Focus on the future

Mountain Microwave

Reflective Pin Diode Switch
MM-RSW-005180-SP3T
0.5-18.0 GHz, SP3T

General Description:

MM-RSW-005180-SP3T is an reflective, single pole, three throw pin diode switch that operates over the 0.5 GHz to 18.0 GHz Frequency range. This model offers 60 dB Typical isolation, 80 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		2.0	2.5	dB
Isolation	55			dB
Input VSWR		1.5	2.0	:1
Output VSWR		1.5	2.0	:1
Switch Speed		80	150	ns
Power Handling			24	dBm
IIP3	50	55		dBm
Bias Voltage		+5/-12		VDC
Bias Current		100/100		mA
Control Logic TTL		0/+5		V

Absolute Maximum Ratings:

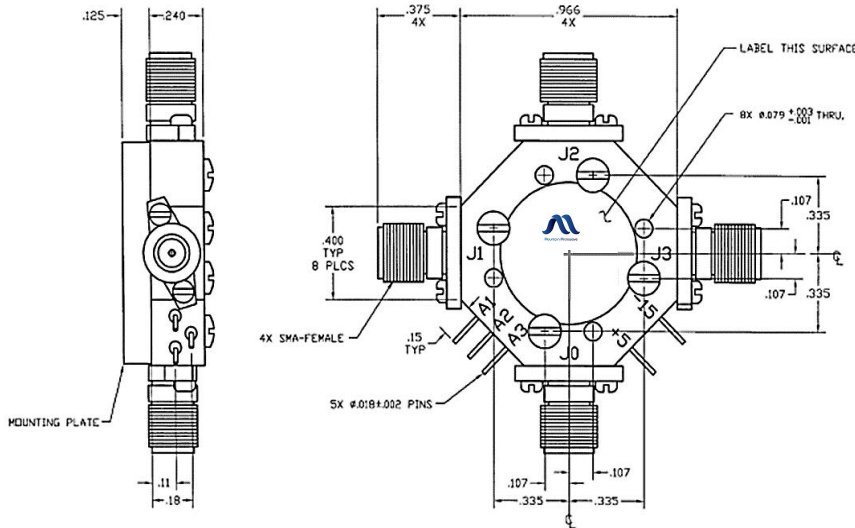| Condition	Value
DC Voltage	+5V (±5%)/-12V(±5%)
Maximum Input Power(CW)	+24 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Mechanical Specifications:

Parameter	Value
Length	24.5 mm
Width	24.5 mm
Height	9.2 mm
RF Connector	SMA Female

Outline Drawing:

Inches

Truth Table			
TTL Control Input			Signal Path State
A1	A2	A3	
0	1	1	J0-J1
1	0	1	J0-J2
1	1	0	J0-J3

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.