

Fnirsi LC1020E Transistor Tester



Product Description

The **FNIRSI LC1020E** is an advanced, handheld digital bridge designed for high-precision measurement of inductance (L), capacitance (C), resistance (R), and impedance (Z). Engineered for engineers, technicians, and electronics hobbyists, it combines laboratory-grade accuracy with a portable, battery-powered form factor.

Featuring a vibrant 2.8-inch TFT color display, the LC1020E provides simultaneous dual-parameter readings, allowing you to analyze secondary characteristics such as ESR, Dissipation Factor (D), and Quality Factor (Q). With a wide test frequency range up to 100kHz and an intelligent "Auto-Identify" mode, it is the perfect tool for everything from SMD component sorting to complex circuit board troubleshooting.

Key Features

- **High-Precision 4.5-Digit Resolution:** Delivers exceptional measurement stability with a basic accuracy of $\pm 0.3\%$, ensuring reliable results for professional-grade diagnostics.
- **Smart Auto-Recognition:** Automatically detects the type of component (R, L, or C) and selects the optimal measurement mode instantly, significantly speeding up your workflow.
- **Multi-Frequency Analysis:** Supports five selectable test frequencies (100Hz, 120Hz, 1kHz, 10kHz, and 100kHz) for accurate component characterization across different operating conditions.
- **Dual Test Port Design:** Features both a standard 3-terminal test socket for quick checks and a professional 5-terminal slot for high-precision 4-wire Kelvin measurements to eliminate lead resistance errors.
- **Intelligent Sorting & Comparison:** Allows users to set nominal values and tolerance ranges (0.1% to 99.9%). Includes audio-visual "Pass/Fail" prompts for rapid batch testing and quality control.
- **Built-in Bias Voltage:** Equipped with an internal bias voltage (0.0V / 0.5V) to stabilize readings and improve accuracy when testing sensitive or electrolytic components.

- **Portable & Rechargeable:** Powered by a high-capacity 3000mAh lithium battery with USB-C charging, making it ideal for field service, production lines, and laboratory use.
- **Data Hold & Logging:** Easily freeze readings on-screen or use the logging mode to track and record pass/fail statistics during component inspections.

Technical Specifications

- **Model,**LC1020E
- **Display,**2.8-inch HD TFT Color Screen
- **Measurement Parameters,"**Main: AUTO, R, C, L, Z / Secondary: X, D, Q, θ , ESR"
- **Basic Accuracy,**0.3%
- **Test Frequencies,"**100Hz, 120Hz, 1kHz, 10kHz, 100kHz"
- **Test Voltage Levels,"**0.1V, 0.3V, 0.6V (RMS)"
- **Internal Bias Voltage,"**0.0V, 0.5V"
- **Measurement Ranges,**L: 0 – 100H / C: 0 – 100mF / R: 0 – 10M Ω
- **Equivalent Circuits,**Series and Parallel Modes
- **Test Terminals,**3-Terminal Socket & 5-Terminal Slot (4-Wire Kelvin)
- **Battery,**3.7V 3000mAh Lithium (Rechargeable)
- **Charging Interface,**USB Type-C
- **Dimensions,**Approx. 185 x 85 x 35 mm
- **Weight,**Approx. 500g