Presenting...

New Product Releases from Planar Monolithics Industries, Inc.
August 15, 2019

1.0 PMI Model No. DTA-1G18G-60-7-CD-1-HERM, 1.0 to 18.0 GHz 7-Bit Programmable Attenuator

PMI Model No. DTA-1G18G-60-7-CD-1-HERM that operates over the frequency range of 1.0 to 18.0 GHz. It has a maximum insertion loss of 5 dB and a maximum VSWR of 2.0:1. This unit is outfitted with SMA female connectors and a 15-Pin Micro-D female connector in a hermetically sealed housing measuring 2.00" x 2.79" x 0.66".

- Frequency Range: 1.0 to 18.0 GHz
- Mean Attenuation Range: 60 dB
- Insertion Loss: 5 dB Max., 4.8 dB Typ. - Measured 4.6 dB
- VSWR: 2.0:1 Max. - Measured 1.7:1
- Flatness Up To:
  - 20 dB: ±1.0 dB Max. - Measured ±0.53 dB
  - 40 dB: ±1.25 dB Max. - Measured ±0.65 dB
  - 60 dB: ±3.0 dB Max. - Measured ±1.7 dB
- Monotonicity: Guaranteed
- Temperature Coefficient (Max.): ±0.02 dB/°C - Measured <±0.02 dB/°C
- Accuracy of Attenuation:
  - 0 to 20 dB: ±1.0 dB Max. - Measured ±0.12 dB
  - 20 to 40 dB: ±1.5 dB Max. - Measured ±0.1 dB
  - 40 to 60 dB: ±2.0 dB Max. - Measured ±0.47 dB
- Minimum Attenuation Step: 0.5 dB
- Operating Power: +17 dBm CW - Measured >+17 dBm CW
2.0 PMI Model No. P4T-0R1G20G-80-T-SFF, 0.1 to 20.0 GHz, SP4T Absorptive Switch

PMI Model No. P4T-0R1G20G-80-T-SFF is a Single Pole, Four Throw, Absorptive Switch operating over the frequency range of 0.1 to 20.0 GHz. It has a maximum insertion loss of 5.0 dB and a minimum isolation of 80 dB. This model is outfitted with SMA female connectors in a housing that measures 1.25" x 1.25" x 0.70".

- Frequency Range: 0.1 to 20.0 GHz
- Insertion Loss: 5.0 dB Max. - Measured 4.22 dB
- Isolation: 80 dB Min. - Measured 88.95 dB
- VSWR (On/Off): 2.0:1 Max. - Measured 1.68:1/1.93:1
- Switching Speed: 300 ns (10% to 90% RF) - Measured 30.4 ns On/40.8 ns Off
- Control Logic: TTL Logic "0" = On, "1" = Off
- Survival Power: +30 dBm (1 W)
- Operating Power: +20 dBm Max.
- RF Phase Tracking: 2° per °C (All Ports with Respect to Common with Temperature)
- DC Supply:
  - +5 VDC @ 200 mA Max. - Measured 110 mA
  - -12 VDC @ 100 mA Max. - Measured 45 mA

3.0 PMI Model No. QC-5010-NFF, 5.0 to 10.0 GHz Hybrid Coupler

PMI Model No. QC-5010-NFF is a 5.0 to 10.0 GHz Hybrid Coupler. It has a maximum insertion loss of 1.1 dB and a minimum isolation of 16 dB. This coupler is supplied with N female connectors in a housing that measures 1.870" x 1.315" x 0.787".

- Frequency Range: 5.0 to 10.0 GHz
- Nominal Split: 3.01 dB
- Insertion Loss: 1.1 dB Max. - Measured 1.07 dB
- Isolation: 16 dB Min. - Measured 18.1 dB
- Amplitude Balance: ±0.75 dB Max. - Measured ±0.5 dB
- Phase Balance: ±5° Max. - Measured ±0.9°
- VSWR: 1.50:1 Max. - Measured 1.3:1
- Power Handling:
  - Average: 75 W Max.
  - Peak: 3 kW Max.
- Impedance: 50 Ohms
4.0 PMI Model No. DTA-2G18G-60-12-CD-1-20DBM-TS, 2.0 to 18.0 GHz, 12-Bit Programmable Attenuator

PMI Model No. DTA-2G18G-60-12-CD-1-20DBM-TS is a 12-Bit Programmable 60 dB Pin Diode Attenuator operating over the 2.0 to 18.0 frequency range. It has a maximum insertion loss of 4.8 dB, a typical operating power of +20 dBm, and a maximum VSWR of 2.0:1. This model is outfitted with SMA female connectors and a 25-Pin Micro-D female connector in a housing that measures 2.00" x 1.80" x 0.50".

- Frequency Range: 2.0 to 18.0 GHz
- Mean Attenuation Range: 60 dB
- Insertion Loss: 4.8 dB Max. - Measured 4.7 dB
- VSWR: 2.0:1 Max. - Measured 1.7:1
- Flatness Up To:
  - 20 dB: ±1.0 dB Typ. - Measured 0.74 dB
  - 40 dB: ±1.25 dB Typ. - Measured 0.81 dB
  - 60 dB: ±3.0 dB Typ. - Measured 1.77 dB
- Accuracy of Attenuation:
  - 20 dB: ±1.0 dB Typ. - Measured ±0.13 dB
  - 40 dB: ±1.5 dB Typ. - Measured ±0.19 dB
  - 60 dB: ±2.0 dB Typ. - Measured ±0.29 dB
- Minimum Attenuation Step: 0.016 dB
- Operating Power: +20 dBm Typ.
- Survival Power: 1 W Average from -65°C to +25°C
- Switching Time:
  - On Time: 1.0 us Max. - Measured <1.0 us
  - Off Time: 0.5 us Max. - Measured <0.5 us
- DC Power Supply: +15 V @ 150 mA Max. - Measured 145 mA
- Logic Input:
  - Logic "0" (Bit Off): -0.03 to +0.8 V
  - Logic "1" (Bit On): +2.0 to +5.0 V
- Temp Sensor: 10 mV/°C, 3.0 V @ 25°C - Measured 3.033 V

PMI Website Link,
https://www.pmi-rf.com/product-details/dta-2g18g-60-12-cd-1-20dbm-ts

5.0 PMI Model No. P2T-2G18G-55-T-512-SFF-LV-SP, 2.0 to 18.0 GHz, SP2T Absorptive Switch

PMI Website Link,
https://www.pmi-rf.com/product-details/p2t-2g18g-55-t-512-sff-lv-sp
PMI Model No. P2T-2G18G-55-T-512-SFF-LV-SP is a Single Pole, Two Throw, Absorptive Switch that operates over the frequency range of 2.0 to 18.0 GHz. It has a maximum VSWR of 2.0:1, a maximum insertion loss of 3.0 dB, and a minimum isolation of 55 dB. This unit is supplied with SMA female connectors in a housing measuring 1.00" x 1.00" x 0.50".

- Frequency Range: 2.0 to 18.0 GHz
- Insertion Loss: 3.0 dB Max. - Measured 2.65 dB
- Isolation: 55 dB Min. - Measured 56.35 dB
- VSWR: 2.0:1 Max. (Unconditionally Stable Under Any Input/Output VSWR Load) - Measured 1.90:1
- Input Power:
  - +23 dBm CW Max. (Operating)
  - +27 dBm CW Max. (Survival)
- Switching Speed:
  - 50 ns Max. - Measured 35 ns
  - Ton = 50% TTL to 90% RF
  - Toff = 50% TTL to 10% RF
- Switching Rate PRF: 5 MHz
- Video Leakage: 50 mV Peak to Peak Max. Measured at 300 MHz BW - Measured 2 V Peak to Peak Typ.
- Control (2 Lines):
  - TTL Logic "0" = Insertion Loss (1.6 mA Max. Sink @ 0.4 V)
  - TTL Logic "1" = Isolation (40 mA Max. Source @ 2.4 V)
  - *Surge Protection Included on TTL Lines
- DC Voltage:
  - 80 mA @ +5 VDC Typ. - Measured 13 mA
  - 80 mA @ -12 VDC Typ. - Measured 67 mA

PMI Website Link,
https://www.pmi-rf.com/product-details/p2t-2g18g-55-t-512-sff-lv-sp

6.0 PMI Model No. PEC-25-500M40G-20-12-292FF-OPT125, 1.0 to 25.0 GHz Low Noise Amplifier

PMI Model No. PEC-25-500M40G-20-12-292FF-OPT125 is a 1.0 to 25.0 GHz Low Noise Amplifier. It has a typical gain of 25 dB and a typical noise figure of 5.5 dB. This amplifier is outfitted with 2.92 mm female connectors in a housing that measures 1.37" x 1.00" x 0.60".

- Frequency Range: 1.0 to 25.0 GHz
- Gain Flatness: ±2.5 dB Max. - Measured ±1.98 dB
- Noise Figure: 5.5 dB Typ. - Measured 4.7 dB
- OP1dB:
  - +19 dBm Typ. (1.0 to 18.0 GHz) - Measured +19 dBm
  - +17 dBm Typ. (18.0 to 25.0 GHz) - Measured +18.3 dBm
- PSAT:
  - +23 dBm Typ. (1.0 to 18.0 GHz) - Measured +23.5 dBm
  - +20 dBm Typ. (18.0 to 25.0 GHz) - Measured +22.2 dBm
- Input Power Handling: +17 dBm CW Max.
- VSWR Input/Output: 2.0:1/2.5:1 Max. - Measured 1.8:1/1.5:1
- DC Voltage Supply: +12 to +15 VDC
- DC Current Draw: 350 mA Nominal - Measured 314 mA
7.0 PMI Model No. DTA-12G26G5-60-10D, 12.0 to 26.5 GHz, 10-Bit Programmable Attenuator

PMI Model No. DTA-12G26G5-60-10D is a 10-Bit Programmable 60 dB Pin Diode Attenuator operating over the frequency range of 12.0 to 26.5 GHz. It has a typical insertion loss of 8.0 dB and a maximum VSWR of 2.2:1. This model is supplied with SMA female connectors and a 15-Pin Micro-D female connector in a housing measuring 2.00" x 1.80" x 0.50".

- Frequency Range: 12.0 to 26.5 GHz
- Mean Attenuation Range: 60 dB
- Insertion Loss: 8.0 dB Typ. - Measured 6.9 dB
- VSWR: 2.2:1 Max. - Measured 2.0:1
- Flatness Up To:
  - 20 dB: ±1.5 dB Typ. - Measured ±0.87 dB
  - 40 dB: ±2.0 dB Typ. - Measured ±0.89 dB
  - 60 dB: ±5.0 dB Typ. - Measured ±5.33 dB
- Accuracy of Attenuation:
  - 0 to 20 dB: ±1.0 dB Typ. - Measured ±0.09 dB
  - 20 to 40 dB: ±1.5 dB Typ. - Measured ±0.15 dB
  - 40 to 60 dB: ±2.0 dB Typ. - Measured ±0.24 dB
- Minimum Attenuation Step: 0.06 dB
- Operating Power: 20 dBm Typ.
- Survival Power: 1 W Average from -65°C to +25°C
- Switching Time:
  - On Time: 1.0 us Max. - Measured <0.38 us
  - Off Time: 0.5 us Max. - Measured <0.47 us
- DC Power Supply: +15 V @ 150 mA Max. - Measured 136 mA
- Logic Input:
  - Logic "0" (Bit Off): -0.3 to +0.8 V
  - Logic "1" (Bit On): +2.0 to +5.0 V

8.0 PMI Model No. P3T-100M18G-80-T-515-SFF-4W-IND, 0.1 to 18.0 GHz SP3T Absorptive Switch

PMI Model No. P3T-100M18G-80-T-515-SFF-4W-IND is a Single Pole, Three Throw, Absorptive Switch that operates over the frequency range of 0.1 to 18.0 GHz. It has a maximum insertion loss of 4.5 dB, a minimum isolation of 80 dB, and a maximum VSWR of 2.0:1. This unit is outfitted with SMA female connectors in a housing that measures 1.25" x 0.40".

- Frequency Range: 0.1 to 18.0 GHz
- Insertion Loss: 3.75 dB Goal, 4.5 dB Max. - Measured 3.76 dB
- Isolation: 80 dB Min. - Measured 81.35 dB
9.0 PMI Model No. LM-30M2G-5CW-1KWP-SFF, 30 MHz to 2.0 GHz Limiter

PMI Model No. LM-30M2G-5CW-1KWP-SFF is a 30 MHz to 2.0 GHz RF Limiter. It has a maximum insertion loss @ 0 dBm input of 1 dB and a maximum input/output VSWR @ 0 dBm input of 2.0:1. This model is supplied with SMA female connectors in a housing measuring 0.90" x 0.38" x 0.38".

- Frequency Range: 30 MHz to 2.0 GHz
- Insertion Loss: 0.7 dB Goal, 1 dB Max. @ 0 dBm Input - Measured 0.68 dB
- Input/Output VSWR: 2.0:1 Max. @ 0 dBm Input - Measured 1.96:1/1.74:1
- Impedance: 50 Ohms
- Input Power:
  - 5 W CW Min.
  - 1 kW Peak (0.1% Duty Cycle, 1 us Max. Pulse Width)
- Maximum Flat Leakage: 17 dBm (50 mW) Max. - Measured +15.13 dB
- Spike Leakage: 1.0 x 10^-8 kg m^2/sec^2 Max. (0.1 ergs Max.)
- Limiting Threshold: 7 dBm Min., 1 dB Compression - Measured >7 dBm
- Recovery Time (3 dB): 1 us Max. @ 1000 W Peak Power - Measured 21.11 ns

10.0 PMI Model No. PXS-100M18G-65-T-SFF, 0.1 to 18.0 GHz Two Pole, Absorptive Transfer Switch

PMI Model No. PXS-100M18G-65-T-SFF is a Two Pole, Absorptive Transfer Switch operating over the frequency range of 0.1 to 18.0 GHz. It has a minimum isolation of 65 dB, a maximum insertion loss of 3.1 dB, and a maximum input VSWR of 2.0:1. This unit is outfitted with SMA female connectors in a housing that measures 1.2" x 1.2" x 0.5".

- Frequency Range: 0.1 to 18.0 GHz
- Impedance: 50 Ohms
- Input Power: +27 dBm (0.5 W) Max.
- Input VSWR: 2.0:1 Max. - Measured 2.0:1 In/1.9:1 Out
- Insertion Loss: 3.1 dB Max. - Measured 2.9 dB
- Isolation: 65 dB Min. - Measured 75 dB
- Switching Speed: 100 ns Max. - Measured 74.4 ns On/88.3 ns Off
- DC Voltage:
  - +5 VDC (±0.5 V) - Measured +5 VDC, 45 mA
  - -15 VDC (±3 V) - Measured -15 VDC, 74 mA
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PMI Website Link,
https://www.pmi-rf.com/product-details/pxs-100m18g-65-t-sff
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