

PicoScope 3425 Differential USB Oscilloscope

PicoScope 3425 PC Oscilloscope Specifications

Oscilloscope	
Bandwidth	5 MHz (3 MHz on 100 mV range)
Channels	4
Vertical resolution	12 bits
Enhanced vertical resolution	16 bits
Maximum sampling rate (single shot) One channel in use Two channels in use Three or four channels in use	20 MS/s 10 MS/s 5 MS/s
Record length One channel enabled, up to 100 ms/div Two channels enabled, up to 100 ms/div Three or four channels enabled, up to 100 ms/div Over 100 ms/div	512 kS/channel 256 kS/channel 128 kS/channel 2 MS/channel
Waveform buffer	Up to 1000 waveforms
Input impedance	12.4 M Ω (on 100 mV to 5 V ranges) 10.1 M Ω (on 10 V to 400 V ranges)
Input capacitance	12 pF
Input type	Differential voltage, Touch-proof BNC connectors with 4 mm GND sockets
Input coupling	Software selectable AC/DC
Input voltage ranges	100 mV to 400 V in 12 ranges
Common-mode voltage range To ensure measurement accuracy	30 V (on 100 mV to 5 V ranges) 400 V (on 10V to 400V ranges)
Maximum safe voltages Differential Any input above scope GND	400 V 400 V (600 V transient)
Measurement category rating	CAT 1
Accuracy Voltage Time	± 1 % 50 ppm
Linearity	12 bits
Noise	< 10 LSB

PC Requirements	
Minimum	Processor: Pentium II processor, or equivalent Memory: 64 MiB (XP) / 512 MiB (Vista) / 1 GiB (Win 7) minimum Operating system: 32 or 64-bit edition of Microsoft Windows XP SP2, Vista or Windows 7 Ports: USB 2.0 compliant port
Recommended	Processor: 2 GHz Pentium IV processor, or equivalent Memory: 256 MiB (XP) / 1 GiB (Vista / Win 7) Operating system: 32 or 64-bit edition of Microsoft Windows XP SP2 (or above), Vista or Windows 7 Ports: USB 2.0 compliant port

Environmental	
Operating temperature range	0 °C to 40 °C (20 °C to 30 °C for quoted accuracy)
Operating humidity range	Minimum 5% RH non-condensing Maximum 80% RH non-condensing, decreasing linearly to 50% at 40 °C
Storage environment Temperature range Humidity	-20 °C to +60 °C 5% to 90% RH, non-condensing
Other environmental conditions	Dry environments Altitudes of up to 2000 m above sea level No pollution, or only dry, non-conductive pollution

Physical Dimensions	
Dimensions	255 x 170 x 40 mm (approx 10.0 x 6.7 x 1.6 in)
Weight	920 g (approx 2 lb)

Software	
PicoScope 6 for Windows	PicoScope 6 is your complete test and measurement lab in one application. Features include:

	<p>Capture modes - oscilloscope, spectrum and persistence modes</p> <p>Channel maths - calculate the sum, difference, product, inverse or create your own custom function using standard arithmetic, exponential and trigonometric functions</p> <p>Automated measurements</p> <p>Scope mode: AC RMS, cycle time, DC average, duty cycle, falling rate, fall time, frequency, high pulse width, low pulse width, maximum, minimum, peak-to-peak, rise time and rising rate</p> <p>Spectrum mode: frequency at peak, amplitude at peak, total power, total harmonic distortion (THD), total harmonic distortion plus noise (THD+N), spurious-free dynamic range (SFDR), signal+noise+distortion to signal+noise ratio (SINAD), signal to noise ratio (SNR) and intermodulation distortion (IMD)</p> <p>Export data formats - Comma separated values (CSV), tab delimited (TXT), windows bitmap (BMP), graphics interchange format (GIF), portable network graphics (PNG), MATLAB 4 format (MAT)</p> <p>Full details on PicoScope 6(http://www.picotech.com/picoscope-oscilloscope-software.html)</p>
PicoLog for Windows	<p>PicoLog data acquisition software can collect up to 1 million samples. Features include:</p> <p>Multiple views - view data as a graph, spreadsheet or text</p> <p>Parameter scaling - convert raw data into standard engineering units</p> <p>Math functions - use mathematical equations to calculate additional parameters</p> <p>Alarm limits - program an alert if a parameter goes out of a specified range</p> <p>IP networking - transfer measurements via a LAN or over the Internet</p> <p>Full details on PicoLog(http://www.picotech.com/data-logging-software.html)</p>
Linux drivers	32-bit and 64-bit
Software development kit	A growing collection of drivers and example code for various programming languages

Language support	
Software	
PicoLog	Full support for English, French and German; menus only for Italian and Swedish
PicoScope 6	Full support for English, French, Italian, German and Spanish. Menus and dialogs only for Dutch, Hungarian and Simplified Chinese.
Documentation	
User's guide	English
Installation guide	English, French, German, Italian, Spanish

General	
Additional hardware (supplied)	Carry case USB 2.0 cable User manuals and software CD-ROM 2 x multimeter test probes 4 x screened BNC to 4 mm plug leads 4 x current clamp adaptors 4 x small crocodile clips 4 x large crocodile clips 8 x sprung hook probes
PC interface	USB 2.0 (USB 1.1 compatible) - cable supplied
Power requirements	Powered from USB port
Compliance	FCC, CE RoHS compliant
Total Satisfaction Guarantee	In the event that this product does not fully meet your requirements you can return it for an exchange or refund. To claim, the product must be returned in good condition within 14 days.
Warranty	5 years

Note: quoted specifications apply when using PicoScope 6 software.

Need to know a specification not listed here? - just ask(<http://www.picotech.com/ask-pico.html?PicoScope%203425>)