Compact Model

ICT

IN-CIRCUIT TESTER

TR5001T SII TINY SERIES

- Minimal footprint with full-featured ICT solution
- High Accuracy, Reliability and Testing Speed Modular ICT
- Automated Diagnostics and Calibration

User-Friendly Operation

Up to 640 Testing Points

USB Interface

TRI innovation

TR5001T SII TIN

Full-featured Manufacturing Defects Analyzer

The TR5001T SII TINY Series is comprised of two platforms, the TR5001T SII TINY INLINE and the TR5001T SII TINY. The TR5001T SII TINY Series brings an extended ICT feature set in the industry's most compact and affordable solution. The TR5001T SII TINY INLINE is a cost effective, flexible automated analog and digital testing SMEMA-compatible platform.

Up to 640 Testing Points

Tests and Measurements Highlight

- Manufacturing Defect Analyzer
  - RLC Measurement
  - TestJet Technology
  - Capacitor Polarity Test
  - Transistor/Diode Measurement
- Functional In-Circuit Tester
  - Boundary Scan Technology
  - High Speed Serial Ports
  - Audio Analyzer
  - Data Acquisition (DAQ)

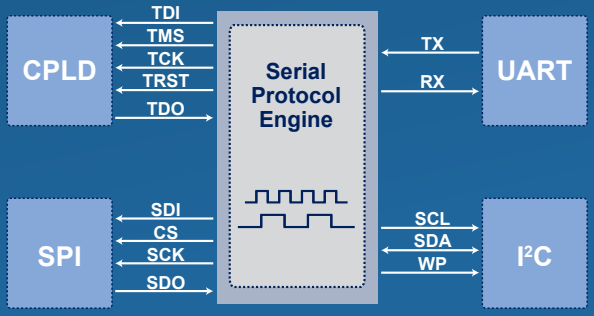
Flexible and Portable Platform

The TR5001T SII TINY is a Small footprint and cost effective ICT + FCT solution with USB interface for easy setup and connection.

Available Fixture Types:

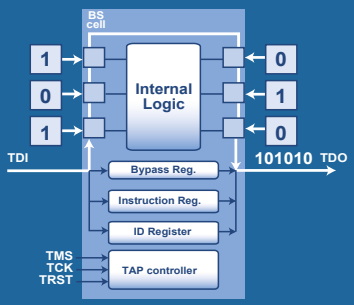
High Speed Serial Device Programing & Testing

Built-in application for programming and testing of supported onboard serial devices, including writing MAC addresses, firmware, and device IDs.

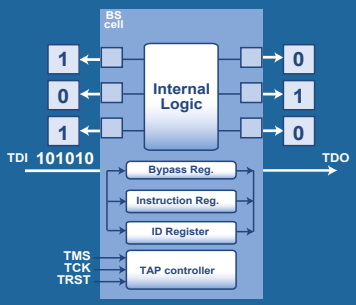


Boundary Scan Test

Limited test access technology for testing component dense PCBAs with BSCAN enabled devices.



Parallel in Serial out



Serial in Parallel out

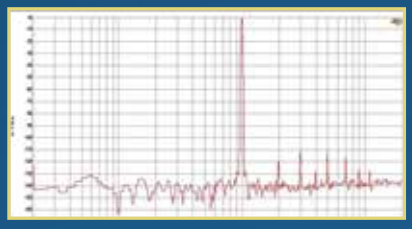
Y SERIES

TRI innovation

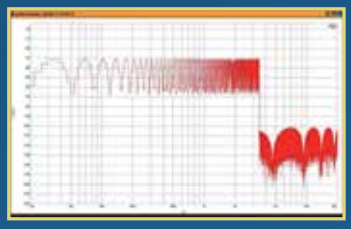
Audio Analyzer and Data Acquisition

Enables audio signal distortion analysis and speaker quality testing using single and multi-tone analysis.

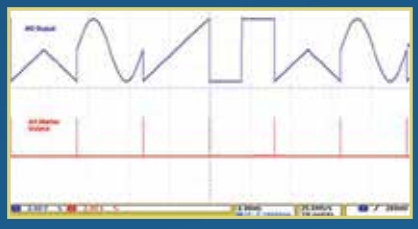
Arbitrary waveform generator enables functional testing of systems with complex triggering preconditions and high speed data acquisition.



Single Tone Analysis



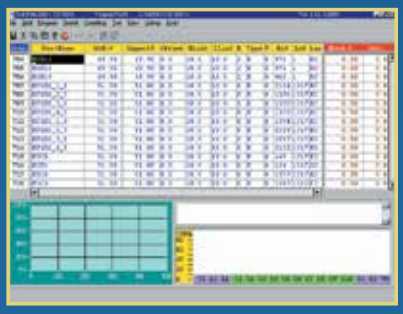
Multi Tone Analysis



Arbitrary Waveform Generator

Easy Debugging

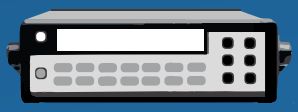
The TR5001T SII TINY Series is easy for users to develop, test and debug programs. The table-based test program editor guarantees ease of use and clear data display.



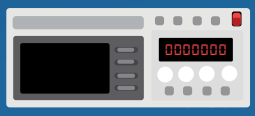
Debugging Window

Test Module Solution

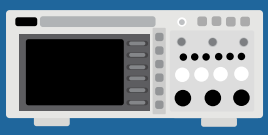
All-in-one powerful multifunctional tester integrates with various test modules:



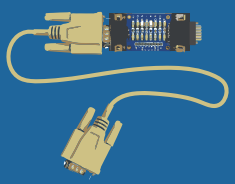
Signal Generator



THD tester



Oscilloscope



RS-232 Tester

Shop Floor System Support

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

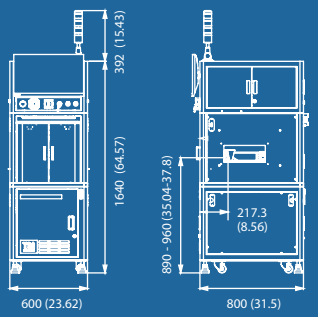
IPC CFX QPL LISTED

Specifications — TR5001T SII TINY SERIES

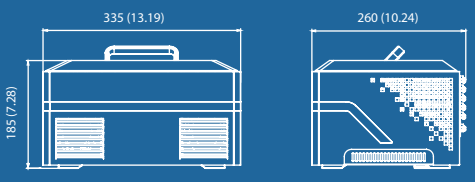
Model		TR5001T SII TINY INLINE	TR5001T SII TINY
General	Maximum Analog Test Points	640 Points	
	Windows Compatible	PC or Laptop with USB Ports	
	Operating System	Microsoft® Windows 10	
	Power Requirement	200 — 240V, Single Phase, 50/60 Hz, 3 kVA	100 — 120 V / 200 — 240 V, Single Phase, 50/60 Hz, 500 VA
	Air Requirement	Dry Air 4 – 6 kg/cm², Air Consumption: 18 liters/cycle	N/A
	Fixture Type	Inline/Manual Insertion	N/A
PCB Size		50 x 50 – 330 x 250 mm (1.97 x 1.97 – 12.99 x 9.84 in.)	N/A
Max. PCB Weight		5 kg	N/A
PCB Thickness		0.6 – 5 mm (0.02 - 0.2 in.)	N/A
Component Height Limitations	Top Clearance	90 mm (2.36 in.)	N/A
	Bottom Clearance	30 mm (1.18 in.)	N/A
Conveyor Height		890 – 960 mm (35.04 in – 37.80 in)	N/A
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 Maximum, Resolution: 10 mV* Programmable DC Current Source: *100 mA Maximum* Programmable AC Voltage Source: *10 Vpp Maximum, Resolution: 10 mV* Programmable High Voltage DC Current Source: *Up to 53 V/100 mA*	
	Component Measurement Capability	Resistance: *40 mohm — 40 Mohm* Capacitance: *10 pF — 40 mF* Inductance: *10 µH — 60 H*	
	Analog Measurement	AC Voltmeter: *0 – 100 Vp* DC Voltmeter: *0 – ±100 V, Resolution: 2.5 mV – 50 mV*	
Optional Hardware	TestJet Technology	Vectorless Open Circuit Detection	
	Programmable High Voltage DC Current Source	Up to 100 V/100 mA	
	Sine Wave Generator Frequency Range	1 – 100 kHz, Resolution: 1 Hz	
	Frequency Measurement	Up to 200 MHz	
	Serial Test Module (STM)	Two Channels for Serial Testing up to 1 MHz with 16 Channels of General Purpose Digital I/O Boundary Scan Nail Connection Test (PISO/SIPO), SPI/I2C and UART Programmable Voltage Level: *Vih: 0.8 V – 4.6 V at Io=20 mA; Voh: 0.1 V – 4.9 V*	
	Data Acquisition	Two-channel, 16 Bit 10 MSPS Flexible Arbitrary / DDS Waveform Generator Four-channel, 16 bit 3.8 MSPS Waveform Digitizer	
	Audio Analyzer	One-channel Frequency Generator 24-bit Audio analyzer with SNR, THD and THD+N Analysis	
	Digital Test Module	Four Programmable DUT Power Supplies: *1 – 20 V, 0.6 – 2 A, 12 Watt, Current Measurement. 1 µA –2 A (CH1), accuracy ±3 % ±0.5 µA; 100 µA – 2 A (CH2-4), accuracy ±5 % ±10 µA* Two Fixed 12V and -12V Power Supplies: *0.3 A, Current Measurement 10 mA – 300 mA* Sixteen-channel General Purpose Digital I/O	
		Board Warp Sensor	Dual-Stage Press Unit or Inline Handler
Weight		310 kg (683.43 lb)	8 – 11 kg (17.64 – 24.25 lb)

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

Unit: mm (in.)



TR5001T SII TINY INLINE



TR5001T SII TINY

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