Micsig

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Portable Oscilloscope

VTO2004

- 200MHz Bandwidth, 4 analog channels
- 1GSa/s sampling, 50Mpts memory depth
- Built-in battery for day-long use
- Compatible with any Android device

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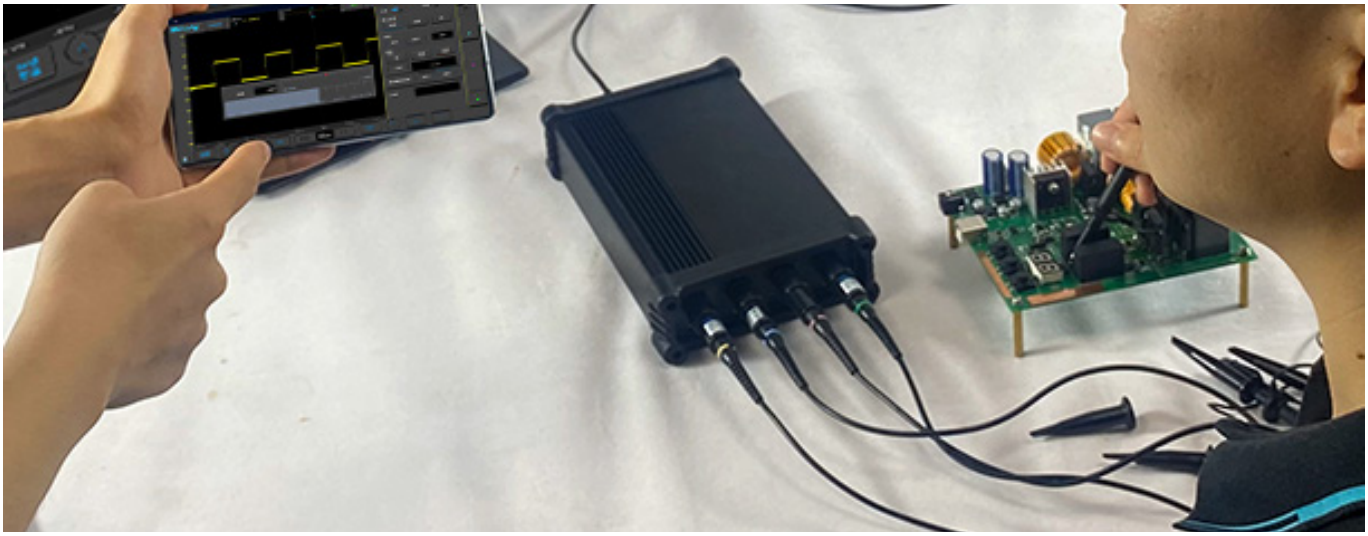
Product description

VTO2004 is a portable split-type oscilloscope, it has compact design and a built-in battery. It features 200MHz bandwidth, 4 channels, 1GSa/s sampling rate, up to 50Mpts memory depth. It can be connected to any Android device, such as tablets, smartphones, and PC computers (Android OS). With a user-friendly UI design, a wide range of measurement options, provides a new oscilloscope operation experience.

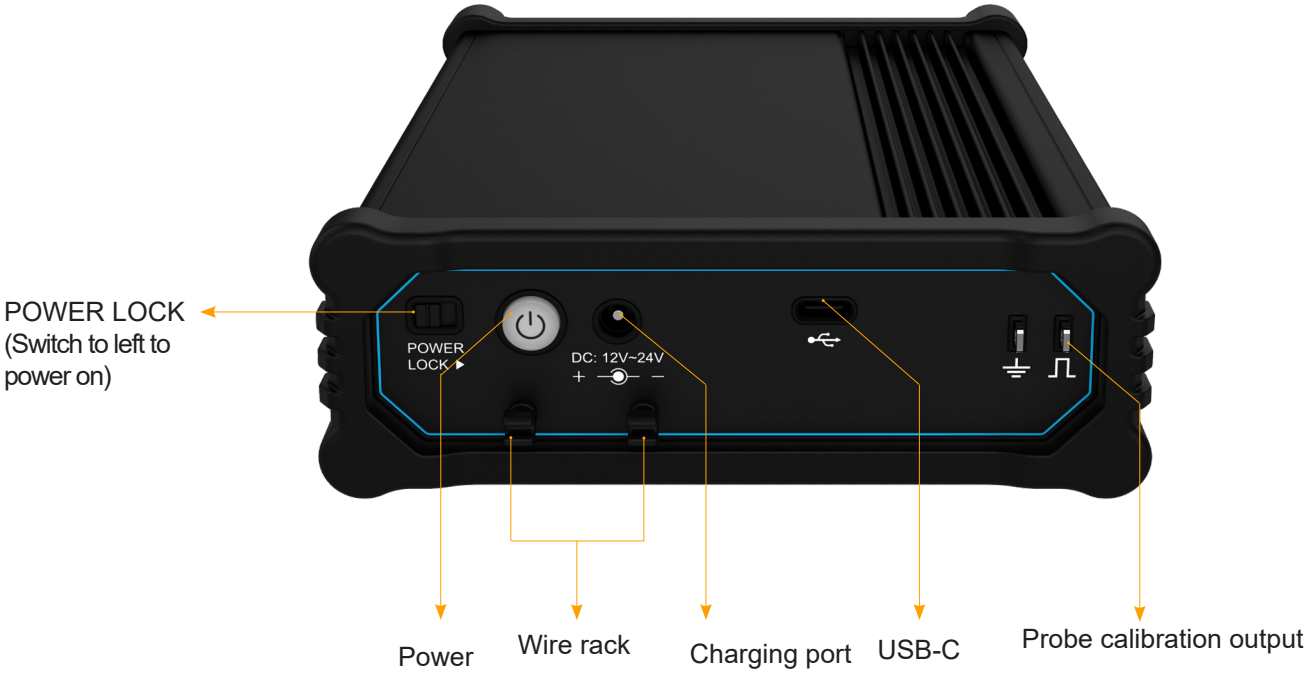


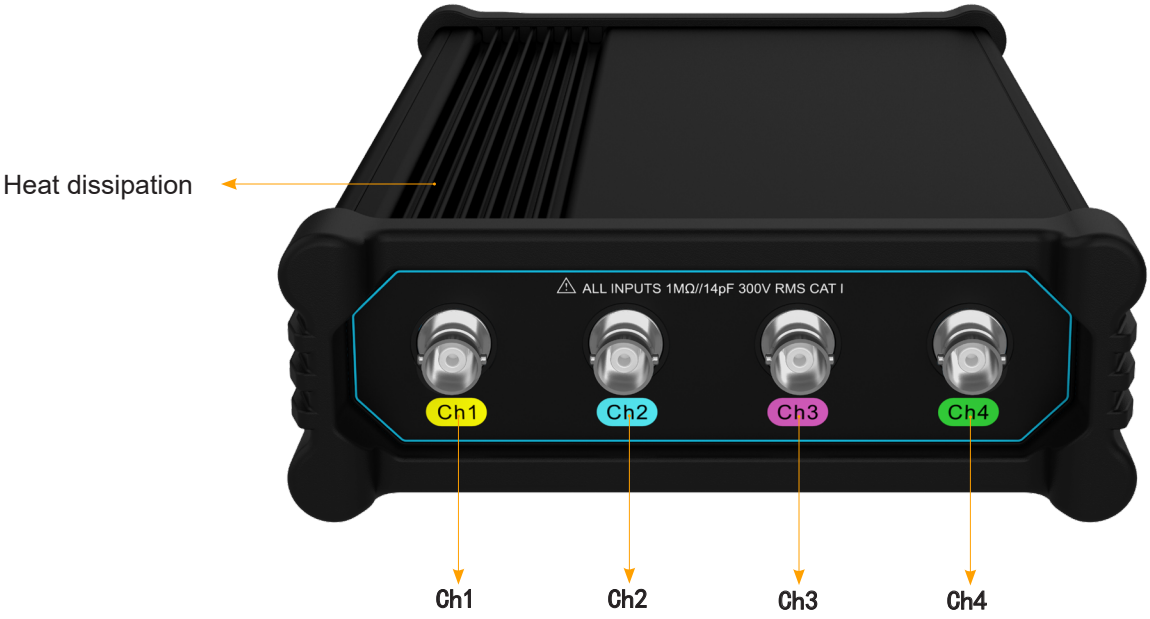
- Friendly UI, easy to use
- Small size, light weight, perfect for field test
- 7500mAh Li-ion battery for day-long use
- Deep memory depth, capture more signal details
- Support High/Low bandwidth filtering
- 31 types of automated measurements

Key specifications

Model	VTO2004
Bandwidth	200MHz
Analog channels	4
Rise time	≤ 1.8ns
Max. sampling rate	1GSa/s
Memory depth	50Mpts
DC gain accuracy	≤ 2%
Input impedance	1MΩ±1% || 14pF
Interface	USB Type-C, DC power
Battery (optional)	7.4V, 7500mAh
Size	140*215*52mm
Net weight	640g

Appearance & Interfaces



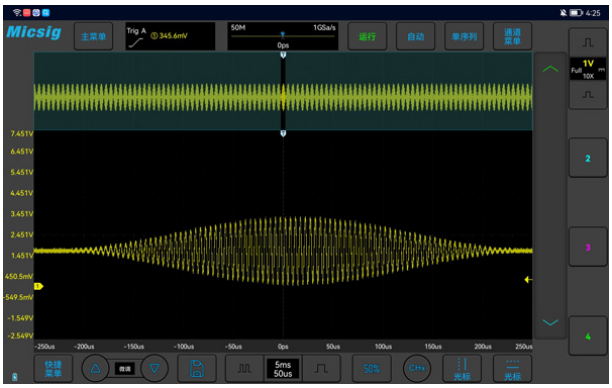


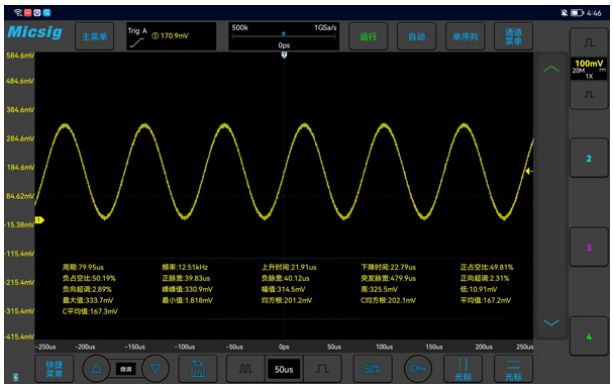
Super convenient

With the USB type-c interface, it can be used with any Android platform or device. Such as smartphones, tablet devices or Android-based computers.

Large capacity battery

An optional 7500mAh lithium battery, support 24 hours field work. Power lock makes it safer to carry and transport.



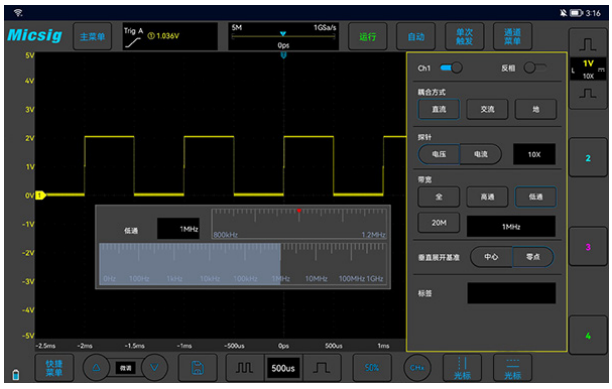


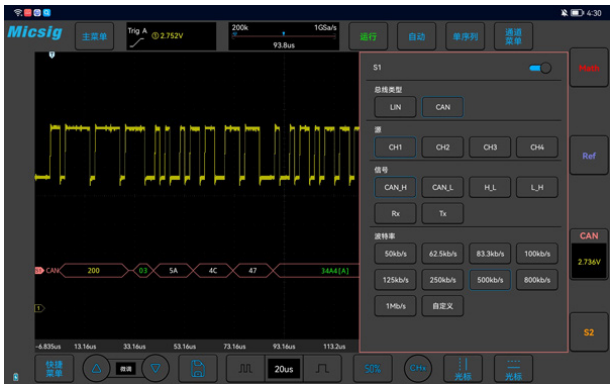
Deep memory

Memory depth up to 50Mpts, with Zoom technology, both the overall picture and details can be perfectly displayed.

Convenient auto measurements

31 types of automated measurements, all can be selected and cleared with one click.





Hardware digital filter

Support hardware digital filtering to filter out interference and noise.

Bus decode

Support CAN, LIN bus decoding.

Specifications

Vertical system	
Bandwidth Filter	Full bandwidth, High pass & Low pass (30KHz~Max bandwidth)
Input Coupling	DC, AC, GND
Input Impedance	1MΩ±1%||14pF±3pF
Vertical Resolution	8 bit
DC Gain Accuracy (Amplitude accuracy)	<±2% (1MΩ input)
Input Sensitivity Range	5mV/div~10V/div（1MΩ input)
Noise	≤ 1.3mVpp (5mV/div,1MΩ)
Ch-to-Ch Isolation	≥ 40dB (100:1)（DC to Max bandwidth)
Maximum Input Voltage	CAT I 300Vrms（1MΩ ）

Horizontal System	
Time Base	5ns/div~1ks/div
Time base delay time range	10 div ~10ks
Clock Drift	≤ ±5ppm/ year
Time Base Accuracy	±20ppm

Trigger System	
Trigger Mode	Auto, Normal, Single
Trigger Coupling	DC, noise suppression
Trigger Holdoff Range	200ns~10s
Trigger Types	
Edge	Positive slope, negative slope, or any slope on any channel. Coupling includes DC and noise suppression
Pulse Width	Trigger on positive pulse width, negative pulse width >, <, =, ≠ or within the time range of 8ns~10s
Bus decoding	LIN、CAN

Waveform Measurements	
Cursors	Horizontal, Vertical, Cross
Automated Measurements	31 types. Including: Period, Frequency, Rise Time, Fall Time, Delay, Positive Duty , Cycle, Negative Duty Cycle, Positive Pulse Width, Negative Pulse Width, Burst Width, Positive Overshoot, Negative Overshoot, Phase, Peak-to-Peak, Amplitude, High, Low, Maximum, Minimum, RMS, Cycle RMS, Mean, Cycle Mean
Waveform Math	
Dual Waveform	+、-、*、/，analog channel
FFT	Points: max. 100K; Source: Analog channel; Window: Rectangular, Hamming, Blackman, Hanning

Storage	
Storage Format	WAV、CSV
Store Waveform Quantity	Unlimited
Stored Waveform Rename	Support
Reference Waveform Display	4
Quick Screenshot	Support
User Setting Storage	8
User Settings Rename	Support

System	
Self-calibration	Support
Language	English, Chinese
System	Android 7 or above
Warranty	The main unit has one-year warranty. Probes and accessories are not covered. Please refer to the data sheet of each probe and accessory for the respective warranty terms (contact us for extended warranty)

Interface	
USB Type-C	1, read and edit
DC power port	1, supply power to oscilloscope
Probe calibration signal	1kHz, 2Vpk-pk

Power Source	
Power Voltage Range	100~240V AC, 50/60Hz
Power Consumption	< 48W
Adapter Output	12V DC, 4A
Battery (optional)	7.4V, 7500mAh Li-ion battery

Enviroment	
Temperature	
Operating	0℃ ~ 45℃
Non-operating	-40℃ ~ 60℃
Humidity	
Operating	5% ~ 85%, 25℃
Non-operating	5% ~ 90%, 25℃
Altitude	
Operating	< 3000m
Non-operating	< 12000m

Physical Characteristics	
Dimension	140*215*52mm
Net weight	640g

Standard Accessories

Model	Accessories
VTO2004	Passive BNC probes*2
	Power cable*1
	Power adapter * 1
	Battery*1(Built-in, optional)
	Type-C cable *1
	Calibration certificate*1
	Quick Operation Guide *1
	Manual*1
	Packing list*1

Recommend Instruments

SigOFIT Optical-fiber Isolated Probe		
MOIP series	Bandwidth: 100MHz ~ 1GHz, DC Gain Accuracy: 1%,	Common Mode Voltage Range: 85kVpk, CMRR: Up to 180dB

High Voltage Differential Probe	
MDP series	Bandwidth: 100MHz ~ 500MHz, Differential Voltage(DC+AC PK): 700V - 3000V, Accuracy:±2%, BNC interface

Current Probe	
High Frequency AC/DC Current Probe CP series	Bandwidth: 50MHz ~ 100MHz，Range：6A/30A，Accuracy：±1%，BNC interface
Low Frequency AC/DC Current Probe CP2100 series	Bandwidth: 800KHz ~ 2.5MHz，Range：10A/100A，BNC interface
Rogowski AC Current Probe RCP series	Bandwidth: 10Hz-30MHz，Range：200mApk-600Apk，Accuracy: 1%，BNC interface
AC Current Probe ACP1000	Bandwidth: 10Hz-100kHz，Range: 0.1Apk-1000Apk，BNC interface

Suitcase & handbag	
Handbag	Black nylon , suitable for all Micsig oscilloscopes
Suitcase	Anti-fall, anti-seismic, anti-pressure, dust-proof, moisture-proof, customized for Micsig oscilloscope

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