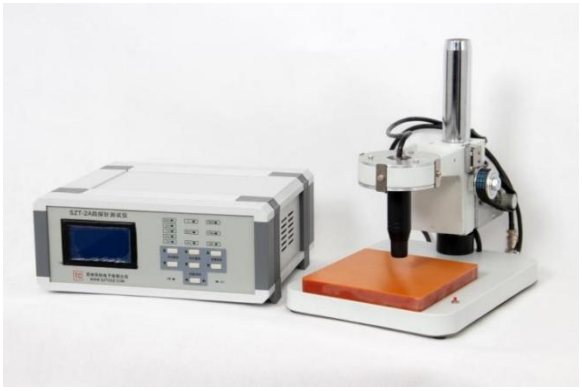
HangZhou Qiansineng Technology Co.,Ltd.

SZT-2A FOUR-POINT PROBE TESTER



1. The SZT-2A host utilizes advanced circuit design, resulting in faster and more accurate measurements. The LCD display provides clear readings, and the device comes with computer interface and software for simple operation.
2. The computer can automatically calculate, compare, and correct coefficients based on the specified thickness input, resulting in more precise measurements. Data can be easily stored or deleted for record-keeping purposes.
3. The automatic sensing device in the test frame prevents damage to the object being measured and reduces probe wear, improving measurement accuracy. The instrument measures resistance, resistivity, and square resistance, and the standard coefficient is self-adjusting, eliminating the need for manual adjustment.**The minimum resolution of the instrument is 0.1mΩ.**
4. The main machine is manual, while the test stand is automatic. The test probe is made of tungsten needle, which is superior to high-speed steel needles found in other probes on the market. Temperature compensation and voltage and current correction are automatically performed during each measurement.
5. **The whole machine measurement standard uncertainty is ≤ 2%**, which is significantly lower than the error rate of other domestic manufacturers (which is typically ≤ 5%).

-Technical parameters.

Measurement range		Constant current source	
Resistivity	10^{-4} ~ 10^{5}Ω-cm	Current output	DC 0~100mA continuously adjustable.
Square resistance	10^{-4} ~ 10^{5}Ω/□	Range	10, 100μA, 1, 10, 100mA
Resistance	10^{-4} ~ 10^{5}Ω	Error range	± 0.5% number ± 1
Measurable semiconductor material size		**Four-probe test probe**	
Diameter:	5mm-200mm	Probe spacing:	1mm
Length:	≤400mm	Material:	Tungsten carbide.Probe mechanical wander rate: ±1.0%
Measurement method		**Display**	
Axial, cross-sectional can be		4 1/2, digital display, polarity, overload auto-show, Automatic display of decimal points and units	
Power supply	220±10% 50Hz or 60Hz Power consumption:< 35W		

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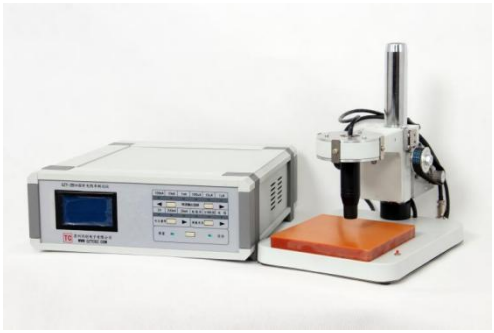
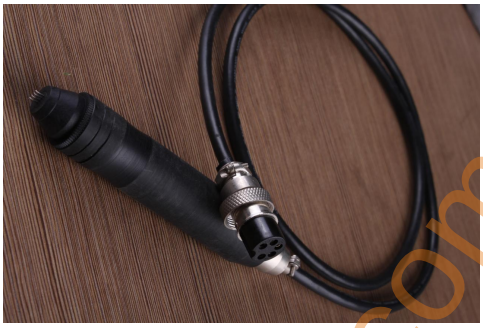
SZT-2B FOUR-POINT PROBE TESTER





1. The SZT-2B host utilizes advanced circuit design, resulting in faster and more accurate measurements. The LCD display provides clear readings, and the device comes with a computer interface and software for easy operation. The computer can automatically calculate, compare, and correct coefficients based on the specified thickness input, resulting in more precise measurements. Data can be easily stored or deleted for record-keeping purposes.
2. **The testing platform of the SZT-2B test fixture is 10 cm larger in length and width than traditional testing platforms**, making it suitable for larger-diameter materials. The test frame incorporates an automatic sensing device that decelerates when approaching the object to be measured, preventing the loss of the object and reducing probe wear. This feature improves measurement accuracy and is superior to similar products on the domestic market.
3. The instrument measures resistance, resistivity, and square resistance, and the standard coefficient is self-adjusting, eliminating the need for manual adjustment. The testing fixture pressure of this instrument can be adjusted in three levels. **The minimum resolution of the instrument is 0.1mΩ.**
4. The main machine is manual, while the test stand is automatic. The test probe is made of tungsten needle, which is superior to high-speed steel needles found in other probes on the market. Temperature compensation and voltage and current correction are automatically performed during each measurement.
5. **The whole machine measurement standard uncertainty is ≤ 2%**, which is significantly lower than the error rate of other domestic manufacturers (which is typically ≤ 5%).

-Technical parameters.

Measurement range		Constant current source	
Resistivity	10^{-4} ~ 10^{6}Ω-cm	Current output	DC 0~100mA continuously adjustable.
Square resistance	10^{-4} ~ 10^{6}Ω/□	Range	1,10, 100μA, 1, 10, 100mA
Resistance	10^{-4} ~ 10^{6}Ω	Error range	± 0.5% number ± 1
Measureable semiconductor material size		**Four-probe test probe**	
Diameter:	5mm-250mm	Probe spacing:	1mm
Length:	Any length is available (requires a manual probe)	Material:	Tungsten carbide.Probe mechanical wander rate: ±1.0%
Measurement method		**Display**	
Axial, cross-sectional can be		4 1/2, digital display, polarity, overload auto-show, Automatic display of decimal points and units	
Power supply	220±10% 50Hz or 60Hz Power consumption:< 35W		

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SZT-2C FOUR-POINT PROBE TESTER

1. The SZT-2C utilizes advanced circuit design, resulting in faster and more accurate measurements. The screen features a **colored LCD**, and the device comes with a computer interface and software for easy operation. The computer can automatically calculate, compare, and correct coefficients based on the specified thickness input, resulting in more precise measurements. Data can be easily stored or deleted for record-keeping purposes.

2. The test platform of the SZT-2C is a fixture that is 10cm larger in length and width than traditional testing platforms **(if customers have specific requirements for the size of the test platform, we can customize it according to the customer's dimensions).** The test frame incorporates an automatic sensing device that decelerates when approaching the object to be measured, preventing damage to the object and reducing probe wear. This feature improves measurement accuracy and is superior to similar products on the domestic market.

3. This instrument automatically adjusts the standard coefficient when testing resistance, resistivity, and square resistance, eliminating the need for manual adjustments and simplifying operation. (The pressure of this instrument can be adjusted in three levels; this function is an optional accessory) **The minimum resolution of the instrument is 0.01 mΩ.**

4. The main machine is integrated with both manual and automatic operation, and the test platform can also complete both manual and automatic functions without the need for two separate setups. The test probe is made of a tungsten needle, superior to high-speed steel needles found in other probes on the market. Each measurement automatically performs temperature compensation and voltage/current correction by the built-in computer.

5. The whole machine measurement standard uncertainty of the device is ≤2%, which is significantly lower than the error rate of other domestic manufacturers (typically ≤5%).

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-Technical parameters.

Measurement range		Constant current source	
Resistivity	10^{-5} to 10^{5} Ω·cm	Current output	DC current 0~100mA, with continuous adjustable digital settings for each range. Voltage meter range and display format: 000.00 - 199.99 mV.
Square resistance	10^{-4} ~ 10^{6}Ω/□	Range	10, 100μA, 1, 10, 100mA
Resistance	10^{-5} ~ 10^{5}Ω	Error range	±0.5% of reading ±1 digit
		Input impedance: >1000MΩ; Accuracy: ±0.1%.	
Measureable semiconductor material size		**Four-probe test probe**	
Diameter:	5mm-250mm	Probe spacing:	1mm±0.01mm
Length:	Any length is available (requires a manual probe)	Material:	Tungsten carbide.Probe mechanical wander rate:≤0.3%
Measurement method		**Display**	
Axial, cross-sectional can be		4 1/2, digital display, polarity, overload auto-show,	
Power supply	220±10% 50Hz or 60Hz Power consumption:< 35W	**The device's maximum relative error (using a silicon standard sample from 0.01-180Ω·cm) is up to ±5%.**	
Computer communication interface: USB, high-speed parallel data acquisition. Data collection time to the computer is only 1.5 seconds when connected to a computer (in 0.1mA, 1mA, 10mA, 100mA range). When connected to a computer, it comes with an automatic measurement function and automatically selects the suitable test current range for the sample.			

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Probe for four point probe tester

Alloy probe: Fully imported Equip Test brand probe from Hungary.

tungsten carbide tip probe

automatic test frame

Please inform us of your testing materials. Our technical staff will recommend the most suitable probe for your company based on the materials. For example, choose a round-head alloy probe for thin films and a sharp-pointed probe for semiconductor silicon materials. If you have any other unique materials to test, please don't hesitate to contact us by email at sztcdz@vip.163.com. Our technical staff will be dedicated to providing you with the most professional services and advice.

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Four-Probe Measurement Instrument Comparison and Selection Guide

Differences_of_SZT-2A_2B_2C

Feature / Model	SZT-2A	SZT-2B	SZT-2C
Resistivity Range	10^-4 ~ 10^5 Ω-cm	10^-4 ~ 10^6 Ω-cm	10^-5 ~ 10^5 Ω-cm
Square Resistance Range	10^-4 ~ 10^5 Ω/□	10^-4 ~ 10^6 Ω/□	10^-4 ~ 10^6 Ω/□
Resistance Range	10^-4 ~ 10^5 Ω	10^-4 ~ 10^6 Ω	10^-5 ~ 10^5 Ω
Current Output Range	DC 0~100mA continuously adj.	DC 0~100mA continuously adj.	DC current 0~100mA, with continuous adjustable digital settings for each range. Voltage meter range and display format: 000.00 - 199.99 mV.
Current Range	10, 100μA, 1, 10, 100mA	1, 10, 100μA, 1, 10, 100mA	10, 100μA, 1, 10, 100mA
Error Range	± 0.5% reading ± 1 digit	± 0.5% reading ± 1 digit	±0.5% of reading ±1 digit
Measurable Material Diameter	5mm-200mm	5mm-250mm	5mm-250mm
Measurable Material Length	≤400mm	Any length (manual probe)	Any length (manual probe)
Probe Spacing	1mm	1mm	1mm±0.01mm
Probe Material	Tungsten carbide or alley round probe	Tungsten carbide or alloy round probe	Tungsten carbide or alloy round probe
Probe Mechanical Wander Rate	±1.0%	±1.0%	≤0.3%
Measurement Method	Axial, cross-sectional		
Display	4 1/2, digital display, polarity, overload auto-show, Automatic display of decimal points and units		
Power supply	220±10% 50Hz or 60Hz Power consumption:< 35W		

Please inform us of your testing materials. Our technical staff will recommend the most suitable probe for your company based on the materials. For example, choose a round-head alloy probe for thin films and a sharp-pointed probe for semiconductor silicon materials. If you have any other unique materials to test, please don't hesitate to contact us by email at sztcdz@vip.163.com. Our technical staff will be dedicated to providing you with the most professional services and advice.

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