pico® Technology

PC oscilloscope and data logger products

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Established in 1991, Pico Technology is a leading manufacturer of electronic Test and Measurement (T&M) products.

Our company and products have been recognized with several prestigious industry awards, including the Queen's Award for Enterprise, Times Top 100 Small Companies to Work For and Elektra. We have also won awards from NASA Tech Briefs and DesignVision for the PicoScope® 5000 Series.

Pico Technology T&M products are used by scientists, technicians, engineers and researchers to troubleshoot their designs and validate performance of their systems with precision and within budget. PicoScopes capture and display complex waveforms that are the heartbeat of next-generation electrical and electronic technologies. They address many challenges with mathematical waveform analysis tools, decoding of popular serial communication protocols and mixed signal capabilities.

Pico data loggers enable multi-channel precision recording of scientific and engineering parameters such as temperature, voltage, current, force, strain and vibration. PicoScopes and Pico data loggers are supported by a comprehensive five-year warranty.

bsi. ISO 9001 Quality Management FM52022 ISO 14001 Environmental Management EMS612349

Calibration services available **ISO 9001 & ISO 14001 accredited**

From our headquarters near Cambridge in the UK to our regional offices in Texas, USA and Shanghai, China, we are committed to deliver world-class support to our customers wherever they are.

Pico products are supplied with a Software Development Kit (PicoSDK) that can be used to write custom applications. Drivers for Windows, macOS and Linux (including Raspberry Pi and Beaglebone) are included, along with code samples for programming environments such as Microsoft Excel, National Instruments LabVIEW, MathWorks MATLAB, C#, C++ and Python.

Products and accessories from Pico Technology are built and tested according to our ISO 9001 Quality and ISO 14001 Environmental Management Systems for "The design, manufacture, sale, and technical support of electronic measuring equipment used for the recording of voltages, current, temperature and humidity." Traceable calibration is the foundation of our quality system, which means you can rely on measured results from any Pico instrument with complete confidence.

Hardware and software development teams at our headquarters near Cambridge, UK.

Did you know?...

Pico Technology is also the leading supplier of Automotive diagnostic scopes worldwide? Our automotive equipment is used in both franchised dealerships and independent workshops.

Visit www.picoauto.com for more information

PicoScope oscilloscopes

	PicoScope 2000 Series		PicoScope 3000 with MSO options	PicoScope 4000 Series	
	2000A models with MSO options	2000B models with MSO options		4224 and 4424	4262
Description	Power and performance in your hand	Benchtop performance in a pocket-sized scope	Power, portability and performance	High-resolution oscilloscopes	Digital oscilloscope for the analog world
Channels	2 or 4 (+ 16 digital with MSO)	2 or 4 (+ 16 digital with MSO)	2 or 4 (+ 16 digital with MSO)	2, 2+IEPE or 4	2 + EXT
Outputs	FG + AWG 100 kHz / 1 MHz	FG + AWG 1 MHz	FG + AWG 1 MHz	None	AWG and low-distortion sine wave generator
Analog bandwidth	10 to 25 MHz	50 to 100 MHz	50 to 200 MHz	20 MHz	5 MHz
Sampling rate	100 to 500 MS/s	500 MS/s to 1 GS/s	1 GS/s	80 MS/s	10 MS/s
Resolution (enhanced)	8 bits (12 bits)	8 bits (12 bits)	8 bits (12 bits)	12 bits (16 bits)	16 bits (20 bits)
Capture memory	8 kS to 48 kS	32 MS to 128 MS	64 MS to 512 MS	32 MS	16 MS
Power	USB	USB	USB or AC adaptor	USB	USB

EXT: external trigger input, AUX: auxiliary trigger input, FG: function generator, AWG: arbitrary waveform generator.

PicoScope 4000 Series		PicoScope 5000 with MSO options	PicoScope 6000 Series	PicoScope 9000 Series
4444	4824			
High-resolution differential oscilloscope	8 channel oscilloscope	The complete all-rounders: FlexRes® and MSO oscilloscopes	Highest performance real-time oscilloscopes	Sampling oscilloscopes
4 true differential	8	2 or 4 (+ 16 digital with MSO)	4 + AUX input	2 (+ OPT) or 4
Probe compensation signal	FG + AWG 1 MHz	FG + AWG 20 MHz	FG or FG + AWG 20 MHz	PRBS, Clock, diff. TDR/TDT
20 MHz	20 MHz	60 to 200 MHz	250 MHz to 1 GHz	15 to 25 GHz
50 MS/s to 400 MS/s	80 MS/s	62.5 MS/s to 1 GS/s	5 GS/s	200 kS/s to 1 MS/s
FlexRes 12 or 14 bits (16 or 18 bits)	12 bits (16 bits)	8, 12, 14, 15 and 16 bits (up to 20 bits)	8 bits (12 bits)	16 bits
256 MS	256 MS	128 MS to 512 MS (8-bit) 64 MS to 256 MS (≥12-bit)	256 MS to 2 GS	32 kS
USB	USB	USB or AC adaptor	AC adaptor	AC adaptor

AUX: auxiliary trigger input, FG: function generator, AWG: arbitrary waveform generator. OPT: optical input (optional, on 2-channel model only).

PicoScope 6 software

The display can be as simple or as advanced as you need. Begin with a single view of one channel, and then expand the display to include any number of live channels, math channels and reference waveforms. Available in 23 languages.

Channel options: Filtering, offset, resolution enhancement, custom probes and more.

FlexRes: FlexRes allows you to reconfigure the hardware to increase either the sampling rate or the resolution. Easily switch from 8 up to 16 bits resolution.

Waveform replay tools: PicoScope 6 automatically records up to 10 000 of the most recent waveforms. You can quickly scan through to look for intermittent events, or use the **Buffer Navigator** to search visually.

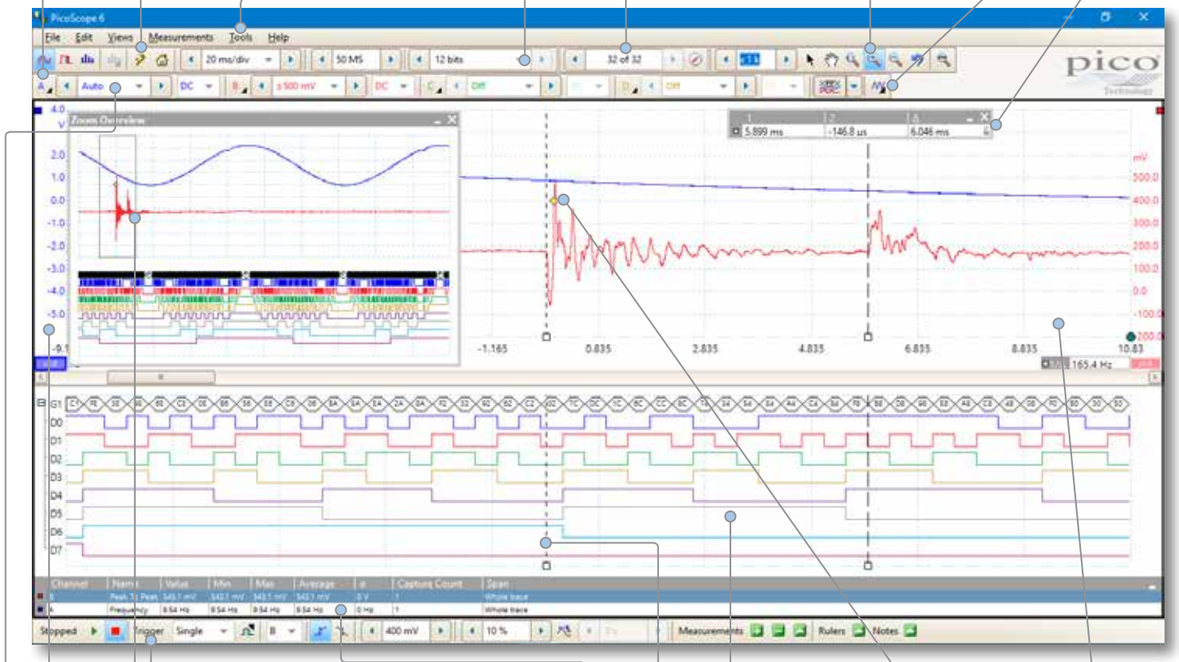
Signal generator: Generates standard signals or arbitrary waveforms. Includes frequency sweep mode.

Auto setup button: Configures the collection time and voltage range for clear display of signals.

Tools: Including serial decoding, reference channels, macro recorder, alarms, mask limit testing and math channels.

Zoom and pan tools: PicoScope 6 allows a zoom factor of several million, which is necessary when working with the deep memory of the PicoScope 5000D Series scopes.

Ruler legend: Absolute and delta ruler measurements are listed here.



Oscilloscope controls: Controls such as voltage range, scope resolution, channel enable, timebase and memory depth.

Zoom overview: Click and drag for quick navigation in zoomed views.

Trigger toolbar: Quick access to main controls, with advanced triggers in a pop-up window.

Rulers: Each axis has two rulers that can be dragged across the screen to make quick measurements of amplitude, time and frequency.

Trigger marker: Drag the yellow diamond to adjust trigger level and pre-trigger time.

Views: PicoScope 6 is carefully designed to make the best use of the display area. You can add new scope, spectrum and XY views with automatic or custom layouts.

Movable axes: The vertical axes can be dragged up and down. This feature is particularly useful when one waveform is obscuring another. There's also an **Auto Arrange Axes** feature.

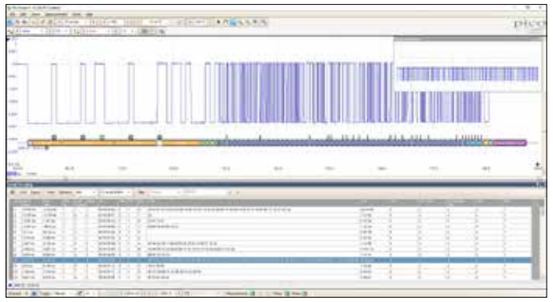
Automatic measurements: Display calculated measurements for troubleshooting and analysis. You can add as many measurements as you need on each view. Each measurement includes statistical parameters showing its variability.

Logic analyzer/ mixed signal capability: MSO mixed signal models include 16 digital inputs so that you can view digital and analog signals simultaneously. The digital inputs can be displayed individually or in named groups with binary, decimal or hexadecimal values shown in a bus-style display.

Software features

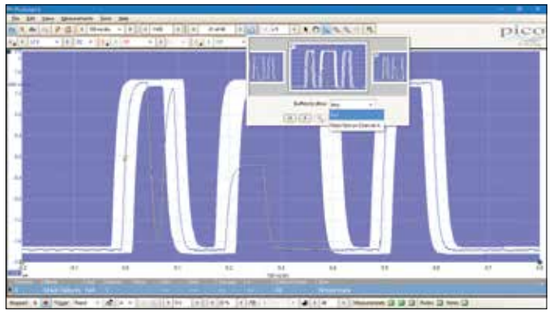
Serial protocol analysis

PicoScope can decode 1-Wire, ARINC 429, CAN, CAN FD, DCC, DMX512, Ethernet, FlexRay, I²C, I²S, LIN, PS/2, SENT, SPI, UART (RS-232 / RS-422 / RS-485), and USB 1.1 protocol data as standard, with more protocols in development and available in the future with free-of-charge software upgrades.



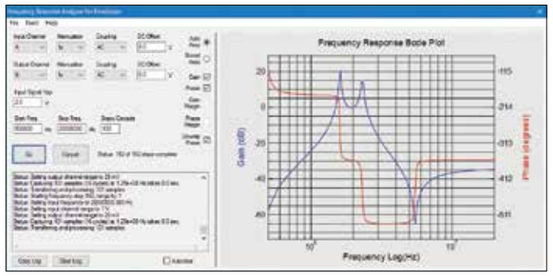
Mask limit testing

Mask limit testing allows you to compare live signals against known good signals, and is designed for production and debugging environments. Simply capture a known good signal, draw a mask around it, and then probe the system under test. PicoScope will check for mask violations and perform pass/ fail testing, capture intermittent glitches, and can show a failure count and other statistics in the Measurements window.



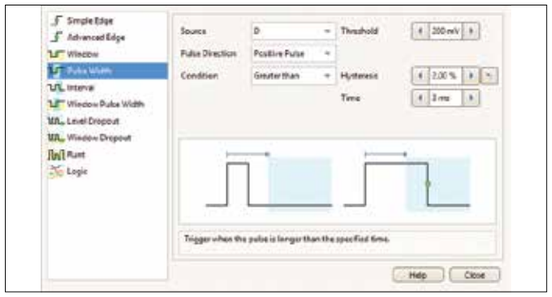
Software development kit (SDK)

The SDK allows you to write your own software and includes drivers for Microsoft Windows, macOS and Linux, including Raspberry Pi and BeagleBone. Example code shows how to interface to third-party software packages such as Microsoft Excel, National Instruments LabVIEW, MathWorks MATLAB and Python.



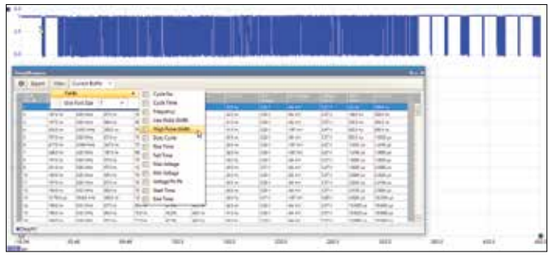
Advanced digital triggering

Advanced trigger types enable you to capture a stable waveform with complex signals. This is ideal for troubleshooting glitches, timing violations, overvoltages and dropouts in analog and digital circuits. Advanced triggers include pulse width, runt, drop-out, logic, and digital modes.



DeepMeasure

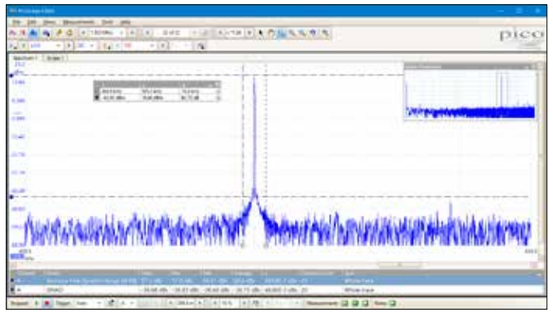
Measurement of waveform pulses and cycles is key to verification of the performance of electrical and electronic devices. DeepMeasure delivers automatic measurements of important waveform parameters on up to a million waveform cycles with each triggered acquisition. Results can be easily sorted, analyzed and correlated with the waveform display.



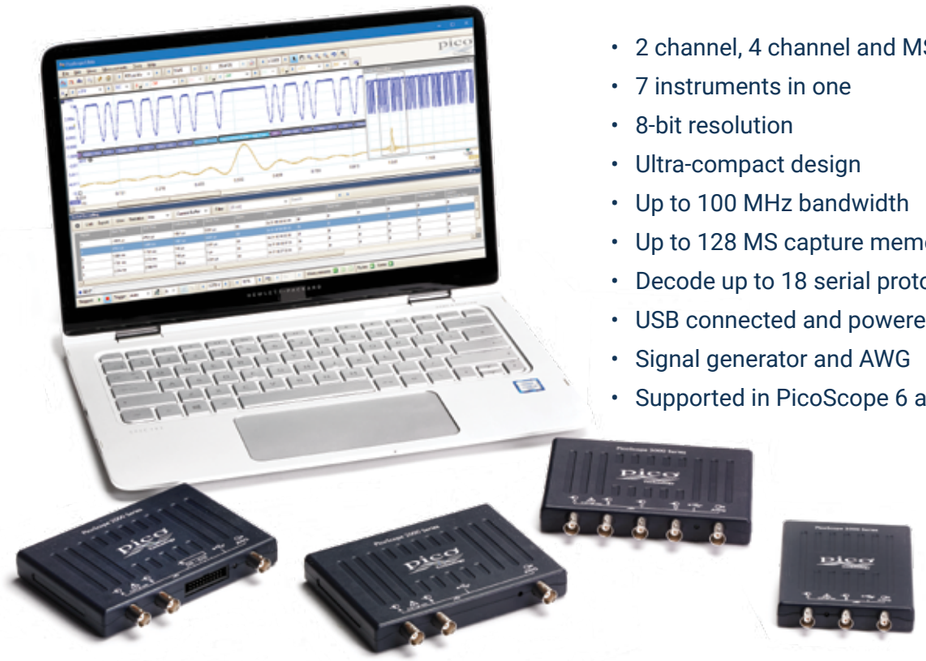
Spectrum analyzer

The FFT spectrum view plots amplitude against frequency. It is ideal for finding noise, crosstalk or distortion in signals.

You can display multiple spectrum views alongside oscilloscope views of the same data. A comprehensive set of automatic frequency-domain measurements can be added to the display, including THD, THD+N, SNR, SINAD and IMD. FFTs of up to 1 million points can be computed in milliseconds giving superb frequency resolution.



PicoScope 2000 Series



- 2 channel, 4 channel and MSO models
- 7 instruments in one
- 8-bit resolution
- Ultra-compact design
- Up to 100 MHz bandwidth
- Up to 128 MS capture memory
- Decode up to 18 serial protocols
- USB connected and powered
- Signal generator and AWG
- Supported in PicoScope 6 and PicoLog® 6

Benchtop performance in a pocket-sized scope

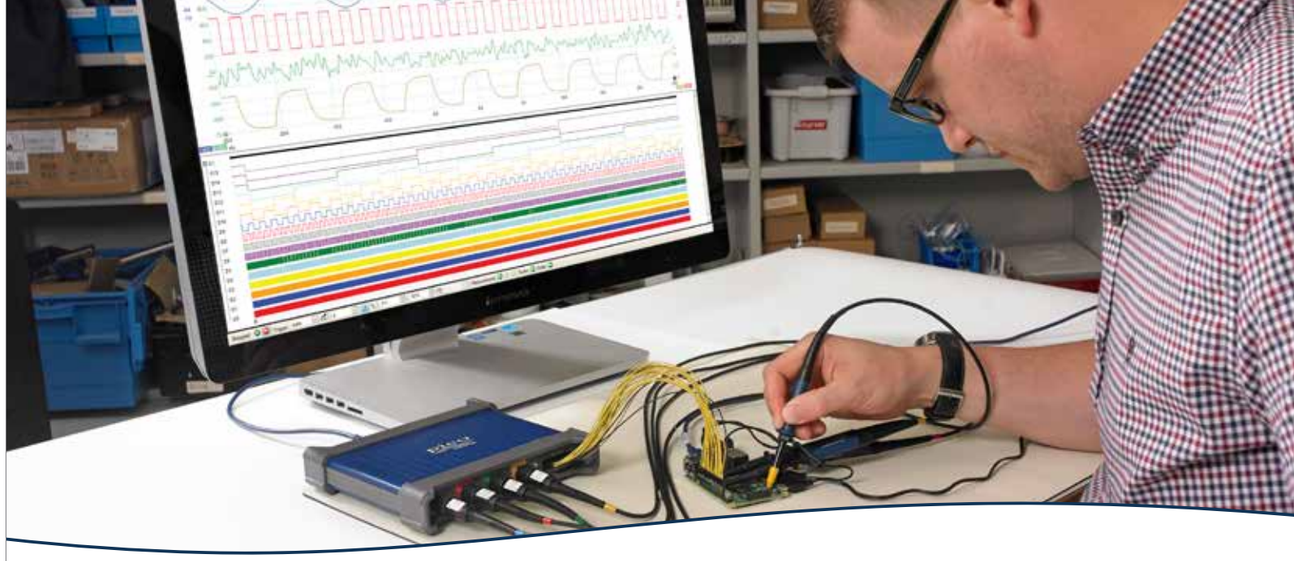
You can use your PicoScope 2000 Series as an advanced oscilloscope, spectrum analyzer, function generator, arbitrary waveform generator, data logger and protocol decoder out of the box. Mixed signal models also add a 16 channel logic analyzer. A complete electronics lab in one compact, low-cost, USB-powered unit.

The PicoScope 2000A models deliver unbeatable value for money and are ideal for education, hobby and field service use. In the lab the low cost allows one scope per person rather than having to share.

The PicoScope 2000B models have the added benefits of deep capture memory (up to 128 MS), higher bandwidth (up to 100 MHz) and faster waveform update rates. PicoScope 2000B models give you the performance to carry out advanced analysis of your waveforms. They are ideal for design, debug and serial decoding.

PicoScope	2204A	2205A	2206B	2207B	2208B	2405A	2406B	2407B	2408B	2205A MSO	2206B MSO	2207B MSO	2208B MSO
Channels*	2 A					4 A				2 A + 16 D			
Bandwidth	10 MHz	25 MHz	50 MHz	70 MHz	100 MHz	25 MHz	50 MHz	70 MHz	100 MHz	25 MHz	50 MHz	70 MHz	100 MHz
Sampling rate**	100 MS/s	200 MS/s	500 MS/s	1 GS/s	1 GS/s	500 MS/s	1 GS/s	1 GS/s	1 GS/s	500 MS/s	1 GS/s	1 GS/s	1 GS/s
Capture memory**	8 kS	16 kS	32 MS	64 MS	128 MS	48 kS	32 MS	64 MS	128 MS	48 kS	32 MS	64 MS	128 MS
Part number - includes probes	PP906	PP907	PQ012	PQ013	PQ014	PQ015	PQ016	PQ017	PQ018	PQ008	PQ009	PQ010	PQ011
Part number - scope only	PP917	PP966											

* A=analog and D=digital ** Shared between active channels



PicoScope 3000 Series

Power, portability and performance

The PicoScope 3000 Series PC oscilloscopes are small, light, and portable, while offering the high-performance specifications required by engineers in the lab or on the move.

These oscilloscopes offer 2 or 4 analog channels, plus an additional 16 digital channels on the MSO models.

The flexible, high-resolution display options enable you to view and analyze each signal in fine detail.

Operating together with the PicoScope 6 software, these devices offer an ideal, cost-effective package for many applications, including embedded systems design, research, test, education, service and repair.

- 2 channel, 4 channel and MSO models
- 8-bit resolution
- Up to 200 MHz analog bandwidth
- Up to 512 MS capture memory
- 1 GS/s real-time sampling
- 100 000 waveforms per second
- Decode 18 serial protocols as standard
- USB 3.0 connected and powered
- Signal generator and AWG

PicoScope	3203D	3203D MSO	3204D	3204D MSO	3205D	3205D MSO	3206D	3206D MSO	3403D	3403D MSO	3404D	3404D MSO	3405D	3405D MSO	3406D	3406D MSO
Channels *	2A	2A+16D	2A	2A+16D	2A	2A+16D	2A	2A+16D	4A	4A+16D	4A	4A+16D	4A	4A+16D	4A	4A+16D
Bandwidth	50 MHz		70 MHz		100 MHz		200 MHz		50 MHz		70 MHz		100 MHz		200 MHz	
Sampling rate**	1 GS/s															
Capture memory **	64 MS		128 MS		256 MS		512 MS		64 MS		128 MS		256 MS		512 MS	
Part number - includes probes	PP958	PP956	PP959	PP931	PP960	PP932	PP961	PP933	PP962	PP957	PP963	PP934	PP964	PP935	PP965	PP936

For full product specification please visit www.picotech.com

* A=analog and D=digital ** Shared between active channels

PicoScope 4224 and 4424

High resolution oscilloscopes

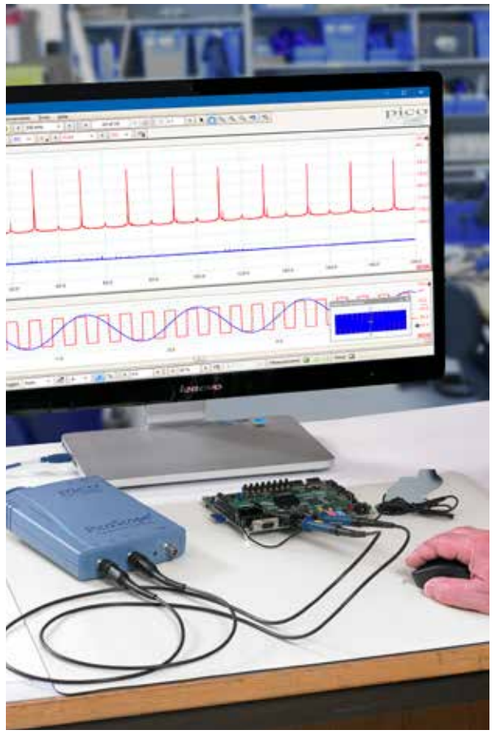
The PicoScope 4224 and 4424 offer both high resolution (12 bits) and high DC accuracy (1%) making them an excellent choice for noise, vibration, precision electronics and mechanical analysis.

The optional IEPE model has built-in constant current sources that allow the direct connection and powering of industry standard accelerometers and microphones.

- 2 or 4 channels
- 12-bit resolution
- IEPE model available (for accelerometers, microphones etc)
- 20 MHz bandwidth
- 32 MS capture memory
- Decode 16 serial protocols as standard
- USB connected and powered

PP478	PicoScope 4224	Includes probes and carry case	2 channels
PP695	PicoScope 4224 IEPE	Scope only	2 channels
PP479	PicoScope 4424	Includes probes and carry case	4 channels

PicoScope 4262



Digital oscilloscope for the analog world

Most digital oscilloscopes have been designed for viewing fast digital signals. The trend has been to use new technology solely to increase sampling rate and bandwidth. With the PicoScope 4262, however, we have focused on what's important for measuring analog signals: increasing the resolution, improving dynamic range, and reducing noise and distortion.

The result is an oscilloscope / FFT analyzer that has a level of performance to put most audio analyzers to shame. It has a 5 MHz bandwidth making it equally suitable for vibration and ultrasound signals as well as a wide range of precision measurement tasks.

The PicoScope 4262 has a built-in 20 kHz function generator (sine, square, triangle, DC voltage, ramp, sinc, Gaussian, half-sine, white noise and PRBS). The function generator offers an outstanding sine wave distortion performance of 102 dB SFDR.

- 2 channel oscilloscope / spectrum analyzer
- 16-bit resolution
- Low distortion (96 dB SFDR)
- Low noise (8.5 µV RMS)
- 5 MHz bandwidth
- 16 MS capture memory
- Low-distortion signal generator
- Arbitrary waveform generator
- USB connected and powered

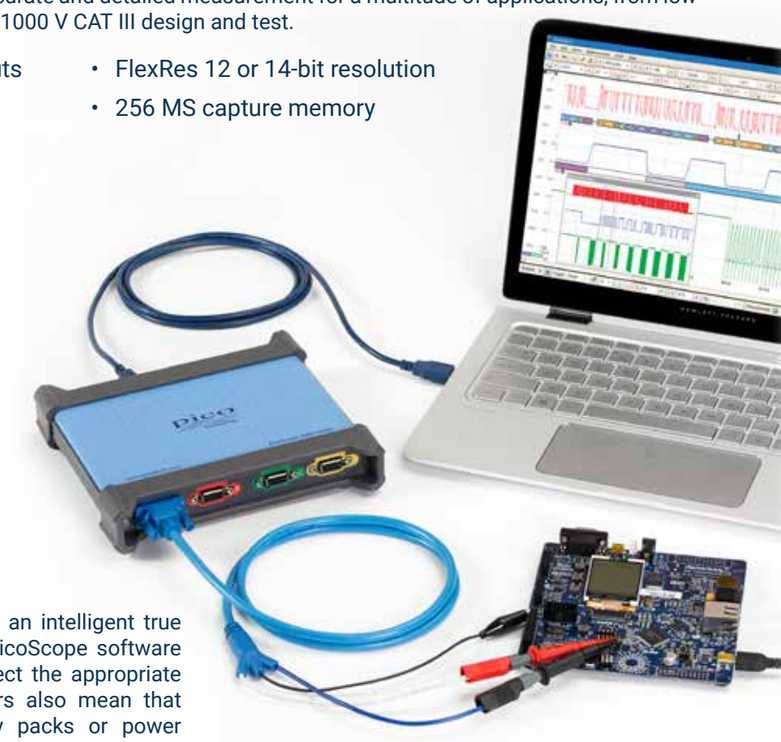
PP799	PicoScope 4262	Includes probes	2 channel + external trigger

PicoScope 4444

High-resolution differential oscilloscope

With four true differential inputs, 12 or 14-bit resolution and wide differential and common-mode voltage ranges, the PicoScope 4444 and its accessories offer accurate and detailed measurement for a multitude of applications, from low-amplitude biomedical and electronic uses to 1000 V CAT III design and test.

- 4 true differential high-impedance inputs
- 20 MHz bandwidth
- FlexRes 12 or 14-bit resolution
- 256 MS capture memory



Intelligent probe interface

The scope's 9-pin D-type connectors create an intelligent true differential probe interface and allow the PicoScope software to automatically identify the probe and select the appropriate display settings. These Pico D9 connectors also mean that probes that would usually require battery packs or power supplies can draw their power through the scope device instead.

PQ073	PicoScope 4444 standard low voltage kit
PQ074	PicoScope 4444 1000 V CAT III kit

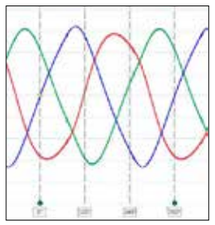
Low voltage 1:1 probe

1000 V CAT III probe

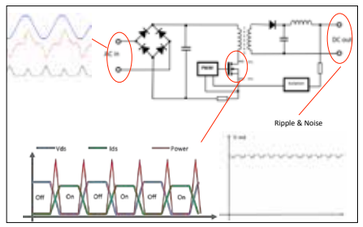
40 A Current probe

D9 to BNC

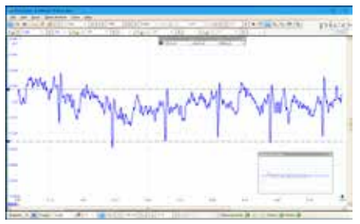
D9 to dual BNC



3 phase power test



Power inverter test



Biological (heartbeat) test

PicoScope 4824

8 channel oscilloscope

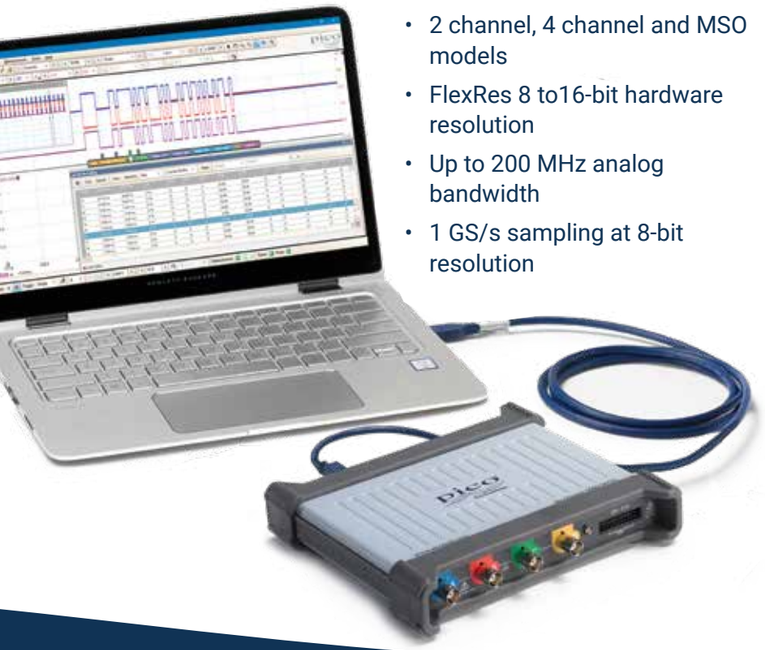
The PicoScope 4824 is a low-cost, portable solution for multi-input applications. With 8 high-resolution analog channels you can easily analyze audio, ultrasound, vibration, power, and timing of complex systems.

Despite its compact size, there is no compromise on performance. With a high 12-bit vertical resolution, bandwidth of 20 MHz, 256 MS capture memory, and a fast sampling rate of 80 MS/s, the PicoScope 4824 has the power and functionality to deliver accurate results. It also features capture memory to analyze multiple serial buses such as UART, I2C, SPI, CAN and LIN plus control and driver signals.

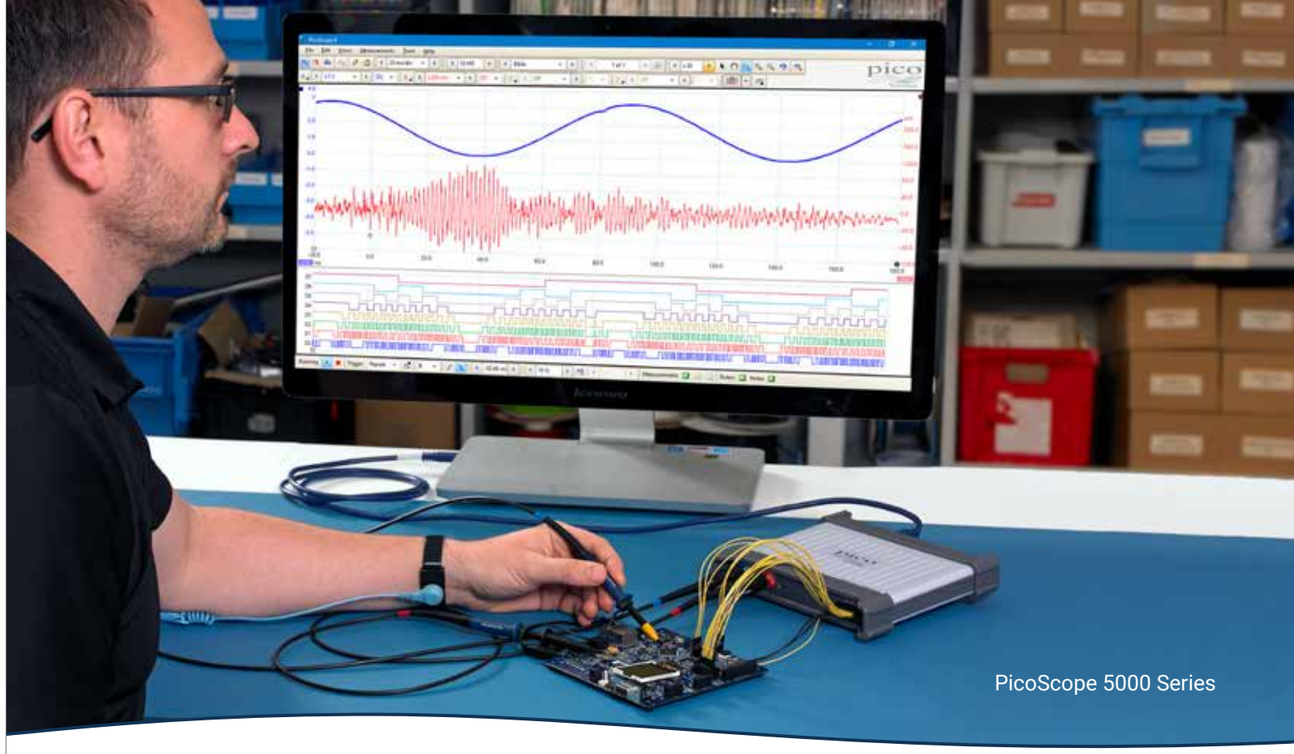
- 8 channels
- 12-bit resolution
- 20 MHz bandwidth
- 256 MS capture memory
- 14-bit signal generator and AWG
- Decode 16 serial protocols as standard
- USB 3.0 connected and powered
- Supports PicoScope 6 and PicoLog 6

PP916	PicoScope 4824 (probes not included)	8 channels

PicoScope 5000 Series



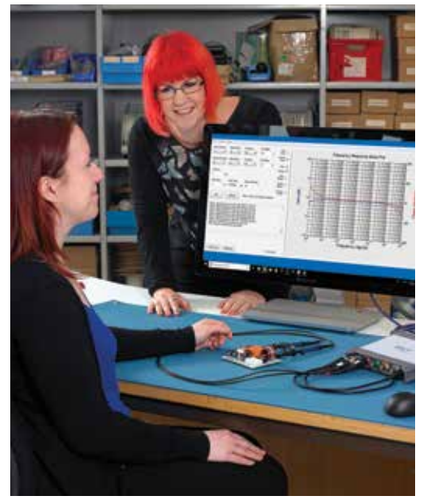
- 2 channel, 4 channel and MSO models
- FlexRes 8 to16-bit hardware resolution
- Up to 200 MHz analog bandwidth
- 1 GS/s sampling at 8-bit resolution
- 62.5 MS/s sampling at 16-bit resolution
- Up to 512 MS capture memory
- 130 000 waveforms per second
- Signal generator and AWG
- Decode 18 serial protocols as standard
- USB 3.0 connected



PicoScope 5000 Series

The complete all-rounders: FlexRes and MSO oscilloscopes

Today's electronic designs employ a wide range of signal types: analog, digital, serial (both high- and low-speed), parallel, audio, video, power distribution and so on. All need to be debugged, measured and validated to ensure that the device under test is functioning correctly and within specification.



To handle this variety of signal types, PicoScope 5000 FlexRes hardware employs multiple high-resolution ADCs at the input channels in different time-interleaved and parallel combinations to optimize either the sampling rate to 1 GS/s at 8 bits, the resolution to 16 bits at 62.5 MS/s, or other combinations in between – you select the most appropriate hardware resolution for the requirements of each measurement.

2 and 4 channel models are available, all featuring a SuperSpeed USB 3.0 connection, providing lightning-fast saving of waveforms while retaining compatibility with older USB standards. The PicoSDK® software development kit supports continuous streaming to the host computer at rates up to 125 MS/s. The product is small and light, and operates silently thanks to its low-power fanless design.

PicoScope	5242D	5242D MSO	5243D	5243D MSO	5244D	5244D MSO	5442D	5442D MSO	5443D	5443D MSO	5444D	5444D MSO
Channels *	2A	2A+16D	2A	2A+16D	2A	2A+16D	4A	4A+16D	4A	4A+16D	4A	4A+16D
Bandwidth	60 MHz		100 MHz		200 MHz		60 MHz		100 MHz		200 MHz	
Sampling rate** (8-bit mode)	1 GS/s											
Capture memory ** (8-bit mode)	128 MS		256 MS		512 MS		128 MS		256 MS		512 MS	
Part number - includes probes	PQ143	PQ149	PQ144	PQ150	PQ145	PQ151	PQ146	PQ152	PQ147	PQ153	PQ148	PQ154

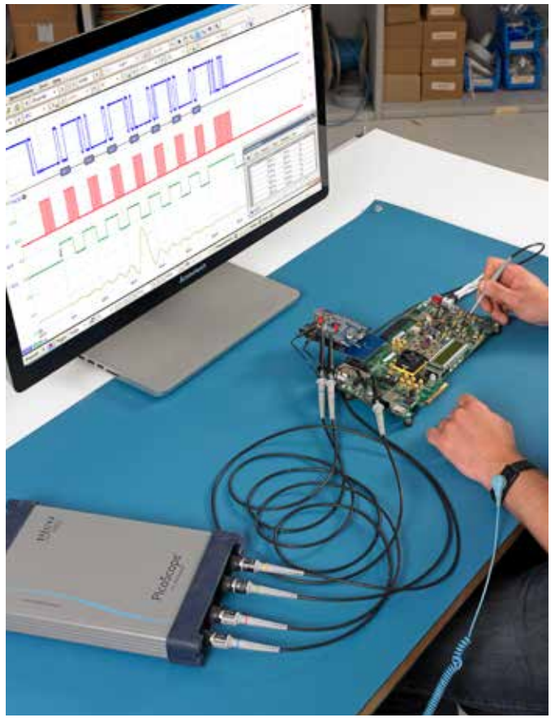
For full product specification please visit www.picotech.com

* A=analog and D=digital ** Shared between active channels and dependant on selected resolution

PicoScope 6000 Series

Highest performance real-time oscilloscopes

The PicoScope 6000 Series is the ultimate USB oscilloscope. High-end features such as serial decoding, mask limit testing and segmented memory are included as standard.

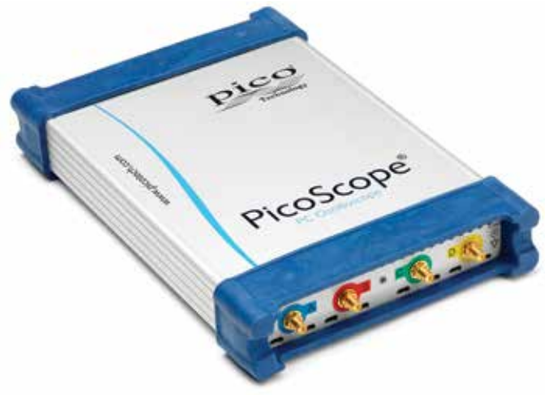


- 4 channels
- Up to 500 MHz bandwidth
- 5 GS/s real-time sampling rate
- Up to 2 GS ultra-deep capture memory
- 170 000 waveforms per second
- Arbitrary waveform generator (AWG) on D models
- USB 3.0 connected

PicoScope	6402C	6402D	6403C	6403D	6404C	6404D
Bandwidth	250 MHz		350 MHz		500 MHz	
Capture memory *	256 MS	512 MS	512 MS	1 GS	1 GS	2 GS
Outputs	Function generator	AWG and FG	Function generator	AWG and FG	Function generator	AWG and FG
Part number - includes probes	PP884	PP885	PP886	PP887	PP888	PP889

* Shared between active channels

PicoScope 6407



High speed digitizer

The PicoScope 6407 is a compact USB plug-in device that turns your PC or laptop into a 4-channel, high-speed digitizer. The PicoScope 6407 has high-bandwidth 50 Ω inputs with fixed ±100 mV input ranges and SMA connectors. Larger input signals can be accommodated with the use of external attenuators.

- 4 channels (fixed ±100 mV)
- 1 GHz bandwidth
- 1 GS capture memory size
- 5 GS/s real-time sampling rate
- Built-in function generator/AWG
- SMA input connectors
- USB 2.0 connected

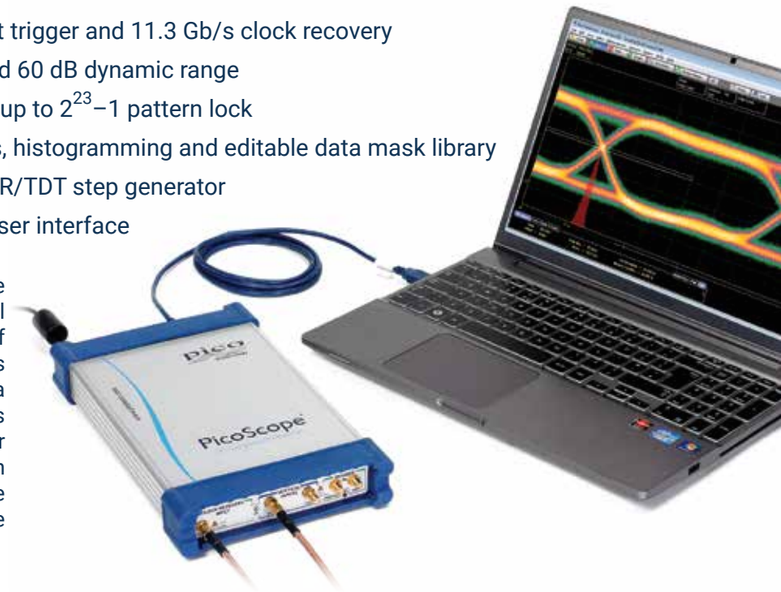
PP795	PicoScope 6407

PicoScope 9000 Series

Sampling oscilloscopes

- Up to 25 GHz bandwidth models
- Up to 15 GHz prescaled, 2.5 GHz direct trigger and 11.3 Gb/s clock recovery
- Industry-leading 16-bit 1 MS/s ADC and 60 dB dynamic range
- Eye and mask testing to 16 Gb/s with up to 2^{23}–1 pattern lock
- Comprehensive built-in measurements, histogramming and editable data mask library
- Integrated, differential, deskewable TDR/TDT step generator
- Intuitive, touch-compatible Windows user interface

With up to 25 GHz bandwidth, the PicoScope 9300 sampling oscilloscopes address digital and telecommunications applications of 10 Gb/s and higher, microwave applications up to 25 GHz and timing applications with a resolution down to 64 fs. Optional 11.3 Gb/s clock recovery, optical to electrical converter or differential, deskewable time domain reflectometry sources (60 ps/7 V) complete a powerful, small-footprint and cost-effective measurement package.



More RF products from Pico...

Find out more about our other RF products at www.picotech.com/rf-products

PicoSource™ AS108
8 GHz Agile Synthesizer

Professional and portable performance at low cost, CW, sweep, hop and list modes.
Emulate schemes such as QPSK, QAM, ASK, and FSK.

PicoVNA™ 106
6 GHz Vector Network Analyzer

A low-cost, professional-grade 6 GHz VNA for both lab and field use. Professional and portable quad receiver 118 dB design with bias-Ts. Up to 5000 dual path Touchstone S-parameters per second. <0.005 dB RMS noise in 140 kHz bandwidth.

Accessories

Our range of oscilloscope accessories has been carefully chosen for use with PicoScope oscilloscopes. **Please refer to www.picotech.com for prices.**

Passive probes

TA386 150 MHz passive probe

TA375 250 MHz passive probe

High-quality, high-impedance, BNC oscilloscope probes. A two-position slide switch selects attenuation of either 1:1 or 10:1.

TA062 passive probe (BNC)

TA061 passive probe (SMA)

These very high-bandwidth 1.5 GHz low-impedance probes are suitable for use with high-speed oscilloscopes and spectrum analyzers. Available with either an SMA or a BNC connector.

TA150 350 MHz passive probe

TA133 500 MHz passive probe

High-quality, high-impedance BNC oscilloscope probes. Each probe is supplied with a range of accessories for convenient, accurate measurements. Fixed 10:1 attenuation. Ideal for use with the PicoScope 6000 series.

PicoConnect 900 Series

A family of high-performance RF, microwave and pulse probes allowing cost-effective fingertip browsing of broadband signals up to 5 GHz (10 Gb/s).

Current probes

Current probes offer a safe, cost-effective, simple and accurate way to take current measurements. They enable you to measure currents without breaking the electric circuit. Current probes are designed with sensors that can be opened, placed around the conductor and securely fastened to form a loop around the conductor.

The Pico current probes shown here can be used with Pico oscilloscopes and data loggers, as well as with all major brands of oscilloscopes and multimeters.

Active differential probes

Active differential probes extend the functionality of standard single-ended input oscilloscopes to allow a safe and accurate method of making high-voltage differential measurements.

Applications include making safe measurements in power circuit applications and acquisition of low-speed balanced differential signals found in serial communications buses.

Active single-ended probes

The TETRIS range is independent of any particular system and can be plugged into any measuring instrument with a 50 Ω input. With an input resistance of 1 MΩ and an input capacitance of just 0.9 pF, the TETRIS probes are suitable for measurements in all frequency ranges. Compared to passive probes the TETRIS active probes offer a high input impedance into the GHz range. Three probes are available from 1 GHz to 2.5 GHz bandwidth.

Other probes and sensors

Three-axis accelerometer

The PP877 is a three-axis MEMS accelerometer and oscilloscope interface. It is supplied with three short BNC to BNC cables which plug directly into any PicoScope oscilloscope with three or more analog channels. High-resolution oscilloscopes such as the PicoScope 4424 Series are recommended to take advantage of their increased sensitivity.

- ± 5 *g* measurement range
- Mounting magnet included
- DC to 350 Hz frequency range
- 3 x BNC to BNC cables included

Attenuator set: BNC 50 Ω, 1 W, 1 GHz, 3, 6, 10, and 20 dB

The TA050 attenuator set consists of four coaxial attenuators designed for use with signals up to 1 GHz. Each attenuator has a male and a female BNC connector.

A wide range of 4 mm (banana plug) cables, connectors, adaptors, clips and probes are available, with CAT II and CAT III ratings also available.

PicoLog 6 software

PicoLog 6 is a complete data acquisition software package which is fully compatible with Windows, macOS and Linux.

With its clear and user-friendly layout, ideal for use with a mouse or a touchscreen, PicoLog 6 allows you to set up the logger and start recording with just a few clicks of the mouse, whatever your level of data logging experience. Set up simple or advanced acquisitions quickly, and record, view and analyze your data with ease. Available in 7 languages.

Device settings view
Easily set up and adjust acquisition and math channels on one or more data loggers and check their status at a glance.

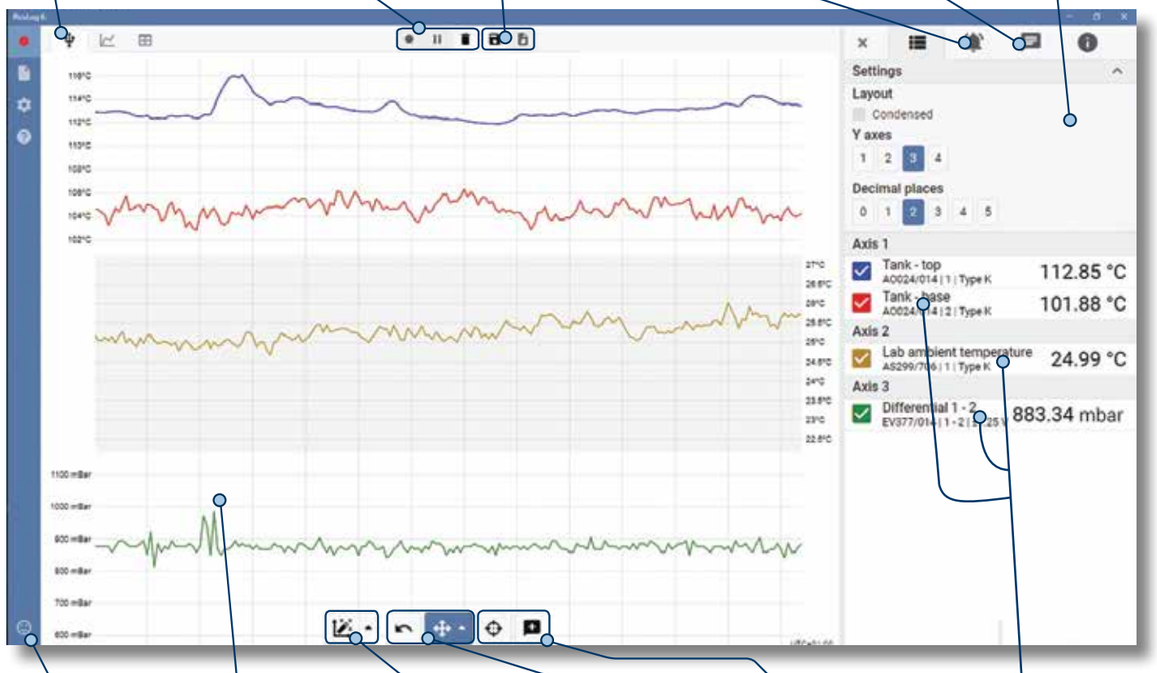
Capture controls
Separate **Record**, **Pause** and **Reset** buttons make it harder to press any of them by mistake.

Save and Export options
Copy your graph to the clipboard, save it as a PDF, export the raw data to a CSV file, or save the data and configuration as a robust `.picolog` database file.

Alarms
Set up alarms to alert you to a range of events. Alarms can take the form of sounds, visual notifications, graph annotations and more.

Notes & annotations
Add notes about the dataset as a whole or annotations about particular points on the graph.

Pullout information panel
Manage your channel and axis settings, alarms, notes and capture information in this easy-to-read layout. Close the panel to make more room for the capture graph, and reopen it at any time.



Give instant feedback
We want to hear from you! Click here to contact Pico with your comments.

Graph view
Display your data in real time, as it is collected, on up to four independent Y axes simultaneously: set them up by dragging and dropping the entries in the **Channels & Axes** panel on the right.

Data view
Display all the data collected so far or keep the graph scale the same and pan along as new samples appear.

Pan and zoom controls
Zoom in, zoom out, zoom to a selection or pan through the data with these tools. If you make a mistake, just click **Undo**.

Cursors and annotations
Use cursors to highlight the data value and time at any point on the graph, or click **Add annotation** to mark that point with a text note.

Multiple devices
Log data on up to 20 devices at the same time. Here, three separate data loggers are in use: two TC-08s and one ADC-24 voltage input logger.

Try the PicoLog 6 software today!

PicoLog 6's built-in demo mode allows you to try out the full functionality of the software with a choice of virtual devices and simulated live data. You also can use PicoLog 6 to view previously saved data, even with no device connected. Visit www.picotech.com/downloads and select **PicoLog Data Loggers** to get your copy.

Software features

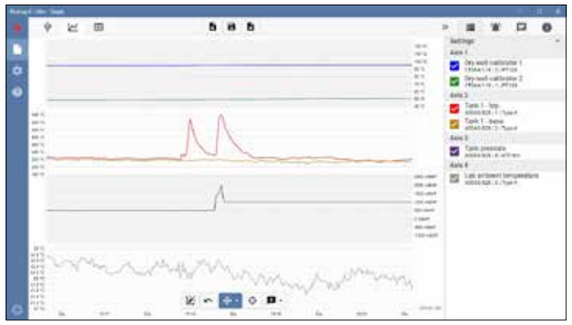
Intuitive logger and channel setup

In the Device Configuration view you can instantly see the status of instruments, channel settings and math channels. An image of the device appears for each device detected, showing which channels are enabled. From this screen you can view and adjust settings such as adding graph axes, per-channel scaling factor, alarms, notes, graph annotations, channel naming and color, sample mode and sample interval.

View live data in Graph View

The PicoLog 6 Graph View makes it easy to view captures, zoom and pan through large datasets, record alarm history and display when alarms occurred. It also allows you to annotate the graph with your notes and observations.

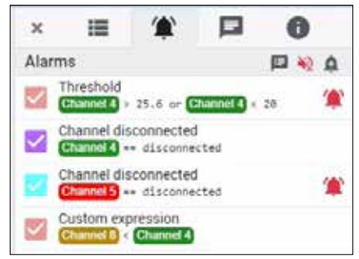
Adding additional graph axes is also essential for multi-channel logging applications where measurement units are different for every channel, or when the channels are measuring values at opposite ends of the range. You can view up to four axes with different ranges at a time.



Math channels

Some applications require the recording and graphing of a calculated parameter containing data from one or more measurement channels. PicoLog 6 is equipped with an equation builder to perform simple calculations such as A – B, or more complex functions such as log, sqrt, abs, round, min, max, mean and median. Math channels are treated like any normal channel, so you can perform functions like alarms, graphing and annotations on them.

Alarms and annotations



In PicoLog 6, you can set up an alarm to alert users when a parameter goes out of range. This can be configured to play a sound, display visual alerts on the screen, run a specified application such as an email or SMS client, and automatically annotate the capture graph to mark when the alarm happened and its duration. Alarms can also trigger a digital output on devices with supporting hardware, such as the PicoLog 1000 Series, ADC-24 and DrDAQ. You can even trigger a digital output from one of these devices based on an alarm condition from another connected logger without digital outputs, such as a TC-08.

Exporting data

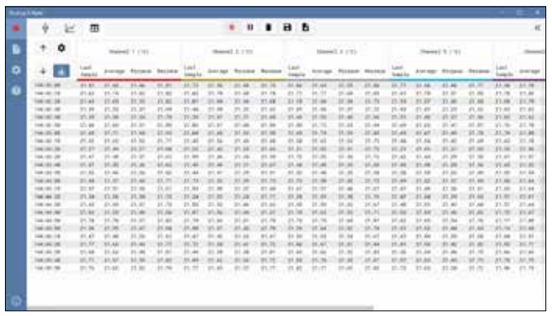
Exporting large datasets to CSV can often be troublesome due to file size limitations, so PicoLog 6 includes a suite of export options using the Table View to build your dataset. These include downsampling, selecting channels to export or even restricting the export region to the zoomed area on screen.

Want to export a screen shot? PicoLog 6 includes a feature to export the graph as a PDF, again, select either the entire capture or the zoomed area of interest. The export to PDF format also includes options to include alarm trigger history, annotations, channel configuration and capture notes, for a complete capture report.

View live numerical data in table format

Table View allows you to view live and saved data from your logger.

When configuring table view, it is possible to add 4 statistical parameters to each channel: last sample, minimum, maximum and average. In addition, you can specify the table update rate for the display of live data or the time interval between rows for saved data.



PicoLog data loggers

Pico data acquisition products provide a straightforward answer to your data logging needs. Our data loggers require no power supply and simply plug into a USB port on your PC, or an Ethernet port on your PC or network. Every logger is supplied with PicoLog 6 data acquisition software so you can measure, record and analyze your data (see previous page for more information).

PT-104

Precision Temperature Data Logger

- Measures temperature, resistance and voltage
- High resolution (0.001 °C) and accuracy (0.015 °C)
- Works with PT100 and PT1000 sensors
- Supports 2, 3 and 4-wire sensors
- USB and Ethernet (PoE) interfaces
- No additional power supply required if using USB
- Run multiple units on a single PC

PP682	PT-104

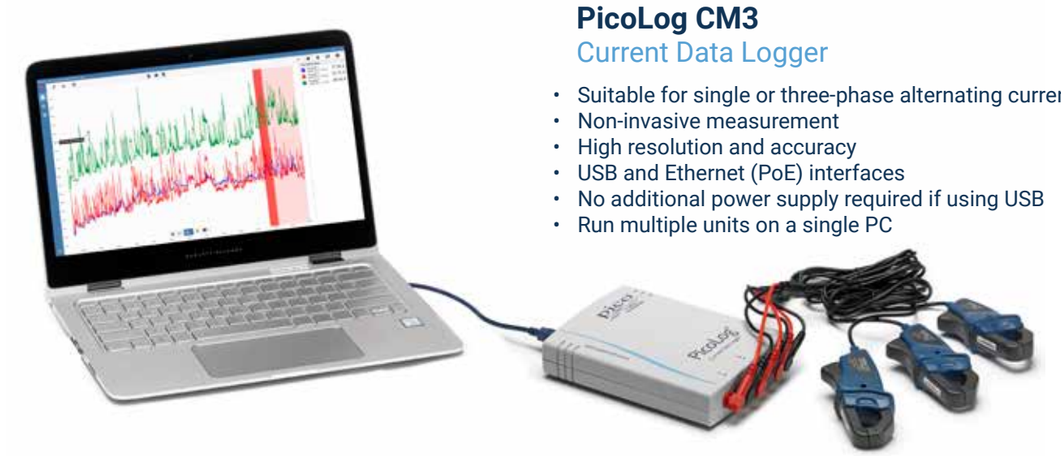
A range of accessories is available at www.picotech.com

PicoLog 1000 Series

Multi-purpose Data Loggers

- Up to 16 input channels per data logger
- Includes screw terminal board
- Use up to 20 data loggers at the same time
- Up to 1 MS/s sample rate using PicoSDK
- USB connected and powered
- Compatible with PicoScope 6 and PicoLog 6

PP546	PicoLog 1012	12 channel	10-bit resolution
PP547	PicoLog 1216	16 channel	12-bit resolution



PicoLog CM3

Current Data Logger

- Suitable for single or three-phase alternating currents
- Non-invasive measurement
- High resolution and accuracy
- USB and Ethernet (PoE) interfaces
- No additional power supply required if using USB
- Run multiple units on a single PC

PP815	PicoLog CM3	Logger only
PP803	PicoLog CM3 kit	With 3 current clamps

TC-08

Temperature Data Logger

- 8 channel thermocouple data logger
- Measures from –270 to +1820 °C (–454 to +3308 °F)
- High resolution and accuracy
- Expandable to 20 units / 160 channels
- Supports all popular thermocouple types
- Fast sampling rate — up to 10 measurements per second (including CJC)
- USB connected and powered

PP222	TC-08

A range of accessories is available at www.picotech.com

ADC-20 and ADC-24

Precision Data Loggers

- 20 and 24-bit resolution models available
- Up to 8 true differential inputs
- Up to 16 single-ended inputs
- Up to 7 input ranges (±39 mV to ±2500 mV)
- Digital outputs for control
- Galvanic isolation from the PC to eliminate noise pickup
- Includes screw terminal board

PP311	ADC-20	8 single-ended inputs or 4 true differential inputs	20-bit resolution
PP312	ADC-24	16 single-ended inputs or 8 true differential inputs	24-bit resolution

DrDAQ

Educational Data Logger

- Oscilloscope / spectrum analyzer
- Signal generator / arbitrary waveform generator
- Built-in sensors for light, temperature and sound
- Measure pH and redox — just plug in any standard electrode
- Sockets for external sensors including temperature and humidity
- 4 digital inputs and outputs (alarms, PWM, pulse counting)
- USB connected and powered
- Very low cost
- For more information please visit www.drdaq.com

PP706	DrDAQ logger only
PP707	DrDAQ kit
PP716	DrDAQ pH logger kit