

ADP-SMAF-SMPM-SSB

SMA Jack to SMP Plug Adapter

The ADP-SMAF-SMPM-SSB is an SMA jack to SMP bulkhead plug adapter that provides a seal when mounted to an enclosure using the provided silicone gasket. Operating from 0 GHz to 20 GHz, the ADP-SMAF-SMPM-SSB 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
- SMA jack (female socket) connection
 - Gold plated beryllium copper center contact
- SMA plug (male pin) connection
 - Gold plated beryllium copper center contact
- Silicone gasket provided
- Ideal for board-to-board connections

APPLICATIONS

- Cellular IoT
 - LoRaWAN®, Sigfox®, WiFi HaLow™ (802.11ah)
- 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-SMPM-SSB	SMA jack (female socket) to SMP plug (male pin) bulkhead adapter with silicone gasket

Available from Linx Technologies and select distributors and representatives.

TABLE 1. ELECTRICAL SPECIFICATIONS

Frequency Range		
Impedance	50 Ω	
Frequency Range	0 to 20 GHz	
Voltage Rating	335 V RMS	
Contact Resistance	Center: $\leq 6.0\text{ m}\Omega$ Outer: $\leq 3.0\text{ m}\Omega$	
Select Frequencies	5 GHz to 7.125 GHz	12 GHz to 18 GHz
Insertion Loss (dB max.)	0.22	0.26
VSWR (max.)	1.2	1.2

PRODUCT DIMENSIONS

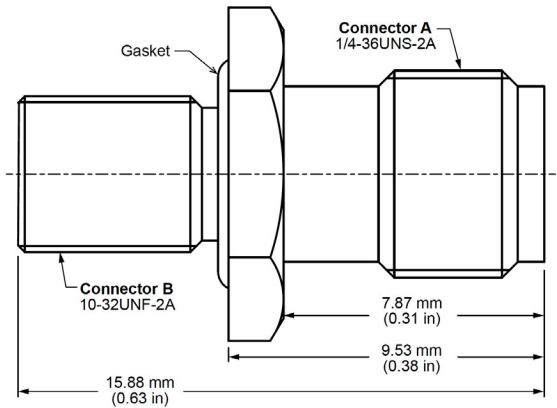


Figure 1. Product Dimensions for the ADP-SMAF-SMPM-SSB Adapter

TABLE 2. ADAPTER COMPONENTS

ADP-SMAF-SMPM-SSB	Connector A SMA jack (female socket)		Connector B SMP bulkhead plug (male pin)	
Connector Part	Material	Finish	Material	Finish
Body	Stainless Steel	Passivated	Stainless Steel	Passivated
Center Contact	Beryllium Copper	Gold	Beryllium Copper	Gold
Insulator	PTFE	-	PTFE	-
Gasket	-	-	Silicone	-

ADAPTER PERFORMANCE

Table 3 shows insertion loss and VSWR values for the ADP-SMAF-SMPM-SSB 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-SMPM-SSB 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.)	0.09	0.16	0.22	0.26
VSWR (max.)	1.0	1.0	1.2	1.2

TABLE 4. MECHANICAL SPECIFICATIONS

ADP-SMAF-SMPM-SSB	Connector A SMA jack (female socket)	Connector B SMP bulkhead plug (male pin)
Mounting Type	Panel Mount	
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.	100 cycles min.
Weight	1.94 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-SMPM-SSB adapter is sealed in a plastic bag of 100 pcs. Distribution channels may offer alternative packaging options.

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