



## ATS-5000 Functional Test System

Experience Truly Configurable Functional Test

### Ultimate Flexibility

Maximize the uptime of your most critical electronics with the ATS-5000 Functional Test System from Astronics Test Systems. Deployed globally for more than 20 years, the newest version of this tester provides a configurable, affordable solution that delivers just enough test.

Support legacy systems as well as today's newer electronics with this flexible tester, where you have the freedom to specify new instruments and software or integrate your own solutions. This universal tester is ideal for use in high reliability industries, including:

- Military
- Commercial aerospace
- Space
- Mass transit
- Missile and weapons
- Radio test
- and more

Whether you're looking to replace a legacy system or create a new program, Astronics Test Systems delivers your

solution with an open architecture based on industry standards for fast, easy configuring and efficient operation.

The ATS-5000 is your state-of-the-art choice to ensure optimal performance of critical systems.

### Test it All

Test your systems from board to box level at your factory, depot, or MRO.

#### Test Capability:

- Performance digital test
- Mixed signal test
- Parallel test
- Real-time Parallel and Serial Bus Test

#### Services:

- Engineer-to-engineer collaboration and customization
- Interface Test Adapter (ITA) development
- Program management
- Installation and ongoing support

This system is a modern replacement for many legacy or obsolete digital subsystems.

### KEY BENEFITS

- **Save time and cost** - complete turnkey solution
- **Upgradable, modular, and configurable** - select COTS instruments to configure, update, or expand functionality to meet your exact requirements
- **Easy to migrate** - leverage existing TPS from legacy systems
- **Efficient** - consolidated footprint to maximize space in your depot or factory
- **Flexible** - based on industry-standard instrumentation such as PXI, and others
- **Supportable** - dedicated engineering, factory, and field support staff
- **Simulator portability** - Post processors for a variety of circuit simulators

“[The Astronics Tester] has turned out to be a perfect test system for us. During development, the Astronics Test Systems team consistently went the extra mile to add useful features and exceed our requirements. Support during the 15 months since the system was delivered has been outstanding.”

-- Northrop Grumman Innovation Systems

## A Complete Menu of Test

**Functionality.** Configure your system for your needs with any variety of core COTS instruments and components, including:

- VXI/PXI instrumentation
- Core digital test
- Analog test
- Switching
- Serial and parallel bus emulation
- Boundary SCAN / JTAG
- FPGA enabling expandability
- Test management software
- Multiple receiver/interface options
- Racks, skins, chassis, electrical infrastructure

Select components from the library of products offered by Astronics Test Systems, or, if you prefer, select third party instruments for integration - the choice is yours.



Contains our Universal Smart Switch technology.

**Future Supportable.** ATS-5000 is based on an open architecture and industry standards, including PXI, LXI, GPIB, IVI, IEEE-488, USB, Windows, ATML, EMI, and others. Configure your system as you need it now and add as you go to expand in size, power, and functionality.

**Secure Software.** Astronics' proven TestCue® software comes standard.

With TestCue© you receive intuitive, easy-to-use system software that minimizes your time and cost to deliver, run, and maintain test program sets. With plugins to COTS software

environments such as NI LabView, test programs sets are easily created.

**Manufacturing At Scale.** With more than 150,000 square feet of certified manufacturing capability, our manufacturing processes follow industry-standard quality guidelines set forth in ISO 9001 and AS9100, as well as CMMI. We can manufacture one unit or thousands, depending on your need.

## All from the Logistics Experts.

Astronics Test Systems excels at delivering complete logistics support, with installation, training, and support engineers deployed to your location.

Astronics' long history of field support and obsolescence management ensure long term success and maxi-



mum utilization of your functional test investment.

## Get Started Today

For additional details, please contact Astronics Test Systems.

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## ATS-5000 OPTIONS

### CAPABILITIES

- Back trace to the faulty component.
- Test JTAG Chain, JTAG manager devices, individual JTAG devices or group of Boundary scan devices & Non Boundary scan devices including JTAG diagnostics.
- Test electrical, Ethernet, LAN port/connectors at DUT edge (to verify PCB edge connector).
- Test various DSPs, BGAs, FPGAs, PLDs, Ethernet ICs, ADCs, DACs and Communication ICs.
- Test all types memory devices including but not limited to: RAM, SDRAM, PROM, PAL, EEPROM, Flash memory, CPLDs.
- Test miscellaneous electronic components including Crystal oscillator, Relays, counters.
- Perform on board flash verification and programming.
- Diagnostic self-test capability for the tester will be provided including diagnostic to module level.

### PXIe 6943 DIGITAL TEST

- Configurable to meet your voltage range
- Scalable from 24 pins to more than 5000 pins. Mixed signal flexibility at every pin.
- True 50 MHz performance
- Real-time decision making and branching

### SWITCHING

- GT-4600 Universal Switch standard
  - More flexible than a crosspoint matrix
- Options include:
  - Racal switch controller
  - Racal 1260-43, 3x8x24x10 Switch Matrices

### ANALOG

- Astronics 6.5-digit Digital Multimeter
- Astronics Frequency Timer/Counter
- COTS Oscilloscope
- Keithley Dual-Channel Source Measure Unit
- Ability to perform parallel testing of Analog and Digital circuits at all I/O pins

### PXI, VXI, LXI Chassis

- One high-power, 13-slot, 3.8 kW, VXI 4.0-compliant chassis
- Two low-power, VXI 3.0-compliant chassis
- User-selectable PXI & LXI chassis and options

### BUS EMULATION

- PXIe-7857 Kintex FPGA for expandability
- Serial Bus Capabilities - I2C, SPI, UART, USART, CAN, USB, RS232, RS485, RS422, Ethernet, SATA, ESPI, 1-Wire, MICROWIRE, SCSI, ISA
- Parallel Bus - PCIE, AMBA, PCIX, ISA, IEEE-488

### POWER

- Keysight power supply with user-selectable modules
- 1200 W, low-profile modular power system mainframe
- Typical Power Consumption < 20KVA

### ERGONOMICS

- Compact scalable design
- Typical noise level <= 70 dBA at 1 m from work surface
- Ambient temperature range 50 °F to 95 °F
- Relative Humidity 20% to 80%, 25 °C

### DIAGNOSTICS

- Guided Probe Diagnostics providing automatic isolation of failing devices