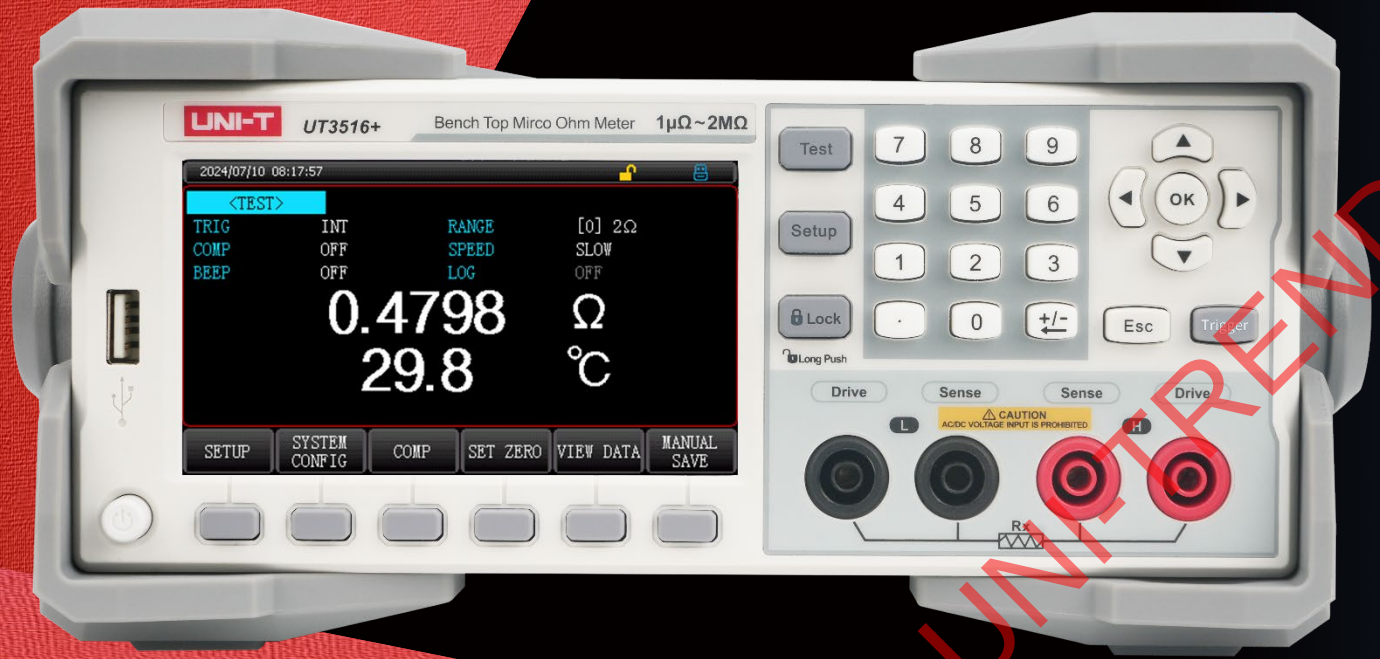
UNI-T

Test & Measurement Instruments



UT3510+

New Product Series

UT3516+ | UT3513+

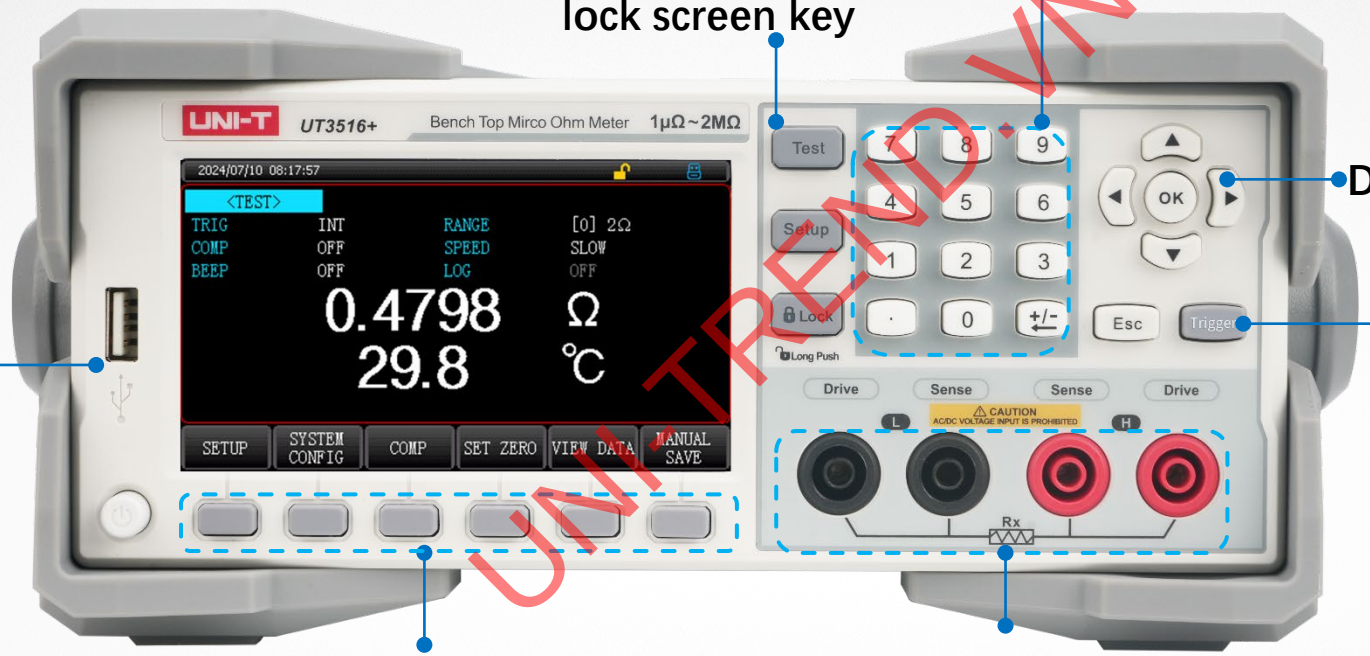
Micro Ohm Meter

Product Introduction

The UT3510+ series of benchtop Micro Ohm Meter includes the UT3513+ and UT3516+ models. 4.3-inch LCD display. With high precision, high resolution and high speed measurement characteristics, with the highest accuracy of 0.05%, the minimum resolution of 1 μΩ. UT3513 + and UT3516 + standard RS-232C, RS485, LAN port and HANDLER communication interface, support for SCPI and MODBUS RTU protocols, and can be with the computer, PLC or WINCE device communication, and efficiently complete the remote control and data acquisition functions.

- 4.3-inch TFT LCD display
- 0.05% accuracy
- Minimum resolution 1μΩ, 4½ digit data display
- UT3513+ Measuring range: **1μΩ - 20kΩ**
- UT3516+ Measuring range: **1μΩ - 2MΩ**
- Combination of R,LPR,T multiple test functions
- Low voltage (LRP) test mode
- Temperature compensation function (TC)
- Temperature conversion function (▲t)
- With U drive data storage and screenshot saving function
- Comparator sorting and beeping functions
- Support data saving and data viewing
- Maximum test speed 10ms/time
- Built-in temperature compensation interface

Product Panels



Test key, setup key, lock screen key

Numeric keypad

Direction and confirmation keys

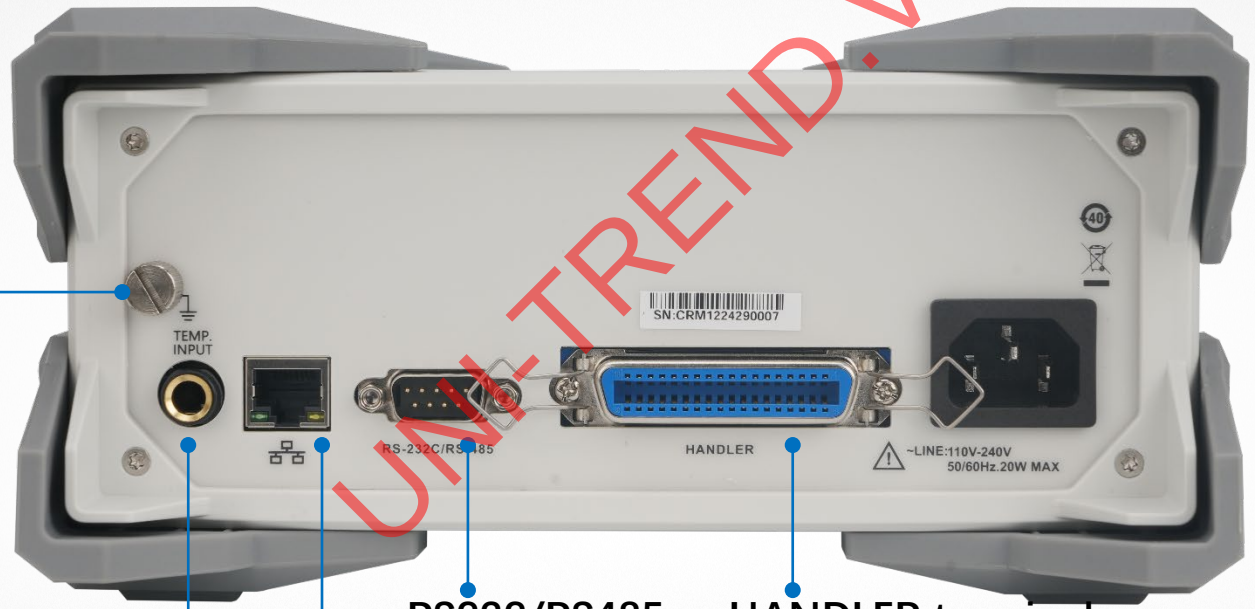
Exit and trigger key

USB Host

Multifunction softkey

Test Input Port

Product Panels



Product Comparisons

UNI-T

UT3510+		**UT3516+** Measurement range: 1 μΩ – 2 MΩ Accurate: 0.05% Test speed: 10 ms/time Resolution: 4½ Display: 4.3 inch TFT LCD	**UT3513+** Measurement range: 1 μΩ – 20 kΩ Accurate: 0.05% Test speed: 10 ms/time Resolution: 4½ Display: 4.3 inch TFT LCD
Competitor		**TH2516** Measurement range: 1 μΩ – 2 MΩ Accurate: 0.05% Test speed: 10 ms/time Resolution: 4½ Display: 4.3 inch TFT LCD	**TH2516B** Measurement range: 1 μΩ – 20 kΩ Accurate: 0.05% Test speed: 10 ms/time Resolution: 4½ Display: 4.3 inch TFT LCD

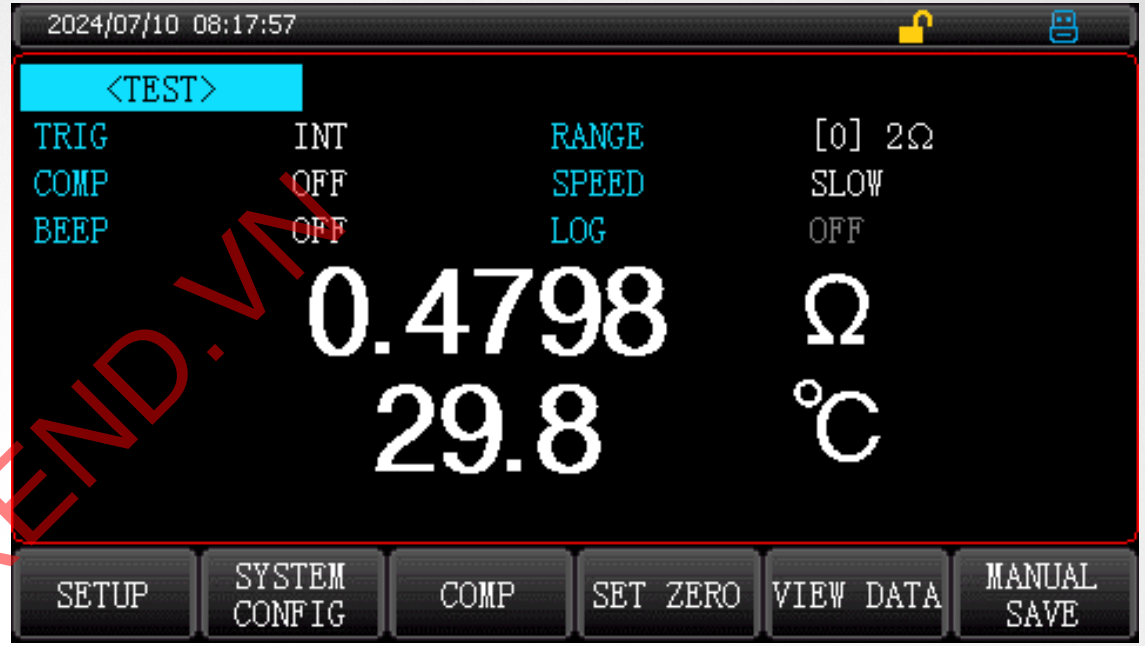
Product Comparisons (VS UNI-T Self)

Model	UT3516+	UT3513+	UT3516	UT3513
Display	4.3 inch TFT LCD	4.3 inch TFT LCD	4.3 inch TFT LCD	4.3 inch TFT LCD
Measurement range	1μ - 2 MΩ	1μ - 20 kΩ	1μ - 2 MΩ	1μ - 20 kΩ
Test speed	High speed 10 ms/time, fast speed 17 ms/time, medium speed 56 ms/time, slow speed 334 ms/time		Fast speed 60 times/s, medium speed 18 times/s, slow speed 3 times/s	Medium speed 18 times/s, slow speed 3 times/s
Max. resistance accuracy	0.05%	0.05%	0.05%	0.10%
Max. resolution	1 μΩ	1 μΩ	1 μΩ	1 μΩ
Reading resolution	4½	4½	4½	4½
Low voltage measurement	≤40 mV	≤40 mV	No	No
Test mode	R, T, R-T, LPR, LPR-T	R, T, R-T, LPR, LPR-T	R	R
Comparator	6-BIN sorting	6-BIN sorting	6-BIN sorting	1-BIN sorting
Statistics and logging	10000	10000	10000	10000
Bias voltage compensation	Yes	Yes	Yes	Yes
Temperature compensation	Yes	Yes	Yes	Yes
Temperature conversion	Yes	Yes	No	No
Zero calibration	Yes	Yes	Yes	Yes
Communication interface	RS232, RS485, HANDLER, LAN	RS232, RS485, HANDLER, LAN	RS232, RS485, **USB Device,** HANDLER	RS232, RS485, **USB Device**, HANDLER

Product Comparisons(VS Competitors)

Model	UT3516+	UT3513+	TH2516	TH2516B
Display	4.3 inch TFT LCD	4.3 inch TFT LCD	4.3 inch TFT LCD	4.3 inch TFT LCD
Measurement range	1μ - 2 MΩ	1μ - 20 kΩ	1μ - 2 MΩ	1μ - 20 kΩ
Test speed	High speed 10 ms/time, fast speed 17 ms/time, medium speed 56 ms/time, slow speed 334 ms/time		High speed 10 ms/time, fast speed 25 ms/time, medium speed 115 ms/time, slow speed 455 ms/time	
Max. resistance accuracy	0.05%	0.05%	0.05%	0.10%
Max. resolution	1 μΩ	1 μΩ	1 μΩ	1 μΩ
Reading resolution	4½	4½	4½	4½
Low voltage measurement	≤40 mV	≤40 mV	≤40 mV	≤40 mV
Test mode	R, T, R-T, LPR, LPR-T	R, T, R-T, LPR, LPR-T	R, T, R-T, LPR, LPR-T	R, LPR
Comparator	6-BIN sorting	6-BIN sorting	3-BIN sorting	3-BIN sorting
Statistics and logging	10000	10000		
Bias voltage compensation	Yes	Yes	Yes	No
Temperature compensation	Yes	Yes	Yes	No
Temperature conversion	Yes	Yes	Yes	No
Zero calibration	Yes	Yes	Yes	Yes
Communication interface	RS232, RS485, HANDLER, LAN	RS232, RS485, HANDLER, LAN	RS232, **USB Device**, HANDLER	RS232, **USB Device**, HANDLER

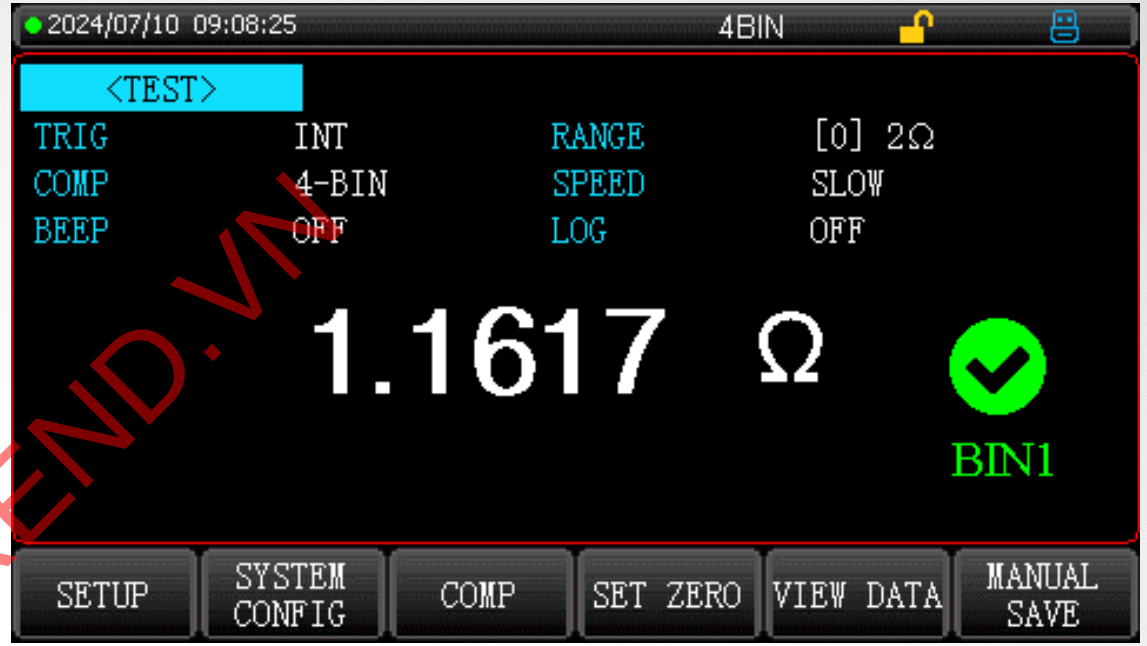
Product Features



➢ Multiple test modes

R/R-T/T/LPR/LPR-T five modes can be selected, LPR is a low-voltage test mode, can effectively protect the DUT

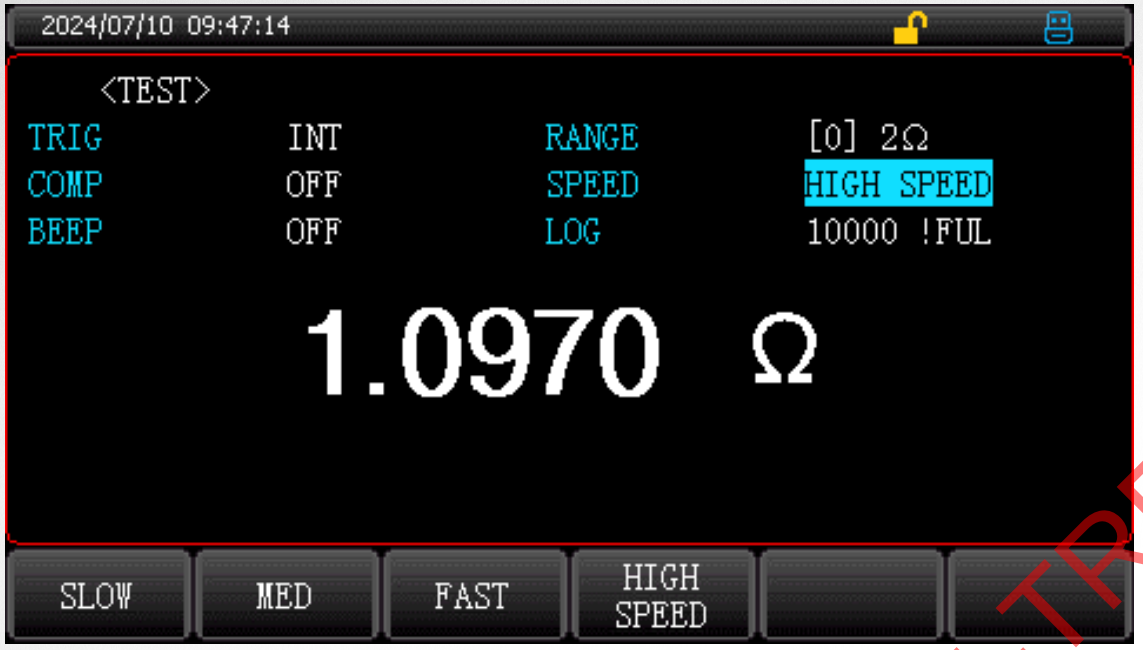
Product Features

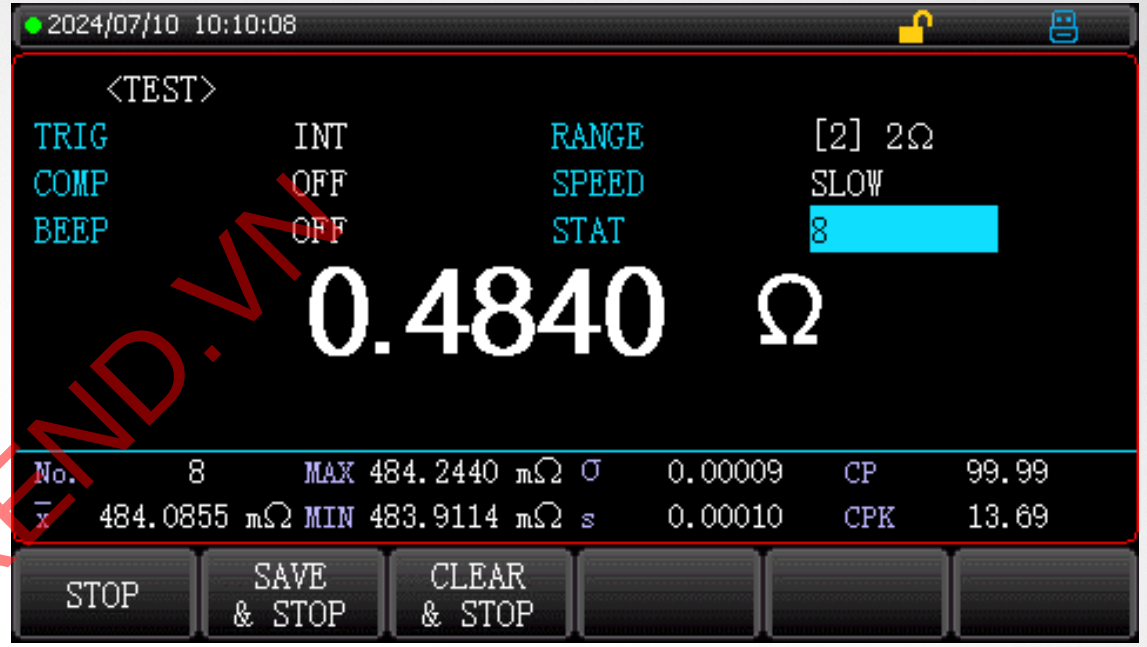


➢ 6 bins comparator

The built-in comparator gears allow the setting of 6 comparison results. The component under test can be divided into 7 bins (BIN1, BIN2, BIN3, BIN4, BIN5, BIN6 and NG).

Product Features



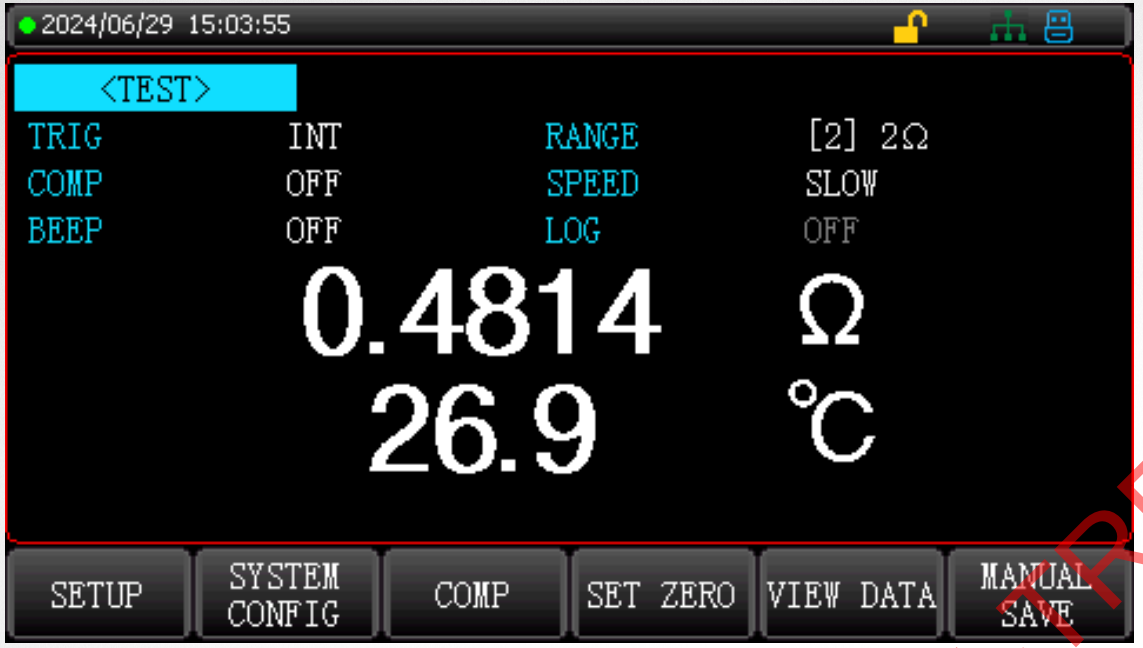


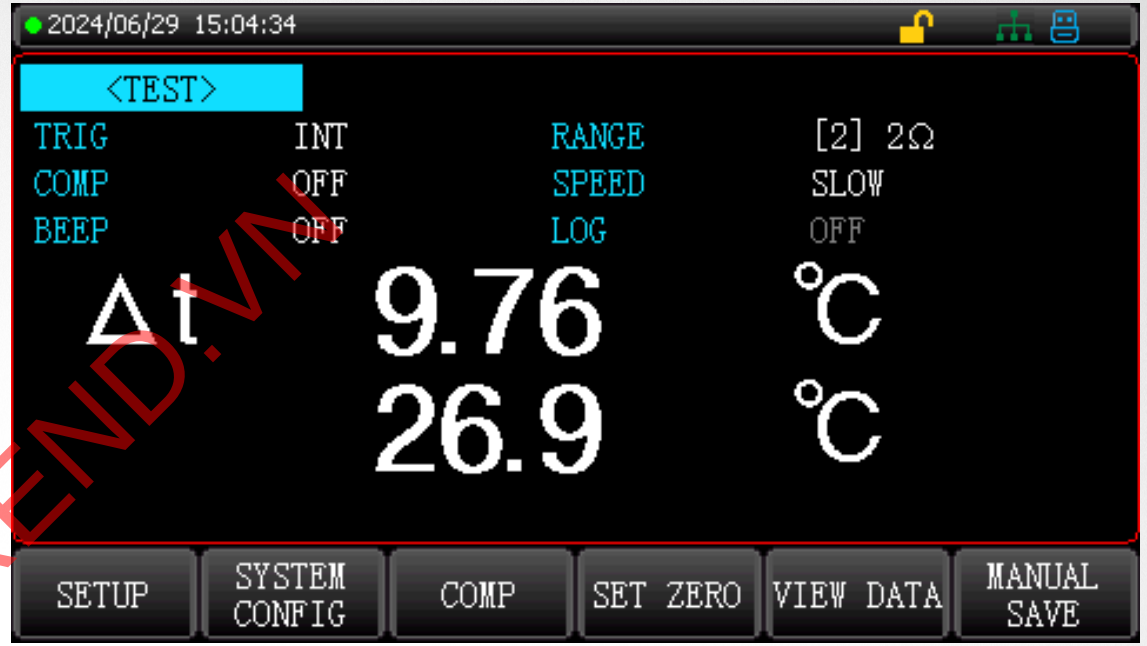
➢ Logging and statistics

Logging: Up to 10000 groups of data can be recorded;

Statistics: up to 10,000 sets of data, process capability index calculation possible

Product Features



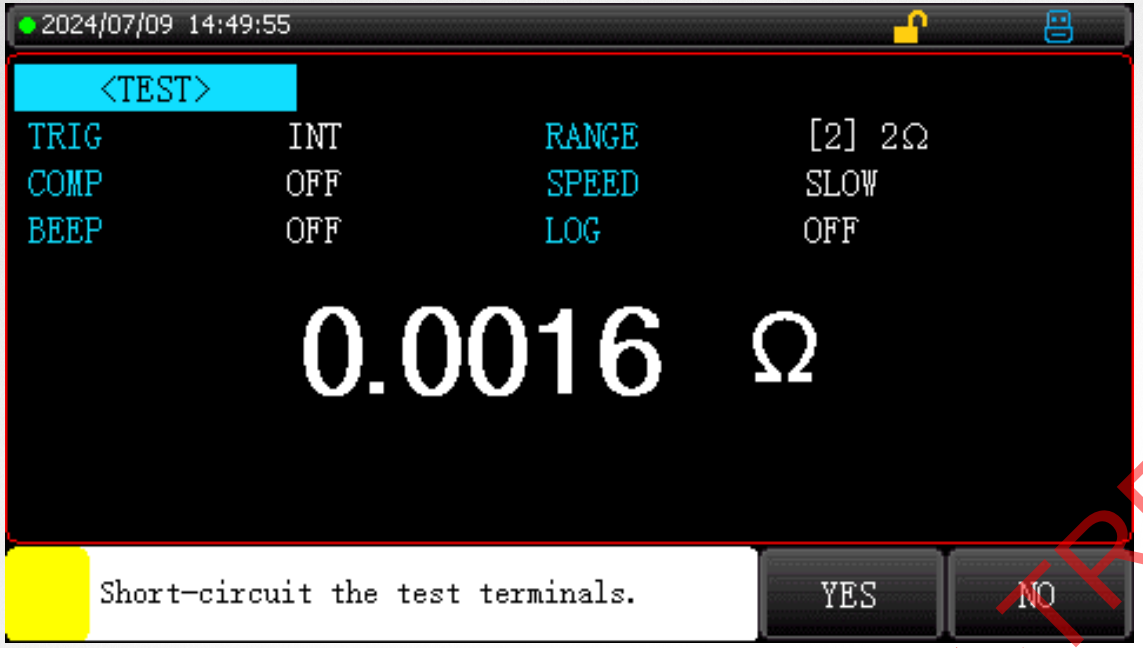


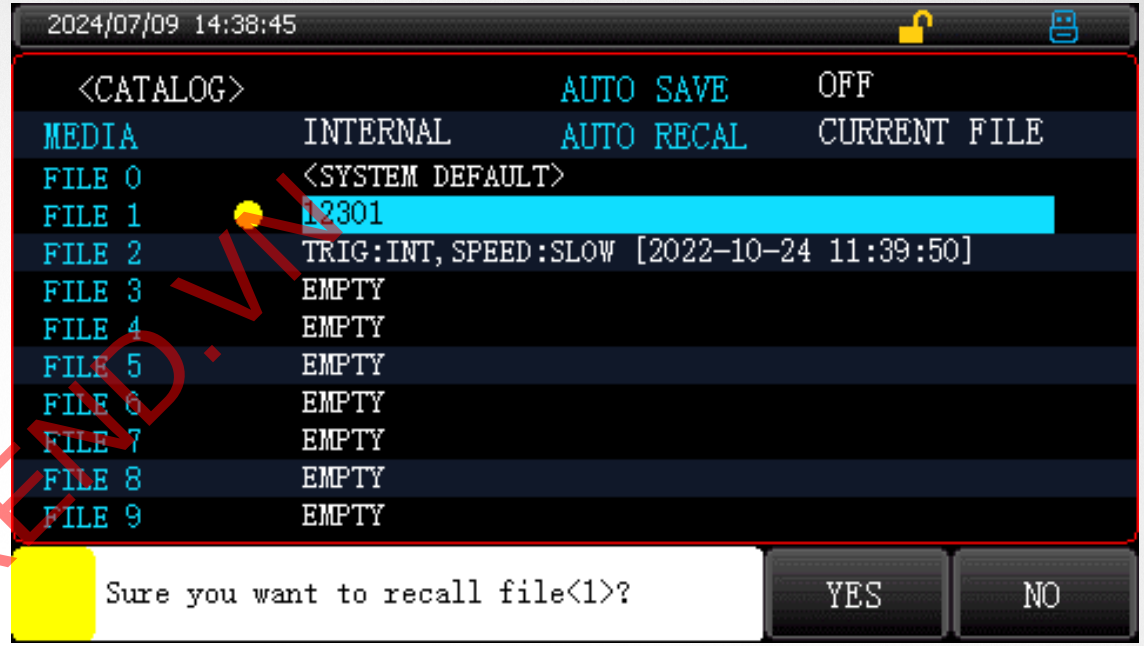
➢ Temperature correction and conversion

Temperature correction: Compensates for deviations in measured values due to temperature.

Temperature conversion: The difference between the internal temperature of the DUT and the ambient temperature can be obtained through the thermal effect of the resistor.

Product Features





➢ Self-calibration and Save function

Short-circuit calibration can be used to calibrate the instrument.

Setup files can be saved internally or on a USB flash drive for easy recall.

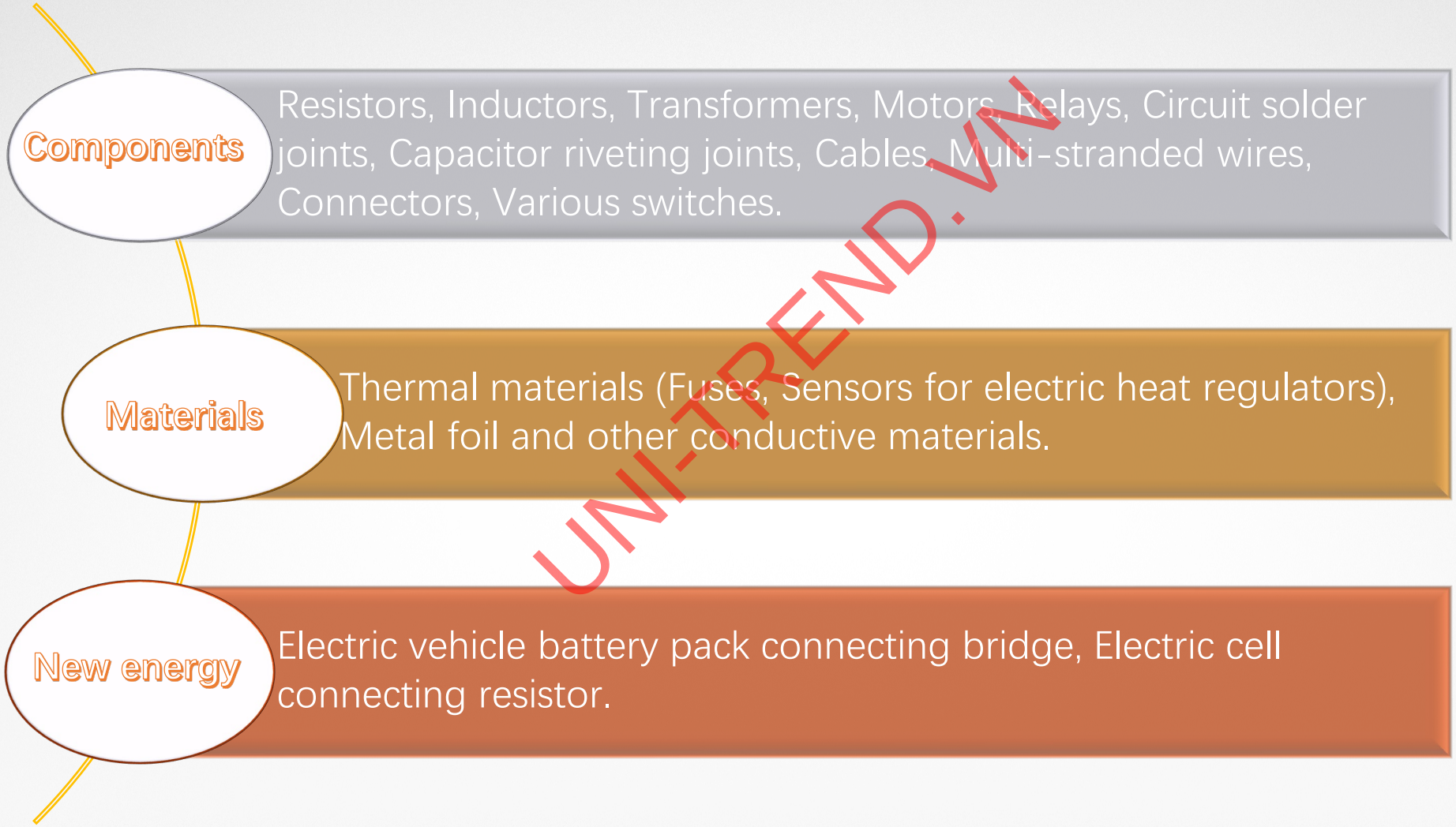
Selling Points

Feature	Advantage	Benefit
4.3 inch TFT LCD	Full-color LCD screen displays more content and color differentiation for clearer measurement results.	Good human-computer interaction experience
0.05% test accuracy	Tests at the micro-ohm level with high test accuracy, resulting in more accurate test results	More reliable measurements
6-bin comparator	Multi-level screening, more conducive to batch device advantages and disadvantages of classification, to assist in quality positioning	Quality lot grading
Low power resistance mode	Low-voltage resistors have limited voltage tolerance, and low-power mode provides smaller test voltages and ensures high accuracy	Protection of low voltage DUT
Logging function	Real-time storage of measurement data in the instrument buffer, which can be sent to a computer via the communication interface, or directly saved in CSV format to a USB disk	Data logging for easy traceability and analysis
Statistical function	Analyze the statistics and process capability index of the batch components to find out the problems in the production process in time.	Improve product quality and productivity
Multiple test modes	Resistance and low power resistance as well as dual display modes can be set flexibly according to the test requirements	Easier testing
Temperature compensation	Compensates for temperature shifts in the measured value and converts the resistance value obtained at the current ambient temperature to the resistance value at the user's set temperature	Meeting more areas of need
Temperature conversion	Through the thermal effect of the resistor, the change in resistance value is converted into the difference between the internal temperature of the measured part and the ambient temperature	Measurable product temperature rise
Four selectable test speeds	Test speeds up to 10 ms/time for faster test and measurement scenarios	Improved measurement efficiency

Selling Points

Feature	Advantage	Benefit
Bias compensation	The UT3516+ can be set up with a bias compensation function. That is, it compensates for measurement errors caused by thermal electromotive force on the measured component, etc.	More accurate measurements
Data storage	Provide data buffer and support saving to USB devices for later data viewing and analysis	To facilitate data analysis
Setting up saves and callbacks	Common settings can be saved in machine memory or external USB devices for quick callbacks	Quick and batch setup
Trigger delay	In external trigger mode, setting the trigger delay time guarantees that the measurement occurs when the test is ready. The trigger delay time can be set to a maximum of 10s.	Enhanced test reliability
Upper computer software as standard	The instrument can be remotely controlled and viewed through the PC software.	Realization of man-machine separation
Simultaneous support of SCPI and Modbus protocols	Two protocols are supported, so you can quickly link and use it with your existing control platform.	Easier to build automation
Multiple Interconnection Interfaces	Support RS232/485 and LAN interface interconnection, and provide HANDLER to realize remote control.	More flexible integration into automation platforms

Applications



Order Information

	Description	Product Size	Product Net Weight	Standard Quantity per Carton	Order No.
UT3510+	4½ display count, R: 1 μΩ-2 MΩ, Accuracy: 0.05%, Test speed: 10 ms/time, RS232/RS485, LAN, Handler, USB Host, Wide voltage	215mm×88mm×348.5mm	2.5 kg	1 pcs	UT3516+
	4½ display count, R: 1 μΩ-20 kΩ, Accuracy: 0.05%, Test speed: 10 ms/time, RS232/RS485, LAN, Handler, USB Host, Wide voltage	215mm×88mm×348.5mm	2.5 kg	1 pcs	UT3513+
Standard accessories	National standard cable	1.8m	--	1 pcs	--
	RS232 dual-female communication cable	2m	--	1 pcs	--
	Kelvin test cable	1m	--	1 pcs	--
	PT1000 temperature sensor test cable (only UT3516+)	1.5m	--	1 pcs	--

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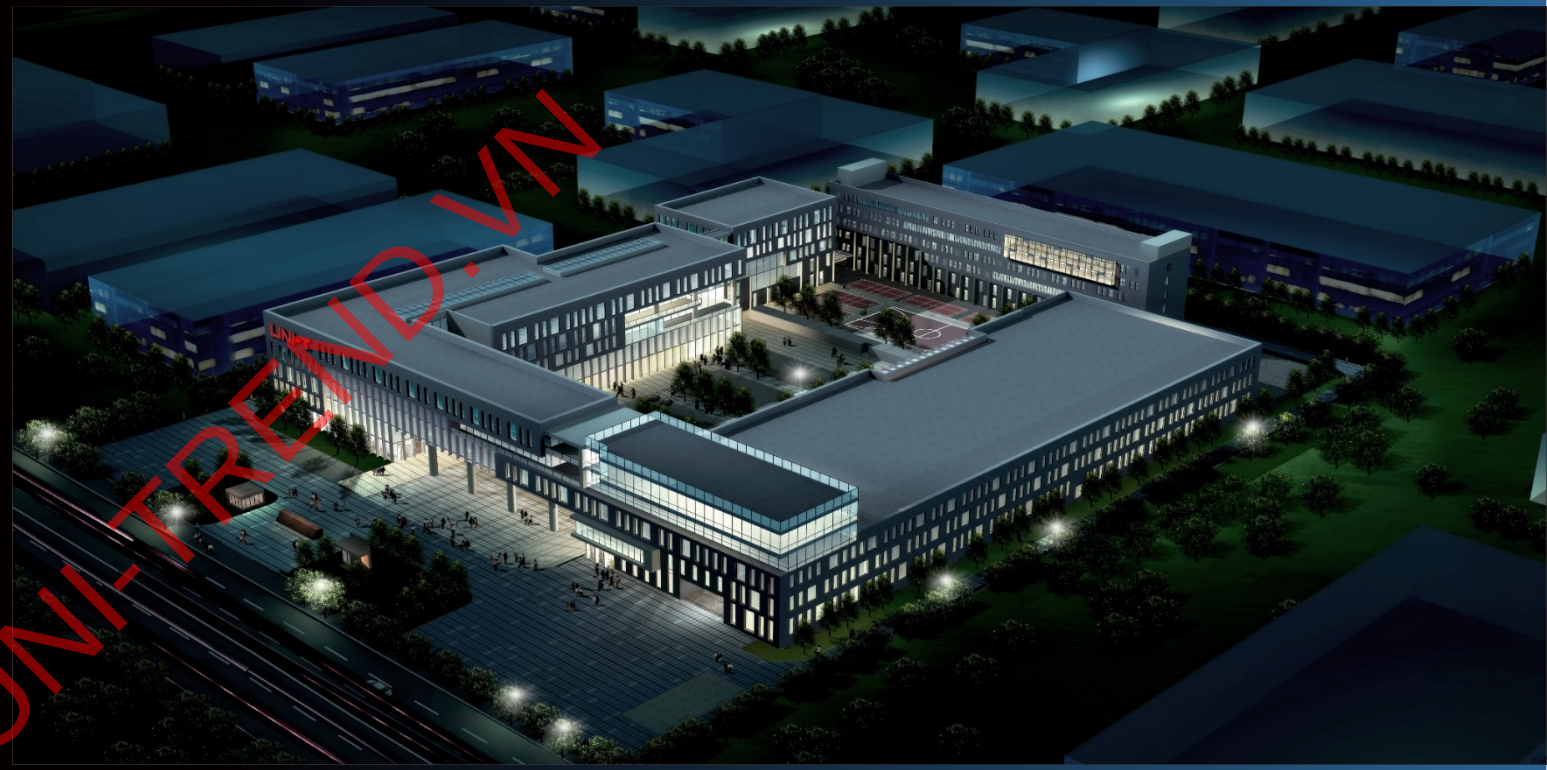

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