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Data Sheet
August 14, 2026

FLUKE

Fluke 8520A â€“ 5.5 digit Lab DMM

Fluke 8520A 5.5 Digit System Digital Multimeter The Fluke 8520A is a 5.5-digit bench/system digital multimeter with IEEE-488 interface, burst memory, and math programs for automated measurements. Period catalog and instruction-manual summaries rate basic DC accuracy at 50 ppm for 90 days (some listings cite 20 ppm class), reading rates to 520/s at reduced digits or 240/s at 5.5 digits, DCV from 100 mV to 1000 V, true-RMS ACV to 650 V from 10 Hz to 1 MHz, and ohms from 10 ohm to 10 Mohm plus conductance to 100 nS class. The Fluke 8520A is a 5.5-digit bench/system digital multimeter with IEEE-488 interface, burst memory, and math programs for automated measurements. Period catalog and instruction-manual summaries rate basic DC accuracy at 50 ppm for 90 days (some listings cite 20 ppm class), reading rates to 520/s at reduced digits or 240/s at 5.5 digits, DCV from 100 mV to 1000 V, true-RMS ACV to 650 V from 10 Hz to 1 MHz, and ohms from 10 ohm to 10 Mohm plus conductance to 100 nS class. Automated system DMM measurements over GPIB, high-speed production readings with burst memory, 2-wire and 4-wire ohms, high-resistance conductance measurements, and ratio dB or PRT temperature options on equipped variants.

MODEL **Fluke 8520A**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **8520A**	LISTING **https://aumictechlabs.com/products/8520a-2/**

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NAICS 423690 · 811210 · 541380

This unit

The Fluke 8520A is a 5.5-digit laboratory digital multimeter engineered for precision benchtop measurements and automated test system integration. It combines manual front-panel operation

with remote IEEE-488 (GPIB) control, delivering DC voltage, true RMS AC voltage, AC+DC voltage, resistance (2-wire and 4-wire), and conductance measurements. The instrument automatically optimizes reading rate and filter selection upon function entry, with manual override capability. Burst memory stores up to 50 readings standard (expandable to 400 with Option -010), supporting diagnostic routines, null zeroing, offset/scale/ratio modes, peak detection, and limit testing. Seven built-in programs handle common laboratory tasks; optional extended software adds statistical analysis, low-frequency AC measurement, dB calculations, RTD temperature conversion, thermocouple junction voltage conversion, and thermistor linearization. Technical Specifications Display Resolution: 5.5-digit DC Voltage Accuracy: 20 ppm basic Reading Rate: Up to 520 readings/second (parallel mode); approximately 1 reading/second default Measurement Functions: DC voltage, AC voltage (true RMS), AC+DC voltage, resistance (2-wire and 4-wire), conductance Auto-ranging: Full auto-ranging on most functions (conductance excluded) Filter Options: Fast and slow selectable Burst Memory: 50 readings standard; 400 readings with Option -010 Power Supply: 100, 120, 220, or 240 V AC, ±10%, 50–60 Hz, ≤50 W Operating Temperature: 0°C to 50°C Storage Temperature: −25°C to +75°C Key Features IEEE-488 (GPIB) interface standard Seven built-in diagnostic and measurement programs Optional MATE system interpreter (8520A/AS-1) supporting CIIL commands and direct memory access data transmission up to 120,000 characters/second BCD output with system interface circuits Automatic reading rate and filter optimization with manual adjustment capability Typical Applications Precision DC and AC voltage characterization Resistance and conductance measurement in R&D and production environments Automated test equipment integration via GPIB Temperature measurement via RTD conversion and thermocouple junction voltage linearization Statistical analysis and pass/fail limit testing Compatibility & Integration The 8520A interfaces via standard IEEE-488 (GPIB) for remote operation and system integration. Optional 8520A/AS-1 module enables MATE system compatibility with CIIL or IEEE-488 command sets and high-speed direct memory access data transfer.

8520A Characteristics / Specifications

PARAMETER	VALUE
Resolution	5.5 digits
Basic DC Accuracy Class 90 Days	50 ppm
High Speed Reading Rate Class	520 readings/s
Full Resolution Reading Rate Class 60 Hz	240 readings/s
DCV Ranges	100 mV 1 V 10 V 100 V 1000 V
DCV Resolution On 100 mV Class	1 uV
ACV Ranges RMS	1 V 10 V 100 V 650 V
ACV Frequency Coverage Class	10 Hz to 1 MHz
Ohms Ranges	10 ohm to 10 Mohm
Ohms Configuration	2-wire or 4-wire
Conductance Range Class	100 nS
Conductance Resistance Equivalent Class	10 Mohm to 100000 Mohm
Burst Memory Standard Class	up to 50 readings
Burst Memory Option 010 Class	up to 400 readings
Interface	IEEE-488 GPIB
Input Switching	front and rear
Math Programs Standard Class	7
Guard	measurements can be guarded
Form Factor	bench/system DMM
PRT Option Class	8520A/PRT platinum resistance probe variant
MATE Option Class	8520A/AS-1

8520A Specifications

PARAMETER	VALUE
Fluke 8520A 5.5 Digit System Digital Multimeter	Overview
Key Features	5.5 digit resolution with burst memory
Conductance for very high resistance	IEEE-488 system interface
Technical Specifications	Resolution: 5.5 digits

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

Specifications

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Basic DC Accuracy Class 90 Days	50 ppm
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Guard	measurements can be guarded
Form Factor	bench/system DMM
PRT Option Class	8520A/PRT platinum resistance probe variant
MATE Option Class	8520A/AS-1

Notes
Summary values from Fluke 8520A catalog/instruction literature archives. Use the instrument specification tables in the 8520A instruction and calibration manuals for authoritative percent-of-reading plus digit matrices by range rate and temperature; faceplate options matter for PRT and extended burst memory.

Ordering Information

OPTION	DESCRIPTION
Option 010	Class: up to 400 readings

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

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