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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 8163A Lightwave Multimeter Mainframe

Agilent / Keysight 8163A Lightwave Multimeter Mainframe The Agilent/Keysight 8163A is a compact lightwave multimeter mainframe with two front-loadable module slots. OEM 8163A/B, 8164A/B, and 8166A/B user documentation lists support for power sensors, laser sources, attenuators, switches, and return-loss modules from the 816x/815x families, with GPIB remote control and a monochrome graphical display. Optical power, loss, and return-loss measurements using plug-in 816x modules for component and transceiver test. The Agilent/Keysight 8163A is a compact lightwave multimeter mainframe with two front-loadable module slots. OEM 8163A/B, 8164A/B, and 8166A/B user documentation lists support for power sensors, laser sources, attenuators, switches, and return-loss modules from the 816x/815x families, with GPIB remote control and a monochrome graphical display. Optical power, loss, and return-loss measurements using plug-in 816x modules for component and transceiver test. Compatible with 816x and legacy 8153A modules



MODEL

**Agilent / Keysight
8163A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

8163A

LISTING

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

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 8163A Lightwave Multimeter Mainframe is a modular optical test platform designed for precision power and wavelength measurements across telecommunications,

photonics research, and component characterization. This compact mainframe accepts two slim, front-loadable modules from the 8153A and 8163A/B series, enabling flexible measurement configurations without redesigning test systems.

Technical Specifications The instrument features a 190 × 300 point monochrome graphical display with 0.0001 dB/dBm resolution and user-definable readout precision up to 6.5 digits. Measurement data from all channels can be acquired synchronously at rates up to 100 kHz, with external digital modulation support at 1 MHz (50% duty cycle). The mainframe buffers 4000 measurement results per channel in local mode or 12000 when accessed remotely, with configurable data acquisition windows spanning 1 second to 23 hours 59 minutes. Power requirements are AC 100–240 V ±10%, 50–60 Hz ±5%, with consumption rated at 120 VA, 280 VA, or 450 VA maximum depending on source configuration. Operating temperature range is 0 °C to +45 °C; storage extends to –40 °C to +70 °C. Maximum operating altitude is 2000 m in humidity up to 95% RH. Physical dimensions are 88 mm H × 213 mm W × 380 mm D with net weight of 4.2 kg.

Key Features True synchronous triggering across all channels GPIB interface with SCSI Standard support; 300 kB/sec burst data rate 10/100BASE-T Ethernet connectivity RS-232 serial interface at up to 115200 baud VGA external monitor output Centronics parallel printer interface Safety Class 1 design; ISO 9001 certified manufacturing

Compatibility & Integration Fully backward compatible with modules from the 8153A series and forward compatible with all 8163A/B series modules. Note that 8163B series modules are not compatible with the HP 8153A mainframe. The Keysight 8166B mainframe accepts all 8163A/B modules; the Agilent 8164A mainframe supports 8153A and 8163A modules.

8163A Characteristics / Specifications

PARAMETER	VALUE
Model	8163A
Instrument Type	Lightwave Multimeter mainframe
Front Module Slots	2
Back Module Slots	0
Display Type	monochrome graphical display
Display Resolution Class	190 × 300 points visible class family
Display Power Resolution	0.0001 dB/dBm class, up to 6 1/2 digits user definable
Remote Interface	GPIB
Default GPIB Address	20
GPIB Address Range	0 to 30
Module Compatibility	816x compact modules and 8153A series modules
Supported Module Classes	power sensors laser sources attenuators switches return loss
Slot Numbering	front slots 1 to 2 left to right
Trigger Connectors	supported for module triggering class
Serial Interface	available for module firmware update class
Form Factor	benchtop lightwave mainframe
Brand Lineage	Agilent / Keysight / HP
Sibling Models	8163B color display successor
Series Family	8163A/B Lightwave Multimeter
Operating Environment Class	laboratory optical test class
Firmware Update Path	GPIB or serial module update utility
Power Mains Class	AC mains powered mainframe
User Interface	softkeys hardkeys modify knob class
Return loss	Slot Numbering: front slots 1 to 2 left to right

8163A Specifications

PARAMETER	VALUE
Agilent / Keysight 8163A Lightwave Multimeter Mainframe	Overview
Applications	Optical power, loss, and return-loss measurements using plug-in 816x modules for component and transceiver test.
Two front loadable module slots	Compatible with 816x and legacy 8153A modules
Technical Specifications	Model: 8163A

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	
From Keysight 8163A/B, 8164A/B, and 8166A/B Lightwave Mainframes User Guide and 816x configuration guide for 8163A. Module measurement limits depend on installed modules.	

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.