

Technical specifications of the PicoScope 4823 Automotive diagnostic oscilloscope

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| 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 (full scale) | ±50V DC and ±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)* |
| * ±50V DC and ±42.4 V pk max AC | |
| 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

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

ENVIRONMENTAL

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|-----------------------------|--|
| 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

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|------------|---|
| Dimensions | 190 x 160 x 40 mm (approx 7.5 x 6.3 x 1.6 in) |
| Weight | < 0.55 kg (approx 1.2 lbs) |

GENERAL

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|-----------------------------------|--|
| Additional accessories (supplied) | USB cable and 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 EN61010-1:2010+A1:2019 |
| Environmental approvals | RoHS, WEEE, REACH compliant |
| EMC approvals | Tested to meet EN 61326-1:2013 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

Asia-Pacific regional office:

Pico Technology
Room 2252, 22/F, Centro
568 Hengfeng Road
Zhabei District
Shanghai 200070
PR China
☎ +86 21 2226-5152
✉ pico.asia-pacific@picotech.com

Germany regional office and EU authorized representative:

Pico Technology GmbH
Im Rehwinkel 6
30827 Garbsen
Germany
☎ +49 (0) 5131 907 62 90
✉ info.de@picotech.com