

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

Model : LCR-9183

ISO-9001, CE, IEC1010



HOLSTER
Model : HS-03



SMD TESTER, optional
Model : SMDA-22



SMD TEST CLIP, optional
Model : SMDC-21



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 than 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 35 mA approximately |
| Dimension | 193 x 88 x 41mm |
| Weight | 420 g * meter only |
| Standard Accessories Included | * Instruction manual.....1 PC * Alligator clips.....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 |

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) | ----- | |