



- Multi-Core Parallel Test
- Non-Multiplexing 1:1 per Pin Architecture
- Scalable MDA to ICT and Functional Test
- High Accuracy and High Throughput
- Durable Quick Disconnection Interface
- Automatic Conveyor Width Positioning
- Board Warp and Mis-Alignment Notification

INLINE/MANUAL HANDLER
ICT WITH FUNCTIONAL TEST

TR5001 SII SERIES FEATURES



Real Image Display



Customizable Test Plan



Clear Parallel Test Interface



Flash Programming



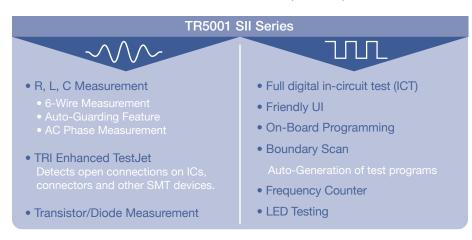
TRI Enhanced TestJet

The Next Generation In-Circuit Test Strategy

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

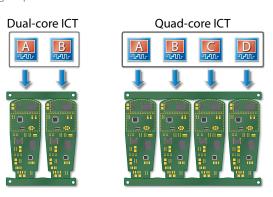
- Optimized Nail Placement with 1:1 Ratio Flexibility
- 1:1 per-pin Driver/Receiver ratio for the fastest test program development and debugging
- Improved Test Accuracy and Capability

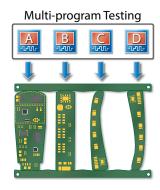
The most flexible ICT+FCT solution in the market. TR5001 SII series can integrate with external instruments for functional tests such as: PXI, Labview,etc.



Multi-Core Parallel Testing Design

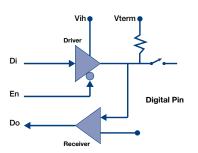
The new TR5001 SII series testers support up to four independent test cores for high-throughput parallel testing. Depending on tested product complexity, tester cores can be merged to test higher pin-count boards.



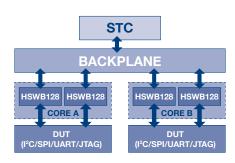


Multiple Serial Bus Access

The TR5001 SII testers feature a new 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 TR5001 SII's Hybrid Switching Board and deliver a variety of Serial Bus protocols (I²C, SPI, UART, JTAG) to the DUT.



1:1 Per-pin Driver & Receiver

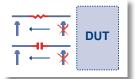


Up to 8 Serial Ports can be Mapped to any Pin

Limited Access Test Solutions

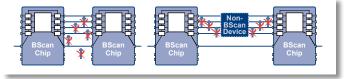
Drive Through Test

Greatly 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.



Boundary Scan Virtual Chain Test using BSCAN2 Module

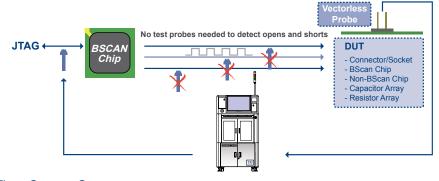
Simplify chained DUT testing using software TAP routing in TRI Virtual Chain BScan Test. Reduce fixture wiring and test program complexity.





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.

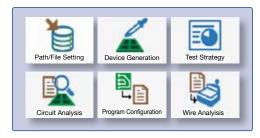


Shop Floor System Support

TR5001 SII Series can integrate with many shop floor systems to help centralize production line management and improve production quality using gathered testing data.

Intelligent Software Interface

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

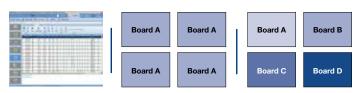


ATPG

The advanced programming assistant helps generate fixture wiring and test programs based on CAD data and BOM input files.

Easy Debugging

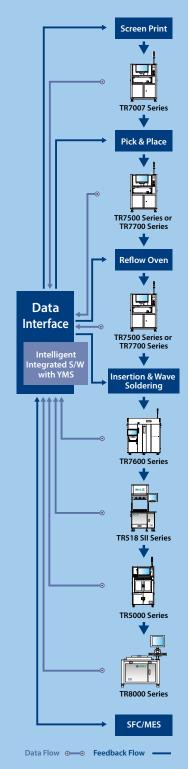
The new test program debugging interface supports flow-based test program debugging of individual or parallel test programs. Using multiple cores, it is now possible to debug both panel boards or individual boards.



Flow Based Debugging

Parallel Test Program Debugging

Yield Management System



- Inspection results and data integration
- Real time SPC and production yield management
- Quality reports and closed loop tracking
- Support defect component analysis and improvements
- Knowledge Management (KM)
- Productivity and Quality Management

PECIFICATIONS

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TR5001Q SII INLINE TR5001Q SII QDI TR5001Q SII

1, 2, 4

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700 (27.6)

Unit: mm (in.)

PCB and Conveyor System

(cores) Maximum Analog/Hybrid Test Points

Multicore/Single Core Test

Operating System

Air Requirement

Fixture Type

Power Requirement

General

PCB Size Standard (W) 450 x (L) 300 x (H) 0.6 – 5 mm [(W) 17.7 x (L) 11.8 in.] (W) 70 x (L) 70 mm [(W) 2.76 x (L) 2.76 in.] Min. Max. PCB Weight 2 kg (4.41 lbs) [5 kg (11.02 lbs) optional] Component Height Limitations
Top Surface of Conveyor 90 mm (3.54 in.) 30 mm (1.18 in.) Bottom Surface of Conveyor Conveyor Height 890 – 1000 mm^{*} (35.0 – 39.4 in.)*

TR5001 SII INLINE TR5001 SII QDI TR5001 SII

* SMEMA Compatible Inline Conveyor Analog Hardware

Measurement Switching Matrix

Programmable Frequency Programmable DC Voltage Source Programmable DC Current Source Programmable AC Voltage Source Programmable High Voltage Current Source Component Measurement Capability Resistance

6-wire measurement 100 Hz, 1 kHz, 10 kHz, 100 kHz ±10V max, Resolution: 10 mV +100 mA max, Resolution: 0.2 mA

53 V / 100 mA max

10 Vpp max, Resolution: 10 mV

30 mohm - 40 Mohm 5 pF – 40 mF 5 µH – 60 H

Inductance **Analog Measurement**

AC Voltmeter 0 - 100 VpDC Voltmeter DC Ammeter

0 – ±100 V; Resolution: 2.5 mV – 50 mV 1 μA – 100 mA; Resolution: 30 nA – 30 μA

Optional Hardware

Analog Test

Capacitance

TestJet Technology Arbitrary Waveform Generator (AWG)

Vectorless open circuit detection Frequency Range 0 – 100 kHz; Resolution: 0.15 Hz,

Microsoft® Windows compatible PC with USB, Windows 10

Inline or offline with long lifespan Quick Disconnection Interface. Offline press type (TR5001D/Q SII)

200 - 240 VAC, Single Phase, 50/60 Hz 3 kVA

Dry Air 4 – 8 kg/cm², Air Consumption: 20 liters/cycle

BW: 100KHz max

Digital Test

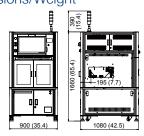
Non-multiplexing 1:1 per pin architecture with independent per-pin level setting Pin Drivers Programmable levels 0.5 V to 4 V Pin Receivers Programmable levels 0 V to 5 V Pull-up/Pull-down Resistor 4.7 K **DUT Power Supplies** 5 V@3 A, 3.3 V@3 A, 12 V@3A, -12 V@1 A and 24 V@3 A APPS Programmable DUT Power Supply 75 V / 8 A max, 200W maximum output power On-board Programming of Flash & EEPROM Memories Supports MAC address programming with server supplied MAC MAC Address Programming address Includes BScan Chain Test, BScan Cluster Test, BScan Virtual **Boundary Scan** Nails Test, BScan Virtual Chain Test and IEEE1149.6 Test Advanced test technology that combines with BScan and

Dimensions/Weight

Tree Test Facilities with BGA Test

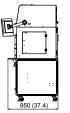
ToggleScan Test

Weight



TR5001D/Q SII INLINE TR5001 SII INLINE

670 kg (1477 lbs)





Vectorless test functions to detect pin open or short issues

Pattern generator for detection of pin opens for BGAVLSI chips

735 (68.3)

1050 (41.3)

TR5001D/Q SII TR5001 SII

300 kg (661 lbs)

720 (28.3)

TR5001D/Q SII QDI TR5001 SII QDI 700 kg (1543 lbs)

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