Here's What's New...

New Product Releases from
Planar Monolithics Industries, Inc.
May 23, 2018

High Power Switches

1.0 PMI Model No. P2T-0R5G8G-45-R-SFF-50W-SM, 0.5 to 8.0 GHz, SP2T High Power Reflective Switch
PMI Model No. P2T-0R5G8G-45-R-SFF-50W-SM is an SP2T, High Power Reflective Switch designed to operate over the 0.5 to 8.0 GHz frequency range. This model is designed to handle 50 Watts CW input power. It is supplied with SMA female connectors in a painted housing measuring 1.2" x 1.0" x 0.5".

- **Frequency Range**: 0.5 to 8.0 GHz
- **RF Input Power**: 50 Watts
- **Insertion Loss**:
  - 1.25 dB max., 0.90 dB typ. @ 0.5 to 1.0 GHz
    - Measured 0.91 dB max. (J1-J2), 0.86 dB max. (J1-J3)
  - 1.25 dB max., 1.00 dB typ. @ 1.0 to 2.0 GHz
    - Measured 1.07 dB max. (J1-J2), 0.99 dB max. (J1-J3)
  - 1.5 dB max., 1.25 dB typ. @ 2.0 to 4.0 GHz
    - Measured 1.24 dB max. (J1-J2), 1.16 dB max. (J1-J3)
  - 2.0 dB max., 1.85 dB typ. @ 4.0 to 6.0 GHz
    - Measured 1.85 dB max. (J1-J2), 1.87 dB max. (J1-J3)
  - 3.0 dB max., 2.65 dB typ. @ 6.0 to 8.0 GHz
    - Measured 2.65 max. (J1-J2), 2.48 dB max. (J1-J3)
- **Isolation**:
  - 45 dB min., 49 dB typ. @ 0.5 to 1.0 GHz
    - Measured 49.42 dB min. (J1-J2), 48.58 dB min. (J1-J3)
  - 45 dB min., 48 dB typ. @ 1.0 to 2.0 GHz
    - Measured 48.83 dB min. (J1-J2), 49.05 dB min. (J1-J3)
  - 40 dB min., 41 dB typ. @ 2.0 to 4.0 GHz
    - Measured 41.57 dB min. (J1-J2), 40.54 dB min. (J1-J3)
  - 35 dB min., 37 dB typ. @ 4.0 to 6.0 GHz
    - Measured 39.07 dB min. (J1-J2), 37.36 dB min. (J1-J3)
  - 30 dB min., 33 dB typ. @ 6.0 to 8.0 GHz
    - Measured 33.88 dB min. (J1-J2), 33.42 dB min. (J1-J3)
- **VSWR**:
  - 1.5:1 max., 1.25:1 typ. @ 0.5 to 1.0 GHz
    - Measured 1.25:1 max. (J1-J2), 1.24:1 max. (J1-J3)
  - 1.5:1 max., 1.30:1 typ. @ 1.0 to 2.0 GHz
    - Measured 1.30:1 max. (J1-J2), 1.29:1 max. (J1-J3)
  - 1.5:1 max., 1.35:1 typ. @ 2.0 to 4.0 GHz
    - Measured 1.36:1 max. (J1-J2), 1.35:1 max. (J1-J3)
  - 2.0:1 max., 1.90:1 typ. @ 4.0 to 6.0 GHz
    - Measured 1.89:1 max. (J1-J2), 1.87:1 max. (J1-J3)
  - 2.5:1 max., 2.25:1 typ. @ 6.0 to 8.0 GHz
    - Measured 2.26:1 max. (J1-J2), 2.13:1 max. (J1-J3)
- **Switching Speed**: 1 µs max., 100 ns typ. - Measured 69 ns
- **Switching Rate**: 15 kHz max., 50% Duty Cycle
- **Cold Switching**: Yes
- **Power Supply**: +5 V @ 100 mA max. - Measured 32 mA

**PMI Website Link**,  
http://www.pmi-rf.com/Products/Switches/P2T-0R5G8G-45-R-SFF-50W-SM.htm

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2.0 PMI Model No. PSM-1G1R1G-TRSW-2500W, 1.0 to 1.1 GHz, High Power, Integrated Transmit/Receive Module
**PMI Model No. PSM-1G1R1G-TRSW-2500W** is an integrated Transmit / Receive (T/R) Module that is designed for use in an IFF application. This T/R Module operates from 1.0 GHz to 1.1 GHz and handles peak input power levels up to 2.5 kW having a maximum pulse width of 17 µs and a duty cycle of 2%. It is supplied with a 9-Pin Micro-D control connector and SMA female RF connectors in a painted housing measuring 7.750" x 3.000" x 0.575".

- **Frequency Range**: 1.0 to 1.1 GHz
- **RF Input Power**: 2.5 kW Peak (J1 Only) - Tested @ 125.89 W CW
- **Pulse Width**: 17 µs max.
- **Duty Cycle**: 2% max.
- **PRF**: 600 Hz
- **Insertion Loss**:
  - (J1-J2, Tx Mode) - Measured 0.78 dB
  - (J1-J3, Tx Mode) - Measured 0.77 dB
  - (J2-J4, Rx Mode) - Measured 0.46 dB
  - (J3-J5, Rx Mode) - Measured 0.47 dB
- **Isolation**:
  - 25 dB min. (J2-J3) - Measured 27.25 dB
  - 60 dB min. (J2-J4) - Measured 54.09 dB
  - 60 dB min. (J3-J5) - Measured 54.09 dB
- **Switching Rate**: 2 kHz max.
- **Switching Speed**: (50% TTL to 10% & 90% RF) - Measured 620 ns
- **Switching Controls**: TTL Logic
- **DC Supplies**:
  - +50 VDC, 60 mA typ. - Measured 30 mA
  - +5 VDC, 400 mA typ. - Measured 350 mA

**PMI Website Link**,  

**3.0 PMI Model No. P2T-3G3R5G-45-R-SFF-50W-SM, 3.0 to 3.5 GHz, SP2T Reflective, High Power Switch**

PMI Model No. P2T-3G3R5G-45-R-SFF-50W-SM is a SP2T Reflective Switch designed to operate over the 3.0 to 3.5 GHz frequency range. This model is designed to handle 50 Watts average input power. It is supplied with SMA female connectors in a housing measuring 1.2" x 1.0" x 0.5

- **Frequency Range**: 3.0 to 3.5 GHz
- **Power**: 50 Watts
- **Insertion Loss**: 1.0 dB typ. - Measured 1.26 dB
- **Isolation**: 40 dB typ. - Measured 43.1 dB
- **VSWR**: 1.5:1 - Measured 1.4:1
- **Switching Speed**: 1 µs - Measured 66 ns
- **Switching Rate**: 15 kHz max., 50% Duty Cycle
- **Cold Switching**: Yes
- **Power Supply**: +5 V @ 100 mA - Measured 32 mA
- **Control**: TTL
4.0 PMI Model No. P2T-6G18G-40-R-570-TFF-1D6KW, 6.0 to 18.0 GHz, SP2T Reflective, High Power Switch

PMI Model No. P2T-6G18G-40-R-570-TFF-1D6KW is a reflective 1.6 kilowatt high-power cold switching single pole double throw switch operating in the 6.0 to 18.0 GHz frequency range. This model has a measured switching speed of 1.11 µs and a maximum pulse width of 200 µs. It is supplied with a 9-Pin Micro D female control connector and TNC female RF connectors in a housing measuring 2.00" x 2.00" x 0.75".

- Frequency Range: 6.0 to 18.0 GHz
- Power: 1.6 kW Peak - Tested to 125.89 Watts CW
- Duty Cycle: 8%
- Insertion Loss:
  - 2.2 dB max., at band edges for 20% bandwidth and typically 1.75 dB goal.
  - For mid-band of 80% of the bandwidth: 2.0 dB max. and typically 1.5 dB goal
  - Measured 2.02 dB
- Isolation: 40 dB - Measured 41.01 dB
- Pulse Width: 250 µs max. - Measured 250 µs typ.
- Switching Speed: (50% TTL to 90% RF & 50% TTL to 10% RF) - Measured 1.11 µs
- VSWR In/Out: 2.0:1 max. - Measured 1.99:1 (IN), 1.98:1 (Out)
- Load VSWR: Better than 1.5:1 - Measured 1.5:1 typ.
- DC Voltage & Current:
  - +5 V @ 300 mA - Measured 300 mA
  - -70 V @ 60 mA - Measured 0 mA
- Control: Single TTL (TTL "0" J1 - J3 Low Loss)

PMI Website Link,

5.0 PMI Model No. PDT-8G12G-40-515-SFF, 8.0 to 12.0 GHz SP2T High Power Switch

PMI Model No. PDT-8G12G-40-515-SFF is an 8.0 to 12.0 GHz, 2 way high power switch that has an insertion loss of 2.0 dB maximum and a VSWR of 1.8:1 maximum. The operating power is +40 dBm CW average, +57 dBm 1 µs, 1% duty cycle with an isolation of 40 dB minimum. This unit is supplied with SMA female connectors in a housing measuring 1.25" x 1.25" x 0.30".

- Frequency Range: 8.0 to 12.0 GHz
- Insertion Loss:
  - 2.0 dB max. (8.0 to 10.0 GHz) - Measured 1.89 dB
  - 2.3 dB max. (10.0 to 12.0 GHz) - Measured 2.11 dB
- Isolation: 40 dBm min. - Measured 44.5 dB
- Operating Power:
  - +40 dBm CW
  - +57 dBm, 1 µs, 1% DC
- VSWR: 1.8:1 max. - Measured 1.52:1
Switching Speed: 200 ns max.  -  Measured 196 ns
Power Supply
  - +5 V @ 100 mA - Measured 50 mA
  - -15 V @ 60 mA - Measured 0 mA

PMI Website Link,

**DC to 50 GHz Components, Modules, and Sub-Systems**

PMI offers just about any RF/Microwave component, module, or sub-system for both industrial and military based requirements. Please click on the product types below to be directed to our web site catalog. Components and modules can be modified to meet your exact requirement.  
(Click on links below to be directed to the web listings)
Multifunction Integrated Assemblies

Phase Shifters

Power Dividers/Combiners

Quadrature Couplers

SDLVA's

Switch Matrices

DLVA/ERDLVA

Receiver Front Ends

SMT and QFN Packaging

Rack Mount and Chassis Products

Solid-State Products

Switchable Low-Noise LNA's

OEM & Obsolete Parts Support

We truly value your interest in our company and our products. We appreciate your feedback. Please feel free to contact us with any requirements or questions that you may have.

Sincerely,