Presenting...

New Product Releases from
Planar Monolithics Industries, Inc.
September 10, 2020

1.0 PMI Model No. P16T-250M18G-60-T-512-SFF-DEC-1W, 0.25 to 18.0 GHz, SP16T Absorptive Switch

PMI Model No. P16T-250M18G-60-T-512-SFF-DEC-1W is a Single Pole, Sixteen Throw, Absorptive Switch that operates over the 0.25 to 18.0 GHz frequency range. It has a maximum insertion loss of 7 dB and a minimum isolation of 60 dB. This model is outfitted with SMA female removable connectors in a housing measuring 8.00" x 3.00" x 0.65".

- Frequency Range: 0.25 to 18.0 GHz
- Insertion Loss: 6.0 dB Goal, 7.0 dB Max.
- Isolation: 60 dB Min. - Measured 73.29 dB
- VSWR In/Out: 2.0:1 Typ., 2.5:1 Max.
- VSWR Out/Off: 2.0:1 Typ., 2.5:1 Max.
- Switching Speed:
  - Rise/Fall: 50 ns Typ., 10 ns Typ.
  - Delay On/Off: 150 ns Max - Measured 140 ns
2.0 PMI Model No. P32T-0R5G18G-60-T-SFF-OPT0812, 0.5 to 18.0 GHz, SP32T Absorptive Switch

PMI Model No. P32T-0R5G18G-60-T-SFF-OPT0812 is a 0.5 to 18.0 GHz, Single Pole, Thirty-Two Throw, Absorptive Switch. It has a maximum insertion loss of 9.5 dB and a minimum isolation of 60 dB. The housing is measured at 8.0" x 3.5" x 1.0" and has SMA female removable connectors.

- Frequency Range: 0.5 to 18.0 GHz (OPT0812: Optimized for 8.0 to 12.0 GHz)
- Insertion Loss: 9.5 dB Max. - Measured 8.61 dB (0.5 to 18.0 GHz), 6.79 dB (8.0 to 12.0 GHz)
- Isolation: 75 dB Min. - Measured 77.38 dB (0.5 to 18.0 GHz), 86.04 dB (8.0 to 12.0 GHz)
- VSWR (In/Out): 2.0:1 Typ., 2.1:1 Max. - Measured 2.06:1/2.05:1 (8.0 to 12.0 GHz)
- Switching Speed: 100 ns Max. - Measured 58.19 ns Rise Time, 11.78 ns Fall Time, 98.10 ns (Speed On), 51.46 ns Speed Off
- Input Power: 20 dBm CW Max. (Operating)
- Survival Power: 1 W CW, 10 W Peak, 1 us
- Amplitude Balance: ±1.5 dB Max. - Measured ±1.3 dB (0.5 to 18.0 GHz), ±0.81 dB (8.0 to 12.0 GHz)
- Video Transients: 1 V P-P Typ.
- DC Supply:
  - +5 VDC @ 1600 mA - Measured 1310 mA
  - -5 VDC @ 200 mA - Measured 74 mA

3.0 PMI Model No. LPF-6G-35-SFF, DC to 4.4 GHz, Low Pass Filter

PMI Model No. LPF-6G-35-SFF is a Low Pass Filter that operates over the DC to 4.4 GHz frequency range. It has a maximum passband insertion loss of 2 dB and a maximum passband VSWR of 2.0:1. This model is outfitted with SMA female field, replaceable connectors in a housing measuring 0.685" x 0.700" x 0.255".

- Passband Frequency Range: DC to 4.4 GHz Min.
- -3 dB Cut-Off Frequency: 6.95 GHz Max.
- Passband Insertion Loss: 2 dB Max. - Measured 1.01 dB
- Passband VSWR: 2.0:1 Max. - Measured 1.74:1
- Rejection: -35 dBc Min. (9.0 to 18.0 GHz) - Measured -38.54 dBc
4.0 PMI Model No. LPF-8G-35-SFF, DC to 6.4 GHz, Low Pass Filter

PMI Model No. LPF-8G-35-SFF is a Low Pass Filter that operates over the DC to 6.4 GHz frequency range. It has a maximum passband insertion loss of 2 dB and a maximum passband VSWR of 2.0:1. This model is outfitted with SMA female, field replaceable connectors in a housing measuring 0.685" x 0.700" x 0.255".

- Passband Frequency Range: DC to 6.4 GHz Min.
- -3 dB Cut-Off Frequency: 8.5 GHz Max.
- Passband Insertion Loss: 2 dB Max. - Measured 1.29 dB
- Passband VSWR: 2.0:1 Max. - Measured 1.86:1
- Rejection: -35 dBC Min. (9.5 to 18.0 GHz) - Measured -36.86 dBC

PMI Website Link,

5.0 PMI Model No. LPF-10G-35-SFF, DC to 8.4 GHz, Low Pass Filter

PMI Model No. LPF-10G-35-SFF is a DC to 8.4 GHz Low Pass Filter. It has a maximum passband insertion loss of 2 dB and a maximum passband VSWR of 2.0:1. It has SMA female, field replaceable connectors in a housing measured at 0.685" x 0.700" x 0.255".

- Passband Frequency Range: DC to 8.4 GHz Min.
- -3 dB Cut-Off Frequency: 10.5 GHz Max.
- Passband Insertion Loss: 2 dB Max. - Measured 1.29 dB
- Passband VSWR: 2.0:1 Max. - Measured 1.86:1
- Rejection: -35 dBC Min. (13.0 to 18.0 GHz) - Measured -36.86 dBC

PMI Website Link,
https://www.pmi-rf.com/product-details/lpf-10g-35-sff

6.0 PMI Model No. LPF-12G-35-SFF, DC to 10.4 GHz, Low Pass Filter

PMI Model No. LPF-12G-35-SFF is a Low Pass Filter that operates over the DC to 10.4 GHz frequency range. It has a maximum passband insertion loss of 2 dB and a maximum passband VSWR of 2.0:1. This model is outfitted with SMA female, field replaceable connectors in a housing measuring 0.685" x 0.700" x 0.255".

- Passband Frequency Range: DC to 10.4 GHz Min.
- -3 dB Cut-Off Frequency: 12.5 GHz Max.
- Passband Insertion Loss: 2 dB Max. - Measured 0.89 dB
- Passband VSWR: 2.0:1 Max. - Measured 1.54:1
- Rejection: -35 dBC Min. (16.5 to 18.0 GHz) - Measured -43.59 dBC

PMI Website Link,
https://www.pmi-rf.com/product-details/lpf-12g-35-sff

7.0 PMI Model No. BPF-5400-2000-35-SFF-HY, 4.4 to 6.4 GHz, Band Pass Filter
PMI Model No. BPF-5400-2000-35-SFF-HY is a Band Pass Filter that operates over the 4.4 to 6.4 GHz frequency range. It has a maximum -1 dB passband insertion loss of 6 dB and a maximum passband VSWR of 2.0:1. This model is outfitted with SMA female, field replaceable connectors in a housing measuring 1.42" x 0.80" x 0.40".

- Passband Frequency Range: 4.4 to 6.4 GHz Min.
- -3 dB Bandwidth: 2.0 GHz Min.
- -1 dB Passband Insertion Loss: 6 dB Max. - Measured 3.53 dB
- Passband Flatness: 3 dB Max. - Measured 2.42 dB
- Passband VSWR: 2.0:1 Max. Over 90% of Passband - Measured 1.41:1
- Rejection:
  - -35 dBc Min. (0.1 to 4.0 GHz) - Measured -41.46 dBc
  - -35 dBc Min. (6.8 to 9.0 GHz) - Measured -41.6 dBc

PMI Website Link,

8.0 PMI Model No. BPF-7400-2000-35-SFF-TB, 6.4 to 8.4 GHz, Band Pass Filter

PMI Model No. BPF-7400-2000-35-SFF-TB is a Band Pass Filter that operates over the 6.4 to 8.4 GHz frequency range. It has maximum -1 dB passband insertion loss of 5.5 dB and a maximum passband VSWR of 2.0:1. This model is outfitted with SMA female, field replaceable connectors in a housing measuring 1.42" x 0.80" x 0.40".

- Passband Frequency Range: 6.4 to 8.4 GHz Min.
- -3 dB Bandwidth: 2.0 GHz Min.
- -1 dB Passband Insertion Loss: 5.5 dB Max. - Measured 3.87 dB
- Passband Flatness: 3 dB Max. - Measured 2.2 dB
- Passband VSWR: 2.0:1 Max. Over 90% of Passband - Measured 1.62:1
- Rejection:
  - -35 dBc Min. (0.1 to 6.0 GHz) - Measured -70.23 dBc
  - -35 dBc Min. (8.8 to 12.0 GHz) - Measured -47.02 dBc

PMI Website Link,

9.0 PMI Model No. BPF-11400-2000-35-SFF-HY, 10.4 to 12.4 GHz, Band Pass Filter

PMI Model No. BPF-11400-2000-35-SFF-HY is a 10.4 to 12.4 GHz, Band Pass Filter. It has a maximum -1 dB passband insertion loss of 5 dB and a maximum passband VSWR of 2.0:1. The housing is outfitted with SMA female, field replaceable connectors and is measured at 1.67" x 0.80" x 0.40".

- Passband Frequency Range: 10.4 to 12.4 GHz Min.
- -3 dB Bandwidth: 2.0 GHz Min.
- -1 dB Passband Insertion Loss: 5 dB Max. - Measured 2.93 dB
- Passband Flatness: 3 dB Max. - Measured 1.84 dB
- Passband VSWR: 2.0:1 Max. Over 90% of Passband - Measured 1.67:1
- Rejection:

10.0 PMI Model No. LM-10M50G-18DBM-4W-24FF, 10 MHz to 50.0 GHz, Limiter

PMI Model No. LM-10M50G-18DBM-4W-24FF is a 10 MHz to 50.0 GHz, Limiter. It has a maximum insertion loss of 3.40 dB and a maximum VSWR of 2.0:1. The housing is measured at 0.53" x 0.56" x 0.26" and has 2.4 mm female connectors.

- Frequency Range: 10 MHz to 50.0 GHz
- Power Handling: 4 W CW Max.
- Peak Input Power:
  - 20 W Max. (Pw 1 us, 1% Duty Cycle) Tested up to 18.0 GHz
  - 16 W Max. @ 18.0 GHz (Pw 10 us, 1% Duty Cycle)
- Recovery Time: 100 ns Typ. - Measured 92 ns
- Insertion Loss @ -10 dBm Input Power:
  - 1.5 dB Max. (10 MHz to 18.0 GHz) - Measured 1.29 dB
  - 3.4 dB Max. (40.0 to 50.0 GHz) - Measured 3.07 dB
- VSWR In/Out @ -10 dBm Input Power: 2.0:1 Max. - Measured 1.94:1/1.92:1
- Flat Leakage Power: +18 dBm Typ.
- P1dB: +15 dBm Typ.

PMI Website Link, https://www.pmi-rf.com/product-details/1m-10m50g-18dbm-4w-24ff

11.0 PMI Model No. LM-10M50G-20DBM-1W-24FF, 10 MHz to 50.0 GHz, Limiter

PMI Model No. LM-10M50G-20DBM-1W-24FF is a 10 MHz to 50.0 GHz, Limiter. It has a maximum insertion loss of 2.5 dB and a maximum recovery time of 100 ns. The housing is measured at 0.53" x 0.70" x 0.26" and has 2.4 mm female connectors.

- Frequency Range: 10 MHz to 50.0 GHz
- Power Handling:
  - 1.5 W CW Max. (20 MHz to 12.0 GHz)
  - 1.0 W CW Max. (18.0 GHz)
- Peak Input Power:
  - 10 W Peak Max. (20 MHz to 1.0 GHz)
  - 6 W Peak Max. (4.0 to 8.0 GHz)
  - 4 W Peak Max. (12.0 to 18.0 GHz)
  - (Pw 1 us, 1% Duty Cycle)
- Recovery Time: 100 ns Max. - Measured 74 ns
- Insertion Loss @ -10 dBm Input Power:
  - 1.5 dB Max. (10 MHz to 18.0 GHz) - Measured 1.22 dB
  - 2.3 dB Max. (18.0 to 40.0 GHz) - Measured 2.15 dB
  - 2.5 dB Max. (40.0 to 50.0 GHz) - Measured 2.22 dB
- VSWR In/Out @ -10 dBm Input Power: 2.0:1 Max. - Measured 1.76:1/1.86:1
- Flat Leakage Power: +22 dBm Typ.
- P1dB: +16 dBm Typ.
12.0 PMI Model No. PEC-150M6G-17LM-SFF, 0.15 to 6.1 GHz, Limiting Amplifier

PMI Model No. PEC-150M6G-17LM-SFF is a 0.15 to 6.1 GHz, Limiting Amplifier. It has a maximum input power of +22 dBm and a maximum VSWR of 2.2:1. The housing is outfitted with SMA female connectors and is measured at 1.91" x 0.70" x 0.36".

- Frequency Range: 0.15 to 6.1 GHz
- RF Input Power Range (Limiting): -12 to +16 dBm
- Max Input Power (Survival): +22 dBm
- Harmonics:
  - 2nd: -10 dBC Max.
  - 3rd: -8 dBC Max.
  - (Within Limiting Range)
- Noise Figure:
  - <6 dBM Above 1.0 GHz - Measured 4.97 dB
  - <9 dBM Below 1.0 GHz - Measured 6.33 dB
- Output Power: +16 dBM Min., +21 dBM Max.
- Output Power Flatness: ±2 dBM Max. - Measured ±0.94 dBM
- VSWR: 2.2:1 Max. - Measured 1.57:1/1.77:1
- DC Power: +12 V @ 500 mA Max. (No RF Input Signal)

13.0 PMI Model No. PS-360-DC-3 Option 618-15D-10BIT, 6.0 to 18.0 GHz, 10-Bit Digitally Controlled Phase Shifter

PMI Model No. PS-360-DC-3 Option 618-15D-10BIT is a 6.0 to 18.0 GHz, 10-Bit Digitally Controlled Phase Shifter. It has a maximum insertion loss of 12 dB and a maximum VSWR of 2.0:1. The housing is outfitted with SMA female field removable connectors and a 15-Pin Micro-D connector and is measured at 1.60" x 1.75" x 0.50".

- Frequency Range: 6.0 to 18.0 GHz
- Insertion Loss: 12 dB Max., 10 dB Typ.
- VSWR In/Out: 2.0:1 Max. - Measured 1.7:1/1.9:1
- Accuracy: ±15° Max. (Peak to Peak) - Measured +7.6°/-6.6°
- PM/AM: ±2.5 dB Max. - Measured ±1.7 dB
- Translation Rate: 0 to 500 kHz
- Carrier Suppression: 18 dB
- Side Band Suppression: 15 dB
- Phase Shift:
  - Range: 360° in 1024 Steps
  - Control Input: 10 Bit TTL
  - Switching Speed: 500 ns Max. (50% TTL to Within 10° of Final Phase Value)
  - Harmonics: -25 dBC
- Power Handling Capability:
  - Without Degradation: +10 dBM
Survival Power: +20 dBm

Power Supply:
- +5 VDC (±5%) @ 115 mA - Measured 96 mA
- -12 to -15 VDC @ 20 mA - Measured 22 mA

[PMI Website Link](https://www.pmi-rf.com/product-details/ps-360-dc-3-option-618-15d-10bit)

14.0 PMI Model No. PS-2G6G-8B-SFF, 2.0 to 6.0 GHz, 8-Bit Digital Phase Shifter

PMI Model No. PS-2G6G-8B-SFF is a 8-Bit Digital Phase Shifter that operates over the 2.0 to 6.0 GHz frequency range. It has a typical insertion loss of 10.5 dB and a maximum switching speed of 500 ns. The unit is supplied in a housing measuring 3.25" x 3.25" x 0.84" and has SMA female connectors and a 15-Pin D-Sub male connector.

- Frequency Range: 2.0 to 6.0 GHz
- Control: 8-Bit TTL
- Insertion Loss: 10.5 dB Typ. - Measured 7.8 dB
- VSWR: Not Specified - Measured 2.37:1
- Phase Shift: 360°
- Amplitude Error: ±1 dB Typ. - Measured ±0.7 dB
- Phase Accuracy: ±0.5° Typ. - Measured ±0.21°
- Switching Speed: 500 ns Max. - Measured <250 ns
- Power Supply:
  - +15 V - Measured 177 mA
  - -15 V - Measured 28 mA

[PMI Website Link](https://www.pmi-rf.com/product-details/ps-2g6g-8b-sff)

15.0 PMI Model No. DTA-30M2D5G-60DB-10B, 30 MHz to 2.5 GHz, 10-Bit Programmable Attenuator

PMI Model No. DTA-30M2D5G-60DB-10B is a 30 MHz to 2.5 GHz, 10-Bit Programmable Attenuator. It has a maximum insertion loss of 4.5 dB and a maximum VSWR of 2.0:1. The housing is measured at 2.00" x 1.81" x 0.88" and SMA female connectors and a 15 Pin D-Sub connector.

- Frequency Range: 30 MHz to 2.5 GHz
- Mean Attenuation Range: 60 dB
- Insertion Loss: 4.5 dB Max. - Measured 3.8 dB
- VSWR: 2.0:1 Max. - Measured 1.9:1
- Flatness Up To:
  - 20 dB: ±0.6 dB Typ.
  - 40 dB: ±1.0 dB Typ.
  - 60 dB: ±3.0 dB Typ.
- Accuracy of Attenuation:
  - 0 to 20 dB: ±0.5 dB Max. - Measured ±0.25 dB
  - 20 to 40 dB: ±0.75 dB Max. - Measured ±0.46 dB
  - 40 to 60 dB: ±1.5 dB Max.
- Minimum Attenuation Step: 0.06 dB
- Survival Power: 1 W Average from -65°C to +25°C
Switching Time:
  - On Time: 1 µs Max.
  - Off Time: 1 µs Max.

DC Power Supply:
  - +12 to +15 V @ 100 mA Max. - Measured 43 mA
  - -12 to -15 V @ 100 mA Max. - Measured 57 mA

Logic Input:
  - Logic "0" (Bit Off): -0.3 to +0.8 V
  - Logic "1" (Bit On): +2.0 to +5.0 V

17.0 PMI Model No. PIM-1G1D85G-1D85G2D7G-22DB-12V, 850 MHz Instantaneous Bandwidth Baseband Module

PMI Model No. PIM-1G1D85G-1D85G2D7G-22DB-12V is a 850 MHz, Instantaneous Bandwidth Baseband Module with an Amplifier and Bandpass Filter. It has a gain of +18 dB and a typical noise figure of 3 dB. It has a male GPPO input connector and a SMA female output connector in a housing measured at 4.420" x 1.750" x 0.745".

- Channel 1:
  - Frequency Range: 1.0 to 1.85 GHz
  - Gain: +18 dB
  - Noise Figure: 3 dB Typ.
  - Output IP3: +35 dB Min.

- Channel 2:
  - Frequency Range: 1.85 to 2.7 GHz
  - Gain: +18 dB
  - Noise Figure: 3 dBm Typ.
  - Output IP3: +35 dB Min.

- Input VSWR: 2:1 Max. - Measured 1.4:1 (Channel 1), 1.8:1 (Channel 2)
- Output VSWR: 2:1 Max. - Measured 1.4:1 (Channel 1), 1.8:1 (Channel 2)
- Harmonics: -60 dBC Min. - Measured -62.4 dBC (Channel 1), -80 dBC (Channel 2)
- Absolute Max RF Power (Survival): +20 dBm
- DC Power: +7 V to +12 V @ 300 mA Typ., 400 mA Max. - Measured 336 mA

18.0 PMI Model No. PIM-2D7G3D55G-3D55G4D4G-22DB-12V, 850 MHz Instantaneous Bandwidth Baseband Module

PMI Website Link,
https://www.pmi-rf.com/product-details/dta-30m2d5g-60db-10b

PMI Website Link,
https://www.pmi-rf.com/product-details/pim-1g1d85g-1d85g2d7g-22db-12v

PMI Website Link,
https://www.pmi-rf.com/product-details/pim-1g1d85g-1d85g2d7g-22db-12v
PMI Model No. PIM-2D7G3D55G-3D55G4D4G-22DB-12V is a 850 MHz, Instantaneous Bandwidth Baseband Module with an Amplifier and Bandpass Filter. It has a gain of +18 dB and a typical noise figure of 3 dB. It has a male GPPO input connector and a SMA female output connector in a housing measured at 4.420" x 1.750" x 0.745".

- Channel 3:
  - Frequency Range: 2.7 to 3.55 GHz
  - Gain: +18 dB
  - Noise Figure: 3 dB Typ.
  - Output IP3: +35 dBm Min.
- Channel 4:
  - Frequency Range: 3.55 to 4.4 GHz
  - Gain: +18 dB
  - Noise Figure: 5.5 dB Typ.
  - Output IP3: +30 dBm Min.
- Input VSWR: 2:1 Max. - Measured 1.4:1 (Channel 1), 1.7:1 (Channel 2)
- Output VSWR: 2:1 Max. - Measured 1.7:1 (Channel 1), 1.8:1 (Channel 2)
- Harmonics: -60 dBC Min. - Measured -94 dBC (Channel 1), -99 dBC (Channel 2)
- Absolute Max RF Power (Survival): +20 dBm
- DC Power: +7 V to +12 V @ 350 mA Typ., 400 mA Max. - Measured 307 mA

PMI Website Link, https://www.pmi-rf.com/product-details/pim-2d7g3d55g-3d55g4d4g-22db-12v

19.0 PMI Model No. PIM-4D4G11D2G-BPF, 4.4 to 11.2 GHz, Instantaneous Bandwidth Baseband Module

PMI Model No. PIM-4D4G11D2G-BPF is a 4.4 to 11.2 GHz, Instantaneous Bandwidth Baseband Module. It has a typical insertion loss of 4 dB and a maximum VSWR of 2:1. It has male SMPM connectors in a housing measured at 5.50" x 1.20" x 0.55".

- Passband 1:
  - Frequency Range: 4.4 to 7.8 GHz
  - Insertion Loss: 4 dB Typ. - Measured 2 ± 0.5 dB
  - In/Out VSWR: 2:1 Max. - Measured 1.8:1/1.7:1
  - Rejection:
    - Low Side: -60 dBC Max. (0.1 to 3.65 GHz)
    - High Side: -60 dBC Max. (9.1 to 18.0 GHz)
- Passband 2:
  - Frequency Range: 7.8 to 11.2 GHz
  - Insertion Loss: 4 dB Typ. - Measured 1.1 ± 0.3 dB
  - In/Out VSWR: 2:1 Max. - Measured 1.9:1/1.8:1
  - Rejection:
    - Low Side: -60 dBC Max. (0.1 to 6.5 GHz)
    - High Side: -60 dBC Max. (13.0 to 18.0 GHz)

PMI Website Link, https://www.pmi-rf.com/product-details/pim-4d4g11d2g-bpf

20.0 PMI Model No. PIM-11D2G18G-BPF, 11.2 to 18.0 GHz, Instantaneous Bandwidth Baseband Module
PMI Model No. PIM-11D2G18G-BPF is a 11.2 to 18.0 GHz, Instantaneous Bandwidth Baseband Module. It has a typical insertion loss of 5 dB and a maximum VSWR of 2:1. It has male SMPM connectors in a housing measured at 5.00" x 1.20" x 0.46".

- **Passband 1:**
  - Frequency Range: 11.2 to 14.6 GHz
  - Insertion Loss: 5 dB Typ. - Measured 2.2 ± 0.8 dB
  - In/Out VSWR: 2:1 Max.
  - Rejection:
    - Low Side: -60 dBc Max. (0.1 to 9.4 GHz)
    - High Side: -60 dBc Max. (16.9 to 18.0 GHz)
- **Passband 2:**
  - Frequency Range: 14.6 to 18.0 GHz
  - Insertion Loss: 5 dB Typ. - Measured 2.2 ± 0.6 dB
  - In/Out VSWR: 2:1 Max.
  - Rejection:
    - Low Side: -60 dBc Max. (0.1 to 12.3 GHz)
    - High Side: -60 dBc Max. (20.8 GHz and Above)

**PMI Website Link,**
https://www.pmi-rf.com/product-details/pim-11d2g18g-bpf

### 21.0 PMI Model No. PD4-500M7G-TEE-SMPM, 1.0 to 4.4 GHz, 4-Way Power Divider

PMI Model No. PD4-500M7G-TEE-SMPM is a 1.0 to 4.4 GHz, 4-Way Power Divider. It has a maximum insertion loss of 8.5 dB and a minimum isolation of 12 dB. It has male SMPM connectors in a housing measured at 1.75" x 2.18" x 1.50".

- **Frequency Range:** 1.0 to 4.4 GHz
- **Insertion Loss:** <8.5 dB - Measured 7.82 dB
- **Isolation:** >12 dB - Measured 20.56 dB
- **Input VSWR:** 2:1 Max. - Measured 1.65:1
- **Output VSWR:** 2:1 Max. - Measured 1.43:1
- **Amplitude Balance:** ±0.3 dB Typ.
- **Absolute Max RF Power (Survival):** 20 W CW

**PMI Website Link,**
https://www.pmi-rf.com/product-details/pd4-500m7g-tee-smpm

### 22.0 PMI Model No. PD5-1G18G-10DB-4WAY, 1.0 to 18.0 GHz, 4-Way Power Divider

PMI Model No. PD5-1G18G-10DB-4WAY is a 1.0 to 18.0 GHz, 4-Way Power Divider. It has a typical VSWR of 2:1 and a typical isolation of 20 dB. It has male SMPM connectors in a housing measured at 2.83" x 1.20" x 0.20".

- **Frequency RF Out:**
  - Frequency Range: 4.4 to 18.0 GHz
  - Insertion Loss: 12 dB Typ. - Measured 10.3 dB
  - VSWR In/Out: 2:1 Typ. - Measured 1.99:1/1.97:1
23.0 PMI Model No. APD-8-10M-12V, 10 MHz, 8-Way Amplified Power Divider

PMI Model No. APD-8-10M-12V is a 10 MHz, 8-Way Amplified Power Divider. It has a maximum insertion loss of 4 dB ± 1.5 dB and a maximum VSWR of 2.1. It has SMA female connectors in a housing measured at 4.00" x 2.00" x 0.55".

- Frequency: 10 MHz
- Insertion Loss: 4 dB ± 1.5 dB Max. - Measured 3.38 dB
- VSWR: 2:1 Max. - Measured 1.22:1/1.29:1
- Input Power P1dB: +20 dBm Typ.
- Input Power: +23 dBm Max. (Survival)
- Output Port to Port Isolation: 25 dB Typ.
- Power Supply: +12 V @ 750 mA Max. - Measured 370 mA

24.0 PMI Model No. PMIX-4D4G7D8G-1G4D4G-12V, 4.4 to 7.8 GHz, Down Converter Module

PMI Model No. PMIX-4D4G7D8G-1G4D4G-12V is a 4.4 to 7.8 GHz, Down Converter Module. It has a typical gain of 3 dB and a maximum VSWR of 6.5:1. It has SMA male input connectors and a SMPM female output connector in a housing measured at 2.700" x 1.500" x 0.525".

- RF Input Frequency Range: 4.4 to 7.8 GHz
- RF Input Power: -15 dBm Typ., -10 dBm Max.
- LO Input: 8.8 GHz
- LO Input Power: +18 dBm Typ.
- IF Output Range: 1.0 to 4.4 GHz
- Gain: 3 dB Typ. - Measured 3.2 ± 2.5 dB
- Noise Figure: 14 dB Max. - Measured 12.93 dB
- Harmonics: -60 dBC Max.
- Spurious: -60 dBc Max.
- Output IP3: +25 dBm
- RF Input VSWR: 5:1 Typ., 6.5:1 Max. - Measured 1.8:1
- IF Output VSWR: 2:1 Typ., 2.5:1 Max. - Measured 1.8:1
- Absolute Max RF Power (Survival): +25 dBm
- Absolute Max LO Power (Survival): +25 dBm
- DC Power: +7 VDC to +12 VDC @ 250 mA - Measured 206 mA
- DC Power Out: +8 VDC @ 500 mA - Measured +7.96
25.0 PMI Model No. PMIX-7D8G11D2G-1G4D4G-12V, 7.8 to 11.2 GHz, Down Converter Module

PMI Model No. PMIX-7D8G11D2G-1G4D4G-12V is a 7.8 to 11.2 GHz, Down Converter Module. It has a typical gain of 3 dB and a maximum VSWR of 6.5:1. It has SMA male input connectors and a SMPM male output connector in a housing measured at 2.700" x 1.500" x 0.525".

- RF Input Frequency Range: 7.8 to 11.2 GHz
- RF Input Power: -15 dBm Typ., -10 dBm Max.
- LO Input: 6.6 GHz
- LO Input Power: +18 dBm Typ.
- IF Output Range: 1.0 to 4.4 GHz
- Gain: 3 dB Typ.
- Noise Figure: 14 dB Max.
- Harmonics: -60 dBc Max.
- Spurious: -60 dBc Max.
- Output IP3: +25 dBm
- RF Input VSWR: 5:1 Typ., 6.5:1 Max. - Measured 4.4:1
- IF Output VSWR: 2:1 Typ., 2.5:1 Max. - Measured 1.9:1
- Absolute Max RF Power (Survival): +25 dBm
- Absolute Max LO Power (Survival): +25 dBm
- DC Power: +7 VDC to +12 VDC @ 250 mA - Measured 210 mA
- DC Power Out: +8 VDC @ 500 mA - Measured +8.04 VDC

PMI Website Link,
https://www.pmi-rf.com/product-details/pmix-7d8g11d2g-1g4d4g-12v

26.0 PMI Model No. PMIX-11D2G14D6G-1G4D4G-12V, 11.2 to 14.6 GHz, Down Converter Module

PMI Model No. PMIX-11D2G14D6G-1G4D4G-12V is a 11.2 to 14.6 GHz, Down Converter Module. It has a typical gain of 3 dB and a maximum VSWR of 6.5:1. It has SMA male input connectors and a SMPM male output connector in a housing measured at 2.700" x 1.500" x 0.525".

- RF Input Frequency Range: 11.2 to 14.6 GHz
- RF Input Power: -15 dBm Typ., -10 dBm Max.
- LO Input: 10.2 GHz
- LO Input Power: +18 dBm Typ.
- IF Output Range: 1.0 to 4.4 GHz
- Gain: 3 dB Typ. - Measured 3.9 ± 1.2 dB
- Noise Figure: 14 dB Max. - Measured 12.11 dB
- Harmonics: -60 dBc Max. - Measured -65.58 dBc
- Spurious: -60 dBc Max. - Measured -62.12 dBc
- Output IP3: +25 dBm Typ.
- RF Input VSWR: 5:1 Typ., 6.5:1 Max.
- IF Output VSWR: 2:1 Typ., 2.5:1 Max. - Measured 2.1:1
- Absolute Max RF Power (Survival): +25 dBm
- Absolute Max LO Power (Survival): +25 dBm
- DC Power: +7 VDC to +12 VDC @ 250 mA - Measured 216 mA
27.0 PMI Model No. PMIX-14D6G18G-1G4D4G-12V, 14.6 to 18.0 GHz, Down Converter Module

PMI Model No. PMIX-14D6G18G-1G4D4G-12V is a 14.6 to 18.0 GHz, Down Converter Module. It has a typical gain of 3 dB and a maximum VSWR of 6.5:1. It has SMA male input connectors and a SMPM male output connector in a housing measured at 2.700" x 1.500" x 0.525".

- RF Input Frequency Range: 14.6 to 18.0 GHz
- RF Input Power: -15 dBm Typ., -10 dBm Max.
- LO Input: 13.6 GHz
- LO Input Power: +18 dBm Typ.
- IF Output Range: 1.0 to 4.4 GHz
- Gain: 3 dB Typ. - Measured 4.6 ± 2 dB
- Harmonics: -60 dBc Max. - Measured -61.38 dBc
- Spurios: -60 dBc Max. - Measured -65.13 dBc
- Output IP3: +22 dBm Typ.
- RF Input VSWR: 5.1 Typ., 6.5:1 Max. - Measured 3.2:1
- IF Output VSWR: 2.1 Typ., 2.4:1 Max.
- Absolute Max RF Power (Survival): +25 dBm
- Absolute Max LO Power (Survival): +25 dBm
- DC Power: +7 VDC to +12 VDC @ 250 mA - Measured 211 mA
- DC Power Out: +8 VDC @ 500 mA - Measured +8.01 VDC

28.0 PMI Model No. PREF-10M-20DBM, 10 MHz, Reference Source

PMI Model No. PREF-10M-20DBM is a 10 MHz, Reference Source. It has a stability of ±0.1 ppm and a maximum output VSWR of 2:1. It has a SMPM male connector and a SMA female connector in a housing measured at 4.60" x 1.35" x 0.70".

- Frequency: 10 MHz
- Power Out:
  - Power REF Out (J5): +20 dBm
  - REF Out (J1-J4): +3 dBm ± 3 dB
- Phase Noise:
  - 100 Hz: -130 dBc/Hz
  - 1 kHz: -150 dBc/Hz
  - 10 kHz: -155 dBc/Hz
- Stability: ±0.1 ppm
- Aging: ±100 ppb (Yearly)
- Output VSWR: 2:1 Max.
- DC Power:
  - Crystal PWR BOT +12 V:
    - +12 VDC @ 700 mA (3 Min. Warmup) - Measured 251 mA
    - +12 VDC @ 500 mA (Steady State) - Measured 146 mA
29.0 PMI Model No. PLO-840M-150-15DBM-12V-SF, 840 MHz, Phase-Locked Oscillator

PMI Model No. PLO-840M-150-15DBM-12V is a 840 MHz, Phase-Locked Oscillator. It has a maximum harmonics of -25 dBc and a maximum spurs of -80 dBc. It has SMA female connectors in a housing measured at 2.25" x 2.25" x 0.60".

- **Frequency**: 840 MHz
- **Stability**: Same as Reference
- **Reference**: 10 MHz, Power = 3 dBm ± 3 dB
- **Reference Input Impedance**: 50 Ohms
- **Reference Phase Noise**:
  - <-140 dBc/Hz @ 1 kHz
  - <-150 dBc/Hz @ 10 kHz
- **Output Power**: +20 dBm Min. - Measured 21.8 dBm
- **Harmonics**: <-25 dBc - Measured -55 dBc
- **Sub Harmonics**: <=-60 dBc - Measured -65 dBc
- **Spurs**: <-80 dBc - Measured -86 dBc
- **Phase Noise**:
  - <-120 dBc/Hz @ 10 kHz Typ., <-115 dBc/Hz Max.
  - <-145 dBc/Hz @ 100 kHz Typ., <-140 dBc/Hz Max.
- **VCC**: +12 V ± 0.5 V @ 200 mA Typ., 300 mA Max.
- **Lock Detect**: High (+3.3 V) is Lock

PMI Website Link,

30.0 PMI Model No. DTA-2G18G-60-CD-1, 2.0 to 18.0 GHz, 10-Bit Programmable Attenuator

PMI Model No. DTA-2G18G-60-CD-1 is a 2.0 to 18.0 GHz, 10-Bit Programmable Attenuator. It has a maximum insertion loss of 4.5 dB and a maximum VSWR of 2.0:1. It has SMA female connectors and a 15-Pin D-Sub connector in a housing measured at 2.00" x 1.81" x 0.88".

- **Frequency Range**: 2.0 to 18.0 GHz
- **Mean Attenuation Range**: 60 dB
- **Insertion Loss**: 4.5 dB Max. - Measured 4.1 dB
- **VSWR**: 2.0:1 Max. - Measured 1.9:1
- **Flatness Up To**:
  - 20 dB: ±1.0 dB Typ. - Measured ±0.62 dB
  - 40 dB: ±1.25 dB Typ.
  - 60 dB: ±3.0 dB Typ.
- **Accuracy of Attenuation**:
  - 0 to 20 dB: ±1.0 dB Typ. - Measured ±0.56 dB
  - 20 to 40 dB: ±1.5 dB Typ. - Measured ±0.78 dB
  - 40 to 60 dB: ±2.0 dB Typ. - Measured ±1.04 dB
- **Minimum Attenuation Step**: 0.06 dB
- **Survival Power**: 1 W Average from -65°C to +25°C
31.0 PMI Model No. TD-30T-SHS-218-8G12G-PECL, 8.0 to 18.0 GHz, Threshold Detector

PMI Model No. TD-30T-SHS-218-8G12G-PECL is a 8.0 to 18.0 GHz, Threshold Detector. It has a maximum VSWR @ -20 dBm of 3.0:1 and a dynamic range of up to +10 dBm. It has SMA female connectors and is supplied in a housing measured at 2.20" x 1.50" x 0.40".

- Frequency Range: 2.0 to 18.0 GHz (Optimized for 8.0 to 12.0 GHz)
- VSWR: 3.0:1 Max. @ -20 dBm - Measured 2.8:1
- Minimum Signal Level for Logic 1:
  - -20 dBm @ 2.0 GHz
  - -17 dBm @ 18.0 GHz
- Threshold Variation Over Frequency (Any 1.0 GHz Window): ±0.5 dB
- Minimum Signal Level for Logic 0: -25 dBm
- Dynamic Range: Up to +10 dBm
- Propagation Delay (From 50% of an Input of -20 dBm): 15 ns Max. - Measured <15 ns
- Output Logic: LVPECL Compatible
- Propagation Delay (From 50% of an Input of +10 dBm): 15 ns Max. - Measured <15 ns
- DC Power Supply:
  - +15 V @ 100 mA Max. - Measured 85 mA
  - -15 V @ 100 mA Max. - Measured 40 mA

31.0 PMI Model No. PLA-14D65G15G35G-20DB-SFF-250W, 14.65 to 15.35 GHz, Integrated Limiter and Attenuator

PMI Model No. PLA-14D65G15G35G-20DB-SFF-250W is a 14.65 to 15.35 GHz, Integrated Limiter and Attenuator. It has a maximum insertion loss of 3.59 dB and a maximum attenuation flatness of ±1 dB. It has SMA female connectors and is supplied in a housing measured at 0.866" x 0.630" x 0.315".

- Frequency Range: 14.65 to 15.35 GHz
- Insertion Loss: 3.59 dB Max. - Measured 2.71 dB
- Peak Power Handling:
  - Low Temp (-55°C): 100 W Max.
Room Temp (+25°C): 125 W Max.
High Temp (+85°C): 100 W Max.
- Pulse Width: 40 us Typ.
- Average Power:
  - Low Temp (-55°C): 10 W Max.
  - Room Temp (+25°C): 12.5 W Max.
  - High Temp (+85°C): 10 W Max.
- Attenuation:
  - Logic TTL "0" - 0 dB Attenuation
  - Logic TTL "1" - 20 dB Attenuation
- Attenuation Flatness: ±1 dB Max. - Measured ±0.19 dB
- Attenuation Accuracy: ±1 dB Max. - Measured ±0.1 dB
- P1dB Limiting Threshold: +5 dBm Min.
- Flat Leakage:
  - Low Temp (-55°C): +20 dBm Max. @ 0 dB Attenuation and 100 W Max.
  - Room Temp (+25°C): +20 dBm Max. @ 0 dB Attenuation and 125 W Max.
  - High Temp (+85°C): +20 dBm Max. @ 0 dB Attenuation and 100 W Max.
- Switching Speed:
  - 90 ns @ 50% TTL to 10% RF Voltage Max.
  - 90 ns @ 50% TTL to 90% RF Voltage Max.
- Control Logic: TTL Compatible
- Phase Match: 15° Max. (Unit to Unit) - Measured 6.5°
- DC Consumption:
  - +5 V @ 150 mA Max. - Measured 27 mA
  - -15 V @ 150 mA Max. - Measured 24 mA
- VSWR: 2.0:1 Max. @ -10 dBm Input - Measured 1.87:1

PMI Website Link,
https://www.pmi-rf.com/product-details/pla-14d65g15g35g-20db-sff-250w

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