

PicoScope 4823 Automotive diagnostic oscilloscope

Technical specifications

Channels	8
Vertical resolution	12 bits (up to 16 bits in enhanced resolution mode)
DC accuracy	±1% of full scale ±300 µV
Input sensitivity	2 mV/div to 10 V/div (10 vertical divisions)
Input ranges	±10 mV to ±50 V full scale, in 12 ranges
Maximum input voltage	±50 V DC / 42.4 V pk max AC
Input characteristics	1 MΩ in parallel with 19 pF
Input type	BNC
Input coupling	Software selectable AC/DC
Input overvoltage protection	±100 V (DC + AC peak)
Buffer memory	256 MS shared between active channels
Timebase ranges	20 ns/div to 5000 s/div
Bandwidth (-3 dB)	20 MHz 10 MHz (10 mV and 20 mV ranges)
Maximum sampling rate (real time): 1-4 channels in use 5-8 channels in use	80 MS/s 40 MS/s
Maximum sampling rate (continuous streaming mode)	20 MS/s using PicoScope 6 software 80 MS/s per channel using supplied API, 160 MS/s total across all channels (PC-dependent)
Analog offset range (vertical position adjustment)	±250 mV (10 mV to 500 mV ranges) ±2.5 V (1 V to 5 V ranges) ±25 V (10 V to 50 V ranges)*

* Subject to maximum input voltage rating above.

SIGNAL GENERATOR

Standard output signals	Sine, square, triangle, DC voltage, ramp, sinc, Gaussian, half-sine, white noise, PRBS
Standard signal frequency	DC to 1 MHz
Sweep modes	Up, down, dual
Triggering	Can trigger a counted number of waveform cycles or sweeps (up to 1 billion) from the scope trigger or manually from software.
Frequency accuracy	±20 ppm
Frequency resolution	< 20 mHz
Voltage range	±2 V
Amplitude and offset adjustment	Signal amplitude and offset within ± 2 V range.
DC accuracy	±1% of full scale
Output characteristics	Rear-panel BNC, 600 Ω output impedance
Overvoltage protection	±10 V

ARBITRARY WAVEFORM GENERATOR

Update rate	80 MS/s
Buffer size	16 kS
Resolution	14 bits

ENVIRONMENTAL

Operating temperature range	0 °C to 45 °C (20 °C to 30 °C for quoted accuracy)
Operating humidity range	5 to 80 %RH, non-condensing
Storage temperature range	-20 to +60 °C
Storage humidity range	5 to 95 %RH, non-condensing
Pollution degree	2

PHYSICAL CHARACTERISTICS

Dimensions	190 x 170 x 40 mm (approx 7.5 x 6.3 x 1.6 in)
Weight	< 0.55 kg (approx 1.2 lbs)

GENERAL

Additional accessories (supplied)	USB-C® to USB-B (3.1) cable 1.8 m USB-A to USB-B (3.1) cable 1.8 m Safety Guide
PC interface	SuperSpeed USB 3.0 (USB 1.1 and USB 2.0 compatible)
Power requirements	Powered from USB
Safety approvals	Designed to EN61010-1
Environmental approvals	RoHS, WEEE, REACH compliant
EMC approvals	Tested to meet EN 61326-1 and FCC Part 15 Subpart B
Warranty	2 years

UK global headquarters:

Pico Technology
James House
Colmworth Business Park
St. Neots
Cambridgeshire, PE19 8YP
United Kingdom
☎ +44 (0) 1480 396 395
✉ sales@picotech.com

North America regional office:

Pico Technology
320 N Glenwood Blvd
Tyler
TX 75702
United States
☎ +1 800 591 2796
✉ sales@picotech.com

Germany regional office and EU Authorised Representative:

Pico Technology GmbH
Emmericher Str. 60
47533 Kleve
Germany
☎ +49 (0) 2821 7373030
✉ info.de@picotech.com