5000 Series In-line Handler

The Circuit Check 5000 Series In-line Handler is an integrated inline solution that combines automation, fixturing and measurement hardware in addition to other in-line PCBA probe based test stations, while adding a standardized quick change fixture interface. The 5000 series in-line is a unified solution that is software and hardware agnostic, enabling adaptability to



a variety of off-the-shelf lower cost ICT, flash and functional test software and hardware.

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 5000 Series In-line Handler achieves this by using interchangeable fixturing. Interchangeable components enable the same test system to be quickly reconfigured with new tooling for different products. This maximizes equipment re-use while minimizing the cost for each new test. The 5000 series in-line supports probes on the topside, bottom-side and multi-stage, while also being adaptable to through connector test.

Overview

- Configurable for in-line automated in circuit test (ICT), flash programming, Optical inspection, and / or functional test.
- Supports many open hardware standards
- Integrated rack and cabinet
- Fully controllable conveyor beat-rate
- Both rapid and smooth press actuation
- SMEMA compatibility
- Bottom, top or dual stage probing, Probing up to 1500 nodes
- Ergonomic modular straight in/out, slide-in fixtures with key lock-in
- Control board alignment verification
- Operator safe operation with light curtains and fail-safe fixturing
- Modular & Reconfigurable Test
 Stations that include programming,
 Hipot, Vision, board level, and EOL functional test cells.

Applications

- Unified automation board-handling equipment with integrated test and programming
- Automated defect disposition
- Reduced operator intervention test and programming
- Concurrency test in manufacturing
- Development of repeatable throughput algorithms
- Simplified panelized program and test



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

5000 Series In-line Handler

Expandable Automation for a Balanced Production Line Portfolio

The 5000 series in-line allows the manufacturer to more easily manage their test resource portfolio through a unified in-line automation system matched to customer defined test needs. The 5000 series can be configured in a single or multiple cell configuration.

Integrated Control of Fixture Actuation and Conveyor Speed for Optimized Beat-rate

The 5000 series includes a dedicated industry-standard PLC executing a sequenced based conveyor control software tool. In addition, the user can control the fixturing press for both rapid and smooth press actuation, while also having control of bay specific conveyor speed to achieve an optimum production beat-rate.

Flexible Solutions Specific to Verification & Production

Circuit Check 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.

Circuit Check understands the needs for test platforms that must operate in production test environments while preserving measurement correlation to design and validation.



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