

## Datasheet



### CONSMB007-G SMB Plug Cable Mount Connector

The CONSMB007-G is an SMB plug connector designed for use with RG-174, RG-188, RG-188/A, 316, LMR-100, M17/119-RG-174 or equivalent coaxial cable using the provided crimp ferrule and heat shrink tubing. Operating from 0 GHz to 12 GHz, the CONSMB007-G combines superior performance, compact size, and a convenient snap-on mating interface to provide a reliable, easy-to-use connector. Additionally, all Linx connectors meet RoHS lead free standards and are tested to meet requirements for corrosion resistance, vibration, mechanical and thermal shock.

#### Features

- 0 to 12 GHz operation
- Gold plating
  - Superior corrosion resistance
- SMB plug (female socket) connection
  - Gold plated beryllium copper center contact
- Crimp type coaxial cable mount for use with
  - RG-174, RG-188, RG-188/A
  - 316, LMR-100
  - M17/119-RG-174 RG-8
- Crimp ferrule and heat shrink tubing provided



#### Applications

- LPWA
  - LoRaWAN®, Sigfox®, 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 GHz	
Voltage Rating	750 V RMS	
Contact Resistance	Center: ≤ 6.0 mΩ Outer: ≤ 1.0 mΩ	
Select Frequencies	400 MHz to 960 MHz	2.4 GHz
Insertion Loss (dB max)	-0.13	-0.22
VSWR (max)	1.1	1.1

#### Ordering Information

Part Number	Description
CONSMB007-G	SMB plug (female socket) cable-mount connector

Available from Linx Technologies and select distributors and representatives.

## Product Dimensions

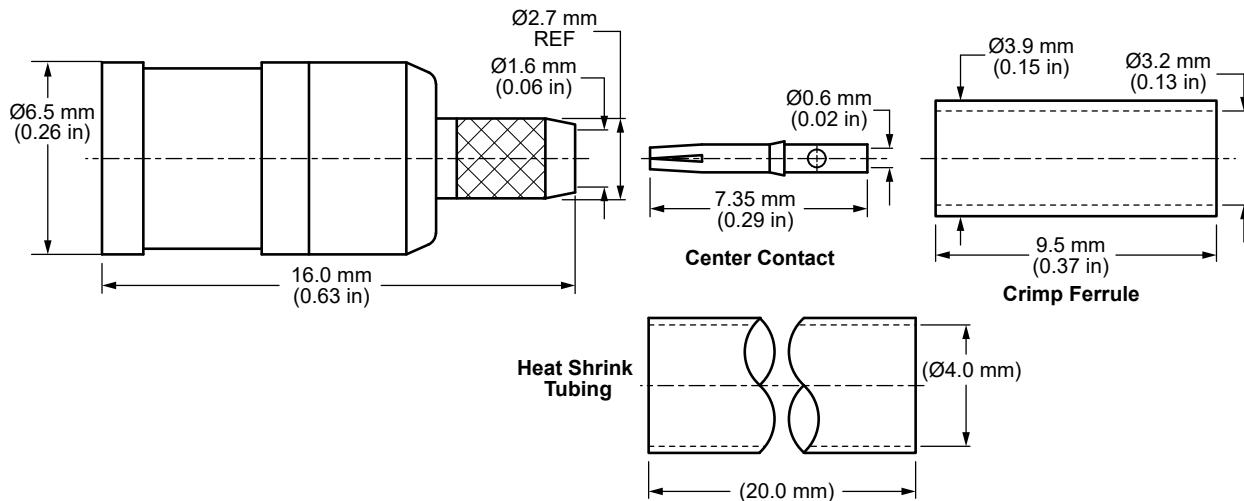


Figure 1. Product Dimensions for the CONSMBO07-G Connector

Table 2. Connector Components

Model	CONSMBO07-G	
Connector Part	Material	Finish
Connector Body	Brass	Gold
Center Contact (socket)	Beryllium Copper	Gold
Insulator	PTFE	–
Crimp Ferrule	Brass	Gold
Heat Shrink Tubing	PE	–

## Coaxial Cable Installation

The CONSMBO07-G provides a crimp type coaxial cable retention system for installation to the connector using the provided crimp ferrule and heat shrink tubing. The coaxial cable trim dimensions are provided below in Table 3 for supported coaxial cable types, and recommended hex crimp tool sizes for CONSMBO07-G are shown in Table 4.

Table 3. Coaxial Cable Trim Dimensions for the CONSMBO07-G Connector

Coaxial Cable Types	A	B	C
RG-174, 188, 188A, 316, LMR-100, M17/119-RG174	2.5 mm (0.10 in)	5.5 mm (0.22 in)	10.0 mm (0.39 in)

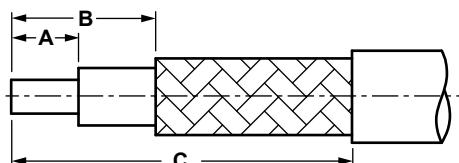


Table 4. Recommended Hex Crimp Tool Sizes for the CONSMBO07-G

Connector Part	Crimp Tool Size
Crimp Ferrule	3.25 mm (0.128 in)
Center Contact	Crimping not recommended

## Connector Performance

Table 5 shows insertion loss and VSWR values for the CONSMBO07-G connector 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 connector. A lower VSWR value indicates better performance at a given frequency.

Table 5. Insertion Loss and VSWR for the CONSMBO07-G Connector

Band	Low-Band Cellular/ ISM/LPWA	Midband Cellular/ GNSS	WiFi/ISM	WiFi 6
Frequency Range	400 MHz to 960 MHz	1164 MHz to 5000 MHz	2.4 GHz	5 GHz to 7.125 GHz
Insertion Loss (dB max)	-0.13	-0.34	-0.22	-0.41
VSWR (max)	1.1	1.2	1.1	1.2

Table 6. Mechanical Specifications

Model	CONSMBO07-G
Mounting Type	Cable Mount (crimp type)
Fastening Type	Snap-on Coupling
Interface in Accordance with	MIL-STD-348A
Connector Durability	500 cycles min.
Weight	2.5 g (0.09 oz)

Table 7. 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 CONSMBO07-G connector is placed in a clear plastic bag. Individual bags are sealed in a bulk plastic bag of 50 pcs. Bulk bags are packaged in a carton (800 pcs). Distribution channels may offer alternative packaging options.

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