

ADP-SMPF-SMPF-G SMP Jack to SMP Jack Adapter

The ADP-SMPF-SMPF-G is an SMP jack to SMP jack adapter. Operating from 0 GHz to 26.5 GHz, the ADP-SMPF-SMPF-G combines superior performance, compact size, and a convenient snap-on mating interface to provide a reliable, easy-to-use adapter. Linx SMP adapters are ideal for making board-to-board connections. 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 26.5 GHz operation
- Gold plating
 - Superior corrosion resistance
- SMP jack (female socket) connection
 - Gold plated beryllium copper center contact
- Ideal for board-to-board connections

Applications

- Cellular IoT
 - LTE-M (Cat-M1), NB-IoT
- Cellular
 - 5G/4G LTE/3G/2G
- WiFi/WLAN
 - WiFi 6/6E
- GNSS
 - GPS, Galileo, GLONASS, BeiDou, QZSS
- Radar, Satellite Communications, Experimental
- Industrial, Commercial, Enterprise

Table 1. Electrical Specifications

| Impedance | 50 Ω | |
|---------------------------------|----------------------------------|-------------------------|
| Frequency Range | 0 to 26.5 GHz | |
| Voltage Rating | 500 V RMS | |
| Contact Resistance | Center: ≤ 6.0 mΩ Outer: ≤ 3.0 mΩ | |
| Select Frequencies | 1.1 GHz to 5 GHz | 12 GHz to 18 GHz |
| Insertion Loss (dB max.) | 0.10 | 0.28 |
| VSWR (max.) | 1.0 | 1.5 |

Ordering Information

| Part Number | Description |
|------------------------|--|
| ADP-SMPF-SMPF-G | SMP jack (female socket) to SMP jack (female socket) adapter |

Available from Linx Technologies and select distributors and representatives.

Product Dimensions

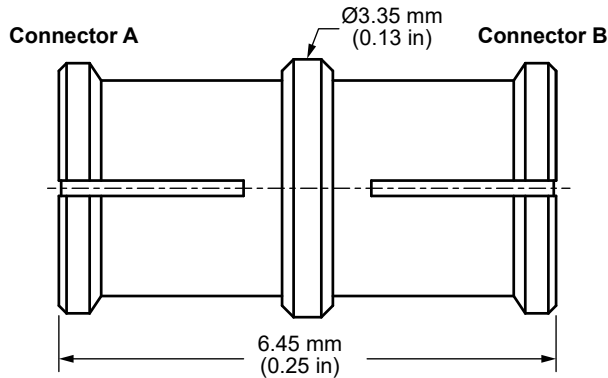


Figure 1. Product Dimensions for the ADP-SMPF-SMPF-G Adapter

Table 2. Adapter Components

| ADP-SMPF-SMPF-G | Connector A SMP jack (female socket) | | Connector B SMP jack (female socket) | |
|-----------------|---|--------|---|--------|
| Connector Part | Material | Finish | Material | Finish |
| Body | Beryllium Copper | Gold | Beryllium Copper | 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-SMPF-SMPF-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-SMPF-SMPF-G Adapter

| Band | Low-Band Cellular/ ISM/LPWA | GNSS, Midband Cellular, Wifi | WiFi 6E | Ku |
|--------------------------|--------------------------------|------------------------------------|--------------------|------------------|
| Frequency Range | 400 MHz to 960 MHz | 1.1 GHz to 5 GHz | 5 GHz to 7.125 GHz | 12 GHz to 18 GHz |
| Insertion Loss (dB max.) | 0.05 | 0.10 | 0.11 | 0.28 |
| VSWR (max.) | 1.0 | 1.0 | 1.1 | 1.5 |

Table 4. Mechanical Specifications

| ADP-SMPF-SMPF-G | Connector A SMP jack (female socket) | Connector B SMP jack (female socket) |
|------------------------------|---|---|
| Mounting Type | Inline, Free-hanging | |
| Fastening Type | Snap-on Coupling | Snap-on Coupling |
| Interface in Accordance with | MIL-STD-348B | MIL-STD-348B |
| Durability | 100 cycles min. | 100 cycles min. |
| Weight | 0.18 g (0.006 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 C |
| Vibration | MIL-STD-202 Method 204 test condition B |
| Mechanical Shock | MIL-STD-202 Method 213 test condition B |
| Moisture Resistance | MIL-STD-202 Method 106 test condition D |
| Temperature Range | -65 °C to +165 ° C |
| Environmental Compliance | RoHS |

Packaging Information

The ADP-SMPF-SMPF-G adapter is sealed in a plastic bag of 100 pcs. Distribution channels may offer alternative packaging options.

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