Micro Signal Type Tester

II. TH2516 DC Resistance Meter

Features

- Maximum resistance accuracy: 0.05%
- Temperature accuracy: 0.2℃
- Minimum resolution: 1uΩ
- 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 sample rate: 50samps/sec
- Offset voltage compensation (OVC)
- Customer self-correction(0 ADJ)
- Simultaneously output compare results of 3 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
- Flexible and convenient file operation system
- Handler interface realizes on-line operation
- Achieve data communication with PC and remote control through interfaces such as RS232, USB HOST, USB Device

RS232	USB HOST	USB DEVICE	HANDLER
standard	standard	standard	standard

TH2516 Series
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 the new DC impedance measurement instrument with touch and LCD screen ---TH2516 DC Resistance meter. TH2516, with elegant appearance, easy operation and excellent performance, is comparable to the most advanced products in the market.

TH2516 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. The maximum 0.05% accuracy and minimum 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. For the contact influence of the thermoelectricity on DUT, its elimination is achieved. Automation on production lines can be greatly improved by the realization of ultra-high test speed and the signal output of 3 compare results through HANDLER interface.

Specifications

Model	TH2516			TH2516A			TH2516B		
Display									
Display	24-bit, 480 X 272 and touch TFT LCD screen								
Reading digits	4½ digits								
Resistance measurement									
Measurement range	1μΩ --2MΩ			10μΩ –200kΩ			10μΩ –20kΩ		
Resistance range	Current	Resolution	Accuracy Rd%+digits	Current	Resolution	*Accuracy Rd%+digits	Current	Resolution	*Accuracy Rd%+digits
20 mΩ	1A	1μΩ	0.100+3	------			1A	1μΩ	0.100+3
200mΩ	100mA	10μΩ	0.05+2	100mA	10μΩ	0.05+2	100mA	10μΩ	0.1+2
2Ω	100mA	100μΩ		100mA	100μΩ		100mA	100μΩ	
20Ω	10mA	1mΩ		10mA	1mΩ		10mA	1mΩ	
200Ω	1mA	10mΩ		1mA	10mΩ		1mA	10mΩ	
2kΩ	100μA	100mΩ		100μA	100mΩ		100μA	100mΩ	
20kΩ	100μA	1Ω		100μA	1Ω		100μA	1Ω	
200kΩ	10μA	10Ω		10μA	10Ω		------		
2MΩ	1μA	100Ω	0.2+2	------			------		

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Measurement function			
Resistance measurement time	FAST:10ms; MED:25ms; SLOW1:115ms; SLOW2:455ms 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, Manual		
Trigger mode	Internal, Manual, External, BUS		
Power frequency selection	√ (avoid the interface of the power noise)		
Setting data storage	30 groups		
Low voltage measurement	Open voltage: ≤ 40mV 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)		
Beep state	Comparator, Button		
Key lock	√		
Temperature measurement			
Temperature measurement1	-10.0℃--99.9℃ Sensor: PT500	------	------
Temperature measurement2	Analog input: 0V--2V Display: -99.9℃-- 999.9℃	------	------
Temperature compensation	√ (convert the resistance measurement value to that one measured under preset temperature)	------	------
Temperature switch	√ (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	3 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/Failing edge		
Interface			
Interface	USB DEVICE, USB HOST, RS232C, HANDLER		
General specification			
Working condition	Temperature:0℃ - 40℃，Humidity:≤ 80%RH		
Storage condition	Temperature:-10℃ - 50℃，Humidity:≤ 90%RH		
Accuracy guarantee condition	Temperature:18℃ - 28℃，Humidity:≤ 80%RH		
Power	Voltage	99V—121V,198V—242V	
	Frequency	47.5Hz—63Hz	
Consumption	30 VA		
Dimension	215mm×89mm×360mm (net size) 235mm×104mm×360mm (with foam sheath)		
Weight	Approx.3.6kg		

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

Standard Accessories

Three core power cord   TH26050S   Four-terminal test cable   PT500 temperature sensor (only for TH2516)