Our Advanced Architecture Phase, Amplitude and Time Simulator (A²PATS) is designed to verify that U.S. and allied aircraft electronic warfare (EW) systems can precisely locate, identify and defend against ground-based, air-to-air and surface-to-air missile (SAM) threats. Our unique, plug-and-play, continuously aligned system uses identical phase coherent, direct digital Synthetic Stimulus Instruments (SSIs) as the radio frequency (RF) source for all signals. The configurable A²PATS Single-Cabinet System and Intuitive 3D graphical user interface with enhanced visualization provides all the capability sized for your needs and affordably priced to complement any budget.
SPECIFICATIONS

- **Operating Frequency Range**
  - Standard 20 MHz - 22 GHz continuous, options through 40 GHz

- **RF source**
  - Textron Systems SSIs
  - Up to 8 SSIs per port

- **Testing**
  - Direct inject or radiated testing

- **Testing**
  - Wideband 1.1 GHz chirp option

- **Pulse repetition interval**
  - 512 ns to 1.0 s/20 ps+-1.0 ns

- **Spurs & harmonics**
  - -60 dBC (typ)/-55 dBC (max)

- **Noise floor**
  - -90 dBm/MHz (No signal present)

- **Pulse width range**
  - 24 ns to 1.0 s/20 ps+-1.0 ns

- **Pulse density**
  - Up to 16 MPPS

KEY FEATURES & BENEFITS

- Varying numbers of identical SSIs in each port enable stringent testing scenarios
- Simultaneous simulation of phase, amplitude and time angle of arrival
- Combining synthesizers enables pulse densities exceeding eight million pulses per second for complex signals and scenarios
- Easy setup, installation and relocation
- Designed for easy system expansion through addition of identical catalog commercial off-the-shelf SSI modules
- Reconfigurable architecture to meet test requirements
- Continuous, real-time background alignment for lower support cost and higher operational availability
- Allows for long-periods of simulation time with no external calibration procedures
- Continuous alignment keeps the system within tolerance.

INDUSTRY’S FIRST DIRECT PORT EW SIMULATOR, Sized for Your Needs and Budget

The A²PATS Single-Cabinet System can house two enclosures with 8 SSIs each, up to 16 total SSIs. Each enclosure can be configured as:

- One port with eight RF sources
- Two ports with four RF sources each
- Four ports with two RF sources each
- Eight ports with one RF source each

Along with the same trusted performance of the larger configuration, the A²PATS Single-Cabinet System is sized appropriately for space-constrained areas and priced to fit more limited budgets.