

# 3<sup>3</sup>/<sub>4</sub> DIGIT 3999 COUNTS DIGITAL MULTIMETER LCR METER Model KM 307

## SPECIAL FEATURES :

- Polarity Function
- LCD Display
- Data Hold facility
- Auto Power Off
- Auto range
- Low battery indication
- Transistor hFE test
- Diode Test, HFE, Continuity Test & Duty Cycle

## GENERAL SPECIFICATIONS :

- \* **Display** : 3<sup>3</sup>/<sub>4</sub> digit LCD display (4000 Counts)
- \* **Low Battery Indication** : The "BAT" is displayed when the battery voltage drops below 2.4V.
- \* **Over range Indication** : 'OL' indication.
- \* **Power** : 1.5V AA x 2 battery.
- \* **Dimension** : Aporox. 187(L)mm x 88(W)mm x 32(H)mm.
- \* **Weight** : Approx. 200g. (Including battery)
- \* **ACCESSORIES** : Test lead, User's manual, Battery, Carrying case

## 18 FUNCTIONS 38 RANGES

### Model KM 307



Preliminary Data

## ELECTRICAL SPECIFICATIONS

Accuracy is  $\pm$  (% reading digits + number of digits ) or otherwise specified, at 23°C  $\pm$  5°C

### AC CURRENT

| Range        | Resolution  | Accuracy               |
|--------------|-------------|------------------------|
| 400 $\mu$ A  | 0.1 $\mu$ A | $\pm$ (1.8%rdg + 3dgt) |
| 4000 $\mu$ A | 1 $\mu$ A   |                        |
| 40 mA        | 10 $\mu$ A  | $\pm$ (2.0%rdg + 3dgt) |
| 400 mA       | 0.1 mA      |                        |
| 10(20) A     | 10 mA       | $\pm$ (2.5%rdg + 5dgt) |

Overload Protection : Fast fuse 0.5A/250V & 10A/250V  
Not : 20A KM-8301B unfuse.

### CAPACITANCE

| Range                    | Resolution | Accuracy                |
|--------------------------|------------|-------------------------|
| 4 nF                     | 1 pF       | $\pm$ (5.0%rdg + 25dgt) |
| 40 nF                    | 10 pF      |                         |
| 400 nF                   | 100 pF     | $\pm$ (2.0%rdg + 4dgt)  |
| 4 $\mu$ F                | 1 nF       |                         |
| 40 $\mu$ F               | 10 nF      | Unspecified, >30Sec     |
| 200 $\mu$ F(100 $\mu$ F) | 100 nF     |                         |

Overload Protection : 250V rms

### INDUCTANCE

| Range  | Resolution  | Accuracy                |
|--------|-------------|-------------------------|
| 4 mH   | 1 $\mu$ H   | $\pm$ (5.0%rdg + 25dgt) |
| 40 mH  | 10 $\mu$ H  |                         |
| 400 mH | 100 $\mu$ H | $\pm$ (2.0%rdg + 3dgt)  |
| 4 H    | 1 mH        |                         |

Test Frequency: Approx. 1KHz

### FREQUENCY

| Range              | Resolution | Resolution             |
|--------------------|------------|------------------------|
| 9.999 Hz           | 0.01 Hz    | Unspecified            |
| 99.99 Hz-9.999 MHz | 1 kHz      | $\pm$ (0.2%rdg + 3dgt) |

Overload Protection : 250V rms

### DC CURRENT

| Range        | Resolution  | Accuracy               |
|--------------|-------------|------------------------|
| 400 $\mu$ A  | 0.1 $\mu$ A | $\pm$ (1.2%rdg + 2dgt) |
| 4000 $\mu$ A | 1 $\mu$ A   |                        |
| 40 mA        | 10 $\mu$ A  | $\pm$ (1.5%rdg + 2dgt) |
| 400 mA       | 0.1 mA      |                        |
| 10(20) A     | 10 mA       | $\pm$ (2%rdg + 3dgt)   |

Overload Protection : Fast fuse 0.5A/250V & 10A/250V  
Note : in 20A KM-8301B unfuse

### RESISTANCE

| Range          | Resolution    | Accuracy               |
|----------------|---------------|------------------------|
| 400 $\Omega$   | 0.1 $\Omega$  | $\pm$ (1%rdg + 2dgt)   |
| 4 K $\Omega$   | 1 $\Omega$    |                        |
| 40 K $\Omega$  | 10 $\Omega$   | $\pm$ (1.5%rdg + 2dgt) |
| 400 K $\Omega$ | 100 $\Omega$  |                        |
| 4 M $\Omega$   | 1 K $\Omega$  | $\pm$ (1.5%rdg + 2dgt) |
| 40 M $\Omega$  | 10 K $\Omega$ |                        |

Overload Protection : 250V rms

### DIODE & CONTINUITY

| Range         | Description                                                                     |
|---------------|---------------------------------------------------------------------------------|
| $\rightarrow$ | Display read approx. Forward Voltage of diode.<br>Accuracy: $\pm$ (3.0%rdg + 3) |
| $\infty$      | If the resistance is less than 30 $\Omega$ , the beeper sounds continuously     |

Note: Overload Protection : 250V rms

### AC VOLTAGE

| Range  | Resolution | Accuracy                 |
|--------|------------|--------------------------|
| 400 mV | 0.1 mV     | $\pm$ (1.8% rdg + 5 dgt) |
| 4 V    | 1 mV       |                          |
| 40 V   | 10 mV      | $\pm$ (1.0% rdg + 3 dgt) |
| 400 V  | 0.1 V      |                          |
| 750 V  | 1 V        | $\pm$ (1.5% rdg + 3 dgt) |

Input Impedance : 10M

AC Voltage Respond Frequency: 50 Hz-400Hz for 400 and 50Hz-100Hz for 750V

Overload Protection : 400mV range 500V rms 750V RMS

### DC VOLTAGE

| Range  | Resolution | Accuracy                 |
|--------|------------|--------------------------|
| 400 mV | 0.1 mV     | $\pm$ (1.0% rdg + 2 dgt) |
| 4 V    | 1 mV       |                          |
| 40 V   | 10 mV      | $\pm$ (0.8% rdg + 2 dgt) |
| 400 V  | 0.1 V      |                          |
| 1000 V | 1 V        |                          |

Input resistance : 10M

Overload Protection : 400mV range 500V rms  
1000V DC RMS

### TRANSISTOR hFE TEST

| Range | Description | Test condition                                                                                                          |
|-------|-------------|-------------------------------------------------------------------------------------------------------------------------|
| hFE   | NPN<br>PNP  | Display read approx.<br>hFE value(0-1000) of<br>transistor under test<br>$I_b \approx 10\mu$ A<br>$V_{ce} \approx 1.5V$ |

### DUTY CYCLE:

| Range |               |
|-------|---------------|
|       | 0.1% to 99.9% |

All Specifications are subject to change without prior notice.