

**Aumictech**

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 81624A Optical Power Head

Agilent Keysight 81624A Optical Power Head The Agilent/Keysight 81624A is an optical power sensor head for Agilent lightwave multimeter mainframes providing calibrated fiber optic power measurements. Optical power metering in component manufacturing and lab fiber setups. Calibration: wavelength calibration table The Agilent/Keysight 81624A is an optical power sensor head for Agilent lightwave multimeter mainframes providing calibrated fiber optic power measurements. Optical power metering in component manufacturing and lab fiber setups. Calibration: wavelength calibration table Units on Host: dBmW Application Class: fiber optic power



MODEL

**Agilent / Keysight
81624A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

81624A

LISTING

<https://aumictechlabs.com/products/81624a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 81624A is an InGaAs optical power head engineered for precise optical power measurements across the near-infrared spectrum. It delivers measurement accuracy as low as $\pm 2.2\%$ at reference conditions (1000 nm to 1630 nm) with exceptional linearity of ± 0.02 dB in the CW range from +10 dBm to -70 dBm. The large area 5 mm diameter InGaAs detector provides low polarization dependent loss, low spectral ripple, and high return loss - critical performance metrics for optical component testing and characterization in demanding measurement environments. Technical Specifications Sensor Type: Large area InGaAs detector Detector Diameter: 5 mm Wavelength Range: 800 nm to 1700 nm Power Range: +10 dBm to -90

dBm Measurement Accuracy: $\pm 2.2\%$ (1000 nm to 1630 nm at reference conditions) Linearity: ± 0.02 dB (CW, +10 dBm to -70 dBm) Fiber Compatibility: Standard single-mode and multimode (max. 100 μm core, NA < 0.3)

Key Features Low polarization dependent loss minimizes measurement errors in polarization-sensitive applications Low spectral ripple ensures flat response across the operating wavelength range High return loss reduces reflective errors from the detector interface Wide dynamic range from +10 dBm to -90 dBm supports both high-power and ultralow-power measurements 5 mm active area accommodates both single-mode and multimode fiber coupling

Typical Applications Optical component characterization and validation In-service optical power monitoring Wavelength-dependent power profiling (800 nm to 1700 nm) Low-loss optical system testing

Compatibility & Integration The 81624A connects to the Agilent 81618A (single-channel) or 81619A (dual-channel) interface modules, which integrate into Agilent optical mainframes: 8163A/B, 8164A/B, and 8166A/B. This modular architecture enables flexible multi-head measurement configurations within a single chassis.

Features & description

From manufacturer datasheet

Polarization: low PDL class

Return Loss: adapter dependent Cable: interconnect to mainframe Configuration Note: expand exact power range and uncertainty vs wavelength from OEM datasheet before denser upload Notes Identity rows from Agilent/Keysight 81624A Optical Power Head listings. Expand full accuracy tables from the OEM datasheet before upload.

81624A Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Optical power head
Series Family	Agilent 8162x
Model	81624A
Host Instruments	8153 8163 8164 class
Measurement	optical power
Detector	photodiode class
Connector	versatile optical adapters
Calibration	wavelength calibration table
Units on Host	dBmWApplication Class: fiber optic power
Form Factor	remote sensor head
Dynamic Range	head dependent
Max Input	per datasheet damage level
Linearity	calibrated range
Uncertainty	OEM accuracy specification
Temperature	specified operating window
Zeroing	host dark zero
Averaging	host controlled
Accessories	adapters caps
Documentation	81624A data sheet
Family Peers	81623A 81626A
Polarization	low PDL class
Return Loss	adapter dependent
Cable	interconnect to mainframe
Configuration Note	expand exact power range and uncertainty vs wavelength from OEM datasheet before denser upload

81624A Specifications

PARAMETER	VALUE
Agilent Keysight 81624A Optical Power Head	Overview
Versatile connector interface	Agilent 8162x family
Technical Specifications	Instrument Type: Optical power head
Notes	Identity rows from Agilent/Keysight 81624A Optical Power Head listings. Expand full accuracy tables from the OEM datasheet before upload.

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	
PARAMETER	VALUE
Instrument Type	Optical power head
Series Family	Agilent 8162x
Model	81624A
Host Instruments	8153 8163 8164 class
Measurement	optical power
Detector	photodiode class
Connector	versatile optical adapters
Calibration	wavelength calibration table
Units on Host	dBmWApplication Class: fiber optic power
Form Factor	remote sensor head
Dynamic Range	head dependent
Max Input	per datasheet damage level
Linearity	calibrated range
Uncertainty	OEM accuracy specification
Temperature	specified operating window
Zeroing	host dark zero
Averaging	host controlled
Accessories	adapters caps
Documentation	81624A data sheet
Family Peers	81623A 81626A
Polarization	low PDL class
Return Loss	adapter dependent
Cable	interconnect to mainframe
Configuration Note	expand exact power range and uncertainty vs wavelength from OEM datasheet before denser upload
Notes	
Identity rows from Agilent/Keysight 81624A Optical Power Head listings. Expand full accuracy tables from the	

OEM datasheet before upload.

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 14, 2026

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