API Technologies RF/Microwave & Microelectronics | A leading edge provider of high performance and rugged RF/microwave and Microelectronic solutions, API designs, develops and manufactures one of the world’s largest selection of EW products including amplifiers, power amplifiers, mixers, filters, complex sources and synthesizers, integrated microwave assemblies, microelectronics and advanced RF/microwave subsystems. Our standard, configurable and custom-designed high-rel electronic warfare products are designed to address the most challenging current and emerging defense requirements in the areas of: radar warning receivers, GPS, jamming / anti-jamming, signals intelligence, portable communications, and radar monitoring systems.

**Power Amplifiers | GaN, LDMOS, GaAs, and Bipolar Device Technologies**
API brings the use of today’s most advanced tools to our design and manufacturing of Power Amplifiers operating up to 26 GHz and 1 KW pulsed output. In addition to the wide bandwidth and high efficiency, API can incorporate built-in user control interfaces, high input protection circuitry, built-in monitoring, voltage regulation, thermal temperature compensation, and harmonic filters fault monitoring to provide solutions to our customers varied requirements. Excellent design capability, plus API’s extensive in-house machining capability, provide for rapid prototype development and production. Select from our standard products or let our dedicated engineering staff develop your custom requirement.

**Low Phase Noise Amplifiers | High Frequency, Wide Band, and Narrow Band**
API offers a full line of sophisticated and high-reliability Low Noise Amplifier products designed to amplify low and mid-level signals. Our extensive line of custom, configurable or standard off-the-shelf products includes high frequency amplifier solutions with designs reaching 50GHz, limiters and limiting amplifiers, and threshold detectors. Our Low Noise Amplifiers leverage API’s core competencies in amplifier design, low phase noise performance and high-rel manufacturing, the result of which is a robust device that maximizes system level performance, making our amplifiers ideal for even the most challenging systems and requirements.

**DFDs & IFMs | Specific Frequency Bands or Full 2-18 GHz Coverage**
API Technologies produces a wide range of Digital Frequency Discriminators (DFDs) and Instantaneous Frequency Measurement Receivers (IFMs) tailored to the stringent requirements of today’s state-of-the-art EW receivers. API’s DFDs are available in a wide range of designs offering coverage of either specific frequency bands or full 2-18 GHz coverage in a single unit. Our high-speed IFMs utilize discrimination, channelization, or a combination of those two techniques to ensure our customers high reproducibility, small size and low cost. Applications include signal intelligence, radar warning receivers, capture of single RF pulse events, and identification of frequency agile radar.

**Integrated Microwave Assemblies | Smaller Size, Greater Power Handling**
API Technologies, a world class leader in the vertically integrated solutions industry, is your full service partner for high performance and ruggedly-designed products. With expertise that spans RF/Microwave, MMW, Microelectronics and Electromagnetic Solutions, API can address a broad set of challenging technical requirements in order to meet the needs of harsh defense environments. Our expert engineers will design and manufacture your custom, build-to-print solutions, or work with you on your circuit design to create advanced RF/microwave subsystems and assemblies from prototype through qualification. Making your design, smaller, lighter, cooler and more reliable is what we do best.
API Technologies' customers benefit from unparalleled engineering and industry expertise. We provide complete standard and custom solutions in a timely manner. Our in-house machining, state-of-the-art engineering, and technology integration provide for rapid turn-around from prototype to production.

Mixers | Frequency Ranges from 0.5 MHz to 26.5 GHz
API Technologies’ mixer product line offers products in unbalanced, single, double and triple balanced configurations. Available in many industry-standard surface mount, drop-in and connectorized housings, these mixers are ideal for rapidly changing situational and demanding environments, or high reliability applications. API’s excellent performance is achieved through component customization and optimization of layout and internal configuration. API’s mixers can be purchased as a standalone component, or can be combined with many of our other RF components for an integrated solution to meet specific performance or packaging needs.

Filters | Cavity, Lumped, Ceramic, and Suspended Substrate
API specializes in high quality, highly reliable and affordable RF, Microwave, and Millimeter Wave Filters for demanding electronic warfare applications such as radar and jamming/anti-jamming systems. Our portfolio of filter products include: Highpass, Lowpass, Bandpass, Bandreject, Duplexer, Diplexer, Multiplexers, and Multifunction Filter-Based Assemblies. Utilizing state-of-the-art synthesis and modeling software such as ADS, Genesys, HFSS, Sonnet, and Solidworks, each filter solution delivers superior performance in the smallest footprint possible. Our Suspended Substrate Stripline devices are designed to be small and light weight and are ideally suited to volume production.

Switched Filter Banks | Standard Designs with Customizable Channels
API Technologies’ offers standard Switched Filter Bank designs with passband frequencies from 20 MHz to 7500 MHz and user-configurable channels, as well as custom filter bank assemblies available with frequencies up to 26GHz and beyond. Our configurable solutions significantly reduce development cycle time, resulting in cost savings and faster time to market. The rugged construction of our units makes them ideal for military and high-end commercial applications needing superior signal integrity, including electronic warfare (EW) and electronic intelligence (ELINT). Topologies include Combline, Interdigital, Lumped, Microstrip, Suspended Substrate Stripline, and Dielectric Resonator.

Complex Sources and Synthesizers | Low Phase Noise and High Precision
API offers a broad selection of sources for the electronic warfare industry. Configurations include standard or custom designs for Phase Locked Oscillators (PLO), Dielectric Resonator Oscillators (DRO), Coaxial Resonator Oscillators (CRO), SAW Oscillators, Voltage Controlled Oscillators (VCO), Digitally Tuned Oscillators (DTO), Frequency Multiplied Oscillators (FMO), Master Reference Oscillators (MRO), Multiplied Phase Locked Oscillators (MPLO), Comb Generators, and Frequency Synthesizers. Whether you need low phase noise or superior frequency stability, API has a standard product or can design a custom part to meet your requirements.

Antennas | Single Band, Dual Band, Multi-Polarization, Arrays, Active Devices
API Technologies designs and manufactures standard, configurable and customizable integrated antenna assemblies including high-gain arrays for EW and military applications. The product line includes ceramic patch, L-Band Arrays, Low Observable, Soldier Wearable, Thuraya, RFID tag, Wi-Fi Pro Dual-Band antennas and various other specialized types and configurations. API’s PA25 and PA45 ceramic patch elements and assemblies have Iridium and GlobalStar certifications. API will also incorporate our other RF components with antenna assemblies to quickly develop customized application solutions.