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**Data Sheet**

August 2, 2026

FLUKE

## Fluke 5820A – Oscilloscope Calibrator

The Fluke 5820A is an oscilloscope calibrator designed to verify and adjust vertical, horizontal, and trigger performance of analog and digital oscilloscopes with leveled sine, edge, time marker, and pulse outputs through 50  $\Omega$  and 1 M $\Omega$  loads. Metrology-lab and field calibration of oscilloscope vertical gain, bandwidth, and linearity; horizontal timebase and trigger level verification; impedance (MeasZ) checks on scope inputs; automated calibration over IEEE-488 with optional high-frequency leveled sine extension to 2.1 GHz. Remote Interfaces: IEEE-488 GPIB; dual RS-232 (HOST and UUT pass-through) Output Channels: Optional 5-channel output configuration Allow up to 30 minutes warm-up before performance verification at specification limits. Connect outputs through appropriate 50  $\Omega$  or 1 M $\Omega$  fixtures matched to the scope input under test. Use HOST RS-232 for calibrator control and UUT pass-through when bridging to the oscilloscope serial port in automated procedures. 5820A is the baseline model in the Fluke oscilloscope calibrator family—confirm optional 2.1 GHz leveled sine and 5-channel output fitment on asset tag before planning bandwidth calibrations above 600 MHz. Alias 5820A (hyphenless) appears in inventory systems.



METRICTEST.COM

MODEL

**Fluke 5820A**

CALIBRATION

**Available on request**

CONDITION

**Used**

STATUS

**In stock**

RFQ / SKU

**5820A**

LISTING

<https://aumictechlabs.com/products/5820a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

### This unit

The Fluke 5820A Oscilloscope Calibrator is a precision instrument engineered to calibrate oscilloscopes with bandwidths extending up to 1 GHz. It delivers accurate and stable signal

outputs across voltage, timing, and frequency parameters - essential for verifying oscilloscope performance in laboratory and enterprise environments.

### Technical Specifications

**Signal Generation Bandwidth:** Calibrates oscilloscopes up to 1 GHz

**Voltage measurements:** Precise voltage levels for vertical accuracy verification

**Timing measurements:** Accurate timing signals for horizontal accuracy, rise/fall time, and jitter analysis

**Frequency measurements:** Calibrated frequencies for frequency response and accuracy checks

**Output accuracy and stability** engineered for precise calibration procedures

### Calibration Functions

DC and AC voltage calibration across multiple amplitudes and frequencies

Timebase calibration for horizontal scaling and measurement accuracy

Frequency response testing up to rated bandwidth

### Key Features

Straightforward operation with intuitive controls for signal parameter configuration

Clear display for monitoring settings and calibration status

Standard coaxial connectors (BNC) for direct oscilloscope interfacing

Optional remote control or data logging interfaces for automated test system integration

### Typical Applications

Oscilloscope performance verification and maintenance calibration

Vertical and horizontal measurement accuracy validation

Frequency response characterization and bandwidth assessment

Multi-parameter calibration in production test environments

### Compatibility & Integration

The 5820A interfaces with oscilloscopes via standard coaxial connectors. Integration with automated test systems is supported through available remote control and data logging interfaces, enabling streamlined calibration workflows across distributed laboratory networks.

## Features & description

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From manufacturer datasheet

### Features

- Oscilloscope calibrator for vertical, horizontal, and trigger calibration
- DC voltage generation and DC voltage measurement
- Fast edge and leveled sine outputs ( $\leq 600$  MHz standard; optional 2.1 GHz extension)
- Time markers, waveform and pulse generators
- Tunnel diode pulser drive capability
- MeasZ impedance measurement function
- Drives  $50\ \Omega$  and  $1\ \text{M}\Omega$  termination loads
- IEEE-488 GPIB and dual RS-232 (HOST + UUT pass-through) interfaces
- Optional 5-channel output configuration
- Warm-up time up to 30 minutes maximum; output settling  $\leq 5$  s
- Operating temperature 0–50 °C

# 5820A Characteristics / Specifications

| PARAMETER             | VALUE                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fluke 5820A           | Oscilloscope Calibrator Overview The Fluke 5820A is an oscilloscope calibrator designed to verify and adjust vertical, horizontal, and trigger performance of analog and digital oscilloscopes with leveled sine, edge, time marker, and pulse outputs through 50 Ω and 1 MΩ loads.                                                                               |
| Model                 | 5820A                                                                                                                                                                                                                                                                                                                                                             |
| Manufacturer          | Fluke (Fluke Calibration)                                                                                                                                                                                                                                                                                                                                         |
| Instrument Type       | Oscilloscope Calibrator                                                                                                                                                                                                                                                                                                                                           |
| Alias                 | 5820A                                                                                                                                                                                                                                                                                                                                                             |
| Calibration Functions | DC voltage; edge; leveled sine; time markers; wave/pulse generators; tunnel diode pulser drive; DC voltage measure; MeasZ impedance                                                                                                                                                                                                                               |
| Leveled Sine          | ≤600 MHz standard; optional extension to 2.1 GHz                                                                                                                                                                                                                                                                                                                  |
| Load Compatibility    | 50 Ω and 1 MΩ                                                                                                                                                                                                                                                                                                                                                     |
| Remote Interfaces     | IEEE-488 GPIB; dual RS-232 (HOST and UUT pass-through)                                                                                                                                                                                                                                                                                                            |
| Output Channels       | Optional 5-channel output configuration                                                                                                                                                                                                                                                                                                                           |
| Settling Time         | ≤5 s                                                                                                                                                                                                                                                                                                                                                              |
| Operating Temperature | 0–50 °C Standard Operating Conditions Allow up to 30 minutes warm-up before performance verification at specification limits. Connect outputs through appropriate 50 Ω or 1 MΩ fixtures matched to the scope input under test. Use HOST RS-232 for calibrator control and UUT pass-through when bridging to the oscilloscope serial port in automated procedures. |
| Bandwidth             | calibrations above 600 MHz. Alias 5820A (hyphenless) appears in inventory systems.                                                                                                                                                                                                                                                                                |
| Warm-up time          | up to 30 minutes maximum; output settling ≤5 s - Operating temperature 0–50 °C                                                                                                                                                                                                                                                                                    |

# General Specifications & Supplementary Characteristics

| PARAMETER             | VALUE                                                                                                                               |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Operating temperature | 0–50 °C                                                                                                                             |
| Operating Temperature | 0–50 °C                                                                                                                             |
| Model                 | 5820A                                                                                                                               |
| Manufacturer          | Fluke (Fluke Calibration)                                                                                                           |
| Instrument Type       | Oscilloscope Calibrator                                                                                                             |
| Alias                 | 5820A                                                                                                                               |
| Calibration Functions | DC voltage; edge; leveled sine; time markers; wave/pulse generators; tunnel diode pulser drive; DC voltage measure; MeasZ impedance |
| Leveled Sine          | ≤600 MHz standard; optional extension to 2.1 GHz                                                                                    |
| Load Compatibility    | 50 Ω and 1 MΩ                                                                                                                       |
| Remote Interfaces     | IEEE-488 GPIB; dual RS-232 (HOST and UUT pass-through)                                                                              |
| Output Channels       | Optional 5-channel output configuration                                                                                             |
| Settling Time         | ≤5 s                                                                                                                                |

# 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 of analog and digital oscilloscopes with leveled sine, edge, time marker, and pulse outputs through 50  $\Omega$  and 1 M $\Omega$  loads.

Applications

Metrology-lab and field calibration of oscilloscope vertical gain, bandwidth, and linearity; horizontal timebase and trigger level verification; impedance (MeasZ) checks on scope inputs; automated calibration over IEEE-488 with optional high-frequency leveled sine extension to 2.1 GHz.

Key Features

- Oscilloscope calibrator for vertical, horizontal, and trigger calibration
- DC voltage generation and DC voltage measurement
- Fast edge and leveled sine outputs ( $\leq 600$  MHz standard; optional 2.1 GHz extension)
- Time markers, waveform and pulse generators
- Tunnel diode pulser drive capability
- MeasZ impedance measurement function
- Drives 50  $\Omega$  and 1 M $\Omega$  termination loads
- IEEE-488 GPIB and dual RS-232 (HOST + UUT pass-through) interfaces
- Optional 5-channel output configuration
- Warm-up time up to 30 minutes maximum; output settling  $\leq 5$  s
- Operating temperature 0–50  $^{\circ}\text{C}$

Technical Specifications

## Technical Specifications

| PARAMETER             | VALUE                                                                                                                               |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Model                 | 5820A                                                                                                                               |
| Manufacturer          | Fluke (Fluke Calibration)                                                                                                           |
| Instrument Type       | Oscilloscope Calibrator                                                                                                             |
| Alias                 | 5820A                                                                                                                               |
| Calibration Functions | DC voltage; edge; leveled sine; time markers; wave/pulse generators; tunnel diode pulser drive; DC voltage measure; MeasZ impedance |
| Leveled Sine          | $\leq 600$ MHz standard; optional extension to 2.1 GHz                                                                              |
| Load Compatibility    | 50 $\Omega$ and 1 M $\Omega$                                                                                                        |
| Remote Interfaces     | IEEE-488 GPIB; dual RS-232 (HOST and UUT pass-through)                                                                              |
| Output Channels       | Optional 5-channel output configuration                                                                                             |

Warm-Up: Up to 30 minutes maximum  
Settling Time:  $\leq 5$  s  
Operating Temperature: 0–50  $^{\circ}\text{C}$

Standard Operating Conditions

Allow up to 30 minutes warm-up before performance verification at specification limits. Connect outputs through appropriate 50  $\Omega$  or 1 M $\Omega$  fixtures matched to the scope input under test. Use HOST RS-232 for calibrator control and UUT pass-through when bridging to the oscilloscope serial port in automated procedures.

Operational Notes

5820A is the baseline model in the Fluke oscilloscope calibrator family—confirm optional 2.1 GHz leveled sine

and 5-channel output fitment on asset tag before planning bandwidth calibrations above 600 MHz. Alias 5820A (hyphenless) appears in inventory systems.

### Available from Aumictech

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

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

#### Aumictech

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NIST-traceable calibration · SAM registered ·  
30-day returns  
NAICS 423690 · 811210 · 541380  
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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.