Here's What's New...
New Product Releases & Product Updates

July 28, 2017

*** NEW RELEASES ***

1.0 PMI Model No.: DTA-100M40G-30-CD-1

PMI Model DTA-100M40G-30-CD-1 is a 5-Bit programmable 30 dB PIN diode attenuator with a step resolution of 1.0 dB over the frequency range of 100 MHz to 40 GHz. This model operates on a single +15 VDC supply and draws only 40 mA of current. Very high levels of attenuation accuracy of 0.6 dB is achieved. This attenuator provides ultra-fast switching speeds of 300 ns and has an operating input power rating of +20 dBm. This model is supplied in a small, light-weight housing measuring 2.0” x 1.8” x 0.5” inches.

- Frequency Range: 100 MHz to 40 GHz
- Mean Attenuation Range: 30 dB
- LSB: 1.0 dB
- Insertion Loss:
  - 5.0 dB Typ. (Up to 20 GHz) - Measured 4.9 dB
  - 8.0 dB Typ. (Up to 40 GHz) - Measured 7.1 dB
- VSWR: 2.5:1 Max. - Measured 2.49:1
- Accuracy of Attenuation: ±2.5 dB Typ
  - Measured:
    - 0 to 10 dB: ±0.59 dB
    - 10 to 20 dB: ±0.09 dB
20 to 30 dB: ±0.20 dB

- **Attenuation Flatness:**
  - Measured:
    - @ 10 dB: ±0.95 dB
    - @ 20 dB: ±1.47 dB
    - @ 30 dB: ±2.13 dB
- **Minimum Attenuation Step:** 1.0 dB
- **Power Handling Capability:** +24 dBm CW Max
- **Input 1dB Compression:** +20 dBm Typ
- **Switching Time**
  - On Time: 1.0 µs Max - Measured 0.25 µs
  - Off Time: 0.5 µs Max
- **Logic Input**
  - Logic "0" (Bit Off): 0 to +0.8 V
  - Logic "1" (Bit On): +2.0 to +5.0 V

PMI Website Link,

2.0 PMI Model No.: DTA-22G28G-50-CD-1

PMI Model DTA-22G28G-50-CD-1 is a 50 dB monotonic programmable attenuator with 11-bit resolution that provides a step size of 0.025 dB. It has also been designed to have very low insertion loss over the frequency range of 22.5 to 27.5 GHz. Features include 2.92mm female connectors. Unit size is 1.8" x 1.15" 0.4" with painted blue finish.

- **Frequency Range:** 22.5 to 27.5 GHz
- **Insertion Loss:** 2.2 dB Max - Measured 3.29 dB
- **Max Input Power:** 10 mW (CW or Peak)
- **VSWR:** 2.2:1 Max - Measured 1.8:1
- **Attenuation Range:** 1 to 51.175 dB
- **Number of Bits:** 11-Bits (2048 Steps)
- **Max Step Size:** 0.04 dB
- **Power Supply:** +15 V @100 mA Max - Measured 25 mA
- **Power Supply Rejection:** 0.1 dB/Volt Max - Measured 0.0 dB/Volt
- **Attenuation Accuracy:** ± 1.0 dB Max -
  - Measured:
    - 0 to 10 dB: ± 0.14 dB
    - 10 to 30 dB: ±0.05 dB
    - 30 to 50 dB: 0.12 dB
- **Flatness:**
  - @ 20 dB: ± 1.0 dB Max - Measured ±0.51 dB
  - @ 50 dB: ± 2.0 dB Max - Measured ±0.58 dB
- **Switching Speed:** 500 ns Max - Measured 450 ns

PMI Website Link,
3.0 PMI Model No.: DTA-26R5G40G-30-CD-1

PMI Model DTA-26R5G40G-30-CD-1 is a 10-Bit programmable 30 dB PIN diode attenuator with a step resolution of 0.03 dB over the frequency range of 26.5 to 40 GHz. This model operates on a single +15 VDC supply and draws only 50 mA of current. Very high levels of attenuation accuracy of 0.03 dB is achieved. This attenuator provides ultra-fast switching speeds of 300 ns and has an operating input power rating of +10 dBm. This model is supplied in a small, light-weight housing measuring 2.0" x 1.8" x 0.5" inches.

- Frequency Range: 26.5 to 40 GHz
- Mean Attenuation Range: 30 dB
- LSB: 0.03 dB
- Insertion Loss: 6.0 dB Typ - Measured 5.93 dB
- VSWR: 2.5:1 Max. - Measured 2.25:1
- Power Rating: +24 dBm CW Max
- Input 1dB Compression: +10 dBm Typ
- Attenuation Accuracy: ±2.0 dB Typ
  Measured:
  0 to 10 dB: ±0.35 dB
  10 to 20 dB: ±0.31 dB
  20 to 30 dB: ±0.33 dB
- Flatness:
  Measured:
  @ 10 dB: ±0.98 dB
  @ 20 dB: ±1.45 dB
  @ 30 dB: ±1.92 dB
- Switching Speed: 300 ns Typical, 1.0 µs Max. - Measured 0.30 µs
- Digital Control: 10-BIT Binary TTL
- Input Tracking: Monotonic DC Voltage: +15 V @ 50 mA Typ - Measured 38 mA

PMI Website Link
http://www.pmi-rf.com/Products/attenuators/DTA-26R5G40G-30-CD-1.htm

4.0 PMI Model No.: DTA-18G40G-50-CD-1

PMI Model No. DTA-18G40G-50-CD-1 is a 10 Bit programmable 50 dB attenuator with step resolution as low as 0.05dB over the frequency range of 18.0 to 40.0 GHz. This model is offered in a slim line housing measuring only 0.5" in height with 2.92mm female connectors.

- Frequency Range: 18.0 to 40.0 GHz
- Mean Attenuation Range: 50 dB
- Insertion Loss: 8.5 dB typical - Measured 10.4 dB
- VSWR: 2.5:1 maximum - Measured 2.27:1
- Flatness: ±1.5 dB typical - Measured
  2.10 dB to 16 dB, 2.10 dB to 32 dB, 3.80 to 50 dB
- Attenuation of Accuracy: ±2.0 dB typical
  - Measured
5.0 PMI Model No.: PS-360-3237-8-292FF

PMI Model No. PS-360-3237-8-292FF is a High Speed, Millimeter Wave, 8-Bit Digitally Controlled, Phase Shifter that operates over the frequency range of 32.0 to 37.0 GHz. This phase shifter offers a low insertion loss of 13 dB typically and maintains a VSWR of 1.8:1. The total phase shift range is 358.593° having a step size of 1.406° and switches between states in less than 500 ns. This model provides a high level of accuracy by offering an amplitude error of ±1.5 dB and a phase shift error of ±1.3°. Ultra-Low DC Current consumption is offered at +15 VDC, 20 mA and -15 VDC, 10 mA. This unit is supplied in a small housing measuring 1.15" x 1.80" x 0.4" with 2.92mm female connectors.

- Frequency Range: 32.0 to 37.0 GHz
- Insertion Loss: 13.0 dB Typ - Measured 13.4 dB
- VSWR:
  - Input: 2.0:1 Typ, 2.3:1 Max - Measured 1.88:1
  - Output: 2.5:1 Typ, 3.0:1 Max - Measured 1.69:1
- LSB: 1.40625°
- Phase Shift: 358.59375° Max
- Amplitude Error: ±1.50 dB Typ - Measured ±1.50 dB
- Phase Shift Error: ±5.0° Typ - Measured ±1.3°
- Control Bits: 8 line (TTL Control)
- Switching Speed (10% to 90% of Phase Shift): 500 ns Max - Measured 450 ns
- Power Supply:
  - +15V @ 90 mA Max - Measured 20 mA
  - -15V @ 60 mA Max - Measured 10 mA

PMI Website Link,
http://www.pmi-rf.com/Products/phaseshift-biphasemod/phaseshifters/PS-360-3237-8-292FF.htm

6.0 PMI Model No.: Model: PS-30G40G-180-A-292FF

PMI Model No. PS-30G40G-180-A-292FF is a 30.0 to 40.0 GHz, Digital Bi Phase Modulator with Capability for Phase Shifting from 0 to 180 Degrees. The unit operates from a single positive control voltage of 0 to +5 VDC with a typical phase error of 15 Degrees and is supplied in our PE2 housing (1.08" x 0.71" x 0.29") and 2.92mm connectors.

- Frequency Range: 30.0 to 40.0 GHz
7.0 PMI Model No.: SDLVA-0120-70-100M2G-10DBM

PMI model SDLVA-0120-70-100M2G-10DBM is a successive detection log video amplifier (SDLVA) that operates between the 0.1 to 2.0 GHz frequency range. It has a dynamic range of 70 dB minimum and a TSS of -65 dBm. This unit offers a maximum rise time of 25 ns and a fall time of 30 ns. This model provides a limited IF output of +10 dBm typically. The unit has SMA Female connectors in a gold plated housing measuring 3.75" x 1.50" x 0.40".

- Frequency Range: 0.1 to 2.0 GHz
- Dynamic Range: 70 dB Min, 75 dB Typ
- Log Linearity: ±2.0 dB Max (-65 dBm to +5 dBm) - Measured 1.81 dB
- Log Linearity @ 100MHz: ±2.0 dB MAX. (-50 dBm to +5 dBm)
- Minimum Log Range: -65 dBm
- Maximum Log Range: +5 dBm
- VSWR Input: 2.0:1 Max, (1.8:1 Typ)
- Tangential Sensitivity: -65 dBm Min (-70 dBm Typ)
- Limited IF Output: +10 dBm - Measured 8.31 dBm Min, 11.84 dBm Max
- Maximum RF Input Power: +10 dBm
- Log Video Output Coupling: DC
- Log Video Maximum Output Voltage: 2.7 V
- Log Video Output Rise Time: 25 ns Max
- Log Video Output Fall Time: 30 ns Max
- Log Video Output Settling Time: 40 ns Max
- Log Video Output DC Offset: 0.1 V Nominal (Adjustable)
- Log Video Output Slope: 25 mV/dB Nominal (@ 1 GHz) - Measured 24.3 mV/dB
- Log Video Output Variation with Frequency: ±0.5 mV/dB (Over 80 MHz RF Bandwidth)
- Log Video Output Variation with Temperature: ±0.5 mV/dB Typ
- Log Video Propagation Delay: 10ns Typ
- Log Video Load: 100 Ohm ±10% - Measured 100 Ohms
- DC Power (+V): +7 to +18 V @ 300 mA - Measured 117 mA
- DC Power (-V): -7 to -18 V @ 150 mA - Measured 138 mA

PMI Website Link,
http://www.pmi-rf.com/Products/SDLVA/SDLVA-0120-70-100M2G-10DBM.htm
PMI Model No. P2T-2G4G-75-T-SFF-PN is a single pole, double throw, non reflective switch designed to operate over the 2.0 to 4.0 GHz frequency range. This model is designed to maintain low insertion loss, high isolation and fast switching speed. The unit has SMA Female connectors in a gold plated housing measuring 3.75 " x 1.50 " x 0.40".

- Frequency: 2.0 to 4.0 GHz
- Insertion Loss: 1.2 dB - Measured 1.15 dB
- Isolation: 75 dBm min - Measured 87.15 dB
- VSWR: 1.6:1 max - Measured 1.51:1
- Switching Speed: 100 ns max - Measured 73 ns
- Power Input (Operating): 1 Watt CW max
- Control: 2 Bit TTL Logic
- Power Supply:
  - +5V @ 80mA nominal - Measured 26 mA
  - -15V @ 50mA nominal - Measured 59 mA

PMI Website Link,  
http://www.pmi-rf.com/products/switches/P2T-2G4G-75-T-SFF-PN.htm

10.0 PMI Model No.: GMTA-1002

PMI Model No. GMTA-1002 is a threshold detector designed to operate over the frequency range of 2.0 to 18.0 GHz. It has a threshold level of -23 dBm with threshold stability of +/-3.0 dBm over frequency and temperature. Supplied with SMA(F) connectors in a nickel plated housing measuring 1.0" x 0.65" x 0.3".

- Frequency Range: 2.0 to 18.0 GHz
  (2.0 to 18.0 GHz)
- Input Operating Range: -18 to -23 dBm
- Input VSWR: 2.5:1 Max - Measured 2.22
- Threshold Level: -23 dBm Min - Measured -20.75 dBm
- Threshold Setting Stability: ±3.0 dB (Over Temp and Frequency)

  Measured:

<table>
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<th>Frequency</th>
<th>2 GHz</th>
<th>4 GHz</th>
<th>6 GHz</th>
<th>8 GHz</th>
<th>10 GHz</th>
<th>12 GHz</th>
<th>14 GHz</th>
<th>16 GHz</th>
<th>18 GHz</th>
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<tbody>
<tr>
<td>PIn @ 25 °C</td>
<td>-21.0</td>
<td>-20.5</td>
<td>-21.0</td>
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<tr>
<td>PIn @ 0 °C</td>
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<tr>
<td>PIn @ 85 °C</td>
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<td>-19.5</td>
<td>-20.0</td>
<td></td>
</tr>
</tbody>
</table>

- Maximum Input Power: +10 dBm (Without Damage)
- Detected Output:
  - TTL Low (0) - Off
  - TTL High (1) - On
- Response Time: Any Input Greater than 3 dB
  - 100 µs @ 90% RF to TTL (1)
  - 100 µs @ 10% RF to TTL (0)
  - Measured 11 µs
- DC Supply: +12 VDC @ 50 mA Max - Measured 41 mA

PMI Website Link,  
http://www.pmi-rf.com/Products/detectors/GMTA-1002.htm
11.0 PMI Model No.: LM-618-10-1W-SHS-1-M

PMI Model No. LM-618-10-1W-SHS-1-M is a high speed, high power limiter that operates from 6.0 to 18.0 GHz. This limiter handles 100 Watts Peak Power with a pulse width of 1µsec. The insertion loss is only 1.5 dB typically and has a VSWR of 2.0:1 maximum. This limiter is supplied in a small blue painted housing measuring only 0.5" x 0.5" x 0.22".

- Frequency: 6.0 to 18.0 GHz - Measured 0.5 to 18 GHz
- Insertion Loss @ -20 dBm Input: 2.0 dB Max, 1.5 dB Typ - Measured 1.96 dB
- VSWR @ -20 dBm Input: 2.0:1 Max, 1.5:1 typ - Measured 1.60:1
- Leakage @ 1 Watt CW Immune: +14 dBm Max, +10 dBm Typ - Measured +13 dBm
- Peak Power: 100 Watts
- Speed: 10 ns - Measured 10 ns
- Pulse Width: 1 µs
- Duty Cycle: 0.1% derated to 20% at 125%
- Limiting Threshold: +10 dBm Typ - Measured +7 dBm

PMI Website Link,

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

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Sincerely,

PMI Marketing Department
7311-F Grove Road Frederick, MD 21704 USA
Phone (301) 662-5019 / Fax (301) 662-1731

4921 Robert J. Mathews Parkway, Suite 1, El Dorado Hills, CA 95762 USA
Phone (916) 542-1401 / Fax (916) 265-2597

Email: sales@pmi-rf.com / Web: www.pmi-rf.com