Here's What's New...

New Product Releases & Product Updates

June 15, 2017

*** NEW PRODUCT RELEASES ***

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1.0 PMI Model No.: PLNA-35-100M18G-P1dB24-120VAC

PMI Model No. PLNA-35-100M18G-P1dB24-120VAC is a portable amplifier that operates over the 100 MHz to 18.0 GHz frequency range. This model provides 40 dB typical gain with a minimum OP1dB of +24 dBm. This amplifier features an illuminated push button On/Off switch in a small package (3.0" x 3.0" x 1.75") with Type N connectors. Gold plated finish.

- Frequency Range: 0.01 to 18.0 GHz
- Gain: 40 dB Typ - Measured 43.03 Max / 38.89 Min
- Gain Flatness: ±2.0 dB Typ - Measured ±2.03 dB
- Noise Figure: 3 dB Typ
  Measured: 5.35 dB @ < 0.5 GHz
  3.62 dB @ > 0.5 GHz
- OP1dB: +27 dBm Typ, +24 dBm Min - Measured 25.46 dB
- VSWR In/Out: 2.0:1 Typ. - Measured 1.95:1
- Maximum RF Input: +10 dBm CW
- AC Voltage Supply: 110 VAC
- AC Connector: 3 Pin IEC

PMI Website Link,
2.0 PMI Model No.: PE2-500M18G-5R0-21-12-SFF

PMI Model No. PE2-500M18G-5R0-21-12-SFF is a 0.5 to 18.0 GHz, low noise amplifier that provides 24 dB min of gain while maintaining a maximum gain flatness of ±2.0 dB over the operating frequency. The noise figure is 5.0 dB maximum and offers a typical OP1dB of 21 dBm. The operating voltage is +12 to +15 VDC with a nominal current draw of 375 mA. Supplied with removable SMA(F) connectors in our standard PE2 housing.

- Frequency Range: 0.5 to 18.0 GHz
- Gain: 24 dB Min - Measured 27.32 dB Min, 29.52 dB Max
- Gain Flatness: ±2.0 dB Max - Measured ±1.1 dB
- Noise Figure: 5.0 dB Typ - Measured 4.2 dB @ 2 GHz
- OP1dB: 21 dB Typ, 20 dB Min - Measured >20 dBm
- VSWR In/Out: 2.0:1 Max - Measured Input: 1.32:1, Output 1.89:1
- Impedance: 50 Ohms
- DC Voltage Supply: +12 to +15 VDC @ 500 mA - Measured 263 mA
- Specification Temperature: 23 ºC

PMI Website Link,
http://www.pmi-rf.com/Products/amplifiers/PE2-500M18G-5R0-21-12-SFF.htm

3.0 PMI Model No.: DLVA-18G40G-42-50-CD-1

PMI Model No. DLVA-18G40G-42-50-CD-1 is a DLVA operating over the frequency range of 18.0 to 40.0 GHz, with performance optimized over the frequency range of 30.0 to 31.0 GHz. This unit features a 42dB logging range and is housed in a hermetic package.

- Frequency Range:
  18.0 to 40.0 GHz (Operational)
  30.0 to 31.0 GHz (Full Performance)
- Flatness @ -23 dBm: ±0.25 dB - Measured ±0.1 dB
- VSWR (In/Out): 1.5:1 Max - Measured 1.18
- TSS: -34 dBm - Measured -39.8 dBm
- Logging Range: -32 to +10 dBm
- Log Slope: 50 mV/dB ±3 dB - Measured +51.83 mV/dB
- Log Linearity: ±0.5 dB - Measured +0.4, -0.35 dB
- DC Offset: 0 to ±75 mV - Measured +45 / -4 mV
- Output Stability (-54 to +85 ºC): ±0.75 dB - Measured ±0.29 dB
- Output Polarity: Positive
- Rise Time (TSS + 10 dB): 1000 ns
- Recovery Time: 100 µs
- Video Load: 100 Ohms
4.0 PMI Model No.: EWDM-2G6G-65-70MV

PMI Model No. EWDM-2G6G-65-70MV is a CW immune EW detector module operating over the 2.0 to 6.0 GHz frequency range. This module features an internal switch used to switch between the "Bit In" and RF "In" with input blanking on both ports. In addition, two amplified RF outputs are provided a 7 dB gain channel and a 33 dB gain channel. The video output is designed to drive a 150 ft. cable, while maintaining high speed, and excellent accuracy.

- Input Frequency: 2.0 to 6.0 GHz
- Input VSWR: 2.3:1 Max, impedance = 50 Ohm
  - Measured:
    - 1.43 : 1 @ 50 Ω (BIT IN)
    - 1.30 : 1 @ 50 Ω (RF IN)
    - 1.24 : 1 @ 50 Ω (RF OUT)
    - 1.27 : 1 @ 50 Ω (SW)
- Noise Figure: 8 dB Max - Measured 4.55 dB
- Input Power:
  1. (1) 1 W CW Max
  2. (2) 100 W Peak @ PW = 1 µs % duty Cycle = 1% Max
- Control & DC Supply Connector: D-type Female 9 pin
- RF Connectors & Video Output (5 Places): SMA (F)
- TTL Control Logic Interface: See Logic Table

SP3T Switch Specifications:

- Switch Mode: See Logic Table (below)
- Isolation: 60 dB Min among all ports - Measured 76.58 dB
- Switching Speed: 100 ns Max Measured 53.4 ns

Output To 8-Way Power Combiner Specifications:

- Linear Gain: +33 dB Min - Measured 43.6 dB
- Frequency Flatness: ±2.5 dB Max - Measured ±1.36 dB
- 1 dB Compression Point: +3 dBm Min - Measured 4.6 dBm
- Saturated Power: +14 dBm Max - Measured 11.38 dBm
- Second Harmonics: -9 dBc Min - Measured -15.16 dBc
- Third Harmonics: -12 dBc Min - Measured -12.34 dBc
- I/O VSWR: 2.3:1 Max impedance = 50 Ohm

Output To Switch Matrix Specifications:
Linear Gain: +7 dB Min - Measured 13.5 dB
Frequency Flatness: ±1.5 dB Max - Measured ±0.85 dB
1 dB Compression Point: +3 dBm Min - Measured 3.1 dBm
Saturated Power: +9min dBm Max - Measured 8.8 dBm
Second Harmonic: -9 dBc Min - Measured -11.84 dBc
Third Harmonic: -12 dBc Min - Measured -22.8 dBc
I/O VSWR: 2.3:1 Max impedance = 50 Ohm

**DC Power Specification:**

- DC Supply Voltage: ±15 V ±15%
- Ripple From DC to 10MHz 100 mV Max
- Current: 1.0 A For +15 VDC Max - Measured 400 mA
- 0.5 A For - 15 VDC Max - Measured 130 mA

**Log Videos Output Specifications:**

- TSS: -71dBm Max - Measured -71dBm Max
- Dynamic Range: -65 to 0 dBm
- Log Slope Fixed: 70 mV/dB Nominal - Measured 70.4 mV/db
- Log Linearity (Deviation from 70 mV/db Straight Line @ 10 GHz & 25 °C): ±1.0 dB Max - Measured ±0.45 dB
- Log Accuracy (Deviation from 70 mV/db Straight Line @ 10 GHz & 25°C & Frequency Range): ±1.25 dB Max - Measured ±1.08 dB
- Absolute Log Accuracy (Deviation from 70 mV/db Straight Line over Frequency & Temperature Range): ±1.5 dB Max - Measured ±1.31 dB
- DC Offset: 0±70 mV (RF Input Terminated & DC Power On) - Measured -10 mV
- Rise Time (10% to 90%): 25ns typ, 28ns Max - Measured 21.4 ns
- Fall Time (90% to 10%): 300 ns Max - Measured 175.4 ns
- Setting Time: 50 ns within ±35 mV final value Max - Measured 40 ns
- Recovery Time: 1us max
- Measured from 1 dB below peak of the first 0 dBm, 330µs pulse where the second -60 dBm, 100 ns pulse is measured within ±1 dB error when the first 0 dBm pulse is not present - Measured 900 ns
- Video Frequency Flatness: ±0.75 dB max - Measured ±0.62 dB
  At any constant input power from -65 dBm to 0 dBm, as frequency is varied from 6-18 GHz (25°C)
- CW Immunity, Pulse frequency and CW Frequency. Difference of 500 MHz Min (Combined signals are inputted to DLVA):
  A. CW immune power TSS to -40 dBm baseline shift 140 mV Max- Measured 100 mV
  B. Pulse peak amplitude loss, 2 dB Max - Measured 0.8 dB
  C. At W > -40 dBm pulse on CW- Measured >-40 dBm
  D. CW immune time at CW = -40 dBm <3 ms- Measured 1.8 ms
  E. CW recovery time at CW = -40 dBm <100μs- Measured 50us

- Pulse response Input signal: 100 ns to CW - Measured 100 ns to CW
- Output Impedance: 75 ± 1 Ohms - Measured 75 Ohms
- Video Output @ -65 dBm within frequency range (middle point of window):
  330 ± 123 mV - Measured 320 ±34 mV
- Output pulse peak variation versus duty cycle: ±70 mV (1dB) Max - Measured 40 mV
  Power changes from -60 dBm to 0 dBm pulse width changes from 100 ns to 330 µs for a duty cycle up to 60%, except when the minimum time between the first and second pulse is 1.5 μs.
- Signal Processing Capability: 100 ns to 330 µs pulse duty cycle up to 60%
Coupled Mode: Pseudo AC coupled mode.
- Video Out - Noise Level (Vp-p): 150 mV Max - Measured 138 mV
- Video Out - Drop of the Output Video Pulse, At lower Power 63 dBm for Pulse width 300 µs: 70 mV (1 dB) Max - Measured 40 mV
- Propagation Delay: 80 ns (50% input RF to 10% output video) Max - Measured 16.06 ns


5.0 PMI Model No.: EWDM-6G18G-65-70MV

PMI Model No. EWDM-6G18G-65-70MV is a CW immune EW detector module operating over the 6.0 to 18.0 GHz frequency range. This module features an internal switch used to switch between the "Bit In" and RF "In" with input blanking on both ports. In addition, two amplified RF outputs are provided a 7 dB gain channel and a 33 dB gain channel. The video output is designed to drive a 150 ft. cable, while maintaining high speed, and excellent accuracy.

- Input Frequency: 6.0 to 18.0 GHz
- Input VSWR: 2.3:1 Max, impedance = 50 Ohm
  Measured:
  1.36 : 1 @ 50 Ω (BIT IN)
  1.46 : 1 @ 50 Ω (RF IN)
  1.81 : 1 @ 50 Ω (RF OUT)
  2.08 : 1 @ 50 Ω (SW)
- Noise Figure: 8 dB Max - Measured 4.1 dB
- Input Power: (1) 1 W CW Max
  (2) 100 W Peak @ PW = 1 µs % dutyCycle = 1% Max
- Control & DC Supply Connector: D-type Female 9 pin
- RF Connectors & Video Output: SMA (F)
  (5 Places)
- TTL Control Logic Interface: See Logic Table (below)
  Finish: Gray epoxy paint bottom surface free of paint

SP3T Switch Specifications:

- Switch Mode: See Logic Table (below)
  Isolation: 60 dB Min among all ports - Measured 85 dB
- Switching Speed: 100 ns Max - Measured 45 ns

Output To 8-Way Power Combiner Specifications:

- Linear Gain: +33 dB Min - Measured 40.7 dB
- Frequency Flatness: ±2.5 dB Max - Measured ±1.59 dB
- 1 dB Compression Point: +3 dBm Min - Measured 8.0 dBm
- Saturated Power: +14 dBm Max - Measured 11.2 dBm
- Second Harmonics: -9 dBc Min - Measured -13.97 dBc
- Third Harmonics: -12 dBc Min - Measured -26.84 dBc
- I/O VSWR: 2.3:1 Max impedance = 50 Ohm
Output To Switch Matrix Specifications:

- Linear Gain: +7 dB Min - Measured 14.3 dB
- Frequency Flatness: ±1.5 dB Max - Measured ±0.99 dB
- 1 dB Compression Point: +3 dBm Min - Measured 3.8 dBm
- Saturated Power: +9 dBm Min - Measured 8.5 dBm
- Second Harmonic: -9 dBc Min - Measured 14.04 dBc
- Third Harmonic: -12 dBc Min - Measured -16.30 dBc
- I/O VSWR: 2.3:1 Max impedance = 50 Ohm

**DC Power Specification:**

- DC Supply Voltage: ±15 V ±15%
- Ripple From DC to 10MHz: 100 mV Max
- Current: 1.0 A For +15 VDC Max - Measured 499 mA
- 0.5 A For - 15 VDC Max - Measured 113 mA

Log Videos Output Specifications:

- TSS: -71 dBm Max
- Dynamic Range: -65 to 0 dBm
- Log Slope Fixed: 70 mV/dB nominal - Measured 70.4 mV/dB
- Log Linearity (Deviation from 70 mV/dB Straight Line @ 10 GHz & 25 °C): ±1.0 dB Max - Measured ±0.6 dB
- Log Accuracy (Deviation from 70 mV/dB Straight Line @ 10 GHz & 25 °C & Frequency Range): ±1.75 dB Max - Measured ±1.6 dB
- Absolute Log Accuracy (Deviation from 70 mV/dB Straight Line over Frequency & Temperature Range): ±2.0 dB Max - Measured ±1.6 dB
- DC Offset: 0 ± 70 mV (RF Input Terminated & DC Power On) - Measured -50 mV
- Rise Time (10% to 90%): 25 ns Typ, 28 ns Max - Measured 26.5 ns
- Fall Time (90% to 10%): 300 ns Max - Measured 236 ns
- Setting Time: 50 ns within ±35 mV final value Max - Measured 40 ns
- Recovery Time: 1 μs Max - Measured 800 ns
- Measured from 1 dB below peak of the first 0 dBm, 330 μs pulse where the second -60 dBm, 100 ns pulse is measured within ±1 dB error when the first 0 dBm pulse is not present
- Video Frequency Flatness: ±1.75 dB Max @ any constant input power from -65 dBm to 0 dBm, as frequency is varied from 6-18 GHz (25 °C)
- CW Immunity, Pulse frequency and CW Frequency, Difference of 500 MHz min (Combined signals are inputted to DLVA):
  
  A. CW immune power TSS to -40 dBm baseline shift
  B. Pulse peak amplitude loss, 2 dB Max
  C. At W > -40 dBm pulse on CW
  D. CW immune time at CW = -40 dBm <3 ms
  E. CW recovery time at CW = -40 dBm <100 ns

- Pulse response Input signal: 100 ns to CW
- Output Impedance: 75 ± 1 Ohm
- Video Output @ -65 dBm within frequency range (middle point of window): 330 ± 123 mV - Measured 56 mV
- Output pulse peak variation versus duty cycle: ±70 mV (1dB) Max
- Power changes from -60 dBm to 0 dBm pulse width changes from100 ns to 330 μs for a duty cycle up to 60%, except when the minimum time between the first and second pulse is 1.5 μs
- Signal Processing Capability: 100 ns to 330 μs pulse duty cycle up to 60%
PMI Website Link, 
http://www.pmi-rf.com/Products/SDLVA/EWDM-6G18G-65-70MV.htm

6.0 PMI Model No.: SDLVA-218-60-70MV-CW

PMI Model No. SDLVA-218-60-70MV-CW is a CW immune SDLVA (Successive Detection Log Video Amplifier). This unit operates from 2.0 to 18.0 GHz. It has the ability to interface with a long cable (65 FT), while maintaining high speed, flatness and accuracy. Package measuring only 2.3" x 2.2" x 0.4" with SMA female connectors and conduction cooling at mounting surface.

- Frequency Range: 2.0 to 18.0 GHz
- Frequency Flatness: ±2.0 dB Typ - Measured ±1.9 dB
- Signal Capability: Pulse (100 nse to 300 µs), Pulse on CW
- TSS: (-20 °C to +85 °C): -66 dBm for 10 MHz Video Bandwidth - Measured -66 dBm
- Log Dynamic Range: -60 dBm to 0 dBm
- Log Slope: 70 mV/dB nominal - Measured 70 mV/dB
- Log Linearity: ±1.5 dB Max - Measured ±1.46 dB
- DC Offset: ±15 0mV Typ - Measured ±50 mV
- Output Rise Time: 25 ns Max - Measured 23 ns
- Settling Time: 55 ns Max, 90% Output to ±0.5 dB of final value - Measured 50 ns
- Recovery Time: 500 ns Max - Measured 250 ns
- Input VSWR: 2.0:1 Max - Measured 1.64:1
- Max Input Level: +20 dBm CW
- Video Output Drive: Through 65 Feet, 75 Ohms Cable, Into 75 Ohms load
- Power Supply: +15 VDC @ 400 mA Max - Measured 320 mA
  - 15 VDC @ 150 mA Max - Measured 100 mA
- Operating Temperature: -20 °C to +85 °C

PMI Website Link, 

7.0 PMI Model No.: DLVA-8G10G75-50-SFF

PMI Model No. DLVA-8G10G75-50-SFF is a 8.0 to 10.0 GHz, Detector Log Video Amplifier. This unit has a dynamic range of -75 dBm to 0 dBm, a log linearity of ±1.8 dB, and a log slope of 50 ± 4 mV/dB. Other specifications include Frequency Flatness of±1.2 dB, TSS of -78 dBm, Log Linearity ±1.8 dB - Measured ±1.3 dB, Log Slope 50 ± 4 mV/dB, and Output DC Offset 50 ± 50 mV. Power Supply: +15 V @ 350 mA, -15 V @ 100 mA and SMA (F)
connectors. Unit size is 2.0" x 1.5" x 0.4" with Electroless Nickel Plate finish.

- Frequency Range: 8.0 to 10.0 GHz
- Dynamic Range: -75 dBm to 0 dBm
- Frequency Flatness: ±1.2 dB - Measured ±1.1 dB
- TSS: -78 dBm - Measured -78 dBm
- Log Dynamic Range: -75 to 0 dBm
- Log Linearity: ±1.8 dB - Measured ±1.3 dB
- Log Slope: 50 ± 4 mV/DB - Measured 50 ± 1.7 mV/DB
- Output DC Offset: 50 ± 50 mV - Measured 50 ± 49 mV
- Rise Time: 30 ns - Measured 28.6 ns
- Fall Time: 150 ns - Measured <100 ns
- Recovery Time: 500 ns for 10.0 us PW - Measured 100 ns
- Power Supply: +15 V @ 350 mA - Measured 230 mA
  -15 V @ 100 mA - Measured 60 mA

PMI Website Link,

8.0 PMI Model No.: TD-30T-SHS-218-AMP-OPT4G4D5G-40DBM

PMI Model No. TD-30T-SHS-218-AMP-OPT4G4D5G-40DBM is an Ultra-High Speed, High Sensitivity Threshold Detector optimized for the 4.0 to 4.5 GHz Frequency Range. This unit has a fixed threshold level of -40 dBm. It is a miniature unit with TTL output logic. Package size 2.5"(L) x 2.0"(W) x 0.5"(H) with SMA (F) connectors.

- Frequency Range: 4.0 to 4.5 GHz
- Fixed Threshold Level: -40 dBm ±2 dB - Measured -38 dBm
- Operating Input Power Level: -35 to -15 dBm - Measured -35 to 15 dBm
- Absolute Max Input Power Level: +10 dBm
- Output Pulse Width Compared to Input Pulse Width (20 ns to CW) Over Operating Power: ±20 ns - Measured +19 / -0 ns
- Propagation Delay From 50% RF Input to 50% Logic When Input -35, -25, -15 dBm: 10 ns Typ, 20 ns Max - Measured 15.2 ns
- DC Power +12V (No Load): 275 mA Max - Measured 99 mA
- DC Power -12V (No Load): 120 mA Max - Measured 19 mA

PMI Website Link,
http://www.pmi-rf.com/Products/detectors/TD-30T-SHS-218-AMP-OPT4G4D5G-40DBM.htm

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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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