Planar Monolithics Industries, Inc.

50MHz to 40GHz, SP4T, Absorptive Solid State Switch, with Independent Controls

**TECHNICAL Datasheet**

PMI Model No. P4T-50M40G-55-T-292FF is a 50MHz to 40.0GHz, Single Pole, Four Throw, Absorptive Switch. This switch offers 55dB of port to port isolation and a maximum insertion loss of 8dB. It has a switching speed of 100ns and is independently TTL controlled. The operating power is +20dBm CW and it has a VSWR of 2.5:1 max.

**Features**
- 50 MHz to 40GHz
- 85ns On/Off (50% TTL to 10/90% RF)
- 8dB Insertion Loss Max
- 55dB Min. Isolation
- VSWR 2.5:1 Max.
- +20dBm Max RF Input

**Applications**
- EW Systems
- Radars
- UAVs & UGVs
- Communications
- Test Equipment
- Laboratories

**Electrical Specifications**
- Frequency: 50MHz to 40.0GHz
- Isolation: 55dB min.
  - Measured: 75dB
- Insertion Loss: 8.0dB max
  - Measured: 5.6dB
- VSWR In/Out: 2.5:1 max.
  - 50% TTL to 10%/90% RF
  - 85ns typ, 100ns max
  - Measured: <20ns
- Speed: +20dBm CW
- Input Power: 0.5W CW, 5W Peak, 1us
- Survival Power: 4 Line Independent
  - Logic "0"= Insertion Loss
  - Logic "1"= Isolation
- Control TTL: +12 to +15VDC @ 150mA
  - -12 to -15VDC @ 100mA
- Power Supply: 2.92mm Female for Low Leakage
  - Feedthru - Ø0.030 typ
  - SMA & Pins = <-100dB per MIL-C-39012
- RF Connectors:
  - Control, Power and Ground
- RF Leakage: 2.0" x 1.0" x 0.4"
- Finish: Gold Plated
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**Environmental Ratings**
- Temperature: -40°C to +85 °C Operating
  - -55°C to +125 °C Non-Operating
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### (J1-J2) Insertion Loss and Return Loss

### (J1-J4) Insertion Loss and Return Loss

### (J1-J3) Insertion Loss and Return Loss

### (J1-J5) Insertion Loss and Return Loss
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(J1 – J2) Isolation and Termination Return Loss

(J1 – J4) Isolation and Termination Return Loss

(J1 – J3) Isolation and Termination Return Loss

(J1 – J5) Isolation and Termination Return Loss

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**TECHNICAL DATASHEET**

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**MECHANICAL OUTLINE**

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