Smart LCR Meter DE-5000

DE-5000

FEATURES :

- Auto L.C.R. check
- 100 / 120 / 1k / 10k / 100k Hz test frequency
- 20,000 / 2,000 counts display
- Backlight
- Ls / Lp / Cs / Cp / Rs / Rp / DCR with D/Q/θ/ESR measurement
- Relative mode
- Series / Parallel modes
- Components sorting function
  *Selectable tolerance ±0.25%, ±0.5%, ±1%, ±2%, ±5%, ±10%, ±20%, -20% +80%
- Low battery indication
- Safety standard：IEC 61326-1 & IEC 61326-2-2
- 4-wire kelvin measurments

SPECIFICATIONS:

- **LCD Display :** Dual 19999/1999 display
- **Measuring rate :** 1.2 /second, nominal
- **Range :** Automatic
- **Overload :** " OL " Display On LCD
- **Low Battery :** " ⊟+ " Display On LCD
- **Auto Power Off :** Approx In 5 Minutes
- **Battery :** 9V x 1
- **Safety standard :** IEC 61326-1 & IEC 61326-2-2

TEMP. / HUMIDITY:

- **Operation :**
  0°C~50°C (32°F~122°F)
  < 70% R.H. (no condensation)
- **Storage :**
  -20°C~60°C (-4°F~140°F)
  < 80% R.H. (no condensation)

DIMENSION & WEIGHT:

- 188(L)x95(W)x52(H)mm (7.4"x3.74"x2")
- Approx. 350g (excluding battery)

ACCESSORIES:

- Alligator test lead case(TL-21) 1
- AC/DC Adaptor 1
- Guard Line (TL-23) 1
- Instruction manual 1
- DC 9V Battery.....1
- Carry case.....1

Additional Accessories for with USB Function -

- Optical IR to USB PC link.....1
- CD Rom (software).....1
- TL-22 SMD Tweezers.....1

MEASUREMENT RANGES: (23°C ± 5°C, 80% R.H. MAX.)

■ **Resistance (Parallel / Series mode)**

Range	Resolution	100/120Hz	1kHz	10kHz	100kHz
20.000Ω	0.001Ω	—	1.0%+3*	1.0%+3*	2.0%+3*
200.00Ω	0.01Ω	1.0%+3	0.3%+2	0.3%+2	0.6%+3
2.0000kΩ	0.0001kΩ	0.3%+2	0.3%+2	0.3%+2	0.6%+3
20.000kΩ	0.001kΩ	0.3%+2	0.3%+2	0.3%+2	0.6%+3
200.00kΩ	0.01kΩ	0.5%+2	0.5%+2	0.5%+2	1.0%+3
2.0000MΩ	0.0001MΩ	1.0%+3	1.0%+3	1.0%+3	—
(2.000MΩ)	0.001MΩ	—	—	—	2.0%+3*
20.000MΩ	0.001MΩ	2.0%+3*	2.0%+3*	—	—
(20.00MΩ)	0.01MΩ	—	—	2.0%+3*	—
200.0MΩ	0.1MΩ	2.0%+3*	2.0%+3*	—	—

* Do open/short calibration before measuring for above ranges with * to have better precision measurements.

■ **DCR**

Range	Resolution	Accuracy
200.00Ω	0.01Ω	1.0%+3*
2.0000kΩ	0.0001kΩ	0.2%+2
20.000kΩ	0.001kΩ	0.2%+2
200.00kΩ	0.01kΩ	0.5%+2
2.0000MΩ	0.0001MΩ	1.0%+3
20.000MΩ	0.001MΩ	2.0%+3*
200.0MΩ	0.1MΩ	2.0%+3*

* Do open/short calibration before measuring for above ranges with * to have better precision measurements.

■ **Capacitance (Parallel / Series mode)**

Range	Resolution	100/120Hz	1kHz	10kHz	100kHz
200.00pF	0.01pF	—	—	1.2%+5*	2.0%+5*
2000.0pF	0.1pF	—	2.0%+3*	0.3%+2	0.6%+3
20.000nF	0.001nF	2.0%+3*	0.3%+2	0.3%+2	0.6%+3
200.00nF	0.01nF	0.3%+2	0.3%+2	0.3%+2	0.6%+3
2000.0nF	0.1nF	0.3%+2	0.3%+2	0.6%+2	2.0%+5*
20.000μF	0.001μF	0.3%+2	0.6%+2	1.2%+5*	—
(20.00μF)	0.01μF	—	—	—	3.0%+5 (10μF max.)*
200.00μF	0.01μF	0.6%+2	1.0%+3*	—	—
(200.0μF)	0.1μF	—	—	3.0%+5 (100μF max.)*	—
2000.0μF	0.1μF	1.0%+3*	—	—	—
(2000μF)	1μF	—	1.2%+3*	—	—
20.00mF	0.01mF	1.2%+3*	—	—	—

•If reading <2000, unit on display is pF

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■ **Inductance (Parallel / Series mode).**

Range	Resolution	100/120Hz	1kHz	10kHz	100kHz
20.000μH	0.001μH	—	—	—	2.5%+5*
200.00μH	0.01μH	—	—	1.2%+5*	0.6%+3
2000.0μH	0.1μH	—	2.0%+5*	0.6%+3	0.6%+3
20.000mH	0.001mH	1.2%+5*	1.0%+5	0.3%+2	0.6%+3
200.00mH	0.01mH	0.3%+2	0.6%+3	0.3%+2	1.2%+5*
2000.0mH	0.1mH	0.3%+2	0.3%+2	0.6%+3	—
20.000H	0.001H	0.3%+2	0.6%+3	1.2%+5*	—
200.0H	0.1H	0.6%+3	1.2%+5*	—	—
2.000KH	0.001KH	1.2%+5*	—	—	—

•If reading <2000, unit on display is μH

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■ **Accuracy v.s. Resistance (ZDUT)**

	DCR	100/120Hz	1kHz	10kHz	100kHz
0.1~1Ω	1.2%+5*	1.2%+5*	1.2%+5*	1.2%+5*	2.5%+5*
1~10Ω	0.6%+3*	0.6%+3*	0.6%+3*	0.6%+3*	1.2%+5*
10~100kΩ	0.3%+2	0.3%+2	0.3%+2	0.3%+2	0.6%+3
100k~1MΩ	0.6%+3	0.6%+3	0.6%+3	0.6%+3	2.5%+5*
1M~20MΩ	1.2%+5*	1.2%+5*	1.2%+5*	2.5%+5*	100k~2MΩ
>20MΩ	2.5%+5*	2.5%+5*	2.5%+5*	—	—

* Do open/short calibration before measuring for above ranges with * to have better precision measurements.

Appearance and specification may be revised if needed without notice in prior.