Amphenol® RF

2.92 mm Connector Series

High-Frequency Millimeter Wave Interface

Overview

Amphenol RF offers 2.92 mm connectors designed for precision laboratory use and SATCOM application. This connector series is engineered to offer low VSWR and excellent return and insertion loss, along with high power handling capabilities. 2.92 connectors are sometimes referred to as K connectors and have the ability to mate with SMA, 3.5 mm and other K or 2.92 mm interconnects.

2.92 mm connectors utilize a smaller internal body diameter and unique air dielectric which allows it to operate up to 40 GHz. With a shorter male pin than both the SMA and 3.5 mm connector, the bodies of the male and female connectors engage before the pin and socket contacts. This feature mitigates wear from mating misalignment with dissimilar interfaces.

Features and Benefits

- High performance up to 40 GHz
- Low VSWR
- Excellent return loss and insertion loss
- Ruggedized construction for repeatability
- Compatible to mate with SMA and 3.5 mm connectors, and other K or 2.92 mm interfaces
- Connector interface meets MIL-STD-348 standard

Applications

- Optical Testing
- Lab & Bench Testing
- Military
- Satellite Communication Equipment (SATCOM)
- Microwave
- Quantum Computing

Ordering Information

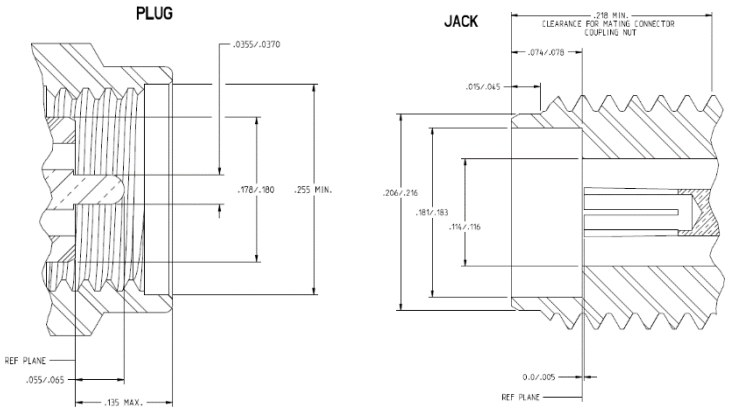
2.92 mm Cable Mount Connectors

Part Number	Description
292-101P-52S	2.92 mm Straight Plug RG-405, 0.086" Conformable
292-100J-25S	2.92 mm Straight Jack RG-405, 0.086" Conformable
292-110J-52S	2.92 mm Straight Plug, 0.141" Conformable
292-111P-52S	2.92 mm Straight Plug, 0.141" Conformable

2.92 mm Solderless PCB Connectors

Part Number	Description
292-108J-52S	Solderless 2.92 mm Vertical PCB Jack Microstrip
292-109J-52S	Solderless 2.92 mm Vertical PCB Jack Stripline

Interface Dimensions



Amphenol RF
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Danbury, CT 06810

For more information visit www.amphenolrf.com or call 800.627.7100

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Technical Specifications

Electrical

Impedance	50Ω
Frequency Range	DC - 40 GHz
Voltage Rating	200 VRMS Continuous Max
Dielectric Withstanding Voltage	600 VRMS Min
VSWR (Return Loss)	1.30:1 (-17.5 dB) Max
Insulation Resistance	5000 MΩ Min

Environmental

Temperature Range	−65°C to +165°C
RoHS Compliance	Compliant with Exemption 6C

Mechanical

Mating Cycles	500 Min
Coupling Mechanism	Threaded

Materials

Body	Stainless Steel, Gold Plating
Contact	Beryllium Copper, Gold Plating
Hex Nut	Stainless Steel, Passivated
Lock Washer	Stainless Steel, Passivated
Insulator	Ultem 1000, Natural
Solder Nut	Stainless Steel, Gold Plating
Gasket	Silicone Rubber, Red

Note: Technical specifications are typical and may vary by specific part number. Please see customer outline drawing.

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