Here's What's New...
New Product Releases from
Planar Monolithics Industries, Inc.
April 29, 2019

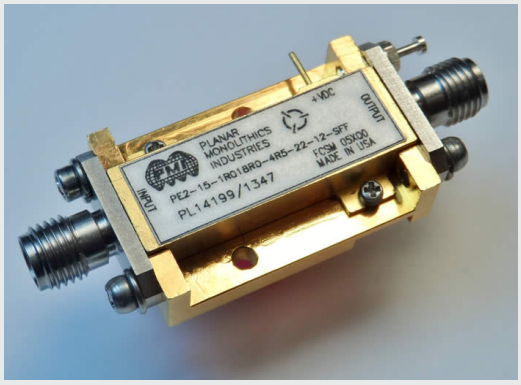
1.0 PMI Model No. PE210R258R515SFFLM Rev. B, 0.25 to 8.5 GHz Low Noise Amplifier

PMI Model No. PE210R258R515SFFLM Rev. B is a low noise amplifier that operates over the frequency range of 0.25 to 8.5 GHz. It has a small signal gain window of +9.0 to +13.0 dB and a maximum noise figure of 4.5 dB. This unit has a minimum OP1dB of +16 dB and a maximum VSWR of 2.3:1. This model is supplied with SMA female connectors in our standard PE2 housing.

- Frequency Range: 0.25 to 8.5 GHz
- Small Signal Gain Window: +9.0 to +13.0 dB - Measured 12.41 dB Max., 11.13 dB Min.
- Gain Flatness: ≤1.5 dB P-P Goal, ≤2.0 dB P-P Max. - Measured 0.64 dB
- Noise Figure: 4.5 dB Max. (Valid from 0.5 to 8.5 GHz) - Measured 4.48 dB @ 500 MHz
- OP1dB: +16 dB Min. - Measured >16 dBm
- Max Input Power: +10 dB CW - Measured +10 dBm CW
- VSWR In/Out: 2.3:1 Max. - Measured 1.73:1/1.85:1
- DC Voltage Supply: +12 VDC
- DC Current Draw: 300 mA Max. - Measured 125 mA

PMI Website Link,
https://www.pmi-rf.com/products-details/pe210r258r515sfflm-rev-b

2.0 PMI Model No. PE2-15-1R018R0-4R5-22-12-SFF, 1.0 to 18.0 GHz Low Noise Amplifier



PMI Model No. PE2-15-1R018R0-4R5-22-12-SFF is low noise amplifier that operates over the frequency range of 1.0 to 18.0 GHz. It provides a typical gain of 15 dB and a typical noise figure of 4.5 dB. This unit has a typical OP1dB of +20 dB and a typical VSWR of 2.0:1. This model is supplied with SMA female connectors in our standard PE2 housing.

- Frequency Range: 1.0 to 18.0 GHz
- Gain: 15 dB Typ. - Measured 14.49 dB Min., 16.82 dB Max.
- Gain Flatness: ±1.5 dB Max. - Measured ±1.16 dB
- Noise Figure: 4.5 dB Typ. - Measured 4.27 dB @ 1.0 GHz
- OP1dB: +20 dBm Typ. - Measured >20 dBm
- VSWR In/Out: 2.0:1 Typ. - Measured 1.35:1/1.90:1
- DC Voltage Supply: +12 to +15 V
- DC Current Draw: 225 mA Max. - Measured 215 mA

PMI Website Link,
https://www.pmi-rf.com/products-details/pe2-15-1r018r0-4r5-22-12-sff

3.0 PMI Model No. PDVAN-8018-60-8-OPT25DBM, 8.0 to 18.0 GHz 8-Bit Digitally Programmable Attenuator

PMI Model No. PDVAN-8018-60-8-OPT25DBM is an 8-Bit digitally programmable attenuator that operates over the frequency range of 8.0 to 18.0GHz. This model offers low loss of 3.6 dB typically and an attenuation range of 60 dB. This model was designed to handle input power levels up to +25 dBm CW under operating conditions and signal levels up to +30 dBm CW without damage. The attenuation flatness over frequency is less than ±1.6 dB at full attenuation. The switching speed is less than 800 ns. This model is supplied with SMA female connectors in a housing that measured 2.0" x 1.8" x 0.5".

- Frequency Range: 8.0 to 18.0 GHz
- Mean Attenuation Range: 60 dB
- LSB: 0.25 dB
- Insertion Loss: 4.0 dB Goal, 5.0 dB Max. - Measured 3.63 dB
- VSWR: 2.0:1 Max. - Measured 1.86:1
- Survival Power Rating: +30 dBm CW Max.
- Operating Input Power: +25 dBm CW Min.
- Attenuation Flatness:
  - ±0.80 dB @ 10 dB Attenuation - Measured ±0.75 dB
  - ±1.10 dB @ 20 dB Attenuation - Measured ±0.98 dB
  - ±1.15 dB @ 40 dB Attenuation - Measured ±0.76 dB
  - ±1.60 dB @ 60 dB Attenuation - Measured ±1.59 dB
- Switching Speed: 800 ns Max. - Measured <800 ns
- Digital Control: 8-Bit Binary TTL
- Input Tracking: Monotonic
- DC Voltage:

- +12 to +15 V @ 150 mA Max. -Measured 35 mA
- -12 to -15 V @ 75 mA Max. - Measured 0 mA

PMI Website Link,
https://www.pmi-rf.com/products-details/pdvan-8018-60-8-opt25dbm

4.0 PMI Model No. EQL-17D6G21D6G-8DB-292MF, 17.6 to 21.6 GHz Passive Amplitude Equalizer

PMI Model No. EQL-17D6G21D6G-8DB-292MF is a passive amplitude equalizer that operates over the frequency range of 17.6 to 21.6 GHz. This unit has a maximum input power of 0.5 Watts CW and a maximum VSWR of 2.0:1. This model is supplied with a 2.92 mm male connector and a 2.92 mm female connector in a housing measuring 1.10" x 0.67" x 0.22".

- Frequency Range: 17.6 to 21.6 GHz
- Maximum Input Power: 0.5 W CW
- VSWR: 2.0:1 Max. - Measured 1.94:1
- Amplitude @ 17.6 GHz: -1 dB Min. - Measured -2.86 dB
- Slope:
  - Amplitude @ 17.6 GHz
  - Amplitude -8 dB @ 21.6 GHz
  - Amplitude = -2 dB/GHz
  - (Frequency above 17.6 GHz In GHz) + (Amplitude @ 17.6 GHz) - Measured -2.15 dB/GZ
- Linearity: ±0.5 dB

PMI Website Link,
https://www.pmi-rf.com/products-details/eql-17d6g21d6g-8db-292mf1

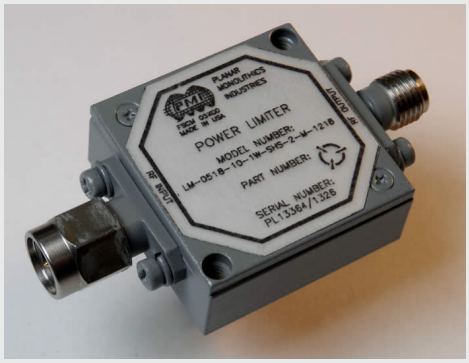
5.0 PMI Model No. 6CL9227D5M-180-CD-SFF, 9227.5 MHz Combline Filter

PMI Model No. 6CL9227D5M-180-CD-SFF is a combline filter centered at 9227.5 MHz with a bandwidth of 180 MHz. This unit has a typical insertion loss at the center frequency of 1.0 dB and a maximum passband VSWR of 1.5:1. This model is supplied with SMA female connectors in a housing measuring 1.90" x 0.40" x 0.40".

- Center Frequency: 9227.5 MHz Nominal
- 3 dB Bandwidth: 180 MHz Typ.
- VSWR in the Pass Band: 1.5:1 Max. - Measured 1.22:1
- Insertion Loss (Fo): 1 dB Typ.
- Phase Linearity (9207.5 to 9247.5 MHz): ±3.2° Typ. - Measured ±0.25°
- Rejection -60 dB Nominal: 8823.5 MHz
- Rejection -60 dB Nominal: 9671.5 MHz
- Impedance (Source Load): 50 Ohms Nominal

PMI Website Link,
https://www.pmi-rf.com/product-details/6cl9227d5m-180-cd-sff

6.0 PMI Model No. LM-0518-10-1W-SHS-2-M-1218, 12.0 to 18.0 GHz High Power Limiter



PMI Model No. LM-0518-10-1W-SHS-2-M-1218 is a high power limiter that operates from 12.0 to 18.0 GHz. This limiter handles 100 Watts Peak Power with a pulse width of 1 usec. The typical insertion loss is only 1.5 dB and it has a maximum VSWR of 2.0:1. This model is supplied with a SMA male connector and a SMA female connector in a housing measuring 1.0" x 1.0" x 0.4".

- Frequency Range: 12.0 to 18.0 GHz
- Insertion Loss @ -20 dBm Input: 2.0 dB Max., 1.5 dB Typ. - Measured 1.64 dB
- Input VSWR @ -20 dBm Input: 2.0:1 Max., 1.5:1 Typ. - Measured 1.3:1
- Leakage @ 1 Watt CW Input: +14 dBm Max., +10 dBm Typ. -Measured <10 dBm
- Peak Power: 100 W
- Pulse Width: 1 usec
- Duty Cycle: 0.1%

PMI Website Link,
https://www.pmi-rf.com/products-details/lm-0518-10-1w-shs-2-m-1218-

7.0 PMI Model No. PS-1G4G-180-A-SFF, 1.0 to 4.0 GHz Analog Phase Shifter

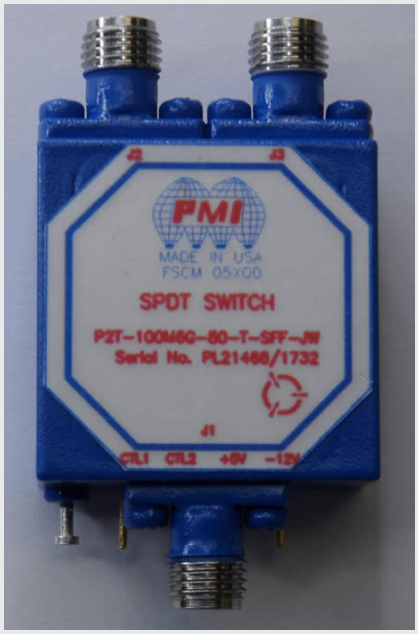
PMI Model No. PS-1G4G-180-A-SFF is an analog phase shifter that operates from 1.0 to 4.0 GHz. This unit has a typical insertion loss of 5.0 dB and a typical VSWR of 2.0:1. This model is supplied with SMA female connectors in a housing measuring 5.0" x 3.0" x 0.9".

- Frequency Range: 1.0 to 4.0 GHz
- RF Impedance: 50 Ohms
- Phase Shift Range: 0 to 180 Degrees
- Insertion Loss: 5.0 dB Typ.
- VSWR: 2.0:1 Typ. - Measured 2.0:1 Typ.
- Voltage Control Range: +11 V / -11 V

PMI Website Link,
https://www.pmi-rf.com/products-details/ps-1g4g-180-a-sff

8.0 PMI Model No. P2T-100M6G-80-T-SFF-JW, 0.1 to 6.0 GHz SP2T Absorptive Switch

PMI Model No. P2T-100M6G-80-T-SFF-JW is a single pole, two throw, absorptive switch designed to operate between 0.1 to 6.0 GHz. This switch offers a typical insertion loss of 2.5 dB and provides a typical isolation of 80 dB. The typical switching speed is 150 ns and the maximum VSWR is 2.0:1. This model is supplied with SMA female connectors in a housing that measures 1.0" x 1.0" x 5.0".

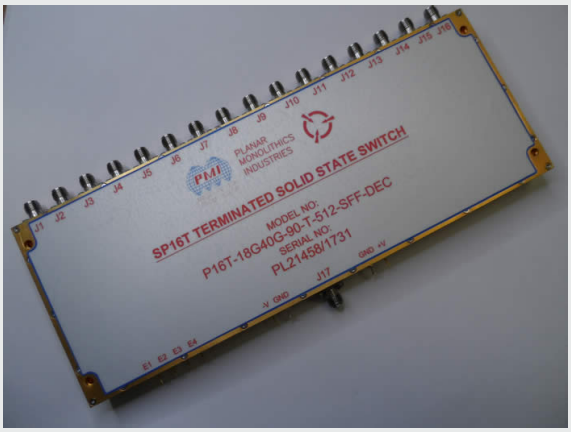


- Frequency Range: 0.1 to 6.0 GHz
- Insertion Loss: 2.5 dB Typ., 2.75 dB Max. - Measured 1.92 dB
- Operating Input Power: +23 dBm CW Max.
- Survival Input Power: +33 dBm CW Max.
- VSWR: 2.0:1 Max. - Measured 1.23:1
- Isolation: 80 dB Typ., 70 dB Min. - Measured 82.04 dB
- Switching Speed: 150 ns Typ., 200 ns Max. - Measusred 156 ns
- Control:
  - TTL Logic
  - "0" = Insertion Loss
  - "1" = Isolation
- DC Voltage:
  - +5 VDC - Measured @ 46 mA
  - -12 VDC - Measured @ 48 mA

PMI Website Link,
https://www.pmi-rf.com/products-details/p2t-100m6g-80-t-sff-jw

9.0 PMI Model No. P16T-18G40G-90-T-512-SFF-DEC, 18.0 to 40.0 GHz SP16T Absorptive Switch

PMI Model No. P16T-18G40G-90-T-512-SFF-DEC is a single pole, sixteen throw, absorptive switch that operates from 18.0 to 40.0 GHz. This switch offers a typical insertion loss of 12 dB and a provides a minimum isolation of 50 dB. The typical VSWR is 2.5:1 and the input power is +20 dBm CW. This model is supplied with 2.92 mm female connectors in a housing measuring 8.00" x 3.00" x 0.65".



- Frequency Range: 18.0 to 40.0 GHz
- Insertion Loss: 12 dB Typ. - Measured 10.38 dB
- Isolation: 50 dB Min. - Measured 55.13 dB
- VSWR In/Out: 2.5:1 Typ. - Measured 2.39:1
- VSWR Ouput/Off: 2.5:1 Typ. - Measured 2.24:1
- Switching Speed:
  - Rise/Fall: 50 ns Typ. / 10 ns Typ. - Measured 13 ns / 6 ns
  - Delay On/Off: 150 ns Max. - Measured 100.5 ns
- Input Power: +20 dBm CW
- Control: 4-Bit Decoded TTL Logic
- Power Supply:
  - +5 VDC @ 750 mA Max. - Measured 470 mA
  - -12 VDC @ 200 mA Max. - Measured 176 mA

PMI Website Link,
https://www.pmi-rf.com/products-details/p16t-18g40g-90-t-512-sff-dec

10.0 PMI Model No. TDC-30T-0110-CD-1, 0.1 to 10.0 GHz Threshold Detector

PMI Model No. TDC-30T-0110-CD-1 is a high speed threshold detector designed to operate from 0.1 to 10.0 GHz. This unit has a VSWR of 2.0:1 and a typical propagation delay of 15 ns. This model is supplied with SMA female connectors in a housing measuring 2.2" x 1.5" x 0.4".

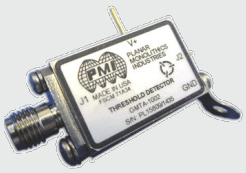
- Frequency Range: 0.1 to 10.0 GHz
- Insertion Loss: 2.5 dB Max.
- VSWR: 2.0:1 - Measured 1.50:1
- Frequency Flatness: ±1.5 dB Typ., ±2.0 dB Max. - Measured ±0.69 dB
- Threshold Level: Adjustable
- Threshold Variation: ±0.5 dB Typ. over any 1 GHz - Measured ±0.60 dB
- Propagation Delay: 20 ns Max., 15 ns Typ. - Measured 16.36 ns
- Ouput Pulse Width when Input:
  - -20 to -10 dBm: Within 10 ns of Input Pulse Width
  - -10 to 0 dBm: Within 10 ns of Input Pulse Width
  - -10 to +10 dBm: Within 25 ns of Input Pulse Width
  - -20 to +10 dBm: Within 25 ns of Input Pulse Width
- DC Power Supply:
  - +12 V @ 150 mA Max. - Measured 111 mA
  - -12 V @ 100 mA Max. - Measured 50 mA

PMI Website Link,
https://www.pmi-rf.com/products-details/tdc-30t-0110-cd-1

***** For more information on PMI's complete line of products, please visit *****
http://www.pmi-rf.com

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)



Threshold Detectors

Dielectric Resonator Oscillators

I/Q Vector Modulators

Filter nks

Frequency Synthesizers

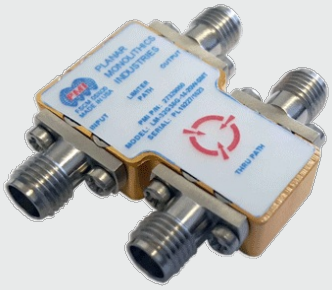
Diode Detectors

Digital Attenuators

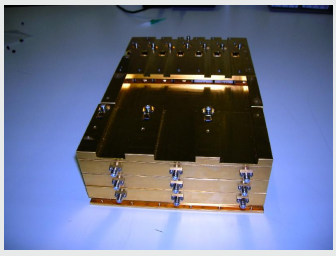
Digitally Tuned Oscillator

Frequency Discriminators

I/Q Vector Modulators



Limiters



Multifunction Integrated Assemblies

Phase Shifters

Power Dividers/Combiners

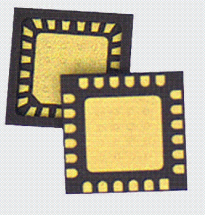
Quadrature Couplers

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,

PMI Marketing Department
7311-F Grove Road Frederick, MD 21704 USA
Phone (301) 662-5019 / Fax (301) 662-1731

4921 Robert J. Mathews Parkway, Suite 1, El Dorado Hills, CA 95762 USA
Phone (916) 542-1401 / Fax (916) 265-2597

Email: sales@pmi-rf.com / Web: www.pmi-rf.com