
HP AdvanceStack High-Speed Network Hubs

100VG
AnyLAN





HP AdvanceStack High-Speed Network Hubs

Whether your workgroup is small or large, self-contained or integrated into a larger organization, HP AdvanceStack hubs offer expandability and economy when connecting your workgroup. Buy what you need now, then add new functionality to your network as your needs change.

And for the optimum performance required by demanding applications and heavy network traffic, you can incorporate 100VG performance in easy, cost-effective steps, where and when you need it.

Choose your HP AdvanceStack 100VG-AnyLAN hubs from a range of port counts and modularity.

Why 100 Mbps?

With the arrival of new micro-processors, such as the Intel Pentium™ and PowerPC systems, advanced disk storage methods, and rapidly decreasing costs, the way is paved for mission-critical PC-based LAN applications that, until recently, were only possible with a mainframe.

Although not all users require 100 Mbps network performance to the desktop today, many LAN-intensive applications are already pushing the limits of existing 10 Mbps LANs, and they can

benefit from using 100 Mbps technology now. Emerging data-intensive applications and technologies—such as multimedia, groupware, imaging, and client-server databases—will soon make 100 Mbps networking a critical part of most LANs.

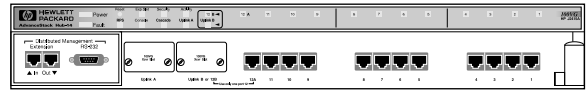
As network servers become more powerful, they will be relocated from local connections to the data center and will require 100 Mbps high-speed connections to the network backbone to provide cost-effective, centralized performance.

What technology is best suited to the growing high-speed requirements of today's LAN?

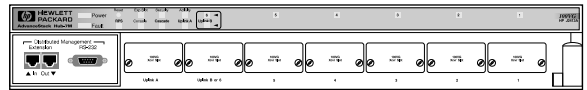
100VG offers the best price/performance for a shared 100 Mbps solution. Switching increases the capacity of existing shared networks such as 10Base-T, 100VG, and 100Base-T and smoothes the migration to new technologies. The combination of these complementary technologies allows Hewlett-Packard to offer a wide range of network designs.

HP AdvanceStack 100VG-AnyLAN Hubs and Accessories: At a Glance

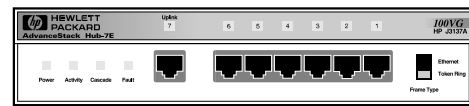
- HP J2415A AdvanceStack 100VG Hub-14**
100 Mbps expandable, stackable hub designed for high-performance workgroups. Provides fiber-optic connectivity, redundant uplink, support of Token Ring frames, and a redundant power supply option.



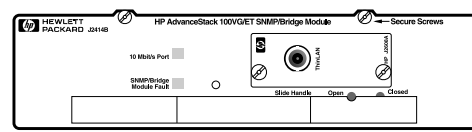
- HP J2413A AdvanceStack 100VG Hub-7M**
Complements Hub-14 to build high-speed networks and interconnected workgroups. Supports seven ports and provides complete modularity in terms of connectivity. Slide-in transceivers ensure 100 Mbps connection over a choice of media (STP, UTP, and fiber-optic).



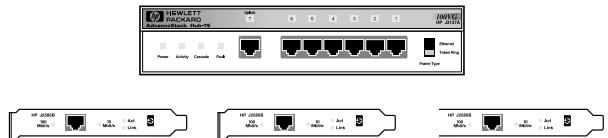
- HP J3137A AdvanceStack 100VG Hub-7E**
Entry-level high-speed hub for small standalone workgroups running in a Token Ring or Ethernet environment.



- HP J2414B AdvanceStack 100VG SNMP/Bridge Module**
Inserts into the expansion slot of HP AdvanceStack 100VG Hub-14 and Hub-7M to connect 100 Mbit networks to 10 Mbit networks. It provides SNMP-based extended management capabilities and 10:100 bridge functionality. Includes HP AdvanceStack Assistant network management software.

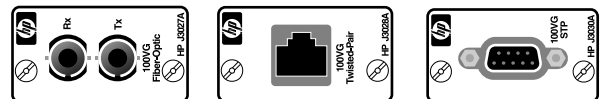


- HP J3166A AdvanceStack High-Speed Network Bundle**
Includes HP J3137A 100VG Hub-7E, three HP DeskDirect 10/100VG PCI LAN adapters, and a cable.



HP AdvanceStack transceiver modules for 100 Mbps connections

- HP J3027A AdvanceStack 100VG Fiber-optic Transceiver**
- HP J3028A AdvanceStack 100VG UTP Transceiver**
- HP J3030A AdvanceStack 100VG STP Transceiver**
"Slide-in" transceivers providing fiber-optic, UTP, or STP connectivity when used with HP J2415A AdvanceStack 100VG Hub-14, HP J2413A AdvanceStack 100VG Hub-7M, HP J3103A AdvanceStack Switch 2000 100VG Module, and HP J2981A 100VG Module for 10/100 LAN Switch-16 for optimized network reliability and flexibility.



HP AdvanceStack 100VG-AnyLAN Hubs: A Closer Look

HP AdvanceStack 100VG Hubs:



HP J3137A AdvanceStack 100VG Hub-7E



HP J2413A AdvanceStack 100VG Hub-7M



HP J2415A AdvanceStack 100VG Hub-14

HP AdvanceStack 100VG Hub Bundles:



HP J3166A AdvanceStack High-Speed Network Bundle (J3137A plus three HP DeskDirect 10/100VG PCI LAN adapters and cable)

HP AdvanceStack 100VG Hub-7E is an economical, entry-level high-speed hub that provides a cost-effective solution for small stand-alone workgroups in Ethernet or Token Ring environments.

HP AdvanceStack 100VG Hub-7M and Hub-14 are manageable and expandable high-speed hubs. While the Hub-14 is used to connect end nodes in a workgroup, the Hub-7M is ideal for interconnecting high-performance workgroups in Ethernet or Token Ring environments. They both incorporate a rich set of features, while retaining the flexibility and economy of stackable hubs.

All three models are ideal for networks that require high-speed connectivity for new or demanding applications such as multimedia, imaging, and video.

Highlights

- **On-demand access to new applications**

HP AdvanceStack 100VG hubs and 10/100 LAN adapters provide a powerful 100 Mbps networking solution that supports new applications requiring a high-speed, low-latency, deterministic network. This is made possible by two breakthrough technologies: Demand Priority Access and Quartet Signaling. Demand Priority Access is the protocol used to provide network users with centrally controlled on-demand access—with guaranteed bandwidth and low latency. Quartet Signaling is a highly efficient signaling scheme that utilizes the four wire pairs for data transmission on various media types.

HP AdvanceStack 100VG-AnyLAN Hubs: A Closer Look

- **Compatibility**

The same network design rules of 10Base-T (cascading, cabling types, and network diameter) apply to 100VG-AnyLAN. And since 100VG technology conforms to the IEEE 802.12 standard for 100 Mbps networking over four-pair unshielded twisted-pair cables (category 3, 4, or 5), HP AdvanceStack 100VG hubs integrate into the network without costly recabling.

HP AdvanceStack 100VG hubs support standard Ethernet and Token Ring packets to ensure compatibility with existing applications.

- **Reliability**

HP AdvanceStack 100VG hubs rely on proven 100 Mbps technology, which results in products that adhere to the Hewlett-Packard tradition of unparalleled quality and reliability.

Each HP AdvanceStack 100VG hub includes a lifetime warranty (first five years onsite) and is backed by HP's leading product support organization.

- **Ease of use**

HP AdvanceStack 100VG Hub-7E provides "plug-and-forget" ease of use. Simply connect the hub to your small standalone network and forget about it.

As your workgroup grows, the Hub-7E can be connected to an HP AdvanceStack 100VG Hub-14, Hub-7M, or AdvanceStack switch to connect to an existing 100VG or 10Base-T network, or to interconnected networks for expanded capabilities.

- **Advanced functionality**

HP AdvanceStack 100VG Hub-7M and Hub-14 offer a built-in expansion slot that allows you to add functionality to the entire 100VG stack as needed—without purchasing redundant hardware.

Add-on capabilities include SNMP management, security, bridging/routing, or remote access.

- **Manageability**

HP AdvanceStack 100VG Hub-7M and Hub-14 come with HP Stack Manager, a Microsoft Windows-based management software application for out-of-band management such as configuration, troubleshooting, and monitoring of the entire stack. Communicate to any hub in the stack by connecting directly to the built-in RS-232 port, or dial in via a modem on any one hub in the stack. For true plug-and-play operation, the hub comes with a serial cable to attach a PC to the RS-232 port. When you require SNMP management or network performance management, you can upgrade seamlessly to the industry-leading HP OpenView line of management software solutions.

Standard Features

- All three hubs include easy-to-view LEDs for power, fault, expansion slot, console, security, transceiver slot, activity, uplink, cascade, bridge, and per-port status—providing instant hub status and troubleshooting assistance.
- The Hub-7E has fixed port configuration, with six RJ-45 connectors for downlink connections and one RJ-45 connector for uplink.
- The Hub-14 has twelve fixed RJ-45 connectors for downlink connections and two transceiver garages: one for uplink and one for either an uplink or a downlink connection.
- The Hub-7M is completely modular and has seven transceiver garages with five designated for downlinks, one for uplink, and another that can be used as an uplink or a downlink connection.

- The transceiver garages on both the Hub-14 and Hub-7M can be used to connect to different cable types using the following HP transceiver modules: J3027A (fiber-optic), J3028A (UTP), or J3030A (STP).
- The Hub-7M and Hub-14 provide "hot-swap" capabilities that allow you to add or replace any hub in a stack without interrupting the normal operations of other 100VG nodes on the network.

Advanced Features* (Hub-7M and Hub-14)

- Include Intel i960 RISC-based processor, 28 Mbytes RAM, and 128 Kbytes Flash EEPROM to provide ample processing power and memory capacity for future network management needs.
- Provide bridging capability between 10Base-T and 100VG networks.
- Provide workgroup security features: network management alarms, authorized managers list, and password protection.
- Support SNMP/IP and IPX network management on HP OpenView network management products. Also manageable via any management station with standard SNMP MIB browser functionality.
- Provide instrumentation for intelligent network traffic monitoring, performance optimization, and trend analysis using HP EASE (Embedded Advanced Sampling Environment) applications.

** Features available when an optional HP J2414B AdvanceStack 100VG SNMP/Bridge Module and/or OpenView software is installed.*

Please see your authorized dealer for configuration requirements.

HP AdvanceStack 100VG-AnyLAN Hubs: Comparative Features

Description	HP J2415A AdvanceStack 100VG Hub-14	HP J2413A AdvanceStack 100VG Hub-7M	HP J3137A AdvanceStack 100VG Hub-7E
Ports:			
- Uplinks:			
RJ-45 fixed	0	0	1
Garage with opt. transceiver	1 up only 1 up/down ⁴	1 up only 1 up/down	0
- Downlinks:			
RJ-45 fixed	12	0	6
Garage with opt. transceiver	0	5	0
- RS-232 console port	•	•	•
- RS-422 distributed management ports	•	•	
- EASE network traffic sampling ¹	•	•	
- SNMP/IP/IPX management ¹	•	•	
- Redundant link support ³	•	•	
- Port security ²	•	•	•
- Power supply	Internal	Internal	External
- Warranty (industry-leading)	Lifetime limited warranty, first 5 years onsite	Lifetime limited warranty, first 5 years onsite	Lifetime limited warranty, first 5 years onsite
HP AdvanceStack Hub Accessories (For details refer to HP AdvanceStack Network Accessories data sheet)			
HP J2414B 100VG SNMP/Bridge Module	•	•	
HP J3157A AdvanceStack Dial-A-LAN 2A/Plus and 100VG SNMP Module Bundle ⁵	•	•	
HP J3158A AdvanceStack Dial-A-LAN 4A and 100VG SNMP Module Bundle	•	•	
HP J3159A AdvanceStack Router 210 and 100VG SNMP Module Bundle	•	•	
HP J3027A 100VG Fiber-optic Transceiver	•	•	
HP J3028A 100VG UTP Transceiver	•	•	
HP J3030A 100VG STP Transceiver	•	•	

¹ With HP J2414B 100VG SNMP/Bridge Module installed in one hub in the stack of up to 16 hubs.

² Built into Demand Priority Access Method as part of the IEEE 802.12 standard.

³ Using the Uplink/Downlink port for redundant uplink connection.

⁴ When configured as a downlink, one of the fixed RJ-45 ports will be disabled.

⁵ Available in U.S. only.

HP AdvanceStack 100VG-AnyLAN Hubs: Specifications and Standards

Product Specifications

Description	HP J2415A AdvanceStack 100VG Hub-14	J2413A AdvanceStack Hub-7M	HP J3137A AdvanceStack Hub-7E
Environmental Characteristics:			
- 0°C to 55°C operating temperature	•	•	•
- Relative humidity:			
15 – 95% @ 40°C, noncondensing	•	•	•
Physical Characteristics:			
- Dimensions	44.2 x 30.0 x 6.6 cm 24.0 x 8.5 in	44.2 x 30.0 x 6.6 cm 24.0 x 8.5 in	21.6 x 19.0 x 4.5 cm 8.5 x 7.5 x 1.75 in
- Weight	4.5 kg 16.8 lb	4.5 kg 16.8 lb	1.45 kg 3.2 lb
Electrical Characteristics:			
- Voltage:			
100-127 V ac / 200-240 V ac	•	•	•
- Current: 0.9 A max / 0.6 A max	•	•	•
- Frequency: 50/60 Hz – 50/60 Hz	•	•	•

Standards

Description	HP J2415A AdvanceStack 100VG Hub-14	J2413A AdvanceStack Hub-7M	HP J3137A AdvanceStack Hub-7E
Communications:			
- IEEE 802.12	•	•	•
- With SNMP Module:			
RFC 1213: MIB 11	•	•	
RFC 1493: Bridge MIB	•	•	
- With SNMP and transceiver modules:			
10Base-T	•	•	
IEEE 802.3	•	•	
Safety:			
- UL 1950 - CSA 950 - IEC 950	•	•	•
Emissions:			
- FCC Class A	•	•	•
- CISPR-22 Class A	•	•	•
- EN 55022 Class A	•	•	•
- VCCI Level 1	•	•	•
Immunity:			
- ESD: IEC 801-2: pr EN 55024-2	•	•	•
- Radiated Immunity: IEC 801-3: pr EN 55024-3	•	•	•
- EFT/Burst: IEC 801-4: pr EN 55024-4	•	•	•

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Product literature, frequently asked support questions, and other information are available on HP's Network Connectivity Home Page on the World Wide Web.

From your browser, type the URL:

http://www.hp.com/go/network_city
