PicoScope®
4000 Series
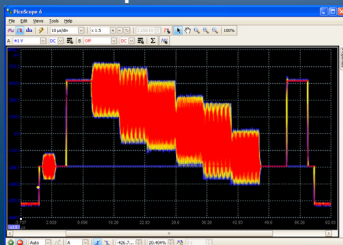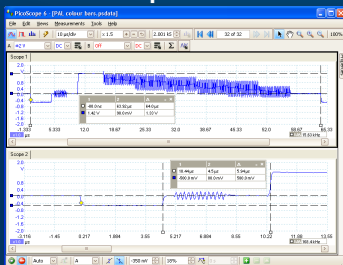## High-Resolution PC Oscilloscopes

Detailed waveform capture from Pico Technology

- **12-bit resolution**
- **80 MS/s real-time sampling rate**
- **USB 2.0 interface for data and power**
- **32 M sample buffer size**
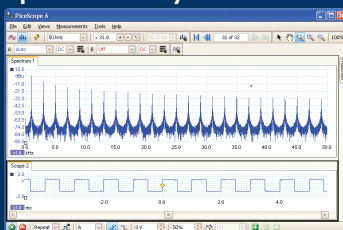- **Up to 4 channels**

Oscilloscope

Zoomed scope views

Spectrum analyser

All-in-one instruments

The PicoScope 4000 Series PC Oscilloscopes are extremely versatile, with an oscilloscope and spectrum analyser included in every model.

Convenience and speed

The PicoScope 4000 Series scopes obtain their power from the USB 2.0 interface, so there's no need for an external power supply. The USB port also delivers high-speed data to your PC to give you a responsive, high-resolution display. With 80 MS/s sampling, the 4000 Series scopes are the fastest USB-powered 12-bit scopes around.

Deep memory

The 32 M sample buffer is 'always on'. There is never a compromise between buffer size and waveform update rate, because the PicoScope 4000 Series always maximises both at the same time. Now you can capture every waveform with full detail without having to think about it.

Advanced software

The scopes are bundled with the latest version of PicoScope for Windows. PicoScope is easy to use and can export data in a variety of graphical, text and binary formats. Also included are Windows and Linux drivers and example programs.

	PicoScope 4424	PicoScope 4224
Channels (vertical)		
Number of channels	4	2
Bandwidth	20 MHz (10 MHz on ±50 mV range)	
Sensitivity	10 mV/div to 20 V/div	
Full-scale ranges	±50 mV to ±100 V	
DC accuracy	1% of full scale	
Nominal input impedance	1 MΩ ∥ 22 pF	
Overload protection	±200 V	
Input coupling	AC or DC, software-controlled	
Input connectors	4 x BNC	2 x BNC
Timebase (horizontal)		
Timebases	100 ns/div to 200 s/div	
Timebase accuracy	50 ppm	
Timebase jitter	≤ 10 ps	
Trigger		
Trigger sources	Any input channel	
Modes	Auto, repeat, single, none	
Types	Rising edge, falling edge, edge with hysteresis, pulse width, runt pulse, dropout, windowed	
Acquisition		
ADC resolution	12 bits (up to 16 bits with resolution enhancement)	
Software filtering	User-adjustable cut-off frequency and on/off control	
Sampling rate	80 MS/s, 1 or 2 channels 20 MS/s, 3 or 4 channels	80 MS/s
Buffer size	32 M samples shared between active channels	
Number of waveform segments in buffer	Adjustable from 1 to 1000	
Display		
Display styles	Real-time, digital colour, analogue intensity	
Measurements and analysis		
Rulers	2 per channel on Y axis + 2 on X axis	
Automatic measurements	26 automatic measurements in time and frequency domains	
Channel maths	Invert, add, subtract, multiply, divide, advanced equations	
FFT	Spectrum view with up to 1 M points	
General		
Operating temperature range	+0 °C to +45 °C (+15 °C to +40 °C for quoted accuracy)	
Power	Powered from USB port: 5 V @ 500 mA max.	
PC connection	USB 2.0	
PC requirements	Microsoft Windows XP (SP2) or Vista, 32-bit versions only	
Dimensions	200 mm x 140 mm x 35 mm	
Weight	< 500 g	
Approvals	FCC (EMC), CE (EMC, LVD), RoHS	

DESCRIPTION

PP493	PicoScope 4424
PP492	PicoScope 4224

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