

VMCSW-DC/18-SPDT-55-12-SMAF

FEATURES

- ◆ Broadband: DC~18GHz
- ◆ Lifecycle: Up to 2,000,000 cycles
- ◆ Excellent repeatability
- ◆ Low VSWR, low insertion loss, high isolation

TYPICAL APPLICATIONS

- ◆ Aerospace and military
- ◆ Radar and satellite communications
- ◆ Testing
- ◆ Communications



PRODUCT OVERVIEW

The SPDT series coaxial switch is a product line characterized by high reliability, high isolation, and long service life. It features broad operating bandwidth, low VSWR, low loss, high isolation, and high power handling capability. It is widely applicable in fields such as aerospace/military, radar/satellite communications, semiconductor chip testing, 5G/6G communications, automated test systems, and electronic measurement instruments.

ELECTRICAL SPECIFICATIONS

SPDT, DC~18GHz, Failsafe, 12V, Terminal Block

Frequency (GHz)	Insertion Loss (dB Max)	VSWR (Max)	Isolation (dB Min)	Average Power Handling (W)	Impedance (Ω)
DC~6	≤0.20	≤1.20	≥70	≤85	50
6~12	≤0.25	≤1.30	≥70	≤70	50
12~18	≤0.50	≤1.50	≥60	≤55	50

CONTROL CHARACTERISTICS

Control Mode (Vdc)	Voltage-driven
	Failsafe
Voltage (DC)	12V
Current (mA)	≤190mA (Dc) @20°C
Control Interface	Terminal Block

MECHANICAL CHARACTERISTICS

RF Connector	SMA-F (Female)
Cycles	$\geq 2,000,000$
Switching Time (ms)	≤ 15
Weight	$\leq 70\text{g}$

ENVIRONMENTAL CHARACTERISTICS

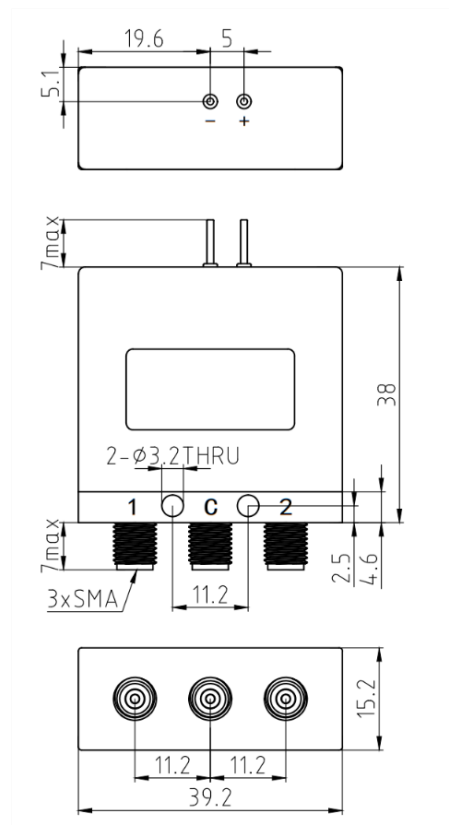
Operating Temperature	-45°C ~ +65°C (Standard)
Storage Temperature	-55°C ~ +85°C
Moisture	5 ~ 85%
Ingress Protection	IP63
Shock (Unpowered)	50G, 1/2 Sine, 11ms
Vibration (Powered)	10G RMS, 20-2000Hz

PIN DEFINITION

Pin Number	Definition	RF Channel
Pin -	GND	
Pin +	+12V	C-1 On
Unpowered		C-2 On

OUTLINE DRAWING

Unit: mm



IMPORTANT NOTES

1. ESD Sensitive Device: This product is sensitive to electrostatic discharge (ESD). Proper ESD precautions must be observed during storage, transportation, and use.
2. Non-Hermetic Seal: This product is not hermetically sealed. Measures must be taken to prevent moisture and rain ingress. It should be stored in a dry, dust-free environment.
3. Power and Control Inputs: Before use, carefully check the voltage and current requirements for the power supply and control pins to avoid incorrect connections or exceeding maximum ratings.
4. RF Connector Handling: The RF ports are precision female connectors. They must only be mated with compatible male connectors. A torque wrench should be used to tighten the mating connector's nut to the specified value.
5. Specification Changes: The technical specifications of the above product are subject to change without prior notice.