Datasheet

ADP-SMAF-SMBM-G
SMA Jack to SMB Plug Adapter

The ADP-SMAF-SMBM-G is an SMA jack to SMB plug adapter. Operating from 0 GHz to 4 GHz, the ADP-SMAF-SMBM-G combines superior performance, compact size, and a convenient snap-on mating interface to provide a reliable, easy-to-use adapter. Additionally, all Linx adapters meet RoHS lead free standards and are tested to meet requirements for corrosion resistance, vibration, mechanical and thermal shock.

Features

- 0 to 4 GHz operation
- Gold plating
  - Superior corrosion resistance
- SMA jack (female socket) connection
  - Gold plated beryllium copper center contact
- SMB plug (female socket) connection
  - Gold plated beryllium copper center contact

Applications

- LPWA
  - LoRaWAN®, Sigfox®, WiFi HaLow™ (802.11ah)
- Cellular IoT
  - LTE-M (Cat-M1), NB-IoT
- Cellular
  - 5G/4G LTE/3G/2G
- GNSS
  - GPS, Galileo, GLONASS, BeiDou, QZSS
- Industrial/Commercial/Enterprise
- ISM

Table 1. Electrical Specifications

Impedance	50 Ω	
Frequency Range	0 to 4 GHz	
Voltage Rating	750 V RMS	
Contact Resistance	Center: ≤ 6.0 mΩ Outer: ≤ 2.0 mΩ	
Select Frequencies	**400 MHz to 960 MHz**	**2.4 GHz**
Insertion Loss (dB max)	-0.08	-0.12
VSWR (max)	1.0	1.1

Ordering Information

Part Number	Description
ADP-SMAF-SMBM-G	SMA jack (female socket) to SMB plug (female socket) adapter

Available from Linx Technologies and select distributors and representatives.

Product Dimensions

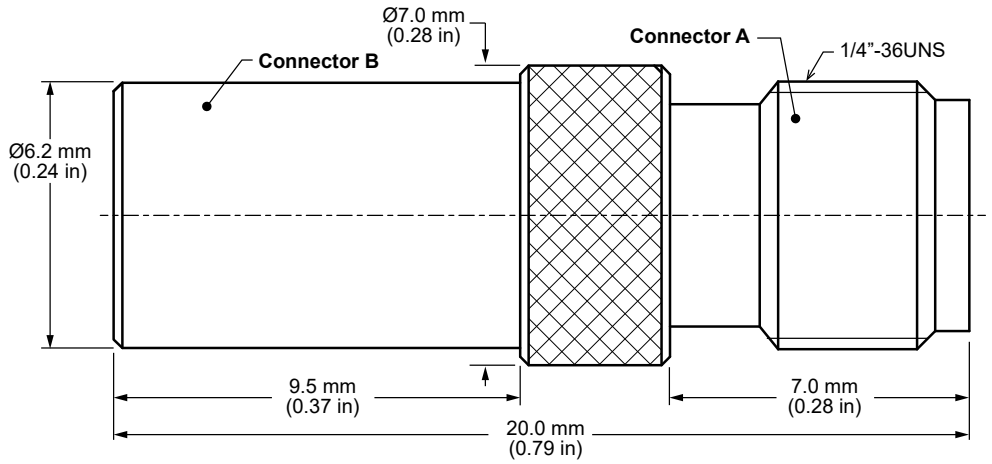

Figure 1. Product Dimensions for the ADP-SMAF-SMBM-G Adapter

Table 2. Adapter Components

ADP-SMAF-SMBM-G	Connector A SMA jack (female socket)		Connector B SMB plug (female socket)	
Connector Part	**Material**	**Finish**	**Material**	**Finish**
Body	Brass	Gold	Brass	Gold
Center Contact	Beryllium Copper	Gold	Beryllium Copper	Gold
Insulator	PTFE	–	PTFE	–

Adapter Performance

Table 3 shows insertion loss and VSWR values for the ADP-SMAF-SMBM-G adapter at commonly used frequencies.

Insertion loss is the loss of signal power (gain) resulting from the insertion of a device in a transmission line. VSWR describes how efficiently power is transmitted through the adapter. A lower VSWR value indicates better performance at a given frequency.

Table 3. Insertion Loss and VSWR for the ADP-SMAF-SMBM-G Adapter

Band	Low-Band Cellular/ ISM/LPWA	GNSS	Midband Cellular	WiFi/ISM
Frequency Range	400 MHz to 960 MHz	1164 MHz to 1609 MHz	1427 MHz to 5000 MHz	2.4 GHz
Insertion Loss (dB max)	-0.08	-0.10	-0.19	-0.12
VSWR (max)	1.0	1.1	1.2	1.1

Table 4. Mechanical Specifications

ADP-SMAF-SMBM-G	Connector A SMA jack (female socket)	Connector B SMB plug (male pin)
Mounting Type	Inline, Free-hanging	
Fastening Type	1/4"-36UNS Threaded Coupling	Snap-on Coupling
Interface in Accordance with	MIL-STD-348A	MIL-STD-348A
Recommended Torque	0.57 N·m (5.0 in·lbs)	n/a
Coupling Nut Retention	60 lbs min.	n/a
Durability	500 cycles min.	500 cycles min.
Weight	2.2 g (0.08 oz)	

Table 5. Environmental Specifications

MIL-STD, Method, Test Condition	
Corrosion (Salt spray)	MIL-STD-202 Method 101 test condition B
Thermal Shock	MIL-STD-202 Method 107 test condition B
Vibration	MIL-STD-202 Method 204 test condition B
Mechanical Shock	MIL-STD-202 Method 213 test condition I
Temperature Range	-65 °C to +165 ° C
Environmental Compliance	RoHS

Packaging Information

The ADP-SMAF-SMBM-G adapter is sealed in a plastic bag of 50 pcs. Bags are placed in cartons (4000 pcs.) Distribution channels may offer alternative packaging options.

Website: http://linxtechnologies.com
Linx Offices: 159 Ort Lane, Merlin, OR, US 97532
Phone: +1 (541) 471-6256
E-MAIL: info@linxtechnologies.com

Doc# DS20339-126CON