

100 Hz / 120 Hz / 1 KHz / 10 KHz / 100 KHz, Professional  
**LCR METER**

Model : LCR-9183

ISO-9001, CE, IEC1010



SMD TEST CLIP, optional  
Model : SMDC-21



HOLSTER  
Model : HS-03



SMD TESTER, optional  
Model : SMDA-22



LUTRON ELECTRONIC

**The Art of Measurement**

**100 Hz/120 Hz/1 KHz/10 KHz/100 KHz**  
**Ls/Lp/Cs/Cp/Rs/Rp with D/Q/θ /ESR parameters**  
**professional**

# LCR METER

**Model : LCR-9183**

## FEATURES

* 19,999/1,999 counts dual LCD display.
* AutoLCR smart check and measurement.
* Serial/Parallel modes are selectable.
* Ls/Lp/Cs/Cp with D/Q/θ /ESR parameters.
* Support DCR mode 1.00 Ω to 200.0 MΩ .
* Five different test frequency are available : 100 Hz/120 Hz/1 KHz/10 KHz/100 KHz.
* Test AC signal level : 0.6 V rms typically.
* Test range : ( ex. F = 1 KHz ) L : 200.00 uH to 2000.0 H C : 2000.0 pF to 2.000 mF R : 20.000Ω to 200.0 MΩ
* Multi-level battery detector.
* RS232/USB PC Computer interface.
* Can default auto power off.

## GENERAL SPECIFICATIONS

Display	LCD size : 56.4 X 52.9 mm.
Test frequency	100 Hz/120 Hz/1 KHz/10 KHz/100 KHz
Function	L/C/R Function selector Frequency selector D/Q/θ /ESR selector
Dissipation factor	0.000 to 999
Quality factor	0.000 to 999
θ measurement	± 90°
Calibration	Open/Short calibration
Data Hold	Freeze the display reading
Data output	RS232/USB PC computer interface
Power off	Auto shut off saves battery life or manual off by push button
Operating temperature	0°C to 50°C
Operating humidity	Less then 85% R.H.
Power Supply	006P DC 9V battery * Alkaline or Heavy duty type DC 9V adapter input * AC/DC power adapter is optional.
Power consumption	DC 16 mA approximately.
Dimension	193 x 88 x 41mm
Weight	420 g * meter only
Standard Accessories Included	* Instruction manual..... 1 PC * Alligator clips ( red and black )..... 1 Pair
Optional Accessories	SMD tester, SMDA-22 SMD test clip, SMDC-21 Holster, HS-03 AC to DC 9V adapter Hard carrying case, CA-06 Soft carrying case, CA-05A USB cable, USB-01 Excel data acquisition software, SW-E803

## ELECTRICAL SPECIFICATIONS (23± 5 °C)

### Resistance ( DCR )

Range	Accuracy	Remark
20 Ω	± ( 0.8% + 5d )	After Short CAL.
200 Ω	± ( 0.8% + 5d )	
2000 Ω	± ( 0.8% + 5d )	
20 KΩ	± ( 0.8% + 5d )	
200 KΩ	± ( 0.8% + 5d )	
2000 KΩ	± ( 0.8% + 5d )	After Open CAL.
20 MΩ	± ( 1.5% + 5d )	After Open CAL.
200 MΩ	± ( 2.5% + 5d )	After Open CAL.

### Resistance ( Rp/Rs )

Range	Accuracy	Accuracy	Remark
	100 Hz/120 Hz	1000 Hz	
20 Ω	± ( 1.2% + 5d )	± ( 1.2% + 5d )	After Short CAL.
200 Ω	± ( 0.8% + 5d )	± ( 0.8% + 5d )	
2000 Ω	± ( 0.8% + 5d )	± ( 0.8% + 5d )	
20 KΩ	± ( 0.8% + 5d )	± ( 0.8% + 5d )	
200 KΩ	± ( 0.8% + 5d )	± ( 0.8% + 5d )	
2000 KΩ	± ( 1.5% + 5d )	± ( 1.5% + 5d )	After Open CAL.
20 MΩ	± ( 1.5% + 5d )	± ( 2.5% + 5d )	After Open CAL.
200 MΩ	± ( 2.5% + 5d )	± ( 6% + 5d )	After Open CAL.

Range	Accuracy	Accuracy	Remark
	10 KHz	100 KHz	
20 Ω	± ( 1.2% + 5d )	± ( 2.5% + 5d )	After Short CAL.
200 Ω	± ( 0.8% + 5d )	± ( 0.8% + 5d )	
2000 Ω	± ( 0.8% + 5d )	± ( 0.8% + 5d )	
20 KΩ	± ( 0.8% + 5d )	± ( 0.8% + 5d )	
200 KΩ	± ( 0.8% + 5d )	± ( 0.8% + 5d )	
2000 KΩ	± ( 1.5% + 5d )	± ( 3% + 5d )	After Open CAL.
20 MΩ	± ( 2.5% + 5d )	-----	After Open CAL.

### Capacitance ( Cp/Cs ) : D ≤ 0.1

Range	Accuracy	Accuracy	Remark
	100 Hz/120 Hz	1000 Hz	
20 pF	± ( 2.5% + 5d )	± ( 1.5% + 5d )	After Open CAL.
200 pF	± ( 1.5% + 5d )	± ( 1.5% + 5d )	After Open CAL.
2000 pF	± ( 1.2% + 5d )	± ( 1.5% + 5d )	After Open CAL.
20 nF	± ( 1.0% + 5d )	± ( 1% + 5d )	
200 nF	± ( 1.0% + 5d )	± ( 1% + 5d )	
2000 nF	± ( 1.0% + 5d )	± ( 1% + 5d )	
20 uF	± ( 1.0% + 5d )	± ( 1% + 5d )	
200 uF	± ( 1.0% + 5d )	± ( 1% + 5d )	After Short CAL.
2000 uF	± ( 2% + 5d )	± ( 2% + 5d )	After Short CAL.
20 mF	± ( 3% + 5d )	-----	After Short CAL.

Range	Accuracy	Accuracy	Remark
	10 KHz	100 KHz	
20 pF	± ( 1.5% + 5d )	± ( 1.5% + 5d )	After Open CAL.
200 pF	± ( 1.0% + 5d )	± ( 1.0% + 5d )	After Open CAL.
2000 pF	± ( 1.0% + 5d )	± ( 1.0% + 5d )	After Open CAL.
20 nF	± ( 1.0% + 5d )	± ( 1.0% + 5d )	
200 nF	± ( 1.0% + 5d )	± ( 1.0% + 5d )	
2000 nF	± ( 1.0% + 5d )	± ( 1.0% + 5d )	
20 uF	± ( 1.5% + 5d )	± ( 1.5% + 5d )	
200 uF	± ( 2% + 5d )	-----	After Short CAL.

### Inductance ( Lp/Ls ) : D ≤ 0.1

Range	Accuracy	Accuracy	Remark
	100 Hz/120 Hz	1000 Hz	
20 uH	± ( 1.5% + 5d )	± ( 1.5% + 5d )	After Short CAL.
200 uH	± ( 1.5% + 5d )	± ( 1.5% + 5d )	After Short CAL.
2000 uH	± ( 1.5% + 5d )	± ( 1.5% + 5d )	
20 mH	± ( 1.0% + 5d )	± ( 1.0% + 5d )	
200 mH	± ( 1.0% + 5d )	± ( 1.0% + 5d )	
2000 mH	± ( 1.0% + 5d )	± ( 1.0% + 5d )	
20 H	± ( 1.0% + 5d )	± ( 1.0% + 5d )	
200 H	± ( 1.0% + 5d )	± ( 1.5% + 5d )	
2000 H	± ( 2% + 5d )	-----	After Open CAL.

Range	Accuracy	Accuracy	Remark
	10 KHz	100 KHz	
20 uH	± ( 1.5% + 5d )	± ( 1.5% + 5d )	After Short CAL.
200 uH	± ( 1.5% + 5d )	± ( 1.5% + 5d )	After Short CAL.
2000 uH	± ( 1.0% + 5d )	± ( 1.0% + 5d )	
20 mH	± ( 1.0% + 5d )	± ( 1.0% + 5d )	
200 mH	± ( 1.0% + 5d )	± ( 1.0% + 5d )	
2000 mH	± ( 1.0% + 5d )	-----	