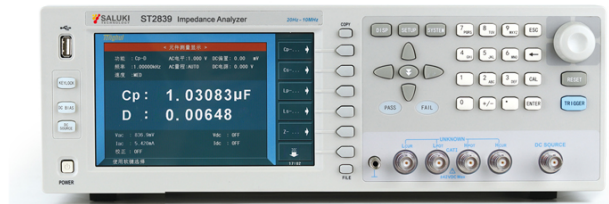


# ST2839 Series Precision Impedance Analyzer



## 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, 800×600
- 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  $L_s$ - $R_{DC}$
- High compatibility: Support SCPI commands, compatible with KEYSIGHT E4980A, E4980AL, HP4284A etc.



Standard  RS232   USB HOST   USB DEVICE  HANDLER  LAN

option  GPIB   SCANNER

Dimension(mm): 400mm(W)x132mm(H)x425mm(D)  
Weight: 15kg

## 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

- **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

## Specifications

|                                  |  |   |  |
|----------------------------------|--|---|--|
| Model                            | ST2839   | ST2839A   |  |
| 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                   | Range  | 20Hz-10MHz  | 20Hz — 5MHz  |
|                                  | Highest resolution   | 1mHz  |  |
| Test level                       | AC voltage   | 20Hz — 2MHz: 5mV — 2Vrms<br>2MHz — 10MHz: 5mV — 1Vrms   | 20Hz — 2MHz: 5mV — 2Vrms<br>2MHz — 5MHz: 5mV — 1Vrms       |
|                                  | Resolution   | 100uV   |  |
|                                  | AC current   | 20Hz — 2MHz: 50uA—20mArms<br>2MHz — 10MHz: 50uA—10mArms | 20Hz — 2MHz: 50uA — 20mArms<br>2MHz — 5MHz: 50uA — 10mArms |
|                                  | Resolution   | 1uA   |  |
|                                  | DC Voltage   | 100mV — 2V  |  |
| DC bias                          | Resolution   | 100uV   |  |
|                                  | Voltage  | 0V — ± 40V  |  |
|                                  | Current  | 0mA — ± 100mA   |  |
|                                  | Resolution   | 1uA   |  |
| DC voltage source                | Voltage range  | -10V — 10V  |  |
|                                  | Current range  | -45mA — +45mA   |  |
|                                  | Output impedance   | 100Ω  |  |
| Test terminal configuration      | Four-terminal pair   |   |  |
| Output impedance                 | 100Ω   |   |  |
| Typical measurement time (speed) | Fast: 7.7ms/time<br>Medium: 120ms/time<br>Slow: 230ms/time |   |  |

|                             |   |  |
|-----------------------------|---|--|
| Model                       | ST2839  | ST2839A  |
| Highest accuracy            | 1kHz: 0.05%<br>1MHz: 0.05%<br>2MHz: 0.1%<br>5MHz: 0.5%<br>10MHz:1.0%                            | 1kHz: 0.05%<br>1MHz: 0.05%<br>2MHz: 0.1%<br>5MHz: 0.5% |
| Cable length                | 0, 1, 2   |  |
| 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<br>Optional: GPIB |  |
| Warm-up time                | 60 minutes  |  |
| Input voltage               | Optional 100-120VAC/198-242VAC, 47-63Hz   |  |
| Power consumption           | 80VA  |  |
| Dimension(WxHxD)            | 400 x 132 x 425 mm  |  |
| Weight                      | 15kg  |  |

### Standard accessories

Power cord  
 ST26010 Gold-plated short circuit board  
 ST26011BS 4-terminal pair Kelvin test clip leads  
 ST26005C Four-terminal test fixture