Presenting...

New Product Releases from
Planar Monolithics Industries, Inc.

January 19, 2021

1.0 PMI Model No. PEC2-1R8G6R2G-17DBM-LM-SFF, 1.8 to 6.2 GHz, Limiting Amplifier

PMI Model No. PEC2-1R8G6R2G-17DBM-LM-SFF is a Limiting Amplifier that operates over the 1.8 to 6.2 GHz frequency range. It has a maximum noise figure of 6 dB and a maximum VSWR of 2.0:1. This model is outfitted with SMA female connectors in a housing measuring 3.22" x 0.90" x 0.36".
- Frequency Range: 1.8 to 6.2 GHz
- Input Power: -67 to +10 dBm CW
- Saturated Output Power: +12 to +17 dBm Nominal
- Noise Figure: 6 dB Max. - Measured 4.14 dB
- 2nd Harmonic Rejection: -12 dBc Max.
- VSWR In/Out: 2.0:1 Max. - Measured 1.29:1/1.15:1
- DC Voltage Supply: +12 VDC
- DC Current Draw: 650 mA Max. - Measured 580 mA

PMI Website Link,
https://www.pmi-rf.com/product-details/pec2-1r8g6r2g-17dbm-lm-sff

1.0 PMI Model No. P3T-89-45-R-SFF, 8.0 to 9.0 GHz, SP3T Reflective Switch

PMI Model No. P3T-89-45-R-SFF is a Single Pole, Three Throw, Reflective Switch that operates over the 8.0 to 9.0 GHz frequency range. It has a maximum insertion loss of 2.7 dB and a minimum isolation of 45 dB. This model is outfitted with SMA female connectors in a housing measuring 2.00" x 1.25" x 0.40".

- Frequency Range: 8.0 to 9.0 GHz
- Insertion Loss: 2.5 dB Typ., 2.7 dB Max.
- Isolation: 45 dB Min. - Measured 46 dB
- VSWR: 1.8:1 Max. - Measured 1.34:1/1.44:1
- Switching Speed: 100 ns Max. - Measured 83 ns Speed On, 98 ns Speed Off, 70 ns Rise Time, 43 ns Fall Time
- Amplitude Balance: ±0.25 dB Max. - Measured ±0.18 dB
- Insertion Loss Flatness: ±0.2 dB Max. - Measured ±0.15 dB
- Video Transients: 1 mV Peak to Peak Max.
- Power Handling:
  - 10 W CW Min.
  - 57 dBm Peak @ 1 us Pulse Width, 1% Duty Cycle
- Supply:
  - +5 V @ 85 mA - Measured 75 mA
  - -15 V @ 75 mA - Measured 0 mA

PMI Website Link,
https://www.pmi-rf.com/product-details/p3t-89-45-r-sff

2.0 PMI Model No. P6T-2G18G-55-R-512-SFF, 2.0 to 18.0 GHz, SP6T Reflective Switch

PMI Model No. P6T-2G18G-55-R-512-SFF is a Single Pole, Six Throw, Reflective Switch that operates over the 2.0 to 18.0 GHz frequency range. It has a maximum insertion loss of 7 dB and a minimum isolation of 55 dB. This model is outfitted with SMA female connectors in a housing measuring 1.00" x 1.40" x 0.30".

- Frequency Range: 2.0 to 18.0 GHz
- Insertion Loss: 7 dB Max. - Measured 5.6 dB
- Input Power: 10 dBm CW Max.
- RF Power Survival: 25 dBm
- VSWR In/Out: 2.0:1 Max. - Measured 1.87:1/1.89:1
- Isolation: 55 dB Min. - Measured 67.4 dB
- Switching Speed: 15 ns Max.
- Video Transients: 15 mV PP
- Video Transients Spectral Content: 65 dBm
- DC Voltage:
3.0 PMI Model No. LNA-38-4M96M-4D3-25-15-SFF, 4 to 96 MHz, Low Noise Amplifier

PMI Model No. LNA-38-4M96M-4D3-25-15-SFF is a Low Noise Amplifier that operates over the 4 to 96 MHz frequency range. It has a typical gain of 40 dB and a maximum noise figure of 4.3 dB. This model is outfitted with SMA female connectors in a housing measuring 3.750" x 2.000" x 0.813".

- Frequency Range: 4 to 96 MHz
- Gain: 38 dB Min., 40 dB Typ. - Measured 41.48 dB
- RF Input Power: +17 dBm Max.
- P1dB: +25 dBm Min., +27 dBm Typ.
- IP3: +40 dBm Typ
- Noise Figure: 4.3 dB Max. - Measured 3.54 dB
- Reverse Isolation: -45 dB Typ.
- VSWR In/Out: 2.0:1 Max. - Measured 1.39:1
- DC Supply: +12 to +20 VDC @ 450 mA Max. - Measured 407 mA

PMI Website Link,
https://www.pmi-rf.com/product-details/p6t-2g18g-55-r-512-sff

4.0 PMI Model No. VCAM-002000-90, 1.1 to 1.7 GHz, Voltage Controlled MMIC Modulator/Attenuator

PMI Model No. VCAM-002000-90 is a Voltage Controlled MMIC Modulator/Attenuator that operates over the 1.1 to 1.7 GHz frequency range. It has a VSWR of 2.0:1 and a maximum insertion loss of 7 dB. This model is outfitted with SMA female connectors in a housing measuring 1.5" x 1.5" x 0.4".

- Frequency Range: 1.1 to 1.7 GHz
- RF Input VSWR: 2.0:1
- RF Output VSWR: 2.0:1
- Insertion Loss: 7 dB Max. - Measured 3.18 dB
- Isolation (Maximum Attenuation): 80 dB Min., 90 dB Typ. - Measured 92 dB
- Pulse Rise Time: 50 ns Typ., 100 ns Max. - Measured 12 ns
- Pulse Fall Time: 50 ns Typ., 100 ns Max. - Measured 16 ns
- DC Power:
  - +9 to +15 V @ 25 mA
  - -9 to -15 V @ 25 mA

PMI Website Link,

5.0 PMI Model No. SDLVAC-0120-70M, 0.1 to 2.0 GHz, SDLVA

PMI Model No. SDLVAC-0120-70M is a 0.1 to 2.0 GHz, SDLVA. It has a minimum dynamic range of 65 dB and a maximum input VSWR of 1.8:1. It is outfitted with pins in a housing measured at
0.395" x 0.280" x 0.090".

- Frequency Range: 0.1 to 2.0 GHz
- Dynamic Range: 65 dB Min.
- Log Linearity:
  - ±1.2 dB Max. (-60 to 0 dBm), ±0.8 dB Typ. - Measured ±0.70 dB
  - ±1.5 dB Max. (-65 to +5 dBm), ±1.2 dB Typ. - Measured ±1.07 dB
- Minimum Logging Range: -60 dBm (-65 dBm Typ.)
- Maximum Logging Range: +5 dBm (+8 dBm Typ.)
- VSWR Input: 1.8:1 Max. (1.5:1 Typ.) - Measured 1.19:1
- Tangential Sensitivity: -65 dBm Min. (-70 dBm Typ.)
- Limited IF Output: -16 dBm Typ.
- Maximum RF Input Power: +10 dBm
- Log Video Output:
  - Output Coupling: DC
  - Maximum Output Voltage: 2.7 V
  - Rise Time: 25 ns Max. (15 ns Typ.) - Measured 11 ns
  - Fall Time: 30 ns Typ. - Measured 13 ns
  - Settling Time: 40 ns Max. - Measured 36 ns
  - DC Offset: Externally Adjustable
  - Slope: Externally Adjustable to 30 mV/dB Typ.
  - Log Slope Variation with Frequency: ±0.5 mV/dB Typ. (Over 80 MHz RF Bandwidth)
  - Log Slope Variation with Temperature: ±1 mV Typ.
  - Propagation Delay: 10 ns Max., 7 ns Typ.
  - Video Load: 100 Ohms Min.
- DC Power Supply (Regulated to 0.1%):
  - +5 V @ 30 mA (No Video Load) - Measured 26 mA
  - -5 V @ 170 mA - Measured 114 mA

PMI Website Link,
https://www.pmi-rf.com/product-details/sdlvac-0120-70m

**6.0 PMI Model No. HP8G-7D8G-CD-SMF, 8.0 to 22.0 GHz, High Pass Filter**

PMI Model No. HP8G-7D8G-CD-SMF is a High Pass Filter that operates over the 8.0 to 22.0 GHz frequency range. It has a maximum insertion loss of 1.5 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 1.15" x 0.70" x 0.50".

- Passband: 8.0 to 22.0 GHz
- 3 dB Cutoff: 7.8 GHz
- CW Input Power: 5 W Typ., 10 W Max.
- Impedance: 50 Ohms In/Out
- Passband Ripple: 0.5 dB Peak to Peak Max.
- Passband VSWR: 2.0:1 Max. - Measured 1.9:1
- Passband Insertion Loss: 1.5 dB Max. - Measured 1.36 dB
- Rejection @ 7500 MHz: -35 dB Typ.
- Rejection @ 5600 MHz: -50 dB Min.

PMI Website Link,
https://www.pmi-rf.com/product-details/hp8g-7d8g-cd-smf

**7.0 PMI Model No. DFD-2G18G-5512, 2.0 to 18.0 GHz, Digital Frequency Discriminator**
PMI Model No. DFD-2G18G-5512 is a Digital Frequency Discriminator that operates over the 2.0 to 18.0 GHz frequency range. It has a typical input VSWR of 2.0:1 and a maximum RF input power of +17 dBm CW. This model is outfitted with a SMA female connector, a 51-pin Micro-D connector, and a 15-pin Micro-D connector in a housing measuring 5.98" x 5.79" x 1.28".

- Frequency Range: 2.0 to 18.0 GHz
- Unambiguous Bandwidth: 16.0 GHz Min.
- VSWR: 2.5:1 Typ.
- Dynamic Range: -50 to +15 dBm
- Mean Frequency Resolution: 1 MHz Nominal
- Frequency Accuracy: 4.5 MHz (Average) Typ.
- Peak Frequency Error: 15 MHz Max.
- Maximum RF Input Power: +17 dBm CW
- Throughput Time: Less than 350 ns Typ.
- Recovery Time (After High Power Pulse Input): 100 ns Max. - Measured 90 ns
- Shadow Time: 50 ns Typ.
- Minimum Pulse Width: 100 ns Typ.
- Power Consumption:
  - -5 VDC @ 100 mA Typ. - Measured 30 mA
  - +5 VDC @ 1.5 A Typ. - Measured 1480 mA
  - +12 VDC @ 800 mA Typ.

PMI Website Link,
https://www.pmi-rf.com/product-details/dfd-2g18g-5512

8.0 PMI Model No. LM-150M5G-200CW-2KWPK-AGAL, 0.15 to 5.0 GHz, Limiter

PMI Model No. LM-150M5G-200CW-2KWPK-AGAL is a Limiter that operates over the 0.15 to 5.0 GHz frequency range. It has a maximum insertion loss of 2.0 dB and a maximum recovery time of 100 ns. This model is outfitted with SMA female connectors in a housing measuring 1.00" x 0.68" x 0.35".

- Frequency Range: 0.15 to 5.0 GHz
- Power Handling:
  - 200 W CW (+53 dBm) Typ.
  - 2 kW Peak Power (+63 dBm) Typ.
  - (25 us PW, 5% Duty Cycle)
- Insertion Loss:
  - 2.0 dB Max. (0.15 to 0.3 GHz)
  - 1.5 dB Max. (0.3 to 5.0 GHz) - Measured 1.17 dB
- VSWR In/Out: 1.7:1 Max. - Measured 1.66:1/1.67:1
- Flat Leakage Power: +20 dBm Typ.
- P1dB: +6 dBm Min.
- Recovery Time: 100 ns Max. - Measured 33.11 ns

PMI Website Link,
https://www.pmi-rf.com/product-details/1m-150m5g-200cw-2kwpk-agal

9.0 PMI Model No. DBMX-4G12G-19-8D5-SFF, 4.0 to 12.0 GHz, Double Balanced Mixer
PMI Model No. DBMX-4G12G-19-8D5-SFF is a Double Balanced Mixer that operates over the 4.0 to 12.0 GHz frequency range. It has a minimum isolation of 19 dB and a maximum noise figure of 8.5 dB. This model is outfitted with SMA female connectors in a housing measuring 1.000" x 0.725" x 0.510".

- Input:
  - F1: 870 MHz (I Port)
  - P1 = +5 dBm
  - F2 = 9.77 to 10.27 GHz (L Port)
  - P2 = +12 dBm
- Output Frequency: 8.9 to 9.4 GHz (R Port)
- Frequency Range: 4.0 to 12.0 GHz
- Conversion Loss: 8.5 dB (I to R) - Measured 7.04 dB
- Isolation:
  - 19 dB (L to R) - Measured 38.97 dB
  - 30 dB (L to I) - Measured 62.60 dB
  - 27 dB (I to R) - Measured 39.27 dB
- Noise Figure: 8.5 dB Max.
- Nominal Impedance: 50 Ohms
- RF Input Power: 200 mW Max. @ +25°C
- Input Current: 100 mADC Peak

PMI Website Link,
https://www.pmi-rf.com/product-details/dbmx-4g12g-19-8d5-sff

10.0 PMI Model No. PMC-9D5G10D5G-7D6-SFF, 9.5 to 10.5 GHz, Monopulse Comparator

PMI Model No. PMC-9D5G10D5G-7D6-SFF is a Monopulse Comparator that operates over the 9.5 to 10.5 GHz frequency range. It has a maximum insertion loss of 7.6 dB and a minimum isolation of 20 dB. This model is outfitted with SMA female connectors in a housing measuring 3.48" x 3.48" x 0.43".

- Frequency Range: 9.5 to 10.5 GHz
- Insertion Loss: 7.6 dB Max.
- Amplitude Balance: ±0.5 dB Max. - Measured ±0.4 dB
- Phase Balance: ±5° Max. - Measured ±3.8°
- Isolation: 20 dB Min. - Measured 23 dB
- VSWR: 1.5:1 Max. - Measured 1.3:1
- Power Handling:
  - Average: 10 W Max. (Port A, B, C, & D)
  - Peak: 0.1 kW Max.
- Impedance: 50 Ohms

PMI Website Link,
https://www.pmi-rf.com/product-details PMC-9d5g10d5g-7d6-sff

11.0 PMI Model No. APD-8-0R523G-292FF-MS, 0.5 to 23.0 GHz, 8-Way Power Divider

PMI Model No. APD-8-0R523G-292FF-MS is an 8-Way Power Divider that operates over the 0.5 to 23.0 GHz frequency range. It has a maximum insertion loss of 8.0 dB and a typical isolation of 15 dB. This model is outfitted with 2.92 female connectors in a housing measuring 5.00" x 3.70" x 0.43".
• Frequency Range: 0.5 to 23.0 GHz
• Insertion Loss (Over Theoretical Power Split of 9 dB):
  o 2.0 dB Max. (0.5 to 1.0 GHz) - Measured 1.33 dB
  o 2.2 dB Max. (1.0 to 2.0 GHz) - Measured 1.75 dB
  o 2.5 dB Max. (2.0 to 8.0 GHz) - Measured 2.35 dB
  o 5.2 dB Max. (8.0 to 18.0 GHz) - Measured 4.71 dB
  o 6.5 dB Max. (18.0 to 22.0 GHz) - Measured 6.32 dB
  o 8.0 dB Typ. (22.0 to 23.0 GHz) - Measured 7.96 dB
• Insertion Loss Flatness (Ref Line of Best Fit):
  o ±1 dB Max. (0.5 to 20.0 GHz)
  o ±1 dB Max. (1.0 to 20.0 GHz)
  o ±1 dB Max. (2.0 to 20.0 GHz)
  o ±1 dB Max. (0.5 to 18.0 GHz)
  o ±1 dB Max. (1.0 to 18.0 GHz)
  o ±1 dB Max. (2.0 to 18.0 GHz)
  o ±2.2 dB Max. (20.0 to 23.0 GHz)
• VSWR (Input):
  o 2.5:1 Typ. (0.5 to 1.0 GHz) - Measured 2.27:1
  o 2.6:1 Max. (1.0 to 2.0 GHz) - Measured 2.57:1
  o 2.1:1 Max. (2.0 to 8.0 GHz) - Measured 1.85:1
  o 2.0:1 Typ. (8.0 to 18.0 GHz)
  o 2.1:1 Typ. (18.0 to 22.0 GHz)
  o 2.2:1 Typ. (22.0 to 23.0 GHz)
• VSWR (Output):
  o 1.5:1 Max. (0.5 to 1.0 GHz) - Measured 1.29:1
  o 1.5:1 Max. (1.0 to 2.0 GHz) - Measured 1.32:1
  o 1.7:1 Typ. (2.0 to 8.0 GHz)
  o 1.8:1 Typ. (8.0 to 18.0 GHz) - Measured 1.79:1
  o 2.0:1 Typ. (18.0 to 22.0 GHz)
  o 2.0:1 Typ. (22.0 to 23.0 GHz) - Measured 1.95:1
• Isolation:
  o 10 dB Typ. (0.5 to 1.0 GHz)
  o 10 dB Typ. (1.0 to 2.0 GHz)
  o 20 dB Typ. (2.0 to 8.0 GHz)
  o 20 dB Typ. (8.0 to 18.0 GHz)
  o 15 dB Typ. (18.0 to 22.0 GHz)
  o 10 dB Typ. (22.0 to 23.0 GHz)
• Amplitude Balance:
  o ±0.5 dB Max. (0.5 to 1.0 GHz) - Measured ±0.11 dB
  o ±0.5 dB Max. (1.0 to 2.0 GHz) - Measured ±0.12 dB
  o ±0.5 dB Max. (2.0 to 8.0 GHz) - Measured ±0.38 dB
  o ±1.2 dB Max. (8.0 to 18.0 GHz) - Measured ±0.98 dB
  o ±1.8 dB Max. (18.0 to 22.0 GHz) - Measured ±1.42 dB
  o ±2.0 dB Max. (22.0 to 23.0 GHz) - Measured ±1.85 dB
• Phase Balance:
  o ±3° Max. (0.5 to 1.0 GHz) - Measured +0.81°/-1.09°
  o ±3° Max. (1.0 to 2.0 GHz) - Measured +0.99°/-1.02°
  o ±4° Max. (2.0 to 8.0 GHz) - Measured +2.91°/-2.37°
  o ±10° Max. (8.0 to 18.0 GHz) - Measured +5.26°/-5.19°
  o ±15° Max. (18.0 to 22.0 GHz) - Measured +9.11°/-8.54°
  o ±20° Max. (22.0 to 23.0 GHz) - Measured +15.39°/-9.06°
• Average Power: 25 W (Into 1.2:1 Load VSWR)

PMI Website Link,
https://www.pmi-rf.com/product-details/apd-8-0r523g-292ff-ms

12.0 PMI Model No. PEC-100M20D1G-20LM-SFF OPT-25DBM, 0.1 to 20.1 GHz, Limiting Amplifier
PMI Model No. PEC-100M20D1G-20LM-SFF OPT-25DBM is a Limiting Amplifier that operates over the 0.1 to 20.1 GHz frequency range. It has a maximum insertion loss of 9.0 dB and a max input power of +22 dBm. This model is outfitted with SMA female connectors in a housing measuring 1.91" x 0.70" x 0.36".

- Frequency Range: 0.1 to 20.1 GHz
- RF Input Power Range (Limiting): -25 to +16 dBm
- Max Input Power (Survival): +22 dBm
- Harmonics:
  - 2nd: -8 dBc Max.
  - 3rd: -8 dBc Max.
  - (Within Limiting Range)
- Noise Figure: <6 dB Above 1.0 GHz, <9 dB Below 1.0 GHz - Measured 4.98 dB Above 1.0 GHz, 6.85 dB Below 1.0 GHz
- Output Power: +17 dBm Min., +24 dBm Max.
- Output Power Flatness: ±3 dBm Typ., ±3.5 dBm Max. - Measured ±1.97 dBm
- VSWR In/Out: 2.2:1 Max. - Measured 1.72:1/1.18:1
- DC Power: +12 V @ 500 mA Max. (No RF Input Signal)

**PMI Website Link**,  
https://www.pmi-rf.com/product-details/pec-100m20d1g-20lm-sff-opt-25dbm

**13.0 PMI Model No. PEC-100M16G-17LM-SFF, 0.1 to 16.0 GHz, Limiting Amplifier**

PMI Model No. PEC-100M16G-17LM-SFF is a Limiting Amplifier that operates over the 0.1 to 16.0 GHz frequency range. It has a maximum insertion loss of 9.0 dB and a max input power of +22 dBm. This model is outfitted with SMA female connectors in a housing measuring 1.91" x 0.70" x 0.36".

- Frequency Range: 0.1 to 16.0 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 dB Above 1.0 GHz, <9 dB Below 1.0 GHz - Measured 4.8 dB Above 1.0 GHz, 6.64 dB Below 1.0 GHz
- Output Power: +16 dBm Min., +21 dBm Max.
- Output Power Flatness: ±2 dBm Max. - Measured ±1.97 dBm
- VSWR In/Out: 2.2:1 Max. - Measured 1.63:1/1.67:1
- DC Power: +12 V @ 500 mA Max. (No RF Input Signal)

**PMI Website Link**,  
https://www.pmi-rf.com/product-details/pec-100m16g-17lm-sff

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