



### AMPLIFIERS



PMI offers a full line of RF and Microwave Amplifiers that range from 250 kHz up to 40.0 GHz. Available in Narrow Band, Octave & Half Octave Band, Broadband, Multi-Octave and Ultra-Broadband models. Our Amplifiers are available in a variety of types: Variable Gain, Waveguide, Gain Correction, Positive Gain Slope, Limiting Amps and High IP Amplifiers for SIGINT applications. PMI manufactures two different models of Portable Test-bench Amplifiers for mobile or laboratory applications which can be designed for use with various power supplies.

### ATTENUATORS



PMI offers a complete line of variable solid state attenuators operating from a few Megahertz to 40 GHz in Octave, sub-Octave and Broadband models. Either Voltage Variable or Digitally Variable programmable versions are available. PMI's attenuators offer the industry's best attenuation flatness vs. frequency.

### DETECTORS & THRESHOLD DETECTORS



After many years developing sophisticated Detector Logarithmic Video Amplifiers (DLVA's) PMI can now offer a comprehensive selection of Detectors, Directional Detectors and Threshold Detectors. They are available from 2.0 MHz to 40.0 GHz. The Threshold Detectors offer both Fixed and Adjustable Threshold Levels, input power levels from -50 to +5 dBm and either ECL or TTL outputs. All models are high speed and small in size.

### DLVA's, ERDLVA's & SDLVA's



PMI's Detector Logarithmic Video Amplifiers (DLVA's) are offered covering DC to 40.0 GHz with Extended Range models offering dynamic ranges over 70dB. Our standard product provides exceptional temperature stability, log linearity and frequency response. New DLVA and SDLVA models recently have been developed. Please check with us if you need custom DLVA's to meet your requirement or to replace obsolete products.

### FILTERS & SWITCH FILTER BANKS



PMI offers the highest quality filters, switch filter banks, filter assemblies, diplexers and multiplexers available for both commercial and military applications. The frequency range is DC to 40.0 GHz and the filter topology includes Lumped Element, Combine, Interdigital, Narrow Band and Cavity filters. Also, Suspended Substrate filters, Bandpass, Band Reject or "Notch" filters as well as Low-Pass and High-Pass filters. All of PMI's Switch Filter Banks use PMI's proprietary solid state switch designs which offer high speed and improved performance. While there are many standard models, PMI will design and build to your desired specifications.

### FREQUENCY DISCRIMINATORS & IFM's



PMI offers a full line of RF and Microwave Frequency Discriminator products that range from a few Megahertz up to 40.0 GHz, many options are available. Please contact PMI to discuss your specific requirements.

### I/Q VECTOR MODULATORS



These Modulators are available with High Speed Modulation, Low Spurious Response, Low Insertion Loss, High Absolute Phase Accuracy and Low Current Consumption as well as standard and custom designed housings. Please contact PMI to discuss your specific requirements.

### LIMITERS



PMI Limiters cover the frequency range from DC to 40.0 GHz. They provide low loss, and low leakage levels. Our limiters can be designed to meet your custom electrical and mechanical specifications. Surface Mount and Connectorized units with hermetic sealing are available as well as Commercial and Military Screened and Qualified models.

### LOG AMPLIFIERS



PMI IF and RF Log Amplifiers use the same technology that our famous Successive Detection Log Video Amplifiers (SDLVA's) use which make for extremely stable, linear devices operating from a few Megahertz up to 40 GHz.

### PHASE SHIFTERS & BI-PHASE MODULATORS



PMI offer the highest quality Phase Shifters and Bi-Phase Modulators for Commercial and Military applications in the frequency range from a few Megahertz up to 40.0 GHz. Analog or digital control, high phase accuracy, high speed and low insertion loss are available. Phase Shifters can cover from 0 degrees to 360 degrees while Bi-Phase Modulators can switch from either of two phase levels, such as: 0 to 90 degrees or 90 to 180 or 180 to 360 degrees.

### POWER DIVIDERS & QUADRATURE COUPLERS



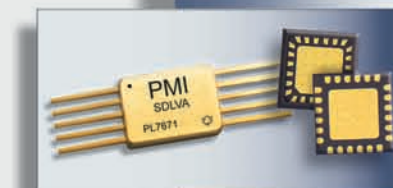
PMI manufactures Power Dividers, combiners and Hybrid Quadrature Couplers for Commercial and Military applications from DC to 40.0 GHz which offer low loss, high isolation and excellent phase and amplitude balance.

### SOLID STATE SWITCHES & SWITCH MATRICES



PMI's line of RF and Microwave Solid State Switches cover the frequency range from a few Megahertz up to 40.0 GHz in many standard models with a number of options available: Ultra-Broadband, Ultra-High Isolation, Very low loss, Low Video Transients, Ultra-high Switching Speed, Very low power consumption, SPST through SP64T, Reflective or Absorptive and available in very small packaging. While all switch products are available connectorized, many are also available in drop-in configuration. PMI Switch Matrix products operate from 20.0 MHz to 40.0 GHz and are available in three standard models: 20.0 MHz to 3.0 GHz, 2.0 GHz to 18.0 GHz and 18.0 GHz to 40.0 GHz. Any of the three models can be supplied as a 4 x 4, 8 x 8, 16 x 16 or 32 x 32 non-blocking matrix and custom designs are available.

### SMT AND QFN DEVICES



PMI offers Custom Surface Mount and QFN packaging for many types of devices. SDLVAs, Log Amplifiers, Phase Shifters, Attenuators, Switches and well as Low Noise Amplifiers. PMI also offers multifunction options in a single QFN package such as Limiter/LNA or LNA/Detector. Let PMI offer you a custom solution to reduce the size of your PCB layout.

### DIGITALLY TUNED OSCILLATORS



PMI offers military, airborne grade, DTO's (Digitally Tuned Oscillators) in the frequency bands of 0.5 to 2.0 GHz, 0.5 to 2.5 GHz, 2.0 to 6.0 GHz, 6.0 to 18.0 GHz and 2.0 to 18.0 GHz. Other frequency bands are available, please contact us to discuss your desired specifications. PMI DTO's are designed to be Form, Fit and Functional replacements for many legacy platforms.

### FORM, FIT AND FUNCTION PRODUCTS

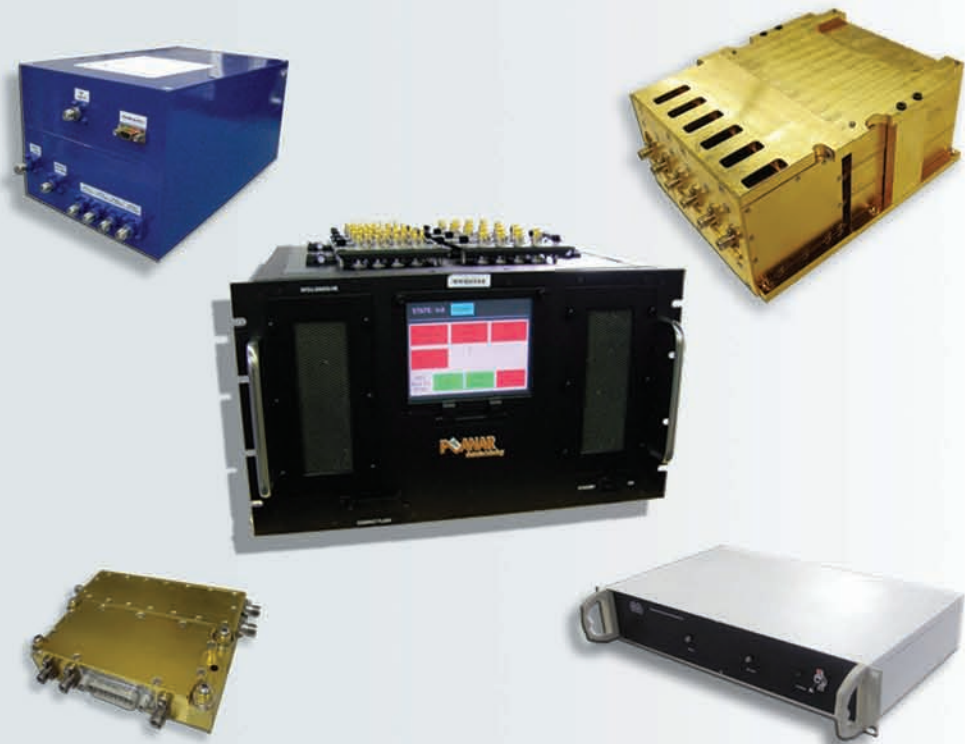


Are you faced with the problem of locating obsolete devices to maintain an old system? Or replace products from vendors who are no longer in business? PMI has over 20 years of experience designing products to replace obsolete electronic devices while meeting or exceeding the original product's performance. PMI will use today's technology to build the old, obsolete device while meeting the form, fit and functionality. Full screening services are also available.



# DESIGN AND INTEGRATION CAPABILITY

Planar Monolithics Industries, Inc, Frederick, MD, USA



### RACK/CHASSIS MOUNT PRODUCTS

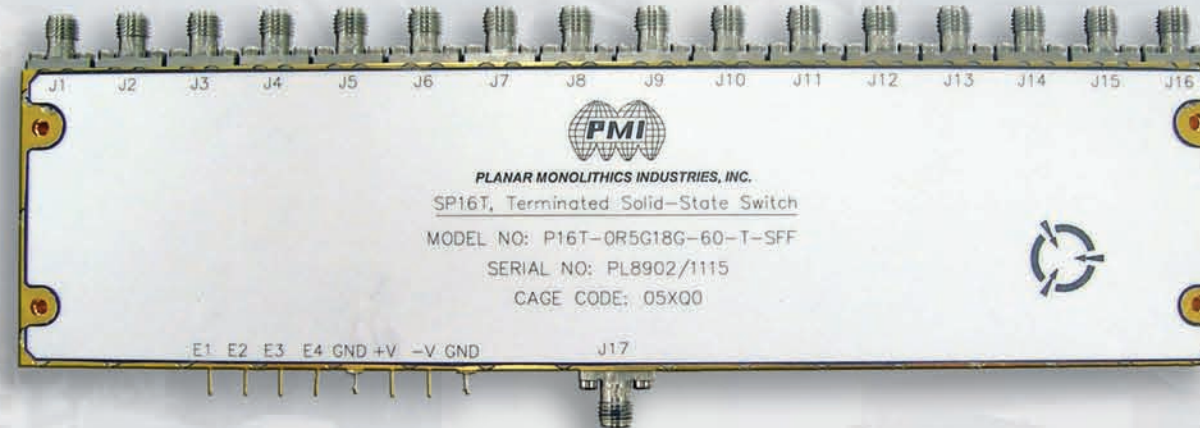
PMI offers various RF and Microwave products that range from 250 kHz up to 40.0 GHz which are supplied in a ruggedized chassis. Many options are available. Our ruggedized, military grade chassis products are built to meet your exact application needs. Various functions can be offered including: Amplification, Attenuation (Digital Solid-State), Switching, (Ultra High Speed), Power Detection / Fault Detection, Phase Shifting / Phase Modulation, Pulse Modulation, Noise Generation, RF Filtering, RF Limiting, Power Splitting as well as RF Signal Distribution. Send us your Block Diagram for review and PMI will offer you a turn-key solution.

### MULTIFUNCTION INTEGRATED MODULES

PMI offers the highest quality multi-function modules and integrated microwave assemblies for commercial and military applications in the frequency range of a few MHz to 40.0 GHz. They are available with a variety of options including integrated Amplification, Attenuation, Filtering, Switching, Phase Shifting, Power Detection, Modulation, Coupling and Limiting, Digital Control, Hermetic Sealing and Military or Space screening. PMI can custom design models built to your SCD or specifications.

Planar Monolithics Industries, Inc. (PMI) is a dedicated OEM who strives for total customer satisfaction by providing rapid response and high-quality products. PMI has over 22 years of experience in the design and manufacture of technologically superior RF and Microwave components and sub-systems for the Military and Industrial markets. PMI provides solutions and products that will ensure your program's success. You can rely on PMI to be a supportive and resourceful technical and business partner for all of your RF & Microwave requirements up to 40 GHz.

Planar Monolithics Industries, Inc.  
www.pmi-rf.com



**PLANAR MONOLITHICS INDUSTRIES, INC.**  
7311-F GROVE ROAD, FREDERICK, MD 21704, USA

Tel: 301-662-5019 Fax: 301-662-1731

Web: [www.pmi-rf.com](http://www.pmi-rf.com) Email: [sales@pmi-rf.com](mailto:sales@pmi-rf.com)

ISO 9001 - 2008 REGISTERED



Amplifiers

Attenuators

Bi-Phase Modulators

Couplers

Detectors

DLVA's

DTO's

ERDLVA's

Filters

Frequency Discriminators

Hybrid Couplers

I & Q Modulators

Integrated Modules

Limiters

Log Amplifiers

Pulse Modulators

Phase Shifters

Power Dividers & Combiners

Receiver Front Ends

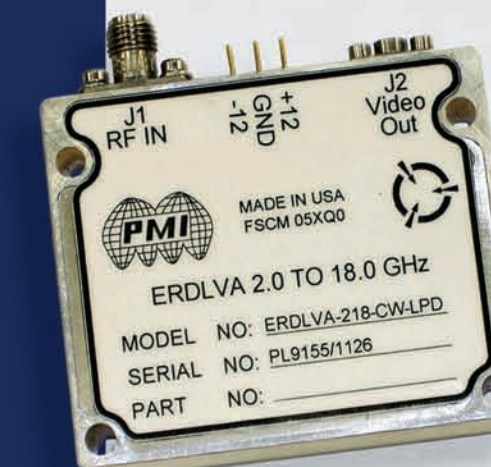
SDLVA's

Solid State Switches

Switch Matrices

Switch Filter Banks

Threshold Detectors



**PLANAR MONOLITHICS INDUSTRIES INC.**

