LC100-A Digital L/C Meter Inductance Capacitance Meter

User Manual

Features:

Based on the L/C resonance principle
High speed microcontroller's precision computation
Measuring range below 1uH and 1pF
Ideal for measuring switching power supply transformers, R/C-L/C
filters, chokes and so on.

LC100-A has four measuring range position:

- 1. C rangeCapacitance (0.01pF-10uF)
- 2. L rangeInductance (0.001uH-100mH)
- 3. Hi.L rangeHigh inductance (0.001mH-100H)
- 4. Hi.C rangeHigh capacitance range (1uF-100mF)

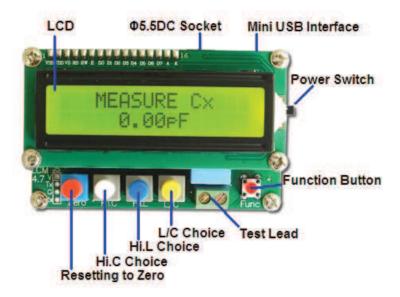
Automatic measuring ranges, it is easy to operate. Specifications are as follows:

1. Technical data: :

| Item | | Parameter |
|--------------------------------------|-------------|-----------|
| Capacitance | 0.01pF-1pF | 5% |
| | 1pF-1uF | 1% |
| Accuracy | 1uF-10uF | 5% |
| Min Capacitance Resolution (C Files) | | 0.01pF |
| Inductance | 0.001uH-1uH | 5% |
| Accuracy | 1uH-100mH | 1% |
| Min Inductance Resolution (L Files) | | 0.001uH |
| High Inductance | 100mH-1H | 1% |
| Accuracy | 1H-100H | 5% |

| | Min Resolution of High Inductance (HL Files) | | |
|---|---|---------------|-------------|
| High Capacitanc | High Capacitance Accuracy | | 5% |
| Min Resolu | Min Resolution of High Capacitance (HC Files) | | |
| T. | L Files、C Files | | Abt. 500kHz |
| Frequency | HL Files | | Abt. 500Hz |
| Mea | Measuring mode | | |
| Dis | Display mode | | 1602 LCD |
| Display digit | | 4 | |
| D. C. | | | Mini USB & |
| Power Connections | | Φ5.5DC Socket | |
| Supply Voltage | | | 5V |

2. Picture



Function of five buttons:

Red: Reset (Momentary Push Button)

White: High Capacitance Hi.C Choice (Alternate Action)

Blue: High Inductance Hi.L Choice (Alternate Action)

Yellow: L/C (Alternate Action)

Red Mini: Function button

Details as follows (Press "1", Release "0", "X" random)

LC100-A Function table

| Hi.C | Hi.L | L/C | Corresponding function |
|------|------|-----|------------------------|
| 0 | 0 | 0 | Small Capacitance(C) |
| 0 | 0 | 1 | Small Inductance(L) |
| 0 | 1 | 1 | High Inductance (HL) |
| 0 | 1 | 0 | Invalid |
| 1 | X | X | High Capacitance (HC) |

3. Direction for use

(1). Switch on the L/C Meter

(2). Choose the corresponding Switch configuration, inductance: Lx, capacitance: Cx, High inductance: Hi.L, High capacitance: Hi.C.

A: Display shows as follows (testing terminal open)

Inductance: "MEASURE Lx" " "OVER RANGE"

Capacitance: "MEASURE Cx" 0.00pF

High inductance: "MEASURE Hi.L" OVER RANGE

High capacitance: "MEASURE Hi.C" 0.00pF

Display as follows (testing terminal shorted):

High inductance: "MEASURE Hi.L" 0.000mH

Inductance: "MEASURE Lx" 0.000uH

Capacitance: "MEASURE Cx" OVER RANGE

(3). If the measured value of capacitance is not be "0" with the test terminals open;

or when the inductance is not "0" with the test terminals are shorted, You can reset to "0" as follows

(a) Capacitance mode

Press red button with the test terminals open, it displays

"CALCULATING...", keep pressing for one second, when

"CALCULATING...OK" is displayed, release the red button,

Resetting to "0" is finished, and "0.00pF" is displayed,

Capacitances can now be measured.

(b) Inductance mode

Press red button with test terminals shorted, it displays "0.000uH" or "0.000mH",

Inductance can now be measured.

(4). Press the Mini Red function button as results are displayed, and corresponding frequency will be displayed.

4. Notes:

- 1. Please reset to "0" before testing a capacitance or an inductance, or errors may be appeared. Even if "0" displayed before measuring, resetting to "0" is needed.
- 2. At the time of resetting to "0", when "CALCULATING...OK" appears, please keep holding button for 2 to 3 seconds, and "<DATA SAVED>" will be displayed. Now release button.
- 3. DO NOT Reset to "0" while components are being measured. If you do it, please shut down immediately and restart, then reset to "0".
- 4. The test time of a large capacitance (above 10mF) may be as long as seven to eight seconds (100mF).
- 5. DO NOT measure a capacitance which is not discharged, otherwise it may damage the meter.
- 6. DO NOT Use different (Longer) test leads other than those supplied Longer Leads can affect the accuracy of the meter

5. Package content

| 1. | LC100-A L/C Meter1 |
|----|--------------------------------------|
| 2. | Test Leads1 |
| 3 | USB Cable Type A Male to mini B Male |