



ADP-SMAF-SMBF-G

SMA Jack to SMB Jack Adapter

The ADP-SMAF-SMBF-G is an SMA jack to SMB jack adapter. Operating from 0 GHz to 4 GHz, the ADP-SMAF-SMBF-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 jack (male pin) 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/2GE
- GNSS
 - GPS, Galileo, GLONASS, BeiDou, QZSS
- Industrial/Commercial/Enterprise
- ISM

ORDERING INFORMATION

| Part Number | Description |
|-----------------|---|
| ADP-SMAF-SMBF-G | SMA jack (female socket) to SMB jack (male pin) adapter |

Available from Linx Technologies and select distributors and representatives.

TABLE 1. ELECTRICAL SPECIFICATIONS

| Frequency Range | | |
|--------------------------|--|---------|
| Impedance | 50 Ω | |
| Frequency Range | 0 to 4 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.) | -0.06 | -0.10 |
| VSWR (max.) | 1.0 | 1.1 |

PRODUCT DIMENSIONS

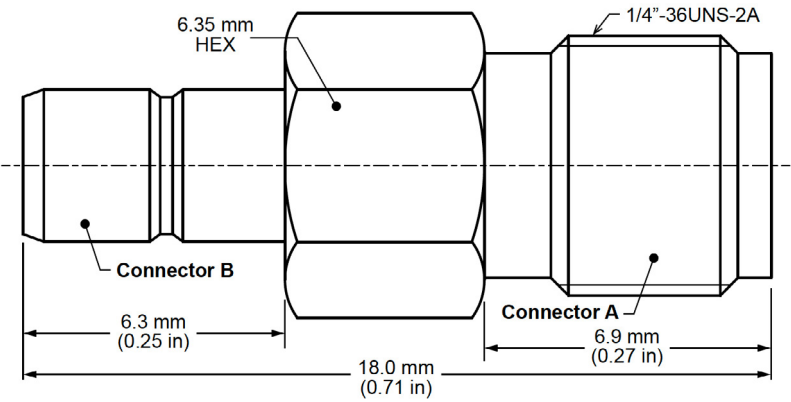


Figure 1. Product Dimensions for the ADP-SMAF-SMBF-G Adapter

TABLE 2. ADAPTER COMPONENTS

| ADP-SMAF-SMBM-G | Connector A SMA jack (female socket) | | Connector B SMB jack (male pin) | |
|-----------------|---|--------|------------------------------------|--------|
| 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-SMBF-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-SMBF-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.) | -0.06 | -0.08 | -0.17 | -0.10 |
| VSWR (max.) | 1.0 | 1.1 | 1.2 | 1.1 |

TABLE 4. MECHANICAL SPECIFICATIONS

| ADP-SMAF-SMBF-G | Connector A SMA jack (female socket) | Connector B SMB jack (female socket) |
|------------------------------|---|---|
| Mounting Type | Inline, Free-hanging | |
| Fastening Type | 1/4"-36UNS Threaded Coupling | Snap-on Coupling |
| Interface in Accordance with | MIL-STD-348A | MIL-STD-348B |
| 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 | 3.0 g (0.11 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-SMBF-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.

TE TECHNICAL SUPPORT CENTER

| | |
|-------------------|-----------------------|
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