

# Automatic Identification Measurement



## 5 ½ Digit Dual Measurement Multimeter GDM-9052

- 5 1/2 Digit Display: 239,999 Counts max.
- 4.3' TFT Graphic LCD
- DCV Basic Accuracy: 0.012 %
- A. I. Measurement offers automatic identification and measurement for Voltage, Resistance, Diode and Continuity tests without the need for manual selection
- 12 different measurement Functions: AC/DC voltage, AC/DC current, 2-wire/4-wire Resistance, Frequency, Period, Diode, Continuity, Capacitance and Temperature
- True RMS (AC, AC+DC) measurements
- Dual Measurement Function to Providing Two Selected Measurement Simultaneously
- Many Math functions: Max./Min., REL/REL#, Compare, Hold, dB, dBm, MX+B, %, 1/X
- Digital I/O provides dual mode (standard Compare and User definition modes)
- Standard interfaces : RS-232C and USB device (support USB CDC and USB TMC modes)

| Range (*2)                                                                             | Resolution      | Input Resistance etc. | Accuracy (*3) 1 Year (23 °C ± 5 °C) |
|----------------------------------------------------------------------------------------|-----------------|-----------------------|-------------------------------------|
| DC Voltage                                                                             |                 |                       |                                     |
| 200.000 mV                                                                             | 1 μV            | 10 MΩ or > 10 GΩ      | 0.012 + 8                           |
| 2.00000 V                                                                              | 10 μV           | 10 MΩ or > 10 GΩ      | 0.012 + 5                           |
| 20.0000 V                                                                              | 100 μV          | 11.1 MΩ               | 0.012 + 5                           |
| 200.000 V                                                                              | 1 mV            | 10.1 MΩ               | 0.012 + 5                           |
| 1000.00 V                                                                              | 10 mV           | 10 MΩ                 | 0.012 + 5                           |
| Resistance                                                                             |                 |                       |                                     |
| 200.000 Ω                                                                              | 1 mΩ            | 1 mA                  | 0.05 + 8                            |
| 2.00000 kΩ                                                                             | 10 mΩ           | 1 mA                  | 0.05 + 5                            |
| 20.0000 kΩ                                                                             | 100 mΩ          | 100 μA                | 0.05 + 5                            |
| 200.000 kΩ                                                                             | 1 Ω             | 10 μA                 | 0.05 + 5                            |
| 2.00000 MΩ                                                                             | 10 Ω            | 1 μA                  | 0.05 + 5                            |
| 10.0000 MΩ                                                                             | 100 Ω           | 0.5 μA                | 0.30 + 5                            |
| 100.000 MΩ                                                                             | 1 kΩ            | 0.5 μA // 10 MΩ       | 3.00 + 8                            |
| DC Current                                                                             |                 |                       |                                     |
| 20.0000 mA                                                                             | 100 nA          | 1 Ω                   | 0.05 + 15                           |
| 200.000 mA                                                                             | 1 μA            | 1 Ω                   | 0.05 + 5                            |
| 2.00000 A                                                                              | 10 μA           | 0.1 Ω                 | 0.20 + 5                            |
| 10.0000 A                                                                              | 100 μA          | 0.01 Ω                | 0.20 + 5                            |
| Continuity                                                                             |                 |                       |                                     |
| 2000.00 Ω                                                                              | 10 mΩ           | 1 mA                  | 0.05 + 5                            |
| Diode Test                                                                             |                 |                       |                                     |
| 6.0000 V                                                                               | 100 μV          | 1 mA@ 6 V             | 0.05 + 15                           |
| Capacitance                                                                            |                 |                       |                                     |
| 10.00 nF                                                                               | 0.01 nF         | 10 μA                 | 2.0 + 10                            |
| 100.0 nF                                                                               | 0.1 nF          | 10 μA                 | 2.0 + 4                             |
| 1.000 μF                                                                               | 0.001 μF        | 100 μA                | 2.0 + 4                             |
| 10.00 μF                                                                               | 0.01 μF         | 1 mA                  | 2.0 + 4                             |
| 100.0 μF                                                                               | 0.1 μF          | 1 mA                  | 2.0 + 4                             |
| True RMS AC (or AC+DC – AC Coupled) Voltage                                            |                 |                       |                                     |
| 200.000 mV                                                                             | 1 μV            | 20 Hz to 45 Hz        | 1.0 + 100                           |
|                                                                                        |                 | 45 Hz to 10 kHz       | 0.3 + 100                           |
|                                                                                        |                 | 10 kHz to 30 kHz      | 1.5 + 300                           |
|                                                                                        |                 | 30 kHz to 100 kHz     | 5.0 + 300                           |
| 2.00000 V to 750.00 V                                                                  | 10 μV to 10 mV  | 20 Hz to 45 Hz        | 1.0 + 100                           |
|                                                                                        |                 | 45 Hz to 10 kHz       | 0.2 + 100                           |
|                                                                                        |                 | 10 kHz to 30 kHz      | 1.0 + 100                           |
|                                                                                        |                 | 30 kHz to 100 kHz     | 3.0 + 200                           |
| True RMS AC (or AC+DC – AC Coupled) Current                                            |                 |                       |                                     |
| 20.0000 mA to 2.00000 A                                                                | 100 nA to 10 μA | 20 Hz to 45 Hz        | 1.5 + 100                           |
|                                                                                        |                 | 45 Hz to 2 kHz        | 0.5 + 100                           |
|                                                                                        |                 | 2 kHz to 10 kHz       | 2.0 + 200                           |
| 10.0000 A                                                                              | 100 μA          | 20 Hz to 45 Hz        | 1.5 + 100                           |
|                                                                                        |                 | 45 Hz to 2 kHz        | 1.0 + 100                           |
|                                                                                        |                 | 2 kHz to 10 kHz       | ----                                |
| Frequency                                                                              |                 |                       |                                     |
| (Voltage) 10 Hz to 1 MHz                                                               | -----           | -----                 | 0.01 + 3                            |
| (Current) 20 Hz to 10 kHz                                                              | -----           | -----                 |                                     |
| Temperature (Thermocouple)                                                             |                 |                       |                                     |
| -200 °C to 0 °C                                                                        | 0.01 °C         | J / T / K             | 0.6 °C (typical)                    |
| 0 °C to +300 °C                                                                        |                 |                       | 0.3 °C (typical)                    |
| Display                                                                                |                 |                       |                                     |
| 4.3" TFT Graphic LCD                                                                   |                 |                       |                                     |
| Interface                                                                              |                 |                       |                                     |
| RS-232C, USB device (USBCDC & USBTMC), Digital I/O                                     |                 |                       |                                     |
| Power Source                                                                           |                 |                       |                                     |
| AC 100 V / 120 V / 220 V / 240 V ± 10 %, 50 Hz to 60 Hz ; Power Consumption Max. 30 VA |                 |                       |                                     |
| Dimensions (*4) & Weight                                                               |                 |                       |                                     |
| 268 mm x 107 mm x 302 mm ; Approx. 3.2 kg                                              |                 |                       |                                     |

Specifications subject to change without notice.