



ET1090 ET1091 series Benchtop Digital LCR Meter



Key Features:

The ET1090 and ET1091 Series LCR digital bridge is designed by using automatic balance bridge principle component parameter analyzer, the tests of 10Hz~100kHz bandwidth, frequency adjustable, 0.2% of the basic classification function provided by the accuracy of measurement and instrument for the vast majority of components and materials to provide accurate and complete the survey and analysis, is widely used in product research and development, components such as incoming inspection, product online applications.

Measurement frequency up to 100kHz

Test level 100 ~ 2000mV

Support the measurement of DC resistance and electrolytic capacitor

Internal bias voltage output (1mV-1500mV)

Automatic identification of component measurement

3.5-inch TFT display, 5 and a half bits display

USB, RS232 communication interface, Handle sorting

Data recording function (maximum and minimum values, average value)

Support SCPI communication protocol

Provide system settings, which can configure language, buzzer, screen brightness, etc according to the needs of users.

Basic accuracy 0.2%

Manual and automatic range

Be equipped with open circuit and short circuit correction

Comparator has sorting and alarm function

Provide a variety of test ports

| Model | ET1090A | ET1090B | ET1090C | ET1091A | ET1091B | ET1091C |
|-----------------------|---|---------|---------|---------|---------|---------|
| Digits | Main parameter: 5 digits; secondary parameter: 5 digits | | | | | |
| Measurement Parameter | Main parameter: L/C/R/Z; secondary parameter: X/D/Q/θ/ESR | | | | | |
| Measurement Range(L) | 0.01μH - 9999H | | | | | |
| Measurement Range(C) | 0.01pF - 99999μF | | | | | |
| Measurement Range(R) | 0.0001Ω - 99.99MΩ | | | | | |

| | | | | | | | |
|---------------------------|--|----------------------|------------------------|-----------------------------------|-----------------------------|------------------------------|--|
| Basic Accuracy | 0.2% | | | | | | |
| Test Frequency (Hz) | 100~10kHz 10 point | 100~20kHz 12point | 100~100kHz 16 point | 10~10kHz 1Hz Stepping | 10~20kHz 1Hz Stepping | 10~100kHz 1Hz Stepping | |
| Measurement Display Speed | 2 times/second (slow), 4 times/second (medium speed), 8 times/sec (fast) | | | | | | |
| Internal Bias | 0-1500mV adjustable, 1mV stepping | | | | | | |
| Test Level | 100mV、300mV、600mV、 1000mV、1500mV、2000mV | | | 0.1V~2V adjusted ,1mV Stepping | | | |
| Correction Function | Open circuit correction, short circuit correction | | | | | | |
| Screening function | The screening limit can be set from -50% to + 50% with fixed points of 1%, 5%, 10% and 20% | | | | | | |
| Selection of comparator | Five gear sorting, third gear qualified, one gear failed, one ancillary gear | | | | | | |
| Communication Interface | Standard configuration: USB, RS232 (or 485), Handle interface; Optional: GPIB, USB Host | | | | | | |
| Others | Support DCR, electrolytic capacitor measurement mode, adjustable backlight brightness, optional in English and Chinese | | | | | | |

Power connection

- (1) Power supply voltage range: 220V AC \pm 10%, or 110V AC \pm 10%.
 - (2) Power supply frequency range: 45-65Hz.
 - (3) Phase line L, zero line N, and ground line E of power input shall be the same as those of the power plug of this instrument.
 - (4) The instrument has been carefully designed to reduce the clutter interference caused by the input at the AC power supply terminal. However, it shall be used in a low noise environment. If such is not the case, please install the power supply filter.
- WARNING: In order to prevent leakage from causing damage to the instrument or person, the user must ensure that the ground line of the power supply is reliably connected to the earth.
- (5) Power consumption: less than 20W.

1.1 General Technical Specifications

- Power supply voltage: 220V AC \pm 10%, or 110V AC \pm 10%, 45-65Hz
- Working environment: 0 ~ 40 °C, relative humidity <80%.
- Storage environment: -10 ~ 50 °C, relative humidity <80%.
- Dimensions: 265mm * 105mm * 305mm (width * height* depth).
- Mass: 2.3kg.

Standard Accessories:

- Four-terminal-pair Kelvin test cable (35A51).
- Three-core power cord (30A51).
- One User Manual.

Optional accessories:

- RS232 serial cable / USB data cable.
- Handle cable.
- Four-terminal-pair Kelvin test fixture (including short block)
- SMD component test fixture (including short block)