



Data Sheet

UT3550 Serie Battery Tester



Main Features

- High-accuracy: resistance 0.5% / voltage 0.05%
- Resistance measurement range: 0.001m Ω ~ 30.00 Ω
- Voltage measurement range: 0.0001V ~ 100.00V
- Resolution: resistance: 0.001m Ω 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

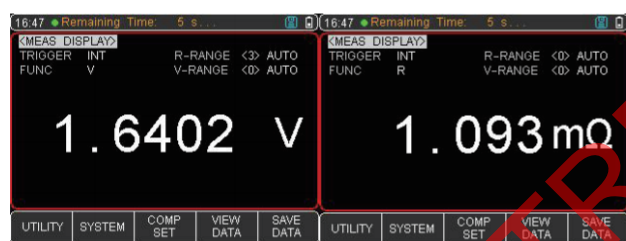


Product Introduction

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.

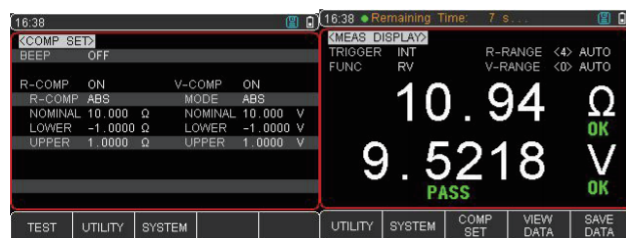
Wide measuring range

UT3550 battery tester resistance measurement range: $0.001\text{m}\Omega \sim 30.00\Omega$. Voltage measurement range: $0.0001\text{V} \sim 100.00\text{V}$. The measuring range is wider than that of the common handheld internal resistance meter. More kinds of battery products can be measured.



Filtering function

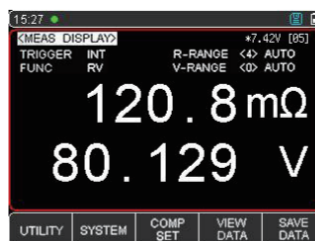
UT3550 has three comparison methods: direct reading, percentage, and absolute value. It can be set according to the measurement object to help you screen out defective products. The filtering results shall be clearly and specifically marked.



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.

| No. | AC-RES | DC-VOL | DATE-TIME | PAGE |
|-----|--------|---------|---------------------|------|
| 021 | 10.90 | +9.5273 | 2022-01-03 16:10:04 | 3 |
| 022 | 10.90 | +9.5273 | 2022-01-03 16:10:12 | 3 |
| 023 | 10.90 | +9.5272 | 2022-01-03 16:10:20 | 3 |
| 024 | 10.91 | +9.5271 | 2022-01-03 16:10:28 | 3 |
| 025 | 10.91 | +9.5272 | 2022-01-03 16:10:36 | 3 |
| 026 | 10.91 | +9.5271 | 2022-01-03 16:10:44 | 3 |
| 027 | 10.91 | +9.5271 | 2022-01-03 16:10:52 | 3 |
| 028 | 10.91 | +9.5271 | 2022-01-03 16:11:00 | 3 |
| 029 | 10.91 | +9.5272 | 2022-01-03 16:11:08 | 3 |
| 030 | 10.91 | +9.5272 | 2022-01-03 16:11:16 | 3 |

Technical Specification

| Function | Range name | Range | Resolution | Accuracy | Measuring current | Description |
|--------------------------------|------------|--|-----------------|--|-------------------|--|
| Resistance Measurement | 0 | | | $\pm 0.5\% \text{rdg} \pm 5 \text{dgt}$ | | Measuring current frequency: 1kHz \pm 30Hz |
| | 1 | 30m Ω | 10 $\mu\Omega$ | | 150mA | |
| | 2 | 300m Ω | 100 $\mu\Omega$ | | 15mA | |
| | 3 | 3 Ω | 1m Ω | | 1.5mA | |
| | 4 | 30 Ω | 10m Ω | | 150uA | |
| Voltage Measurement | 0 | 10V | 100 μ V | $\pm 0.05\% \text{rdg} \pm 5 \text{dgt}$ | | / |
| | 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 (SEI) | | | | |
| 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 $^{\circ}$ C~28 $^{\circ}$ C, Humidity: <65%RH | | | | |
| Operating Temperature/Humidity | | Temperature: 0 $^{\circ}$ C~40 $^{\circ}$ C, Humidity: 10~80%RH | | | | |
| Storage Temperature/Humidity | | Temperature: -20 $^{\circ}$ C~60 $^{\circ}$ C, Humidity: 10~90%RH | | | | |
| Temperature Index | | Over 28 $^{\circ}$ C, less 18 $^{\circ}$ C, each degree plus 0.1* the specified precision | | | | |
| Operating Altitude | | \leq 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.

Please visit https://instruments.uni-trend.com/list_190/65.html to learn more information.

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