



Mountain Microwave

General Description:

MM-RSW-020180-SP2T is an reflective, single pole, two throw pin diode switch that operates over the 2.0 GHz to 18.0 GHz Frequency range. This model offers 65 dB Typical isolation, 50 ns typical switching speeds, and is outfitted with removable SMA connectors.

Features:

- Ultra Wide Band: 2.0-18.0GHz
- 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   | 2     |       | 18.0 | GHz   |
| Insertion Loss    |       | 2     | 2.5  | dB    |
| Isolation         | 60    | 65    |      | dB    |
| Input VSWR        |       | 1.8   | 2.0  | :1    |
| Output VSWR       |       | 1.8   | 2.0  | :1    |
| Switch Speed      |       | 50    | 100  | ns    |
| Power Handling    |       |       | 27   | dBm   |
| Bias Voltage      |       | ±5    |      | VDC   |
| Bias Current      |       | 50/50 |      | mA    |
| Control Logic TTL |       | 0/+5  |      | V     |

Absolute Maximum Ratings:

| Condition               | Value                |
|-------------------------|----------------------|
| DC Voltage              | ±5V (±5%)            |
| Maximum Input Power(CW) | +27 dBm              |
| ESD sensitivity (HBm)   | Class 0, passed 150V |

Mechanical Specifications:

| Parameter    | Value      |
|--------------|------------|
| Length       | 30 mm      |
| Width        | 25 mm      |
| Height       | 12.5 mm    |
| RF Connector | SMA Female |



Outline Drawing:

mm(Inches)



| Truth Table       |                   |
|-------------------|-------------------|
| TTL Control Input | Signal Path State |
| C1                |                   |
| 0                 | J0-J1             |
| 1                 | J0-J2             |

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.