

## Discontinued Product—Support Information Only

This literature was published years prior to the establishment of Agilent Technologies as a company independent from Hewlett-Packard and describes products or services now available through Agilent. It may also refer to products/services no longer supported by Agilent. We regret any inconvenience caused by obsolete information. For the latest information on Agilent's test and measurement products go to:

[www.agilent.com/find/products](http://www.agilent.com/find/products)

Or in the US, call Agilent Technologies at 1-800-452-4844 (8am–8pm EST)



Agilent Technologies

# The HP 16500C Logic Analysis System Mainframe and HP 16501A Expansion Frame

## Technical Specifications

### Mass Storage

**Hard Disk Drive** MS-DOS<sup>®</sup> compatible formatted disk drive

IDE interface bus

### Floppy Disk Drive

Capacity 1.44 MB formatted  
Media 3.5 inch floppy  
Formats MS-DOS or LIF

### Internal RAM Memory

**Standard** 8 MB

**Option 001** 16 MB

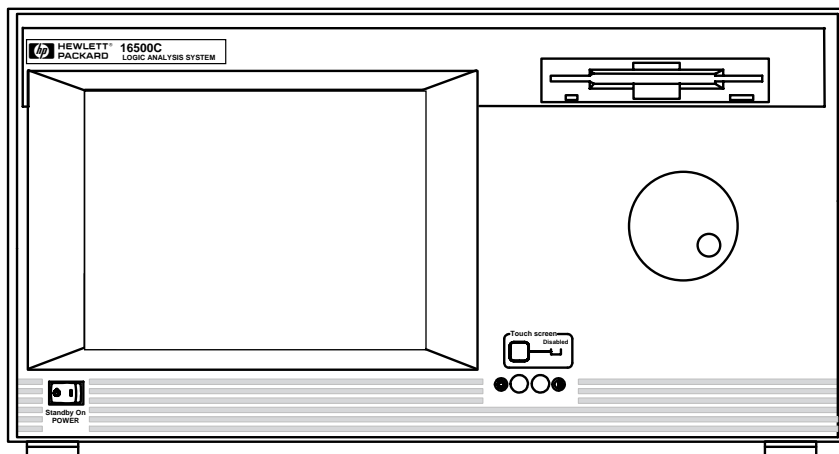
### LAN, IEEE 802.3

**Physical Connectors** RJ-45 connector for direct connection to 10Base-T ("ether-twist") networks

BNC connector for direct connection to 10Base2 ("thinlan") networks

**Protocols Supported** TCP/IP  
NFS  
FTP  
SNMP

**Program Interface** Instrument settings and operating modes may be remotely programmed through data files transmitted via NFS protocol.



**Data Files** ASCII formatted data is available from modules as indicated in the table below. Screen images are available in black and white or color TIFF and PCX file formats.

**X Windows Support** The HP 16500C supports the X Windows system version 11, release 5, as a client.

### LAN NFS Support Matrix

Features	Measurement Modules		
	HP 16517A HP 16518A HP 16550A HP 16554A HP 16555A/D HP 16556A/D	HP 16533A HP 16534A	HP 16522A
ASCII Data Files	State per Label Timing per Label	Digitized Analog Data	Download Vector Files
Binary Data	Yes	Yes	No
Status Files	Yes	Yes	No
Program Files	Yes	Yes	Yes

## Other Interfaces

### RS-232-C, 9-Pin Connector

#### RS-232-C Configurations

Protocols	Xon/Xoff, None
Data bits	8
Stop bits	1, 1 1/2, 2
Parity	none, odd, even
Baud rates	110, 300, 600, 1200, 2400, 4800, 9600, 19200

### HP-IB (IEEE488)

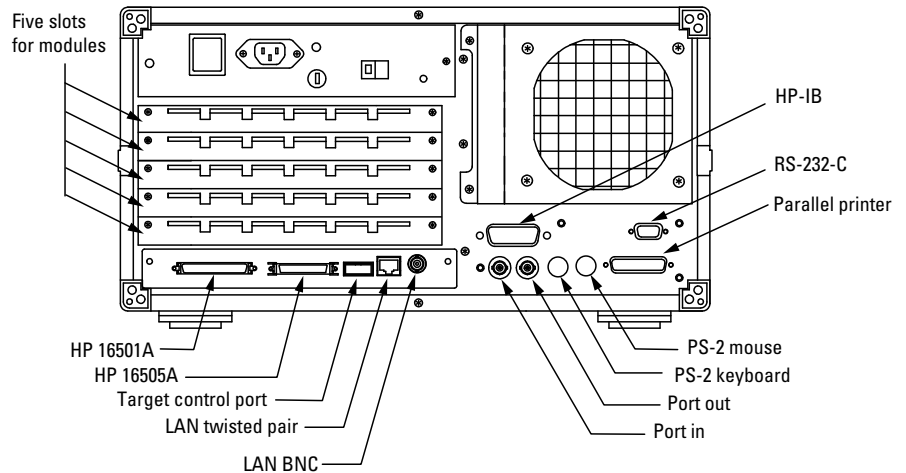
HP-IB interface functions	SH1, AH1, T5, TE0, L3, LE0, SR1, RL1, PP1, DC1, DT1, C0, E2
---------------------------	---

### Centronics Parallel

## Printing

<b>Printer Interfaces</b>	Centronics parallel RS-232-C HP-IB
<b>Printers Supported</b>	Printers which support the HP Printer Control Language (PCL).  Recommended: HP DeskJet 680C HP LaserJet 4L  Epson FX80, LX80, and MX80 printers with Centronics parallel or RS-232-C interfaces are supported in the Epson 8-bit graphics mode.

<b>Keyboard</b>	Any PS-2 style keyboard with a DIN connector is supported. The HP E2427B keyboard is available which includes an overlay for special function keys. See "Accessories available" below.
-----------------	--



HP 16500C rear panel

## Intermodule Bus (IMB)

<b>Run Control</b>	Oscilloscope, timing analyzers, state analyzers, and pattern generator modules can be armed by Group Run.  Modules can be armed concurrently (independently) or can be armed in series.  Each module can arm one or more other modules.  HP 16554A, 16555A, 16555D, 16556A, and 16556D modules can trigger each other in an "OR" configuration.
--------------------	---

## Mixed Display Modes

Any timing or oscilloscope waveform displays from different modules armed together on a group run can be mixed.

Time-correlated state listings can be included with waveforms in the state/timing mixed mode display, provided that time tags are turned on in the state analyzer and the modules are combined in a group run.

## Time Interval Accuracy Between Modules

The sum of the channel-to-channel time-interval accuracy of each module used in the measurement for a de-skewed measurement.

<b>Time Correlation Resolution</b>	2 ns
------------------------------------	------

---

**Port In/Out**

---

**Connectors** BNC**Port In**

Levels TTL, ECL, or user-defined

Input Resistance 4 K $\Omega$ 

Input Voltage -6 V at -1.5 mA to +6 V at 1.6 mA

**Port Out**Levels 3-V TTL compatible into 50  $\Omega$ Functions (user selectable) Latched until next RUN  
Latched until STOP  
Pulsed, width from 40 to 80 ns  
Static open-collector

---

**Target Control Port**

---

**Number of Signals** 8**Levels** 3-V TTL compatible**Connector** 2 x 5 (2 rows; 5 pins/row), 0.1-inch centers**Functions** All bits can be individually set to open collector.  
Activity indicators are provided on all bits.  
Up to eight vectors can be programmed in memory. Vectors can be sequenced manually.  
Outputs can be individually pulsed, individually set to high, low, or high-impedance, or stepped to the next step of a pre-stored sequence.

---

**Operating Environment**

---

**Temperature**

Instrument 0° to 50 °C (32° to 122 °F)

Disk media 10° to 40 °C (50° to 104 °F)

Probes and cables 0° to 65 °C (32° to 149 °F)

**Altitude** To 3000 m (10,000 ft)**Humidity** 8% to 80% relative humidity at 40° C (104° F)**Vibration, Operating** Random vibration 5 to 500 Hz, 10 minutes per axis, 0.3 g RMS**Vibration, Non-operating** Random vibration 5 to 500 Hz, 10 minutes per axis, 2.41 g RMS  
Swept sine resonant search, 5 to 500 Hz, 0.75 g (0-peak), 5 minute dwell at 4 resonances per axis**Power** 115/230 V, 48 to 66 Hz, 475 W max

---

**Weight**

---

**HP 16500C (max. net)** 18.1 kg (40 lb.) + [0.7 kg (1.6 lb.) x number of modules]**HP 16500C (max. shipping)** 25.9 kg (57 lb.) + [3.6 kg (8 lb.) x number of modules]**HP 16501A (max. net)** 13.6 kg (30 lb.) + [0.7 kg (1.6 lb.) x number of modules]**HP 16501A (max. shipping)** 21.3 kg (47 lb.) + [3.6 kg (8 lb.) x number of modules]

## Dimensions

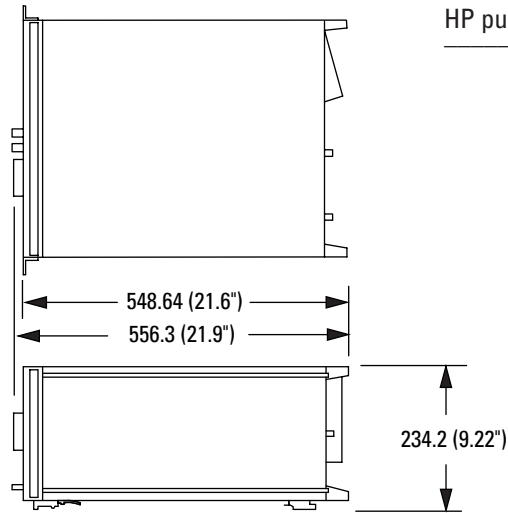
222.2 mm (8.75 in) x 425.7 mm (16.76 in) x 548.6 mm (21.6 in) including rear feet, but not bottom feet.

## Accessories Supplied

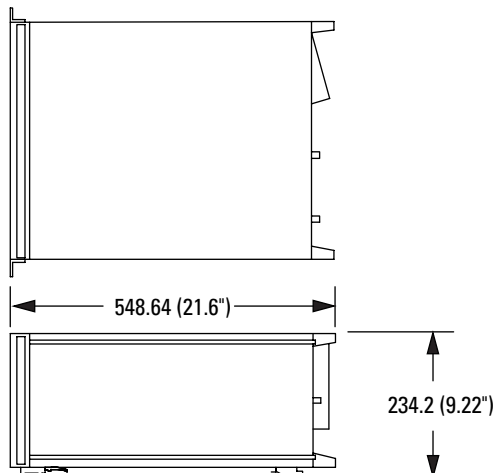
One HP A2839B, 3-button DIN mouse  
Ten-conductor flying-lead cable for target control port

## Accessories Available

HP E2427B, PC-style keyboard with overlay



HP 16500C



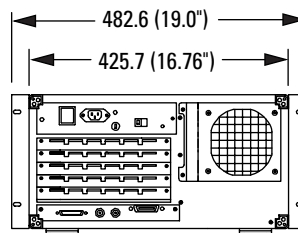
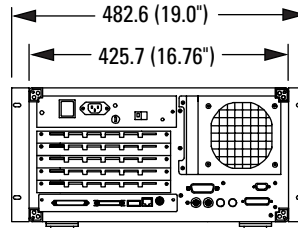
HP 16501A

## Warranty

HP hardware products are warranted against defects in materials and workmanship for a period of one year from date of shipment. Some newly manufactured HP products may contain remanufactured parts, which are equivalent to new in performance. If you send notice of defects during the warranty period, HP will either repair or replace hardware products that prove defective.

## Configuration

For configuration information, refer to HP pub. no. 5965-3185E.



For more information about Hewlett-Packard test and measurement products, applications, services, and for a current sales office listing, visit our web site: <http://www.hp.com/go/tmdir> You can also contact one of the following centers and ask for a test and measurement sales representative.

**United States:**  
Hewlett-Packard Company  
Test and Measurement Call Center  
P.O. Box 4026  
Englewood, CO 80155-4026  
(tel) 1 800 452 4844

**Canada:**  
Hewlett-Packard (Canada) Ltd.  
5150 Spectrum Way  
Mississauga, Ontario  
L4W 5G1  
(tel) 1 877 894 4414

**Europe:**  
Hewlett-Packard Company  
European Marketing Organisation  
P.O. Box 999  
1180 AZ Amstelveen  
The Netherlands  
(tel) (31 20) 547 9999

**Japan:**  
Hewlett-Packard Japan Ltd.  
Measurement Assistance Center  
9-1, Takakura-Cho, Hachioji-Shi,  
Tokyo 192-8510, Japan  
(tel) (81) 426 56 7832  
(fax) (81) 426 56 7840

**Latin America:**  
Hewlett-Packard Company  
Latin American Region Headquarters  
5200 Blue Lagoon Drive  
9th Floor  
Miami, Florida 33126  
U.S.A.  
(tel) (305) 267 4245/4220  
(fax) (305) 267 4288

**Australia/New Zealand:**  
Hewlett-Packard Australia Ltd.  
31-41 Joseph Street  
Blackburn, Victoria 3130  
Australia  
(tel) 1 800 629 485 (Australia)  
(tel) 0 800 738 378 (New Zealand)  
(fax) (61 3) 9210 5489

**Asia Pacific:**  
Hewlett-Packard Asia Pacific Ltd  
17-21/F Shell Tower, Times Square,  
1 Matheson Street, Causeway Bay,  
Hong Kong, SAR  
(tel) (852) 2599 7777  
(fax) (852) 2506 9285

Technical data is subject to change

Printed in U.S.A.  
5965-3184E

2-99