Here's What's New...

New Product Releases from Planar Monolithics Industries, Inc.
November 19, 2018

1.0 PMI Model No. PE2-30-2R06R0-1R5-22-12-SFF, 2.0 to 6.0 GHz Low Noise Amplifier

PMI Model No. PE2-30-2R06R0-1R5-22-12-SFF is a 2.0 to 6.0 GHz Low Noise Amplifier which provides a typical gain of 30 dB while maintaining a maximum gain flatness of ±1.5 dB. The noise figure is 1.5 dB typical and offers a typical OP1dB of 22 dBm. The unit is supplied with SMA female connectors in our standard PE2 housing.

- Frequency Range: 2.0 to 6.0 GHz
- Gain: 30 dB Typ.
- Gain Flatness: ±1.5 dB Max. - Measured ±1.22 dB
- Noise Figure: 1.5 dB Typ.
- OP1dB: 22 dBm Typ.
- VSWR In/Out: 2.0:1 Max.
- DC Voltage Supply: +12 to +15 V
- DC Current Draw: 300 mA Max.

PMI Website Link,
https://www.pmi-rf.com/products-details/pe2-30-2r06r0-1r5-22-12-sff
2.0 PMI Model No. PE2-14-12G22G-3R0-12-SMF, 12.0 to 22.0 GHz Low Noise Amplifier

PMI Model No. PE2-14-12G22G-3R0-12-SMF is a 12.0 to 22.0 GHz, Low Noise Amplifier. This amplifier provides 14.5 dB of gain with an OP1dB of +10 dBm minimum and a noise figure of 4.0 dB maximum. This model operates from a single +12 to +15 volt supply with a nominal current draw of 100 mA. It is supplied with SMA female connectors in a gold plated housing that measures 1.92" x 0.78" x 0.36".

- Frequency Range: 12.0 to 22.0 GHz
- Gain Flatness: ±1.0 dB Typ. - Measured ±0.37 dB
- Noise Figure: 3.0 dB Typ., 4.0 dB Max. - Measured 3.99 dB @ 22.0 GHz
- OP1dB: 10 dBm Min.
- VSWR In/Out: 2.0:1 Max. - Measured 1.70:1/1.33:1
- Impedance: 50 Ohms
- DC Voltage Supply: +12 to +15 VDC
- DC Current Draw: 100 mA Nominal - Measured 84 mA

PMI Website Link, https://www.pmi-rf.com/products-details/pe2-14-12g22g-3r0-12-smf

3.0 PMI Model No. DTA-2G18G-64-10B-SFF, 2.0 to 18.0 GHz, 10-Bit Attenuator

PMI Model No: DTA-2G18G-64-10B-SFF is a 10-bit programmable 64 dB PIN Diode Attenuator with a step resolution of 0.06 dB over the frequency range of 2.0 to 18.0 GHz. The maximum insertion loss is 5.25 dB and the maximum VSWR is 2.0:1. This model is supplied with SMA female connectors in a housing that measures 2.50" X 2.00" X 1.00".

- Frequency Range: 2.0 to 18.0 GHz
- Insertion Loss: 5.25 dB Max. - Measured 5.12 dB
- Attenuation Range: 64 dB
- Accuracy of Attenuation:
  - ±1.0 dB @ 0 to 20 dB - Measured ±0.05 dB
  - ±1.5 dB @ 20 to 40 dB - Measured ±0.09
  - ±2.0 dB @ 40 to 60 dB - Measured ±0.25 dB
- Attenuation Flatness:
  - ±1.0 dB @ 20 dB - Measured ±0.53 dB
  - ±1.25 dB @ 40 dB - Measured ±0.83 dB
  - ±3.0 dB @ 60 dB - Measured ±1.11 dB
- VSWR: 2.0:1 Max. - Measured 1.49:1
- Switching Speed: 1 us Max. - Measured 0.75 us
- Input Power: +15 dBm CW Typ.
- Attenuation Control: 10-Bit Digital TTL
- LSB: 0.06 dB
- DC Supply:
  - +15 VDC @ 150 mA Max. - Measured 134 mA
- Logic Input:
  - Logic "0" (Bit Off): -0.3 to +0.8 V
PMI Website Link,
https://www.pmi-rf.com/products-details/dta-2g18g-64-10b-sff

4.0 PMI Model No. HP20G-19D5G-CD-292FF, High Pass Filter

PMI Model No. HP20G-19D5G-CD-292FF is a High Pass Filter with a passband of 20.0 to 40.0 GHz. This model has a maximum insertion loss in the passband of 1.5 dB and a maximum VSWR in the passband of 2.0:1 with a rejection of -54 dB @ 14.5 GHz. It is supplied with 2.92 mm female connectors in a housing measuring 0.61" x 0.56" x 0.50".

- Passband: 20.0 to 40.0 GHz
- -3 dB Cut-Off Frequency: 20.0 GHz @ 1 dB
- Passband Insertion Loss: 1.5 dB - Measured 0.6 dB
- Passband VSWR: 2.0:1 - Measured 1.93:1
- Rejection: -54 dBC @ 14.5 GHz - Measured 64.53 dB

PMI Website Link,
https://www.pmi-rf.com/products-details/hp20g-19d5g-cd-292ff

5.0 PMI Model No. LM-500M8G-12-33DBM-12V, 0.5 to 8.0 GHz Limiter

PMI Model No. LM-500M8G-12-33DBM-12V is an Active Limiter that operates over a frequency range of 0.5 to 8.0 GHz with a maximum input power of +33 dBm CW and a maximum leakage power of +12.3 dBm. The maximum VSWR is 2.0:1 and the operating voltage is +12 VDC with a typical current draw of 180 mA maximum. The unit is supplied with removable SMA female connectors in our standard PE2 housing.

- Frequency Range: 0.5 to 8.0 GHz
- Insertion Loss: 2.0 dB Max.
- Maximum Input Power: +33 dBm CW
- Output Leakage Power: +12.3 dBm Max. - Measured +10.7 dBm
- VSWR In/Out: 2.0:1 Max. - Measured 1.6:1
- DC Supply: +12 VDC @ 180 mA Max.

PMI Website Link,
https://www.pmi-rf.com/products-details/lm-500m8g-12-33dbm-12v

6.0 PMI Model No. PS-2D2G-360-CD-1, 2.17 to 2.20 GHz, 9-Bit Digitally Controlled Phase Shifter

PMI Website Link,
https://www.pmi-rf.com/products-details/ps-2d2g-360-cd-1
PMI Model No. PS-2D2G-360-CD-1 is a 2.17 to 2.20 GHz, 9-Bit Digitally Controlled Phase Shifter that offers up to 360 degrees of phase shift range. This model has a LSB of 0.7 degrees and a low typical insertion loss of 13 dB. The unit provides very fast typical switching speed of 350 ns, while operating on a single +12 VDC voltage and consuming only 50 mA of DC current. It is supplied with SMA female connectors in a housing that measures 2.0" x 2.1" x 0.5".

- Frequency Range: 2.17 to 2.20 GHz
- RF Input Power: 10 dBm Max.
- RF Input Power (Survival): +15 dBm Max.
- Insertion Loss: 13 dB Typ., 19 dB Max. - Measured 13.1 dB
- Insertion Loss vs. Frequency: ±0.25 dB Max. - Measured ±0.09 dB
- Insertion Loss vs. Temperature: ±1.0 dB P-P Typ. (Over any 15ºC Temperature Range)
- Insertion Loss vs. Phase: ±0.3 dB Goal, ±0.5 dB Max. - Measured ±0.02 dB
- Phase Control Range: 360º
- Phase vs. Temperature: ±2º Typ. (Over any 15ºC Temperature Range)
- RF Impedance: 50 Ohms
- Resolution: <1º Typ.
- Phase Accuracy: ±1.0 Typ.
- IP3: +25 dBm Typ.
- Switching Speed: 350 ns Typ.
- Control: 9-Bit TTL
- LSB: 0.7º
- Input VSWR: 1.3:1 Max. - Measured 1.27:1
- Output VSWR: 1.4:1 Max. - Measured 1.26:1
- DC Supply:
  - +12 VDC @ 200 mA - Measured +12 VDC @ 48 mA

PMI Website Link, https://www.pmi-rf.com/products-details/ps-2d2g-360-cd-1

7.0 PMI Model No. SDLVA-100M4G-CD-2, 0.1 to 4.0 GHz Successive Detection Log Video Amplifier

PMI Model No. SDLVA-100M4G-CD-2 is a successive detection log video amplifier (SDLVA) that operates between the 0.1 to 4.0 GHz frequency range and is capable of extending to 6.0 GHz. It has a dynamic range of 70dB, a log slope of 25mV/dB and a nominal video bandwidth of 11.67 MHz. This model is supplied with SMA female connectors in a housing measuring 3.2" x 1.8" x 0.4".

- Frequency Range: 0.1 to 4.0 GHz
- RF Gain (Small Signal): 55 dB Typ. - Measured 51 dB
- Video Flatness over Frequency: ±50 mV Max. - Measured ±35 mV
- TSS: -73 dB Typ., -71 dB Max. - Measured -73.2 dBm
- VSWR: 2.0:1 - Measured 1.51:1
- PSAT: +13 dBm Typ. - Measured +10.17 dBm
- Harmonics (J2): 15 dBc Min. (-70 to 0 dBm J1 Input), (Excluding Odd Harmonics)
- Power Input: +17 dBm CW Max.
- Log Slope: 25 mV/dB Typ. 50 Ohm Load - Measured 24.8 mV/dB Typ.
8.0 PMI Model No. P2T-12G18G-45-R-SFF-10W, 12.0 to 18.0 GHz, High Power SP2T Reflective Switch

PMI Model No. P2T-12G18G-45-R-SFF-10W is an independently controlled, high power, reflective single pole two throw switch designed to operate between 12.0 to 18.0 GHz and handle input power levels up to 10 Watts CW and 30 Watts Peak with a maximum pulse width of 1 us and maximum PRF of 2 MHz. This switch offers low loss of 1.5 dB maximum and provides port to port isolation of 45 dB minimum. The Rise/Fall times are less than 20 ns with delay on/off times of less than 50 ns. This model is supplied with SMA female connectors in a small package measuring 1.2" x 1.0" x 0.5".

- Frequency Range: 12.0 to 18.0 GHz
- Insertion Loss: 1.5 dB Max. - Measured 1.39 dB
- Isolation: 45 dB Min. - Measured 47.14 dB
- VSWR: 2.0:1 - Measured 1.61:1
- Rise Time: 20 ns Max.
- Fall Time: 20 ns Max.
- Delay On: 50 ns Max.
- Delay Off: 50 ns Max.
- Port to Port Switching: 60 ns Max. - Measured 50 ns
- Pulse Width: 1 us Max.
- Maximum PRF: 2 MHz
- Control:
  - TTL Low (0.2 VDC Nominal) = Insertion Loss
  - TTL High (3.5 VDC Nominal) = Isolation
- Power Supply:
  - +15 V @ 100 mA Max. - Measured +15 V @ 72 mA
  - -15 V @ 75 mA Max. - Measured -15 V @ 3 mA
- Peak Power (Operating): 30 W Max.
- Average Power (Operating): 10 W Max.

PMI Website Link,
https://www.pmi-rf.com/products-details/sdlva-100m4g-cd-2

9.0 PMI Model No. P4T-50M40G-55-T-292FF, 0.05 to 40.0 GHz SP4T Absorptive

PMI Website Link,
https://www.pmi-rf.com/products-details/p2t-12g18g-45-r-sff-10w
Switch

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 a maximum VSWR of 2.5:1. This model is supplied with 2.92 mm female connectors in a housing measuring 2.0" x 1.0" x 0.4".

- Frequency Range: 0.05 to 40.0 GHz
- Isolation: 55 dB Min. - Measured 74.94 dB
- Insertion Loss: 8.0 dB Max. - Measured 5.61 dB
- VSWR In/Out: 2.5:1 Max. - Measured 2.13:1/2.22:1
- Switching Speed:
  - 50% TTL to 10%/90% RF
  - 85 ns Typ., 100 ns Max. - Measured <20ns
- Input Power: +20 dBm CW
- Survival Power: 0.5 W CW, 5 W Peak, 1 us
- Control TTL:
  - 4 Line Independent
  - Logic "0" = Insertion Loss
  - Logic "1" = Isolation
- Power Supply (Voltage Regulation & Reverse Bias Protection Included):
  - +12 to +15 VDC @ 150 mA - Measured 75 mA
  - -12 to -15 VDC @ 100 mA - Measured 100 mA

PMI Website Link,
https://www.pmi-rf.com/products-details/p4t-50m40g-55-t-292ff

10.0 PMI Model No. TD-16G40G-20-292F, 16.0 to 40.0 GHz Threshold Detector

PMI Model No. TD-16G40G-20-292F is a high speed threshold detector that operates from 16.0 to 40.0 GHz. This model has maximum input VSWR of 2.5:1 and an adjustable threshold level of -20 to 0 dBm. It is supplied with 2.92 mm female connectors in a housing measuring 2.2" x 1.5" x 0.4".

- Frequency Range: 16.0 to 40.0 GHz
- Input Operating Range: -20 to 0 dBm
- Maximum Input Power: +17 dBm CW
- Input VSWR: 2.5:1 Max. - Measured 2.48:1
- Response Time: 100 ns Max.
- Output:
  - TTL = "1" for RF Greater than Threshold
  - TTL = "0" for RF Less than Threshold
- Power Supply: +15 V @ 65 mA Max. - Measured 63 mA

PMI Website Link,
https://www.pmi-rf.com/products-details/td-16g40g-20-292f-

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- Frequency Discriminators
- I/Q Vector Modulators
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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,

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