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Data Sheet

August 13, 2026

AGILENT / HP

Agilent / HP 8163A / 2X 81633A

The Agilent 8163A is a lightwave multimeter with two 81633A optical power sensors. The 8163A provides accurate and reliable measurements of optical power, and can be used for a variety of applications, including testing and characterization of optical components and systems.



MODEL Agilent / HP 8163A / 81633A	CALIBRATION Available on request
CONDITION Used	STATUS In stock
RFQ / SKU 8163A / 81633A	LISTING https://aumictechlabs.com/products/8163a-81633a-2/

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent 8163A Lightwave Multimeter paired with two 81633A Optical Power Sensor modules provides precision optical power measurement across the 800 nm to 1700 nm wavelength band. The dual-slot mainframe architecture delivers true synchronous triggering across all channels and stores up to 4000 measurement results per channel (12000 remote). Each InGaAs sensor module measures optical power from +10 dBm to -90 dBm with measurement accuracy of $\pm 2.5\%$ (1000 nm to 1630 nm) and linearity of ± 0.015 dB ± 2 pW. The monochrome graphical display resolves measurements to 0.0001 dB/dBm and up to $6\frac{1}{2}$ digits user-definable precision. GPIB, RS-232, and Centronics parallel interfaces enable full remote control via SCPI commands compatible with 8164A, 8166A, and 8153A systems. The instrument operates from 0°C to +45°C and accepts AC 100 V to 240 V $\pm 10\%$ at 50/60 Hz $\pm 5\%$. Modular expansion slots support all modules from the 8153A and 8163A Lightwave Multimeter series. Technical Specifications Wavelength range: 800

nm to 1700 nm Power range: +10 dBm to -90 dBm Measurement accuracy: $<\pm 2.5\%$ (1000 nm to 1630 nm) Linearity (CW): 40 dB Noise (peak to peak): <20 pW Minimal averaging time: 25 μ s Display resolution: 0.0001 dB/dBm; up to 6½ digits (user definable) Memory: 4000 results per channel (12000 remote) Maximum optical power: 0.01 Watts Power supply: AC 100 V to 240 V $\pm 10\%$, 50/60 Hz $\pm 5\%$, 120 VA max Operating temperature: 0°C to +45°C Storage temperature: -40°C to +70°C Dimensions: 88 mm (H) $\times$ 213 mm (W) $\times$ 380 mm (L) Net weight: 4.2 kg

Key Features InGaAs sensor technology for extended NIR sensitivity True synchronous triggering on all channels Modular 2-slot mainframe for flexible sensor configuration GPIB interface with full SCPI command set RS-232 and Centronics parallel port connectivity Monochrome graphical display with 190 $\times$ 300 point resolution

Typical Applications Optical component characterization Fiber-optic system power verification Wavelength-dependent power measurement Production test and quality assurance

Compatibility & Integration The 8163A mainframe integrates with all 8153A and 8163A series modules. SCPI compatibility ensures programming consistency across 8164A, 8166A, and 8153A platforms.

8163A81633A Characteristics / Specifications

PARAMETER	VALUE
Model	8163A with 81633A modules
Manufacturer	Agilent / HP / Keysight
Instrument Type	Lightwave Multimeter Mainframe with Optical Power Sensor Modules
Alias	8163A; 81633A; HP 8163A; Agilent 8163A 81633A
Mainframe model	8163A
Sensor module model	81633A
Mainframe module slots	2 front loadable slim slots
Listing configuration	8163A plus 2× 81633A typical
Sensor type	InGaAs single element
Sensor channel count per module	1
Wavelength range 81633A	800 nm to 1650 nm
Power range 81633A	+10 dBm to -90 dBm
Uncertainty at reference	plus/minus 2.5 percent (1000 nm to 1630 nm)
Relative uncertainty polarization	less than plus/minus 0.005 dB
Spectral ripple	less than plus/minus 0.005 dB
Linearity at 23 plus/minus 5 C	less than plus/minus 0.015 dB plus 2 pW (+10 to -70 dBm CW)
Noise peak to peak	less than 2 pW class
Measurement speed class	down to 200 us averaging (module/host dependent)
Mainframe display	graphical monochrome
Mainframe interfaces	GPIB; RS-232C; parallel printer Centronics
Mainframe AC input	100 V to 240 V 50/60 Hz
Mainframe power maximum	120 VA with all options
Compatible modules also	81632A; 81634A; 81635A; laser and attenuator family
Legacy module support	8153A designed modules accepted
Optical connector	user interchangeable 81000 series adapters

PARAMETER	VALUE
Also compatible mainframes	8164A; 8166A class
Storage temperature sensor	-40 C to +70 C
Related newer sensor	81633B for 8163B mainframe Notes 81633A specs from Agilent 816x module selected specifications; 8163A mainframe from 8163A/B user guide. Confirm module count, adapter types, and 8163A vs 8163B mainframe on the listing.
Wavelength range	81633A: 800 nm to 1650 nm
Storage temperature	sensor: -40 C to +70 C

General Specifications & Supplementary Characteristics

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Storage temperature	sensor: -40 C to +70 C
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Related newer sensor	81633B for 8163B mainframe Notes 81633A specs from Agilent 816x module selected specifications; 8163A mainframe from 8163A/B user guide. Confirm module count, adapter types, and 8163A vs 8163B mainframe on the listing.

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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Also compatible mainframes	8164A; 8166A class

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Notes

81633A specs from Agilent 816x module selected specifications; 8163A mainframe from 8163A/B user guide. Confirm module count, adapter types, and 8163A vs 8163B mainframe on the listing.

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>

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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.