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7-16 DIN Female 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	7-16 DIN Female
Mounting Angle	Straight
Outer Contact Attachment Method	Clamp
Outer Contact Plating	Trimetal
Pressurizable	No

Dimensions

Length	95.76 mm | 3.77 in
Diameter	62.74 mm | 2.47 in
Nominal Size	1-5/8 in

Outline Drawing

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MATES TO IEC 169-4, 169-1 OR EQUIVALENT

2 1/4" WRENCH FLATS

(ø62.64mm)

M29 x 1.5–6g THREAD

(95.80mm)
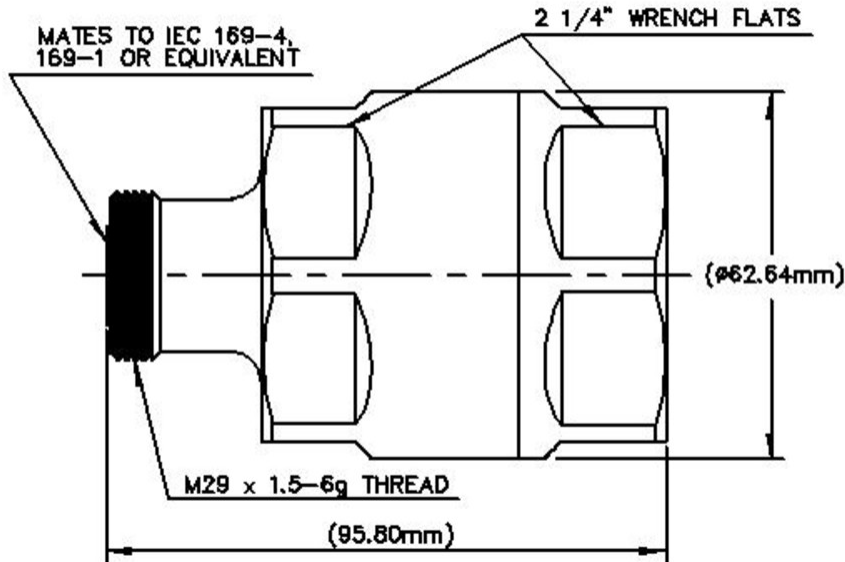
Electrical Specifications

3rd Order IMD at Frequency	-107 dBm @ 910 MHz
3rd Order IMD Test Method	Two +43 dBm carriers
Insertion Loss Coefficient, typical	0.05
Average Power at Frequency	3.0 kW @ 900 MHz
Cable Impedance	50 ohm
Connector Impedance	50 ohm
dc Test Voltage	4000 V
Inner Contact Resistance, maximum	0.8 mOhm
Insulation Resistance, minimum	5000 MOhm
Operating Frequency Band	0 – 2700 MHz
Outer Contact Resistance, maximum	1.5 mOhm
Peak Power, maximum	40 kW
RF Operating Voltage, maximum (vrms)	1415 V

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
45–1000 MHz	1.065	30.04
1010–2000 MHz	1.065	30.04

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2210–2700 MHz	1.08	28.3

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
Insertion Force	200.17 N | 45 lbf
Insertion Force Method	IEC 61169-1:15.2.4
Interface Durability	500 cycles
Interface Durability Method	IEC 61169-4:9.5
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 °C | 68 °F
Average Power, Ambient Temperature	40 °C | 104 °F
Corrosion Test Method	MIL-STD-1344A, Method 1001.1, Test Condition A
Thermal Shock Test Method	MIL-STD-202F, Method 107G, Test Condition A-1, Low Temperature -55 °C

Packaging and Weights

Weight, net	824.08 g | 1.817 lb

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
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
ROHS	Compliant
UK-ROHS	Compliant

* Footnotes

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

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