



ATS-500 Functional Test System

Consolidated, functional test, part of the ATS-5000 Series

Ultimate Flexibility

Maximize the uptime of your most critical electronics with the ATS-500 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. The ATS-500 is configured to test most electronics in a rail car such as:

- Propulsion controllers
- Communication systems
- Door electronics
- ATC / ATO
- Event Recorders
- Train Operator display
- Signage

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-500 is your state-of-the-art choice to ensure optimal performance of critical systems.

Test it All

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

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 systems such as L-Series and Spectrum-9100 Functional Test Platform Test Solutions.

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
- **Efficient** - consolidated footprint to maximize space in your depot or factory
- **Flexible** - based on industry-standard instrumentation such as LXI, PXIe, and others
- **Supportable** - dedicated engineering, factory, and field support staff

“ [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:

- PXI instrumentation
- Core digital test
- Analog test
- Universal Star Switching
- Serial and parallel bus emulation
- Boundary SCAN / JTAG
- Test management software
- 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.

Expandable. ATS-500 is based on an open architecture and industry standards, including PXI, LXI, VXI, GPIB, IVI, IEEE-488, USB, Windows, ATML, and others.

Configure your system as you need it now and add as you go to expand in size, power, and functionality.

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 maximum utilization of your functional test investment.

Get Started Today

For additional details, please contact Astronics Test Systems.

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ATS-500 FEATURES

CAPABILITIES

- Full functional test of a UUT.
- 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 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.
- Guided Probe Diagnostics providing automatic isolation of failing devices

PXI-6943 DIGITAL TEST

- Configurable to meet your voltage range
- Scalable from 32 pins to more than 256 pins. Mixed signal flexibility at every pin.
- True 50 MHz performance
- Real-time decision making and branching

SWITCHING GT-4600

- Star Switch Technology
- True impedance matching
- More flexible than a cross point matrix

ANALOG

- Frequency Timer/Counter
- COTS Oscilloscope
- Audio Analyzer
- Ability to perform parallel testing of Analog and Digital circuits at all I/O pins

PXIe

- 18 slot PXIe Chassis for COTS instrument

BUS EMULATION

- Serial Bus Capabilities - I2C, SPI, UART, USART, CAN, USB, RS232, RS485, RS422, Ethernet, ESPI, 1-Wire, MICROWIRE
- Parallel Bus - IEEE-488

POWER

- 5 1500W power supplies
- 5 300W E-Loads

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