CONSWF001-SMD

Surface-Mount SWF RF Switch Connector

The CONSWF001-SMD is a surface-mount SWF RF switch connector designed primarily for use in diagnostic measurement between printed circuit board components.

Operating from 0 Hz to 6 GHz, the CONSWF001-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
  - 2.6 mm x 2.5 mm x 1.5 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) = 0.8, Port 1 (Input) to RF switch = 1.7
VSWR (max)	Port 1 (Input) = 1.1, Port 2 (Output) = 1.1, RF switch = 1.2
Isolation (dB min)	Port 1 (Input) to Port 2 (Output) = 57.4

ORDERING INFORMATION

Part Number	Description
CONSWF001-SMD	Surface-mount SWF RF switch connector

Available from Linx Technologies and select distributors and representatives.

PRODUCT DIMENSIONS

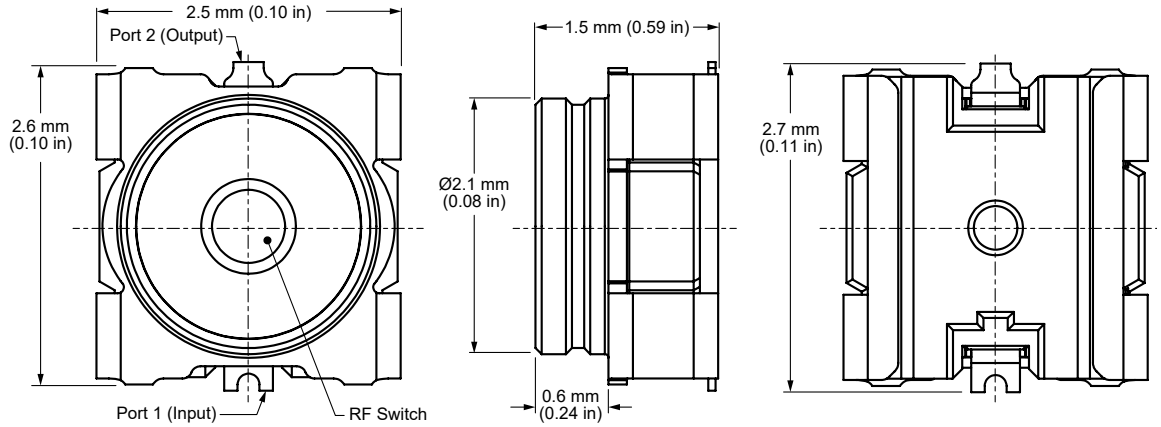


Figure 1. CONSWF001-SMD Antenna Dimensions

CONNECTOR COMPONENTS

Model	CONSWF001-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

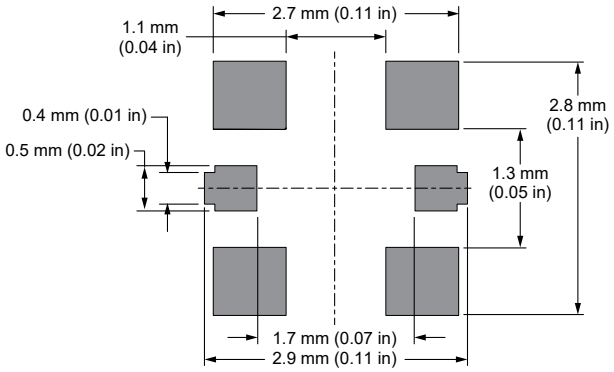


Figure 2. Recommended PCB Dimensions for the CONSWF001-SMD

INSERTION LOSS

Figure 3 shows the Insertion Loss for the CONSWF001-SMD connector. Insertion loss is the loss of signal power (gain) resulting from the insertion of a device in a transmission line.

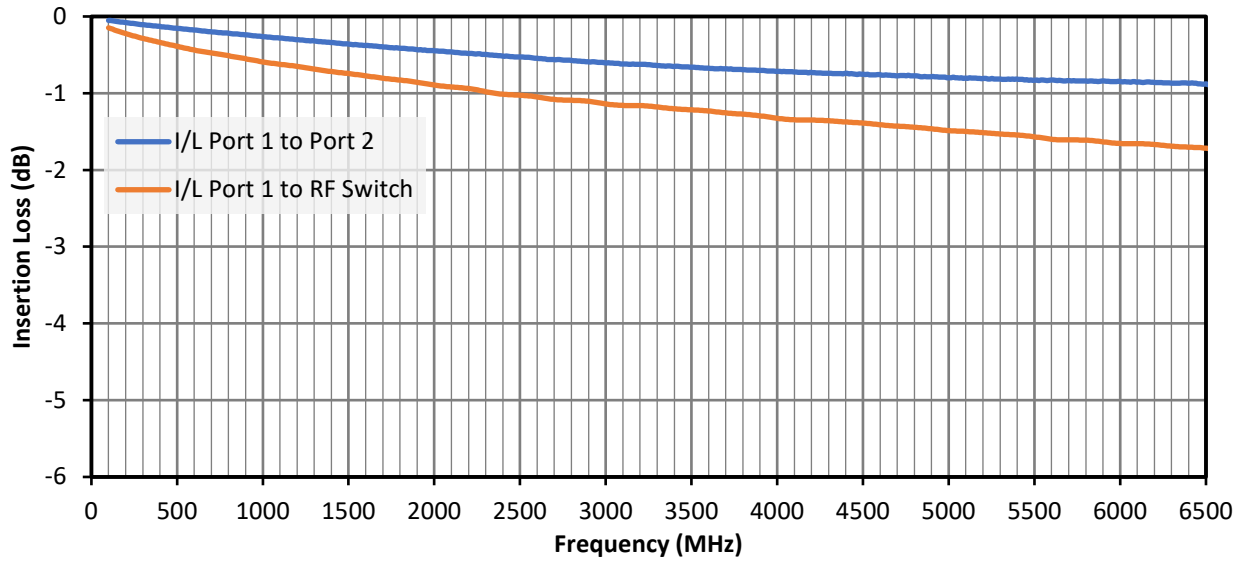


Figure 3. Insertion Loss for the CONSWF001-SMD Connector

VSWR

Figure 4 provides the voltage standing wave ratio (VSWR) across the adapter's bandwidth for the CONSWF001-SMD connector. VSWR describes how efficiently power is transmitted. A lower VSWR value indicates better performance at a given frequency.

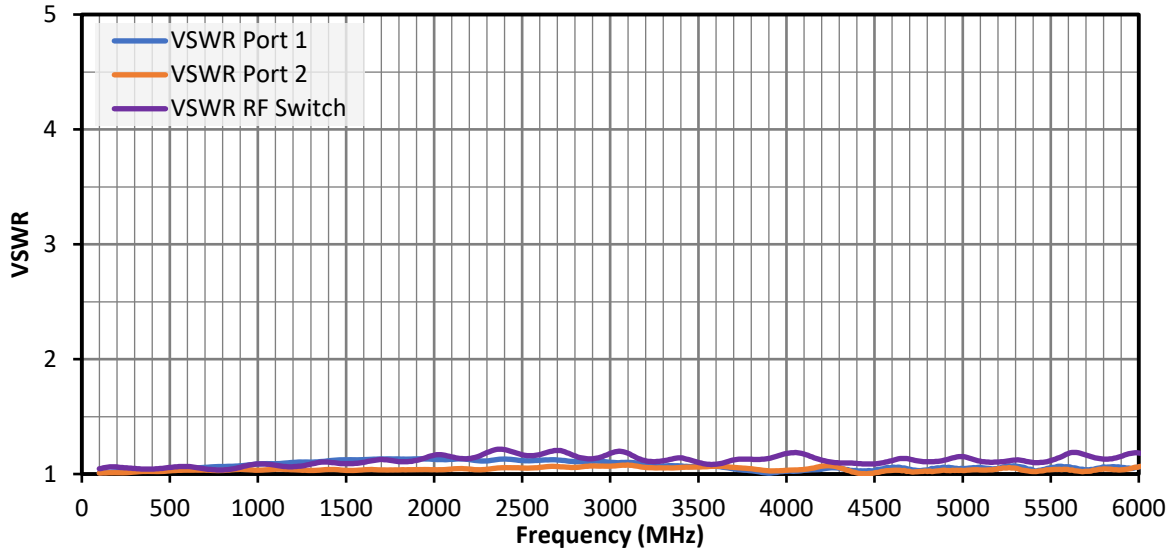


Figure 4. VSWR for the CONSWF001-SMD Connector

MECHANICAL SPECIFICATIONS

Model	CONSWF001-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.

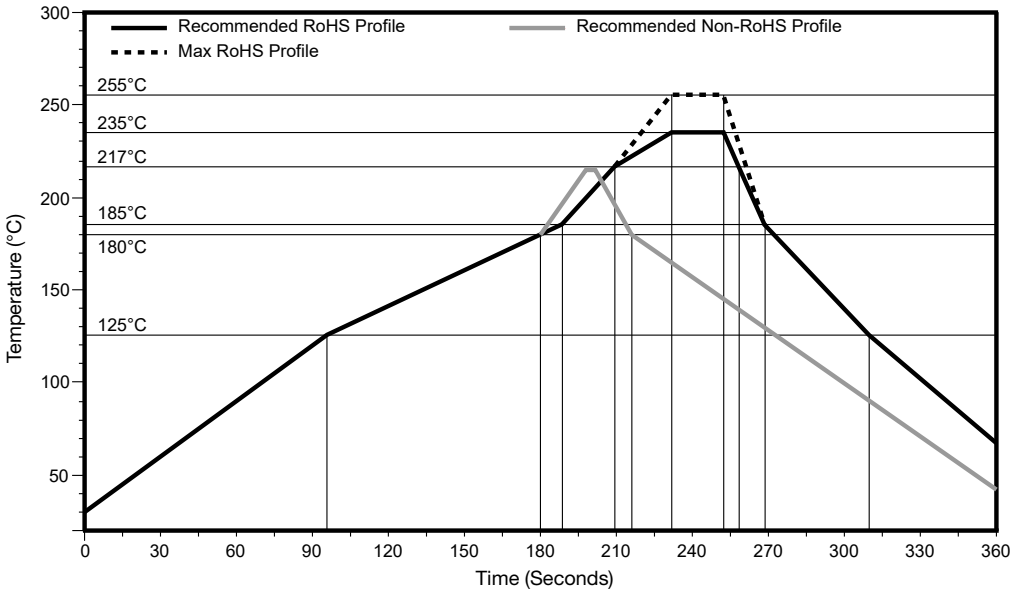


Figure 5. Recommended Reflow Solder Profile

PACKAGING INFORMATION

Figure 6 shows the tape dimensions for the CONSWF001-SMD connector. The reel specifications are provided in Figure 7.

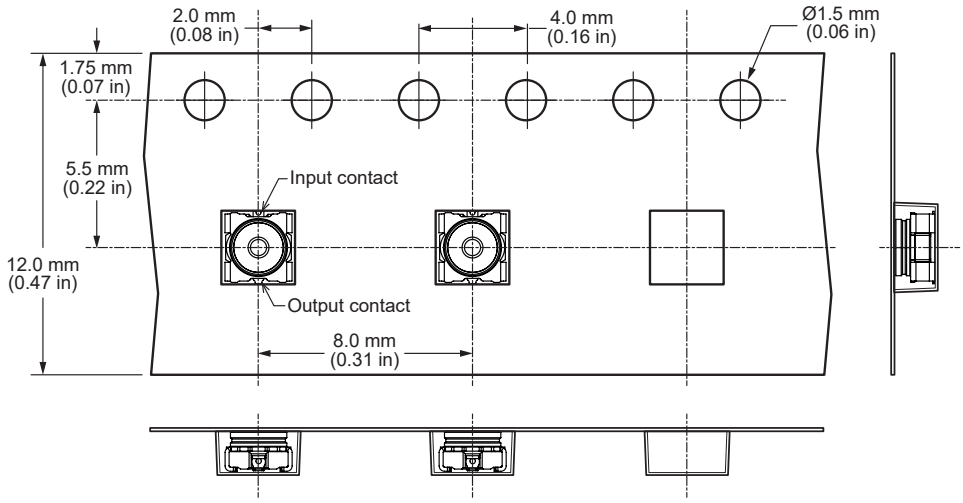
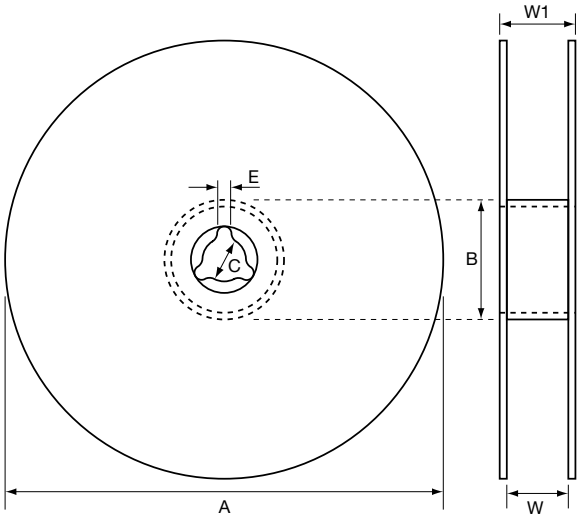


Figure 6. Tape Specifications for the CONSWF001-SMD Connector



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

Figure 7. Reel Specifications for the CONSWF001-SMD Connector

TE TECHNICAL SUPPORT CENTER

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