

## Fast Switching Synthesizers

How did Aeroflex fast-switching synthesizers get to be #1? It's no mystery. First, we built the best products. The only ones, in fact, that have it ALL- high speed, low noise and wide bandwidth in one package. Even our most basic models are 10 times cleaner than those of our closest competitor.

Leaving no stone unturned, we put together a full range of models with all the options you'd ever need. And of course, we made them modular, so we could customize them to meet any performance requirements, from commercial to full military airborne and shipborne applications, for radar to EW to simulator to commercial test applications.

Today, there are more than 5,000 Aeroflex synthesizers installed around the world. We built our reputation on the biggest installed base in the world.

### 2200 Fast Switching Synthesizers



The 2200 Series is built on a versatile modular platform that is the fastest and cleanest available today. It offers one microsecond switching speed and sub-microsecond level correction, coupled with superb spectral purity.

Designed to save substantial time and money over building a custom system in-house, the 2200 Series is used for airborne, shipborne, electronic warfare simulation, radar upgrades and other stringent applications where the highest performance is required for rugged environments.

The 2200 Series is ideal for radar simulation, radar cross-section measurements, antenna pattern measurements and other high-speed microwave and RF applications.

- Spans frequency range from 10 MHz to 18.4 GHz
- Broadband sources operating over the range of 10 MHz to 18.4 GHz with a standard resolution of 1.0 Hz
- Can step from any frequency (F1) to any other frequency (F2), up or down in  $\leq 1$   $\mu$ Sec
- Output amplitude is +10 dBm  $\pm 2$  dB into an impedance of 50 Ohms
- Full 3U rack chassis

### 2500 Fast Switching Synthesizers



- Truly modular construction
- Wide frequency range from a single unit
- Amplitude levelling
- Hop states faster than 5 Megahop/sec
- Wide variety of standard and custom interface options

The Aeroflex 2500 Series synthesizers feature superior performance never available before. They stand at the pinnacle of a series of frequency synthesizers that exemplify cutting edge performance. The 2500 Series synthesizers are more reliable, ultra-fast, exceptionally clean and low cost. They are an ideal source for FM Chirpable, agile radar, radar simulators, radar upgrades, fast antenna, RCS measurements, electronic warfare systems and ultra-fast ATE. The high-speed source is based on direct-synthesis techniques with generous use of sharp roll off bandpass filters for low-spurious performance.

### FS1000 Fast Switching Synthesizers

The Aeroflex FS1000 is an ATE enabler with a worldwide installed base and an established MTBF exceeding 8,500 hours.

With the FS1000 you get the advantages of high speed, low phase noise and high density architecture. The FS1000 product line supports high speed testing of not only wireless communications systems and components, but also mobile network devices and Bluetooth enabled products.

#### FEATURES

- $\leq 100$  microsecond switching
- Low phase noise -130 dBc/Hz
- 2 Hz resolution
- Low spurious
- Dual configuration available

#### Aeroflex Fast Switching Synthesizer Products

- FS1000/1200/2000/5000 Frequency Synthesizers
- MS5000 Airborne Frequency Synthesizer
- 2106 Frequency Synthesizer
- 2126 Frequency Synthesizer
- 2200 Frequency Synthesizer

# Integrated Microwave Assemblies (IMAs) and Multi-Function Modules

Acknowledged by many as the leader in High Frequency Fast Switching Frequency Synthesizers, Aeroflex has expanded its focus to include the areas of multi-function modules and integrated subsystems.

Our years of proven engineering and manufacturing experience with the many diverse RF and microwave design disciplines required in our existing products allow us to satisfy requirements for our military, space and commercial customers without compromise.

## Experience

- A proven supplier of RF and microwave hardware for over a decade

## Commitment

- Substantial personnel, technology and capital resources
- Substantial investments in facilities, research and product development

## Results

- Hundreds of systems and multi-function modules supplied on major programs
- Aggressive cost and schedule control experience on volume requirement

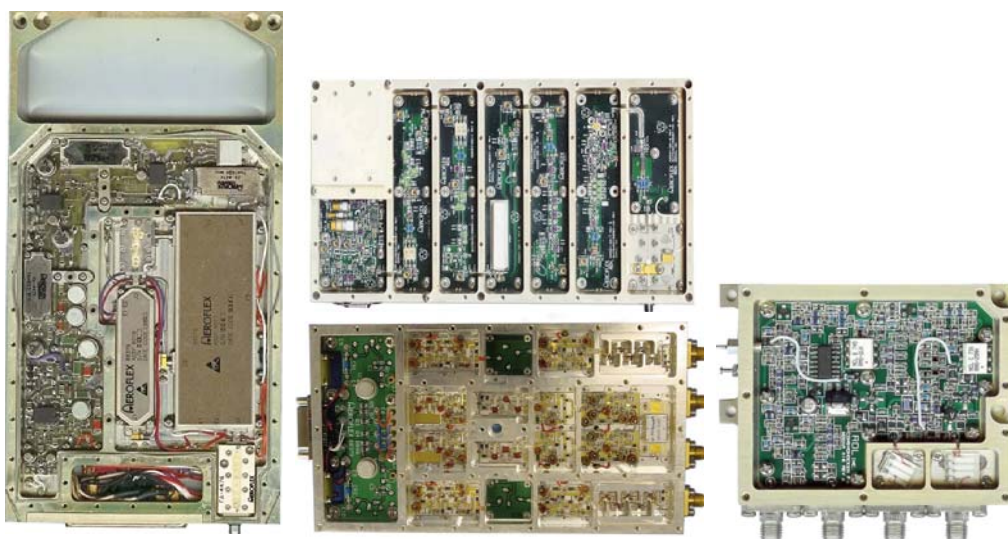
Aeroflex has been a major supplier for standard and custom design products for the world's most demanding defense and commercial applications and environments.

Customers choose Aeroflex's IMAs based upon our:

- Low phase noise, fast-switching heritage
- Broadband, low spurious and harmonics capabilities
- Wide range of design and manufacturing technologies
- Cost-effective compliance for various harsh environments
- Strong combination of system-level and component-level design expertise, which enable superior IMAs design that meets the most demanding customer specifications
- Decades of experience as a world class supplier of high reliability microwave and RF IMAs

Categories of RF Modules and typical IMAs we have recently manufactured include:

- Frequency converters
- Frequency generators
- Multipliers
- Up/Down converters
- Receivers
- Switch filter banks
- High performance oscillators
- Digitally controlled oscillators (DCXOs)
- Custom frequency synthesizer



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