OSCILLOSCOPE

PCE-OC 50



- **2-channel oscilloscope**
- **bandwidth: 10 MHz, sampling rate: 50 MS/s**
- **multimeter functions**
- **voltage, current, resistance**
- **capacitance, non-contact voltage detection**
- **signal generator: 1 Hz ... 2 MHz**

This innovative 3-in-1 Oscilloscope is the perfect combination of a powerful Oscilloscope, a versatile multimeter and a signal generator. It has been specially developed for electronics technicians, engineers and hobby users who are looking for a compact, versatile and user-friendly device to carry out their measurement tasks efficiently.

The 2-channel Oscilloscope offers a bandwidth of 10 MHz and a sampling rate of 50 MS/s, which enables signals to be reliably recorded and analysed. Whether troubleshooting circuits, observing waveforms or analysing transients, this Oscilloscope delivers clear and precise results. Thanks to its high resolution and simple operation, even complex signal curves can be easily visualised. The Oscilloscope image can be saved to the internal memory as a screenshot and transferred to a computer via the USB-C interface.

The device also has extensive multimeter functions that cover a wide range of measurements. These include voltage measurements (DC and AC voltage), current measurements (DC and AC current), resistance measurements, capacitance measurements and diode test. Another practical feature is the integrated non-contact voltage detection, which allows you to reliably detect live wires.

The signal generator ideally complements the device by generating signals within a range of 1 Hz to 2 MHz. It supports various signal shapes such as sine, square, triangle, half wave, full wave, noise and DC signals.

Specification

Direct voltage DC	
Measuring range up to	0 ... 9,999 V
Resolution	0,001 V
Accuracy	±0.5 % of the measured value (of m.v.) + 3 digits
Direct voltage DC	
Measuring range up to	10 ... 99,99 V
Resolution	0,01 V
Accuracy	±0.5 % of the measured value (of m.v.) + 3 digits
Direct voltage DC	
Measuring range up to	100 ... 999,9 V
Resolution	0,1 V
Accuracy	±0.5 % of the measured value (of m.v.) + 3 digits
Direct current DC	
Measuring range up to	0 ... 9999 µA
Resolution	1 µA
Accuracy	±1.2 % of the measured value (of m.v.) + 3 digits
Direct current DC	
Measuring range up to	10 ... 99,99 mA
Resolution	0,01 mA
Accuracy	±1.2 % of the measured value (of m.v.) + 3 digits
Direct current DC	
Measuring range up to	100 ... 999,9 mA
Resolution	0,1 mA
Accuracy	±1.2 % of the measured value (of m.v.) + 3 digits
Direct current DC	
Measuring range up to	1 ... 9,999 A
Resolution	0,001 A
Accuracy	±1.2 % of the measured value (of m.v.) + 3 digits
Capacity	
Measuring range up to	0 ... 9,999 nF
Resolution	0,001 nF
Accuracy	±2 %of the measured value (of m.v.) + 5 digits
Capacity	
Measuring range up to	10 ... 99,99 nF
Resolution	0,01 nF
Accuracy	±2 %of the measured value (of m.v.) + 5 digits
Capacity	
Measuring range up to	100 ... 999,9 nF

General technical data	
Measuring functions	Diode test, Continuity, Non-contact voltage detection
Display Typ	LCD-Color Display
Display size	2,8 Inch
Display resolution	320x240
Storage medium	Internal memory
Storage capacity	8 MB
Storage information	Saving the oscilloscope image as a BMP file
Data interface	USB-C, BNC
Operating time	6 h
Automatic shutdown adjustable	5 ... 30 min.
Automatic switch-off can be deactivated	Yes
Safety standard	CAT III 1000V, CAT IV 600 V
Fuse(s)	10 A
Trigger input	Mode: Auto, Normal, Single Edge: Rising, Falling
Menu language	English (GB), English (US), Portuguese, German, Russian, Japanese
Protection class (device)	IP20
Power supply	5 VDC / 1 A
Battery/battery	1 x 3,7 V intern , Lithium-ion polymer battery
Battery capacity	3000 mAh
Operating conditions	0 ... 50 °C , 0 ... 90 %RH
Storage conditions	0 ... 50 °C , 0 ... 90 %RH
Dimensions (L x W x H)	170 x 90 x 35 mm
Weight	300 g

PCE Americas Inc. dba PCE Instruments
1201 Jupiter Park Drive, Suite 8
Jupiter, FL 33458
USA

Phone: +1-561-320-9162
info@pce-americas.com

Resolution	0,1 nF
Accuracy	±2 %of the measured value (of m.v.) + 5 digits
Capacity	
Measuring range up to	1 ... 9,999 µF
Resolution	0,001 µF
Accuracy	±2 %of the measured value (of m.v.) + 5 digits
Capacity	
Measuring range up to	10 ... 99,99 µF
Resolution	0,01 µF
Accuracy	±2 %of the measured value (of m.v.) + 5 digits
Capacity	
Measuring range up to	100 ... 999,9 µF
Resolution	0,1 µF
Accuracy	±2 %of the measured value (of m.v.) + 5 digits
Capacity	
Measuring range up to	1 ... 9,999 mF
Resolution	0,001 mF
Accuracy	±2 % of the measured value (of m.v.) + 20 Digits
Capacity	
Measuring range up to	10 ... 99,99 mF
Resolution	0,01 mF
Accuracy	±2 % of the measured value (of m.v.) + 20 Digits
AC voltage	
Measuring range up to	0 ... 9,999 V
Resolution	0,001 V
Accuracy	±1 % of the measured value (of m.v.) + 3 digits
AC voltage	
Measuring range up to	10 ... 99,99 V
Resolution	0,01 V
Accuracy	±1 % of the measured value (of m.v.) + 3 digits
AC voltage	
Measuring range up to	100 ... 750 V
Resolution	0,1 V
Accuracy	±1 % of the measured value (of m.v.) + 3 digits
Alternating current AC	
Measuring range up to	0 ... 9999 µA
Resolution	1 µA
Accuracy	±1.5 % of the measured value (of m.v.) + 3 Digits
Alternating current AC	

Measuring range up to	10 ... 99,99 mA
Resolution	0,01 mA
Accuracy	±1.5 % of the measured value (of m.v.) + 3 Digits
Alternating current AC	
Measuring range up to	100 ... 999,9 mA
Resolution	0,1 mA
Accuracy	±1.5 % of the measured value (of m.v.) + 3 Digits
Alternating current AC	
Measuring range up to	1 ... 9,999 A
Resolution	0,001 A
Accuracy	±1.5 % of the measured value (of m.v.) + 3 Digits
Resistance	
Measuring range up to	0 ... 999,9 Ω
Resolution	0,1 Ω
Accuracy	±0.5 % of the measured value (of m.v.) + 3 digits
Resistance	
Measuring range up to	1 ... 9,999 kΩ
Resolution	0,001 kΩ
Accuracy	±0.5 % of the measured value (of m.v.) + 3 digits
Resistance	
Measuring range up to	10 ... 99,99 kΩ
Resolution	0,01 kΩ
Accuracy	±0.5 % of the measured value (of m.v.) + 3 digits
Resistance	
Measuring range up to	100 ... 999,9 kΩ
Resolution	0,1 kΩ
Accuracy	±0.5 % of the measured value (of m.v.) + 3 digits
Resistance	
Measuring range up to	1 ... 9,999 M Ω
Resolution	0,001 M Ω
Accuracy	±0.5 % of the measured value (of m.v.) + 3 digits
Resistance	
Measuring range up to	10 ... 99,99 M Ω
Resolution	0,01 M Ω
Accuracy	±1.5 % of the measured value (of m.v.) + 3 Digits
Temperature Sensor	
Measuring range up to	-55 ... +1300 °C
Resolution	0,1 °C
Accuracy	±2.5 % of the measured value (of m.v.) + 5 digits

Oscilloscope specifications	
Number of channels	2
Bandwidth	10 MHz
Sampling rate	50 MSa/s
Storage depth	32 kpts
Eingangsimpedanz	10 M Ω
Probe factors	1-fold, 10-fold
Max. input voltage	400 V
Vertical sensitivity	20 mV/div - 10 V/div
Function generator	
Bandwidth	1 ... 2000000 Hz
Resolution	1 Hz
Channels	1
Amplitude	0.1 ... 3.3 Vpp
Waveform length	16 kpts
Functions	Sine, Rectangle, Triangle, Half wave, Whole wave, Noise, DC