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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 8152A – Optical Multimeter

Agilent Keysight 8152A Optical Average Power Meter The HP 8152A is an optical average power meter mainframe for 815xx optical heads. OEM 8152A literature lists average optical-power measurements, HP-IB, dual-head class operation on optioned units, and use with 8151A pulse meters and 8156A attenuators in HP lightwave benches. Average optical power of CW lasers, LEDs, and fiber systems with calibrated 815xx heads. Instrument Type: Optical average power meter The HP 8152A is an optical average power meter mainframe for 815xx optical heads. OEM 8152A literature lists average optical-power measurements, HP-IB, dual-head class operation on optioned units, and use with 8151A pulse meters and 8156A attenuators in HP lightwave benches. Average optical power of CW lasers, LEDs, and fiber systems with calibrated 815xx heads. Instrument Type: Optical average power meter Series Family: HP 8151A / 8152A optical power meters



MODEL	CALIBRATION
Agilent / Keysight 8152A	Available on request
CONDITION	STATUS
Used	In stock
RFQ / SKU	LISTING
8152A	https://aumictechlabs.com/products/8152a-2/

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 8152A Optical Average Power Meter delivers absolute and relative optical power measurements across a broad wavelength spectrum. This two-input instrument accommodates both single-mode and multi-mode fibers, enabling precise characterization of active and passive optical components. Modular optical head architecture extends measurement capability from 450 nm to 1700 nm, with interchangeable sensors providing tailored dynamic

range and sensitivity for specific test requirements.

Technical Specifications

Measurement Performance

Optical inputs: Two independent channels
Wavelength range: 450 nm to 1700 nm (head-dependent)
Resolution: 0.01 dB; minimum 10 pW (with HP 81521B head)
Linearity: 1% typical
Warm-up time: 20 minutes

Measurement Range & Accuracy

vary by optical head:

- HP 81520A: +10 dBm to -100 dBm; $\pm 2.2\%$ absolute accuracy (600–1020 nm); $\pm 4\%$ ± 0.5 pW total uncertainty
- HP 81521B: +3 dBm to -80 dBm; $\pm 2.5\%$ absolute accuracy (600–1020 nm); $\pm 5\%$ ± 0.5 pW total uncertainty
- HP 81522A: -30 dBm to -100 dBm

Automatic sensitivity correction applies when operating wavelength is entered.

Electrical Interface

Maximum input voltage: ± 10 V
Output voltage: 0–2 V into open circuit
Output impedance: 600 Ω typical
HP-IB/GPIB remote control and programming (SH1, AH1, T6, L4, SR1, RL1, PP0, DC1, DT1, C0)

Key Features

- Dual-channel architecture for simultaneous or sequential measurements
- Fiber type compatibility: single-mode and multi-mode
- Modular optical head design enables wavelength range extension
- Automatic wavelength-dependent calibration
- Programmable instrument control via HP-IB interface

Typical Applications

- Absolute and relative power measurement in lightwave test systems
- Active optical component output power characterization
- Passive component insertion loss and attenuation assessment
- Ratio measurements at identical or different wavelengths
- Secondary standard operation in metrology environments

Compatibility & Integration

Optical heads (ordered separately): HP 81520A (450–1020 nm), HP 81521B (900–1700 nm), HP 81522A (1000–1550 nm). External optical power splitters (HP 81000AS/BS) enable insertion loss measurements.

8152A Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Optical average power meter
Series Family	HP 8151A / 8152A optical power meters
Measurement	average optical power
Sibling 8151A	optical pulse power meter
Heads	compatible 815xx optical sensor heads
Remote Interface	HP-IB
Application	CW optical power in fiber test benches
Form Factor	benchtop optical power meter mainframe
Documentation	HP 8152A optical average power meter operating literature
Display	numeric average-power readout (W/dBm class)
Wavelength	determined by the connected optical head and cal factor
Connector	optical head adapter interface
Operating Environment	laboratory ambient per 8152A manual
Power	AC mains operated
Calibration	head-plus-mainframe average-power calibration
Dynamic Range	see 8152A plus head specification table
Accuracy	see 8152A plus head table (do not invent dB)
Related 8156A	optical attenuator already documented in this project
Related 81511A	optical head family files exist separately
Verification	sensor-head model determines InGaAs vs Ge and wavelength band

8152A Specifications

PARAMETER	VALUE
Agilent Keysight 8152A Optical Average Power Meter	Overview
Applications	Average optical power of CW lasers, LEDs, and fiber systems with calibrated 815xx heads.
Key Features	Average optical power (vs 8151A pulse)
Lightwave bench companion	Display in dBm/W class
Technical Specifications	Instrument Type: Optical average power meter

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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Notes On Dual Head: dual-channel operation depends on 8152A options	
Use: average power of CW optical sources	
Interface To Dut: fiber via the optical head	
Notes	
8152A average optical power meter identity and 8151A sibling from HP 8152A literature. Accuracy, wavelength, and range are specified with the attached 815xx head, not as mainframe-only numbers.	

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.