

# Component Parameter Test Instruments

## A. TH2839 Series Impedance Analyzer

### Features

- High accuracy: Auto-balance bridge technology, 4-terminal pair
- High stability and consistency: Up to 15 test ranges
- High speed: Up to 7.7ms
- High resolution: 7-inch, 800x600
- 201 Points List Sweep Function
- Multi-parameter Graphic Sweep Function
- Varactor diode automatic polarity function
- 10 bins sorting, sorting result with sound and light alarm
- Storage space: Internal: 40 groups of setting files  
USB External: 500 groups of setting files, data log files and image files
- Simultaneous testing for Ls-R<sub>dc</sub>
- High compatibility: Support SCPI commands, compatible with KEYSIGHT E4980A, E4980AL, HP4284A etc.

NEW



Standard RS232 USB HOST USB DEVICE HANDLER LAN

option GPIB SCANNER

Dimension(mm): 400mm(W)x132mm(H)x425mm(D)

Weight: 15kg

#### Dielectric material

Dielectric constant and loss angle evaluation of plastics, ceramics and other materials

#### Magnetic materials

Magnetic permeability and loss angle assessment of ferrite, amorphous body and other magnetic materials

#### Semiconductor materials

Dielectric constant, electrical conductivity and C-V characteristics of semiconductor materials

#### Liquid crystal cell

Dielectric constant, elastic constant and C-V characteristics of liquid crystal cell

### Applications

#### Passive component:

Impedance parameter estimation and performance analysis of capacitor, inductor, magnetic core, resistor, piezoelectric devices, transformers, chip components and network components

#### Semiconductor component

Parasitic parameter test and analysis of LED driver integrated circuit C-VDC features of varactors

Parasitic parameter analysis of transistors or integrated circuit

#### Other components

Impedance assessment of printed circuit boards, relays, switches, cables, batteries

### Specifications

Model	TH2839	TH2839A																		
Display	7-inch TFT LCD display 800XRGBX600																			
AC Test parameters	Cp/Cs, Lp/Ls, Rp/Rs,  Z ,  Y , R, X, G, B, θ, D, Q, Vac, Iac																			
DC Test parameters	Rdc, Vdc, Idc																			
Test Frequency	<table border="1"><tr><td>Range</td><td>20Hz-10MHz</td><td>20Hz — 5MHz</td></tr><tr><td>Highest resolution</td><td>1mHz</td><td></td></tr></table>	Range	20Hz-10MHz	20Hz — 5MHz	Highest resolution	1mHz														
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Test level	<table border="1"><tr><td>AC voltage</td><td>20Hz — 2MHz: 5mV — 2Vrms 2MHz — 10MHz: 5mV — 1Vrms</td><td>20Hz — 2MHz: 5mV — 2Vrms 2MHz — 5MHz: 5mV — 1Vrms</td></tr><tr><td>Resolution</td><td>100uV</td><td></td></tr><tr><td>AC current</td><td>20Hz — 2MHz: 50uA—20mA 2MHz — 10MHz: 50uA—10mA</td><td>20Hz — 2MHz: 50uA — 20mA 2MHz — 5MHz: 50uA — 10mA</td></tr><tr><td>Resolution</td><td>1uA</td><td></td></tr><tr><td>DC Voltage</td><td>100mV — 2V</td><td></td></tr><tr><td>Resolution</td><td>100uV</td><td></td></tr></table>	AC voltage	20Hz — 2MHz: 5mV — 2Vrms 2MHz — 10MHz: 5mV — 1Vrms	20Hz — 2MHz: 5mV — 2Vrms 2MHz — 5MHz: 5mV — 1Vrms	Resolution	100uV		AC current	20Hz — 2MHz: 50uA—20mA 2MHz — 10MHz: 50uA—10mA	20Hz — 2MHz: 50uA — 20mA 2MHz — 5MHz: 50uA — 10mA	Resolution	1uA		DC Voltage	100mV — 2V		Resolution	100uV		
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DC Voltage	100mV — 2V																			
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DC bias	<table border="1"><tr><td>Voltage</td><td>0V — ± 40V</td></tr><tr><td>Resolution</td><td>100uV</td></tr><tr><td>Current</td><td>0mA — ± 100mA</td></tr><tr><td>Resolution</td><td>1uA</td></tr></table>	Voltage	0V — ± 40V	Resolution	100uV	Current	0mA — ± 100mA	Resolution	1uA											
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DC voltage source	<table border="1"><tr><td>Voltage range</td><td>-10V — 10V</td></tr><tr><td>Current range</td><td>-45mA — +45mA</td></tr><tr><td>Output impedance</td><td>100Ω</td></tr></table>	Voltage range	-10V — 10V	Current range	-45mA — +45mA	Output impedance	100Ω													
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Current range	-45mA — +45mA																			
Output impedance	100Ω																			
Test terminal configuration	Four-terminal pair																			
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Typical measurement time (speed)	Fast: 7.7ms/time Medium: 120ms/time Slow: 230ms/time																			

# Component Parameter Test Instruments

## A. TH2839 Series Impedance Analyzer

Model	TH2839	TH2839A
Highest accuracy	1kHz: 0.05% 1MHz: 0.05% 2MHz: 0.1% 5MHz: 0.5% 10MHz: 1.0%	1kHz: 0.05% 1MHz: 0.05% 2MHz: 0.1% 5MHz: 0.5%
Cable length	0, 1, 2, 4 meters (4 meter cable is optional)	
Graph sweep	Parameters	FREQ, ACV, ACV/I, DCV/I, DC voltage source
	Type	Logarithm, linearity
	Sweep points	51, 101, 201, 401 or 801
Equivalent circuit analysis	Purchase PC software	
Interface	USB HOST, USB DEVICE, LAN, HANDLER, RS232C, SCANNER, Temperature Input sensor Optional: GPIB	
Warm-up time	60 minutes	
Input voltage	Optional 100-120VAC/198-242VAC, 47-63Hz	
Power consumption	80VA	
Dimension(WxHxD)mm <sup>3</sup>	400 x 132 x 425	
Weight	15kg	

### Standard accessories

Three core power cord  
TH26010 Gold-plated short circuit board

TH26005C Four-terminal test fixture