



# Data Sheet

## UT3550 Serie Battery Tester



## Main Features

- High-accuracy: resistance 0.5% / voltage 0.05%
- Resistance measurement range: 0.001mΩ ~ 30.00Ω
- Voltage measurement range: 0.0001V ~ 100.00V
- Resolution: resistance: 0.001mΩ voltage: 0.1mV
- Comparison mode: SEQ, PER, ABS
- The new AC internal resistance test method can measure almost all types of batteries
- 3.5-inch LCD main display
- 0.96 inch auxiliary display screen
- UPS can be measured directly online
- USB data storage and screenshot saving function
- Lithium battery power supply (2000mAh)
- Provide type C interface to realize remote control
- Support SCPI protocol
- Protection grade IP65

# Battery Tester Panel



- ① 3.5 inch LCD
- ② Function keys
- ③ Power switch
- ④ Test terminals
- ⑤ Function shortcuts
- ⑥ Numeric keypad
- ⑦ Type-C interface
- ⑧ USB interface
- ⑨ Power Socket
- ⑩ 0.96 inch sub-display
- ⑪ Replaceable clip



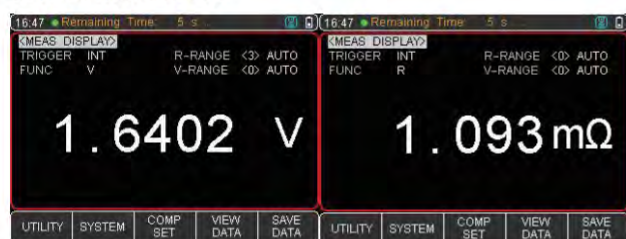


# Product Introduction

UT3550 is a hand-held battery tester with automatic real-time detection. It has the portability of handheld instruments and the superior performance of Bench instruments. It is a measuring instrument with high accuracy and high resolution. Equipped with USB type C interface for remote control and data acquisition and analysis. Support SCPI protocol. It is mainly used in the quality inspection of various batteries. UPS can be directly measured online with high accuracy.

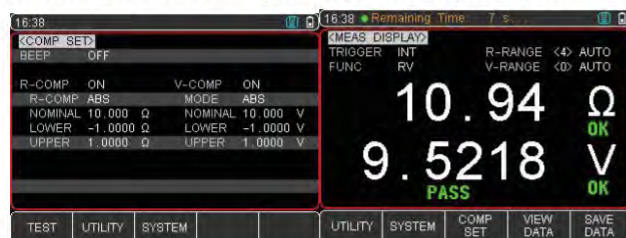
## Wide measuring range

UT3550 battery tester resistance measurement range: 0.001mΩ~30.00Ω。Voltage measurement range: 0.0001V ~ 100.00V。The measuring range is wider than that of the common handheld internal resistance meter. More kinds of battery products can be measured.



## Filtering function

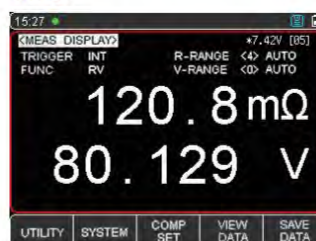
UT3550 has three comparison methods: direct reading, percentage, and absolute value. It can be set according to the measurement object to help you screen out defective products. The filtering results shall be clearly and specifically marked.



## Dual screen display

This handheld internal resistance tester has two screen displays. 3.5inch main screen, displaying detailed information. The auxiliary screen is located at the top, which is convenient to carry and read

quickly during measurement. Save you valuable time.



## On-line measurement

UT3550 adopts AC method to measure internal resistance, which can measure a wide range of batteries. It can be measured during the working process of the battery without affecting the measurement accuracy and stability. It is also applicable to UPS measurement.



## Remote control

The UT3550 uses the type C interface to connect the upper computer, so as to realize remote control. With the host computer software, the data record and filtering can be displayed at the same time. Support SCPI protocol, which can be applied to automatic construction.



## Automatic recording

UT3550 can set the timer value to start the automatic recording process. Up to 500 test data can be recorded. You can export CSV files and do



data analysis on the computer.

The screenshot shows the UT3550 instrument's LCD display. The top status bar shows '14:22 USB Disk Ready' and '16:38'. The main display is divided into several sections. On the left, there are settings for 'TRIGGER' (INT), 'FUNC' (RV), 'TIMER' (8 s), 'R-RANGE' (<2> AUTO), 'V-RANGE' (<0> AUTO), and 'BEEP' (OFF). The central part of the display shows a table of measurement data with columns for 'No.', 'A/V/F', 'RES', 'UNIT', and 'DATE-TIME'. The data rows show measurements from 021 to 030. The bottom of the display shows a row of function keys: 'TEST', 'SYSTEM', 'COMP SET', 'SET ZERO', 'SAVE TO USB DISK', 'CLEAR', 'JUMP TO', 'PAGE UP', and 'PAGE DOWN'.

No.	A/V/F	RES	UNIT	DATE-TIME
021	10.90	+9.5273		2022-01-03 16:10:04
022	10.90	+9.5273		2022-01-03 16:10:12
023	10.90	+9.5272		2022-01-03 16:10:20
024	10.91	+9.5271		2022-01-03 16:10:28
025	10.91	+9.5272		2022-01-03 16:10:36
026	10.91	+9.5271		2022-01-03 16:10:44
027	10.91	+9.5271		2022-01-03 16:10:52
028	10.91	+9.5271		2022-01-03 16:11:00
029	10.91	+9.5272		2022-01-03 16:11:08
030	10.91	+9.5272		2022-01-03 16:11:16

## Technical Specification

Function	Range name	Range	Resolution	Accuracy	Measuring current	Description
Resistance Measurement	0			±0.5%rdg ±5dgt		Measuring current frequency: 1kHz±30Hz
	1	30mΩ	10μΩ		150mA	
	2	300mΩ	100μΩ		15mA	
	3	3Ω	1mΩ		1.5mA	
	4	30Ω	10mΩ		150uA	
Voltage Measurement	0	10V	100μV	±0.05%rdg ±5dgt	/	
	1	100V	1mV			
Display		3.5 inch LCD display+0.96 inch OLED on the top				
Range Mode		Auto and Manual (resistance and voltage)				
Calibration		Short circuit full range to zeroed				
Testing Speed		1/s (manual range)				
Filter function		It has three output situations: exceed resistance and voltage upper limit/ exceed resistance and voltage low limit and conform				
Beep		OFF, OK, NG				
Comparison Mode		Absolute deviation (ABS) , Relative deviation (PER)				
		Direct-reading (SEQ)				
Other Function		Lock keypad, U disk storage, keypad tone, Chines/English language, screenshot				
Test Terminal		Four-terminal test method				
Trigger		Internal, manual and remote trigger				
Storage		Internal 500 groups, exportable CSV files				
Interface		Type-c interface (communication)/USB DEVICE(storage) /charge interface				
Upper-computer Software		SCPI				
Charging Time		<5 hour				
Operating Time		About 5 hour (20% brightness display)				
Power		The maximum 5VA				
Power Supply		7.4V, 2000mAh rechargeable lithium battery or 9VDC 2A power adapter				
Preheating Time		At least 15 minute				
Temperature/Humidity Index		Temperature: 18℃~28℃, Humidity: <65%RH				
Operating Temperature/Humidity		Temperature: 0℃~40℃, Humidity: 10~80%RH				
Storage Temperature/Humidity		Temperature: -20℃~60℃, Humidity: 10~90%RH				
Temperature Index		Over 28℃, less 18℃, each degree plus 0.1* the specified precision				
Operating Altitude		≤2000m				



\*The UT3550 series have been certified by CE

## Standard accessories

Power adapter	1	9V 2000mA switching power adapter wire length 1200mm round pin (RoHS)
Soft carrying case	1	Black, with "UNI-T" logo/RoHS
Shoulder strap	1	Black
USB communication cable type-C	1	USB2.0, type C data wire
With magnetic hanging belt	1	Black, long about 40cm, width about 2.5cm/RoHS
UT3550 Kelvin test clip	1	Crocodile clip red and black test line (with sheath) (RoHS)

## Warranty

Three-years warranty, excluding probes and accessories.

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