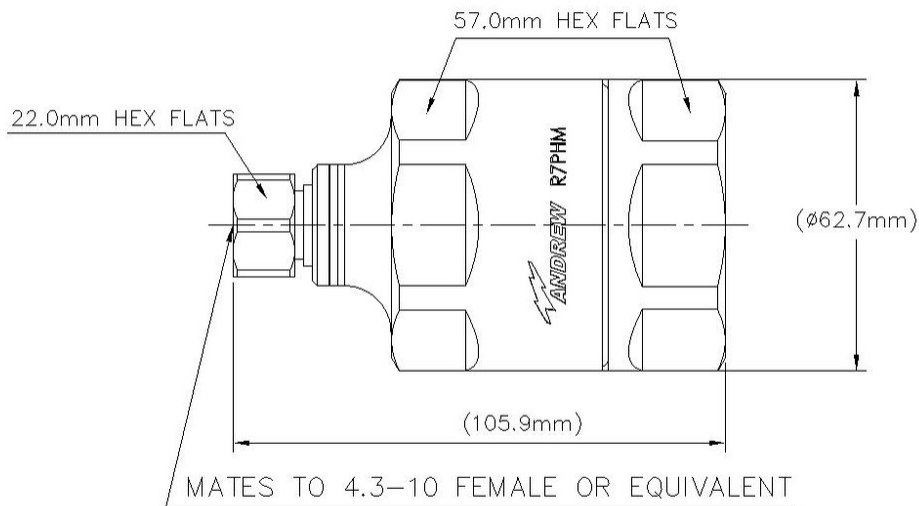
Body Style	Straight
Cable Family	RCT7
Inner Contact Attachment Method	Thread-in stub
Inner Contact Plating	Silver
Interface	4.3-10 Male
Mounting Angle	Straight
Outer Contact Attachment Method	Clamp
Outer Contact Plating	Trimetal

Dimensions

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

Outline Drawing

R7PHM



Electrical Specifications

3rd Order IMD at Frequency	-155 -dBc @ 1800 MHz -155 -dBc @ 700 MHz
3rd Order IMD Test Method	Two +43 dBm carriers
Insertion Loss Coefficient, typical	0.05
Average Power at Frequency	0.5 kW @ 2,000 MHz
Cable Impedance	50 ohm
Connector Impedance	50 ohm
dc Test Voltage	2500 V
Inner Contact Resistance, maximum	1 mOhm
Insulation Resistance, minimum	5000 MOhm
Operating Frequency Band	0 – 2700 MHz
Outer Contact Resistance, maximum	1 mOhm
Peak Power, maximum	15 kW
RF Operating Voltage, maximum (vrms)	884 V

VSWR/Return Loss

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

R7PHM

45–1000 MHz	1.022	39.27
1010–2000 MHz	1.02	40.2
2010–2400 MHz	1.029	36.9

Mechanical Specifications

Attachment Durability	25 cycles
Connector Retention Tensile Force	889.64 N 200 lbf
Connector Retention Torque	4.52 N-m 39.997 in lb
Coupling Nut Proof Torque	10 N-m 88.499 in lb
Coupling Nut Retention Force	449.98 N 101.16 lbf
Interface Durability	500 cycles
Interface Durability Method	IEC 61169-16:9.5
Mechanical Shock Test Method	IEC 60068-2-27

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 °C 68 °F
Average Power, Ambient Temperature	40 °C 104 °F
Corrosion Test Method	IEC 60068-2-11
Moisture Resistance Test Method	IEC 60068-2-3
Thermal Shock Test Method	IEC 60068-2-14
Vibration Test Method	IEC 60068-2-6

Packaging and Weights

Weight, net	874.99 g 1.929 lb
--------------------	---------------------

Regulatory Compliance/Certifications

Agency	Classification
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)