

NEW SMART TWEEZER MORE ACCURATE MORE FUNCTIONS Model ST-5L

Now with USB charger port and Li-ion Battery, 6 times high accuracy,
Semi-automatic offset subtraction, Component Sorting,
diode and continuity test!



Smart Tweezers is a new patented design concept integrating a digital multimeter with a built-in gold-plated SMD probes and a display. This light weight device can be easily held by one hand. and is ideally suitable for component evaluation on a PCB or a production line and sorting of SMD components. Smart Tweezers dramatically reduces time necessary to troubleshoot or debug a PCB simplifying process of locating a faulty component.

The new model ST-5L of the Digital Multimeter Smart Tweezers is powered by a rechargeable Li-Ion batteries with a USB Charger that virtually eliminates necessity of a battery replacement.

The integration of SMD probes and the display, combined with automatic recognition of a measurement mode (L, C, and R) and the best measurement range allow the user to focus on the component under test. As a result, testing, sorting and evaluation of components become much more efficient.

Inductance, Capacitance, Resistance

Primary display shows present reading of the main impedance component (L,C, or R). The secondary display (at the top of the LCD screen) shows present reading of the secondary impedance component, such as a parasitic resistance of the capacitor (effective series resistor ESR).

Continuity/Open Test

The Smart Tweezers is designed for a continuity test. The beeper sounds when a resistance reading is below a threshold, or to indicate an open circuit.

Durable Probes

Tweezers tips are made of gold-plated non-magnetic stainless steel.

Ergonomic Design and Convenient Controls

Smart Tweezers features a Navigation Controller Joystick allowing quick controls without going into the menu. By pushing the Navigation Controller Up, Right, Down or Left you can select a proper function or setting directly, without entering the menu as it was done in the previous version of Smart Tweezers.

Smart Tweezers: A new Generation of Digital Multimeters



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Physical Specifications	
<i>Operating Temperature:</i>	0 °C to +55 °C
<i>Storage Temperature:</i>	40 °C to +60 °C
<i>Relative Humidity:</i>	0 % to 90 % (0 °C to 35 °C) 0 % to 70 % (35 °C to 55 °C)
<i>Altitude Operating:</i>	0-2000 meters
<i>Storage:</i>	10000 meters
<i>Battery Type:</i>	Rechargeable 4.5 Volt Li-Ion Battery
<i>Battery Life:</i>	80 Hours for fully charged battery
<i>Electromagnetic Compatibility (EMC):</i>	Susceptibility and Emission: FCC 15 part B
<i>Size:</i>	14.0 x 2.5 x 3.0 cm (3.94 x 0.9 x 1.5 in)
<i>Weight:</i>	53 grams (0.11lb)
<i>Warranty:</i>	1 year
Basic Specifications	
<i>Measured Parameters:</i>	C, L, R, ESR, Rs, Rp
<i>Measuring Frequencies:</i>	100Hz, 120 Hz, 1 kHz, 10kHz
<i>Measurement rate:</i>	1 time per second, default
<i>Resistance:</i>	0.05 Ohms to 9.99 MOhms
<i>Capacitance:</i>	0.5 pF to 4999 µF
<i>Inductance:</i>	1µH to 999 mH
<i>Quality Factor Q:</i>	0.001 to 1000
<i>Dissipation Factor D:</i>	0.001 to 1000
Detailed Accuracy Specifications	
Accuracy is specified at 18°C to 28°C (64°F to 82°F), with relative humidity to 90%.	
Resistance	
<i>Range:</i>	0.1Ohm - 5MOhm
<i>Accuracy:</i>	0.5% in range 0.1R - 5M
<i>Test Frequency:</i>	1 kHz
Capacitance:	
<i>Range:</i>	10pF - 499µF
<i>Accuracy:</i>	0.5% in range 10pF - 499 µF
<i>Resolution:</i>	0.5pF in range 1pF- 100pF
<i>Test Frequency:</i>	1 kHz C > 1000pF; 10 kHz C < 1000pF; 100Hz C > 1µF
Inductance:	
<i>Range:</i>	1µH-1H
<i>Accuracy:</i>	0.5% in range 1µH - 1H
<i>Resolution:</i>	0.5µH in range 1µH - 100µH
<i>Test Frequency:</i>	10 kHz L < 1µH; 1 kHz L > 1µH; 100Hz L > 1mH
Feature Summary	
Fully automatic measurement of Inductance, Capacitance and Resistance	
Automatic selection of the best range	
Component sorting with 1, 5, 10 an 20% tolerance	
Lithium-Ion battery and USB Charger	
Continuity and Diode test	
Semi-automatic offset subtraction	