Here's What's New...

New Product Releases from
Planar Monolithics Industries, Inc.
September 11, 2018

1.0 PMI Model No. PEC-53-12-10-15-SFF, 1.0 to 2.0 GHz Low Noise Amplifier

PMI Model No. PEC-53-12-10-15-SFF is a 1.0 to 2.0 GHz Low Noise Amplifier which provides a minimum gain of 53 dB while maintaining a maximum gain flatness of ±0.75 dB. The noise figure is 3.5 dB maximum and offers a minimum OP1dB of +5 dBm. The unit is supplied with SMA female connectors.

- Frequency Range: 1.0 to 2.0 GHz
- Gain: 53 dB Min. - Measured 56 dB
- Gain Flatness: ±0.75 dB Max. - Measured ±0.69 dB
- Noise Figure: 3.5 dB Max. - Measured 0.8 dB
- OP1dB: +5 dBm Min. - Measured +17.8 dBm
- VSWR In/Out: 1.5:1 Max. - Measured 1.48:1/1.24:1
- DC Current: 450 mA Max. - Measured 253 mA
- DC Voltage: +12 to +15 VDC Nominal

PMI Website Link,
2.0 PMI Model No. PE2-15-2R018R0-4R5-15-12-SFF, 2.0 to 18.0 GHz Low Noise Amplifier

PMI Model No. PE2-15-2R018R0-4R5-15-12-SFF is a 2.0 to 18.0 GHz Low Noise Amplifier which provides 15 dB of gain while maintaining a gain flatness of ±1.25 dB maximum over the operating frequency. The noise figure is 4.5 dB typical and offers a typical OP1dB of 15 dBm. The amplifier requires +12 to +15 VDC and the current draw is 85 mA typical. The unit is supplied with SMA female connectors in our standard PE2 housing.

- Frequency Range: 2.0 to 18.0 GHz
- Gain Flatness: ±1.25 dB Typ. - Measured ±0.56 dB
- Noise Figure: 4.5 dB Typ. - Measured 3.8 dB
- OP1dB: 15 dBm Typ. - Measured ≥+15 dBm
- VSWR In/Out: 2.0:1 Typ. - Measured 1.60:1/1.48:1
- DC Voltage Supply: +12 to +15 VDC
- DC Current Draw: 85 mA Typ. - Measured 86 mA

PMI Website Link,

3.0 PMI Model No. EQL-17D6G21D6G-6DB-292MF, 17.6 to 21.6 GHz Passive Amplitude Equalizer

PMI Model No. EQL-17D6G21D6G-6DB-292MF is a passive amplitude equalizer that operates over the frequency range of 17.6 to 21.6 GHz. This unit has a maximum input power of 0.5 watts CW and a maximum VSWR of 2.0:1. The unit is supplied with 2.92 mm female and male connectors in a housing that measures 1.10" x 0.67" x 0.22".

- Frequency Range: 17.6 to 21.6 GHz
- Maximum Input Power: 0.5 W CW
- VSWR: 2.0:1 Max. - Measured 1.54:1
- Amplitude @ 17.6 GHz: -1 dB Min. - Measured -2.13 dB
- Slope:
  - Amplitude @ 17.6 GHz
  - Amplitude -6 dB @ 21.6 GHz
  - Amplitude = -1.5 dB/GHz
  - (Frequency above 17.6 GHz in GHz) + (Amplitude @ 17.6 GHz) - Measured -1.56 dB/GHz
- Linearity: ±0.5 dB

PMI Website Link,
https://www.pmi-rf.com/products-details/eql-17d6g21d6g-6db-292mf1

4.0 PMI Model No. 8CL3D55G-300-CD-SFF, Band Pass Filter
PMI Model No. 8CL3D55G-300-CD-SFF is a band pass filter centered at 3550 MHz. This model has a passband insertion loss of 1.5 dB and a passband VSWR of 1.5:1. It is supplied with SMA female connectors in a housing that measures 4.60" x 0.75" x 0.60".

- Center Frequency: 3550 MHz
- Bandwidth: 300 MHz - Measured 300 MHz
- Passband Insertion Loss: 1.5 dB - Measured 0.8 dB
- Passband VSWR: 1.5:1 - Measured 1.25:1
- Rejection:
  - -55 dBC @ 3.2 GHz - Measured 63.66 dB
  - -60 dBC @ 4.0 GHz - Measured 83.61 dB

PMI Website Link,
https://www.pmi-rf.com/products-details/8cl3d55g-300-cd-sff

5.0 PMI Model No. LM-26G40G-14-20W-292MM, 26.5 to 40.0 GHz High Power Limiter

PMI Model No. LM-26G40G-14-20W-292MM is a high power limiter capable of withstanding an input power level of 20 Watts, 440 to 670 ns Pulse Width, PRF 600 to 900 kHz, 40% Duty Cycle. This model operates in the 26.5 GHz to 40 GHz frequency range. The insertion loss is 4.0 dB maximum, VSWR of 2.0:1 and 250 ns response time and a typical leakage of +14 dBm. This limiter is supplied with 2.92 mm connectors in a housing measuring 0.50" x 0.50" x 0.22".

- Frequency Range: 26.5 to 40.0 GHz
- Insertion Loss: 4.0 dB Max. - Measured 2.45 dB
- Peak Input Power: 20 W, 440 to 670 ns Pulse Width, PRF 600 to 900 kHz, 40% Duty Cycle
- Leakage Power: +14 dBm Typ.
- 1 dB Recovery Time: 250 ns Max.
- VSWR In/Out: 2.0:1 - Measured 1.43:1/1.54:1

PMI Website Link,
https://www.pmi-rf.com/products-details/26g40g-14-20w-292mm

6.0 PMI Model No. PS-85M4G-9B-SFF, 0.085 to 4.0 GHz, Digitally Controlled Analog Phase Shifter

PMI Model No. PS-85M4G-9B-SFF is a 0.085 to 4.0 GHz, Digitally Controlled Analog Phase Shifter with capability for phase shifting from 0° to 360°. The unit consists of an analog phase shifter and a digital to analog converter. Nine logic input lines allow 512 discrete values of phase. This model has a maximum insertion loss of 13 dB and a maximum switching speed of 500 ns. It is supplied with SMA female connectors in a housing measuring 4.95" x 3.38" x 1.00".

- Frequency Range: 0.085 to 4.0 GHz
- Control: 9-Bit TTL
- Insertion Loss: 13 dB Max. - Measured 10.1 dB
- Phase Shift Range: 360° Typ.
7.0 PMI Model No. SDLVA-6G18G-CD-1-OPT93, 6.0 to 18.0 GHz Successive Detection Log Video Amplifier

PMI model SDLVA-6G18G-CD-1-OPT93 Successive Detection Log Video Amplifiers (SDLVA) offers 75 dB Dynamic Range over the frequency range of 6.0 to 18.0 GHz. This model offers an ultra-fast rise time of 10 ns maximum and a recovery time of less than 60 ns. The unit is temperature compensated such that log linearity over temperature remains less than ±2.5 dB over the full operating temperature range of -40 to +85ºC. This model is supplied with SMA female connectors in a compact housing measuring only 3.2" x 1.8" x 0.4".  [Optional frequency ranges covering 100 MHz to 26.5 GHz are available.]

- Frequency Range: 6.0 to 18.0 GHz
- Frequency Flatness: ±2.0 dB Max. - Measured ±1.0 dB
- TSS: -70 dB Min. - Measured -75 dB
- VSWR: 2.0:1 - Measured 1.72:1
- PSAT: +7 dBm
- Power Input: +17 dBm CW Max.
- RF Out: No Power
- Log Slope:
  - 25 mV/dB (±10%) 93 Ohms - Measured 24.6 mV/dB
  - 48 mV/dB (±10%) No Load
- Log Range: -70 to +5 dBm
- Log Linearity: ±2.5 dB (-40ºC to +85ºC) - Measured +1.0 dB/-0.98 dB
- Pulse Range: 30 ns to CW
- Rise Time: 10 ns (5 ns Typ.) - Measured 4.7 ns
- Recovery Time: 60 ns (40 ns Typ.) - Measured 41 ns
- Power Supply:
  - +15 V or +12 V @ 350 mA Nominal - Measured 227 mA
  - -15 V or -12 V @ 180 mA Nominal - Measured 98 mA

PMI Website Link,
https://www.pmi-rf.com/products-details/sdlva-6g18g-cd-1-opt93

8.0 PMI Model No. P1T-0R5G18G-60-T-512-SFF, 0.5 to 18.0 GHz SPST Absorptive Switch
PMI Model No. P1T-0R5G18G-60-T-512-SFF is a solid-state, single pole, single throw absorptive switch that operates from 0.5 to 18.0 GHz. This switch offers a maximum insertion loss of 3.5 dB and a minimum isolation of 60 dB. It is supplied with SMA female connectors in a housing measuring 1.0" x 1.0" x 0.5".

- Frequency Range: 0.5 to 18.0 GHz
- Insertion Loss: 3.5 dB Max.
- Isolation:
  - 60 dB (0.5 to 2.0 GHz) - Measured 102.06 dB
  - 70 dB (2.0 to 18.0 GHz) - Measured 89.45 dB
- VSWR In/Out: 2.0:1 Max.
- Switching Speed:
  - Rise/Fall: 10 ns Typ., 15 ns Max. - Measured 5 ns
  - Delay On/Off: 75 ns Typ., 100 ns Max. - Measured 25 ns
- Input Power: +20 dBm CW
- Survival Power: 1 W CW, 10 W Peak, 1 us
- Control:
  - TTL Logic "0" = On
  - TTL Logic "1" = Off
- Power Supply:
  - +5 V @ 70 mA Max. - Measured 15 mA
  - -12 V @ 100 mA Max. - Measured 7 mA

PMI Website Link,
https://www.pmi-rf.com/products-details/p1t-0r5g18g-60-t-512-sff

9.0 PMI Model No. P8T-0R120G-110-T-512-SFF, 0.1 to 20.0 GHz SP8T Absorptive Switch

PMI Model No. P8T-0R120G-110-T-512-SFF is a single pole, eight throw, absorptive switch that operates over the frequency range of 0.1 to 20.0 GHz. This model provides a minimum of 110 dB of isolation and has a maximum insertion loss of 6 dB. The typical VSWR is 2.0:1 and the typical switching speed is 300 ns. This switch is supplied with SMA female connectors in a housing that measures Ø1.500 Circle Point to Point x 0.700

- Frequency Range: 0.1 to 20.0 GHz
- Insertion Loss: 6 dB Max. - Measured 6 dB
- Isolation: 110 dB Min. - Measured 110.25 dB
- VSWR:
  - In/Out: 2.0:1 Max. - Measured 1.97:1
  - Out/Off: 2.0:1 Max. - Measured 1.97:1
- Switching Speed (Rise/Fall): 500 ns Max., 300 ns Typ. - Measured 80 ns
- RF Power: +30 dBm (1 W)
- Control:
  - TTL Logic "0" = On
  - TTL Logic "1" = Off
- Power Supply:
  - +5 V @ 500 mA Max. - Measured 423 mA
  - -12 V @ 100 mA Max. - Measured 79 mA
- RF Phase Tracking: 0.2º per ºC (All ports with respect to common with temperature)

PMI Website Link,
10.0 PMI Model No. TD-30T-SHS-218, 2.0 to 18.0 GHz Threshold Detector

PMI Model No. TD-30T-SHS-218 is a high speed, TTL logic output threshold detector that operates from 2.0 to 18.0 GHz. This model has maximum input VSWR of 3.0:1 and a propagation delay of 15 ns. It is supplied with SMA female connectors in a housing measuring 2.2" x 1.5" x 0.4".

- Frequency Range: 2.0 to 18.0 GHz (Usable down to 0.5 GHz)
- VSWR Input: 3.0:1 Max. @ -20 dBm - Measured 2.90:1
- Minimum Signal Level for Logic 1:
  - -20 dBm @ 2.0 GHz - Measured -21.3 dBm @ 2.0 GHz
  - -17 dBm @ 18.0 GHz - Measured -22.1 dBm @ 18.0 GHz
- Threshold Variation over Frequency (Any 1.0 GHz Window): ±0.5 dB - Measured ±0.48 dB
- Minimum Signal Level for Logic 0: -25 dBm - Measured -24.8 dBm
- Dynamic Range: +10 dBm Max. - Measured +10 dBm
- Propagation Delay (From 50% of an Input of -20 dBm): 15 ns Max.
- Propagation Delay (From 50% of an Input of +10 dBm): 15 ns Max.
- DC Power Supply:
  - +15 V @ 100 mA Max. - Measured +15 V @ 56.7 mA
  - -15 V @ 100 mA Max. - Measured -15 V @ 48.7 mA

PMI Website Link,
https://www.pmi-rf.com/products-details/td-30t-shs-218-

*** For more information on PMI's complete line of products, please visit ***
http://www.pmi-rf.com

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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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