Here's What's New...

New Product Releases from
Planar Monolithics Industries, Inc.
March 27, 2018

1.0 PMI Model No. PE2-30-1R018R0-4R5-22-12-SFF-1, 1.0 to 18.0 GHz Low Noise Amplifier

PMI Model No. PE2-30-1R018R0-4R5-22-12-SFF-1 is a 1.0 to 18.0 GHz, low noise amplifier that provides a typical gain of 30 dB while maintaining a maximum gain flatness of ±1.5 dB over the operating frequency. The noise figure is 4.5 dB maximum and offers an OP1dB of 22 dBm minimum. The operating voltage is +12 to +15 VDC with a typical current draw of 500 mA. The unit is supplied with removable SMA female connectors in our standard PE2 housing.

- Frequency Range: 1.0 to 18.0 GHz
- Gain: 30 dB Typ. - Measured 26.70 Min., 27.90 Max.
- Gain Flatness: ±1.5 dB Max. - Measured ±0.60 dB
- Noise Figure: 4.5 dB Max. - Measured 4.41 dB @ 1.0 GHz
- OP1dB: 22 dBm Min. - Measured >22 dBm
- VSWR In/Out: 2.0:1 Max. - Measured 1.35:1/1.97:1
- DC Voltage Supply: +12 to +15 VDC @ 500 mA - Measured 479 mA

PMI Website Link,
http://www.pmi-rf.com/Products/amplifiers/PE2-30-1R018R0-4R5-22-12-SFF-1.htm
2.0 PMI Model No. PE10-15-220-3R0-15-15-SFF, 2.0 to 20.0 GHz Low Noise Amplifier

PMI Model No. PE10-15-220-3R0-15-15-SFF is a low noise amplifier that provides 15 dB of gain, an OP1dB of +15 dBm and a noise figure of 3.5 dB. A single voltage of +12 to +15 VDC is required and the unit is supplied having SMA female connectors in a housing that measures 0.75" x 0.43" x 0.31".

- Frequency Range: 2.0 to 20.0 GHz
- Gain: 15 dB Typ.
- Gain Flatness: ±1.5 dB Typ. - Measured ±1.06 dB
- Noise Figure: 3.5 dB Typ.
- OP1dB: 15 dBm Typ. - Measured 15 dBm
- VSWR In/Out: 2.0:1 Max.
- DC Voltage Supply: +12 to +15 VDC Typ.
- DC Current Draw: 80 mA Typ. - Measured 67 mA

PMI Website Link,

3.0 PMI Model No. DTA-100M18G-30-CD-1, 0.1 to 18.0 GHz, 5-Bit Attenuator

PMI Model No. DTA-100M-18G-30-CD-1 is a 5 bit, programmable 30 dB pin diode attenuator with step resolution of 1 dB over the frequency range of 0.1 to 18.0 GHz. This model has a typical insertion loss of 5 dB and a typical VSWR of 2.5:1. It is supplied with 2.92 mm female connectors and a 15 Pin Micro-D female connector in a housing measuring 2.00" x 1.80" x 0.50".

- Frequency Range: 0.1 to 18.0 GHz
- Mean Attenuation Range: 30 dB
- Insertion Loss: 5.0 dB Typ. - Measured 4.74 dB
- VSWR: 2.5:1 Typ. - Measured 1.66:1
- Accuracy of Attenuation: ±2.5 dB Typ. - Measured ±0.04 dB, ±0.06 dB
- Minimum Attenuation Step: 1.0 dB
- Power Handling Capability: +24 dBm CW Max.
- Input 1 dB Compression: +20 dBm Typ.
- Switching Time:
  - 1.0 usec Max. (On Time) - Measured <240 ns
  - 0.5 usec Max. (Off Time) - Measured <180 ns
- Power Supply: +15 V @ 50 mA Max. - Measured 38 mA
- Logic Input:
  - Logic "0" (Bit Off): 0 to +0.8 V
  - Logic "1" (Bit On): +2.0 to +5.0 V

PMI Website Link,

4.0 PMI Model No. 8C1575-20-CD-SFF, Cavity Filter
PMI Model No: 8C1575-20-CD-SFF is a cavity filter with center frequency of 1575 MHz and bandwidth of 20 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 measuring 6.6" x 1.2" x 1.3".

- Center Frequency: 1575 MHz - Measured 1574.5 MHz Nominal
- Bandwidth: 20 MHz - Measured 33 MHz Nominal
- Passband Insertion Loss: 1.5 dB - Measured 1.16 dB
- Passband VSWR: 1.5:1 - Measured 1.43:1
- Rejection: 8 Pole Response

PMI Website Link,
http://www.pmi-rf.com/Products/filters/8C1575-20-CD-SFF.htm

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 to 40 GHz frequency range. It has a maximum insertion loss of 4.0 dB, a typical VSWR of 2.0:1, a maximum 250 ns response time, and a typical leakage of +14 dBm. This limiter is packaged in a small 0.50" X 0.50" X 0.22" housing and is supplied with 2.92 mm male connectors.

- 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,
http://www.pmi-rf.com/Products/limiters/LM-26G40G-14-20W-292MM.htm

6.0 PMI Model No. SDLVA-18G40G-65-CD-292FF, 18.0 to 40.0 GHz Successive Detection Log Video Amplifier

PMI Model No. SDLVA-18G40G-65-CD-292FF is a Successive Detection Log Video Amplifier (SDLVA) that operates between the 18.0 to 40.0 GHz frequency range. It has a dynamic range of 65 dB, and a log slope of 25 mV/dB. It is supplied with 2.92 mm female connectors in a housing measuring 2.37" x 1.80" x 0.42".

- Frequency Range: 18.0 to 40.0 GHz
- TSS: -65 dBm @ 25°C - Measured -68 dBm
- Input Power Handling: 10 dBm Max.
- Video Log Range: -63 dBm to +2 dBm
- Video Log Linearity:
PMI Website Link,

7.0 PMI Model No. P1T-200M18G-80-T-SFF-F192A, 0.2 to 18.0 GHz SPST Absorptive Switch

PMI Model No. P1T-200M18G-80-T-SFF-F192A is a high speed, single pole, single throw, absorptive switch capable of switching with in 30 ns. The frequency range is 0.2 to 18.0 GHz and this switch has over 80 dB of isolation with a maximum insertion loss of 3.5 dB. This model is supplied with SMA female connectors in a housing measuring 1.0" x 1.0" x 0.5".

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Range</td>
<td>0.2 to 18.0 GHz</td>
<td></td>
</tr>
<tr>
<td>Insertion Loss</td>
<td>3.5 dB Max.</td>
<td>2.4 dB</td>
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<tr>
<td>Isolation</td>
<td></td>
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<tr>
<td>70 dB Min. (0.2 to 0.5 GHz)</td>
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<td></td>
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<tr>
<td>80 dB Min. (0.5 to 18.0 GHz)</td>
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<td>83.8 dB</td>
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<tr>
<td>VSWR In/Out</td>
<td>2.0:1 Max.</td>
<td>1.8:1</td>
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<tr>
<td>Switching Speed</td>
<td></td>
<td></td>
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<tr>
<td>10 ns (Rise/Fall)</td>
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<td>&lt;5 ns</td>
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<tr>
<td>15 ns (Delay On)</td>
<td></td>
<td>&lt;5 ns</td>
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<tr>
<td>30 ns (Delay Off)</td>
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<td>&lt;10 ns</td>
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<tr>
<td>Operating Power</td>
<td>+27 dBm &quot;Hot Switching&quot; Max.</td>
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<tr>
<td>Control</td>
<td></td>
<td></td>
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<tr>
<td>TTL Logic &quot;0&quot; = On</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TTL Logic &quot;1&quot; = Off</td>
<td></td>
<td></td>
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<tr>
<td>Power Supply</td>
<td>+5 V @ 50 mA Max.</td>
<td>25 mA</td>
</tr>
<tr>
<td></td>
<td>-12 V @ 75 mA Max.</td>
<td>37 mA</td>
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</tbody>
</table>

PMI Website Link,
http://www.pmi-rf.com/Products/Switches/P1T-200M18G-80-T-SFF-F192A.htm
8.0 PMI Model No. P8T-20M6G-80-R-515-SFF, 0.02 to 6.0 GHz SP8T Reflective Switch

PMI Model No. P8T-20M6G-80-R-515-SFF is a single pole, eight throw, reflective switch module with a low typical insertion loss of 2.75 dB, a high isolation of 80 dB minimum and an integral decoded 3-Bit TTL driver designed for 0.02 to 6.0 GHz operation. The unit has a maximum switching speed of 250 ns and maximum operating power of 23 dBm CW max. It is supplied with SMA female connectors in a housing measuring 3.0" x 1.5" x 0.5".

- Frequency Range: 0.02 to 6.0 GHz
- Insertion Loss: 2.75 dB Typ., 3.25 dB Max. -Measured 2.91 dB
- Isolation: 80 dB Min., 100 dB Typ. -Measured 88.65 dB
- VSWR: 2.0:1 Max. - Measured 1.38:1
- Switching Speed: 250 ns Max. - Measured 233 ns
- Operating Power: 23 dBm CW Max.
- Control:
  - TTL Logic "1" = "Low Loss"
  - TTL Logic "0" = "Isolation"
- Power Supply:
  - +5 V @ 350 mA Typ. - Measured 135 mA
  - -15 V @ 45 mA Typ. - Measured 34 mA

PMI Website Link,

9.0 PMI Model No. TD-30T-SHS-218-30DBAMP, 2.0 to 18.0 GHz Threshold Detector

PMI Model No. TD-30T-SHS-218-30DBAMP is an Ultra-High Speed, High Sensitivity Threshold Detector designed for broadband applications in the 2.0 to 18.0 GHz frequency range. It is supplied with SMA female connectors in a housing measuring 2.5" x 2.0" x 0.5".

- Frequency Range: 2.0 to 18.0 GHz
- Minimum Signal Level for Threshold Detector to Respond: -45 dBm ± 2.5 dBm
- Propagation Delay from 50% Logic Output on Leading Edge for an Input of -45 dBm: 10 ns Typ., 20 ns Max.
- Propagation Delay from 50% RF Input to 50% Logic for an Input of -20 dBm: 10 ns Typ., 20 ns Max.
- Output Type: TTL
- DC Power +12 V (No Load): 250 mA Max. -Measured +256 mA
- DC Power -12 V (No Load): 120 mA Max. -Measured -49 mA

PMI Website Link,
http://www.pmi-rf.com/Products/detectors/TD-30T-SHS-218-30DBAMP.htm
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)

- Low Noise Amplifiers
- Threshold Detectors
- Filters and Switch Filter Banks
- Dielectric Resonator Oscillators
- I/Q Vector Modulators
- Frequency Synthesizers
- Diode Detectors
- Digital Attenuators
- Digitally Tuned Oscillator
- Frequency Discriminators
- I/Q Vector Modulators
- Limiters
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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