



## CONSMPO01-G-T

### SMP Plug PCB Through-Hole Connector

The CONSMPO01-G-T is an SMP plug limited detent PCB through-hole connector designed for reflow- solder mounting directly to a printed circuit board.

Operating from 0 Hz to 26.5 GHz, the CONSMPO01- G-T combines superior performance, compact size, and a convenient snap-on mating interface to provide a reliable, easy-to-use connector. Linx SMP connectors are ideal for making board-to-board connections. 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 Hz to 26.5 GHz operation
- SMP plug (male pin) connection
  - Gold plated beryllium copper center contact
  - Limited Detent
- Ideal for board-to-board connections
- Direct PCB attachment
- Reflow- or hand-solder assembly

#### APPLICATIONS

- Cellular IoT
  - LTE-M (Cat-M1), NB-IoT
- Cellular
  - 5G/4G LTE/3G/2G
  - 5G mmWave
- GNSS
  - GPS, Galileo, BeiDou, QZSS
- Radar, Satellite Communications, Experimental

#### TABLE 1. ELECTRICAL SPECIFICATIONS

Parameter	Value	
Impedance	50 $\Omega$	
Frequency Range	0 Hz to 26.5 GHz	
Voltage Rating	500 V RMS	
Contact Resistance	Center: $\leq 6.0$ m $\Omega$ Outer: $\leq 2.0$ m $\Omega$	
Select Frequencies	400 MHz to 960 MHz	12 GHz to 26.5 GHz
Insertion Loss (dB max.)	0.02	0.32
VSWR (max.)	1.0	1.7

#### ORDERING INFORMATION

Part Number	Description
CONSMPO01-G-T	SMP plug (male pin) limited detent PCB through-hole connector

Available from Linx Technologies and select distributors and representatives.

## PRODUCT DIMENSIONS

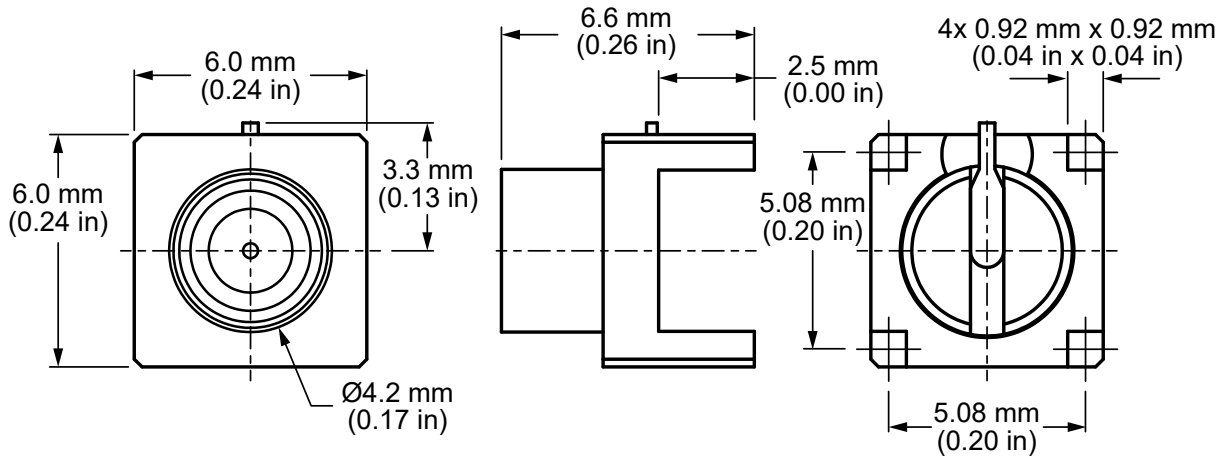


Figure 1. Product Dimensions for the CONSMP001-G-T Connector Table

## 2. CONNECTOR COMPONENTS

Model	CONSMP001-G-T	
Connector Part	Material	Finish
Connector Body	Brass	Gold
Base	Brass	Gold
Center Contact (male pin)	Brass	Gold
Insulator	LCP	-

## RECOMMENDED PCB FOOTPRINT

Figure 2 shows the connectors recommended PCB footprint and through-hole sizes.

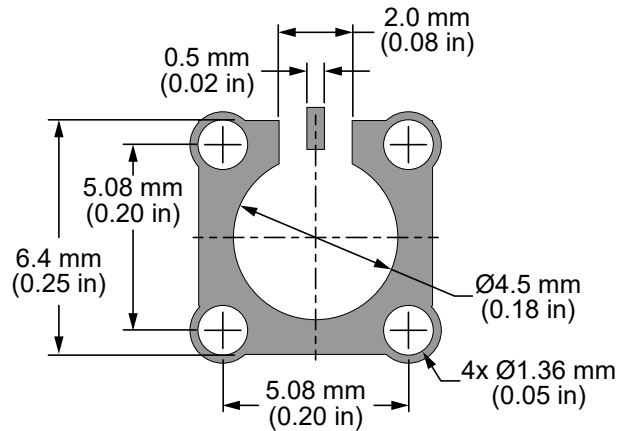


Figure 2. Recommended PCB Dimensions for the CONSMP001-G-T

## CONNECTOR PERFORMANCE

Table 3 shows insertion loss and VSWR values for the CONSMP001-G-T 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 3. INSERTION LOSS AND VSWR FOR THE CONSMP001-G-T CONNECTOR**

Band	Low-Band Cellular/ ISM/LPWA	GNSS, Midband Cellular, Wifi	WiFi 6E	Ku/K
Frequency Range	400 MHz to 960 MHz	1.1 GHz to 5 GHz	5 GHz to 7.125 GHz	12 GHz to 26.5 GHz
Insertion Loss (dB max.)	0.02	0.01	0.03	0.32
VSWR (max.)	1.0	1.2	1.3	1.7

**TABLE 4. MECHANICAL SPECIFICATIONS**

Model	CONSMP001-G-T
Mounting Type	PCB Through-Hole
Fastening Type	Snap-on Coupling
Interface in Accordance with	MIL-STD-348B
Connector Durability	100 cycles min.
Weight	0.52 g (0.02 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 +155 °C
Environmental Compliance	RoHS

## REFLOW SOLDER PROFILE

Figure 3 shows the time and temperature data for reflow soldering the connector to a PCB.

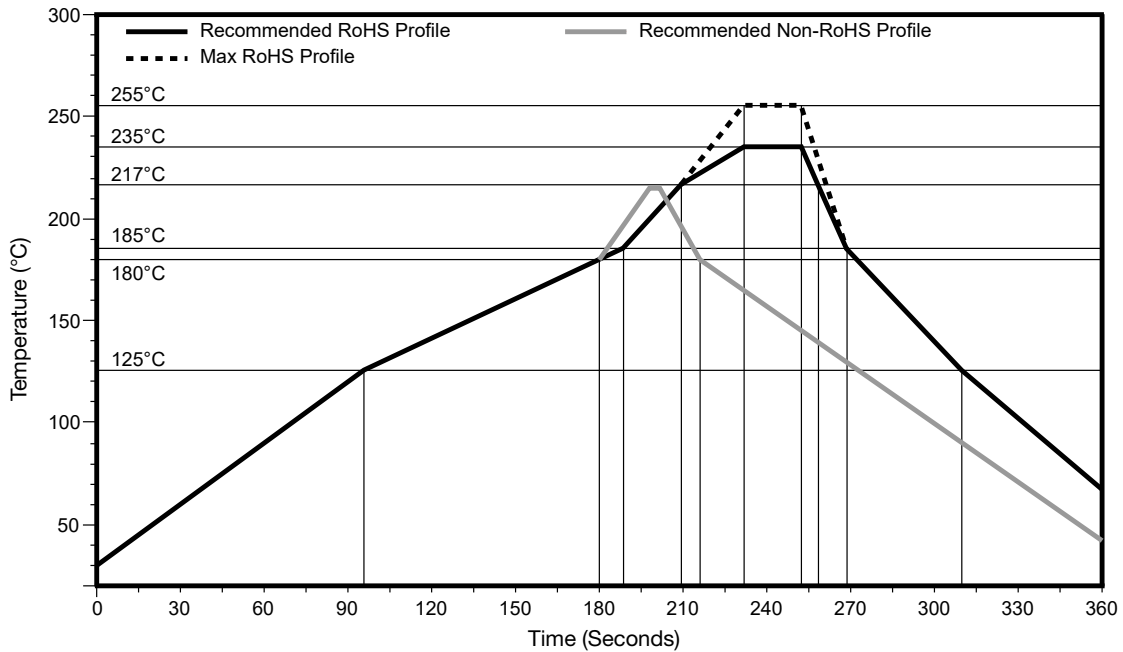


Figure 3. Recommended Reflow Solder Profile

## PACKAGING INFORMATION

Figure 4 shows the tape dimensions for the CONSMPO01-G-T connector. The reel specifications are provided in Figure 5, and conform to ANSI EIA-481-F.

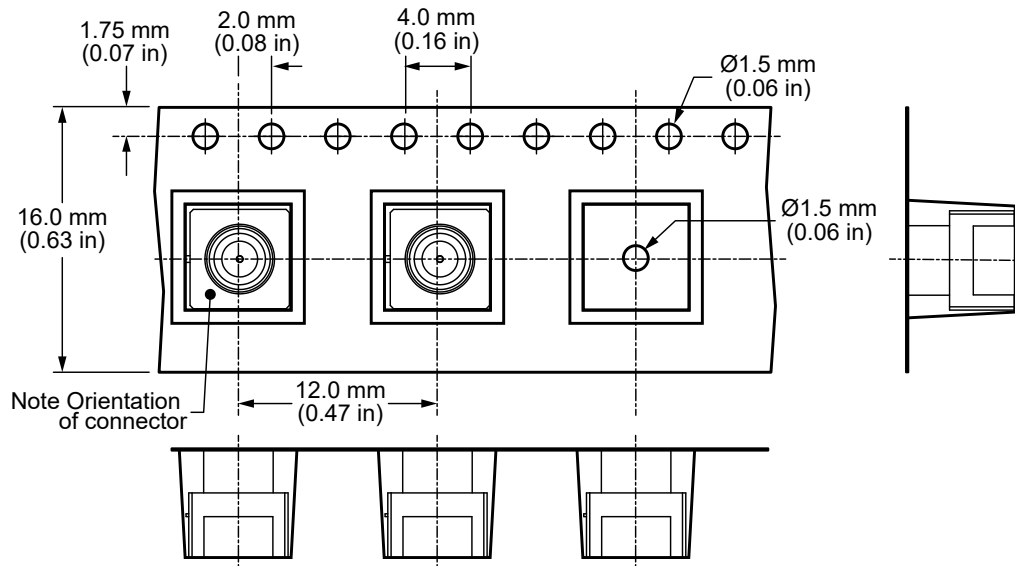
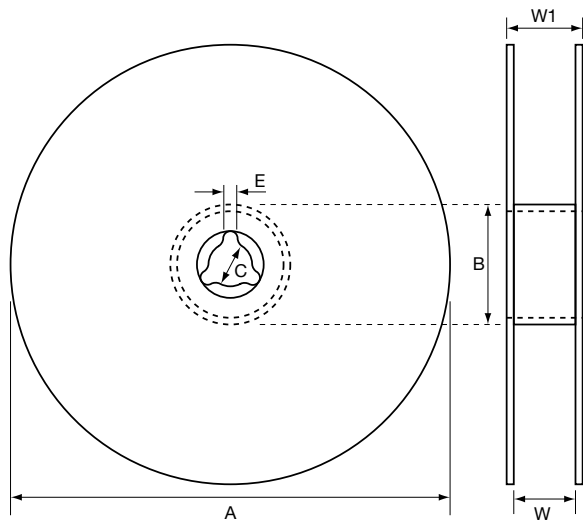


Figure 4. Tape Specifications for the CONSMPO01-G-T Connector

## PACKAGING INFORMATION (CONTINUED)

For larger quantities reels are placed in cartons of 2 reels, carton size 13.4 in x 13.4 in x 2.36 in (340 mm x 340 mm x 60 mm).



Reel Dimensions		
Symbol	Qty	Unit
QTY per reel	750	pcs
Tape width	16.00	mm
A	$\varnothing 330 \pm 1$	mm
B	$\varnothing 100 \pm 0.5$	mm
C	$\varnothing 13.00 \pm 0.2$	mm
E	$2.2 \pm 0.5$	mm
W	$16 \pm 0.5$	mm
W1	$19.4 \pm 0.2$	mm

Figure 5. Reel Specifications for the CONSMPO01-G-T Connector

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