Here's What's New...

New Product Releases from Planar Monolithics Industries, Inc.
July 20, 2018

1.0 PMI Model No. POB-16-48-22-LCA, 4.0 to 8.0 GHz Low Noise Amplifier

PMI Model No. POB-16-48-22-LCA is a 4.0 to 8.0 GHz Low Noise Amplifier which provides 16 dB of gain while maintaining a gain flatness of ±1.0 dB typically over the operating frequency. The noise figure is 3 dB typical and offers a typical OP1dB of +22 dBm. The amplifier requires +12 VDC and the current draw is 225 mA typical. The unit is supplied with removable SMA female connectors in our standard PE2 housing.

- Frequency Range: 4.0 to 18.0 GHz
- Gain: 16 dBm Typ. - Measured 15.10 dB
- Gain Flatness: ±1.0 dB Typ. - Measured ±0.62 dB
- Noise Figure: 3.0 dB Typ. - Measured 2.95 dB
- OP1dB: +20 dBm Min., +22 dBm Typ. - Measured >+20 dBm
- VSWR In/Out: 2.0:1 Typ. - Measured 1.16:1/1.27:1
- DC Voltage Supply: +12 VDC
- DC Current Draw: 225 mA Typ. - Measured 225 mA

PMI Website Link,

2.0 PMI Model No. PE2-28-20R040R0-5R5-18-12-SFF, 20.0 to 40.0 GHz Low
Noise Amplifier

PMI Model No. PE2-28-20R040R0-5R5-18-12-SFF is a 20.0 to 40.0 GHz low noise amplifier that typically provides 28 dB of gain. The gain flatness is ±2.5 dB maximum and ±1.5 dB typical with a noise figure of 5.5 dB typical. This amplifier provides a minimum OP1dB of +15 dBm. This model has a typical VSWR of 2.3:1 into a 50 Ω impedance and operates on a single DC supply of +12 to +15 volts with a nominal current draw of 350 mA. It is supplied with field removable 2.92 mm female connectors in our standard PE2 housing.

- Frequency Range: 20.0 to 40.0 GHz
- Gain: 28 dB Typ. - Measured 24.18 dB
- Gain Flatness: ±2.5 dB Max. - Measured ±1.48 dB
- Noise Figure: 5.5 dB Typ. - Measured 3.42 dB
- OP1dB: +18 dBm Typ., +15 dBm Min. - Measured 15.2 dBm
- VSWR In/Out: 2.3:1 Typ. - Measured 1.75:1/1.97:1
- DC Voltage Supply: +12 to +15 VDC
- DC Current Draw: 350 mA Nominal - Measured 237 mA

PMI Website Link,
http://www.pmi-rf.com/products-details/pe2-28-20r040r0-5r5-18-12-sff

3.0 PMI Model No. EQL-17D6G21D6G-4DB-292MF, 17.6 to 21.6 GHz Passive Amplitude Equalizer

PMI Model No. EQL-17D6G21D6G-4DB-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 a 2.92 mm male input connector and a 2.92 mm female output connector 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 1.49:1
- Amplitude @ 17.6 GHz: -1 dB Min. - Measured -1.15 dB
- Slope:
  - Amplitude @ 17.6 GHz
  - Amplitude -4 dB @ 21.6 GHz
  - Amplitude = -1 dB/GHz
  - (Frequency above 17.6 GHz in GHz) + (Amplitude @ 17.6 GHz) - Measured -1.04
- Linearity: ±0.5 dB

PMI Website Link,
http://www.pmi-rf.com/products-details/eql-17d6g21d6g-4db-292mf

4.0 PMI Model No. HP10G-9D7-CD-SS, 10.0 to 27.0 GHz Band Pass Filter
PMI Model No: HP10G-9D7-CD-SS is a band pass filter with passband 10.0 to 27.0 GHz. This unit has a VSWR in the passband of 2.0:1 maximum and insertion loss in the passband of -1 dB maximum. It is supplied with SMA female connectors in a housing measuring 0.65" x 0.65" x 0.50".

- Passband: 10.0 GHz to 27.0 GHz
- -3 dB Cut-Off Frequency: 9700 MHz
- VSWR in the Passband: 2.0:1 Max. - Measured 1.9:1
- Insertion Loss in the Passband: -1 dB Max. - Measured 0.79 dB
- Rejection: -40 dBc @ 7.0 GHz - Measured <40 dB

PMI Website Link,
http://www.pmi-rf.com/products-details/hp10g-9d7-cd-ss

5.0 PMI Model No. LM-0518-10-1W-SHS-2-M, 0.5 to 18.0 GHz High Power Limiter

PMI Model No. LM-0518-10-1W-SHS-2-M is a high power limiter that operates from 0.5 to 18.0 GHz. This limiter handles 100 Watts Peak Power with a pulse width of 1 usec. This model has a typical insertion loss of 1.5 dB and a typical VSWR of 1.5:1. It is supplied with an SMA male input connector and an SMA female output connector in a housing measuring only 1.0" x 1.0" x 0.4".

- Frequency Range: 0.5 to 18.0 GHz
- Insertion Loss @ -20 dBm Input: 2.0 dB Max., 1.5 dB Typ. - Measured 1.64 dB
- VSWR @ -20 dBm Input: 2.0:1 Max., 1.5:1 Typ. - Measured 1.3:1
- Leakage @ 1 W CW Immune: +14 dBm Max., +10 dBm Typ. - Measured <10 dBm
- Peak Power: 100 W
- Pulse Width: 1 us
- Duty Cycle: 0.1%

PMI Website Link,
http://www.pmi-rf.com/products-details/lm-0518-10-1w-shs-2-m

6.0 PMI Model No. DLVA-50M18D5G-40-LIN-LOG-CD-1, 0.05 to 18.5 GHz Detector Log Video Amplifier

PMI Model No. DLVA-50M18D5G-40-LIN-LOG-CD-1 is a dual 40 dB Detector Log Video Amplifier (DLVA) designed to operate between the frequency ranges of 50 MHz to 750 MHz (LO) and 0.75 to 18.5 GHz (HI). This model has a maximum DC offset of 75 mV and a TSS log of -40 dBm. It is supplied with SMA female connectors in a housing measuring 4.0" x 3.0" x 1.0".

- Frequency Range:
  - LO (Low Band): 50 to 750 MHz
  - HI (High Band): 0.75 to 18.5 GHz
- TSS Log: -40 dBm - Measured -41 dBm (HI), -44 dBm (LO)
- Dynamic Range
  - Log: -40 to 0 dBm - Measured 2.1 V
  - LIN (Linear): -70 to 0 dBm -
Video Output:
- Rise Time:
  - LO (Low Band): 100 ns Max. - Measured 37.5 ns
  - HI (High Band): 25 ns Max. - Measured 18.4 ns
- Transfer Response:
  - LOG (Output): 50 ± 5 mV/dB - Measured 49 mV/dB (HI), 48.9 mV/dB (LO)
  - LIN (Output): 250 ± 25 mV/dB - Measured 249 mV (HI), 254 mV (LO)
- Flatness:
  - LO (Low Band): ±2 dB Max. - Measured ±0.2 dB
  - HI (Hi Band): ±1.5 dB Max. - Measured ±1.4 dB
- Recover Time (Drift):
  - LIN: ±5 mV
  - LOG: ±1 dB
- Linearity (Linear Output):
  - Up to -15 dBm: ±0.5 dB - Measured ±0.275 dB (HI), ±0.225 dB (LO)
  - Up to -10 dBm: ±1.0 dB - Measured ±0.445 dB (HI), ±0.5 dB (LO)
- Output Noise:
  - High Band: 150 mV P-P - Measured 121 mV
  - Low Band: 150 mV P-P - Measured 81 mV
- DC Offset (Log and Linear Models): 75 mV Max. - Measured +5 mV (LOG HI), +4.9 mV (LIN HI), +13 mV (LOG LO), 0 mV (LIN LO)
- Current: ±15 VDC @ 200 mA Max. - Measured +15 VDC @ 163 mA, -15 VDC @ 165 mA

PMI Website Link,
http://www.pmi-rf.com/products-details/dlva-50m18d5g-40-lin-log-cd-1

7.0 PMI Model No. SDLVA-6G18G-CD-2, 6.0 to 18.0 GHz Successive Detection Logarithmic Video Amplifier

PMI Model No. SDLVA-6G18G-CD-2 is a Successive Detection Log Video Amplifier (SDLVA) that operates between the 6.0 to 18.0 GHz frequency range. It has a VSWR of 2.0:1, a log range of -70 to +5 dBm and a pulse range of 30 ns to CW. It is supplied with SMA female connectors in a housing measuring 3.2" x 1.80" x 0.40".

- Frequency Range: 6.0 to 18.0 GHz
- Flatness: ±2.0 dB Max. - Measured ±1.0 dB
- TSS: -70 dB Min. - Measured -74 dB
- VSWR: 2.0:1 - Measured 1.88:1
- Power Input: +17 dBm CW Max.
- RF Out: +15 dBm ± 2 dB - Measured +13.2 dBm
- Log Slope:
  - 25 mV/dB (±10%) 50 Ohms - Measured 24.4 mV/dB
  - 48 mV/dB (±10%) No Load - Measured 47.8 mV/dB
- Log Range: -70 to +5 dBm
- Log Linearity: ±2.5 dB (-40ºC to +85ºC) - Measured ±1.79 dB
- Pulse Range: 30 ns to CW
- Rise Time: 10 ns (5 ns Typ.) - Measured 7.49 ns
- Recovery Time: 60 ns (40 ns Typ.) - Measured 39.9 ns
- Power Supply:
8.0 PMI Model No. P2T-1090M-70-T-55-SFF, 1090 MHz ± 60 MHz SP2T Absorptive Switch

PMI Model No. P2T-1090M-70-T-55-SFF is a Solid-State, Single Pole, Two Throw Absorptive Switch that operates at 1090 MHz ± 60 MHz. This switch offers low insertions loss of 2.5 dB maximum, 70 dB minimum isolation and a switching speed of less than 100 ns. The operating DC voltages are ±5 V with a typical current draw of 65 mA. The switch is controlled via single TTL line. It is supplied with SMA female connectors in a housing measuring 1.2" x 1.0" x 0.5".

- Frequency Range: 1090 MHz ± 60 MHz
- Isolation: 70 dB Min. - Measured 72.51 dB
- Insertion Loss: 2.5 dB Max. - Measured 1.83 dB
- VSWR In/Out: 1.5:1 Typ.
- Maximum Input Power: 0 dBm CW
- Switching Speed: 100 ns Max., 50 ns Typ. - Measured <100 ns
- DC Voltage and Current:
  - +5 VDC @ 65 mA Typ. - Measured @ 2 mA
  - -5 VDC @ 65 mA Typ. - Measured @ 0 mA
- Control Signal:
  - TTL "0" J1 to J2, Low Loss
  - TTL "1" J1 to J3, Low Loss

PMI Website Link,
http://www.pmi-rf.com/Products/Switches/P2T-1090M-70-T-55-SFF.htm

9.0 PMI Model No. P4T-10G40G-60-T-GPO, 10.0 to 40.0 GHz SP4T Absorptive Switch

PMI Model No. P4T-10G40G-60-T-GPO is a single pole, four throw, absorptive, solid-state switch that operates over the frequency range of 10.0 to 40.0 GHz. This model provides over 60 dB of isolation and has a maximum insertion loss of 6 dB. The VSWR is better than 2.0:1 into a 50 ohm impedance. This model is designed to handle operating input power levels up to 200mW (+23dBm CW) and has a maximum switching speed of 30ns typ. This switch is supplied with GPO connectors at all RF ports. The housing is radial and measures 1.25" x 1.25" x 0.5".

- Frequency Range: 10.0 to 40.0 GHz
- Isolation: 60 dB Min. - Measured 60.1 dB
- Insertion Loss: 6.0 dB Max. - Measured 5.13 dB
- Insertion Loss Flatness: ±1 dB Typ. over Full Band, Central Frequency 15.0 to 35.0 GHz is Critical
- VSWR In/Out: 2.0:1 Max. - Measured 1.99:1
- Input Power: 200 mW CW Max. (+23 dBm CW)
- Switching Speed (10% to 90% RF) - 30 ns Typ.
- DC Voltage and Current:
**10.0 PMI Model No. TD-30T-SHS-218-12G18G-PECL, 2.0 to 18.0 GHz Threshold Detector**

PMI Model No. TD-30T-SHS-218-12G18G-PECL is a high speed, LVPECL logic output threshold detector operating from 2.0 to 18.0 GHz. This unit has a maximum propagation delay of 15 ns and maximum VSWR of 3.0:1 @ -20 dBm. It is supplied with SMA female connectors in a housing measuring 2.2" x 1.5" x 0.4".

- Frequency Range: 12.0 to 18.0 GHz (Will operate from 2.0 to 18.0 GHz)
- VSWR: 3.0:1 Max. @ -20 dBm - Measured 2.3:1
- Minimum Signal Level for Logic 1:
  - -20 dBm @ 2.0 GHz - Measured -20 dBm @ 2.0 GHz
  - -17 dBm @ 18.0 GHz - Measured -18 dBm @ 18.0 GHz
- Threshold Variation over Frequency (Any 1.0 GHz Window): ±0.5 dB - Measured ±0.3 dB
- Minimum Signal Level for Logic 0: -25 dBm - Measured -21 dBm
- Dynamic Range: Up to +10 dBm - Measured +10 dBm
- Propagation Delay (From 50% of an Input of -20 dBm): 15 ns Max. - Measured 10.6 ns
- Output Logic: LVPECL Compatible
- Propagation Delay (From 50% of an Input of +10 dBm): 15 ns Max.
- DC Power Supply:
  - +15 V @ 100 mA Max. - Measured 86 mA
  - -15 V @ 100 mA Max. - Measured 34 mA

PMI Website Link,
http://www.pmi-rf.com/products-details/td-30t-shs-218-12g18g-pecl
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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