Economical + DCV

LCR METER

Model : LCR-9172 *ISO-9001, CE, IEC1010*

Features :

* Compact size, easy to carry.
* 6000 counts ADC resolution.
* Built-in DCV measurement function
* Test ranges :
  L : 600.0 uH to 200.0 H.
  C : 600.0 pF to 10.00 mF.
  R : 60.0 to 20.00 M ohm.

DCV : 600.0 mV to 20.00 V.

* Series/Parallel modes are selectable.
* DCR mode 60.0 to 20.00 M ohm.
* Four test frequencies are available :

100 Hz/120 Hz/1 KHz/10 KHz

* Ls/Lp/Cs/Cp with D/Q/θ /ESR Parameter.
* Data hold.
* Size : 151 x 78 x 43 mm.
* Power : DC 9V battery or DC 9V adapter i
* Optional SMD test clips, SMDC-21.
* Optional SMD tester, SMDA-22.
* Optional soft carrying case, CA-05A.

Lutron

LUTRON ELECTRONIC

The Art of Measurement

Economical + DCV

LCR METER

Model : LCR-9172

FEATURES

* 6000 counts ADC resolution.
* Dual power supply , Battery or AC/DC Adapter.
* High performance analog front end for impedance (Z) measurement.
* Support Z / DCR measurement for LCR mode.
* Four different test frequency are available : 100 Hz/120 Hz/1 KHz/10 KHz for L/C/R measurement.
* Built-in simple DMM front end circuit to support DCV mode.
* Test range : (ex. F = 1 KHz) L : 600.0 uH to 60.00 H C : 600.0 pF to 600.0 uF R : 60.00Ω to 20.00 MΩ
* Low battery voltage detector.
* Min. source resistance : 120Ω typical.
* 6 ratio resistor range used for LCR mode.
* Support buzzer sound driver with driving pattern & frequency selectable.

GENERAL SPECIFICATIONS

Display		LCD size : 46.5 X 45.5 mm.
Test frequency		100 Hz/120 Hz/1 KHz/10 KHz
Mode	L/C/R	L/C/R Function selector Frequency selector D/Q/θ selector SER/PAL selector
	DCV	DCV
Dissipation factor		0.000 to 9999
Quality factor		0.000 to 9999
θ measurement		± 90°
Calibration		Open/Short calibration
Data Hold		Freeze the display reading
Power off		Auto shut off (10 min) saves battery life or manual off by push button
Operating temperature		0℃ to 50℃
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. *Auto power off function will be disable.
Power consumption		DC 6 mA approximately (Backlight off)
Dimension		151 x 78 x 43mm
Weight		235 g * meter only
Standard Accessories Included		* Instruction manual.....1 PC * Alligator clips..... 1 PC
Optional Accessories		* SMD tester, SMDA-22 * SMD test clip, SMDC-21 * AC to DC 9V adapter

ELECTRICAL SPECIFICATIONS (23± 5 ℃)

Resistance (DCR)

Range	Accuracy	Remark
60 Ω	± (1.5% + 5d)	
600 Ω	± (1.0% + 5d)	
6000Ω	± (1.0% + 5d)	
60 KΩ	± (1.0% + 5d)	
600 KΩ	± (1.0% + 5d)	
6000 kΩ	± (1.0% + 5d)	
20 MΩ	± (1.5% + 5d)	

Resistance(Z) (SER/PAL)

Range	Accuracy *100 Hz/120 Hz*	Accuracy *1 KHz*	Remark
60 Ω	± (1.5%+5d)	± (1.5%+5d)	
600 Ω	± (1.2%+5d)	± (1.2%+5d)	
6000Ω	± (1.2%+5d)	± (1.2%+5d)	
60 KΩ	± (1.2%+5d)	± (1.2%+5d)	
600 KΩ	± (1.2%+5d)	± (1.2%+5d)	
6000 kΩ	± (1.2%+5d)	± (1.2%+5d)	
20 MΩ	± (\2.0%+5d)	± (2.0%+5d)	

Range	Accuracy *10 kHz*	Remark
60 Ω	± (1.5%+5d)	After calibration
600 Ω	± (1.2%+5d)	
6000Ω	± (1.2%+5d)	
60 KΩ	± (1.2%+5d)	
600 KΩ	± (1.2%+5d)	
6000 kΩ	± (1.2%+5d)	
20 MΩ	± (3.0%+5d)	After calibration

Remark : * All specifications are under in battery operation.
* Don't apply voltage larger than 30 V to input terminals.

Capacitance (SER/PAL) : D ≦ 0.1

Range	Accuracy *100 Hz*	Accuracy *120 Hz*	Remark
600 pF	± (3.5%+5d)	± (3.5%+5d)	After calibration
6000 pF	± (2.5%+5d)	± (2.5%+5d)	After calibration
60 nF	± (2.0%+5d)	± (2.0%+5d)	
600 nF	± (2.0%+5d)	± (2.0%+5d)	
6000 nF	± (1.5%+5d)	± (1.5%+5d)	
60 uF	± (1.5%+5d)	± (1.5%+5d)	
600 uF	± (1.5%+5d)	± (1.5%+5d)	
6000 uF	± (2.5%+5d)	± (2.5%+5d)	After calibration
10 mF	± (3.5%+5d)	± (3.5%+5d)	After calibration

Range	Accuracy *1 KHz*	Accuracy *10 KHz*	Remark
600 pF	± (2.5%+5d)	± (2.0%+5d)	After calibration
6000 pF	± (2.0%+5d)	± (1.5%+5d)	After calibration
60 nF	± (2.0%+5d)	± (1.5%+5d)	
600 nF	± (1.5%+5d)	± (1.5%+5d)	
6000 nF	± (1.5%+5d)	± (1.5%+5d)	
60 uF	± (1.5%+5d)	± (2.5%+5d)	
600 uF	± (2.5%+5d)	----------	
6000 uF	----------	----------	
10 mF	----------	----------	

Inductance (SER/PAL) : D ≦ 0.1

Range	Accuracy *100 Hz*	Accuracy *120 Hz*	Remark
600 uH	----------	----------	
6000 uH	----------	----------	
60 mH	± (2.0%+5d)	± (2.0% + 5d)	
600 mH	± (1.5%+5d)	± (1.5% + 5d)	
6000 mH	± (1.5%+5d)	± (1.5% + 5d)	
60 H	± (1.5%+5d)	± (1.5% + 5d)	After calibration
200 H	± (2.5%+5d)	± (2.5% + 5d)	After calibration

Range	Accuracy *1 KHz*	Accuracy *10 KHz*	Remark
600 uH	± (2.5%+5d)	± (2.5%+5d)	After calibration
6000 uH	± (2.0%+5d)	± (2.0%+5d)	
60 mH	± (1.5%+5d)	± (1.5%+5d)	
600 mH	± (1.5%+5d)	± (1.5%+5d)	
6000mH	± (1.5%+5d)	± (1.5%+5d)	
60 H	± (2.5%+5d)	----------	After calibration
200 H	----------	----------	

Remark :
* All specifications are under in battery operation.
* Discharge inductor before measurement.
* Don't apply voltage larger than 30 V to input terminals.
* If intend to obtain the accurate value, please test the component into the " Pin terminals " (3-6, Fig. 1) or tested via optional. SMD tester, SMDA-22 or SMD test clip, SMDC-21.

DC Voltage

Range	Accuracy
0V～ 20V	± (0.5% +2d)

SCALE RANGE CONFIGURATION

LCR mode

Function mode	Frequency	Meas. Range	Min. resolution
Inductance (SER/PAL)	100/120Hz	60.00mH~200.0H	0.01mH
	1kHz	600.0uH~60.00H	0.1uH
	10kHz	600.0uH~6000mH	0.1uH
Capacitance (SER/PAL)	100/120Hz	600.0pF~10.00mF	1pF
	1kHz	600.0pF~600.0uF	0.1pF
	10kHz	600.0pF~60.00uF	0.1pF
Resistance (SER/PAL)	100/120Hz	60.00Ω ~20.00MΩ	0.01Ω
	1kHz	60.00Ω ~20.00MΩ	0.01Ω
	10kHz	60.00Ω ~20.00MΩ	0.01Ω
DC resistance	N/A	60.00Ω ~20.00MΩ	0.01Ω

DMM mode

Function mode	Meas. Range	Min. resolution
DCV	600.0mV~20.00V	0.1mV

Remark :
* All specifications are under in battery operation.
* Don't apply voltage larger than 30 V to input terminals.
* Discharge capacitor before measurement.
* If intend to obtain the accurate value, please test the component into the " Pin terminals " (3-6, Fig. 1) or tested via optional. SMD tester, SMDA-22 or SMD test clip, SMDC-21.