

Handheld Multimeter / Oscilloscope PCE-OC 2



**Digital multimeter with 20 MHz bandwidth / Integrated multimeter /
Internal memory for up to 50 waveforms and readings /
LC display with 2 brightness levels / Frequency counter/ USB interface**

The handheld digital multimeter is a versatile and universally applicable instrument, combined with an oscilloscope and a True RMS multimeter. The bandwidth of the handheld oscilloscope multimeter can be up to 20 MHz. The digital multimeter was developed for practical and mobile use and is suitable for fault detection thanks to the versatile equipment.

The digital multimeter is an ideal companion for the service technician on site or in any electrical workshop. The brightness of the LC display of the digital multimeter with a resolution of 128 x 128 pixels can be set in 2 levels and thus individually tailored to the user or location. Furthermore, the digital multimeter has an internal memory in which both up to 50 waveforms as well as measured values can be stored.

The integrated multimeter is equipped with the standard functions voltage, current and resistance measurement as well as diode and continuity tests and also has the additional functions frequency and capacitance measurement. The USB interface can be used to charge the digital multimeter via the PC.

- ▶ Analog bandwidth: 20 MHz
- ▶ Auto range multimeter
- ▶ Auto-setting for easy handling
- ▶ LC display with 2 brightness levels
- ▶ USB interface for data transmission
- ▶ Frequency counter
- ▶ Mains or battery operation
- ▶ Internal memory for up to 50 readings

Specifications

Measuring function

DC voltage measurement

| Range | Resolution | Accuracy |
|----------|------------|----------------------------------|
| 400.0 mV | 0.1 mV | $\pm(0.75 \% + 10 \text{ dgt.})$ |
| 4.000 V | 1 mV | $\pm(0.75 \% + 10 \text{ dgt.})$ |
| 40.00 V | 10 mV | $\pm(0.75 \% + 10 \text{ dgt.})$ |
| 400.0 V | 100 mV | $\pm(0.75 \% + 10 \text{ dgt.})$ |
| 1000 V | 1 V | $\pm(1.5 \% + 10 \text{ dgt.})$ |

AC voltage measurement

| Range | Resolution | Accuracy |
|----------|------------|--|
| 400.0 mV | 0.1 mV | 50 Hz ... 1 kHz: $\pm(1 \% + 10 \text{ dgt.})$ |
| 4.000 V | 1 mV | 400 Hz ... 10 kHz: $\pm(1 \% + 10 \text{ dgt.})$ |
| 40.00 V | 10 mV | (not defined above 10 kHz) |
| 400.0 V | 100 mV | |
| 750 V | 1 V | 50 Hz ... 1 kHz: $\pm(1.5 \% + 10 \text{ dgt.})$ |

DC current measurement

| Range | Resolution | Accuracy |
|----------|-------------------|---------------------------------|
| 40.00 mA | 10 μA | $\pm(1.2 \% + 10 \text{ dgt.})$ |
| 400.0 mA | 100 μA | $\pm(1.2 \% + 10 \text{ dgt.})$ |
| 4.000 A | 1 mA | $\pm(1.2 \% + 10 \text{ dgt.})$ |
| 20.00 A | 10 mA | $\pm(1.2 \% + 10 \text{ dgt.})$ |

AC current measurement

| Range | Resolution | Accuracy |
|----------|-------------------|--|
| 40.00 mA | 10 μA | 50 Hz ... 1 kHz: $\pm(1.5 \% + 10 \text{ dgt.})$ |
| 400.0 mA | 100 μA | (not defined above 1 kHz) |
| 4.000 A | 1 mA | |
| 20.00 A | 10 mA | |

Resistance measurement

| Range | Resolution | Accuracy |
|------------------|---------------|--------------------------------|
| 400.0 Ω | 0,1 Ω | $\pm(1.0 \% + 5 \text{ dgt.})$ |
| 4.000 k Ω | 1 Ω | $\pm(1.0 \% + 5 \text{ dgt.})$ |
| 40.00 k Ω | 10 Ω | $\pm(1.0 \% + 5 \text{ dgt.})$ |
| 400.0 k Ω | 100 Ω | $\pm(1.0 \% + 5 \text{ dgt.})$ |
| 4.000 M Ω | 1 k Ω | $\pm(1.0 \% + 5 \text{ dgt.})$ |
| 40.00 M Ω | 10 k Ω | $\pm(3.0 \% + 5 \text{ dgt.})$ |

Capacitance

| Range | Resolution | Accuracy |
|---------------------|------------|--------------------------------|
| 51.20 nF | 1 pF | $\pm(2 \% + 10 \text{ dgt.})$ |
| 512.0 nF | 10 pF | $\pm(1 \% + 3 \text{ dgt.})$ |
| 5.120 μF | 100 pF | $\pm(1 \% + 3 \text{ dgt.})$ |
| 51.20 μF | 1 nF | $\pm 1.5 \% + 3 \text{ dgt.})$ |
| 100.0 μF | 10 nF | - |

More information

More product info



Similar products



Subject to change

Frequency counter

| Range | Resolution Accuracy |
|----------------------|---|
| 5.12 Hz ... 5.12 MHz | 0.1 ... 1 kHz $\pm(1 \% + 5 \text{ dgt.})$ at a signal amplitude of > 3 Vpp, ACV or 20 mA RMS, AC A |

Frequency ratio

| Range | Resolution Accuracy |
|----------------|---------------------|
| 0.1 ... 99.9 % | 0.1 % - |

| | |
|-------------------------------|---|
| Diode measurement | open circuit 1.5 V, max. current 1.5 mA |
| Continuity test | Beep at > 30 Ω |
| Automatic measuring range | at every function |
| Exceeding the measuring range | O.L. is displayed |

| | |
|-------------------------------|--|
| Measuring rate | 2.5 times / sec. |
| dB (-80 ... +80 dB) reference | 2, 3, 8, 16, 50, 75, 93, 110, 125, 135, 150, 300, 600, 900, 1000, 1200 Ω |
| Fuse | 0.5 A / 250 V; 20 A / 500 V |

Oscilloscope

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|--------------------------------|--|
| Analog bandwidth | DC 20 MHz (50 mV / div ... 2 V / div) DC 10 MHz (5 V / div ... 10 V / div) > 10 V / div for reference only |
| Real-time sample rate | 80 MS/s |
| Vertical resolution | 8 Bits |
| Nonlinearity | ± 1 Bit |
| Channel number | 1 |
| Input coupling | DC/AC/GND |
| Display | Vertical ± 4.8 horizontal 12.8 |
| Vertical display area | 50 mV/div ... 200 V/div |
| Vertical accuracy | $\pm (5 \% + 0.1 \text{ div.})$ |
| Horizontal display area | 31.25 ns/div ... 20 s/div |
| Horizontal accuracy | $\pm (0.01 \% + 0.1 \text{ div.})$ |
| Trigger edge | Increases in length / falls in length |
| Trigger level | ± 12 div (at each step 0.1 div) |
| Trigger position | ± 6 div (at each step 0.1 div) |
| Automatic settings | Vertical amplitude and automatic settings |
| Measurement mode | Automatic / Normal / Single |
| Automatic measuring function | Vpp, Vavg, RMS, dBm |
| Cursor measurement function | dV, dt, 1/dt (frequency) |
| Automatic measurement accuracy | $\pm (5 \% + 0.1 \text{ div})$ |
| Automatic zero reference | In DC/dB measurement |
| Recording length | 12.8 div |

General technical data

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|----------------------|--------------------------------|
| Display | 128 x 128 pixel LC-display |
| Backlight | white LED, 2 brightness levels |
| Power supply battery | Li-Ion battery, 3.7 V, 18650 |

Subject to change

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|----------------------|--|
| Power supply mains | Primary: 100 ... 240 V 50/60 Hz Secondary: 5 VDC, 1.5 A |
| Memory | 50 measurement data (one DMM and DSO are recorded per measurement file) |
| Battery life | ca. 6 ... 8 hours |
| Operating conditions | 0 ... 50°C / 32 ... 122°F; <75 % r.H. |
| Dimensions | 86 x 186 x 32 mm / 3.39x 7.32 x 1.26 in |
| Input impedance | 10 MΩ |
| Auto poweroff | Switch-off, 5 .. 60 min. adjustable |
| Charging time | ca. 3 hours |
| Storage conditions | -10 ... 60°C / -14 ... 140°F |
| Weight | 325 g / 0.72lb |
| Standards | IEC1010 CAT III 1000V |

Subject to change