HP Vectra XA PC

Technical Data

High-Performance PC for Advanced Business Users

PCs that Deliver

- High-performance Intel Pentium® Pro 180- or 200-MHz processor optimized for 32-bit environments

- 32-bit PCI professional video solution with 64-bit graphics engine featuring 3D hardware acceleration

- High-performance Extended Data Output (EDO) DRAM

- 10Base-T Ethernet controller integrated on the PCI bus

- Enhanced manageability with LAN Remote Power technology

- PCI Bus Master Enhanced-IDE controller with PIO Mode 4 support

- Keyboard start and soft power-off

- Advanced password security

Standard Features

When You Start Up an HP Vectra XA PC, Be Sure to Fasten Your Seatbelt.

If the limitations of 16-bit operating systems have kept you from going Pentium Pro, it's time to take your foot off the brakes. Because, with Hewlett-Packard's desktop HP Vectra XA PCs, those old speed limits are history.

Windows® NT Platform of Choice

Designed from the bottom up for 32-bit Windows NT applications, these PCs incorporate Intel's 180- and 200-MHz Pentium Pro processors with integrated secondary cache. This cache operates at the same speed as the processor—significantly improving system performance. To further enhance performance, HP has added numerous *other* advanced features.

For fast memory access, the HP Vectra XA PCs offer up to 192 Mbytes of high-performance EDO DRAM, and for top hard disk drive performance, a PCI Bus Master Enhanced-IDE controller. Their Matrox Millennium video solution with 3D acceleration delivers true-color desktop publishing, professional video playback, and full-screen 3D animation—plus dual-ported Window RAM (WRAM) to simultaneously process graphics and screen output. All models offer an 8X-speed CD-ROM drive, and some feature integrated audio with a built-in speaker and ergonomic volume control.

Built-in Networking and Management

With these HP PCs, the cutting edge doesn't stop with *performance.* It's their state-of-the-art *networking and manageability*

PC System Features	
CPU	• Intel Pentium Pro 180- or 200-MHz processor
Package	• Midsize desktop • HP Windows 95 Keyboard with additional keys and HP-exclusive, instant-on StartKey • HP Mouse (hard disk models)
Cache	• 16-KB Level 1 internal to processor • 256-KB Level 2 internal to processor
Memory	• 16-MB (2×8-MB) or 32-MB (2×16-MB), 60-ns EDO DRAM standard, expandable to 192-MB through six SIMM slots
Mass storage shelves	• **Four shelves** (three front-accessible): – One front-accessible with standard, third-height 3.5-inch floppy drive installed – One front-accessible, half-height 5.25-inch with CD-ROM drive installed – One front-accessible, third-height 3.5-inch or 5.25-inch for floppy drive, tape backup, PCMCIA drive, or internal second hard disk drive – One internal, third-height with 3.5-inch primary hard disk drive installed
Accessory slots	• **Four slots:** – Two full-length PCI (Matrox Millennium card uses one slot) – One two-thirds–length ISA (audio board on selected models uses this slot) – One combination full-length PCI/two-thirds–length ISA
Floppy disk drive	• Third-height, 3.5-inch, 1.44-MB floppy drive installed
Hard disk drives	• 1.28-GB or 2.5-GB EIDE
CD-ROM	• 8X EIDE CD-ROM drive
Audio subsystem (selected models)	• Integrated Sound Blaster™ 16 and Sound Blaster Pro–compatible audio • Advanced, software-based, real-time audio with automatic dynamic filtering for digital audio recording and playback • Built-in speaker and ergonomic volume control • Compression/decompression system • MPC-3–compliant
Hard disk controller	• PCI Bus Master Enhanced-IDE (DMA Mode 2) controller with PIO Mode 4 support for top hard disk drive performance (up to four Fast-IDE devices supported)

Standard Features *continued*

features that put our PCs on top for networked businesses. Integrated Ethernet networking with an optional coax module, LAN drivers, and certification with a wide range of LAN environments ensure that you'll get the HP Vectra XA PCs up and running on your network in minutes. And industry-standard HP DMI allows you to remotely manage more than 300 PC attributes from all major PC management platforms, including HP OpenView.[1]

For further ease of management and cost savings, HP's LAN Remote Power technology lets you remotely awaken these PCs from "sleep" or "power-off" modes. And our new Vectra Op-Center Help Desk management applications give you access to all the information you need for inventory and asset management.

Advanced Security

To keep your PCs safe and your critical data secure, the HP Vectra XA PCs offer advanced security features such as multi-level pass-

words, a ROM-based socket for virus protection, and asset tracking. And speaking of security, the HP Vectra XA PCs—like all HP Vectra PCs—offer you the peace of mind that comes only with the industry-leading quality, reliability, support, and investment protection you get from HP.

So why not take an HP Vectra XA PC for a spin today? Just call your HP authorized reseller. And don't forget to buckle up.

[1] DMI static attributes available August 1996; full DMI support available November 1996.

PC System Features *continued*

Built-in I/O	• Two 9-pin serial ports (16550 UART) • One 25-pin parallel port (ECP/EPP bi-directional Centronics supporting IEEE 1284) • Mini-DIN keyboard and mouse ports • 15-pin VGA connector • VESA connector for VGA pass-through • Audio ports (line-in, line-out, microphone-in, speaker-out) on models with integrated audio • MIDI/joystick connector on models with integrated audio
Upgradability	• Pentium Pro OverDrive™ support (when available) • Flash EEPROM for convenient BIOS upgrades

Video Subsystem

High-performance video	• Matrox Millennium card installed in one PCI slot
	  – 64-bit graphics accelerator on PCI bus
	  – Integrated graphics, video, and 3D acceleration for professional, graphics-intensive applications
	  – Supports DDC2B

Memory	• 2-MB, dual-ported WRAM with optimized PCI bus design, upgradable to 4-MB (with HP-supplied accessory D3557A) or 8-MB (with Matrox-supplied accessory) • Improves performance by simultaneously processing graphics and screen output

Supported drivers	• **Drivers on CD-ROM:**
	  – Windows NT 3.51, Windows 95, and OS/2® Warp
	• **Drivers from HP BBS and WWW:**
	  – HP-tested IBM® OS/2 2.1
	  – MS-DOS® 6.22, Windows 3.1, Windows for Workgroups 3.11

Resolutions	Resolution	256 colors (8-bit)	65K colors (16-bit)	16.7M colors/true color (24-/32-bit)
	640×480	2MB 60-120 Hz	2MB 60-120 Hz	2MB 60-120 Hz
	800×600	2MB 60-120 Hz	2MB 60-120 Hz	2MB 60-120 Hz
	1024×768	2MB 60-120 Hz	2MB 60-120 Hz	4MB 60-120 Hz
	1280×1024	2MB 60-90 Hz	4MB 60-90 Hz	4MB 60-90 Hz
	1600×1200	2MB 60-72 Hz	4MB 60-72 Hz	8MB 60-72 Hz

Value-Added Features

Integrated Networking, Leading PC Management, Advanced Security

Network Features	
Integrated Ethernet LAN	• 32-bit PCI Bus Master 10Base-T Ethernet controller • Low CPU usage releases resources for local user tasks • LAN activity LED
Preconfigured networking	• MAC address visible from PC configuration summary screen • Preconfigured drivers on CD-ROM for easy installation of a wide range of network clients
Boot-ROM	• Integrated, multiprotocol boot-ROM for Novell® and Microsoft® networks • Optional ROM socket for third-party TCP/IP boot-ROM
Available LAN drivers (on CD-ROM)	• Novell NetWare® 3.x/4.x clients • Windows 3.1, Windows for Workgroups 3.11, Windows 95, Windows NT clients • Banyan VINES® client • DEC PathWorks™ client • IBM OS/2 Warp Connect
Certifications	• Novell client • Windows 95, Windows NT WS 3.51 • Banyan VINES • DEC PathWorks • IBM OS/2 2.x, OS/2 3.x (Warp) • SunSoft Solaris®
Network Administrator Guide	• Online or printed guide provides network and remote boot setup information for complex environments
Easy driver updates	• Latest LAN drivers available directly from the HP Vectra World Wide Web site at URL: www.hp.com/go/vectra; CompuServe™; HP BBS, and America Online
Other connections	• Optional HP coax module (D3979A) for ThinLAN connection • Tested with leading Token Ring adapters
PC Management Features	

Remote management	• HP DMI based on industry-standard DMI specifications[1]
	• Provides complete remote management of more than 300 PC attributes from HP OpenView, Intel LANDesk, Microsoft SMS, and other DMI-compliant applications
	• Allows administrator to perform functions such as:
	  – Enable/disable PC boot from remote server or floppy drive
	  – View remote start setting status
	  – Remotely lock the PC keyboard, mouse, and reset and on/off buttons

LAN Remote Power technology	• Allows PC to be turned on through the LAN from sleep and power-off modes to minimize business disruption

[1] DMI static attributes available August 1996; full DMI support available November 1996.

Value-Added Features *continued*

PC Management Features *continued*

Vectra Op-Center Help Desk management applications	• Centralized inventory and asset management information and "at-a-glance" viewing of: – PC serial number stored in non-volatile memory – Customized asset label ("tattoo") of up to 80 characters – Number of installed disk drives and ports – Many other system parameters
Security management	• Allows administrator to: – View multi-level password status and history – View and configure HP Vectra XA PC's advanced security features

Features for Trouble-Free Personal Computing

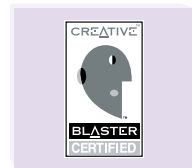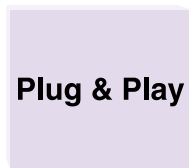|	
Advanced security	• Configuration settings and passwords stored in non-erasable, serial EEPROM to protect against corruption and unauthorized modifications • Two-level password protection with maximum password length extended to 32 characters (meets C2-level security requirements) • Ability to limit password validity time and number of log-in retries • Password-protected port and drive enable/disable options • Front-panel button immediately locks keyboard, mouse, and reset and on/off buttons • Optional ROM socket for third-party virus-protection programs • Chassis keylock and security bracket
Ergonomic/environmental design	• Keyboard start and power-off through HP soft power-down for Windows NT or Windows 95 shutdown capability • Low-noise, variable-speed fan • Ergonomic video modes supporting non-interlaced resolutions up to 1600×1200 • LAN Remote Power technology • CFC-free; single plastic for easy recycling
Bundled software	• Hard disk models: Windows NT Workstation 3.51 • CD-ROM documentation on support, performance benefits, product features, and use of PC • Drivers on CD-ROM
Ease of setup and service	• Snap on/off cover; no screws • Flash BIOS (EEPROM) for fast, easy upgrades • Industry-leading technical support program • Free 3-year limited warranty (1-year on-site, next-business-day; 2-year carry-in)

Vectra Ergonomic Power Solution

MICROSOFT WINDOWS NT READY-TO-RUN

Plug & Play

Member of TSANet Technical Support Alliance Network

CREATIVE BLASTER CERTIFIED

Optional Accessories

PCs That Take You to the Future

Optional Accessories	
Memory upgrades[1]	• **192-MB maximum EDO DRAM:** – 8-MB (2×4-MB), 60-ns EDO SIMMs (D3646B) – 16-MB (2×8-MB), 60-ns EDO SIMMs (D3647B) – 32-MB (2×16-MB), 60-ns EDO SIMMs (D3648B) – 64-MB (2×32-MB), 60-ns EDO SIMMs (D4543A)
Data storage	• **Supported flexible drives:** – 3.5-inch, 1.44-MB third-height (D2035B) • **Mounting rails:** – Set of five 3.5-inch side mounting rails (D3566A) • **Supported EIDE hard disk drive:** – 1.28-GB (D2930A)
Video upgrade	• 2-MB WRAM upgrade kit (D3557A)[2]
Video monitors	• Full range of standard and ergonomic HP monitors
LAN accessories	• HP Coax Module for HP Vectra XA PC integrated LAN (D3979A) • HP 10/100VG Selectable ISA LAN adapter (J2573A) • HP 10/100VG Selectable PCI LAN adapter (J2585B)
Processor upgrades	• Intel OverDrive for Pentium Pro–based systems (when available)
Setup and user guides	• HP Vectra XA PC User Manual Kit (D4544A)
Input devices	• HP Keyboard (C4725A) • HP Mouse (D3751B)
Multimedia accessories	• HP Audio/CD Accessory (D4179A) (includes CD-ROM; available to resellers only)

Configurations and Models

HP Vectra XA PC

HP Vectra XA PC Configurations and Models									
Name	Model[3]	Product Number	RAM	Audio	Hard Disk	Integrated Ethernet LAN	CD-ROM	Video	Bundled Operating System
HP Vectra XA 6/180	M1	D4530A	16MB	No	—	Yes	8X	Matrox Millennium	None
	M1280	D4531N	16MB	No	1.28GB	Yes	8X	Matrox Millennium	Windows NT WS 3.51
	M2500	D4532N	32MB	Yes	2.5GB	Yes	8X	Matrox Millennium	Windows NT WS 3.51
HP Vectra XA 6/200	M1	D4533A	16MB	No	—	Yes	8X	Matrox Millennium	None
	M1280	D4534N	16MB	No	1.28GB	Yes	8X	Matrox Millennium	Windows NT WS 3.51
	M2500	D4535N	32MB	Yes	2.5GB	Yes	8X	Matrox Millennium	Windows NT WS 3.51

[1] Must upgrade in pairs of identical SIMMs.
[2] 6-MB upgrade available from Matrox.
[3] Language option must be specified; for example, "ABA" for U.S. English.

Specifications

Physical Characteristics

System Dimensions (without keyboard): 16.5 inches wide × 15.3 inches deep × 4.9 inches high (42.0 cm × 39.0 cm × 12.5 cm)

System Weight (without keyboard) 24.8 lb (11.3 kg)

Keyboard Dimensions 18.3 inches wide × 7.0 inches deep × 1.3 inches flat (2.0 inches standing) (46.4 cm × 17.8 cm × 3.3 cm [5.1 cm])

Acoustic Emission

Sound level (LwA): ≤40dB (A)

Environmental Conditions

- Operating temperature: 40° to 104° F (5° to 40° C)
- Nonoperating temperature: –40° to 158° F (–40° to 70° C)
- Operating humidity: 15% to 80% RH (noncondensing) at 104° F (40° C)
- Operating altitude: 10,000 ft (3,100 m)
- Nonoperating altitude: 40,000 ft (12,200 m)

Note: Operating temperature and humidity range may vary with data storage device.

Input Voltage

- Auto-ranging, worldwide power supply: 100 to 240 VAC over 47 Hz to 63 Hz

Power Consumption

- 30 W to 40 W (typical)
- 150 W (absolute maximum)

Power Availability

- 100 W continuous; 100 W maximum peak output
- For four accessory cards: 3.5 A at +3.3 V; 8 A at +5 V; 1 A at +12 V; 0.2 A at –12 V; 0.1 A at –5 V
- Continuous output on combined +5 V and +3.3 V; 65 W maximum

Regulatory Compliance and Approvals

Electromagnetic Compatibility

- FCC Part 15 Subpart J Class B (USA)
- European EMC directive 89/336 EEC
- EN 55022 Class B
- Pr EN 55024-2, -3, -4
- EN 50082-1
- IEC 801.2, IEC 801.3, IEC 801.4, IEC 801.5
- CISPR 22 Class B
- CRC.1374 Class B (Canada)
- GB 9254-88 (China)
- VCCI Class II (Japan)
- RRL Class B (Korea)
- SABS (South Africa)

Safety Approvals

- BS6301 (General Approval) (UK)
- CSA C22.2 No. 950-M89 (Canada)
- SETI (FI-Finland)
- NEMKO (Norway)
- NOM (Mexico)
- SASO (Saudi Arabia)
- TÜV (Germany)
- EZU (Eastern Countries)
- UL 1950 (USA)
- EN60950 Compliance
- IEC 950 Compliance

Datacomm Compliance

- BZT (Germany)
- DATEL (Sweden)

Ergonomics

- ZH1/618 Compliance (Germany)

At-Your-Service Support

HP Vectra PC users can count on:

- Three-year limited warranty (1-year on-site, next-business-day; second- and third-year carry-in). Additional warranty upgrades for on-site service with 4-hour maximum response time available on business days; 24-hour, 7-day service available at an extra charge.
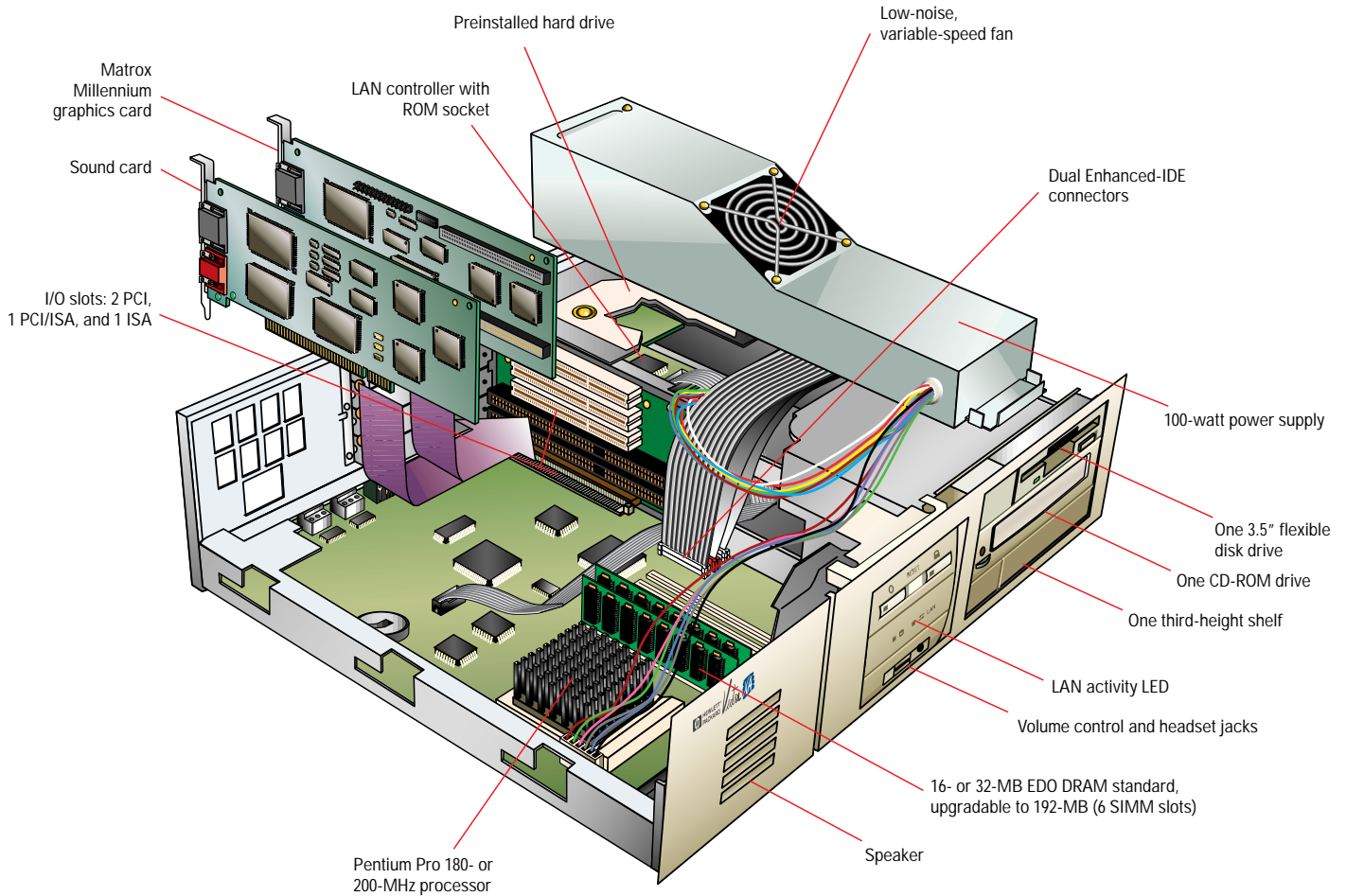
- Free phone support from HP's Customer Support Center for questions concerning PC setup, configuration, startup, and hardware diagnosis.*
- Product and technical support information via HP FIRST (fax retrieval system).

- Technical support information and assistance via the HP World Wide Web site, URL: www.hp.com/go/vectrasupport.
- HP's free electronic bulletin board, available 24 hours a day, 7 days a week.

* Available in the U.S.

HP Vectra XA PC
*Integrated audio models

Preinstalled hard drive

Low-noise,
variable-speed fan

Matrox
Millennium
graphics card

LAN controller with
ROM socket

Sound card

Dual Enhanced-IDE
connectors

I/O slots: 2 PCI,
1 PCI/ISA, and 1 ISA

100-watt power supply

One 3.5″ flexible
disk drive

One CD-ROM drive

One third-height shelf

LAN activity LED

Volume control and headset jacks

16- or 32-MB EDO DRAM standard,
upgradable to 192-MB (6 SIMM slots)

Pentium Pro 180- or
200-MHz processor

Speaker

**See why HP Vectra PCs
are the best choice for
your business computing
needs.**

For more information or a demon-
stration, just contact your nearest
HP authorized reseller.

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HP reseller for certification status.

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