CON292003-1-G

2.92 mm Jack PCB Compression Surface-Mount Connector

The CON292003-1-G is a 2.92 mm jack (female socket) PCB solderless surface-mount connector designed for installation directly to a printed circuit board using the provided screws.

Operating from 0 Hz to 40 GHz, the CON292003-1-G combines superior performance, compact size, and a convenient threaded mating interface to provide a reliable, easy-to-use connector. Additionally, all Linx connectors meet RoHS lead free standards and are tested to meet requirements for corrosion resistance, vibration, mechanical and thermal shock.

FEATURES

- 0 Hz to 40 GHz operation
- Gold plated brass body
- Gold plated beryllium copper center contact
- Gold plated brass clamp
- 2x hex head cap screws, provided
- Direct PCB attachment
- Solderless compression-mount design

APPLICATIONS

- Satellite communications
- Test and measurement
- Radar
- Experimental

TABLE 1. ELECTRICAL SPECIFICATIONS

Parameter	Value
Impedance	50 Ω
Frequency Range	0 Hz to 40 GHz
Dielectric Withstanding Voltage	750 V RMS
Contact Resistance	Center: ≤ 3.0 mΩ Outer: ≤ 2.0 mΩ
Insulation Resistance	5000 MΩ min.
Insertion Loss (dB max)	0.1
VSWR (max)	1.1

ORDERING INFORMATION

Part Number	Description
CON292003-1-G	2.92 mm jack (female socket) PCB solderless surface-mount connector with split washers and pan-head 0-80UNF-2A screws

Available from Linx Technologies and select distributors and representatives.

PRODUCT DIMENSIONS

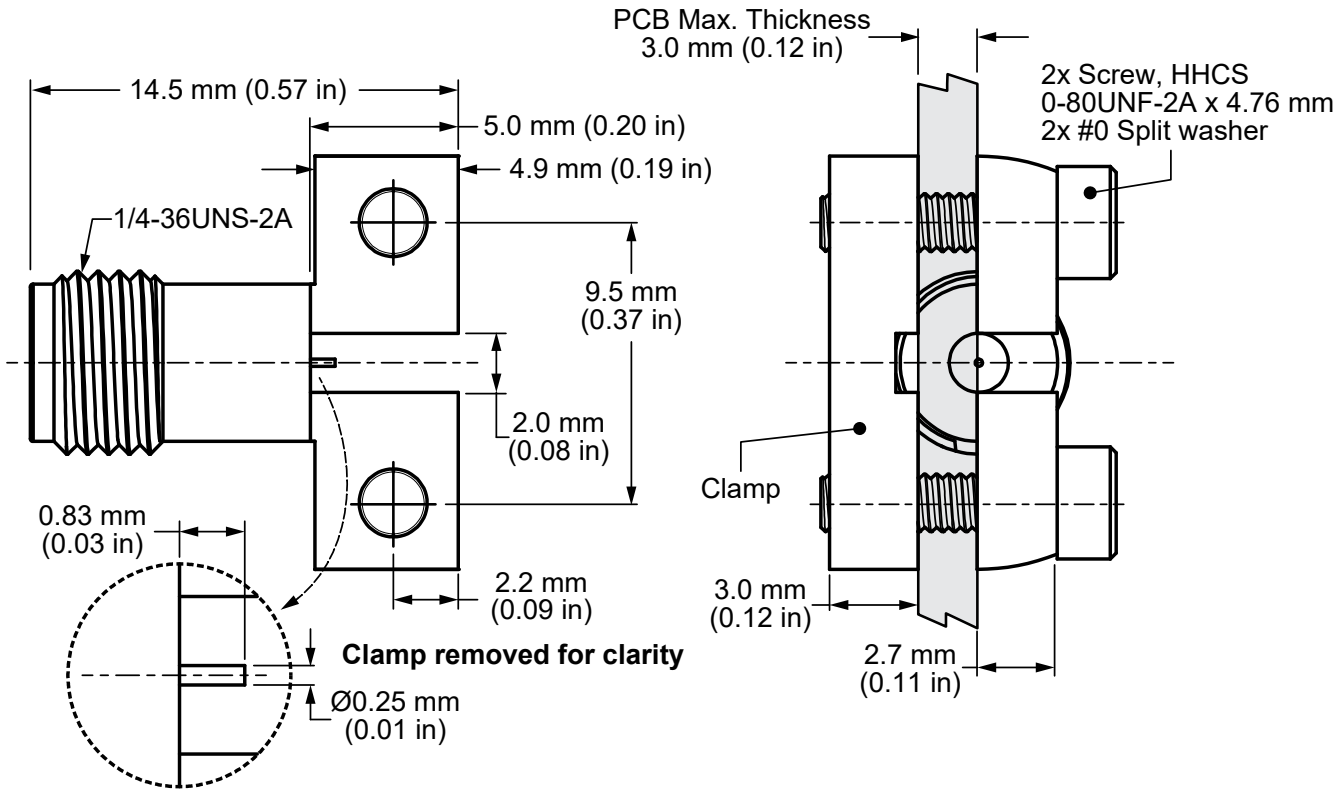

Figure 1: Product Dimensions for the CON292003-1-G Connector

TABLE 2. CONNECTOR COMPONENTS

Model	CON292003-1-G	
Connector Part	**Material**	**Finish**
Connector Body	Brass	Gold
Center Contact (female socket)	Beryllium Copper	Gold
Screw, HHCS (2x) 0-80UNF-2A	Stainless Steel	Passivated

RECOMMENDED PCB FOOTPRINT

Figure 2 shows the connectors recommended PCB footprint and mounting requirements. The provided screws should be tightened to a torque setting not to exceed 0.3N:m.

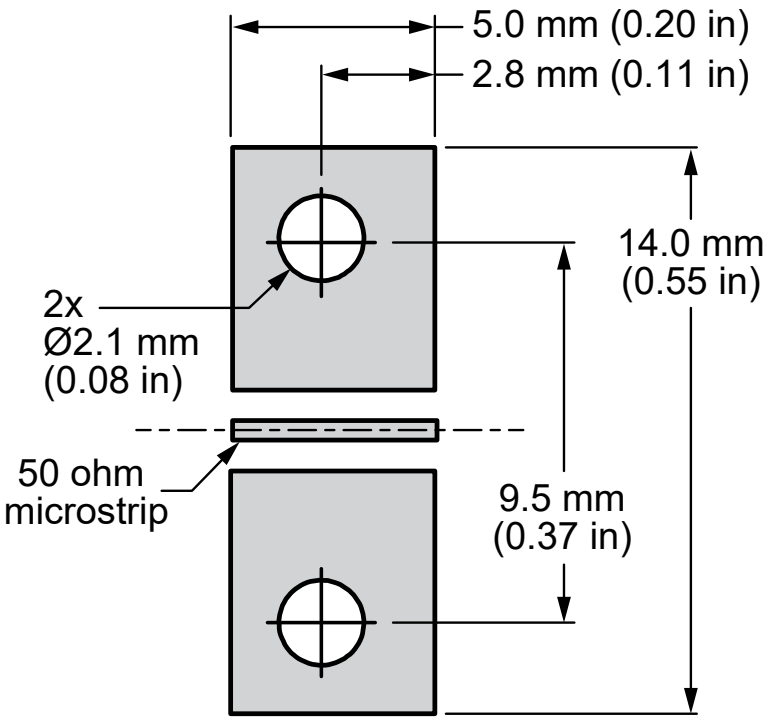

Figure 2: Recommended PCB Dimensions for the CON292003-1-G

TABLE 3. MECHANICAL SPECIFICATIONS

Model	CON292003-1-G
Mounting Type	Solderless PCB end-launch design
Fastening Type	1/4-36UNS Threaded Coupling
Interface in Accordance with	MIL-STD-348B
Connector Durability	500 cycles min.
Recommended torque	8.0 in. -lbs
Weight	4.3 g (0.15 oz)

INSERTION LOSS

Figure 3 shows the Insertion Loss for the CON292003-1-G connector. Insertion loss is the loss of signal power (gain) resulting from the insertion of a device in a transmission line.

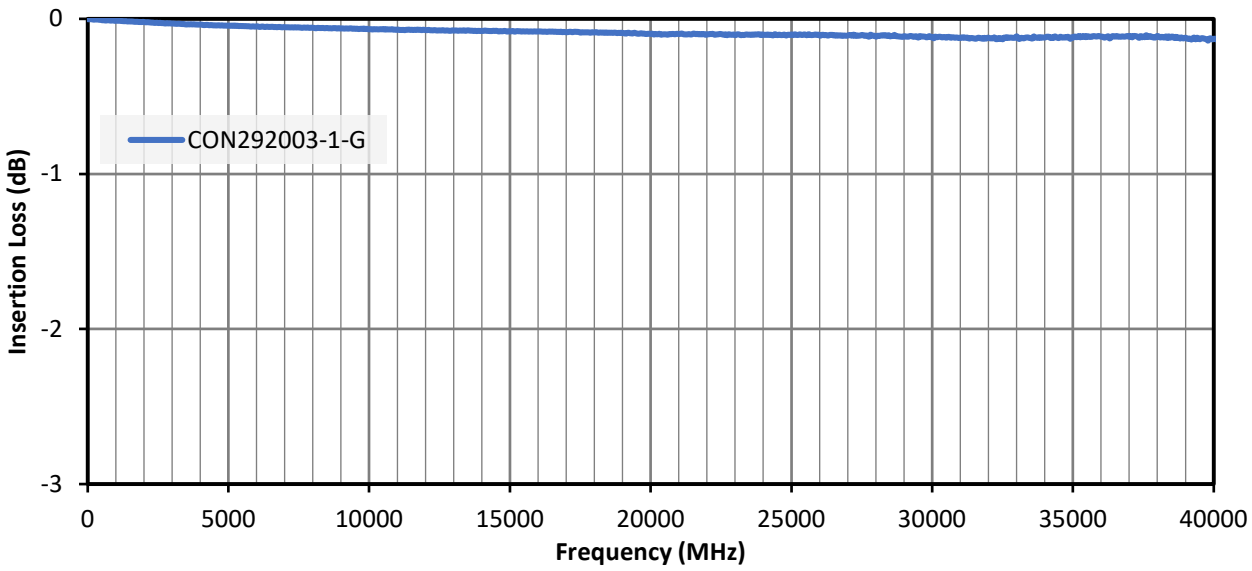

Figure 3: Insertion Loss for the CON292003-1-G Connector

VSWR

Figure 4 provides the voltage standing wave ratio (VSWR) across the adapter's bandwidth for the CON292003-1-G connector. VSWR describes how efficiently power is transmitted. A lower VSWR value indicates better performance at a given frequency.

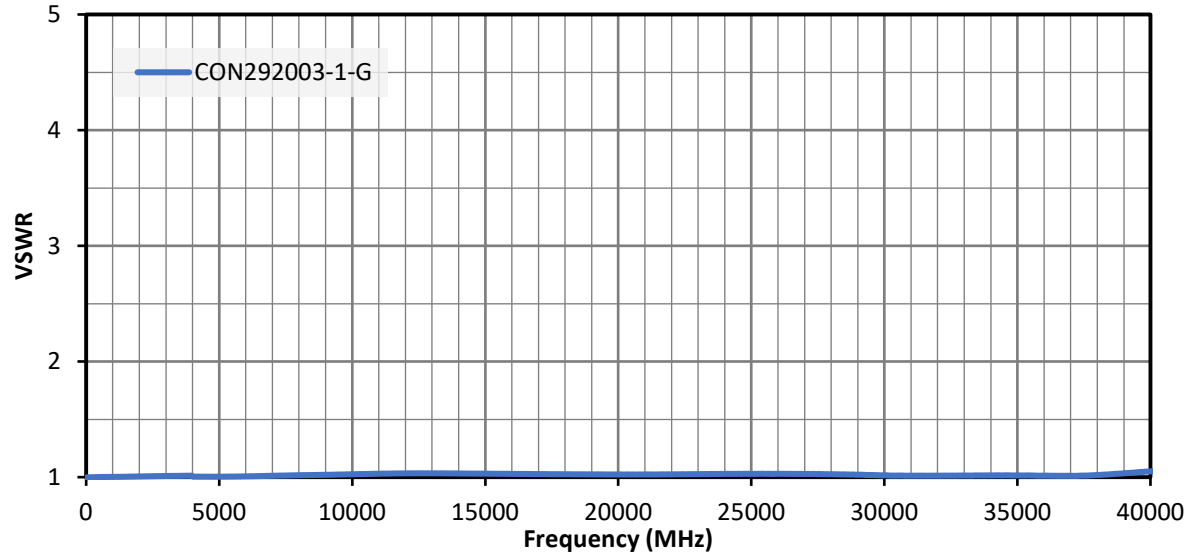

Figure 4: VSWR for the CON292003-1-G Connector

PACKAGING INFORMATION

The CON292003-1-G connector is individually placed in a clear anti-static polyethylene bag. 25 pcs are packaged in a larger anti-static polyethylene bag. 100 pcs are packaged in a shipping carton (370 mm x 330 mm x 240 mm). Distribution channels may offer alternative packaging options.

CONNECTOR & ADAPTER DEFINITIONS AND USEFUL FORMULAS

VSWR - Voltage Standing Wave Ratio. VSWR is a unitless ratio that describes how efficiently power is transmitted through the connector. A lower VSWR value indicates better performance at a given frequency. VSWR is easily derived from Return Loss.

$$\text{VSWR} = \frac{10^{\left[\frac{\text{Return Loss}}{20}\right]} + 1}{10^{\left[\frac{\text{Return Loss}}{20}\right]} - 1}$$

Insertion Loss - The loss of signal power (gain) resulting from the insertion of a device in a transmission line. Insertion loss can be derived from the power transmitted to the load before the insertion of the component P_T and the power transmitted to the load after the insertion of the component P_R .

$$Insertion\ Loss\ (\text{dB}) = 10 \log_{10} \frac{P_T}{P_R}$$

TE TECHNICAL SUPPORT CENTER

USA:	+1 (800) 522-6752
Canada:	+1 (905) 475-6222
Mexico:	+52 (0) 55-1106-0800
Latin/S. America:	+54 (0) 11-4733-2200
Germany:	+49 (0) 6251-133-1999
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