

**Aumictech**

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

FLUKE

Fluke 5502A Multi-Product Calibrator

The Fluke 5502A is a multi-product calibrator for low-to-medium accuracy electrical instrumentation such as 3.5- and 4.5-digit DMMs. It sources DC/AC voltage and current (multiple waveforms and harmonics), dual voltage or simultaneous V+I for DC/AC power with phase control, resistance, capacitance, thermocouples, and RTDs. It can measure thermocouples. Optional scope calibrator packages cover 300 MHz or 600 MHz. With a 52120A transconductance amplifier and coils, current can be extended for clamp workloads. Calibration temperature (tcal): 15 degC to 35 degC Oscilloscope option class: Levelled sine 5 mV to 5.5 Vpp; edge <300 ps class; to 300 MHz or 600 MHz per option Current boost (52120A): to 100 A dc / 120 A ac; up to 6000 A with coils Summary ranges from Fluke 5502A product literature and getting-started specs. Confirm installed scope option and exact 1-year uncertainty rows on the unit certificate.



MODEL

Fluke 5502A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

5502A

LISTING

<https://aumictechlabs.com/products/5502a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Fluke 5502A Multi-Product Calibrator is a multifunction source and measurement instrument for calibrating electrical test equipment across calibration laboratories and service centers. It generates DC and AC voltage, current, resistance, and capacitance, while simultaneously sourcing voltage and current to simulate DC and AC power conditions. The unit sources thermocouple and RTD temperature signals, supports optional oscilloscope calibration to 600

MHz, and extends current capability through external amplifiers and coils. RS-232 and IEEE-488 interfaces enable remote control and integration with MET/CAL® Plus Calibration Management Software for automated workflows.

Technical Specifications

Voltage and Current Output: DC Voltage: 0 to ± 1020 V DC Current: 0 to ± 20.5 A AC Voltage: 1 mV to 1020 V, 10 Hz to 500 kHz AC Current: 29 μ A to 20.5 A, 10 Hz to 30 kHz Simultaneous Voltage and Current: Up to 20.9 kW equivalent power with phase control to 0.01°

Dual DC Voltage Channels: Independent sourcing capability Resistance, Capacitance, and Waveforms: Resistance: 0 Ω to 1100 M Ω Capacitance: 220 pF to 110 mF Waveforms: Sine, square, triangle, truncated sine with harmonic sourcing

Temperature Simulation: Thermocouple Types: B, C, E, J, K, L, N, R, S, T, U RTD Sensors: Pt 385 (100 Ω , 200 Ω , 500 Ω , 1000 Ω), Pt 3926-100 Ω , Pt 3916-100 Ω , PtNi 385-120 Ω , Cu 427-10 Ω

Oscilloscope Calibration (Optional): Bandwidth: Up to 600 MHz Edge Rise Time: < 300 ps

Functions: Levelled sine wave, fast edge, time marker, wave generator, pulse generation, trigger testing, input impedance measurement

Current Extension: With 52120A Transconductance Amplifier: 120 A output With Accessory Current Coils: Up to 6000 A

Accuracy: DC Voltage (1 Year): $\pm 0.005\%$ of setting DC Current (1 Year): $\pm 0.01\%$ of setting Frequency Uncertainty: < 25 ppm

Interfaces and Power: Communications: RS-232, IEEE-488 (GPIB) Line Power: Selectable 100 V, 120 V, 220 V, 240 V Line Frequency: 47 Hz to 63 Hz Line Voltage Tolerance: $\pm 10\%$

Key Features

Calibrates 3.5- and 4.5-digit multimeters with traceable DC accuracy Sources multiple waveforms and harmonics for complex signal simulation Phase control to 0.01° for power factor and phase angle measurement validation Phantom load capability to 20.9 kW for three-phase power equipment testing Supports nine thermocouple types plus eight RTD sensor configurations

Typical Applications

Calibration of handheld and bench multimeters Current clamp verification and calibration Panel meter, chart recorder, and data logger adjustment Oscilloscope performance validation (with optional module) Thermocouple and RTD temperature transducer calibration

Compatibility & Integration

Remote operation via RS-232 or IEEE-488 GPIB enables integration into automated calibration systems. MET/CAL® Plus software support provides standardized procedures, documentation, and traceability for regulated environments.

Features & description

From manufacturer datasheet

Features

- Multi-product DC/AC V, I, ohms, capacitance, TC/RTD
- Simultaneous V+I / dual voltage power simulation with phase control
- Optional 300 MHz or 600 MHz oscilloscope calibrator
- RS-232 and IEEE-488 remote interfaces
- Compatible with 52120A current boost and coils

Applications

- Calibration of handheld and benchtop DMMs
- Multi-product electrical instrument calibration
- Oscilloscope calibration with SC300/SC600-class options
- Automated MET/CAL procedures

5502A Characteristics / Specifications

PARAMETER	VALUE
Model	5502A
Manufacturer	Fluke
Instrument Type	Multi-Product Calibrator
Alias	5502A; Fluke 5502A
Direct voltage	0 to +/-1020 V
Direct current	0 to +/-20.5 A
Alternating voltage	1 mV to 1020 V; 10 Hz to 500 kHz
Voltxhertz	1000 V at 10 kHz; 330 V at 100 kHz
Alternating current	29 uA to 20.5 A; 10 Hz to 30 kHz
Waveforms	Sine, square, triangle, truncated sine
Resistance	0 ohm to 1100 Mohm
Capacitance	220 pF to 110 mF
Power (phantom loads)	20.9 kW
Phase control resolution	0.01 degree
Thermocouple source/measure	Types B, C, E, J, K, L, N, R, S, T, U; 10 uV/degC and 1 mV/degC linear modes
RTD source	Pt385-100, Pt3926-100, Pt3916-100, Pt385-200, Pt385-500, Pt385-1000, PtNi385-120 (Ni120), Cu427-10
Interfaces	RS-232, IEEE-488
Frequency uncertainty	<25 ppm
Operating temperature	0 degC to 50 degC
Calibration temperature (tcal)	15 degC to 35 degC
Oscilloscope option class	Levelled sine 5 mV to 5.5 Vpp; edge <300 ps class; to 300 MHz or 600 MHz per option
Current boost (52120A)	to 100 A dc / 120 A ac; up to 6000 A with coils Notes Summary ranges from Fluke 5502A product literature and getting-started specs. Confirm installed scope option and exact 1-year uncertainty rows on the unit certificate.

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 degC to 50 degC
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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.

Specifications	
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PARAMETER	VALUE
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Manufacturer	Fluke
Instrument Type	Multi-Product Calibrator
Alias	5502A; Fluke 5502A
Specifications	
PARAMETER	VALUE
Direct voltage	0 to +/-1020 V
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Alternating voltage	1 mV to 1020 V; 10 Hz to 500 kHz
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RTD source	Pt385-100, Pt3926-100, Pt3916-100, Pt385-200, Pt385-500, Pt385-1000, PtNi385-120 (Ni120), Cu427-10
Interfaces	RS-232, IEEE-488
Frequency uncertainty	<25 ppm
DC V 1-year best class (0 to 3.299999 V): +/- (5 ppm of output + 5 uV) per Fluke GS tables	
Specifications	
PARAMETER	VALUE
Operating temperature	0 degC to 50 degC

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Notes

Summary ranges from Fluke 5502A product literature and getting-started specs. Confirm installed scope option and exact 1-year uncertainty rows on the unit certificate.

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

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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.