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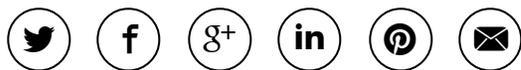
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Tuesday, August 29, 2017



New Versatile Dynamic PCB Debugging Tool: LCR-Reader-MP, A Multi Purpose Tweezer-meter from Siborg Systems Inc.

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The new model offers a higher basic accuracy than the LCR-Reader model, up to 100 kHz test frequency, as well as more measurement modes including oscilloscope mode, AC/DC voltage and current measurements, LED testing, frequency measurements, diode testing, and more.

WATERLOO, ONTARIO (PRWEB) AUGUST 29, 2017

Siborg Systems Inc.'s LCR-Reader LCR- and ESR-meter was released in 2013 as a lower-cost alternative to [Smart Tweezers LCR-meter](#). The lightweight device offered the same quick and easy measurements as Smart Tweezers but with reduced functionality.

Starting September 1st, 2017, Siborg will begin offering a new model, the [LCR-Reader-MP](#), a multi purpose model that offers more measurement modes and a basic accuracy of 0.1%. The device has all the measurement modes found on [Smart Tweezers ST-1](#) and more, including frequency measurements, pulse counting, oscilloscope mode, AC/DC voltage measurements, signal generation, LED and diode tests, and more. Most importantly, the LCR-Reader-MP offers

LCR-Reader-MP
Multipurpose

- L-C-R, ESR, Diode/LED Measurement
- Basic Accuracy Better Than 0.1%
- Ranges: R 1 mOhm to 20 MOhm
- Ranges: C 1 pf to 680 mF
- Ranges: L 10 nH to 100 H
- AC/DC Voltage Measurement Up to 15V
- Oscilloscope Voltage Waveform Display Up to 100 kHz
- Signal Generator: Sine, Rectangle, Triangle Up to 400 kHz
- Measurement of Frequency, Pulse Period, and Duty Cycle

MADE IN CANADA

www.lcr-reader.com
SIBORG
SYSTEMS INC.

a 100 kHz test frequency for 0.01 pF resolution for capacitance measurements and 1 nH for inductance.

The device is able to go into an oscilloscope mode to analyze voltage waveforms with frequencies up to 100 kHz on active circuit board. When used with the LCR-Reader Probe Connector, the LCR-Reader-MP is able to check waveforms at various nodes on the PCB with speed and accuracy thus making it a very powerful PCB debugging tool. The Probe Connector also allows for testing components larger than the tweezers' gap between tips would allow; it can also be used with [Smart Tweezers and LCR-Reader](#) models.

The multi purpose device is useful for testing large capacitances up to 680 mF. The electrolytic capacitors are measured at 120 Hertz with ESR measured at 100 kHz according to the regular electrolytic capacitor test conditions. When using Large Capacitance mode, the test frequency is reduced to 25 Hertz to be able to test very large capacitances with reasonable accuracy. The LCR-Reader-MP has a wide range of test frequencies that can be adjusted for the best conditions for the task at hand. These frequencies include: 50, 100, 120 Hz, 1, 10, 20, 30, 40, 50, 60, 75, and 100 kHz.

Some downsides to the MP model are a maximum test signal of 0.65 Vrms which is not enough for reliable evaluation of some ceramic capacitors which can result in lower than actual capacitance values. The device also has a rather high test signal source resistance of 1 kOhm.

The device is slightly larger than [LCR-Reader and Smart Tweezers](#) models which allows for a larger screen with better readability. The device is 2 oz., twice the weight of the aforementioned devices.

Features on LCR-Reader-MP include:

- Automatic L-C-R, ESR and LED/Diode measurements

- Basic accuracy better than 0.1%

- Oscilloscope Transient Voltage display for up to 100 kHz

- Signal Generator: Sine, Triangle and Rectangle pulse shapes up to 100 kHz

- Measurement of Frequency, Pulse period, Duty Cycle up to 400 kHz

- AC/DC voltage measurement up to 15 V

- Current measurement

- LED/Diode and Continuity testing

- Two Test Signal levels: Automatic Test Signal Reduction to 0.1 V for in-circuit measurement

- Easy Short/Open Calibration and Offset Removal

Ultimate dynamic PCB debugging tool

The LCR-Reader-MP offers a record 0.1% basic accuracy and more features than any other tweezer-meter

Handles components as small as 0201 sizes (about 0.3 mm)

Displays active and reactive impedance components

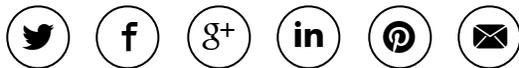
2 oz. (60 grams) weight

Li-Ion battery and micro-USB charging port

The LCR-Reader-MP will be available after September 1st, 2017, with an introductory price of US \$388.99 each. Siborg will be taking pre-orders and shipping devices as they become available.

Siborg offers many other tweezer-based devices, including a [Bluetooth enabled model of Smart Tweezers](#) that can connect to computers and dedicated apps. The LCR-Reader store also offers a variety of accessories and parts for LCR-Reader and Smart Tweezer models.

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