



Datasheet UT5583 Insulation Resistance Tester

1. Characteristics

- 4.3 inch TFT-LCD, easy operation panel
- Real-time monitoring output voltage
- Dual display of insulation resistance and leakage current
- Charge time, test time and discharge time can be adjusted
- Calibration function, full range open circuit zero clearing
- Contact detection for capacitive materials
- Digit display function (5 digits/4 digits)
- Comparator function: sorting qualification and disqualification
- Sound setting of sorting judgement
- Quick discharge battery function
- USB data record
- Save 100 test files, USB supports file access
- Various interfaces, support two protocols, SCPI and MODBUS

2. Product Introduction

UT5583 insulation resistance tester adopts high-performance controller, it has 4.3 inch TFT-LCD display. Output voltage can freely set 1V~1000V to meet most of the test requirements. Six range measurement, insulation resistance measurement range can reach to 10 k Ω ~10 T Ω , sampling rate up to 30 ms/time. UT5583 has a wide range of communication interfaces, providing a preferred test solution for automated production.

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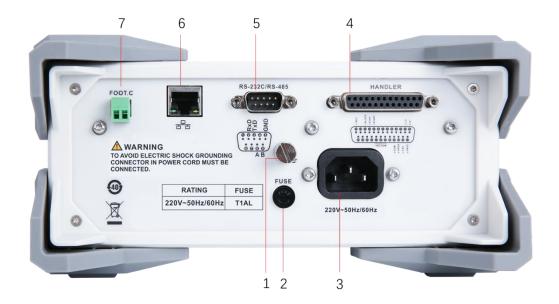
Front Panel



No.	Description				
1	USB interface				
2	Power switch				
3	Functional keys (at the bottom of the screen)				
/.	High voltage indicator				
4	(It will illuminate with red when monitoring voltage is greater than 10V.)				
	Test terminal is used to connect test cable for measurement.				
	(+) positive terminal (current sampling terminal)				
5	(-) negative terminal (voltage output terminal, dangerous high voltage!)				
5	GND Ground terminal (block the object to be test if the part under test is a				
	cable or a capacitor, the end is not connected.)				
	Warning: Do not connect negative termainl with ground terminal.				
c	Exit and start/stop key				
6	(the key has indicator, it will will illuminate with green when it activated.)				
7	Arrow keys and OK key				
8	Numeric keyboard				
9	Specific functional shortcut key				
10	Screen				
11	Emblem				

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Rear Panel



No.	Description		
1	Protective ground terminal		
2	Fuse		
3	Power socket		
4	Handler interface		
5	RS-232C /RS-485 interface (option)		
6	LAN interface		
7	Footswitch interface		

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3. Design Highlights

Contact Inspection

Contact inspect the capacitive measured object to avoid poor contact.

Contact inspect the capacitive measurement objects to avoid measuring error due to poor contact.

For capacitive materials such as capacitors and cables (equivalent capacitance greater than 100PF), the contact inspection is a good way to read whether the device is making good contact, thus reducing the occurrence of erroneous tests, and the contact inspection does not add any test time.

When the contact inspection function is turned on, if poor contact occurs, the comparator status displays [Open].



Display Mode

Two display modes can be set in setup page, resistance, and resistance/current.

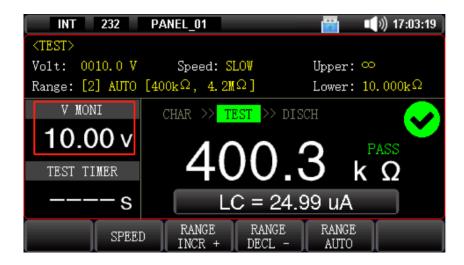
Resistance/current: simultaneous display the insulation resistance and leakage current in test page. Resistance: only display the insulation resistance in test page.





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Real-time Monitoring Output Voltage



Comparator Function, Sorting Qualified/Disqualified

Open the comparator to set the upper/lower limit of insulation specification, which is to sorting qualified/disqualified.



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4. Technical Index

Insulation resistance, leakage current	Maaaaaaa					
Range control IV~1000V(DC): When voltage ≥10V, adjusting step IV When voltage ≥10V, adjusting step 0.IV Accuracy of When voltage ≥10V, 10%±10 Vhen voltage ≥10V, 10%±10 Vhen voltage ≥10V, 10%±10.IV Measurement Resistance: 10 kΩ~10 TΩ Current: 100 pA~250 uA V ≤ Voltage ≥10V 5% (less than IM); 1% (IM~100M); 5% (100M~10G); 10% (greater than 106) measurement 10V ≤ Voltage ≥100DV 5% (less than IM); 1% (IM~16); 3% (16~10G); 5% (10G~100G); 10% (100G~1T); 15% (greater than 10G) Test speed Fast speed: 30 ms/time; Middle speed: 100 ms/time; Slow speed: 500 ms/time Range mode Automatic, lock, nominal(select the best range according to the comparator setting) Maximum of charging 25 mA ± 5 mA Current Voltage, current, resistance, sorting result, audible and visual alarm Trigger mode Internal trigger, manual trigger, external trigger, bus trigger Charge time 0~999s Discharge time 0~999s Discharge time 0~999s Comparator Record of 1 group, judge the upper limit (UFAIL), qualified (PASS), the lower limit (LFAIL) Calibration Full range open-circuit zero clearing Screen display 4.3 inch TFT-LCD Sottage and Interface Save 100 test files, USB supports file access Save 100 test files, USB supports file access Control interface HANDLER, FOOT Control interface Communication SCPI, Modbus RTU	Measurement	Insulation resistance, leakage current				
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Sotrage and Interface USB HOST	function	Full range open-circuit zero clearing				
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protocol SCPI, Modbus RTU	Communication					
		SCPI, Modbus RTU				
ANTHURING HOULT	Communication					
interface RS232C, USB HOST, LAN (option RS485)		RS232C, USB HOST, LAN (option RS485)				

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5. Accessories

Article	Quantity	Remarks
Insulation resistance tester	1 piece	
Power cord	1 piece	
RS232 communication line	1 piece	
Test line	1set	1 piece of red, green and black
Casastus	2 pieces	T1AL for 220V
Spare fuse		Or T2AL for 110V
Pluggable wiring terminal	1 piece	Footswitch
Download manual	1 piece	
		Electronic user's manual can
User's manual	O piece	download from the official
		website.

6. Contact Us

UNI-T Technical Support Hotline: 400-876-7822

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