

# Component & Device Parameter Test Instruments

## I. TH2836 Series Precision LCR Meter



### Features

- High precision: using automatic balancing bridge technology, four-terminal pair test configuration
- High speed: the fastest test speed is 5.6ms
- High resolution: 7 inches, 800×480 resolution
- 10-point multi-parameter list sweep function
- Mathematical operation function
- Automatic polarity function of varactor diode
- One-key screenshot function
- One key recording function
- 10-level sorting function, sound and light alarm for sorting results
- Large storage space:
  - Built-in: 40 sets of setting files
  - Expansion: 500 sets of setting files, image files, and data recording files can be stored through USB memory
- High compatibility: support SCPI commands, compatible with KEYSIGHT E4980A, E4980AL, HP4284A



RS232	USB HOST	USB DEVICE	HANDER	LAN	GPIB
standard	standard	standard	standard	standard	option

### TH2836 Series

Dimension (mm): 400(W) x 132(H) x 425(D)  
 Net weight : 15kg

### Application

- Passive components:
  - Capacitors, Inductors, Magnetic Cores, Resistors, Piezoelectric Devices, Transformers, Chipsets
  - Impedance parameter evaluation and performance analysis of hardware and network components, etc.
- Semiconductor components:
  - Test and analysis of parasitic parameters of LED drive integrated circuits; C-V DC characteristics of varactor diodes; analysis of parasitic parameters of transistors or integrated circuits
- Other components:
  - Impedance evaluation of printed circuit boards, relays, switches, cables, batteries, etc.

- Dielectric material:
  - Dielectric constant and loss angle evaluation of plastics, ceramics and other materials
- Magnetic material:
  - Permeability and loss angle evaluation of ferrite, amorphous and other magnetic materials
- Semiconductor materials:
  - Dielectric constant, conductivity and C-V characteristics of semiconductor materials
- LCD unit:
  - C-V characteristics such as dielectric constant and elastic constant

### Specifications

Model	TH2836	
Display	7 inch TFT LCD Display 800×RGB×480	
AC Parameters	Cp/Cs, Lp/Ls, Rp/Rs,  Z ,  Y , R, X, G, B, θ, D, Q, Vac, Iac	
DC Parameters	Rdc, Vdc, Idc	
Test Frequency	Range	4Hz-8.5MHz
	Resolution	1mHz
Test Electric Level	AC Voltage	4Hz-1MHz: 5mV-2Vrms 1MHz-8.5MHz: 5mV-1Vrms
	Resolution	100μV
	AC Current	4Hz-2MHz: 50μA-20mArms 2MHz-8.5MHz: 50μA-10mArms
	Resolution	1μA
	DC Voltage	100mV-2V
	Resolution	100μV

# Component & Device Parameter Test Instruments

## I. TH2836 Series Precision LCR Meter

DC Bias	Voltage	0V-±10V
	Resolution	100μV
	Current	0mA-±100mA
	Resolution	1μA
Test terminal configuration	Four-terminal pair	
Cable Length	0,1m	
Output Impedance	100Ω	
Typical Measurement Time (speed)	Fast: 5.6ms Medium: 120ms Slow: 230ms	
Highest accuracy	1kHz : 0.05% 1MHz: 0.05% 2MHz: 0.1% 5MHz: 0.5% 8.5MHz: 1.0%	
Display Range	a: $1 \times 10^{-18}$ ; E: $1 \times 10^{18}$	
Cs,Cp	±1.00000aF-999.999EF	
Ls,Lp	±1.00000aH-999.999EH	
D	±0.00001-9.99999	
Q	±0.01-99999.9	
R,Rs,Rp,X,Z,Rdc	±1.00000aΩ-999.999EΩ	
G,B,Y	±1.00000aS-99.9999ES	
Vdc	±1.00000aV-999.9999EV	
Idc	±1.00000aA-999.999EA	
θr	±1.00000rad-3.14159rad	
θd	±0.0001deg-180.000deg	
Δ%	±0.0001%-999.999%	
Multifunction List Scan	10 dots. Parameter: Measurement parameter, test frequency, AC voltage, AC current, DC Bias voltage and DC Bias current.	
Graph sweep	Optional	
Interface	USB HOST,USB DEVICE,HANDLER,RS232C Optional: GPIB	
Warm-up time	60 minutes	
Input voltage	100-120VAC/198-242VAC, 47-63Hz	
Power consumption	80VA	
Dimension (WxHxD) mm <sup>3</sup>	400x132x425	
Weight	15kg	