TH2518 Series

DC Resistance / Temperature Scanner

A modular, plug-in-card DC low-resistance scanner built for high-volume component and battery testing. Up to six hot-swappable test units combine for up to 90 resistance/temperature channels with synchronized measurement between units, per-channel comparator limits, and channel/board/ system-level sort output — cutting handling time on production and incoming-inspection lines.

Dimensions: 280(W) × 88(H) × 440(D) mm · Weight: 7.5 kg



- **0.05% basic resistance accuracy**, 10 µΩ minimum resolution
- Resistance test range **10 µΩ – 200 kΩ**, 7 auto/manual ranges
- Up to **90 channels**: 6 hot-swappable test units × 15 channels each
- Synchronized measurement between units — no need to daisy-chain scans
- Max scan speed **600 readings/sec** across 6 units (1.7 ms/channel)
- 4.3" TFT colour touch display, 480 × 272, clear English UI
- Temperature sensing via **PT100 / PT500 / analog voltage**, with TC compensation
- Four-terminal (Kelvin) test, test current ≤100 mA
- Independent comparator per channel; channel/board/system-level sort results
- Standard RS232, USB Host/Device, LAN, Handler; optional foot switch

Two models, one platform

TH2518

Resistance + temperature scanning

Measuring parameters	R, Temperature
Basic resistance accuracy	0.05%
Temperature sensors	PT100 / PT500 / Analog
Max channels	90

TH2518A

Resistance-only scanning

Measuring parameters	R only
Basic resistance accuracy	0.05%
Temperature sensors	— (not fitted)
Max channels	90

TH2518 and TH2518A share the same chassis, scan-card platform and 0.05% resistance accuracy; TH2518A omits temperature measurement for applications that only need DC resistance sorting. Both ship standard with one 15-channel test unit — up to five additional units can be added for up to 90 channels. SCPI and MODBUS protocols are supported on both models.

Applications

Components

Resistors, inductors, transformers, motors, relays, circuit solder joints, capacitor riveting points.

Cables & connectors

Stranded wire, connectors, switches — contact-resistance sorting on cable and connector lines.

Materials & new energy

Heat-sensitive materials (fuses, thermistor sensors), conductive foils; EV battery-pack connecting bridges and cell connection resistance.

Technical specifications

Parameter	TH2518	TH2518A
Measuring parameters	DC resistance, temperature	DC resistance
Display	4.3" TFT colour touch LCD, 480 × 272	
Resistance test range	10 µΩ – 200 kΩ	
Basic resistance accuracy	0.05%	
Resistance range	Auto and manual: 200 mΩ, 2 Ω, 20 Ω, 200 Ω, 2 kΩ, 20 kΩ, 200 kΩ	
Temperature sensor type	PT500 platinum resistance, PT100 platinum resistance, analog voltage input	—
Temperature test range	PT100 / PT500: −10.0 – 99.9 °C · Analog: 0 – 2 V	—
Temperature test accuracy	PT100 / PT500: 0.3% rdg ± 0.5 °C · Analog: ±1% rdg ± 3 mV	—
Temperature compensation (TC)	√	—
Measurement mode	Stand-alone, scanning	
Scanning channels	15 channels per unit; up to 6 units / 90 channels. Sequential scan within a unit, parallel (synchronized) between units	
Test terminal selection	Freely configurable between channels (programmable)	
Test current	≤100 mA	
Measurement speed	Single unit: 100 / 40 / 2 readings/sec (10 / 25 / 500 ms) · 6 units: 600 / 240 / 12 readings/sec (1.7 / 4.2 / 83 ms)	
— with display / with host PC	add ≈38 ms with on-screen result display, add ≈30 ms with host-PC / Handler communication	
Display results	16 channels shown simultaneously, page turning supported	
Short-circuit zero correction	Full-scale short-circuit clearing, all channels	
Comparator	Independent comparison limits set per test channel	
Limit mode	ABSDev, ABS, %	
Trigger mode	Auto, Manual, Bus, Handler, Foot switch	
Test terminal	Four-terminal (Kelvin)	
Storage	30 instrument parameter sets	
Power supply	90–125 V AC / 190–250 V AC (switchable), 50/60 Hz, ≤30 VA	
Dimensions	280(W) × 88(H) × 440(D) mm	
Weight	7.5 kg	

Interfaces

RS232	USB Host	USB Device	LAN	Handler	SCPI / MODBUS	Foot switch
standard	standard	standard	standard	standard	standard	optional

Handler interface supports channel-, board- and system-level PASS/FAIL sort output and cascading of multiple sort boards for >16-channel systems.

Standard accessories

Item	Description
—	TH2518-MS test scanning board, 1 unit / 15 channels
TH26050S	Four-terminal test cable
—	EU power cable (Schuko, CEE 7/7)
—	40-core flat cable
—	1 A fuse, 2 spares

Optional accessories

Item	Description
TH2518-MS	Additional test scanning board (up to 6 total)
TH2518-01	Channel comparator sort board
TH26056	Junction / wiring box
—	Foot switch

More fixtures and cabling available on request — ask your Techmize contact or authorized distributor.

Techmize Electronic GmbH

Office 125–126, Regus
Carl-Zeiss-Ring 15a, 85737 Ismaning, Germany
An international subsidiary of Changzhou Tonghui Electronic Co., Ltd. (China)

Contact

Mobile: +49 171 4981898
Email: dx.han@tonghui.com.cn
Web: en.tonghui.com.cn

Registration

Managing Director: Haohua Zhao
Register Court: Amtsgericht München
HRB 312530
VAT ID DE463170824

Website LinkedIn YouTube

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