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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 81522A – Optical Head

Keysight 81522A Optical Power Sensor Head The Agilent/HP 81522A is an optical power sensor head used with HP/Agilent lightwave interface modules and mainframes. OEM 8152x optical head literature describes InGaAs or Ge detector heads for calibrated optical power measurements across telecom bands when mated to an interface module. Calibrated optical power measurement on fiber systems, attenuation verification, and multi-head lightwave benches with 81500/81519 interfaces. Calibrated power readings through mainframe The Agilent/HP 81522A is an optical power sensor head used with HP/Agilent lightwave interface modules and mainframes. OEM 8152x optical head literature describes InGaAs or Ge detector heads for calibrated optical power measurements across telecom bands when mated to an interface module. Calibrated optical power measurement on fiber systems, attenuation verification, and multi-head lightwave benches with 81500/81519 interfaces. Calibrated power readings through mainframe Instrument Type: optical power sensor head



MODEL

**Agilent / Keysight
81522A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

81522A

LISTING

<https://aumictechlabs.com/products/81522a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 81522A is an optical head accessory for the 8152A series optical power meter, designed to measure optical power across infrared wavelengths. It integrates a cooled InGaAs PIN diode sensor with 500 μm diameter for high-accuracy absolute and relative power measurements in fiber optic systems. The head connects to compatible Agilent and HP

mainframes via two optical inputs and derives operational power from the connected 8152A mainframe. Technical Specifications Wavelength Range: 1000 nm to 1650 nm Measurement Range: -3 dBm to -100 dBm Resolution: 0.01 dB, 0.1 pW Sensor Element: Cooled InGaAs PIN diode Sensor Diameter: 500 μ m Typical Bandwidth: 700 Hz Linearity: 1% typical Dimensions: 37.7 mm diameter $\times$ 140 mm length Weight: 0.45 kg Key Features Dual optical inputs for flexible measurement configurations Factory-calibrated sensor ensures precise measurement results Compact form factor (1.5" $\times$ 5.5") for bench-top and system integration Fine resolution at 0.01 dB for detailed power trending Stable 700 Hz bandwidth minimizes noise floor in dynamic measurements Typical Applications Optical power monitoring in long-haul and metro fiber networks Transmitter and receiver characterization at 1300 nm and 1550 nm bands Component insertion loss and gain measurements System power budgeting and commissioning Compatibility & Integration The 81522A operates exclusively with the Agilent/Keysight 8152A Optical Average Power Meter mainframe, which supplies operational power at 100/120/220/240 Vrms, $\pm$ 5%/-10%, 48-400 Hz. It is also compatible with legacy HP 8152A, HP 81521B, and HP 81520A meter platforms. The mainframe supports manual front panel control and GPIB remote programming. A 15-minute warm-up interval is recommended for the mainframe prior to measurement. Operation requires connector adapters and optical lenses matched to the measurement interface.

81522A Characteristics / Specifications

PARAMETER	VALUE
Model	81522A
Instrument Type	optical power sensor head
Detector Class	semiconductor optical detector class
Host Interface Modules	81500C 81519A class
Wavelength Coverage Class	telecom band head class
Power Range Class	wide dynamic optical power class
Fiber Input Class	connectorized fiber adapter class
Calibration	factory calibrated head
Uncertainty Class	head calibration certificate limited
Operating Temperature Class	0 C to 40 C laboratory class
Storage Temperature Class	minus 40 C to 70 C class
Connector Interface Class	universal optical adapter class
Form Factor	remote sensor head
Cable To Interface	head interface cable
Series Family	HP 8152x optical heads
Measurement Quantity	average optical power
Display Path	via lightwave mainframe
Remote Programming	through host interface module
Zeroing	system zero supported
Linearity Class	calibrated head linearity class
Damage Level Class	maximum safe optical input on head label
Related Heads	other 8152x family sensors
Use Environment	optical lab and production test
Storage temperature	Class: minus 40 C to 70 C class
Operating temperature	Class: 0 C to 40 C laboratory class

81522A Specifications

PARAMETER	VALUE
Keysight 81522A Optical Power Sensor Head	Overview
Remote optical power sensor head	Works with 81500C and 81519A interfaces
Calibrated power readings through mainframe	8152x optical head family
Technical Specifications	Model: 81522A

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	Class: minus 40 C to 70 C class
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Form Factor	remote sensor head
Cable To Interface	head interface cable
Series Family	HP 8152x optical heads
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Remote Programming	through host interface module
Zeroing	system zero supported
Linearity Class	calibrated head linearity class
Damage Level Class	maximum safe optical input on head label
Related Heads	other 8152x family sensors
Use Environment	optical lab and production test Notes From HP/Agilent 81522A optical head accessory descriptions used with 815x lightwave systems. Exact wavelength and power range limits are on the individual head calibration label and certificate.

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