

# Micro Signal Type Tester

## II. TH2515 DC Resistance Meter

### Features

- Maximum accuracy: 0.01%
- Temperature accuracy: 0.1℃
- Minimum resolution: 0.1uΩ (resistance)
- Low-resistance test mode can effectively protect DUT
- Multiple measurement combinations of R, LPR, T
- 24 bits, 4.3-inch and 4-wire touch LCD screen
- LCD resolution: 480×272
- Temperature compensation(TC)
- Temperature conversion(Δt)
- Maximum sampling rate: 100samps/sec
- Offset voltage compensation (OVC)
- Customer self-correction(0 ADJ)
- Simultaneously output compare results of 10 bins (OVER, PASS and BEEP)
- Statistics function: CpK, Cp
- 30 groups of parameter files can be saved and loaded
- Screen information can be stored on U-disk
- Data save function brings convenience for saving measurement result
- Automatically update operation software through USB HOST
- Operation languages: Chinese and English
- Intelligent detection for test state error
- Flexible and convenient file operation system
- Handler interface realizes on-line operation.
- Interfaces such as RS232, USB HOST, USB Device and LAN are available and GPIB is optional.
- Compatible with LXI C standard Specifications



RS232	USB HOST	USB DEVICE	HANDLER	LAN	GPIB
standard	standard	standard	standard	standard	option

### TH2515

Rack mount (mm):215(W)×88(H)×335(D)  
 Dimension (mm):235(W)×105(H)×360(D)  
 Weight:3.6kg

### Application

- Components  
 Resistor, inductor, transformer, motor, relay, circuit solder joint, capacitor riveting point
- Cables, connectors  
 Strand wire, connectors, switches
- Material  
 Heat-sensitive materials (fuses, sensor for thermistors), conductive materials such as metal foil
- New energy  
 Electric vehicle battery pack connecting bridge, battery connection resistor

### Brief Introduction

■ On the basis of rich experience in impedance test and wide market research, now Tonghui launches a new touch screen meter---TH2515 DC Resistance meter. TH2515, with elegant appearance, easy operation and excellent performance, is comparable to the most advanced products in the market.

TH2515 adopts 32 bits CPU and high density SMD technology. 24 bits, 4.3-inch and touch LCD screen brings ease for your eyes and convenience to your operation. For the contact influence of the thermoelectricity on DUT, its elimination is achieved. The maximum 0.01% accuracy and minimum 0.1 μΩ resolution shore up its leading role in testing relay contact resistance, interconnecting resistance, conductor resistance, PCB resistance and welding-hole resistance. Temperature compensation and conversion functions make your tests be free from the effect of the environment temperature. The offset voltage compensation has effectively eliminated the electromotive force of the DUT and its contact potential difference. Automation on production lines can be greatly improved by the realization of ultra-high test speed and the signal output of 10 compare results through HANDLER interface.

Providing 1 optional interface---GPIB and 4 standard ones---RS232C, USB HOST, USB Device and LAN, TH2515 is able to make data communication with PC and further realizes remote control.

### Specifications

Model	TH2515		
Display	24-bit, 400 X 272 and touch TFT LCD screen		
Reading digits	5 ½ digits		
Resistance measurement			
Measurement range	0.1μΩ --110MΩ		
Resistance range	Current	Resolution	*Accuracy±(ppm of Rd + ppm of Fs)
20 mΩ	1A	0.1μΩ	2500+10
200mΩ		1μΩ	2500+10
200mΩ	100mA	1μΩ	3500+10
2Ω	100mA	10μΩ	350+10
Model	TH2515		

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20Ω	10mA	100μΩ	250+10
200Ω		1mΩ	100+10
2kΩ	1mA	10mΩ	100+10
20kΩ		100mΩ	100+5
100/200kΩ	100μA	1Ω	100+30
1/2MΩ	10μA	10Ω	200+10
10MΩ	1μA	100Ω	1000+60
100MΩ	100nA	1kΩ	8000+600
Measurement function			
Resistance measurement time	FAST: 7ms; MED: 22ms; SLOW1: 102ms; SLOW2: 402ms Above data is correct when DISPLAY is OFF; When DISPLAY is ON, 20ms should be added.		
Temperature measurement time	100 ± 10ms		
Test terminal	4-terminal		
Average setup	1-255		
Zero clearing	√		
Range switch	AUTO and Manual		
Trigger mode	Internal, Manual, External, BUS		
Power frequency selection	√ (avoid the interference of the power noise)		
Setting data storage	30 groups		
Low voltage measurement	Open voltage≤ 60mV Effective range: 2Ω, 20Ω, 200Ω, 2kΩ		
Thermal electromotive force elimination	√		
Statistics function	AVG, MAX, MIN, OSD(Overall standard deviation), SSD(Sample standard deviation), Process capacity index (Cp, CpK)		
Measurement error detection	√ (Detect the measurement cable has been connected correctly or not.)		
Multipole connector	√ (Noise abatement function of high-resistance is optional)		
Beep state	Comparator, Bin compare, Button		
Key lock	√		
Temperature measurement			
Temperature measurement1	-10.0°C--99.9°C    Sensor: PT500		
Temperature measurement2	Analog input: 0V--2V    Display: -99.9°C -- 999.9°C		
Temperature compensation	(Convert the resistance measurement value to that one measured under preset temperature)		
Temperature	(Temperature rising is gained from resistance test values before and after warming)		
Compare Judge			
Comparator	Signal output	HI/IN/LO	
	Beep	Beep mode: OFF, IN, HI/LO	
	Limit setup mode	Absolute value high/low limit, Percentage high/low limit +nominal value	
Sorting	10 bins, absolute value/ percentage		
External trigger delay time	AUTO: dependent on range, low voltage mode ON/OFF, OVC (offset voltage compensation) ON/OFF MANUAL: 0.000--9.999s		
External input trigger	Rising/Falling edge		
Interface			
Interface	USB DEVICE, USB HOST, RS232C, HANDLER, GPIB (OPTION)		
General specification			
Working condition	Temperature:0°C - 40°C, Humidity:≤ 80%RH		
Storage condition	Temperature:-10°C-50°C,Humidity: ≤90%RH		
Accuracy guarantee condition	Temperature:18°C - 28°C, Humidity:≤ 80%RH		
Power	Voltage	99V—242V	
	Frequency	47.5Hz—63Hz	
Consumption	30 VA		
Dimension	215mm×87mm×335mm (net size)    235mm×105mm×360mm (with foam sheath)		
Weight	Approx. 3.6kg		

\*: the accuracy is guaranteed under certain environmental and test conditions:temperature of 18°C-28°C,humidity is ≤ 80%RH,test speed is SLOW2 and OVC function is ON(see details in Manual).

### Standard Accessories

Three core power cord

TH26050S

Four-terminal test cable

PT500 temperature sensor