## 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, easyto-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<sup>®</sup>, Sigfox<sup>®</sup>, 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	l GHz	
Voltage Rating	750 V RMS		
Contact Resistance	Center: $\leq 6.0 \text{ m}\Omega$ Outer: $\leq 2.0 \text{ m}\Omega$		
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**

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

Available from Linx Technologies and select distributors and representatives.

## Product Dimensions

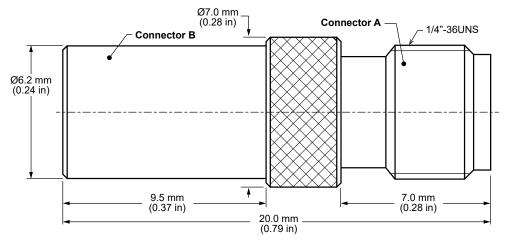


Figure 1. Product Dimensions for the ADP-SMAF-SMBM-G Adapter

Table 2.	Adapter Components	

ADP-SMAF-SMBM-G	Connector A SMA jack (female socket)				Conne SMB plug (fei	
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.

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



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Table 4. Mechanical Specifications				
ADP-SMAF-SMBM-G	Connector A Connector B SMA jack (female socket) 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 4. Mechanical Specifications

#### 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.



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