Spectrum™ CTS

Functional Test Platform for Commercial Avionics LRUs and SRUs

Teradyne's Spectrum CTS is the industry's most advanced ATE solution for commercial aircraft avionics. This high-performance test system is specifically designed to perform complete diagnostics on the avionics systems of Boeing 737 through 777 and can be modified for other commercial aircraft. Fully equipped to ensure flight readiness, the Spectrum CTS replaces the ATS-182a and ATS-195 equipment and is built to deliver and maintain test reliability and repeatability over the operational life of airframe LRUs and SRUs.

Features

- A modern functional test platform expressly designed for commercial avionics LRUs and SRUs

- 240 certified test programs referenced in OEM component maintenance manual (CMM)

- Replaces the ATS-182a for testing Boeing 737, 747, 757, 767 avionics and features new capability for 37NG and 777 aircraft

- Designed to reduce the cost of air-craft maintenance by leveraging existing airline investments and expanding the support available for Boeing airplanes

The CTS's base configuration is a triple-bay frame that houses VXI-, PXI- and IEEE-compatible instrumentation, modular power supplies and cooling units. Its modular, scalable design allows for hardware and software customization with expansion capabilities to accommodate both new and existing aircraft. Its advanced engineering, quality workmanship and suite of software tools make test operation, development and debug simple and problem free. TPS migration and system maintenance is straightforward and cost efficient. No other test platform offers MRO facilities such a comprehensive and user-friendly hardware and software test environment.

THE SPECTRUM CTS — UNMATCHED CAPABILITIES

The Spectrum CTS integrates all the test instrumentation, interface ports, power circuits, debug tools and calibration capabilities needed by operators. Its modular architecture uses industry-standards and common interface tools to improve TPS operation and re-hosting. Sourcing the electronics and test programs from Teradyne ensures that test programs are always up-to-date in an environment of constantly changing avionics. The result is one test system that eliminates the need to purchase multiple test systems.

COMMON INTERFACE ADAPTERS

Operators can deploy ATS-182a test programs on the Spectrum CTS with the use of an adapter set. For the 737NG and 777 TPS aircraft, new adapters are available

to connect to the Spectrum CTS. Otherwise, no new equipment or additional user training is required.

BUILT TO MEET AIRLINE AND MRO REQUIREMENTS

The Spectrum CTS incorporates a variety of features to meet the MRO requirements of airline manufacturers and commercial avionics suppliers alike. CTS houses a wide variety of off-the-shelf instrumentation and accommodates future upgrades:

- VXI; VMEbus Extension for Instrumentation

- PXI; PCI Extension for Instrumentation

- IEEE-488; General Purpose Instrument Bus

- Windows PC Controller

- A simple Graphical User Interface (GUI) provides users with quick access to test programs and controls to expedite troubleshooting and return-to-service (RTS) procedures.

SPECTRUM CTS BENEFITS

- Modular, scalable design allows for hardware and software customization with expansion capabilities to accommodate both new and existing aircraft.

- Replaces the ATS-182a and ATS-195 for testing Boeing 737, 747, 757, 767 avionics and features new capability for 737NG and 777 aircraft

- Designed to reduce the cost of aircraft maintenance by leveraging existing airline investment

- Phase I TUAs from ATS-182a will work on the CTS:
  - Test unit adapters
  - Cables
  - Load boards

- All 240 TPSs are OEM-certified and referenced in applicable CMM
  - Eliminates the need for proving the equivalency of test
  - Saves operators time and money

- Expands support capability
  - Designed for modular expansion
  - Capable of testing any aircraft

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