Logic Analysis System Upgrade

Technical Specs

Protect Your Investment in Digital System Debug Tools

Moving Forward with HP

If you now own an HP 16500 Series logic analysis system, you can take advantage of the benefits of an HP 16700A Series logic analysis system with integrated emulation, while preserving your investment in HP 16500 Series logic analysis systems.

The Advantage of Insight

When integrating and debugging prototypes of complex digital products, the HP 16700A Series logic analysis systems save you time and increase your confidence in the reliability and performance of your product.

More Windows on the Problem

HP 16700A Series logic analysis systems let you examine system behavior from multiple angles — code execution, bus activity, timing, and signal integrity — simultaneously. With integrated emulation capabilities, you gain insight into tough hardware-software integration problems even faster.

Solutions to Match Your Needs *and* Your Budget

The flexible architecture of the HP 16700A Series logic analysis systems lets you add capabilities when you need them. You can use the components of your HP 16500 system with the HP 16700A Series or trade them in, saving you even more money.

Easy-to-Use Solutions for Complex Problems

You have enough of a headache debugging your prototype. The HP 16700A Series logic analysis system harnesses the power and flexibility you need to solve tough problems behind an intuitive user interface that lets you focus on your design instead of on the test equipment.

If you now own:	To upgrade to an HP 16700A or 16702A system:
Logic analysis system frames • HP 16500A • HP 16500B • HP 16500C Prototype analyzer, HP 16505A (with HP 16500B or 16500C frame)	Trade in your logic analysis system frame and prototype analyzer (optional) for credit toward the purchase of an HP 16700A or 16702A frame.
Expansion frame, HP 16501A	Trade in your HP 16501A for credit toward the purchase of an HP 16701A expansion frame, which works with the HP 16700A and 16702A.
Measurement modules	Some measurement modules can be used with the HP 16700A Series logic analysis systems. Those that cannot can be traded in for a 12% discount on newer modules. Refer to Table 2.
Tool sets • HP B4600A System performance analysis • HP B4620A Software analyzer • HP B4601A Serial analysis	If you own a tool set for an HP 16505A prototype analyzer, and you are trading in your HP 16505A for an HP 16700A or 16702A, you will be issued a new license for the equivalent tool set installed on the HP 16700A Series mainframe.
Preprocessors and inverse assemblers	All preprocessors (now referred to as analysis probes), whether made by HP or HP channel partners, are compatible with the HP 16700A Series. All inverse assemblers are compatible with the HP 16700A Series.
Processor probes or software probes	Any HP processor probe or software probe can be traded for an equivalent HP emulation module for no charge. Up to two emulation modules can be installed in the HP 16700A Series logic analysis systems mainframe.

Table 1: System Upgrade Chart

These measurement modules are not supported by the HP 16700A Series logic analysis system. Any module from this list, with the exception of the HP E2474A, can be traded in for a 12% discount on any available measurement module with the purchase of an HP 16700A Series logic analysis system frame. Up to ten modules can be traded in with each HP 16500 system that is traded in.		These measurement modules are supported by the HP 16700A Series logic analysis system.
HP 16510A HP 16510B HP 16511B HP 16515A HP 16516A HP 16520A HP 16521A HP 16530A HP 16531A	HP 16532A HP 16540A HP 16540D HP 16541A HP 16541D HP 16542A HP 16535A HP E2474A	HP 16710A, 8K-deep state/timing analyzer HP 16711A, 32K-deep state/timing analyzer HP 16712A, 128K-deep state/timing analyzer HP 16517A, 4-GSa/s timing analyzer HP 16518A, 4-GSa/s timing analyzer expander HP 16550A, 4K-deep 100-MHz state/500-MHz timing analyzer HP 16554A, 500K-deep state/timing analyzer* HP 16555A, 1 M-deep state/timing analyzer* HP 16555D, 2 M-deep state/timing analyzer HP 16556A, 1 M-deep state/timing analyzer* HP 16556D, 2 M-deep state/timing analyzer HP 16557D, 135-MHz, 2 M-deep state/timing analyzer HP 16522A, 200 Mvector/second pattern generator HP 16533A, 250-MHz oscilloscope HP 16534A, 500-MHz oscilloscope * supported but not available

Table 2: Measurement Module Compatibility

File Compatibility

Configuration and measurement data files from any of the measurement modules listed in the right hand column of table 2, which were saved in an HP 16500A, 16500B, 16500C, or 16505A, can be used for the same measurement module installed in an HP 16700A Series mainframe.

Files stored in an HP 16600A Series or HP 16700A Series logic analysis system cannot be read by an HP 16500C or 16505A.

Compatibility with Debugger Connections

All connections to third-party debuggers that were part of HP distributed emulation solutions also exist for the HP 16700A Series.

How You Benefit by Upgrading to the HP 16700A Series

Integrated Emulation

Combining processor run control with logic analysis lets you untangle the toughest hardware-software integration problems. You save money by purchasing only one platform for all your digital prototype debug tools. With all the hardware and software debug tools in one framework, working together, you can now find solutions faster than ever.

Unleashed Power to Explore

You want tools that are easy to learn so that you quickly gain insight into hard problems. HP has led the way in developing easy-to-use interfaces for logic analyzers.

The HP 16700A Series user interface builds on HP's years of experience working with customers and on extensive usability testing to set a new standard in ease of use.

Setup Assistant for Fast Analyzer Setup

Usability testing reveals that one of the hardest parts of using a logic analyzer is connecting it to the target and setting it up to make measurements. The setup assistant in the HP 16700A Series guides you through all the necessary steps.

Security for Your LAN

You can assign user names and passwords with the HP 16700A Series to control LAN access.

Should You Upgrade Now?

You may decide to use your HP 16500 Series logic analysis systems while purchasing new HP 16700A Series logic analysis systems as your needs grow.

HP will be introducing new measurement modules, tool sets, and software updates for the HP 16700A Series logic analysis system. These will only be compatible with the HP 16700A Series. If you want the maximum headroom for future needs, you should consider upgrading to the HP 16700A Series.

HP will continue to support your HP 16500B/C and 16505A throughout the remainder of their support life, but new features, capabilities, or performance improvements will not be added to them.

Analysis probes for future processors may or may not be supported by the HP 16500C and 16505A, depending on the capabilities required by the processor.

Installation Service

HP can help you quickly harness the power of your new HP 16700A Series logic analysis system by providing on-site installation of your existing 16500 measurement modules in your new HP 16700 or 16702A mainframe. Services can include:
• Installation
• Operational verification
• Configuration/Data file migration

Training and Consulting Service

HP has experienced Digital Systems Consultants who can help you maximize the utilization of your emulation and analysis system through training and consulting. Digital Systems Consultants are peaked in debugging complex digital hardware/software problems and hardware/software integration.

HP training can be delivered through scheduled courses, on-site classes, or one-on-one consulting. HP has courses for beginner as well as advanced users migrating from the 16500 Series system. Topics covered can include:
• System Installation
• Complex Triggering
• Multiple Bus Analysis
• HP 16700A Series/HP 1660XA Networking
• Source Line Referencing
• Serial Bus Analysis
• System Performance Analysis
• Instrumenting Code to Solve Specific Issues

Call 1-800-593-6632 in the U.S. for information about training schedules and location or to register. For training offered in other geographies and languages, consult the HP Test and Measurement education web site at: http://www.hp.com/go/tmeducation

For consulting services, contact your local HP sales office.

Ordering Information

Contact your local HP sales office for complete instructions and information on upgrading to an HP 16700A Series logic analysis system. When you place your order, you will receive a packet that includes return instructions and mailing labels for equipment that you are trading in. Equipment to be traded in must be received by HP within 14 days after you receive your new HP 16700A Series logic analysis system and any new modules, emulation solutions, and tool sets you order with it.

Have the model numbers and serial numbers of the equipment you intend to trade in and the prototype analyzer identification number for any tool sets when you contact HP. The amount of credit you will qualify for is based on the date of purchase of the HP 16500 frame and 16505A prototype analyzer. HP uses the serial numbers to determine the date of shipment.

Trade-in credit will be verified against the equipment returned.

Please include the following information with the return shipment:
• The HP product numbers and serial numbers of the returned equipment
• The HP order number for the new equipment
• Your name, telephone number, and extension
• Company name and address

To receive on-site installation service, order HP 16700A+17A or HP 16702A+17A.

Related HP Literature

Related HP Literature	Pub. Number
Digital Design and Debug Tools Catalog	5967-6335E
HP 16600A and 16700A Series Logic Analysis System Mainframes, Product Overview	5966-3107E
Processor and Bus Support for HP Logic Analyzers, Configuration Guide	5966-4365E
State and Timing Modules for HP Logic Analysis Systems, Product Overview	5966-3367E
Oscilloscope Modules for HP Logic Analysis Systems, Product Overview	5966-3150E
Post-Processing Tool Sets for the HP 16600A and HP 16700A Series Logic Analysis Systems, Product Overview	5966-3147E

Warranty Information

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

HP software and firmware products that are designated by HP for use with a hardware product are warranted for a period of one year from date of shipment to execute their programming instructions when properly installed. If you send us notice of defects in materials workmanship during the warranty period, we will repair or replace these products, so long as the defect does not result from buyer-supplied hardware or interfacing. The warranty period is controlled by the warranty statement included with the product and begins on the date of shipment.