Multi-Core LED Analyzer

ICT

IN-CIRCUIT TESTER

TR5001 SII LED SERIES

- High Accuracy, Reliability and Testing Speed Modular ICT+FCT
- Built-In Self-Diagnostics and Auto-Calibration Function
- In-System LED Analyzer up to 1080 LED Channels

Ease of Use

Up to 2048 Testing Points

Quick Disconnection Interface

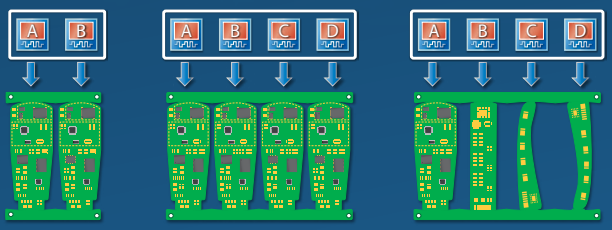
TRI innovation

TR5001 SII LED

Multi-Core Parallel Testing Design

The TR5001 SII LED series in-circuit testers support up to four independent tests cores for high-throughput parallel testing. The innovative ICT series is a SMEMA-compatible flexible platform with inline and offline capabilities. The system ease of maintenance and long-term testing reliability is possible due to built-in auto-calibration and self-diagnostics.

Multi-core Testing for Increased Production Throughput



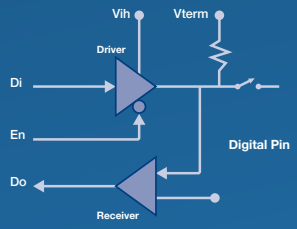
Dual-core ICT | Quad-core ICT | Multi-program ICT

Functional Tests

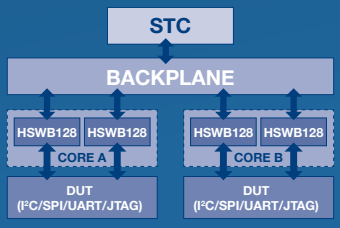
- On-Board Programming
- Boundary Scan
- LED Analyzer
- V/I Measurements
- CAN/LIN Bus Tests
- Frequency Counter
- MIC Test
- Battery Emulator
- Audio Analyzer
- DAQ
- Active Load
- AC Power Source

Multiple Serial Bus Access

The TR5001 SII LED testers feature a serial test controller, which offers two high-speed serial ports per tester core, for a maximum of 8 individual ports. Each of these serial ports can be mapped to any test pin on the switching board and deliver a variety of serial bus protocols to the DUT.



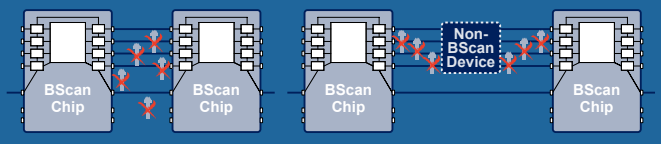
1:1 Per-pin Driver & Receiver



Up to 8 Serial Ports can be Mapped to any Pin

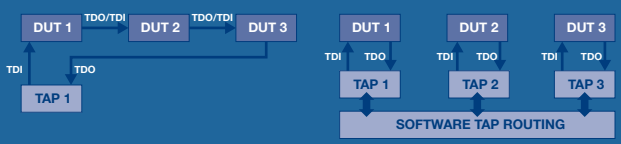
Boundary Scan Test

Virtual nails tests for RAM, ROM, TTL and TREE devices, and IEEE1149.6 Test.



Boundary Scan Virtual Chain Test

Simplify chained DUT testing using software TAP routing in TRI virtual chain BScan Test. Reduce fixture wiring and test program complexity.



Standard Chain Routing | Virtual Chain Test

SERIES

TRI innovation

LED Analyzer

TRI's ICT LED analyzer can simultaneously test up to 1080 LED channels for color and brightness (up to 800 lumens). TRI's LED analyzer solution is a perfect fit for the test of automotive lights, LCD backlights, and indicator LEDs.

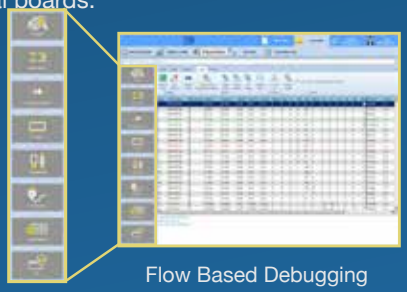
Automotive ECU Test

The TR5001 SII LED series can test modern vehicles Electronic control units (ECU), such as the Multi-Display In-Vehicle Infotainment (IVI) System, through CAN-LIN bus tests.

CAN/LIN bus application: steering wheel, sensors, fan motors, air conditioner, door controllers, seat motors, headlights, and more.

Easy Debugging

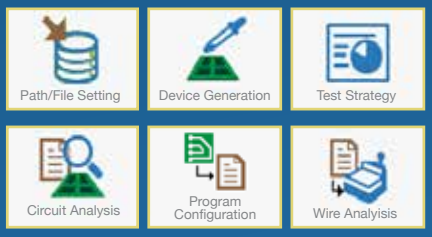
The innovative test program debugging interface supports flowchart-based test program debugging of individual or parallel test programs. With TR5001 SII LED series multiple cores, it is possible to debug panel boards or individual boards.



Flow Based Debugging

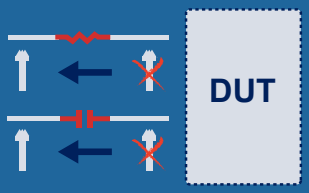
Intelligent Software Interface

The TR5001 SII LED Series features an intuitive software interface designed for easy operation and programming. Enhanced features include Automated Test Program Generator, Auto-tuning, and setting templates.



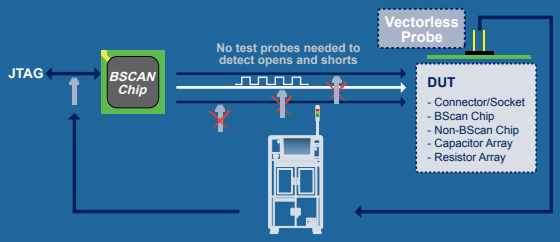
Drive Through Test

Significantly reduces test probes for passive analog components connected in series with JTAG and BScan capable devices and connectors.



TRI ToggleScan Test

A Powerful vectorless test technology that significantly reduces the number of test probes, ToggleScan utilizes BScan and vectorless probes to test non-BScan devices.



TRI's ToggleScan Test

Smart Factory

Integrated data exchange solution that allows performance analysis of production line data for quality assurance and engineering analysis. TRI's solutions enable operators to simplify production quality monitoring, analyze statistical production line defect rates, and identify component defect trends and production issues.

Solder Printer — SPI — Pick & Place — Pre-reflow AOI — Reflow Oven — Post-reflow AOI — Insertion & Wave Soldering — AXI — ICT/FCT

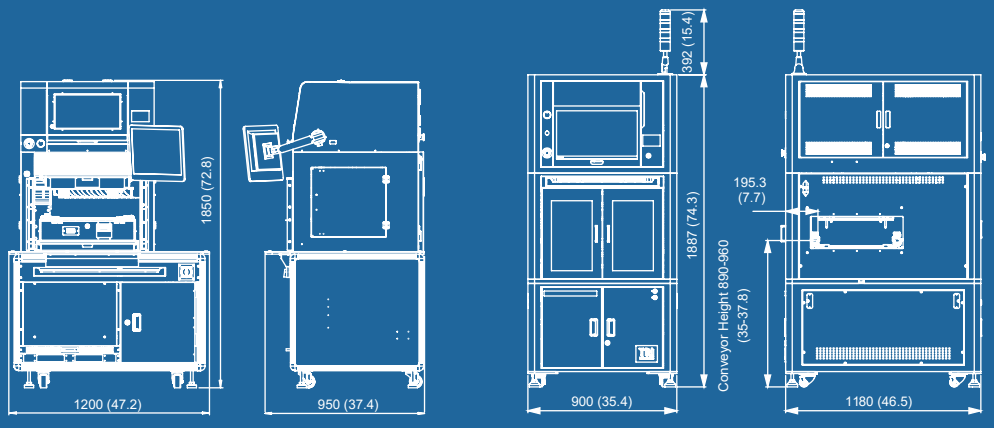
Specifications

TR5001 SII LED SERIES

Model		TR5001 SII INLINE TR5001 SII QDI	TR5001D SII INLINE TR5001D SII QDI	TR5001Q SII INLINE TR5001Q SII QDI
General	No. of Cores	1	1, 2	1, 2, 4
	Max. Test Points	2048 Points		
	Operating System	Microsoft® Windows Compatible PC with USB, Windows 10		
	Power Requirement	200 – 240 VAC, Single Phase, 50/60 Hz, 3 kVA		
	Air Requirement	Dry Air 4 – 8 kg/cm², Air Consumption: 20 liters/cycle		
	Fixture Type	Inline or Offline with Long Lifespan Quick Disconnection Interface		
PCB Size		TR5001(D/Q) SII INLINE: 70 x 70 – 500 x 460 mm (2.76 x 2.76 – 19.69 x 18.11 in.)		
Max. PCB Weight		5 kg		
Max. Component Height Clearance		Top: 80 mm (3.15 in.) / Bottom: 30 mm (1.18 in.)		
Conveyor Height		890 – 960 mm (35.04 in – 37.79 in)		
Analog Measurement Capability	Measurement Switching Matrix 6-wire Measurement	Programmable Frequency: *100 Hz, 1 kHz, 10 kHz, 100 kHz* Programmable DC Voltage Source: *±10 V Max., Resolution: 2 mV* Programmable DC Current Source: *+100 mA Max., Resolution: 0.1 mA* Programmable AC Voltage Source: *10 Vpp Max., Res olution: 2 mV* Programmable High Voltage Current Source: *53 V / 100 mA Max.*		
	Component Measurement Capability	Resistance: *30 mohm – 40 Mohm* Capacitance: *5 pF – 40 mF* Inductance: *5 µH – 60 H*		
	Analog Measurement	AC Voltmeter: *0 – 100 Vp* DC Voltmeter: *0 – ±100 V, Resolution: 0.5 mV – 10 mV*		
In-Tester LED Analyzer	Repeatability	1%		
	LED Channels	Up to 1080 LED Test channels. (Top: up to 540 / Bottom: up to 540.)		
	Fixture Connection	Quick Disconnection Interface (QDI)		
LED Measurement Parameters		Red/Green/Blue (RGB), Hue/Saturation/Intensity (HSI), Dominant Wavelength, CIE xy		
Optional Hardware	Analog Test	TestJet Technology: *Vectorless Open Circuit Detection* Arbitrary Waveform Generator (AWG): *Frequency Range 0 – 100 kHz; Resolution: 0.15 Hz, BW: 100 KHz Max.*		
	Digital Test	Non-multiplexing 1:1 Per Pin Architecture with Independent Per-pin Level Setting Serial Test Controller (STC) Programming Pin Drivers: *Programmable Levels 0.5 V to 4.5 V* Pin Receivers: *Programmable Levels 0 V to 5 V* Pull-up/Pull-down Resistor: *4.7 K* DUT Power Supplies: *5 V@3 A, 3.3 V@3 A, 12 V@3A, -12 V@1 A and 24 V@3 A* DPS Programmable DUT Power Supply: *DPS3514: 30Vmax/5Amax/100Wmax per channel /4CH per DPS* *DPS3122: 30Vmax/10Amax/200Wmax per channel /2CH per DPS* On-board Programming of Flash & EEPROM Memories MAC Address Programming: *Supports MAC Address Programming with Server Supplied MAC Address* Boundary Scan: *Includes BScan Chain Test, BScan Cluster Test, BScan Virtual Nails Test, BScan Virtual Chain Test and IEEE1149.6 Test* ToggleScan Test: *Advanced Test Technology that Combines with BScan and Vectorless Test Functions to Detect Pin Open or Short Issues*		
Weight		TR5001(D/Q) SII QDI: 510 kg (1124.36 lb lb) / TR5001(D/Q) SII INLINE: 670 kg (1477.1 lb)		

* The weight does not include notebook or accessories; final weight determined by system selected

Unit: mm (in.)



TR5001(D/Q) SII QDI **TR5001(D/Q) SII INLINE**

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TRI INNOVATION

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