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Data Sheet

UT8802E Benchtop Digital Multimeter



Main Features

- Reading resolution: $4\frac{1}{2}$, maximum reading 19999
- Measuring rate: 3 reading/s
- DC voltage range: 200mV ~ 1000V
- DC current range: 200 μ A ~ 20A
- AC voltage range: 2V ~ 750V
- AC current range: 2mA ~ 20A
- Resistance range: 200 Ω ~ 200M Ω
- Capacitance range: 20nF ~ 100mF
- Frequency measurement range: 200Hz ~ 10MHz
- Duty cycle measurement range: 5% ~ 99%
- Mathematical operation: maximum, minimum, relative value
- Interface: USB device, It can be connected to the upper computer control software
- Frequency response: 1KHz
- It can measure diode, triode and thyristor
- Support global mains voltage

Multimeter Panel



- ① Power switch ② Display screen ③ 20A jack ④ uA/mA jack ⑤ COM jack
 ⑥ Function jack (voltage, resistance, capacitance, frequency, diode, duty ratio)
 ⑦ Function buttons ⑧ Function switch



- ① Grounding ② Fuse socket ③ USB interface ④ AC voltage selector ⑤ Power supply interface

Product Introduction

UT8802E is a manual range, benchtop digital multimeter that features 19999 display counts, large LCD Screen with back light, full scale over load protection and a unique design. This instrument can be used to Measure AC and DC voltage, AC and DC current, resistance, frequency, capacitance, transistor, hFE, diode (LED), SCR, continuity, etc.

Display accuracy

UT8802E digital multimeter can display 4½ digits (19999), It can provide you high-precision and accurate result display.



Diode measurement

UT8802E digital multimeter has diode test function. Switch to the diode position to obtain the on voltage and diode polarity.



Triode / thyristor measurement

UT8802E digital multimeter can realize the measurement of triode and thyristor with the help of UT-S03A. Connect the tested part according to the fixture guidance, the magnification, conduction direction and conduction voltage of the tested part can be measured, and it can help you screen good products.



Multiple measurement items optional

UT8802E digital multimeter covers the testing of AC / DC voltage, AC / DC current, resistance, capacitance, frequency duty cycle, triode thyristor, diode and other items. Provide you with a comprehensive universal test instrument. Solve the measurement problem of basic electronic devices.



Extreme value function

The UT8802E digital multimeter has the function of maximum and minimum value statistics. This function can help you find out the maximum output, the minimum output in batch products or multiple measurements.



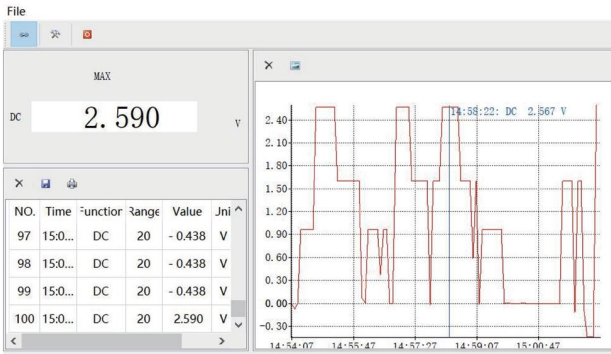
Reference value mode

Press REL to set the test reference value, which can be set according to the error or deviation of the measured items, Then you can see the calculation result relative to the reference value on the display. It is helpful to improve the measurement accuracy.



Remote operation

UT8802E digital multimeter can be connected to the upper computer. After installing the driver software, it can realize remote viewing, and observe historical data and trend chart in real time.



Technical Specification

EXPLAIN:

Accuracy: $\pm(\%$ of reading + least significant digits), 1 year warranty

Ambient temperature: $23^{\circ}\text{C} \pm 5^{\circ}\text{C}$

Ambient humidity: $\leq 75\%$ RH

Input impedance: $10\text{M}\Omega$

Overload protection: $1000\text{V}/750\text{Vrms}$

If current $\geq 10\text{A}$, measure time should less than 30s with 15mins interval.

AC Voltage			
Range	Resolution	Accuracy	remarks
2V	100uV	±(0.5%+20)	Frequency response: 40Hz~1KHz Display: Sine wave RMS(average response)
20V	1mV	±(0.5%+20)	
200V	10mV	±(0.5%+20)	
750V	0.1V	±(0.8%+40)	
DC Voltage			
Range	Resolution	Accuracy	Remarks
200mV	10uV	±(0.1%+5)	
2V	100uV	±(0.1%+3)	
20V	1mV	±(0.1%+3)	
200V	10mV	±(0.1%+3)	
1000V	0.1V	±(0.2%+5)	
AC current			
Range	Resolution	Accuracy	Remarks
2mA	0.1uA	±(0.8%+40)	Frequency response 45Hz~400Hz.
20mA	10uA	±(0.8%+40)	
200mA	10uA	±(0.8%+40)	
20A	1mA	±(2%+40)	
DC current			
Range	Resolution	Accuracy	Remarks
200uA	10nA	±(0.5%+20)	
2mA	100nA	±(0.5%+20)	
20mA	1uA	±(0.5%+20)	
200mA	10uA	±(0.5%+20)	
20A	1mA	±(1.5%+40)	
Resistance			
Range	Resolution	Accuracy	Remarks
200Ω	0.01Ω	±(0.5%+10)	If the resistance to be tested is greater than 20M the measured result is only for the reference
2kΩ	0.1Ω	±(0.5%+10)	
20kΩ	1Ω	±(0.5%+10)	
200kΩ	10Ω	±(0.5%+10)	
2MΩ	100Ω	±(0.5%+10)	
200MΩ	1kΩ	For reference	
Capacitance			
Range	Resolution	Accuracy	Remarks
20nF	1pF	±(2.5%+10)	If capacitance>20F, the measured result is only for the reference
200nF	10pF	±(1.5%+10)	
2uF	100pF	±(1.5%+10)	
20uF	1nF	±(1.5%+10)	
200uF	10nF	±(1.5%+10)	
2mF	100nF	±(1.5%+10)	
20mF	1uF	±(10%+10)	
100mF	10uF	For reference	

Frequency/duty ratio				
Range	Resolution	Accuracy	Remarks	
200Hz	0.01Hz	±(1%+5)	≤100kHz: 100mVrms≤Amplitudes≤20Vrms 100kHz~1MHz: 200mVrms≤Amplitude≤20Vrms 1MHz~5MHz: 500mVrms≤Amplitudes≤20Vrms 5MHz~10MHz: 900mVrms≤Amplitudes≤20Vrms	
2kHz	0.1Hz	±(1%+5)		
20kHz	1Hz	±(1%+5)		
200kHz	10Hz	±(1%+5)		
2MHz	100Hz	±(1%+5)		
10MHz	1kHz	±(1%+5)		
10Hz~10KHz 5%~99%	0.1%	±(1.5%+2)		
Diode/Triode/SCR/Continuity				
Function	Position	Resolution	Accuracy	Remarks
Diode		1mV	10%	1、 If the measured resistance is greater than 100Ω the circuit is regarded as open status. 2、 The buzzer will not go off. If the measured resistance is less than 50Ω the circuit is regarded as in good conduction status, the buzzer will go off. 3、 SCR is the abbreviation of "Silicon Controlled Rectifier"
SCR test	SCR	1mV	10%	
Triode hFE	hFE	1β	No specified	
Continuity		0.1Ω	No specified	



*The UTD8802E have been certified by CE, cETLus.

Standard accessories

UT-L41 test lead	Alligator clip short test lead:110-130mm
UT8802E(CE) test probe	Test Leads , Double insulated wire CAT III 1000V /CAT IV 600V 10A
UT-S03A	Auxiliary test fixture for triode thyristor
Power cable	Fits the standard of destination country
USB data cable	USB standard printer cable length 1m (RoHS)

Warranty

Three-years warranty, excluding probes and accessories.

To protect your investment, please purchase from UNI-T official authorized global distributors.

Contact UNI-T

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UNIT/MKT-TMI-SC/AL-2208-035

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