

# TestStation™ LH

Quality In-Circuit Test at an Affordable Price

## TESTSTATION

### Cost Effective Features in Small Footprint

The TestStation™ LH in-circuit test system is a lower-cost, small footprint, feature, scalable version of Teradyne's popular award winning TestStation product family.

The TestStation LH system features the voltage accuracy and backdrive current measurement embedded in Teradyne's SafeTest™ protection technology for accurate, reliable, and safe powered-up testing of new low-voltage software.



#### FEATURES

- Small system footprint
- High fault coverage and defect detection
- Fast test throughput
- Exceptional diagnostic accuracy
- Proven test reliability
- Scalable test capabilities and system architecture
- SafeTest Protection Technologies

#### BENEFITS

- Generate test automatically with Teradyne's Design-to-Build CAD preparation software
- Low cost of ownership
- Easy maintenance and support
- Achieve greater productivity
- Safely test low-voltage modern devices

### Compatible & Scalable System Options

The TestStation LH system is a cost-effective in-circuit test solution for high-volume manufacturers of electronic products. The TestStation LH system has been designed to preserve the investments many manufacturers have made in 228X and TestStation in-circuit testers by allowing direct transfer of test programs and small test fixtures (using less than 16 pin board slots) with no extra costs or program development required. Other cost savings can be realized in the case.

Unpowered test capabilities for the TestStation LH system include shorts, vectorless opens, and analog value testing. Powered-up test capabilities include digital device vector testing, reduced access boundary scan testing, high speed FLASH and ISP device programming, frequency and time event measurements, synchronized mixed signal device testing, and functional cluster testing. These tests can be automatically generated using Teradyne's automatic test generation software or manually created using a simple, but powerful test programming language.

The strength of the TestStation LH in-circuit tester lies in its ability to perform accurate, reliable, and safe powered-up testing of technologies other in-circuit testers cannot. Patented SafeTest protection technology and advanced test quality software features combine to make the TestStation LH system the industry's most capable in-circuit test solution.

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## Accuracy

The TestStation UltraPin Driver/Sensor is the most accurate in-circuit test pin ever developed. The custom, closed loop, low impedance driver design can accurately deliver programmed voltages to low voltage components even under the worst backdriving and faulty board conditions. The 45mV sensor accuracy can easily distinguish between logic high and low thresholds, even on today's 0.8V low voltage logic components.

## Reliability

Unique circuitry on the UltraPin card can measure real-time backdrive currents to report components that have not been properly isolated. It can also identify potentially unreliable tests that require excessive backdrive currents. Logic levels, backdrive current, and backdrive duration thresholds are all programmable per pin to ensure that potentially harmful voltage and currents are not applied to the board (even on defective boards).

## Safety

TestStation's multi-level digital isolation software automatically isolates device outputs on any nets that are being driven. This minimizes backdrive conditions and prevents potentially harmful voltage that can occur when backdriven outputs suddenly change Logic State. The specialized digital controller quickly executes test vectors to minimize the duration of backdrive currents and reduce the opportunity for voltage spikes that could occur from on-board activities.

## System Specifications

- Tests and PC based programming are compatible with Windows® 7 operating systems
- Requires TestStation Software version 6.4.0 or greater
- Program and fixture compatibility with most 228x and TestStation models
- High performance analog instrumentation and 8 channel measurement matrix
- Is capable of high performance digital vector testing
- SafeTest Protection Technologies
- Comprehensive and fast automatic test generation software
- Automated test quality measurement and debug software
- Easy to integrate with manufacturing automation equipment
- Contains a compact footprint (43.5 x 35 inches)

### Power Supply Options

Programmable supplies designed for use in series or parallel for higher voltages and currents.

Programmable	Alliance 2G; 0-7V @ 15A
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Programmable	Alliance 2G; 0-20V @ 8A
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Programmable	Alliance 2G; 0-60V @ 2.5A
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Fixed	Alliance 2G; +5V @ 6A
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### Pin Board Options

Choice of multiplexed or non-multiplexed pin board options:

121	Mix/Match with 121 Analog Only
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121 Analog Only	Mix/Match with 121
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124	Mix/Match with 128L
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124L	No Mix/Match
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128L	Mix/Match with 124
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