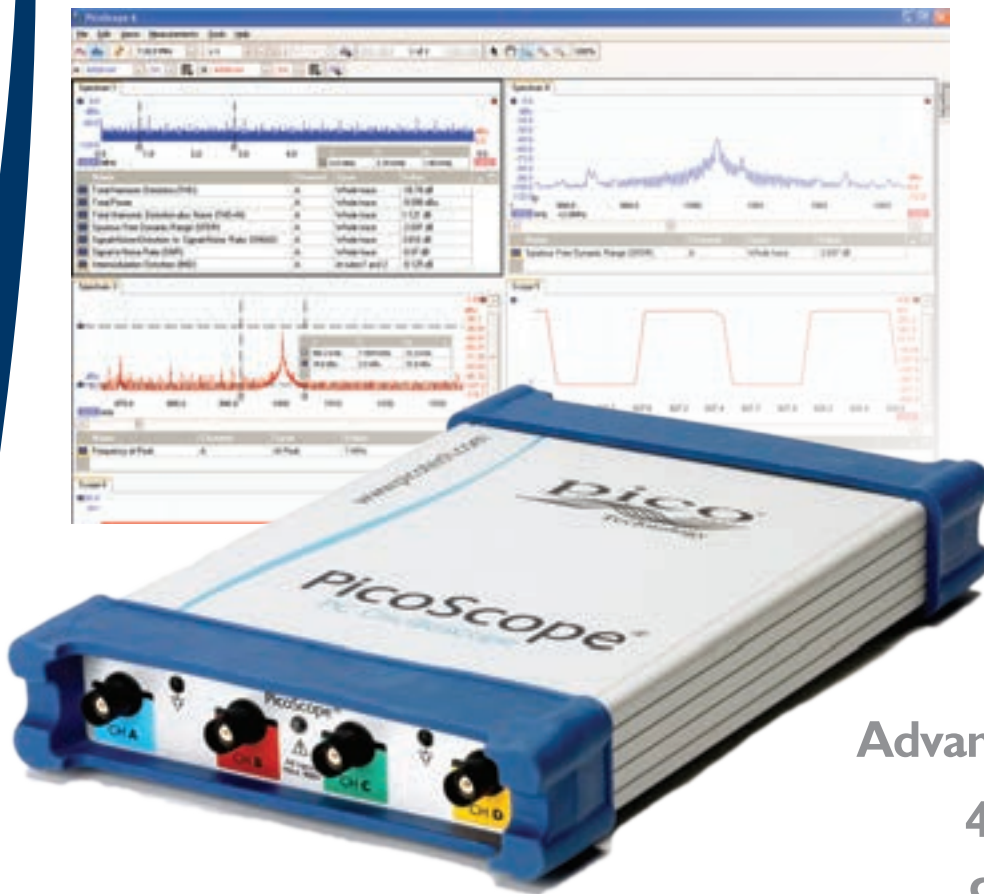


# impac

## PicoScope<sup>®</sup> 3425

DIFFERENTIAL PC OSCILLOSCOPE

For high-accuracy floating measurements



4 channels

12-bit precision

5 MHz bandwidth

20 MS/s sampling

Spectrum analyzer

Advanced digital triggering

400 V differential and  
common-mode range

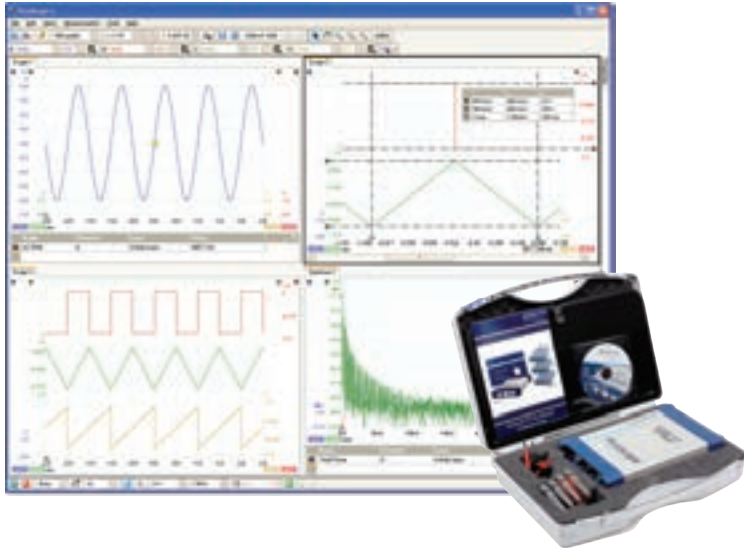
USB 2.0 Hi-Speed

Supplied with a full SDK including example programs • Software compatible with  
Windows XP, Windows Vista and Windows 7 • Free technical support

## PicoScope 3425 4-Channel Differential Oscilloscope - Specifications

Channels	4
Bandwidth (-3 dB)	5 MHz (3 MHz on 100 mV range)
Resolution	12 bits (16 bits in enhanced resolution mode)
Maximum sampling rate	Single channel 20 MS/s Two channels 10 MS/s Three or four channels 5 MS/s
Buffer memory	One channel enabled 512 k samples per channel Two channels enabled 256 k samples per channel Three or four channels enabled 128 k samples per channel
Input type	Differential voltage Selectable AC or DC coupling Touch-proof BNC connectors and 4 mm GND sockets
Input impedance	12.4 M $\Omega$ (on 100 mV to 5 V ranges) 10.1 M $\Omega$ (on 10 V to 400 V ranges)
Input capacitance	12 pF
Common-mode voltage range to ensure measurement accuracy	30 V (on 100 mV to 5 V ranges) 400 V (on 10 V to 400 V ranges)
Maximum safe voltages	Differential 400 V Any input above scope GND 400 V (600 V transient)
Measurement category rating	CAT I
Voltage ranges	$\pm 100$ mV to $\pm 400$ V in 12 ranges
Accuracy	Voltage $\pm 1\%$ Time 50 ppm
Linearity	12 bits
Noise	< 10 LSB
Operating environment	Temperature range 0 °C to 40 °C (20 °C to 30 °C for quoted accuracy) Humidity range Minimum 5% RH non-condensing Maximum 80% RH non-condensing, decreasing linearly to 50% at 40 °C
Storage environment	Temperature range -20 °C to 60 °C Humidity range 5% to 90% RH non-condensing
Other environmental conditions	Dry environments, Altitude up to 2000 m, No pollution, or only dry, non-conductive pollution
PC connection	USB 2.0 Compatible with USB 1.1
Power supply	From USB port 4.6 V to 5.25 V DC @ approx. 500 mA No external power supply required
Dimensions	255 mm x 170 mm x 40 mm (approximately 10 in x 6.7 in x 1.6 in)
Weight	920 g (approximately 2 lb)

## PicoScope 3425 4-Channel Differential Oscilloscope



The 3425 kit is packaged in a tough carry case and includes all the accessories you need:

- Four screened BNC to 4 mm plug leads
- 4 current clamp adaptors
- 2 test probes
- 8 large crocodile clips
- USB cable
- Software and Reference CD
- Quick Start Guide

The PicoScope 3425 has powerful display and analysis capabilities:

- Multiple scope and spectrum views
- Automatic measurements
- Data export in text, binary and graphical formats
- Waveform buffer for storing multiple events
- Mask limit testing
- Serial data decoding
- Spectrum analysis

Most oscilloscopes can only measure signals referenced to ground and have what are known as “single-ended inputs”. The PicoScope 3425 has four fully differential inputs that allow you to measure signals that are not referenced to ground. With a maximum common mode and differential range of 400 V, the PicoScope 3425 is capable of measuring both high voltage and low level signals. Typical high voltage applications include capturing waveforms from switch mode power supplies, telephone cables, motor inverters and hybrid vehicles. The high impedance differential inputs also allow measurements on sensitive amplifiers and from bridge type sensors for pressure, load and strain. They also allow you to measure floating voltages, and signals where common-mode noise is present, with ease and without the need for expensive differential preamplifiers or probes.

The PicoScope 3425 USB Oscilloscope comes in a tough carry case complete with all the probes, leads, clips and adaptors you need to start taking differential measurements. Just install the user-friendly software, connect the oscilloscope to a USB port on your Windows PC and you're ready to go. No complicated setup procedures. No effort required.

Its small, lightweight design means the PicoScope 3425 doesn't need to be confined to your lab or workbench. It is the perfect portable differential oscilloscope, while the anti-slip case means that your scope can be used either horizontally or vertically – ideal when space is at a premium. The included accessories and easy-to-use software allow you to get the maximum from your PicoScope.

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