Presenting...
New Product Releases from
Planar Monolithics Industries, Inc.
June 13, 2020

1.0 PMI Model No. PEAFS3-14-0R2535R0-6R5-23-12-292FF, 0.25 to 35.0 GHz, Low Noise Amplifier

PMI Model No. PEAFS3-14-0R2535R0-6R5-23-12-292FF is a Low Noise Amplifier that operates over the 0.25 to 35.0 GHz frequency range. It has a typical gain of 14 dB and a typical noise figure of 6.5 dB. This model is outfitted with 2.92 mm female connectors in a housing measuring 0.53" x 0.70" x 0.26".

- Frequency Range: 0.25 to 35.0 GHz
- Gain: 14 dB Typ.
- Gain Flatness: ±1.5 dB Max. - Measured ±1.39 dB
- Noise Figure: 6.5 dB Typ. (Only Valid Above 2.0 GHz)
- OP1dB: 23 dBm Min. - Measured 24.55 dB
- VSWR Input/Output: 2.0:1 Max. - Measured 1.96:1
- DC Supply: +12 to +15 VDC @ 300 mA Typ.
2.0 PMI Model No. EQL-DC40-6-292FF, DC to 40.0 GHz, Passive Equalizer

PMI Model No. EQL-DC40-6-292FF is a Passive Equalizer that operates over the DC to 40.0 GHz frequency range. It has a typical insertion loss of 2.5 dB and a maximum VSWR of 1.8:1. This model is outfitted with 2.92 mm female removable connectors in a housing measuring 0.53" x 0.70" x 0.26".

- Frequency Range: DC to 40.0 GHz
- Insertion Loss:
  - 6.0 dB @ 10 MHz to 8.0 GHz Typ.
  - 2.5 dB @ 38.0 to 40.0 GHz Typ.
- VSWR: 1.6:1 Typ., 1.8:1 Max.
- Slope: 0.15 ± 0.05 dB/GHz Typ. - Measured ±0.12 dB/GHz
- Amplitude Accuracy: ±1 dB Typ. (Compared to Best Fit Straight Line) - Measured ±0.62 dB
- Input Power: +30 dBm (1 W) Max.

3.0 PMI Model No. EQL-DC40-10-292FF, DC to 40.0 GHz, Passive Equalizer

PMI Model No. EQL-DC40-10-292FF is a Passive Equalizer that operates over the DC to 40.0 GHz frequency range. It has a typical insertion loss of 2.0 dB and a maximum VSWR of 1.8:1. This model is outfitted with SMA female connectors in a housing measuring 0.53" x 0.70" x 0.26".

- Frequency Range: DC to 40.0 GHz
- Insertion Loss:
  - 10.0 dB @ 10 MHz to 2.0 GHz Typ.
  - 2.0 dB @ 38.0 to 40.0 GHz Typ.
- VSWR: 1.6:1 Typ., 1.8:1 Max.
- Slope: 0.25 ± 0.06 dB/GHz Typ.
- Amplitude Accuracy: ±1 dB Typ. (Compared to Best Fit Straight Line)

4.0 PMI Model No. P8T-2G18G-60-T-SFF-NSI, 2.0 to 18.0 GHz, SP8T Absorptive Switch
PMI Model No. P8T-2G18G-60-T-SFF-NSI is a 2.0 to 18.0 GHz Single Pole, Eight Throw, Absorptive Switch. It has a maximum insertion loss of 4.5 dB and a minimum isolation of 60 dB. It has SMA female connectors in a housing measured at Ø1.50" x 0.40".

- Frequency Range: 2.0 to 18.0 GHz
- Insertion Loss:
  - 2.5 dB Max. (2.0 to 6.0 GHz) - Measured 2.09 dB
  - 3.5 dB Max. (6.0 to 12.0 GHz) - Measured 3.04 dB
  - 4.5 dB Max. (12.0 to 18.0 GHz) - Measured 4.32 dB
- Isolation: 60 dB Min. - Measured 64.7 dB
- VSWR On In/Out: 2.0:1 Max. - Measured 1.9:1
- VSWR Absorptive Out/Off: 2.0:1 Max.
- Insertion Loss Flatness/1.0 GHz: ±0.5 dB Max.
- RF Input Power: +20 dBm Max.
- Switching Speed: 100 ns Max. - Measured 76.2 ns On, 33.2 ns Off, 55.6 ns Rise Time, 13.4 ns Fall Time
- IIP3: 30 dBm Typ.
- Impedance: 50 Ohms
- Control: 3 Bit TTL Logic
- Power Supply:
  - +5 V @ 300 mA Max. - Measured 125 mA
  - -5 V @ 100 mA Max. - Measured 55 mA

PMI Website Link, https://www.pmi-rf.com/product-details/p8t-2g18g-60-t-sff-nsi

5.0 PMI Model No. P4T-1G18G-70-T-SFF, 1.0 to 18.0 GHz, SP4T Absorptive Switch

PMI Model No. P4T-1G18G-70-T-SFF is a Single Pole, Four Throw, Absorptive Switch that operates over the 1.0 to 18.0 GHz frequency range. It has a maximum insertion loss of 3.75 dB and a minimum isolation of 70 dB. This model is outfitted with SMA female connectors in a housing measuring 1.25" x 0.40".

- Frequency Range: 1.0 to 18.0 GHz
- Impedance: 50 Ohms
- Input Power:
  - +30 dBm Max. (Survival)
  - +20 dBm Max. (Operating)
- VSWR: 2.0:1 Max. - Measured 1.78:1
- Insertion Loss: 3.75 dB Max.
- Isolation: 70 dB Min. - Measured 73.65 dB
- Insertion Loss Flatness (Variation from a Best Fit Straight Line): ±1 dB Max. - Measured ±0.74 dB
- Amplitude Balance: ±0.5 dB Max. - Measured ±0.38 dB
- Phase Balance: ±10° Max. - Measured ±9.5°
- Swiching Speed: 100 ns Max. - Measured 7.32 ns Rise Time, 13.45 ns Fall Time, 90.44 ns Speed On, 36.66 ns Speed Off
- Hot Switching: 1 W (+30 dBm) Max.
- P1dB: +32 dBm Min.
- Video Transients: 3.3 V P-P Max. - Measured 3.15 V P-P Max., 648 mV P-P Min.
- DC Voltage:
6.0 PMI Model No. PS-360-DC-1 Option 911, 9.0 to 11.0 GHz, 8-Bit Digital Controlled Phase Shifter

PMI Model No. PS-360-DC-1 Option 911 is an 8-Bit Digital Controlled Phase Shifter that operates over the 9.0 to 11.0 GHz frequency range. It has a maximum insertion loss of 12.0 dB and a maximum VSWR of 2.0:1. This model is outfitted with SMA female connectors in a housing measuring 1.85" x 1.75" x 0.50".

- Frequency Range: 9.0 to 11.0 GHz
- Insertion Loss: 12.0 dB Max., 10.0 dB Typ.
- VSWR: 2.0:1 Max.
- Accuracy (Maximum): ±12° Max., ±9° Typ.
- PM/AM (Maximum): ±2 dB Max.
- Translation Rate: 0 to 500 kHz Min.
- Carrier Suppression: Main Band: >20 dB Typ.
- Side Band Suppression: Main Band: >20 dB Typ.
- Phase Shift Range: 360° in 256 Steps
- Control Input: 8-Bit TTL
- Switching Speed 50% TTL to Within 10° of Final Phase Value: 500 ns Max.
- Harmonics: >20 dBc Typ.
- Power Handling Capability Without Performance Degradation: +13 dBm
- Survival Power: +30 dBm
- Power Supply:
  - +12 V ± 5% @ 250 mA - Measured 240 mA
  - -12 V ± 5% @ 20 mA - Measured 10 mA

7.0 PMI Model No. PS-360-DC-3 Option 618, 6.0 to 18.0 GHz, 8-Bit Digital Controlled Phase Shifter

PMI Model No. PS-360-DC-3 Option 618 is an 8-Bit Digital Controlled Phase Shifter that operates over the 8.0 to 18.0 GHz frequency range. It has a maximum insertion loss of 12.0 dB and a maximum VSWR of 2.0:1. This model is outfitted with SMA female connectors in a housing measuring 1.85" x 1.75" x 0.50".

- Frequency Range:
  - Main Band: 8.0 to 18.0 GHz
  - Stretch Band: 6.0 to 18.0 GHz
- Insertion Loss: 12.0 dB Max., 10.0 dB Typ.
- VSWR In/Out: 2.0:1 Max. - Measured 1.97:1/1.91:1
- Accuracy (Maximum):
- **±12° (8.0 to 18.0 GHz) PK to PK**
- **±15° (6.0 to 18.0 GHz) PK to PK**
- **PM/AM (Maximum):**
  - ±1.7 dB (8.0 to 18.0 GHz)
  - ±2.5 dB (6.0 to 18.0 GHz)
- **Translation Rate:** 0 to 500 kHz
- **Carrier Suppression:**
  - Main Band: 25 dB
  - Stretch Band: 18 dB
- **Side Band Suppression:**
  - Main Band: 20 dB
  - Stretch Band: 15 dB
- **Switching Speed:** 50 ns Max.
- **Rise/Fall Time:** 20 ns Max.
- **Phase Shift Range:** 360° in 256 Steps
- **Control Input:** 8-Bit TTL
- **Switching Speed 50% TTL to Within 10° of Final Phase Value:** 500 ns Max.
- **Harmonics:**
  - -30 dBc (8.0 to 18.0 GHz)
  - -25 dBc (6.0 to 8.0 GHz)
- **Power Handling Capability Without Performance Degradation:** +10 dBm
- **Survival Power:** +20 dBm
- **Power Supply:**
  - +5 V ± 5% @ 115 mA - Measured 95 mA
  - -12 to -15 V @ 20 mA - Measured 16 mA

**PMI Website Link,**

**8.0 PMI Model No. RMR-818-77-NRL, 8.0 to 18.0 GHz, Microwave Pulse and CW Monitoring Receiver**

PMI Model No. RMR-818-77-NRL is an 8.0 to 18.0 GHz, Microwave Pulse CW Monitoring Receiver. It has a maximum TSS of -77 dBm and a maximum input VSWR of 2.0:1. The housing is measured at 13.75" x 6.75" x 2.40".

- **Frequency Range:** 8.0 to 18.0 GHz
- **Input VSWR:** 2.0:1 Max.
- **TSS (Bandpass Filtered):** -77 dBm Max.
- **Rise Time:** 20 ns Typ., 30 ns Max.
- **Recovery Time:** 200 ns Typ., 300 ns Max.
- **Dynamic Range:** -75 to -10 dBm Min.
- **RF Power:** 20 dBm Max.
- **AC Power:** 115 ± 10 VAC
- **External Bandpass Filters:**
  - Filter 1: 8.2 GHz Center 1.1 GHz Bandwidth
  - Filter 2: 9.2 GHz Center 1.1 GHz Bandwidth
  - Filter 3: 16.5 GHz Center 1.1 GHz Bandwidth

**PMI Website Link,**

**9.0 PMI Model No. RSM-618-65, 6.0 to 18.0 GHz, Receiver Front-End IFM Subsystem**
PMI Model No. RSM-618-65 is a 6.0 to 18.0 GHz, Receiver Front-End IFM Subsystem. It has a maximum TSS of -68 dBm and a maximum frequency flatness of ±2.5 dB. The housing is measured at 5.50" x 6.00" x 1.50" and has SMA female connectors.

- Frequency Range: 6.0 to 18.0 GHz
- Frequency Flatness: ±2.5 dB Max., ±1.75 dB Typ.
- Dynamic Range: -65 to 0 dBm
- Log Linearity: ±2.5 dB Max.
- VSWR Input: 3.0:1 Max. @ -20 dBm, 2.5:1 Typ.
- Tangential Sensitivity: -68 dBm Max.
- Log Video Output Rise Time: 25 ns Max.
- Log Video Output Slope: 50 mV/dB (±10% Max.)
- Power Plus: +15 VDC @ <950 mA (850 mA Typ.)
- Power Minus: -15 VDC @ <450 mA (275 mA Typ.)
- RF Input Power: +15 dBm
- Frequency Discriminator Video Outputs (3 Outputs): 6.0 to 10.0 GHz, 10.0 to 14.0 GHz, 14.0 to 18.0 GHz
- Frequency Discriminator Accuracy: ±300 MHz Max., ±200 MHz Typ.
- Frequency Discriminator Slope: 50 mV/GHz (±10% Max.)
- Pulse Width: 100 ns Min. (-65 to 0 dBm)

PMI Website Link,

10.0 PMI Model No. RFE-218-70-BB Option JT, 2.0 to 18.0 GHz, Direction Finding Receiver Front End

PMI Model No. RFE-218-70-BB Option JT is a 2.0 to 18.0 GHz, Direction Finding Receiver Front End. It has a minimum TSS of -63 dBm and a maximum VSWR of 3.0:1. The housing is measured at 6.00" x 6.00" x 0.50".

- Frequency Range (J1, J2, J3): 2.0 to 18.0 GHz
- Frequency Flatness (J4, J5): ±3.0 dB Max.
- TSS (J4, J5): -63 dBm Min.
- VSWR (J2, J3): 3.0:1 Max. - Measured 2.7:1
- Dynamic Range (J4, J5): -60 to +5 dBm Min.
- Log Linearity (J4, J5): ±2.25 dB Max. - Measured ±2.2 dB
- Log Slope (J4, J5): 50 mV/dB (±10%)
- Temperature Stability (J4, J5): ±2 dB Max. (-10°C to +85°C)
- Rise Time (J4, J5): 30 ns Max. - Measured 23 ns
- Recovery Time (J4, J5): 350 ns Max. - Measured 250 ns
- Video Load (J4, J5): 93 Ohms (Recommended)
- Isolation (J2 to J3): 24 dB Min.
- Gain (J2 to J1 and J3 and J1): +3 dB Typ.
- DC Power:
  - +9 to +12 V @ 850 mA Max. (With No RF Input) - Measured 750 mA
  - -9 to -12 V @ 300 mA Max. - Measured 250 mA

PMI Website Link,

11.0 PMI Model No. P2T-1G18G-65-T-SFF, 1.0 to 18.0 GHz, SP2T Absorptive
Switch

PMI Model No. P2T-1G18G-65-T-SFF is a 1.0 to 18.0 GHz, Single Pole, Two Throw, Absorptive Switch. It has a maximum insertion loss of 3.5 dB and a typical isolation of 65 dB. The housing is measured at 1.00" x 1.00" x 0.40" and has SMA female connectors.

- Frequency Range: 1.0 to 18.0 GHz
- Impedance: 50 Ohms
- Input Power:
  - +30 dBm Max. (Survival)
  - +20 dBm Max. (Operating)
- VSWR: 2.0:1 Max. - Measured 1.82:1
- Insertion Loss: 3.5 dB Max. - Measured 3.17 dB
- Isolation: 65 dB Typ. - Measured 78.32 dB
- Switching Speed: 100 ns Max. - Measured 10.45 ns Rise Time, 7.09 ns Fall Time, 36.63 ns Speed On, 32.36 ns Speed Off
- Hot Switching: 1 W (+30 dBm) Max.
- Phase Balance: ±10° Max. - Measured ±7.64°
- Amplitude Balance: ±0.5 dB Max. - Measured ±0.32 dB
- P1dB: +33 dBm Min. - Measured +35 dBm @ 18.0 GHz
- IIP3: +40 dBm Min. - Measured +43.39 dBm
- OIP3: +40 dBm Typ. - Measured +42.085 dBm
- Video Transients: 3.3 V P-P Max. - Measured 2.78 V P-P Max., 1.02 V P-P Min.
- DC Voltage:
  - +5 VDC @ 100 mA Typ. - Measured 63 mA
  - -15 VDC @ 100 mA Typ. - Measured 78 mA

PMI Website Link,
https://www.pmi-rf.com/product-details/p2t-1g18g-65-t-sff

12.0 PMI Model No. LNA-20-17-5-SFF, 1.0 to 7.0 GHz, Low Noise Amplifier

PMI Model No. LNA-20-17-5-SFF is a 1.0 to 7.0 GHz, Low Noise Amplifier. It has a minimum gain of 20 dB and a noise figure of 5 dB. The gold plated housing is measured at 2.00" x 1.00" x 0.50" and has SMA mm female connectors.

- Frequency Range: 1.0 to 7.0 GHz
- Output Power P1dB: 22 dB - Measured 23.6 dBm
- Gain: 20 dB Min., 26 dB Max.
- Gain Flatness: ±2.0 dB - Measured ±0.6 dB
- Noise Figure: 5 dB - Measured 3.5 dB
- VSWR In/Out: 2:1 - Measured 1.8:1/1.9:1
- Minimum Third Order Intercept Point: 32 dBm - Measured 34 dBm
- Typical Saturated Output Power: 24 dBm - Measured 25.6 dBm
- Harmonics: -12 dBc
- Non-Harmonic Spurious: -50 dBc
- Stability: Unconditional
- Cooling: Convection
- DC Voltage: 15 V
- DC Current: 900 mA - Measured 480 mA

PMI Website Link,
13.0 PMI Model No. LNA-46-17-5-SFF, 1.0 to 7.0 GHz, Low Noise Amplifier

PMI Model No. LNA-46-17-5-SFF is a 1.0 to 7.0 GHz, Low Noise Amplifier. It has a minimum gain of 46 dB and a noise figure of 5 dB. The unit is supplied in a gold plated housing measuring 2.70" x 1.00" x 0.50" and has SMA female connectors.

- Frequency Range: 1.0 to 7.0 GHz
- Output Power P1dB: 23 dBm
- Gain: 46 dB Min., 54 dB Max.
- Gain Flatness: ±2 dB - Measured ±1.1 dB
- Noise Figure: 5 dB - Measured 1.9 dB
- VSWR In/Out: 2:1 - Measured 1.9:1
- Minimum Third Order Intercept Point: 30 dBm - Measured 33.1 dBm
- Typical Saturated Output Power: 25 dBm - Measured 26.8 dBm
- Harmonics: 12 dBc
- Non-Harmonic Spurious: 50 dBc
- Stability: Unconditional
- Cooling: Convection
- DC Voltage: 15 V
- DC Current: 1100 mA - Measured 650 mA

PMI Website Link,

14.0 PMI Model No. LNA-47-0R52-4-SFF, 0.5 to 2.0 GHz, Low Noise Amplifier

PMI Model No. LNA-47-0R52-4-SFF is a 0.5 to 2.0 GHz, Low Noise Amplifier. It has a minimum gain of 47 dB and a noise figure of 4 dB. The gold plated housing is measured at 2.50" x 1.00" x 0.50" and has SMA female connectors.

- Frequency Range: 0.5 to 2.0 GHz
- Output Power P1dB: 20 dBm - Measured 22.1 dBm
- Gain: 47 dB Min., 53 dB Max.
- Gain Flatness: ±1.25 dB - Measured ±0.5 dB
- Noise Figure: 4 dB - Measured 1.6 dB
- VSWR In/Out: 2:1 - Measured 1.8:1/1.7:1
- Minimum Third Order Intercept Point: 30 dBm - Measured 33.2 dBm
- Typical Saturated Output Power: 23 dBm - Measured 25.3 dBm
- Harmonics: -12 dBc
- Non-Harmonic Spurious: -50 dBc
- Stability: Unconditional
- Cooling: Convection
- DC Voltage: 15 V
- DC Current: 600 mA

PMI Website Link,
https://www.pmi-rf.com/product-details/lna-47-0r52-4-sff

15.0 PMI Model No. HP2G-1780-CD-SS-ROHS, 2.0 to 18.0 GHz, Suspended High Pass Filter
PMI Model No. HP2G-1780-CD-SS-ROHS is a 2.0 to 18.0 GHz, Suspended High Pass Filter. It has a typical VSWR in the passband of 1.5:1 and a typical insertion loss in the passband of 0.5 dB. The housing is measured at 0.75" x 0.75" x 0.50" and has SMA female connectors.

- Passband: 2.0 to 18.0 GHz
- 3 dB Bandwidth: 1.78 GHz
- VSWR in the Passband: 1.5:1 Typ.
- Insertion Loss in the Passband: 0.5 dB Typ.
- Rejection @ 0.87 GHz: 80 dB Min.

PMI Website Link,

16.0 PMI Model No. PDPS-3F-6 Option AL, 3.0 GHz, 6-Bit Phase Shifter

PMI Model No. PDPS-3F-6 Option AL is a 3.0 GHz, 6-Bit Phase Shifter. It has a maximum insertion loss of 10 dB and a VSWR of 2.0:1. The housing is measured at 3.00" x 2.70" x 0.53" and has SMA female connectors.

- Frequency Range: 3.0 GHz (Bandwidth 500 MHz)
- Insertion Loss: 9 dB Typ., 10 dB Max. - Measured 4 dB
- VSWR In/Out: 2.0:1 - Measured 1.4:1/1.5:1
- Phase States: 5.6°, 11.2°, 22.4°, 45°, 90°, 180°
- Phase Accuracy (@ 5.6°): ±6° Max., 3° Typ. @ 3.0 GHz - Measured 1.8°
- Phase Accuracy (@ 11.2°): ±6° Max., 3° Typ. @ 3.0 GHz - Measured -0.6°
- Phase Accuracy (@ 22.5°): ±6° Max., 3° Typ. @ 3.0 GHz - Measured 1.2°
- Phase Accuracy (@ 45°): ±6° Max., 3° Typ. @ 3.0 GHz - Measured 1.8°
- Phase Accuracy (@ 90°): ±6° Max., 3° Typ. @ 3.0 GHz - Measured -1.7°
- Phase Accuracy (@ 180°): ±6° Max., 3° Typ. @ 3.0 GHz - Measured 2.4°
- Switching Speed: 300 ns Max., 100 ns Typ. - Measured 70 ns
- Power Supply:
  - +5 V @ 70 mA Typ., 100 mA Max. - Measured 1 mA
  - -15 V @ 70 mA Typ., 100 mA Max. - Measured 11 mA

PMI Website Link,
https://www.pmi-rf.com/product-details/pdps-3f-6-al

17.0 PMI Model No. 5399723+001 Rev. L, 29.8 to 30.2 MHz, 7-Bit Attenuator

PMI Model No. 5399723+001 Rev. L is a 29.8 to 30.2 MHz, 7-Bit Attenuator. It has a maximum insertion loss of 9 dB and a maximum input power of +10 dBm. The hermetically sealed housing is measured at 3.675" x 2.250" x 0.230".

- Frequency Range: 29.8 to 30.2 MHz
- Input/Output Impedance: 50 Ohms
- Input/Output VSWR: 1.4:1 Max. - Measured 1.33:1/1.32:1
- Input Power: +10 dBm Max.
Insertion Loss: 9 dB Max. - Measured 8.6 dB
Attenuation Range: 0 to 63.5 dB, In 0.5 dB Steps
Attenuation Accuracy (Normalized to Insertion Loss):
- 0 to 4 dB: ±0.2 dB - Measured ±0.15 dB
- 5 to 9 dB: ±0.3 dB - Measured ±0.14 dB
- 10 to 16 dB: ±0.5 dB - Measured ±0.21 dB
- 17 to 24 dB: ±0.6 dB - Measured ±0.13 dB
- 25 to 30 dB: ±0.7 dB - Measured ±0.25 dB
- 31 to 40 dB: ±0.7 dB - Measured ±0.25 dB
- 41 to 50 dB: ±0.7 dB - Measured ±0.25 dB
- 51-63.5 dB: ±2% of Attenuation Value - Measured ±0.69%
Attenuation vs. Frequency: 0.1 dB Peak to Peak - Measured 0.09 dB
Linearity (Over Any 6 dB Range): 0.5 dB Peak to Peak up to 50 dB Attenuation - Measured 0.14 dB
Insertion Phase: 30° ± 5°
Phase vs. Frequency: 2.8° Peak to Peak - Measured 2.51°
Phase vs. Attenuation: 3.0° Peak to Peak, 0 to 44.0 dB: 7.5° Peak to Peak, 44.5 to 50.0 dB
Control Input Impedance: 8 Equivalent TTL Loads Max., Including 1k Pull-Up Resistors
Control Input Logic: TTL Driver with Rise/Fall of 20 ns
Binary Code: 7 Bits, 0000000 = Insertion Loss
Attenuation Per Bit: A0 = LSB = 0.5 dB, A6 = MSB = 32 dB
Switching Speed (Control Signal 3 us Pulse, 50% Duty Cycle, 10 KHz PRF): 650 ns Delay Max.,
500 ns Rise Time Max. - Measured 68 ns Delay, 128 ns Rise
Switching Rate: 10 kHz Max.
Power Supply: +5.0 to +5.2 VDC @ 750 mA Max. - Measured 236 mA
Transients:
- 5 mV Peak to Peak for 0.5 dB Steps - Measured 1.9 mV Peak to Peak
- 10 mV Peak to Peak for 63.5 dB Step - Measured 4.8 mV Peak to Peak

PMI Website Link,

18.0 PMI Model No. 5399723+002 Rev. L, 29.8 to 30.2 MHz, 7-Bit Attenuator

PMI Model No. 5399723+002 Rev. L is a 29.8 to 30.2 MHz, 7-Bit Attenuator. It has a maximum insertion loss of
9 dB and a maximum input power of +10 dBm. The hermetically sealed housing is measured at 3.675" x
2.250" x 0.230".

- Frequency Range: 29.8 to 30.2 MHz
- Input/Output Impedance: 50 Ohms
- Input/Output VSWR: 1.4:1 Max. - Measured 1.35:1/1.34:1
- Input Power: +10 dBm Max.
- Insertion Loss: 9 dB Max. - Measured 8.7 dB
- Attenuation Range: 0 to 63.5 dB, In 0.5 dB Steps
- Attenuation Accuracy (Normalized to Insertion Loss):
  - 0 to 4 dB: ±0.2 dB - Measured ±0.11 dB
  - 5 to 9 dB: ±0.3 dB - Measured ±0.14 dB
  - 10 to 16 dB: ±0.5 dB - Measured ±0.14 dB
  - 17 to 24 dB: ±0.6 dB - Measured ±0.14 dB
  - 25 to 30 dB: ±0.7 dB - Measured ±0.17 dB
  - 31 to 40 dB: ±0.7 dB - Measured ±0.22 dB
  - 41 to 50 dB: ±0.7 dB - Measured ±0.22 dB
  - 51-63.5 dB: ±2% of Attenuation Value - Measured ±0.34%
- Attenuation vs. Frequency: 0.1 dB Peak to Peak - Measured 0.09 dB
Linearity (Over Any 6 dB Range): 0.5 dB Peak to Peak up to 50 dB Attenuation - Measured 0.16 dB
Insertion Phase: 30° ± 5°
Phase vs. Frequency: 1.4° Peak to Peak
Phase vs. Attenuation: ±1.5° 0 to 40 dB, Referenced to Insertion Phase - Measured ±1.25°
Control Input Impedance: 8 Equivalent TTL Loads Max., Including 1k Pull-Up Resistors
Control Input Logic: TTL Driver with Rise/Fall of 20 ns
Binary Code: 7 Bits, 0000000 = Insertion Loss
Attenuation Per Bit: A0 = LSB = 0.5 dB, A6 = MSB = 32 dB
Switching Speed (Control Signal 3 us Pulse, 50% Duty Cycle, 10 KHz PRF): 700 ns Delay Max., 700 ns Rise Time Max. - Measured 68 ns Delay, 128 ns Rise
Switching Rate: 10 kHz Max.
Power Supply: +5.0 to +5.2 VDC @ 750 mA Max. - Measured 242 mA
Transients:
- 5 mV Peak to Peak for 0.5 dB Steps - Measured 1.9 mV Peak to Peak
- 10 mV Peak to Peak for 63.5 dB Step - Measured 4.8 mV Peak to Peak

19.0 PMI Model No. PTB-35-120-5R0-10-115-VAC-SFF, 1.0 to 20.0 GHz, Portable Amplifier

PMI Model No. PTB-35-120-5R0-10-115-VAC-SFF is a 1.0 to 20.0 GHz, Portable Amplifier. It has a typical gain of +35 dB and a maximum noise figure of 5.0 dB. The housing is measured at 4.92" x 4.92" x 2.26" and has SMA female connectors.

- Frequency Range: 1.0 to 20.0 GHz
- Gain: +35 dB Typ. - Measured +41.9 dB
- Gain Flatness: ±3.0 dB Typ. - Measured ±1.05
- Noise Figure: 5.0 dB Max. - Measured 4.1 dB
- OP1dB: +10 dBm Min. - Measured +11.5 dBm
- VSWR In/Out: 2.0:1 Max. - Measured 1.5:1/1.8:1
- AC Voltage Supply: 115 VAC, 60 Hz

20.0 PMI Model No. DD-20-218-5PF-1-N-M, 2.0 to 18.0 GHz, Diode Detector

PMI Model No. DD-20-218-5PF-1-N-M is a 2.0 to 18.0 GHz, Diode Detector. It has a typical VSWR of 3.5:1 and a maximum input power of +17 dBm. The housing is measured at 0.50" x 0.50" x 0.22" and has a SMA female and a SMA male connector.

- Frequency Range: 2.0 to 18.0 GHz
- VSWR In/Out: 3.5:1 Typ. (Measured @ -23 dBm with 27 K Ohm Load Impedance) - Measured 2.94:1
- Frequency Flatness: ±1.5 dB, ±1.0 dB Typ.
- Speed: 5 ns
- Voltage Sensitivity: 650 mV/mW, 700 mV/mW Typ.
- Tangential Sensitivity: -50 dBm @ 2 MHz Video Bandwidth (With 2 dB Noise Figure Amplifier)
- Video Capacitance: 5.6 pF
- Output Voltage: Negative is Standard (Positive is Available)
- Max Input Power: +17 dBm
21.0 PMI Model No. MSDLVA-2020-70 Options 48, SE, 4.0 to 18.0 GHz, SDLVA

PMI Model No. MSDLVA-2020-70 Options 48, SE is a 4.0 to 18.0 GHz, SDLVA. It has a typical TSS of -73 dBm and a pulse width range of 50 ns to CW. The housing is measured at 4.60" x 0.98" x 0.24".

- Frequency Range: 4.0 to 8.0 GHz (Other Frequencies Available)
- Logging Range: -65 to +15 dBm
- Log Linearity: ±2.0 dB Max., ±1.6 dB Typ.
- Frequency Flatness: ±1.0 dB Typ., ±2.0 dB Max.
- Pulse Width Range: 50 ns to CW
- RF Out SAT: +14 dBm ± 1.0 dB Max. (-60 to +10 dBm)
- TSS: -73 dBm Typ., -70 dBm Max.
- Input VSWR: 1.6:1 Typ., 2.0:1 Max.
- Log Video Output:
  - Rise Time: 25 ns Max.
  - Settling Time: 40 ns Max.
  - Recovery Time: 150 ns Typ.
  - Log Slope: 50 mV/dB (Not Critical)
  - Video Load: 100 Ohms
- DC Power Supply:
  - +12 VDC @ 570 mA Typ., 600 mA Max.
  - -12 VDC @ 150 mA Typ., 180 mA Max.

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.
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