

# Wireless Communications Solutions



**api**   
technologies corp.

# Your Total Wireless Communications Solutions Provider

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API Technologies is a leading manufacturer of high performance RF, microwave and power distribution solutions for the commercial wireless and telecommunications industries. Through our core expertise in high performance filter and amplifier technologies and power management solutions, API has supplied tens of thousands of filters, wireless components and assemblies, and power supply sources worldwide into wireless networking infrastructures, base station OEMs, neutral host venues, and satellite and broadcast systems.

Through commitment to technical innovation and engineering, full product life-cycle involvement, and multi-site manufacturing and vertical integration capabilities, our standard, configurable and custom-designed high-reliability solutions are designed to address the most complex RF interference mitigation challenges, enable commercial radar and SATCOM connectivity, and meet the needs of network coverage and capacity and remote power supply and monitoring demands.

## Featured Product Capabilities

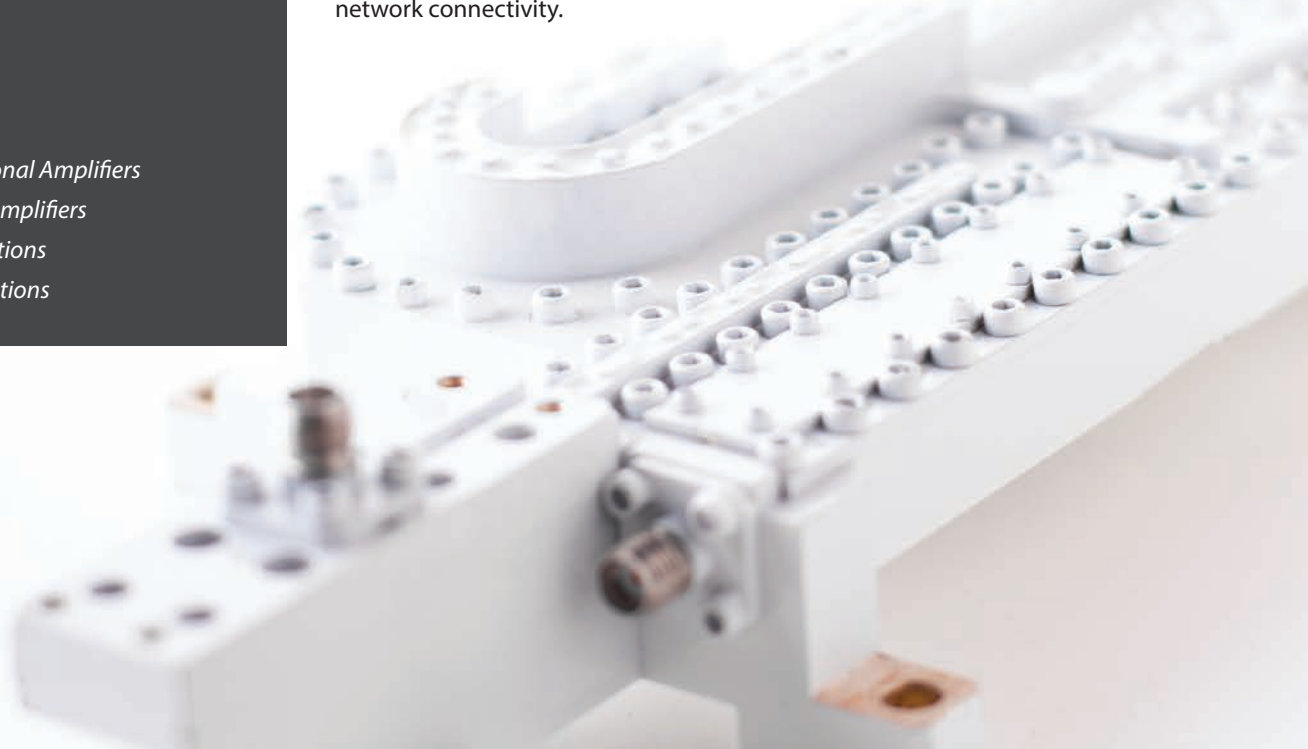
- *Duplexers/Diplexers, Triplexers, Multiplexers*
- *Bandpass, Lowpass, Highpass, Bandreject*
- *Integrated Filter Assemblies*
- *Distributed Antenna System Solutions*
- *Attenuation, Conditioning & Combiner Trays*
- *Wireless Assemblies*
- *Couplers, Power Dividers, Combiners*
- *Receiver Multi-Couplers*
- *Transmit Combiners*
- *Dielectric Resonator Filters*
- *Low Cost Ceramic*
- *Cavity / Compline, TEM*
- *Interdigital*
- *Lumped Element*
- *Suspended Substrate*
- *Waveguide*
- *Surface Acoustic Wave*
- *Pin Diode Switch Filters*
- *Directional & Bi-Directional Amplifiers*
- *Tx and Rx, High Power Amplifiers*
- *Power Distribution Solutions*
- *Custom RF Cabling Solutions*

## The API Technologies Advantage

- Leading-edge co-location filters, duplexers, multiplexers, combiners, couplers, dividers, and wireless assemblies for high performance wireless site optimization and in-building and outdoor solutions.
- Long-standing expertise in co-location filters and integrated BTS filters for leading Wireless OEM Equipment vendors and Network Service Providers.
- Rapid development, prototyping and NPI of standard and custom filters and wireless assemblies by utilizing multiple Design Centers globally and highly efficient and flexible production readiness.

## Low PIM Solutions for Optimum System Performance

API Technologies' filter solutions have been designed to meet the most stringent PIM requirements needed in today's wireless systems, with designs achieving PIM ratings as low as -160dBc, allowing for maximum reliability in wireless network connectivity.



# Solutions for Optimum Network Capacity and Connectivity

*Co-Location Solutions & Wireless Site Development*

## Co-Site Interference Mitigation Filters

*High Q, High Performance Filter Solutions for Co-Location and Cell-Site Applications*

API Technologies has developed and produced high quality, High Q Filters and assisted major wireless carriers and installers with co-location solutions at BTS sites for over three decades. Using state-of-the-art design software, precision CNC machining, and the highest quality materials available, our design team consistently achieves the highest performance features including low PIM (passive intermodulation), high isolation and low insertion loss.



## Distributed Antenna System (DAS) Solutions

*Modular, User-Configurable, Low PIM, Solutions to Improve Wireless Network Capacity and Performance*

API Technologies offers a complete line of standard and configurable low PIM Distributed Antenna Systems (DAS) products to meet the ever-increasing user demands on carriers for coverage and capacity, 100% compliant with neutral host requirements. Our DAS interface solutions deliver un-compromised performance, with a modular design, to deliver improved cellular coverage and eliminate 'dead zones,' without the additional costs of expensive infrastructure.



### DAS Interface Solutions For:

- Stadiums/Sports Venues
- Airport Terminals
- Multi-Tenant High Rise Office Buildings
- Hotels and Casinos
- College Campuses and Universities
- Convention Centers
- Shopping Malls
- Auditoriums and Classrooms
- Manufacturing Facilities and Warehouses
- Hospitals/Health Care Facilities
- Local and Federal Government Buildings

## Wireless Filter Assemblies & Sub-Systems

*Custom-Designed Wireless Assemblies Utilizing State-of-the-Art Filter Designs*

A leader in the design and development of customer-driven, custom filtering solutions, API Technologies produces a wide range of filter-based assemblies and sub-systems, such as receiver multi-couplers and transmit combiners, in multiple platforms, integrating passive or active components including multiplexers, couplers, power dividers, delay lines, amplifiers and more.



These high performance wireless assemblies are ideal for deployment into base stations, communication towers and other wireless cell-site applications.

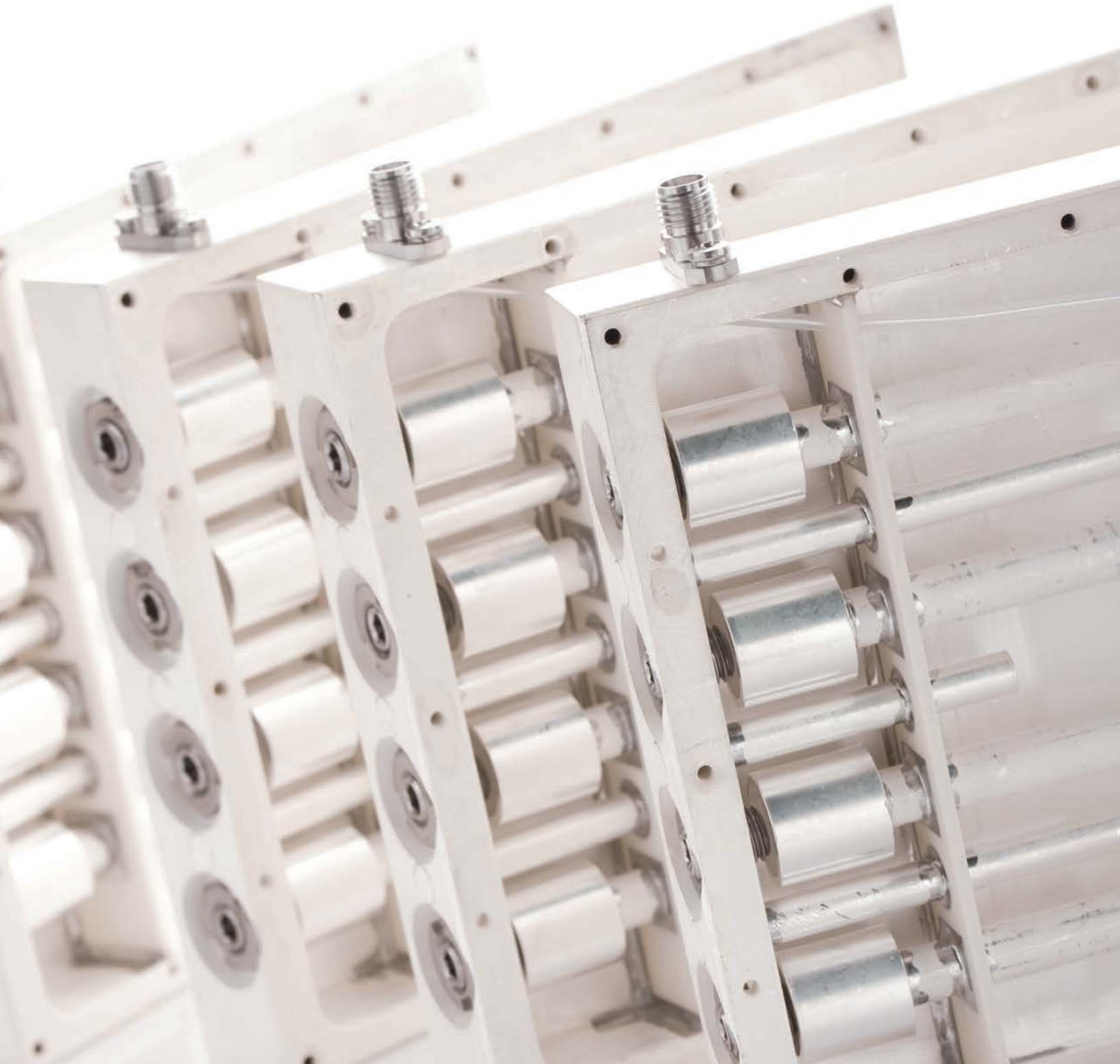




# High Performance, Fully Customizable Multi-Channel Filters

*Multiple Bands and Configurations, Wide Range of Frequencies and Topologies*

API Technologies specializes in high quality RF, microwave filters for commercial wireless applications where superior performance and the smallest footprint possible is required. Our extensive portfolio of filter products includes bandpass, bandreject, lowpass and highpass filter designs, operating in bands from 1 MHz to 50 GHz, encompassing a wide range of topologies including cavity, lumped, ceramic, coaxial, SAW and suspended substrate.



## Design Collaboration & Vertical Integration

*Custom design collaboration is a hassle-free experience for customers*

- The experienced design team at API Technologies has a proven track record for developing complex solutions within limited time frames.
- Advanced technology is employed for a comprehensive system review of packaging preparation and manufacturability.
- By working directly with our design team, we can help you reduce the design phase of your next project.
- We offer the most comprehensive RF, microwave, power and custom cabling solutions portfolio to meet the requirements for precision-engineered systems that mitigate interference, optimize network capacity, and provide wireless connectivity in the marketplace.

## Power Distribution Solutions

*AC, DC, and Electronic Switched Power Distribution Units for Wireless Networking Optimization*

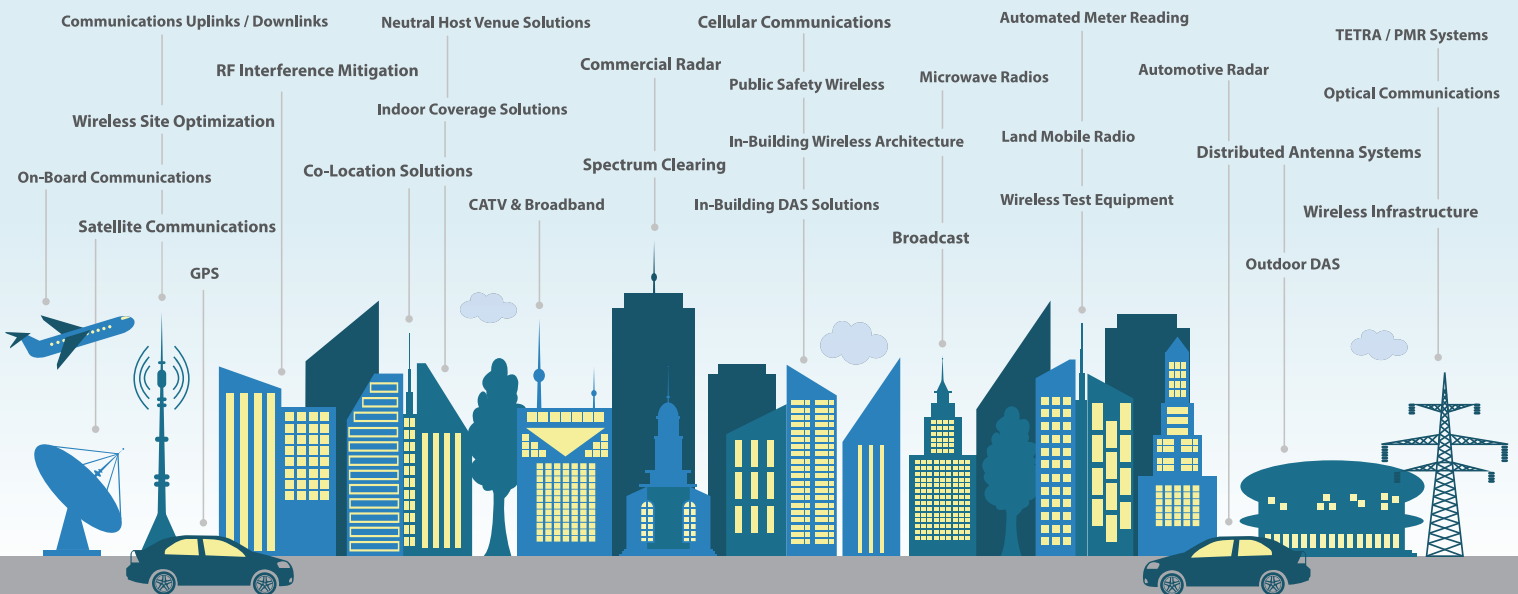
API Technologies offers smart switched power distribution units (PDUs) in both AC and DC options which include our AC SMARTstart® and DC SMARTstart®. These PDUs are designed to remotely control power loads and monitor vital parameters such as line voltage, total load current and line frequency. Our electronic switched PDU timer box simultaneously charges dozens of devices by switching outlets in 15 and/or 30 minute intervals and is an ideal drop-in solution for OEM manufacturers of wireless base station or cell-site infrastructure.

# Featured Applications

API Technologies provides innovative commercial wireless integrated, component and subsystem solutions serving OEMs, distributors, systems integrators, operators and installers in the broadcast, SATCOM, wireless communications, public safety and government, transportation, land-mobile, private, medical and microwave market sectors.

Our extensive program experience includes: Spectrum Clearing, Co-location Site Interference Mitigation, Communication Uplink / Down Link Systems, Point to Point (line of sight and NLOS) Communications, Broadband Networks, Wireless Test Equipment, and Medical Instrumentation.

## API Technologies' RF, Microwave Solutions for Commercial Wireless Applications



## API Technologies Cell-Site Advantage

### The Q Factor

API's High-Q provide lower loss and better performance



### Higher Cell Coverage

Better coverage means fewer cell sites are needed to retain high quality service even as users and data demands increase



### Better Performance

Better filter performance = higher cell coverage





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*API Technologies Corp. is a trusted provider of RF/microwave, microelectronics, and security solutions for critical and high-reliability applications. The company designs, develops, and manufactures electronic components, modules, systems and products for technically demanding defense, commercial/industrial and aerospace applications. API Technologies' customers include many leading Fortune 500 companies, as well as a majority of NATO governments. While API was founded in 1981, our heritage brands have served the demanding, hi-rel marketplace for more than 60 years. API Technologies trades on the NASDAQ under the symbol ATNY.*