



Mountain Microwave

General Description:

MM-RSW-005180-SP1T is an reflective, single pole, single throw pin diode switch that operates over the 0.5 GHz to 18.0 GHz Frequency range. This model offers 60 dB Typical isolation, 50 ns typical switching speeds, and is outfitted with removable SMA connectors.

Features:

- Ultra Wide Band: 0.5-18.0GHz
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- TTL compatible driver include
- Unconditionally stable

Applications:

- 5G Systems
- Radar Systems
- Communication Systems
- Automatic Test Equipment
- Switching Network

Electrical Specifications (23° C):

Parameter	Value			Units
	Min	Typ	Max	
Frequency Range	0.5		18.0	GHz
Insertion Loss		1.5	1.9	dB
Isolation	55			dB
Input VSWR		1.5	1.8	:1
Output VSWR		1.5	1.8	:1
Switch Speed		50	75	ns
Power Handling			24	dBm
Bias Voltage		+5/-12		VDC
Bias Current		50/50		mA
Control Logic TTL		0/+5		V

Absolute Maximum Ratings:

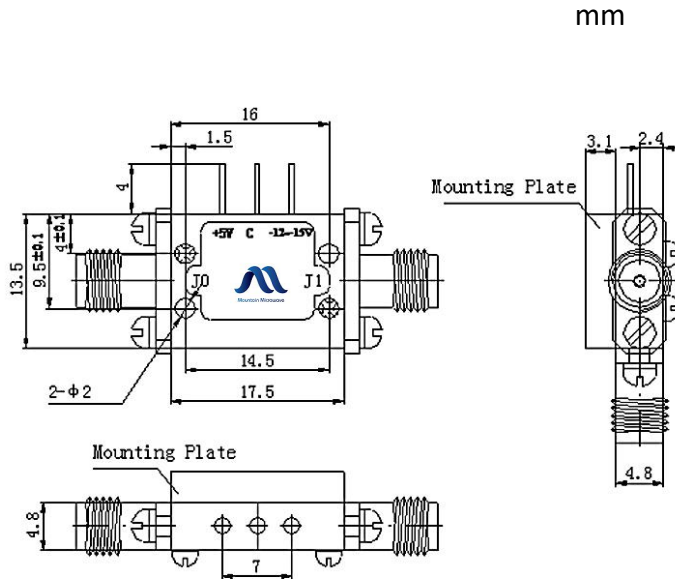
Condition	Value
DC Voltage	+5V (±5%)/-12V(±5%)
Maximum Input Power(CW)	+24 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Mechanical Specifications:

Parameter	Value
Length	16 mm
Width	13.5 mm
Height	4.5 mm
RF Connector	SMA Female



Outline Drawing:



Truth Table	
TTL Control Input	Signal Path State
C1	
0	J0-J1
1	OFF

Environmental Conditions:

Parameter	Standard	Description
Operational Temperature		-45°C~+85°C
Storage Temperature		-55°C~+125°C
Random Vibration	MIL-STD-883K, Method 2026, Cond. IB	50 - 2000 Hz, 7.3 Grms
Humidity	MIL-STD-202, Method 103B, Cond. B	100% RH at 35c, 95%RH at 40°C
Altitude	MIL-STD-883K, Method 1001, Cond. C	50,000 feet

Caution:

- Exceeding absolute maximum ratings shown will damage the device.
- The device is static sensitive. Always follow ESD rules when working with the device.