



Freedom™ 2 Functional Tester

Experience the Freedom of Truly Configurable Functional Test

Ultimate Flexibility

Maximize the uptime of your most critical electronics with the Freedom™ 2 functional tester 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 Freedom™ 2 is your state-of-the-art choice to ensure optimal operation 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 bus testing

Services:

- Engineer-to-engineer collaboration and customization
- Program management
- Installation and ongoing support

This system is a modern replacement for Teradyne Spectrum-9100, Sphera ATEC® Series 6, the Diagnosys S500, and other legacy systems.

KEY BENEFITS

- **Save time and cost** - complete turnkey solution
- **Modular and configurable** - our instrumentation or yours
- **Upgradeable** - buy what you need now and update/expand functionality later
- **Easy to migrate** - can include existing TPS from Teradyne and other historical systems
- **Efficient** - space-saving footprint
- **Industry standards-based** - VXI, PXI, and others
- **Supportable** - dedicated engineering, factory and field support staff

“ The Astronics FTS-940 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. ”

-- Orbital ATK



A Complete Menu of Test Functionality. Configure your system for your needs with any variety of core instruments and components, including:

- VXI/PXI instrumentation
- Core digital test
- Analog test
- Switching
- Serial communications
- Any variety of test management software
- Multiple 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.

Astronics can also offer build-to-print to meet your specifications using the Freedom™ 2 as a core platform.

Future Supportable. Freedom™ 2 is based on an open architecture and industry standards, including PXI, LXI, VXI, 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.

Astronics' long history of field support and obsolescence management ensure long term success and maximum utilization of your functional test investment.

Secure Software. Astronics' proven TestCue© software comes standard, however you can choose any other software from Astronics or other vendors for inclusion. With TestCue© you receive intuitive, easy-to-use system software that minimizes your time and cost to deliver, run, and maintain test program sets. Migrate your existing test set or build new ones



Astronics Test Systems can manufacture any number of systems: from one to thousands.

with the TestCue© visual programming environment. The integrated software makes it easy to develop and deploy your tests within days.

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. Time-proven quality and process procedures ensure efficient operational readiness that minimizes future downtime and repair. All support packages are tailored for your program requirements.

Get Started Today.

For additional details, please contact Astronics Test Systems.

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FREEDOM™ 2 SPECIFICATIONS

T940 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

- More flexible than a crosspoint matrix
- Racal switch controller
- Racal 1260-38, 1x8 Multiplexer
- Racal 1260-43, 3x8x24x10 Switch Matrices
- Switching options include LXI and higher bandwidth versions

ANALOG

- Astronics 6.5-digit Digital Multimeter
- Astronics Timer/Counter
- Tektronix DPO-Series Oscilloscope
- Keithley Dual-Channel Source Measure Unit

SERIAL BUS

- Astronics Dual Serial Bus Emulator
- Dual channel, dual redundant 1553A/B

UTILITY

- Astronics Digital I/O Module

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

POWER

- Keysight power supply with user-selectable modules
- 1200 W, low-profile modular power system mainframe