Here's What's New...
New Product Releases from
Planar Monolithics Industries, Inc.
February 11, 2019

1.0 PMI Model No. ERDLVA-2G8G-65-70MV, 2.0 to 18.0 GHz Extended Range Detective Log Video Amplifier (ERDLVA)

PMI Model No. ERDLVA-2G8G-65-70MV is a 2.0 to 8.0 GHz, CW immune ERDLVA. This model has a TSS of -71 dBm and a log slope of 70 mV/dB ± 3 mV/dB. It has a maximum VSWR of 2.3:1 and a dynamic range of -65 to 0 dBm. This unit is supplied with SMA female connectors and a 9 Pin D-Sub female connector in a housing with dimensions of 2.82" x 2.25" x 0.50".

- Frequency Range: 2.0 to 8.0 GHz
- VSWR: 2.3:1 Max. - Measured 1.43:1 @ 50 Ohms (RF In), 1.45:1 @ 50 Ohms (Bit In)
- Input Power Max.: 1 W CW, 100 W Peak @ PW = 1 us & 1% Duty
- Switch Isolation: 60 dB Min. (All Ports) - Measured 71.16 dB Min.
- Switching Speed: 100 ns Max. - Measured 35 ns
- Video Frequency Flatness: ±1.25 dB Max. @ 25°C - Measured ±1.06 dB Max. @ 25°C
- TSS: -71 dBm
- Dynamic Range: -65 to 0 dBm
- Log Slope: 70 mV/dB ± 3 mV/dB - Measured 69 to 69.2 mV/dB
- Log Linearity: ±1.0 dB Max. - Measured ±0.71 dB Max.
- Log Accuracy @ 25°C: ±1.25 dB Max. - Measured ±1.20 dB Max.
- Absolute Log Accuracy: ±2.0 dB Max. - Measured ±1.25 dB Max.
DC Offset: 0 to 100 mV - Measured 0 to 30 mV
Rise Time: 28 ns Max. (10% to 90% @ -40 & -10 dBm) - Measured 72.4 ns
Fall Time: 300 ns Max. (90% to 10% @ -40 & -10 dBm) - Measured 19.4 ns
Settling Time: 50 ns Max. (From 10% to within 35 mV of final value @ -40 & -10 dBm) - Measured 50 ns
Recovery Time: 500 ns Max. (From 90% of a -5 dBm, 100 us Pulse to within ±1 dB of baseline) without Amplitude loss of a following -65 dBm, 100 ns Pulse) - Measured 250 ns
Pulse Width Process Range: 100 ns to 100 us
Video Output Load Impedance: 95 ± 1 Ohms
Video Output @ -65 dBm: 330 ± 88 mV Over Frequency - Measured 278 to 374 mV
Video Output Drive Capability: Driving 100 Ft RG180 into 95 Ohm Load
Pulse Density Capability:
- No Pulse Amplitude Loss
- 20% Duty @ 100 ns PW
- 70% Duty @ 100 us PW
Noise Level: 30 mV RMS Max. - Measured 17.55 mV
Pulse Droop @ -65 dBm: 70 mV Max. - Measured 0 mV
Propagation Delay: 80 ns Max. (50% RF to 10% Video) - Measured 20 ns
CW Immune Power: TSS to -40 dBm
Baseline Shift: 200 mV Max. @ -40 dBm CW - Measured 155 mV Max. @ -40 dBm CW
Pulse Amplitude Loss with Pulse @ -30 dBm:
- CW @ -50 dBm = No Loss - Measured CW @ -50 dBm - No Loss
- CW @ -40 dBm = 2 dB Max. - Measured CW @ -40 dBm = 1.88 dB Max.
CW Immune Time @ CW = -40 dBm: 4 ms Max. - Measured 3.9 ms
CW Recovery Time @ CW = -40 dBm: 120 us Max. - Measured 50 us
DC Power:
- +15 V (±5%) @ 500 mA Max. - Measured 350 mA
- -15 V (±5%) @ 200 mA Max. - Measured 130 mA

PMI Website Link,
https://www.pmi-rf.com/product-details/erdlva-2g8g-65-70mv

2.0 PMI Model No. P16T-100M50G-100-T-DEC, 0.1 to 50.0 GHz SP16T Absorptive Switch

PMI Model No. P16T-100M50G-100-T-DEC is a Single Pole, 16 Throw, Solid State Absorptive Switch operating over the frequency range of 0.1 to 50.0 GHz. This model offers a typical insertion loss of 16 dB, while maintaining a typical isolation of 70 dB. It has a maximum input power of 20 dBm CW and a maximum switching speed of 100 ns. This switch is outfitted with 2.4 mm female connectors in a housing measuring 8.00" x 3.00" x 0.65".

- Frequency Range: 0.1 to 50.0 GHz
- Insertion Loss:
  - 8 dB @ 0.1 to 18.0 GHz Typ. - Measured 6.60 dB @ 0.1 to 18.0 GHz
  - 12.5 dB @ 18.0 to 40.0 GHz Typ. - Measured 12.24 dB @ 18.0 to 40.0 GHz
  - 18 dB @ 40.0 to 50.0 GHz Typ. - Measured 17.75 dB @ 40.0 to 50.0 GHz
- Isolation:
  - 70 dB @ 0.1 to 18.0 GHz Typ. - Measured 93.31 dB @ 0.1 to 18.0 GHz
  - 90 dB @ 1.0 to 18.0 GHz Typ. - Measured 93.31 dB @ 1.0 to 18.0 GHz
  - 80 dB @ 18.0 to 40.0 GHz Typ. - Measured 76.51 dB @ 18.0 to 40.0 GHz
  - 70 dB @ 40.0 to 50.0 GHz Typ. - Measured 82.76 dB @ 40.0 to 50.0 GHz
- VSWR On (In/Out):
  - 2.5:1 @ 0.1 to 18.0 GHz Typ. - Measured 2.59:1 @ 0.1 to 18.0 GHz
  - 3.0:1 @ 18.0 to 40.0 GHz Typ. - Measured 3.46:1 @ 18.0 to 40.0 GHz
  - 3.5:1 @ 40.0 to 50.0 GHz Typ. - Measured 3.40:1 @ 40.0 to 50.0 GHz
PMI Model No. LM-4G5G-1W-SFM, 4.0 to 5.0 GHz Limiter

PMI Model No. LM-4G5G-1W-SFM is a Limiter that operates over the frequency range of 4.0 to 5.0 GHz. It has a maximum insertion loss of 1 dB and a maximum VSWR of 1.5:1. This model is outfitted with a SMA female connector and a SMA male connector and in a housing that measures 0.51" x 0.51" x 0.31".

- Frequency Range: 4.0 to 5.0 GHz
- Insertion Loss: 1 dB Max. - Measured 0.47 dB
- VSWR: 1.5:1 Max. - Measured 1.32:1
- CW RF Power: 1 W Max.
- Peak Power: 1000 W Max.
- Leakage (CW) @ 1 W CW: +15 dBm Max. - Measured +13.32 dB

PMI Website Link,
https://www.pmi-rf.com/product-details/lm-4g5g-1w-sfm

4.0 PMI Model No. DTA-200M18G-100-CD-1, 0.2 to 18.0 GHz 8-Bit Digitally Tuned Attenuator

PMI Model No. DTA-200M18G-100-CD-1 is a 0.2 to 18.0 GHz, 8-Bit Digitally Tuned Attenuator. This unit has a minimum attenuation range of 100 dB and a minimum attenuation step of 0.5 dB. It is supplied with SMA female connectors and a 15-Pin Micro-D female connector in a housing measuring 4.0" x 1.8" x 0.5".

- Frequency Range: 0.2 to 18.0 GHz
- Insertion Loss: 12 dB Max. - Measured 11.3 dB @ +25°C, 11.7 dB @ +55°C
- VSWR: 2.0:1 Max.
  - In - Measured 2:1 @ +25°C, 2:1 @ +55°C
  - Out - Measured 1.9:1 @ +25°C, 2:1 @ +55°C
- Flatness to 20 dB: ±1.0 dB Typ. - Measured ±0.47 dB
- Flatness to 40 dB: ±1.25 dB Typ. - Measured ±1.08 dB
- Flatness to 60 dB: ±1.5 dB Typ. - Measured ±1.35 dB
- Flatness to 80 dB: ±2.0 dB Typ. - Measured ±1.79 dB
- Accuracy of Attenuation (0 to 20 dB): ±1.0 dB Typ. - Measured ±0.13 dB
- Accuracy of Attenuation (20 to 40 dB): ±1.25 dB Typ. - Measured ±0.18 dB
- Accuracy of Attenuation (40 to 60 dB): ±1.5 dB Typ. - Measured ±0.22 dB
- Accuracy of Attenuation (60 to 80 dB): ±2.0 dB Typ. - Measured ±0.22 dB
- Accuracy of Attenuation (80 to 100 dB): ±3.0 dB Typ. - Measured ±0.49 dB
- Switching Speed:
  - On: 1.0 us Max. - Measured 0.6 us Max.
  - Off: 0.5 us Max. - Measured 0.3 us Max.
- DC Supply: +15 VDC @ 300 mA - Measured 246 mA

PMI Website Link,
https://www.pmi-rf.com/product-details/dta-200m18g-100-cd-1

5.0 PMI Model No. DD-46-1840-10PF-N-292MF, 18.0 to 40.0 GHz Diode Detector

PMI Model No. DD-46-1840-10PF-N-292MF is a Low Noise Tunnel Diode Detector operating over the 18.0 to 40.0 GHz frequency range. This model offers a typical VSWR of 4.0:1, a maximum frequency flatness of ±1.75 dB, and a maximum input power of 50 mW CW. It is outfitted with 2.92 mm male connector on the input and a SMA female connector on the output. The housing measures 1.30" x ø0.31".

- Frequency Range: 18.0 to 40.0 GHz
- Voltage Sensitivity: 300 mV/mW Min. - Measured 500 mV/mW @ 40.0 GHz, -40 dBm
- Tangential Sensitivity: -45 dBm (2 MHz Video Bandwidth with 2 dB Noise Figure Video Amp.)
- Temperature Sensitivity: ±0.5 dB Typ. Over Temp. Extremes
- Maximum Flatness: ±1.75 dB - Measured ±1.0 dB
- Rise Time: 5 ns Typ.
- VSWR: 4.0:1 Typ. - Measured 3.01:1
- Output Capacitance: 10 pF Typ.
- Output Resistance: 125 Ohms Typ.
- Input Power: 50 mW CW Max.

PMI Website Link,

6.0 PMI Model No. P1T-DC40G-65-T-24FM-1NS, DC to 40.0 GHz SPST Absorptive Switch

PMI Model No. P1T-DC40G-65-T-24FM-1NS is an Absorptive, Single Pole, Single Throw Pin Diode Switch that operates from DC to 40.0 GHz. This model incorporates a TTL compatible driver for easy system integration. This switch has a maximum insertion loss of 6.8 dB and a minimum isolation of 55 dB. It is supplied with a 2.4 mm female connector on the input and a 2.4 mm male connector on the output. This model's dimensions are 1.2" x 1.3" x 0.5".

- Frequency Range: DC to 40.0 GHz
- Isolation: 65 dB Typ., 55 dB Min. - Measured 63 dB
- Insertion Loss: 5.5 dB Typ., 6.8 dB Max.
- VSWR In/Out: 2.0:1 Typ., 2.2:1 Max. - Measured 2.1:1
7.0 PMI Model No. APD-4-2G26G-292FF-1W, 2.0 to 26.0 GHz, 4-Way Power Divider

PMI Model No. APD-4-2G26G-292FF-1W is a 2.0 to 26.0 GHz, 4-Way Power Divider. This model offers a maximum insertion loss of 2.25 dB, a maximum VSWR of 1.7:1, and a minimum isolation of 15 dB. It is outfitted with 2.92 mm female connectors in a housing measuring 3.000" x 2.000" x 0.375".

- Frequency Range: 2.0 to 26.0 GHz
- Insertion Loss: 2.25 dB Max. - Measured 1.69 dB
- VSWR: 1.7:1 Max. - Measured 1.61:1 In/1.55:1 Out
- Isolation: 15 dB Min. - Measured 17.4 dB
- Amplitude Balance: ±0.5 dB Max. - Measured 0.36 dB Max., -0.16 dB Min.
- Phase Balance: ±7.5° Max. - Measured 2.07° Max., 0.00° Min.
- Reverse Power Handling: >1 W CW

8.0 PMI Model No. PS-2G18G-360-12D-TS, 2.0 to 18.0 GHz, 12-Bit Vector Phase Shifter

PMI Model No. PS-2G18G-360-12D-TS is a 2.0 to 18.0 GHz, 12-Bit Vector Phase Shifter, making it ideal for frequency translation where continuous monotonic phase shifting is required. This model has a maximum insertion loss of 18.0 dB and a maximum switching speed of 500 ns. It is outfitted with SMA female connectors in a housing that measures 4.25" x 3.50" x 1.00".

- Frequency Range: 2.0 to 18.0 GHz
- Phase Range: 360°
- Insertion Loss: 18 dB Max. - Measured 17.7 dB
- VSWR: 2.2:1 Max. - Measured 1.90:1
- Amplitude Variation vs. Phase (PM/AM): ±3.5 dB Typ. - Measured ±1.77 dB
- Phase vs. Frequency: ±15.0° Typ. - Measured ±12.47°
- Control Logic: 12-Bit TTL Compatible
- Control Slopes: Linear
- Switching Speed: 500 ns Max. - Measured 410 ns Typ.
- Power Supply:
  - +12 to +15 V @ 100 mA - Measured +15 V @ 52 mA
  - -12 to -15 V @ 100 mA - Measured -15 V @ 78 mA

PMI Website Link,
https://www.pmi-rf.com/product-details/apd-4-2g26g-292ff-1w

PMI Website Link,
https://www.pmi-rf.com/product-details/ps-2g18g-360-12d-ts
9.0 PMI Model No. 8SFB-250M20G-CD-SFF, 0.25 to 20.0 GHz, 10-Channel Switched Filter Bank

PMI Model No. 8SFB-250M20G-CD-SFF is a 10-Channel Switched Filter Bank that operates over the frequency range of 0.25 to 20.0 GHz. It has a maximum VSWR of 2.0:1 and a minimum reverse isolation of 20 dB. This model is supplied with SMA connectors in a 1U/19" rack.

- Frequency Range: 0.25 to 20.0 GHz
- Insertion Loss (S21):
  - 8 dB Max. (0.25 to 7.0 GHz) - Measured 5.4 dB
  - 10 dB Max. (7.0 to 20.0 GHz) - Measured 8.3 dB
- VSWR (S11, S22): 2.0:1 Max. - Measured 1.9:1
- Second Harmonic Rejection: 50 dBc @ +20 dBm Input Power
- Reverse Isolation (S12): 17 to 20 dB Min. - Measured ≥20.86 dB
- Impedance: 50 Ohms
- Switching Speed: 100 ns Typ. - Measured 85 ns
- Control:
  - TTL "0" = On
  - TTL "1" = Off
- Power Supply:
  - +15 VDC @ 750 mA Typ. - Measured +15 VDC @ 550 mA
  - -15 VDC @ 100 mA Typ. - Measured -15 VDC @ 43 mA

10.0 PMI Model No. PMC-9G10G-7D9-SFF, 9.0 to 10.0 GHz Monopulse Comparator

PMI Model No. PMC-9G10G-7D9-SFF is a Monopulse Comparator over the 9.0 to 10.0 GHz frequency range. This model offers a maximum insertion loss of 7.6 dB and a minimum isolation of 20 dB. It is outfitted with SMA female connectors in a housing with dimensions of 3.48" x 3.48" x 0.43".

- Frequency Range: 9.5 to 10.1 GHz
- Insertion Loss: 7.6 dB Max. - Measured 7.1 dB
- Amplitude Balance: ±0.5 dB Max. - Measured ±0.2 dB
- Phase Balance: ±5° - Measured ±3°
- Isolation: 20 dB Min. - Measured 24 dB
- VSWR: 1.5:1 Max. - Measured 1.28:1
- Power Handling:
  - Average: 10 W Max. (Port A, B, C, and D)
  - Peak: 0.1 kW Max.

PMI Website Link,
https://www.pmi-rf.com/product-details/8sfb-250m20g-cd-sff

PMI Website Link,
https://www.pmi-rf.com/product-details/ps-2g-18g-360-12d-ts

PMI Website Link,
https://www.pmi-rf.com/product-details/pmc-9g10g-7d9-sff
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- Threshold Detectors
- Filters and Switch Filter Banks
- Dielectric Resonator Oscillators
- I/Q Vector Modulators
- Frequency Synthesizers
- Diode Detectors
- Digital Attenuators
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- Frequency Discriminators
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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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