



# CAPABILITY BROCHURE

## Our History

### American Microwave Corporation

Since its founding in 1978 by Raymond L. Sicotte, American Microwave Corporation (AMC) has become the leader in the design and manufacture of DC to 40 GHz Solid State Control Components and has been a key supplier of products to the Defense Electronics Industry worldwide. AMC is dedicated in providing state-of-the-art technology as well as uniformly high-quality microwave components and subsystems. AMC's vertically integrated manufacturing plant makes it possible to design, machine and manufacture microwave hardware; which means total technology, quality and schedule control on all prototype and production orders. Today, AMC continues to maintain respect within the industry and for the growing demand of product availability.

## Our Capabilities

American Microwave Corporation produces products for both Defense Electronics Industry and commercial use worldwide in our state-of-the-art manufacturing plant. AMC products such as Microwave Solid State Switches, Electronically Variable Attenuators (high performance multi-octave band models), Detector Logarithmic Video Amplifiers (DLVA's), and Digitally Controlled, Phase Invariant Attenuators to include custom assemblies as well as Integrated Assemblies and Detectors and Build to Print assemblies. Trust to deliver and confidence for accuracy has qualified us with 100% Total Satisfaction with our customers. With AMC's extensive portfolio to include customers like: **Northrop Grumman, Lockheed Martin, Raytheon, Boeing, Telephonics, BAE, General Atomics**, just to name a few, has benefited from a first-class experience. AMC's philosophy is "Customer First" Strive to Meet Expectations for Price, Delivery, Specifications, Quality, Reliability & Support.

## AMERICAN MICROWAVE CORPORATION



### Headquarters:

7309-A Grove Road Frederick, MD 21704

Tel: 301-662-4700

Fax: 301-662-4938

[WWW.AMERICANMIC.COM](http://WWW.AMERICANMIC.COM)

- ✓ Experts in MIMIC and Pin Diode design and integration
- ✓ In House Machine Shop
- ✓ Clean Room
- ✓ Large assembly area
- ✓ In House Paint Shop
- ✓ Test department with 5 test stands with capability to 40 GHz
- ✓ **ISO 9001: 2015 certified**
- ✓ **40 Years of Excellence**

**CAGE CODE: 60483**

**DUNS: 037- 757804**

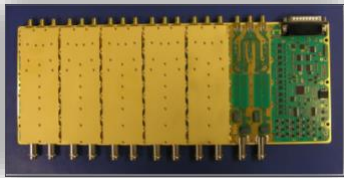
**NAICS: 334220, 334419**

[SALES@AMERICANMIC.COM](mailto:SALES@AMERICANMIC.COM)

# PRODUCTS



## INTEGRATED ASSEMBLIES



- ✓ Eliminate all interconnecting cables
- ✓ Solid Switch Based Assemblies
- ✓ Very reliable product in a compact form factor
- ✓ Switch Matrices on a Substrate
- ✓ Provided excellent repeatability
- ✓ Direction Finding and Beam Forming Networks
- ✓ Has the ability to be remotely controlled by host
- ✓ Custom Integrated and Turn Key systems
- ✓ Lowered insertion loss



## RF TRAY- 500 MHz TO 26.5 GHz DOWNCONVERTER

The Downconverter is a great example of high-density Chip and Wire construction which allows for:

- ✓ Exceptional Isolation
- ✓ Excellent performance in high vibration environments
- ✓ Ability to reduce form factor by 4X

## FLIGHT LINE RADAR CALIBRATION UNIT

AMC Model RFM-16M7 integrated switching assembly



- ✓ Reduced size by 50%
- ✓ Improved VSWR and lowered Insertion Loss
- ✓ Implemented temperature compensated design resulting in better performance across broad temperature range
- ✓ Incorporated SPI and I2C Control Bus with imbedded control software

Integrated switching assembly contains solid state switches, circulators, a digital controlled attenuator, a Ku band solid state source and a Detector Logarithmic Video Amplifier with digitized video output

## SOLID STATE SWITCHES DC to 40 GHz SPST to SP124T



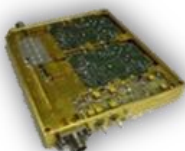
- ✓ SPST to SP124T configuration (Absorptive & Reflective)
- ✓ Any design can be optimized for specific frequency range
- ✓ Insertion loss, isolation, intercept points, switching speed and VSWR
- ✓ High Power versions are available (if required)

## SOLID STATE VARIABLE ATTENUATORS 30-120 dB 10 MHz to 18 GHz bandwidth



- ✓ Phase variant, Broadband or Octave Band models available
- ✓ Attenuation Ranges 30 – 120 dB
- ✓ 10 MHz to 18 GHz bandwidths available
- ✓ Digital Analog or Current Controlled Variable Attenuators
- ✓ Designed to meet MIL Std 202
- ✓ (additional screening available)

## LOG VIDEO AMPLIFIERS (DLVA & SDLVA) 50 AND 70 dB dynamic range



- ✓ Standard products – 50 to 70 dB dynamic range
- ✓ CW immunity circuits available for all models

## SPECIAL SERVICES – BUILD TO PRINT CAPABILITY



## THROUGH THE YEARS

- The **first microwave switch**, model SW-2184-A pulse modulator, was produced in 1981. Since then, AMC has produced hundreds of models of microwave solid state switches for both commercial and defense electronics market worldwide.
- In 1986, AMC delivered its first **electronically variable attenuator model** AGH-8018-D and it has expanded the product line to include many high performance, multi-octave band models over the years.
- AMC began producing its **Detector Logarithmic Video Amplifier (DLVA)** Product line in 1990 and has been a key supplier of these products to the Defense Electronics Industry since.
- In 2009, AMC produced the first in its newly developed line of **phase invariant attenuators**. Today it offers digitally controlled, phase invariant attenuator products in octave bands covering the frequency range from 1 to 18 GHz.
- Throughout the years, AMC has developed **custom assemblies** incorporating a variety of functions including amplifiers, filters, couplers, and power dividers with attenuators and multi-throw switches.
- AMC's **Integrated Microwave Assemblies (IMA)** form the fourth cornerstone of the Company's four product lines. From its chip and wire assemblies such as the 0.5-26.5 GHz integrated miniaturized receiver, Radar Calibration Assembly to its integrated component assemblies such as a switched distribution box, a set of chassis mounted digital phase shifters for a beam forming application, specialized amplifier assemblies and integrated switch matrices, IMA's form a significant portion of AMC's business today.