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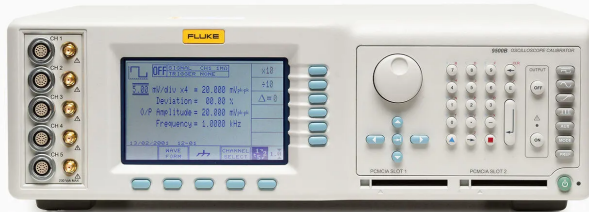
Data Sheet

August 14, 2026

FLUKE

Fluke 9500B High Performance Oscilloscope Calibrator

Fluke 9500B High Performance Oscilloscope Calibrator The Fluke 9500B is an automated oscilloscope calibrator workstation using Active Head Technology to generate calibration signals at the oscilloscope input. Official Fluke Calibration specifications cover DC and square amplitude, low/high/fast edges, leveled sine to 600 MHz / 1.1 GHz / 3.2 GHz / 6.4 GHz depending on mainframe and head, timing markers, and current outputs, with simultaneous multi-channel Active Head capability. Automated multi-channel oscilloscope calibration labs, high-bandwidth scope vertical and horizontal verification, edge and leveled-sine bandwidth calibration, and upgradeable workload growth from 600 MHz through multi-GHz Active Heads. The Fluke 9500B is an automated oscilloscope calibrator workstation using Active Head Technology to generate calibration signals at the oscilloscope input. Official Fluke Calibration specifications cover DC and square amplitude, low/high/fast edges, leveled sine to 600 MHz / 1.1 GHz / 3.2 GHz / 6.4 GHz depending on mainframe and head, timing markers, and current outputs, with simultaneous multi-channel Active Head capability. Automated multi-channel oscilloscope calibration labs, high-bandwidth scope vertical and horizontal verification, edge and leveled-sine bandwidth calibration, and upgradeable workload growth from 600 MHz through multi-GHz Active Heads.



MODEL

Fluke 9500B

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

9500B

LISTING

<https://aumictechlabs.com/products/9500b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Fluke 9500B High Performance Oscilloscope Calibrator is a precision instrument designed for the calibration of oscilloscopes with bandwidths up to 3.2 GHz. It delivers accurate and stable calibration signals, including voltage, time, and frequency references, to ensure the proper functioning and measurement accuracy of oscilloscopes. The 9500B is used in calibration labs and service centers.

9500B Characteristics / Specifications

PARAMETER	VALUE
Squarewave Amplitude Accuracy 1 mV to 21 mV	$\pm(0.10\% + 10 \text{ uV})$ class at 10 Hz to 10 kHz
Squarewave Rise Fall Time Below 100 V	less than 150 ns
Squarewave Rise Fall Time At Or Above 100 V	less than 200 ns
Squarewave Frequency Range	10 Hz to 100 kHz
Squarewave Frequency Accuracy	± 0.25 ppm
Low Edge Rise Fall Time	500 ps return to ground
Low Edge Frequency Range	10 Hz to 2 MHz
High Edge Amplitude Accuracy	$\pm 3\%$
Leveled Sine Frequency 9500B 6	0.1 Hz to 600 MHz
Leveled Sine Frequency 9500B 11	0.1 Hz to 1.1 GHz
Leveled Sine Frequency 9500B 32	0.1 Hz to 3.2 GHz
Leveled Sine Frequency With 9560 Head	0.1 Hz to 6.4 GHz class
Leveled Sine Amplitude 550 MHz to 2.5 GHz	4.44 mV to 3.336 V pk-pk
Leveled Sine Amplitude Accuracy At 50 kHz	$\pm 1.5\%$
Current DC Amplitude	$\pm 100 \text{ uA}$ to $\pm 100 \text{ mA}$
Current Squarewave Amplitude	100 uA to 100 mA pk-pk
Current Accuracy	$\pm(0.25\% + 0.5 \text{ uA})$ 9560 Active Head Fast Edge: 70 ps class with 6 GHz leveled sine 9510 Active Head: 1.1 GHz and 500 ps pulse capability
Mainframe Dimensions HxWxD	133 × 427 × 440 mm
Operating Temperature	5 C to 40 C

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	5 C to 40 C
Operating Temperature	5 C to 40 C

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Performance Oscilloscope Calibrator

Overview

The Fluke 9500B is an automated oscilloscope calibrator workstation using Active Head Technology to generate calibration signals at the oscilloscope input. Official Fluke Calibration specifications cover DC and square amplitude, low/high/fast edges, leveled sine to 600 MHz / 1.1 GHz / 3.2 GHz / 6.4 GHz depending on mainframe and head, timing markers, and current outputs, with simultaneous multi-channel Active Head capability.

Applications

Automated multi-channel oscilloscope calibration labs, high-bandwidth scope vertical and horizontal verification, edge and leveled-sine bandwidth calibration, and upgradeable workload growth from 600 MHz through multi-GHz Active Heads.

Key Features

Active Head Technology places precision sources millimeters from the DUT input
Simultaneous output on up to five channels without lead swapping
Upgradeable mainframes 9500B/600, /1100, /3200 with 9510/9530/9550/9560 heads
Leveled sine and dual sine plus timing markers and current functions
Full automation for hands-free multi-channel oscilloscope calibration

Technical Specifications

Squarewave Amplitude Into 1 MΩ: 40 uV to 200 V pk-pk
Squarewave Amplitude Into 50 Ω: 40 uV to 5 V pk-pk
Squarewave Amplitude Accuracy 1 mV to 21 mV: ±(0.10% + 10 uV) class at 10 Hz to 10 kHz
Squarewave Rise Fall Time Below 100 V: less than 150 ns
Squarewave Rise Fall Time At Or Above 100 V: less than 200 ns
Squarewave Frequency Range: 10 Hz to 100 kHz
Squarewave Frequency Accuracy: ±0.25 ppm
Low Edge Amplitude Into 50 Ω: 5 mV to 3 V pk-pk
Low Edge Rise Fall Time: 500 ps return to ground
Low Edge Frequency Range: 10 Hz to 2 MHz
High Edge Amplitude Into 1 MΩ: 1 mV to 200 V pk-pk
High Edge Amplitude Into 50 Ω: 1 mV to 5 V pk-pk

Specifications

PARAMETER	VALUE
High Edge Amplitude Accuracy	±3%
Leveled Sine Frequency 9500B 600	0.1 Hz to 600 MHz
Leveled Sine Frequency 9500B 1100	0.1 Hz to 1.1 GHz
Leveled Sine Frequency 9500B 3200	0.1 Hz to 3.2 GHz
Leveled Sine Frequency With 9560 Head	0.1 Hz to 6.4 GHz class

Leveled Sine Amplitude 0.1 Hz to 550 MHz Into 50 Ω: 4.44 mV to 5.560 V pk-pk
Leveled Sine Amplitude 550 MHz to 2.5 GHz: 4.44 mV to 3.336 V pk-pk

Specifications

PARAMETER	VALUE
Leveled Sine Amplitude Accuracy At 50 kHz	±1.5%

PARAMETER	VALUE
Current DC Amplitude	±100 uA to ±100 mA
Current Squarewave Amplitude	100 uA to 100 mA pk-pk
Current Accuracy	±(0.25% + 0.5 uA)

9560 Active Head Fast Edge: 70 ps class with 6 GHz leveled sine

9510 Active Head: 1.1 GHz and 500 ps pulse capability

Mainframe Dimensions HxWxD: 133 x 427 x 440 mm

Operating Temperature: 5 C to 40 C

Notes

Function limits from Fluke 9500B Oscilloscope Calibrator official specifications pages and 9500B datasheet. Exact leveled-sine ceiling and edge speed depend on mainframe option and Active Head; confirm configuration on the unit label.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.