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Data Sheet

August 13, 2026

HP / AGILENT

HP / Agilent 8163B Lightwave Multimeter

Agilent 8163B Lightwave Multimeter Mainframe The Agilent/Keysight 8163B is the two-slot Lightwave Multimeter mainframe in the 816xB platform. It hosts compact 816x and 8156x modules (power sensors, Fabry-Perot/DFB sources, attenuators, and tunable-laser compact modules) plus legacy 8153A-designed modules. GPIB, RS-232, and printer interfaces support automated optical power, loss, and source control. The earlier 8163A is functionally compatible; B is the later mainframe revision. Optical power and loss metrology; dual-module comparison (sensor plus source, or two sensors); production lightwave ATE; host for 81632B/81635A/81630B sensors and 81655A/81657A FP lasers. The Agilent/Keysight 8163B is the two-slot Lightwave Multimeter mainframe in the 816xB platform. It hosts compact 816x and 8156x modules (power sensors, Fabry-Perot/DFB sources, attenuators, and tunable-laser compact modules) plus legacy 8153A-designed modules. GPIB, RS-232, and printer interfaces support automated optical power, loss, and source control. The earlier 8163A is functionally compatible; B is the later mainframe revision. Optical power and loss metrology; dual-module comparison (sensor plus source, or two sensors); production lightwave ATE; host for 81632B/81635A/81630B sensors and 81655A/81657A FP lasers.



MODEL

HP / Agilent 8163B

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

8163B

LISTING

<https://aumictechlabs.com/products/8163b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The HP/Agilent 8163B Lightwave Multimeter is a modular mainframe instrument for optical power and wavelength measurements across photonic development, component testing, and manufacturing environments. Its two slim module slots accommodate all HP 8153A Series and Agilent 8163A/B Series plug-in modules, enabling flexible measurement configurations tailored to specific test requirements. Technical Specifications Display: 300 × 240 pixel graphical active color display with 4 updates per second Power Meter Resolution: 0.0001 dB/dBm with up to 6.5 user-definable digits; 0.01 pW to 10 pW range (module-dependent) Data Acquisition: 4000 measurement results per channel (12000 in remote mode) with configurable acquisition windows from 1 second to 23 hours 59 minutes Triggering: True synchronous triggering on all channels up to 100 kHz; external digital modulation at 1 MHz (50% duty cycle) Power Requirements: AC 100–240 V ±10%, 50–60 Hz ±5%; maximum consumption 120 VA Operating Temperature: 0°C to +45°C Storage Temperature: –40°C to +70°C Humidity: <95% RH (0°C to 55°C) Altitude: Maximum 2000 m operation Dimensions: 88 mm H × 213 mm W × 380 mm L Weight: 4.2 kg net (6.5 kg shipping) Key Features Built-in Return Loss analysis, Passive Component Test, Stability assessment, and Logging functions SCPI standard compliance for instrument control and automation Graphical display with real-time measurement updates Connectivity & Integration GPIB: Full parameter access with function codes SH1, AH1, T6, L4, SR0, RL1, PP0, DC1, DT0, C0; 300 kB/sec burst data rate LAN: 10/100-BASE-T Ethernet RS232: Up to 115200 bps Parallel Printer: Centronics interface Compatibility Supports all HP 8153A Series and Agilent 8163A/B Series modules. Agilent 8163B Series modules are incompatible with the HP 8153A Lightwave Multimeter mainframe.

Features & description

From manufacturer datasheet

Features

- Two front-loadable slim module slots
- Accepts 816x compact modules and 8153A-generation cards
- Graphical display; GPIB and RS-232
- Interchangeable 81000-series optical adapters on modules
- Sibling 8164B is the four-slot measurement system (TLS host); 8166B is the 17-slot multichannel rack
- 100 to 240 V 50/60 Hz universal AC

8163B Characteristics / Specifications

PARAMETER	VALUE
Model	8163B
Manufacturer	Agilent / Keysight
Instrument Type	Lightwave multimeter mainframe
Family	816xB
Alias	HP 8163B; Agilent 8163B; Keysight 8163B
Mainframe Module Slots	2 front loadable slim slots
Predecessor	8163A functionally compatible
Related 4 Slot	8164B Lightwave Measurement System
Related 17 Slot	8166B Lightwave Multichannel System
Legacy Module Support	8153A designed modules accepted
Compact Module Families	8163x sensors; 8165x FP sources; 8157x attenuators; compact TLS
Mainframe Display	graphical
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
Optical Connector System	user interchangeable 81000 series adapters on modules
Example Sensor 81632B	+10 dBm to -80 dBm InGaAs
Example Sensor 81635A	dual +10 dBm to -80 dBm
Example Sensor 81630B	-70 dBm to +28 dBm
Example Sensor 81634B	+10 dBm to -110 dBm
Example FP High Power 81655A	1310 nm +13 dBm
Example FP Dual 81657A	1310/1550 nm +13 dBm
Example Fast Sensor 81637B	1250 to 1640 nm 25 us averaging
Storage Temperature Modules Class	-40 C to +70 C
Operating Temperature Sensors Class	+10 C to +40 C typical (module dependent)

PARAMETER	VALUE
Warm Up Sensors Class	20 min
Compatible Also	8164A / 8166A class hosts for the same compact modules
Remote Control	SCPI via GPIB on 816x platform
Storage temperature	Modules Class: -40 C to +70 C
Operating temperature	Sensors Class: +10 C to +40 C typical (module dependent)

General Specifications & Supplementary Characteristics

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Operating Temperature Sensors Class	+10 C to +40 C typical (module dependent)
Warm Up Sensors Class	20 min
Compatible Also	8164A / 8166A class hosts for the same compact modules
Remote Control	SCPI via GPIB on 816x platform Notes Mainframe slot, interface, and AC rows follow Agilent 8163A/B Lightwave Multimeter documentation (B revision). Module power/wavelength rows are identity pointers to the hosted compact family, not a substitute for the module data sheet. Confirm 8163B versus 8163A serial prefix and which two modules are installed.

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

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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

Aumictech

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NIST-traceable calibration · SAM registered ·
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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.