

AEROFLEX



35 South Service Road, Plainview, NY 11803-4193
www.aeroflex.com



Our passion for performance is defined by three attributes represented by the icons pictured above: solution-minded, performance-driven and customer-focused.

solution-minded

performance-driven

customer-focused



Passion? Can a company have passion?



Honestly, we can't think of a better word to describe Aeroflex. We are passionate about our performance, driven to do better. Better than our competition, of course. But they're not our standard for performance.



What really drives us is the desire to do better than we've done before. You can see it in our Solution-Minded approach to every customer need. In our Performance-Driven insistence that every solution is a cut above. And in our Customer-Focused definition of performance.

You can see it in our people, in the way they work. How they take ownership, and fight for even the smallest detail in any project. But the real proof of our passion is in our products. There's always something about an Aeroflex product. Something more. Something smarter. Faster. Or more cost-effective. And it's always something designed to meet your needs—no matter how challenging they are—head on.

A passion for performance. It's more than a principle, or even a philosophy. It's a promise. To do whatever it takes to help our customers achieve their goals.

A passion for performance.





We start with this conviction: *there's always a better way*. That's our mindset, our expectation, in every category. Whether the subject is product design, or manufacturing, or support, we know there's always room for improvement. For innovation. For a new way of looking at things. There's always a customer with a new problem. And our job is to solve it.

The first step is to listen. Really listen. This is true whether it's a particular customer need, or a completely new need for an entire industry. We want to really understand what the need is, the specific details of the application, before we even start thinking about the solution.

Once we understand the whole picture, we can get to work. It could very well be we have exactly the right product, or system, already. We have been doing this a long time, and have quite an extensive family of product lines. But more and more, we find that what we already have is an excellent starting point, a foundation on which to build the ideal new solution.

Balancing anticipation and adaptation.

Building on proven technologies has long been one of the secrets of our success. Mature technologies bring with them the value benefits of reliability and efficient manufacturability. So while we're always aggressively pursuing innovation, we continue to mine existing technologies, or existing products, for unused or under-utilized potential. Sometimes the perfect solution is simply a matter of enhancing certain features. Other times, it means adapting standard products to specific needs. Or reconfiguring a tried-and-true product to better fit the way people work, like turning a rackmount product into a handheld device.

Whatever the particular adaptation, this approach always affords our customers the benefits of our experience, and our R&D investments, without the price tag that's inevitable when you're always reinventing the wheel.

Yes, it's a bit of a balancing act, marrying emerging and mature technologies. But over the years we've become quite good at it.

The next phase in phase noise testing.

Looking back, it seems fairly obvious: Waiting until the final stage of system assembly to test phase noise is hardly the most efficient approach. Because if the system fails to meet performance requirements, you have to thread your way back through every component to isolate the problem.

So we worked with some of the major players in the GSM and radar markets to come up with a solution that

would enable them to test the ultimate performance of their designs at the component level. Identifying phase noise issues before final assembly cuts the time-to-market cycle, giving our customers a distinct competitive advantage.

Call us with the tough ones.

So is it true? Are we really the problem-solver we say we are, the partner you've been looking for? There's only one way for you to know: give us *your* problem to solve. We've solved so many already, and our product lines show it—with product after product, engineered to solve the toughest problems. If there isn't one among them that meets your specific needs, we'll work with you to craft your ideal solution.

But don't think our solution-mindedness is limited to hardware and software, to features and specs. If you're faced with a delivery challenge, or need the highest level of support, let us put our performance to work for you.

We love a challenge. We'll take on the projects others shy away from. Why not test us with an impossible demand?



There's always a better way.



solution-minded



Our quest for your perfect solution goes far beyond meeting your spec. That's just the minimum requirement. Given the critical nature of our customers' applications, we have to require the maximum, of our people and our products. And we do. Our first instinct is always to raise the bar: how can we do more? How can we increase efficiency, reliability, capacity, durability? Where can we boost performance, and give our customers not just more for their money, but more than they asked for?

But we don't just *start* with higher expectations. At every step along the way, as we absorb more and more of the details of our customer's application, and understand more and more of what the customer really needs, we continue to find ways to hone our solution's performance. What motivates us? It's simple. We want every Aeroflex solution to do *more*, and do it better than any other product on the market.

High-performance products made by high-performance people.

Of course, no matter how passionate you are, no matter how high your expectations are, you'll never produce

high-performance products without high-performance *people*. It's the talent and dedication of our employees that make it possible for Aeroflex to achieve and maintain the excellence our customers enjoy. Not just our R&D and design engineers, but our manufacturing and support personnel as well. In every department and across every discipline, we work hard to attract and retain the highest-performance people available.

With more than 350 employees in engineering, 200 of them dedicated to R&D, and almost 300 in customer service, Aeroflex is well-staffed across the spectrum, from product development to customer satisfaction. Our employees average close to 20 years of experience, and a significant percentage have advanced degrees, so Aeroflex customers also benefit from their technical knowledge and practical understanding.

There's no misunderstanding our mixed-signal advantages.

To give our customers access to the cutting edge capabilities of commercial fab facilities, Aeroflex became a fab-independent semiconductor supplier. Now, when a customer comes to us for a mixed-signal ASIC or SoC, or any other microelectronics solution, we have the flexibility to match particular process technologies to their unique requirements. Fab independence also enables us to maintain cost-effective sources of supply.

But having operated a wafer fab for 10 years, we know virtually everything there is to know about wafer fabrication

engineering. We bring all that to bear for our customers' benefit—with the kind of process and device engineering support you don't usually find at fab-independent suppliers. So Aeroflex's customers get the multiple advantages of flexibility and cost-effectiveness, plus in-house expertise and state-of-the-art tools that ensure first-pass success.

For the real world, of tomorrow.

As forward-thinking and innovative as we are, we never lose sight of the nature of our customers' businesses. So we concentrate on practical, *implementable* innovation. Which means staying ahead of the curve, but keeping both feet on the ground. We think it's an attribute that's uniquely Aeroflex, one that enables us to respond with fresh thinking to today's need, while anticipating tomorrow's.

Aeroflex radar systems are a good example. Driven by the defense community's demands for productivity, efficiency and cost-effectiveness, Aeroflex radars have become the performance standard for the precision radar cross section measurement industry. For measurement speed. Data quality. And system reliability. Across the spectrum, whether it's low-cost point inspection, mid-range R&D support or high-end, high-throughput production certification, Aeroflex radars lead the way—with ever-evolving solutions to meet our customers' ever-changing needs.

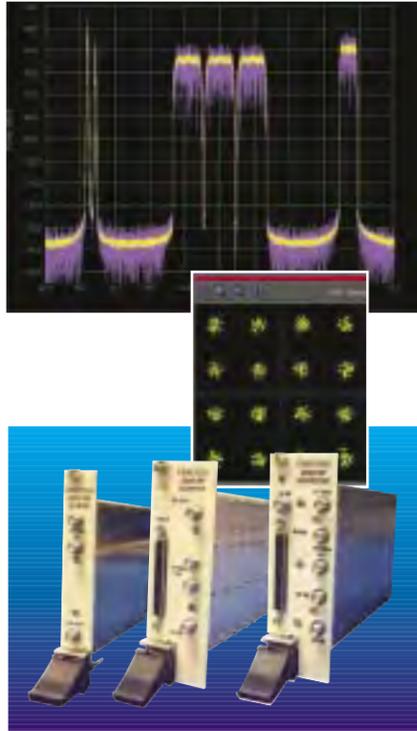


**Raising expectations.
Then exceeding them.**



performance-driven





By now, it should be clear that all our high-performance problem-solving is focused on you, the customer. That we'll work hard to understand your needs. And do more than just meet them.

We hope it's equally clear that we *won't* try to make you settle for a one-size-fits-all solution that doesn't really meet your needs, or meet them cost-effectively. And because our application-oriented approach keeps us from losing sight of your big picture, the systems we develop for you will solve your problems without creating new ones. Your Aeroflex solution will not only meet or exceed the toughest spec, it will seamlessly integrate into your systems.

Don't compromise. Come to us.

All of our development efforts spring from customer needs. So when you

come to us with a unique requirement, we don't have to change the way we work. We simply focus our attention, our resources, on your particular need. We'll work closely with your technical teams in the design, development and qualification phases—essentially becoming part of your team. And you'll get a solution that not only performs as specified, but perfectly fits the way you work.

A recent example? One of our customers needed a logarithmic amplifier for a classified homeland security program, for use in satellites. Needless to say, the performance requirements were stringent. Yet we were able to develop a new product that satisfied all of their application's demands, in only twelve weeks—*half* the time you'd expect for a project this demanding.

Systems and solutions, real and virtual.

Aeroflex products cover the gamut. We start at the component level, and go all the way up to full solutions. So no matter what you need, from a chip to a box to a system, we have the experience and the expertise. It's that depth and breadth of expertise that sets Aeroflex apart, and enables us to turn our passion into products of the highest performance.

It even expands upon our hardware-focused approach, through what we call synthetic instrumentation. Built on a software environment, synthetic instrumentation gives you the ability to set up, configure and maintain your own systems—plus the capability to

apply the product to other applications, and adapt as applications change. This is accomplished through the system architecture and the way the software interfaces with and controls the modules, instruments and products. Enhanced flexibility and robustness make synthetic instrumentation a very smart, very cost-effective alternative.

The measure of our success is yours.

Our business is different from many. Our products aren't ends in themselves, as much as means to our customers' ends. We know how much you're putting on the line when you put your trust in an Aeroflex product. We know how crucial a part our performance plays. So we take our responsibility—our part in your success—very seriously. And we don't consider our job done until you've achieved your goal, whatever that may be.



We won't insist you fit into a box—even one of ours.



customer-focused

Aeroflex Test Solutions



Communications Test

PMR, Cellular, Military, Telecom and Avionics

As a market leader in the communications test environment, Aeroflex continues to focus its efforts on the marketplace evolution and the development of new and feature-rich products specific to private mobile radio (PMR), wireless cellular and telecom, military radio and avionics radio test.

The Aeroflex family of communications test systems—expanded through both organic growth and strategic acquisitions—is the result of more than 50 years' experience in providing superior test solutions. By combining the rugged dependability of IFR's proven test products with the international reputation of Marconi Instruments, Aeroflex today delivers a broad range of test sets that have achieved worldwide acceptance.

Aeroflex's radio test systems are preeminent in the service market and public safety applications, including the safety-critical police and emergency communications systems. From direct power measurement of 100 W transmitters to receiver sensitivities in the sub-1uV region, Aeroflex's communication test sets are in demand because of their unique combination of accuracy and ease of use.

Signal Sources

Synthesizers, Signal Generators, Signal Analyzers and Phase Noise Test

The development of products that enable the industry to generate simple and complex signals and analyze those signals remains a core competency and area of expertise for Aeroflex.

Aeroflex's signal sources, analyzers and phase noise systems, products, modules and solutions are applicable to a diverse marketplace that includes wireless cellular, avionics, military and radar. Fast switching, low phase noise, wide bandwidth, adjacent channel power and memory deep enough to support complex waveforms continue to be key attributes and differentiators within the signal sources product line offered by Aeroflex.

Aeroflex is one of the leading signal source suppliers worldwide, with patents and intellectual property improving signal generation throughout the industry. For example, Marconi Instruments—now a part of Aeroflex—created the Fractional-N synthesis technology necessary to produce high-resolution, low phase noise carrier signals in signal sources. Today, Aeroflex develops and executes its entire line of signal sources with excellent phase-noise characteristics, as well as exceptionally high output power.

General Purpose Test

Spectrum Analyzers and Microwave Analyzers

Our comprehensive spectrum analyzer and microwave analyzer products help round out the Aeroflex test and measurement product portfolio. The requirements to cover wide frequency range and bandwidth are key drivers and attributes of the Aeroflex general purpose test product line.

Aeroflex's spectrum analyzers have an easy-to-use interface that provides semi-automated measurements including markers with a marker table, harmonic distortion, occupied bandwidth, XdB down, channel power and adjacent channel power. Their comprehensive marker systems also allow up to nine markers to be displayed at one time.

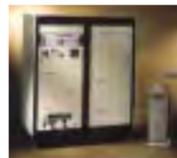
The principal markets served by Aeroflex general purpose test sets are mobile radio handset service, manufacturing, research and development, together with base station infrastructure, installation, commissioning and maintenance.

Systems

ATE, Satellite, PXI and Radar

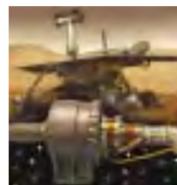
The Aeroflex systems business is currently made up of systems, software, solutions and services. Our integrated test systems may be comprised of multiple vendors' test hardware products or a combination of Aeroflex modular and traditional fixed instruments. Our engineers apply years of experience to develop custom applications based on the given customer's business needs, leveraging our off-the-shelf offerings with custom applications software.

Flexible, modular and upgradeable test systems provide significant reductions in total cost of ownership for both government and commercial customers. Solutions range from integrated subsystems through full turnkey systems with on-site support. Aeroflex expertise supports high-speed RF and microwave systems for the R&D, validation, manufacturing, installation, maintenance and component markets.



Specialized Solutions

Motion Control, Isolator Products and Filters



Aeroflex Motion Control Systems offers a wide range of capabilities in the design and manufacture of components and systems for high reliability applications in the space and military markets, including rotary, linear and compound actuators for high-performance applications. Environments range from deep sea to deep space. Wherever precision, power and packaging goals need to be manufactured in a design-to-cost environment, Aeroflex is globally competitive.



The Isolator Products Group of Aeroflex provides products and engineering services to commercial, industrial and defense original equipment manufacturers (OEM), as well as the heating, ventilation and air conditioning (HVAC) industry. This group draws upon one of the most comprehensive product lines in the shock and vibration industry, with a full range of spring, elastomer and cable-type mounts.



Aeroflex Precision Filters are widely acknowledged to be the premier choice for critical applications. Aeroflex produces constant delay filters with highly selective attenuation; preselectors with ultra-low intermodulation distortion; MUX and channel filters for space applications; and n-channel switch filter banks and commercial wireless filters for PCS, LMDS, CDMA and TDMA applications.



Put Aeroflex performance to work for you.

solution areas



Aeroflex Microelectronic Solutions



Assembly Services

Aeroflex facilities offer a variety of assembly and test services for the aerospace and defense markets and high-reliability telecommunication markets. We specialize in customer-owned tooling services, customer-furnished tooling, assembly and test services, standard and custom chip and wire products for memory, microprocessor, databus, power, fiber and RF applications.



Avionic Microelectronics

Aeroflex offers a variety of high-reliability microelectronics such as databus, transceivers, microcontrollers and single-board computers for use in airborne, shipboard, ground-based and commercial avionics. Our products are designed to operate in severe environments where performance, size, weight and reliability are the most critical parameters.



Broadband Microwave

Aeroflex designs, develops, manufactures and markets fiber optic components and equipment for telecommunications, CATV, sensor and antenna remoting applications. We specialize in the design of leading edge RF and microwave components, such as those used by manufacturers of advanced fiber optic systems. Our amplifier products include fiber optic modulator drivers and low-noise, medium-power, logarithmic amplifiers. Aeroflex also offers custom RF modules such as down-converters, up-converters, mixers-amplifiers and bias tee's and DC blocks. These RF modules may also include MCMs with control functions such as voltage regulators, DC-DC converters, MIL-STD-1553, RS485, microcontrollers and analog control loops for amplitude, phase or other critical functions.



Circuit Card Assembly

Aeroflex facilities offer circuit card assembly capabilities consisting of full assembly, test and coat in a high-mix/low-to-medium volume operation. Customers can provide us with the logic and circuit design and a bill of materials, and we will procure, qualify and assemble. We are ISO-9001 and NASA 8739 certified.



Multichip Modules

Aeroflex provides a total custom multichip module (MCM) packaging capability with the use of co-fired ceramic packages, thick-film multilayer or thin film using advanced high density substrate technologies. Our digital MCMs package the maximum number of semiconductor devices on the smallest possible surface area. This improves thermal management and high frequency characteristics, and reduces cost.



Chip-on-Board

Aeroflex also offers a full, turnkey, chip-on-board (CoB) surface mount manufacturing and testing capability which reduces size, cost and weight.



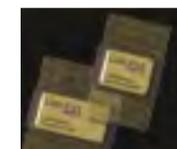
Mixed-Signal ICs

Aeroflex's family of mixed-signal products consists of custom ASICs, microcontrollers and peripherals. We specialize in system-on-chip (SoC) applications with analog capabilities. For our ASIC customers, we provide design, fabrication, assembly and test from chip development through volume production. Capabilities include custom configurable flash, USB 1.1 and 2.0, 8051, ARM and other popular processor cores; custom precision analog capabilities for data conversion, amplifiers, power management, PLLs, etc.; technologies from 0.5um down to 0.18um CMOS. Design support ranges from full turnkey to custom-furnished net list/database. The microcontrollers feature an ARM core, with embedded flash memory and data acquisition functions.



Power Microelectronics

Aeroflex offers a unique power hybrid microcircuit capability in three-phase motor controllers, high power switching devices and regulators and DC-DC converters utilizing state-of-the-art components and packaging technologies. Applications include solar array string drivers, serial commandable relays, multi-channel low-loss solid state drivers and microprocessor-controlled drivers.



RadHard Microelectronics

Aeroflex provides RadHard system solutions offering 20 years' experience in supplying products and technologies to the aerospace and defense markets. We supply various levels of radiation-hardened bus transceivers, memories, logic, programmable logic, microcontrollers, LVDS, muxes, voltage regulators, motor drivers and 0.6um and 0.25um RadHard ASICs. We have a proven, fab-independent business model and have access to 0.6um to 0.18um processes.



Thin-Film Interconnect

Aeroflex designs and manufactures passive interconnect solutions, from pattern design and layout to machining, coating and patterning of advanced multi-level circuitry. We have a diverse design and manufacturing capability to provide thin-film coatings, RF/microwave integrated circuits and multi-chip module substrates. Our PIMIC™ process is compatible with your circuit and packaging needs.