

High Fault
Coverage Model

ICT

IN-CIRCUIT TESTER

TR5001 SERIES



Modular Upgradeable MDA, ICT and FCT System



Limited Access Solution with Boundary Scan Testing



Built-In Self-Diagnostics and Auto-Calibration Function



Fast fixture swap



Up to 3200 Testing Points



Ease of Use

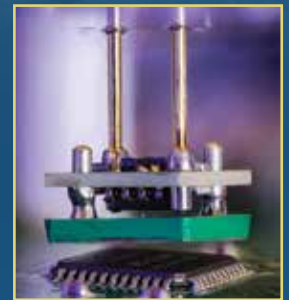


TR5001 SERIES



The Most Cost-Effective Test Strategy

Designed as an expandable platform for testing PCBAs, the TR5001 Series provides a high modularity and high fault coverage solution that can fully meet testing requirements of most customers. The TR5001 Series incorporates MDA with selectable ICT and Functional test capabilities that cut production line staff costs, save testing time and increase productivity. The TR5001 Inline is full SMEMA-compatible. The TR5001 Series can integrate with external instruments for functional tests such as: PXI, LabVIEW, etc.



TRI Enhanced TestJet

Non-Multiplexing Pin Design, Driver/Receiver to Pin Ratio 1:1

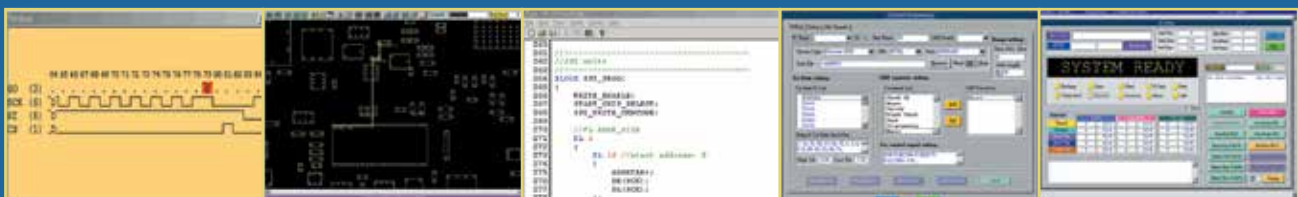
- Optimized nail placement with 1:1 ratio flexibility
- ECNs only require moving few existing wires compared with 2:8/2:9 driver/receiver per pin
- 1:1 Driver/Receiver per pin provide for the fastest test program development and debugging

High Fault Coverage Test Solution

- R/L/C/D/Q/MDA testing
- Power On Sequence
- TTL, CMOS
- Memory DDR/SDRAM/SGRAM
- EEPROM/SPI/ISP
- Flash/Firmware HUB
- BGA Chip
- CPU Socket Test
- Crystal/Oscillator
- Mixed Mode IC
- CLK Gen. Frequency Measurement
- Tree-Chain
- Boundary Scan Individual Test
- TRI ToggleScan™ & VregTest™
- Boundary Scan Chain
- Cluster
- Virtual Nails Test

User-friendly Interface

The TR5001 Series features an intuitive software interface designed for easy operation and programming.



Waveform Display

Board View with Trace Display Capability

Color Syntax Program Editor

Flash Programming

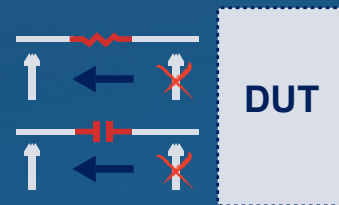
Ease of Testing

TR5001 Inline Features

- Automatic conveyor width positioning
- Board warp or misalignment notification
- Auto-locking fixture & cable connection
- SMEMA compatible
- Dual Stage PressFit testing
- Automatic barcode scanner width positioning
- Extra Space to add optional Modules
- Reverse Direction Conveyor

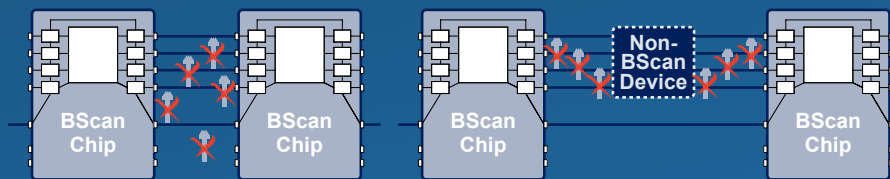
Drive Through Test

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



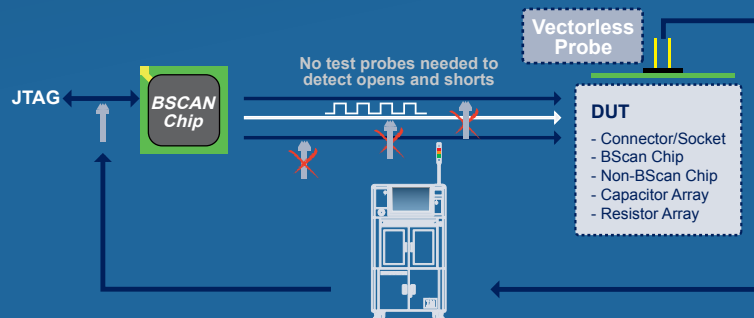
Boundary Scan Test

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



TRI ToggleScan Test

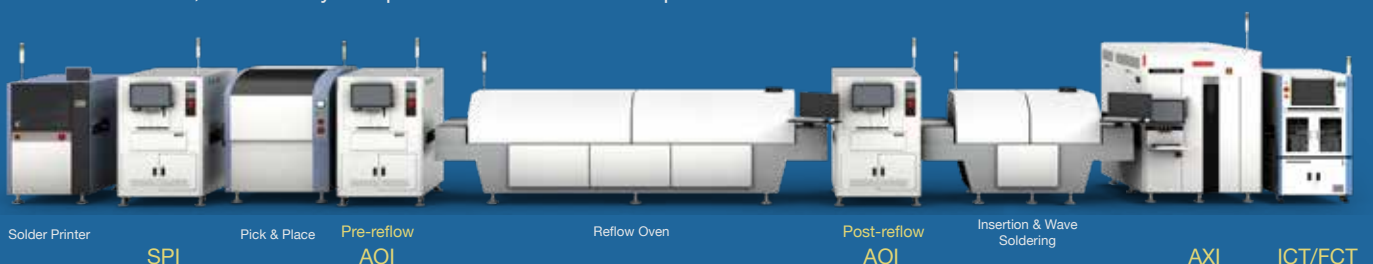
A Powerful vectorless test technology that significantly reduces the number of test probes, ToggleScan utilizes BScan and vectorless probes to test non-BScan devices.



TRI's ToggleScan Test

Smart Factory

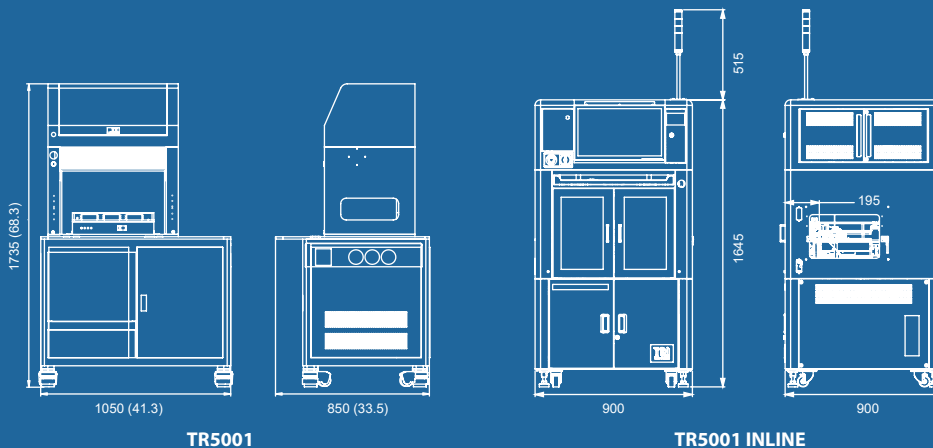
Integrated data exchange solution that allows performance analysis of production line data for quality assurance and engineering analysis. TRI's solutions enable operators to simplify production quality monitoring, analyze statistical production line defect rates, and identify component defect trends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



Model		TR5001	TR5001 INLINE
General	Maximum Test Points	Analog: 3200, Digital: 1600	
	Operating System	Microsoft® Windows 10	
	Power Requirement	200 – 240 VAC, Single Phase, 50/60 Hz, 3 kVA	
	Air Requirement Fixture Type	Dry Air 4 – 8 kg/cm ² , Air Consumption: 28 liters/cycle Inline or Offline Press Type. Inline with Long Lifespan Quick Disconnection Interface	Dry Air 4 – 8 kg/cm ² , Air Consumption: 4 liters/cycle
PCB Size	Standard: 420 x 300 x 100 mm (17 x 12 x 4 in.) Optional: 500 x 350 x 130 mm (20 x 14 x 5 in.)	Standard: 450 x 300 x 0.6 – 5 mm (18 x 12 x 0.02 – 0.2 in.) Min.: 70 x 70 mm (3 x 3 in.)	
Max. PCB Weight	N/A	2 kg (4.41 lb)	
Component Height Limitations	Top Clearance	N/A	90 mm (3.58 in.)
	Bottom Clearance	N/A	30 mm (1.18 in.)
Conveyor Height	N/A	890 – 1100 mm (35.04 in – 43.31 in)	
Analog Measurement Capability	Measurement Switching Matrix 6-wire Measurement Component Measurement Capability Analog Measurement Analog Test	Programmable Frequency: 100 Hz, 1 kHz, 10 kHz, 100 kHz, 1 MHz	
		Programmable DC Voltage Source: 0 – ±10 V, Resolution: 6.1 mV	
		Programmable DC Current Source: 0 – 100 mA, Resolution: 0.2 mA	
		Programmable AC Voltage Source: 0 – 10 Vpp, Resolution: 6.1 mV	
		Programmable High Voltage Current Source: 43 V Max., 43 mA Max.	
		Resistance: 0.1 ohm – 40 Mohm	
		Capacitance: 10 pF – 40 mF	
		Inductance: 10 µH – 60 H	
		AC Voltmeter: 0 – 100 Vp	
		DC Voltmeter: 0 – ±100 V, Resolution: 2.5 mV – 50 mV	
Optional Hardware	Digital Test	TestJet Technology: Vectorless Open Circuit Detection	
		Arbitrary Waveform Generator (AWG): Frequency Range 0 – 100 kHz; Resolution: 0.15 Hz	
		Non-multiplexing 1:1 Per Pin Architecture	
		Pin Drivers: Programmable Levels 0.5 V to 3.8 V	
		Pin Receivers: Programmable Levels 0 V to 5 V	
		Pull-up/Pull-down Resistor: 4.7 kohm	
		DUT Power Supplies: 5V/3A, 3.3V/3A, 12V/3A, 18V/3A, 12V/1A, 24V/3A	
		APPS Programmable DUT Power Supply: 75 V/8 A Max., 200 W Max. Output Power	
		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			
Tree Test Facilities with BGA Test: Pattern Generator for Detection of Pin Opens for BGA/VLSI Chips			
Weight	300 kg (661.39 lb)	500 kg (1,102.31 lb)	

- The weight does not include notebook or accessories; final weight determined by system selected
 - Larger PCB size of TR5001 can be specially made

Unit: mm (in.)



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