



## ADP-SMAF-SMPF-G

### SMA Jack to SMP Jack Adapter

The ADP-SMAF-SMPF-G is an SMA jack to SMP jack adapter. Operating from 0 GHz to 20 GHz, the ADP-SMAF-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 20 GHz operation
- Gold plating
  - Superior corrosion resistance
- SSMA jack (female socket) connection
  - Gold plated beryllium copper center contact
- 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

#### ORDERING INFORMATION

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

Available from Linx Technologies and select distributors and representatives.

## TABLE 1. ELECTRICAL SPECIFICATIONS

Frequency Range		
Impedance	50 $\Omega$	
Frequency Range	0 to 20 GHz	
Voltage Rating	750 V RMS	
Contact Resistance	Center: $\leq 6.0$ m $\Omega$ Outer: $\leq 2.0$ m $\Omega$	
Select Frequencies	5 GHz to 7.125 GHz	12 GHz to 18 GHz
Insertion Loss (dB max.)	0.16	0.18
VSWR (max.)	1.1	1.2

## PRODUCT DIMENSIONS

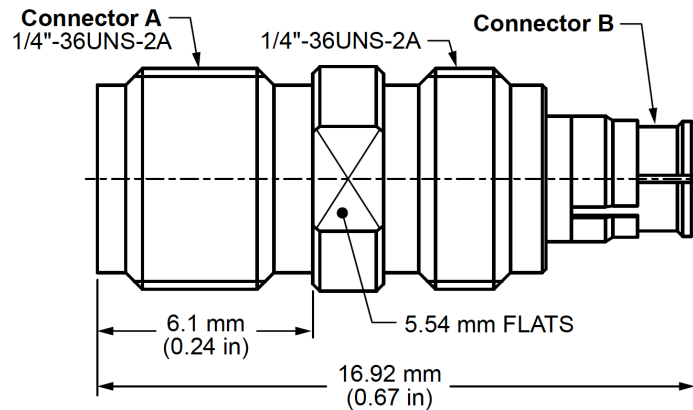


Figure 1. Product Dimensions for the ADP-SMAF-SMPF-G Adapter

## TABLE 2. ADAPTER COMPONENTS

ADP-SMAF-SMPF-G	Connector A SMA jack (female socket)		Connector A SMP jack (female socket)	
	Material	Finish	Material	Finish
Connector Part	Brass	Gold	Brass	Gold
Body	Beryllium Copper	Gold	Beryllium Copper	Gold
Center Contact	PTFE	-	PTFE	-
Insulator				

## ADAPTER PERFORMANCE

Table 3 shows insertion loss and VSWR values for the ADP-SMAF-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-SMAF-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.)	0.07	0.15	0.16	0.18
VSWR (max.)	1.0	1.1	1.1	1.2

**TABLE 4. MECHANICAL SPECIFICATIONS**

ADP-SMAF-SMPF-G	Connector A SMA jack (female socket)	Connector B SMP 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	1.88 g (0.07 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-SMAF-SMPF-G adapter is sealed in a plastic bag of 100 pcs. Distribution channels may offer alternative packaging options.

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## 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
UK:	+44 (0) 800-267666
France:	+33 (0) 1-3420-8686
Netherlands:	+31 (0) 73-6246-999
China:	+86 (0) 400-820-6015

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