Presenting...

New Product Releases from Planar Monolithics Industries, Inc.
February 19, 2021

1.0 PMI Model No. PLNA-30-10M20-292FF, 10 MHz to 20.0 GHz, Low Noise Amplifier

PMI Model No. PLNA-30-10M20-292FF is a Low Noise Amplifier that operates over the 10 MHz to 20.0 GHz frequency range. It has a typical noise figure of 3.0 dB and a minimum gain of +26 dB. This model is outfitted with 2.92 mm female connectors in a housing measuring 0.53" x 0.70" x 0.26".

- Frequency Range: 10 MHz to 20.0 GHz
- Gain:
  - +26 dB Min. (10 MHz to 18.0 GHz) - Measured 26.57 dB Min., 31.41 dB Max.
  - +28 dB Min. (18.0 to 20.0 GHz) - Measured 28.41 dB Min., 32.46 dB Max.
- Gain Flatness:
  - ±2.0 dB Typ. (10 MHz to 18.0 GHz)
  - ±2.5 dB Typ. (10 MHz to 20.0 GHz)
- Noise Figure:
  - 3.0 dB Typ. (20 MHz to 0.5 GHz)
  - 2.5 dB Typ. (0.5 to 18.0 GHz) - Measured 2.44 dB
  - 3.3 dB Typ. (18.0 to 20.0 GHz) - Measured 3.12 dB
- OP1dB:
**PMI Website Link,**
https://www.pmi-rf.com/product-details/plna-30-10m20-292ff

**2.0 PMI Model No. PEAFS3-14-10M22G-292FF, 10 MHz to 22.0 GHz, Low Noise Amplifier**

PMI Model No. PEAFS3-14-10M22G-292FF is a Low Noise Amplifier that operates over the 10 MHz to 22.0 GHz frequency range. It has a typical noise figure of 3.0 dB and a maximum VSWR of 2.0:1. This model is outfitted with 2.92 mm female connectors in a housing measuring 0.53" x 0.70" x 0.26".

- **Frequency Range:** 10 MHz to 22.0 GHz
- **Gain:** +14 dB Typ.
- **Gain Flatness:** ±0.8 dB Max. - Measured ±0.79 dB
- **Noise Figure:**
  - 3.0 dB Typ. (20 MHz to 0.5 GHz)
  - 2.5 dB Typ. (0.5 to 18.0 GHz)
  - 3.4 dB Typ. (18.0 to 22.0 GHz) - Measured 3.39 dB
- **OP1dB:**
  - +14 dBm Typ. (10 MHz to 18.0 GHz)
  - +13 dBm Typ. (18.0 to 22.0 GHz)
- **PSat:**
  - +16 dBm Typ. (10 MHz to 18.0 GHz)
  - +15 dBm Typ. (18.0 to 22.0 GHz)
- **OIP3:**
  - +25 dBm Typ. (10 MHz to 20.0 GHz)
  - +20 dBm Typ. (20.0 to 22.0 GHz)
- **VSWR In/Out:** 2.0:1 Max.
- **Reverse Isolation:**
  - 19 dB Typ. (10 MHz to 18.0 GHz)
  - 20 dB Typ. (18.0 to 22.0 GHz)
- **DC Supply:** +3.3 VDC @ 50 mA Max. - Measured 48 mA

**PMI Website Link,**
https://www.pmi-rf.com/product-details/peafs3-14-10m22g-292ff

**3.0 PMI Model No. P2T-100M44-50-T-292FF-PH, 0.1 to 44.0 GHz, SP2T Absorptive Switch**

PMI Model No. P2T-100M44-50-T-292FF-PH is a Single Pole, Two Throw, Absorptive Switch that operates over the 0.1 to
PMI Website Link,  
https://www.pmi-rf.com/product-details/p2t-100m44-50-t-292ff-ph

4.0 PMI Model No. P16T-100M40-100-T-DEC-OPT2640, 0.1 to 40.0 GHz, SP16T Absorptive Switch

PMI Model No. P16T-100M40-100-T-DEC-OPT2640 is a Single Pole, Sixteen Throw, Absorptive Switch that operates over the 26.0 to 40.0 GHz frequency range. It has a typical insertion loss of 12.5 dB and a typical isolation of 80 dB. This model is outfitted with 2.92 mm female connectors in a housing measuring 8.00" x 3.00" x 0.77".

- Frequency Range: 26.0 to 40.0 GHz
- Insertion Loss: 12.5 dB Typ.
- VSWR On (In/Out): 3.0:1 Typ. - Measured 2.92:1
- VSWR Off (Out): 3.0:1 Typ.
- Isolation: 80 dB Typ.
- Amplitude Balance: ±2.0 dB Typ.
- Insertion Loss Flatness (Variation from a Best Fit Straight Line): ±1.5 dB Typ.
- Input Power: 20 dBm CW Max.
- Switching Speed: 100 ns Max. - Measured 82 ns Speed On, 48.4 ns Speed Off, 8.1 ns
5.0 PMI Model No. PEC-42-1G40G-20-12-292FF-BT, 1.0 to 40.0 GHz, Low Noise Amplifier

PMI Model No. PEC-42-1G40G-20-12-292FF-BT is a Low Noise Amplifier that operates over the 1.0 to 40.0 GHz frequency range. It has a typical noise figure of 5.5 dB and a maximum VSWR of 2.5:1. This model is outfitted with 2.92 mm female connectors in a housing measuring 1.37" x 1.00" x 0.60".

- Frequency Range: 1.0 to 40.0 GHz
- Gain: 40 dB Typ., 34 dB Min. - Measured 37 dB
- Gain Flatness: ±2.5 dB Typ.
- Noise Figure: 5.5 dB Typ. (Up to 26.5 GHz)
- OP1dB:
  - +19 dBm Typ. (1.0 to 18.0 GHz)
  - +17 dBm Typ. (18.0 to 40.0 GHz)
- PSAT:
  - +23 dBm Typ. (1.0 to 18.0 GHz)
  - +20 dBm Typ. (18.0 to 40.0 GHz)
- Input Power Handling: +17 dBm CW Max.
- VSWR In/Out: 2.0:1 Max./2.5:1 Max. - Measured 1.88:1/2.2:1
- DC Supply (DC Pin or RF Out): +12 to +15 VDC @ 550 mA Nominal - Measured 490 mA

PMI Website Link,
https://www.pmi-rf.com/product-details/pec-42-1g40g-20-12-292ff-bt

6.0 PMI Model No. PFA-DC18G-10-2W-SMF, DC to 18.0 GHz, 2 Watt Fixed Attenuator

PMI Model No. PFA-DC18G-10-2W-SMF is a Fixed, Bidirectional Attenuator that operates over the DC to 18.0 GHz frequency range. It has an attenuation value of 10 dB and a maximum VSWR of 1.35:1. This model is outfitted with a SMA female connector and a SMA male connector in a housing measuring 0.850" x Ø0.312".

- Frequency Range: DC to 18.0 GHz
- Impedance: 50 Ohms
- Attenuation Value: 10 dB
- Attenuation Accuracy: ±0.5 dB - Measured ±0.35 dB
- VSWR: 1.35:1 Max. - Measured 1.14:1
- Input Power: 2 W Max.

PMI Website Link,
https://www.pmi-rf.com/product-details/pfa-dc18g-10-2w-smf

7.0 PMI Model No. GMDA-D5459-70, 5.4 to 5.9 GHz, ERDLVA

PMI Model No. GMDA-D5459-70 is an ERDLVA that
- Frequency Range: 5.4 to 5.9 GHz
- Dynamic Range: -56 to +14 dBm
- Maximum RF Input: +30 dBm
- VSWR: 2.0:1 - Measured 1.94:1
- Pulse Range: 250 ns to CW
- Digital Accuracy:
  - ±0.2 dB from +14 to -36 dBm
  - ±1.0 dB from -37 to -52 dBm
  - ±1.6 dB from -53 to -56 dBm
- Resolution: 0.2 dB Max.
- Bit Count Correlation:
  - Bit Count (1023) = +18 dBm
  - Bit Count (0) = -66 dBm
- Data Output Rate: 10 megasamples/second
- Clock Signal: 10 MHz, Data Valid for 20 ns Prior to Clock Rising Edge, and 3 ns after Rising Edge
- Analog Output Bandwidth: 10 MHz Min.
- Analog Output Impedance: 50 Ohms
- Analog Logging Linearity: ±1.0 dB Typ. - Measured +0.55 dB/-0.75 dB
- Analog Log Slope: 25 mV/dB Typ.
- Flatness: ±1.0 dB Typ. - Measured ±0.5 dB
- Power Supply:
  - +15 V @ 500 mA Max.
  - -15 V @ 200 mA Max.
  - +5 V @ 500 mA Max.

PMI Website Link,
https://www.pmi-rf.com/product-details/gmda-d5459-70

8.0 PMI Model No. PTP-1G18G-2G8G-55-S4F, 1.0 to 18.0 GHz, Triplexer

PMI Model No. PTP-1G18G-2G8G-55-S4F is a Triplexer that operates over the 1.0 to 18.0 GHz frequency range. It has a typical insertion loss of 3.0 dB and a maximum VSWR of 2.0:1. This model is outfitted with SMA female connectors in a housing measuring 4.17" x 1.39" x 0.33".

- Insertion Loss:
  - J1 to J2: 6.0 dB Typ. (1.0 to 1.9 GHz)
  - J1 to J3: 3.0 dB Typ. (2.1 to 7.6 GHz)
  - J1 to J4: 2.5 dB Typ. (8.4 to 18.0 GHz)
- Out-of-Band Rejection:
  - J1 to J2:
    - 50 dB Min. (DC to 0.75 GHz) - Measured 67.99 dB
    - 50 dB Min. (2.3 to 18.0 GHz) - Measured 57.89 dB
  - J1 to J3:
    - 55 dB Min. (DC to 1.7 GHz) - Measured 68.63 dB
    - 55 dB Min. (9.2 to 18.0 GHz) - Measured 74.90 dB
  - J1 to J4:
    - 50 dB Min. (DC to 6.8 GHz) - Measured 55.40 dB
    - 40 dB Typ. (20.5 to 26.0 GHz) - Measured 41.39 dB
- Crossover:
  - J2/J3: 10.0 dB Typ. (1.98 to 2.02 GHz)
  - J3/J4: 10.0 dB Typ. (7.92 to 8.08 GHz)
VSWR:
- J1: 2.0:1 Max. (1.0 to 18.0 GHz, Except Crossover) - Measured 1.99:1
- J2: 2.0:1 Max. (1.0 to 1.9 GHz) - Measured 1.99:1
- J3: 2.0:1 Max. (2.1 to 7.6 GHz) - Measured 1.99:1
- J4: 2.0:1 Max. (8.4 to 18.0 GHz) - Measured 1.83:1
- Maximum Input Power: +20 dBm CW

PMI Website Link,
https://www.pmi-rf.com/product-details/ptp-1g18g-2g8g-55-s4f

9.0 PMI Model No. PIQ-0R5G2G-360-20-CD-1, 0.5 to 2.0 GHz, I/Q Vector Modulator

PMI Model No. PIQ-0R5G2G-360-20-CD-1 is an I/Q Vector Modulator that operates over the 0.5 to 2.0 GHz frequency range. It has a maximum insertion loss of 11.0 dB and a maximum VSWR of 1.6:1. This model is outfitted with SMA female connectors in a housing measuring 5.00" x 5.00" x 1.00".

- Frequency Range: 0.5 to 2.0 GHz
- Dynamic Range: 20 dB & 360°
- RF Input Power: +5 dBm CW, 1 W Max.
- Insertion Loss: 11.0 dB Max. - Measured 10.54 dB
- VSWR: 1.6:1 Max. (50 Ohm System) - Measured 1.59:1
- Attenuation vs. Frequency: ±1.5 dB Typ.
- Phase vs. Frequency: ±10° Typ.
- Control Logic: 2 x 12 Bits (I&Q), TTL Compatible
- Control Slopes: Linear
- Switching Speed: 500 ns Max. - Measured 420 ns
- Temperature Coefficient: ±0.035 dB/°C & ±0.17 Deg/°C
- Power Supply:
  - +12 to +15 V @ 100 mA - Measured 87 mA
  - -12 to -15 V @ 100 mA - Measured 24 mA

PMI Website Link,
https://www.pmi-rf.com/product-details/piq-0r5g2g-360-20-cd-1

10.0 PMI Model No. LM-1G2G-4CW-1KWP-SMF-OPT2G4G, 2.0 to 4.0 GHz, Limiter

PMI Model No. LM-1G2G-4CW-1KWP-SMF-OPT2G4G is a Limiter that operates over the 2.0 to 4.0 GHz frequency range. It has a maximum insertion loss of 1.2 dB and a maximum VSWR of 2.0:1. This model is outfitted with a SMA male input connector and a SMA female output connector in a housing measuring 1.00" x 0.75" x 0.38".

- Frequency Range: 2.0 to 4.0 GHz
- Insertion Loss: 1.2 dB Max. - Measured 1.04 dB
- VSWR In/Out: 2.0:1 Max. @ -10 dBm Input - Measured 1.9:1
- Impedance: 50 Ohms
- Input Power: 40 W CW (46 dBm)
- Maximum Flat Leakage: +30 dBm (1 W)
- Maximum Limiting Threshold: 45 dBm, 30% Duty Cycle

PMI Website Link,
https://www.pmi-rf.com/product-details/lm-1g2g-4cw-1kwp-smf-opt2g4g

11.0 PMI Model No. DD-10M18G-ZBS-SMF, 10 MHz to 18.0 GHz, Diode Detector

PMI Website Link,
https://www.pmi-rf.com/product-details/dd-10m18g-zbs-smf

11.0 PMI Model No. DD-10M18G-ZBS-SMF, 10 MHz to 18.0 GHz, Diode Detector
PMI Model No. DD-10M18G-ZBS-SMF is a Diode Detector that operates over the 10 MHz to 18.0 GHz frequency range. It has a maximum input power of 100 mW and a maximum VSWR of 2.0:1. This model is outfitted with a SMA male input connector and a SMA female output connector in a housing measuring 1.30" x 0.31".

- Frequency Range: 10 MHz to 18.0 GHz
- Sensitivity: 0.5 ± 0.05 mV/uW Typ.
- Polarity: Negative
- Max Input Power: 100 mW
- VSWR: 1.5:1 Typ., 2.0:1 Max.
- Frequency Flatness: ±1.0 dB Typ.
- Capacitance: 30 pF
- Input Power: -67 to +10 dBm CW

**PMI Website Link,**
https://www.pmi-rf.com/product-details/dd-10m18g-zbs-smf

12.0 PMI Model No. QC-7G18G-SFF-30W, 7.0 to 18.0 GHz, 30 Watt 90° Hybrid Coupler

PMI Model No. QC-7G18G-SFF-30W is a 90° Hybrid Coupler that operates over the 7.0 to 18.0 GHz frequency range. It has a maximum insertion loss of 1.3 dB and a maximum VSWR of 1.4:1. This model is outfitted with SMA female connectors in a housing measuring 1.22" x 0.79" x 0.43".

- Frequency Range: 7.0 to 18.0 GHz
- Insertion Loss: 1.3 dB Max. - Measured 0.83 dB
- VSWR: 1.4:1 Max. - Measured 1.36:1
- Nominal Split: 3.01 dB
- Isolation: 18 dB Min. - Measured 20.14 dB
- Amplitude Balance: ±0.5 dB Max. - Measured ±0.48 dB
- Phase Balance: ±5° Max. - Measured ±1.72°
- Power Handling:
  - Average: 30 W Max.
  - Peak: 1 kW Max.
- Impedance: 50 Ohms

**PMI Website Link,**
https://www.pmi-rf.com/product-details/qc-7g18g-sff-30w-

**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)

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