



CONSWD001-SMD

Surface-Mount SWD RF Switch Connector

The CONSWD001-SMD is a surface-mount SWD RF switch connector designed primarily for use in diagnostic measurement between printed circuit board components.

Operating from 0 Hz to 6 GHz, the CONSWD001-SMD provides high isolation between ports for improved data accuracy and is designed for reflow-solder mounting directly to a printed circuit board for high-volume applications. 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 6 GHz operation
- Compact, low profile design
 - 3.0 mm x 3.0 mm x 1.75 mm
- Nickel plated copper-alloy housing
- Steel center contact
- Direct PCB attachment
- Reflow- or hand-solder assembly

APPLICATIONS

- Quality assurance, test and measurement
- Internet of Things (IoT) devices
- WiFi/WLAN/802.11
- Cellular IoT: LTE-M (Cat-M1) and NB-IoT
- Low-power, wide-area (LPWA) applications
 - LoRaWAN® ITU-T Y.4480, Sigfox®
- ISM applications
 - Bluetooth® ZigBee®

ELECTRICAL SPECIFICATIONS

Parameter	Value
Impedance	50 Ω
Frequency Range	0 Hz to 6 GHz
Dielectric Withstanding Voltage	300 V RMS
Max. Power Rating	2 W
Contact Resistance	Center: ≤ 120.0 mΩ Outer: ≤ 20.0 mΩ
Insertion Loss (dB max)	Port 1 (Input) to Port 2 (Output) = 0.6, Port 1 (Input) to RF switch = 1.5
VSWR (max)	Port 1 (Input) = 1.1, Port 2 (Output) = 1.2, RF switch = 1.2
Isolation (dB min)	Port 1 (Input) to Port 2 (Output) = 56.2

ORDERING INFORMATION

Part Number	Description
CONSWD001-SMD	Surface-mount SWD RF switch connector

Available from Linx Technologies and select distributors and representatives.

PRODUCT DIMENSIONS

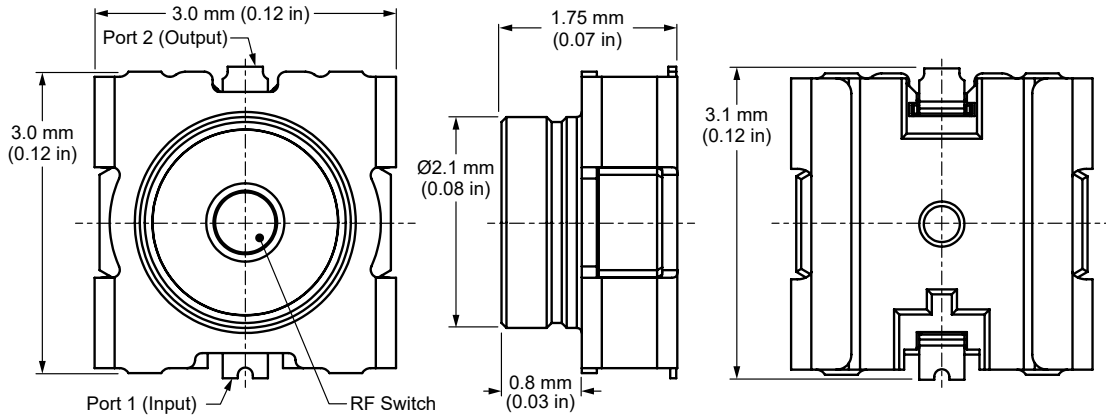


Figure 1. CONSWD001-SMD Antenna Dimensions

CONNECTOR COMPONENTS

Model	CONSWD001-SMD	
Connector Part	Material	Finish
Connector Body	Copper Alloy	Nickel
Signal Contacts (PCB)	SUS	Gold

RECOMMENDED PCB FOOTPRINT

Figure 2 shows the connectors recommended PCB footprint

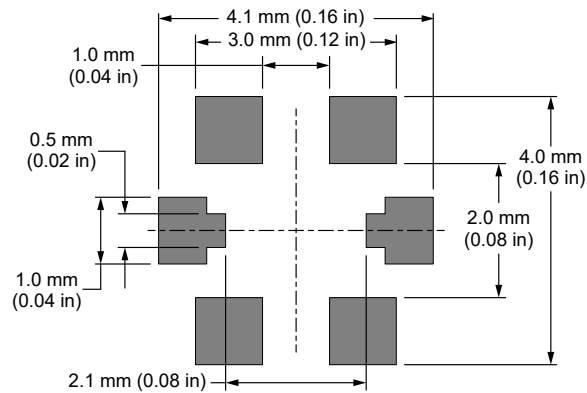


Figure 2. Recommended PCB Dimensions for the CONSWD001-SMD

INSERTION LOSS

Figure 3 shows the Insertion Loss for the CONSWD001-SMD connector. Insertion loss is the loss of signal power (gain) resulting from the insertion of a device in a transmission line.

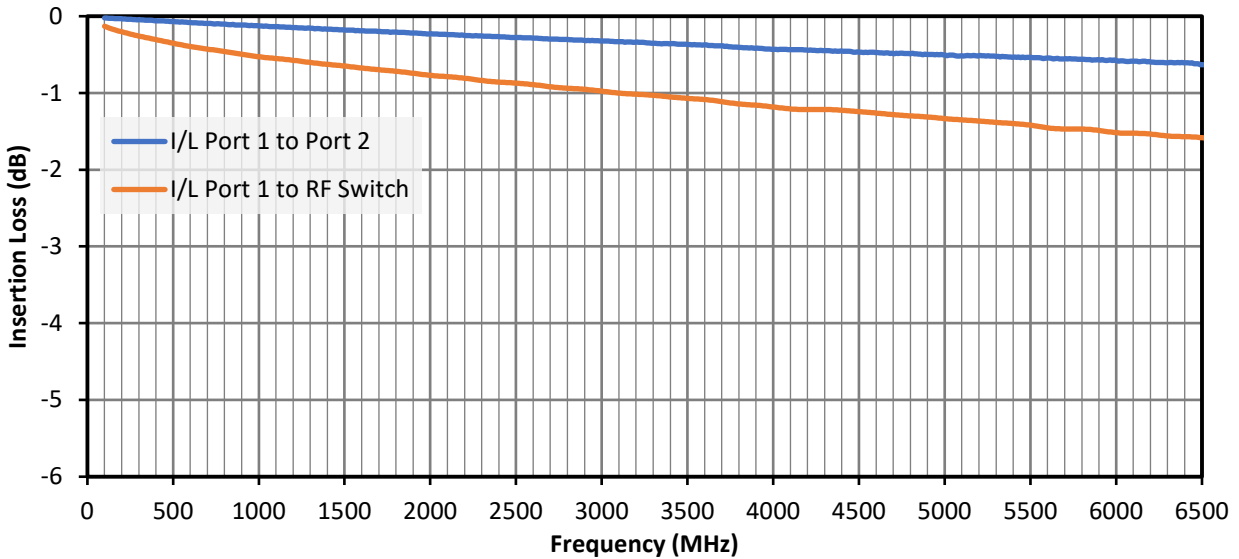


Figure 3. Insertion Loss for the CONSWD001-SMD Connector

VSWR

Figure 4 provides the voltage standing wave ratio (VSWR) across the adapter's bandwidth for the CONSWD001-SMD connector. VSWR describes how efficiently power is transmitted. A lower VSWR value indicates better performance at a given frequency.

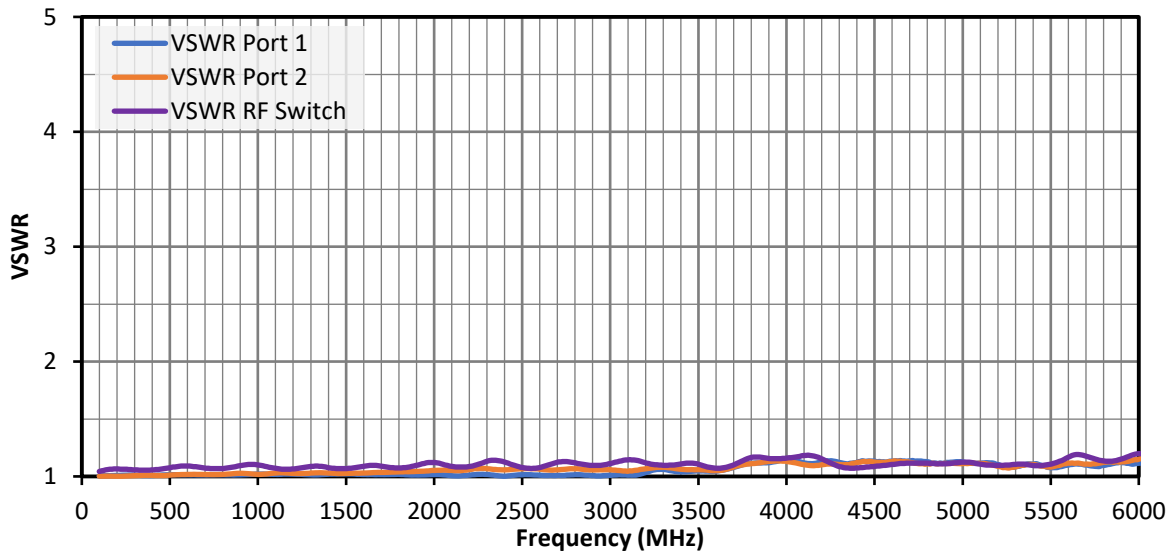


Figure 4. VSWR for the CONSWD001-SMD Connector

MECHANICAL SPECIFICATIONS

Model	CONSWD001-SMD
Mounting Type	PCB Surface-Mount
Fastening Type	Snap-on Coupling
Interface in Accordance with	IAW EIA 364
Connector Durability	500 cycles min.
Recommended torque	8.0 in. -lbs
Weight	0.01 g (0.0004 oz)

ENVIRONMENTAL SPECIFICATIONS

STD, Test Condition	
Corrosion (Salt spray)	EIA 364-26C
Thermal Shock	EIA 364-32G Method A, Condition I, Duration A
Vibration	EIA 364-28F Condition II
Mechanical Shock	EIA 364-27C Condition A
Temperature Range	-40 °C to +85 °C
Environmental Compliance	RoHS, REACH

REFLOW SOLDER PROFILE

Figure 5 shows the time and temperature data for reflow soldering the connector to a PCB.

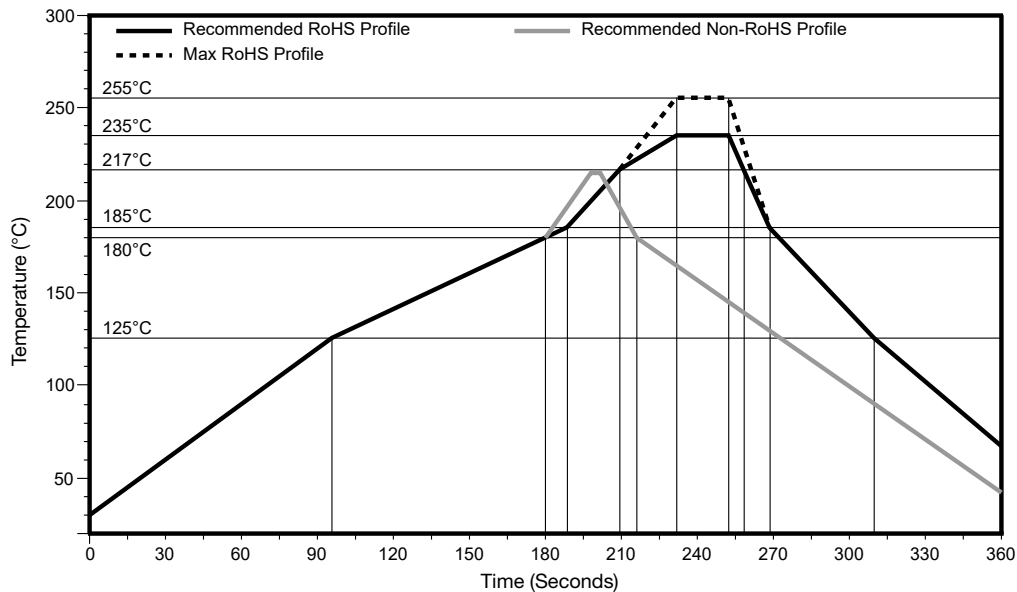


Figure 5. Recommended Reflow Solder Profile

PACKAGING INFORMATION

Figure 6 shows the tape dimensions for the CONSWD001-SMD connector. The reel specifications are provided in Figure 7.

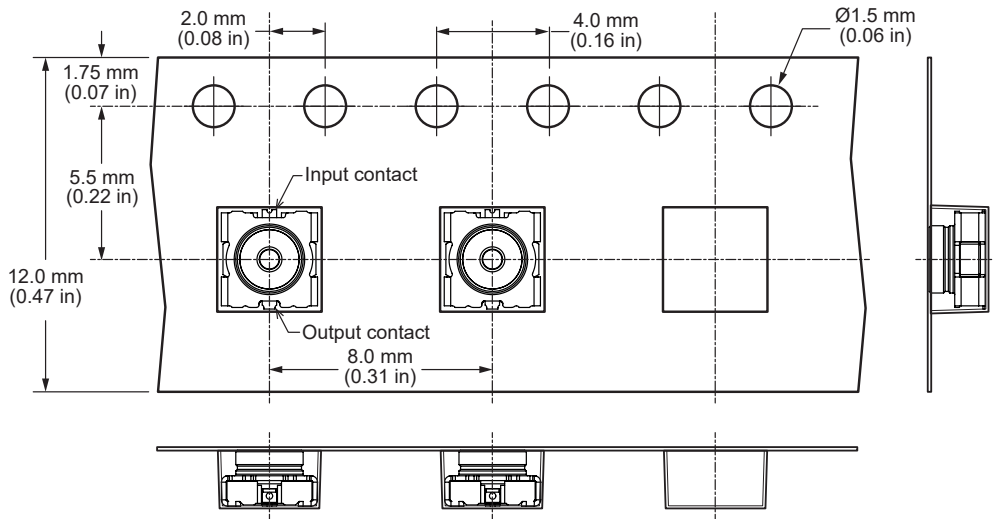


Figure 6. Tape Specifications for the CONSWD001-SMD Connector

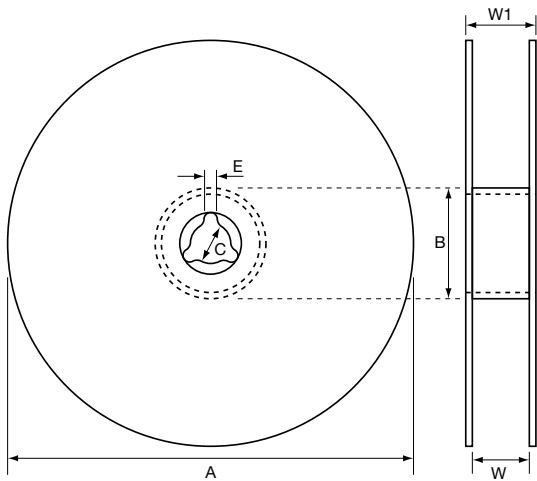


Figure 7. Reel Specifications for the CONSWD001-SMD Connector

Reel Dimensions		
Symbol	Qty	Unit
QTY per reel	1,000	pcs
Tape width	12.00	mm
A	Ø 330 ±1	mm
B	Ø 100 ±0.5	mm
C	Ø 13.00 ±0.2	mm
E	2.2 ±0.5	mm
W	12 ±0.5	mm
W1	16.4 ±0.2	mm

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