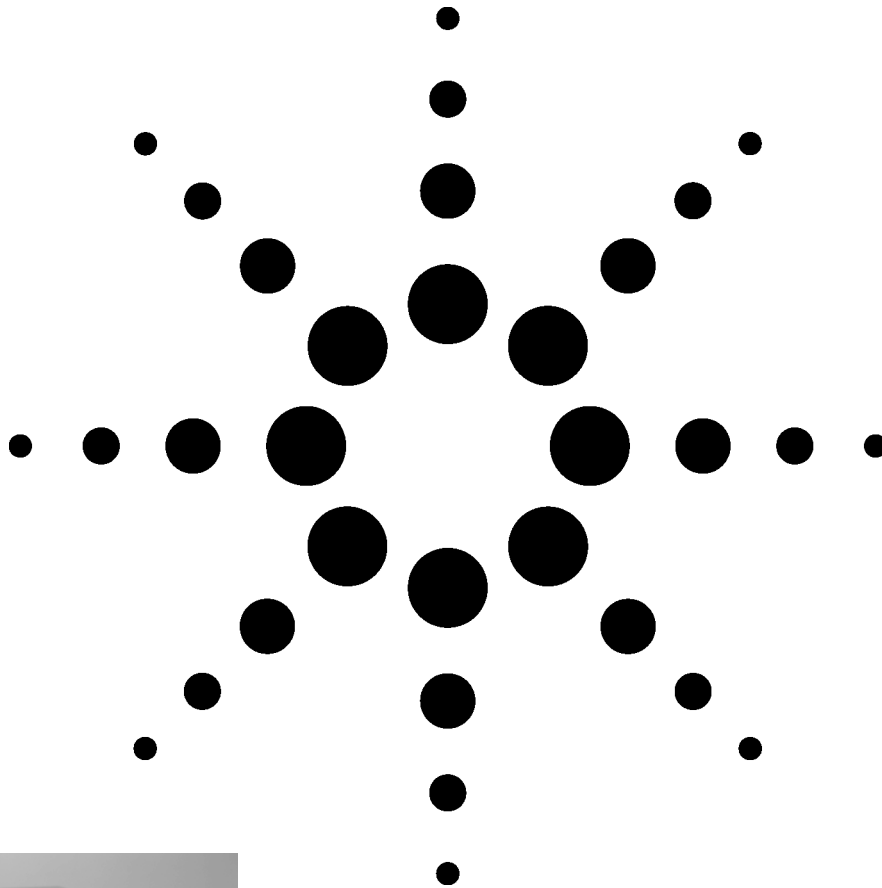


**Agilent 8163B Lightwave Multimeter**  
**Agilent 8164B Lightwave Measurement System**  
**Agilent 8166B Lightwave Multichannel System**

Technical Specifications  
May 2003



**Agilent Technologies**

## Agilent 8163B Mainframe

The Agilent lightwave multimeter system includes the mainframe and a variety of plug-in modules, suited for set-ups requiring:

- single or dual channel power meters
- single or dual wavelength fixed or tunable sources
- loss test sets
- return loss test sets

## Specifications

<b>Display</b>	Graphical active color display 300 x 240 points visible, 4 updates per second
<b>Display resolution (power meters)</b>	0.0001dB/dBm, 0.01pW to 10pW (depending on power meter) , up to 6.5 digits (user definable)
<b>Compatibility</b>	The Agilent 8163B mainframe supports all HP 8153A Series and Agilent 8163A & B Series modules. <sup>1</sup>
<b>Trigger</b>	True synchronous on all channels. Max. 100 kHz for triggering and 1 MHz (50% duty cycle) for external digital modulation.
<b>Environmental</b> Storage temperature Operating temperature Humidity	-40°C to +70°C 0°C to +45°C <95% rH from 0°C to 55°C The products are designed for pollution degree 2 The maximum operation altitude is 2000m
<b>Power</b>	AC 100 – 240 V ± 10%, 50 - 60Hz ±5%, 120VA max.
<b>Dimensions</b> (Height x Width x Length) <b>Weight</b>	88mm x 213mm x 380mm (3.5" x 8.4" x 15") net 4.200kg (9.3lbs), shipping 6.5kg (14.5lbs)
<b> GPIB capability</b>	All modes and parameters accessible via GP-IB interface
<b>GPIB interface function codes<sup>2</sup></b>	SH1, AH1, T6, L4, SR0, RL1, PP0, DC1, DT0, C0. SCPI Standard
<b>GPIB interface performance</b>	Max. 300 kB/sec (burst data rate during read of 12001 data points from power meter)
<b>Parallel Printer Interface</b>	Centronics
<b>RS232 Interface: max. baud rate</b>	115200 bps
<b>Number of modules</b>	2 Modules
<b>Ordering information</b> Agilent 8163B Lightwave Multimeter Option 908 Rack mount kit 08163-44101 Filler panel for empty slots	

<sup>1</sup> Agilent 8163B Series modules are NOT compatible with the HP 8153A Lightwave Multimeter.

<sup>2</sup> For code compatibility to the HP 8153A Lightwave Multimeter please refer to the mainframe's Programming Guide, part number 08764-91026.

# Agilent 8164B Mainframe

The Agilent 8164B Lightwave Measurement System supports a range of high-performance tunable laser modules, as well as all of the fixed source and sensor modules of the Agilent 8153A and Agilent 8163A/B Lightwave Multimeter series

## Specifications

<b>Display</b>	Graphical active color display, 640 x 480 points visible, 4 updates per second, VGA connector for external monitor
<b>Display Resolution</b>	
<b>Compatibility</b>	The Agilent 8163B mainframe supports all HP 8153A Series and Agilent 8163A & B Series modules. <sup>1</sup>
<b>Trigger</b>	True synchronous on all channels. Max. 100 kHz for triggering and 1 MHz (50% duty cycle) for external digital modulation.
<b>Environmental</b> Storage temperature Operating temperature Humidity	-40°C to +70°C 10°C to +35°C <80% rH from 10°C to 35°C The products are designed for pollution degree 2 The maximum operation altitude is 2000m
<b>Power</b>	AC 100 – 240 V ±10%, 50/60Hz , 280VA max.
<b>Dimensions</b> (Height x Width x Length) <b>Weight</b>	145 mm x 426 mm x 545 mm (5.8" x 16.9" x 21.6") net 20kg, shipping 23kg
<b> GPIB capability</b>	All modes and parameters accessible via GP-IB interface
<b>GPIB interface function codes</b> <sup>2</sup>	SH1, AH1, T6, L4, SR0, RL1, PP0, DC1, DT0, C0. SCPI Standard
<b>GPIB interface performance</b>	Max. 300 kB/sec (burst data rate during read of 12001 data points from power meter)
<b>Parallel Printer Interface</b>	Centronics
<b>RS232 Interface: max. baud rate</b>	115200 bps
<b>Number of Modules</b>	4/1 Modules
<b>Ordering Information</b> Agilent 8164B Lightwave Multimeter Option 908 Rack mount kit 08163-44101 Filler panel for empty slots (compact slots only)	

<sup>1</sup> Agilent 8163B Series modules are NOT compatible with the HP 8153A Lightwave Multimeter.

<sup>2</sup> For code compatibility to the HP 8153A Lightwave Multimeter please refer to the mainframe's Programming Guide, part number 08764-91026.

# Agilent 8166B Mainframe

The Agilent 8166B Lightwave Multichannel System can be easily integrated into test environments by using plug and play drivers over GPIB, or by using the configurable hardware input and output trigger ports.

All modules of the Agilent 8163A/B Lightwave Multimeter family can be used in any combination in the Multichannel System.

## Specifications

<b>Display</b>	Graphical active color display, 300 x 240 points visible, 4 updates per second, VGA connector for external monitor
<b>Display Resolution</b>	0.0001dB/dBm, 0.01pW to 10pW (depending on power range) , up to 6.5 digits (user definable)
<b>Compatibility</b>	The Agilent 8166B mainframe supports all modules from the 8163A/B Lightwave Multimeter series. <sup>1</sup>
<b>Trigger</b>	True synchronous on all channels. Max. 100 kHz for triggering and 1 MHz (50% duty cycle) for external digital modulation.
<b>Environmental</b> Storage temperature Operating temperature Humidity	-40°C to +70°C 0°C to +45°C <95% rH.from 0°C to 45°C The products are designed for pollution degree 2 The maximum operation altitude is 2000m
<b>Power</b>	AC 100 – 240 V ±10%, 50/60Hz, 450VA max.
<b>Dimensions</b> (Height x Width x Length) <b>Weight</b>	240 mm x 430 mm x 580 mm (9.5" x 17" x 23") net 23kg, shipping 45kg
<b>GPIB capability</b>	All modes and parameters accessible via GP-IB interface
<b>GPIB interface function codes</b> <sup>2</sup>	SH1, AH1, T6, L4, SR0, RL1, PP0, DC1, DT0, C0. SCPI Standard
<b>GPIB interface performance</b>	Max. 300 kB/sec (burst data rate during read of 12001 data points from power meter)
<b>Parallel Printer Interface</b>	Centronics
<b>RS232 Interface: max. baud rate</b>	115200 bps
<b>Number of Modules</b>	17 Modules
<b>Ordering Information</b> Agilent 8166B Lightwave Multimeter Option 908 Rack mount kit 08163-44101 Filler panel for empty slots	

<sup>1</sup> Modules designed for the HP 8153A Lightwave Multimeter are NOT compatible with the Agilent 8166A/B Lightwave Multichannel System.

<sup>2</sup> For code compatibility to the HP 8153A Lightwave Multimeter please refer to the mainframe's Programming Guide, part number 08764-91026.

This page intentionally left blank

## Agilent Technologies' Test and Measurement Support, Services, and Assistance

Agilent Technologies aims to maximize the value you receive, while minimizing your risk and problems. We strive to ensure that you get the test and measurement capabilities you paid for and obtain the support you need. Our extensive support resources and services can help you choose the right Agilent products for your applications and apply them successfully. Every instrument and system we sell has a global warranty. Support is available for at least five years beyond the production life of the product. Two concepts underlie Agilent's overall support policy: "Our Promise" and "Your Advantage."

### Our Promise

Our Promise means your Agilent test and measurement equipment will meet its advertised performance and functionality. When you are choosing new equipment, we will help you with product information, including realistic performance specifications and practical recommendations from experienced test engineers. When you use Agilent equipment, we can verify that it works properly, help with product operation, and provide basic measurement assistance for the use of specified capabilities, at no extra cost upon request. Many self-help tools are available.

### Your Advantage

Your Advantage means that Agilent offers a wide range of additional expert test and measurement services, which you can purchase according to your unique technical and business needs. Solve problems efficiently and gain a competitive edge by contracting with us for calibration, extra-cost upgrades, out-of-warranty repairs, and on-site education and training, as well as design, system integration, project management, and other professional engineering services. Experienced Agilent engineers and technicians worldwide can help you maximize your productivity, optimize the return on investment of your Agilent instruments and systems, and obtain dependable measurement accuracy for the life of those products.

### By internet, phone, or fax, get assistance with all your test & measurement needs

#### Online assistance:

[www.agilent.com/comms/lightwave](http://www.agilent.com/comms/lightwave)

#### For related literature, please visit:

[www.agilent.com/comms/lwmainframes](http://www.agilent.com/comms/lwmainframes)

#### Phone or Fax

United States:  
(tel) 1 800 452 4844

#### Canada:

(tel) 1 877 894 4414  
(fax) (905) 282-4120

#### Europe:

(tel) (31 20) 547 2323  
(fax) (31 20) 547 2390

#### Japan:

(tel) (81) 426 56 7832  
(fax) (81) 426 56 7840

#### Latin America:

(tel) (305) 269 7500  
(fax) (305) 269 7599

#### Australia:

(tel) 1 800 629 485  
(fax) (61 3) 9210 5947

#### New Zealand:

(tel) 0 800 738 378  
(fax) 64 4 495 8950

#### Asia Pacific:

(tel) (852) 3197 7777  
(fax) (852) 2506 9284

Product specifications and descriptions in this document subject to change without notice.

Copyright © 2003 Agilent Technologies  
May 20, 2003

5988-3924EN



**Agilent Technologies**