

1000 Series Configurable ATE Platform

The Circuit Check 1000 Series ATE provides a configurable standard platform that can utilize multiple mass interconnect interfaces while providing ease of maintenance and the ability to accept a wide variety of test fixture solutions. With the 1000 Series ATE, test procedures become automatic, with test steps and go/no-go limits easily programmable.



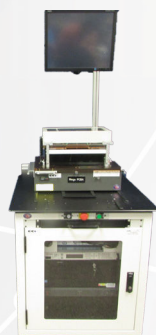
Overview

- **Modular fully automated functional test and product programming**
- **Configurable hardware and software modules**
- **Mass interconnect for quick change out of new fixture/product**
- **Drop-in/replaceable product interfaces**
- **Multi-threaded, parallel test instrument utilization**

Applications

- **PCB and unit level functional test**
- **RF (signaling and non-signaling) test**
- **Communication protocol test**
- **Boundary scan test**
- **High-speed digital test**
- **Component level test**
- **Vision inspection**
- **Product flash programming**
- **Product calibration**

A key to achieving the maximum value from automated test equipment is using the same test equipment and fixture mechanics to test multiple products. Circuit Check's 1000 Series ATE achieves this by using a variety of industry standard Mass Interconnect solutions to the interchangeable fixturing. In addition there is optional interchangeable fixture drop-ins that can reduce costs associated with testing a family of products. These interchangeable components enable the same test system to be quickly reconfigured with new tooling for different products. The 1000 Series fixtures will support probes on the topside, bottom-side, bi-level or dual stage, as well as through-connector test. The 1000 Series is configured to customer specific test needs in order to maximize performance at a lower investment, supporting both traditional, VXI, and PXI instrumentation.



1000 Series Applications



RF & Smart Meter



- Clock and Pulse measurement
- Magnetic switch actuation
- Supercap charge/discharge
- Power supply voltage and current
- Firmware load and verification
- Fast voltage and current measurements
- Digital I/O
- Low line voltage detection
- Single or multiple DC input
- Single or three phase AC input
- RF Communications
 - ZigBee 802.15.4
 - WiMAX
 - WLAN
 - GSM/GPRS
 - 900MHz Band
- Power line communications
- Infrared communications
- Automated vision inspection for LCD and LED displays
- Part Detection
- Fine Pitch Inspection



Infotainment



- GPS
- Weather Radio
- Bluetooth, BLE
- Cellular (3G / 4G LTE)
- AM/FM, HD and SiriusXM Radio
- USB
- WiFi



Medical Device Test Stations

Allows medical device manufacturers to build reliable and upgradeable test systems that meet internal quality standards. Based upon proven customer successes, the system meets medical device manufacturing requirements for capability, quality and throughput. A unique differentiator is in its scalable product interface capabilities. This capability enables testing of multiple products, from very simple to the most complex printed card assemblies that require through-connector measurements. The automated fixture-to-board interfacing capabilities enable operator hands-off test for reduced handling points.

- Measurement, sourcing, and control of humidity, pressure, temperature, vacuum, voltage and other parameters
- Testing through the product card-edge or standard connector
- Design documentation to support internal quality standards
- Bluetooth testing including RSSI, noise floor, output power, modulation index, initial carrier frequency, carrier drift rate, bit error rate, and peak DEVM
- Wireless Medical Telemetry Systems
- Medical Device Radio Communication Services
- 802.11 WiFi, 802.15.1 Bluetooth, 802.15.4 Zigbee
- WiMAX
- Receiver Tests
- RF coexistence tests



Programming

- JTAG, serial, USB, SPI/I2C programming
- Product short circuit protection
- Bar code scanners to record serial numbers
- High speed transfer of large flash images via Ethernet/NFS server interface
- Multiple part programming
- Multithreading allows parallel programming and increased throughput
- Example Programming Stats
 - 4 products per panel
 - 3 flash images per product; 80Mbytes
 - 3 minute cycle time per panel
 - 1 product every 15 seconds

Test System Engineering Expertise

Certified Project Management

- Dedicated project managers
- Corporate-wide ERP
- Time, cost and risk management

Factory Line Automation

- Indexed, rotary tables
- Palletized systems
- Lean cell manufacturing

Industry Standards

- CE, UL, CSA, and ISO compliant
- ITAR, IEC, IEEE
- IPC-A-610 (cable assembly standard)
- IPC-A-620 (PCB assembly standard)

Test Systems

- Model and design – CAD, documentation
- Electrical – wiring, labeling
- Mechanical – pneumatics, shielding

Test Fixturing

- SolidWorks® modeling
- Complete machining centers on-site
- Quick-change fixtures and adapters

Test Software

- LabVIEW®, LabWindows/CVI, TestStand®
- C/C++, .NET, C#
- Python
- CCITest, CIMTest



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Total System Support

Circuit Check supports all aspects of the system development process including electrical and mechanical design, software development, fabrication, system integration, deployment and support. With a modular functional test system from Circuit Check based upon commercial off the shelf instrumentation, our customers accelerate deployment of production test strategies at reduced investment costs.

Flexible Solutions Specific to Verification & Production

Our test systems are based upon modular technologies to accelerate deployment and enable capital equipment reuse. For over 40 years, Circuit Check is the partner of choice delivering thousands of systems and hundreds of thousands of fixtures worldwide.

Modular Chassis Architectures for Lower Lifecycle Costs

The 1000 Series ATE is built upon a modular test rack architecture for ease of maintenance and redeployment as test system needs change. Each 1000 Series includes:

- Twenty-four (24) inch racks to allow for easier component access.
- Removable side panels for ease of maintenance and expansion when adding additional hardware.
- Interposer boards to lower costs and improve reliability.
- Solid one-half inch hard coated aluminum top plate to allow for larger fixtures, rigid mounting of brackets and bar code readers/printers.
- Delrin slide plates to ease change-out of fixtures and aligning to mass interconnect.



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