

# HEWLETT-PACKARD

## The Vectra PC

The compatible, yet tailorable personal computer

### As versatile as business itself

The Hewlett-Packard Vectra PC is the personal computer that can be tailored to your business needs.

It's more powerful than the IBM PC/AT, running the identical popular programs up to 30 percent faster. It's easier to use, has a better keyboard, looks more attractive, and even takes up 30 percent less space on your desk.

Yet for all this, you never have to pay for more computer than you need.

With the Vectra Personal Computer, you can put together the exact combination of hardware and software that's best for your business today.

And as your needs grow and change, you can expand and change your Vectra system. The Vectra Personal Computer doesn't force you to give up options.

Everything about the Vectra PC is made to make custom fitting easier. You can get just the right balance of ease-of-use and capability. Add more capacity later if you wish. And select from an almost unlimited range of compatible hardware and software by Hewlett-Packard, IBM and numerous other manufacturers.

### As flexible as you need it to be

You'll have plenty of choices when it comes to software. The Vectra PC is designed to run any off-the-shelf application software the IBM PC/AT can. So you can choose from among the most popular programs for word processing, business graphics, spreadsheet analysis, data base management, and communications.

You can have your pick of a large number of third-party software packages designed for specific businesses and industries. And in addition, there's software created to take advantage of special Hewlett-Packard features such as Hewlett-Packard plotters and HP Touch, the option that lets you control the Vectra Personal Computer by simply touching the screen.



Hewlett-Packard's AdvanceWrite is word processing software that can be tailored to the user's needs and abilities. With TextCharts you can quickly create professional-looking overhead presentations. Hewlett-Packard's AdvanceLink 2392 is powerful data communications software. Executive Card Manager is an easy-to-use file manager with a built-in report writer, autodialing and more; Executive Card Manager: Templates gives you 21 modifiable formats for various businesses.

Of course, with so much software available, you can choose yours to suit your experience level. There are programs for advanced users, programs for beginners, and programs for everyone in between.

### As sophisticated as you need it to be

But application software is only one of the ways you can tailor the sophistication level of the Vectra PC to your needs.

Our Personal Application Manager software (PAM), which comes with the MS™-DOS operating system, is a good example. When you're using PAM, you don't have to type complex commands (or any commands at all) to start a program running. Instead, the screen identifies the single function key you press to start any given application. The more applications you use, the more time and trouble PAM can save you. And of course, PAM makes learning much easier for beginners.

Pick the input devices that work best with the software you use. HP-HIL, the Hewlett-Packard Human Interface Loop, lets you connect a variety of input devices without using accessory slots. The HP Mouse, HP Touch Accessory, and keyboard can all be attached this way.

If you've used the standard IBM keyboard, you'll find everything where you expect it on the Vectra PC keyboard — and you'll also find additional features for extra ease of use.

For example, the Vectra PC keyboard not only has a numeric keypad with the usual cursor control keys, there's a separate cursor control pad on the keyboard as well. So it's much easier to move around on a spreadsheet at the same time you're entering lots of numbers.

And the standard IBM PC/AT function keys are supplemented with eight Hewlett-Packard function keys to take advantage of special Hewlett-Packard program features.

The Vectra Personal Computer is not only easier to use, it's easier to look at. Monitors tilt and swivel. And accessory cards give you excellent, crisp text along with color graphics if you choose a color monitor.

Communications, too, can be as sophisticated as your business needs. For example, the Vectra PC can communicate with Hewlett-Packard, IBM, and other host computers, network with other vendors' PCs, and also talk to the new Portable PLUS from Hewlett-Packard.

## As powerful as you need it to be

The Vectra Personal Computer starts you out with all the performance you need, and lets you add more later.

It comes equipped with the Intel 80286 microprocessor — a powerful enough engine for just about any personal computer application. At 8 MegaHertz, it's 30 percent faster than the 6 MegaHertz IBM PC/AT. And when you add the optional 80287 co-processor, you have the ideal combination for applications involving a great deal of arithmetic or complex mathematics.

You start with a choice of 256K bytes or 640K bytes of memory without using any accessory slots, and you can expand to more than three megabytes, giving you plenty of room to create RAM discs that let your programs run even faster.

The Vectra PC is ready to accommodate up to three internal data storage devices. You can start with a 360K byte or 1.2M byte, 5-1/4 inch flexible disc and add more later. A 20M byte hard disc is currently available, and a high-speed 40M byte hard disc will be available in 1986.

You'll also have plenty of room for additional memory cards, data communications interfaces, graphics boards, and the like. There are seven industry-standard accessory slots designed to accept any board that works in the IBM PC/AT. This allows all the available IBM PC/AT compatible peripherals and accessories to work with the Vectra PC.

And that's in addition to the many Hewlett-Packard products you can use, such as external disc and tape drives, monochrome and color monitors, ThinkJet and LaserJet Printers, and our high-quality precision plotters.

## Buy what you need now, and add what you need when you need it

Believe it or not, we've only begun to describe the versatility of the Vectra PC.

The following specifications detail even more ways the Vectra Personal Computer can be tailored to your business needs.

## System Processing Units

- Vectra Model 25 Personal Computer including 256K bytes RAM and one 360K byte 5-1/4 inch flexible disc (HP 72425A).
- Vectra Model 35 Personal Computer including 256K bytes RAM and one 1.2M byte 5-1/4 inch flexible disc (HP 72435A).
- Vectra Model 45 Personal Computer including 640K bytes RAM and one 1.2M byte 5-1/4 inch flexible disc (HP 72445A).

## Features

- Intel 80286 16-bit microprocessor running at 8 MegaHertz clock rate.
- Flexible disc controller.
- Socket for Intel 80287 numeric co-processor.
- Sockets for two additional Read Only Memory (ROM) chips.
- System clock/calendar/system configuration with CMOS Random Access Memory (RAM) and battery backup.
- Audio speaker system.
- Three half-height data storage cartridge shelves: two shelves with access from the front, suitable for flexible disc drives; a third shelf is suitable for hard disc drive only.
- Seven IBM PC/AT-compatible accessory slots:
  - Two 8-bit slots.
  - Five 16-bit slots.
- One HP-Human Interface Loop (HP-HIL) port allows one or more HP-HIL device, such as the keyboard and optional HP-HIL accessories, to be connected simultaneously.
- Optional keylock provides system security.

## Compatibility

The Hewlett-Packard Vectra Personal Computer is compatible with the IBM PC/AT. Based on the Intel 80286 microprocessor, it is designed to run all the off-the-shelf software and hardware accessories available for the IBM PC/AT.



### Internal Memory

- 64K bytes of Read Only Memory (ROM).
- 256K bytes of Random Access Memory (RAM), with parity, expandable to 640K bytes on the processor board on Model 25 and Model 35, or 640K bytes as standard on the processor board on the Model 45.
- RAM expandable up to 3.64M bytes.

*Note: DOS 3.1 can directly address a maximum of 640K bytes RAM.*

### Keyboard

- Detachable, typewriter-style, 103-key enhanced IBM PC/AT-format keyboard with adjustable tilt.
- Full-travel, step-sculptured keys with tactile feedback and color-coded legends.
- Eighteen function keys.
- HP-HIL port.
- Numeric and cursor keypads.

### Data Storage

- 360K byte internal 5-1/4 inch flexible disc (HP 45811A).
- 1.2M byte internal 5-1/4 inch flexible disc (HP 45812A).
- 20M byte internal hard disc subsystem with controller (HP 45816A).
- 40M byte internal hard disc subsystem with controller (HP 45817A). *Note: Available in 1986.*
- Dual 710K byte stand-alone 3-1/2 inch flexible disc (HP 9122D).
- 20M byte stand-alone hard disc (HP 9134H).
- 40M byte stand-alone hard disc (HP 9134L). *Note: Available in 1986.*
- Low-cost 1/4-inch backup tape drive (HP 9142A).

### Physical Characteristics

**System weight:** 26 lbs. (11.8 kg), with one flexible disc drive, not including keyboard.

**Keyboard Weight:** 4.2 lbs. (1.9 kg).

**System dimensions:** 16.7 in. wide × 15.4 in. deep × 6.3 in. high (42.5 cm × 39.0 cm × 16.0 cm) without keyboard.

**System footprint:** 1.8 sq. ft. (.17m<sup>2</sup>), without keyboard.

**Keyboard dimensions:** 20.6 in. wide × 8.8 in. deep × 1.3 in. (2.4 in.) high in flat (standing) position (52.5 cm × 22 cm × 3.5 cm × (6.5 cm)).

### Environmental Conditions

**Operating temperature:** 5° to 40°C (41° to 104°F).

**Nonoperating temperature:** -55° to 70°C (-67° to 158°F).

**Humidity:** 5% to 80% (noncondensing).

**Operating altitude:** 50,000 ft (15.2km).

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

### Radio Frequency Interference

- FCC Class B.
- VDE Level B (Radio Protection Mark - 0871B).

### Safety Approvals

- UL Listed.
- CSA, TUV Certified.
- IEC 380/436 Compliance.
- SEV, KEMA-KEUR, NEMKO, FI pending.

### Input Voltage

- Switchable worldwide power supply.
- 115V (+10%, -25%) at 50/60 Hz (±5%).
- 230V (+10%, -15%) at 50/60 Hz (±5%).

### Power Consumption

- 360W (450W) maximum with 110V (220V) supply, convenience outlet unused.
- 510W (600W) maximum with 110V (220V) supply, convenience outlet used.

### Heat

- 710 BTUs/hour maximum.

### Power Availability

- 176W available peak.
- Accessory cards: 7.2A at 5V; .390A at 12V; .250A at -5V; .250A at -12V total.

### Ergonomics

- Complies with German Standard ZH1/618.

## System Software

- Vectra Disc Operating System with MS-DOS 3.1, PAM, and Documentation (HP 45951A).
- Vectra BASIC Interpreter (HP 45952A).
- Vectra MS-DOS Macro Assembler from Microsoft (HP 45953A).

## Applications Software\*

- AdvanceLink 2392 (HP 68333F).
- Executive Card Manager (HP 68331F).
- Executive Card Manager: Templates (HP 68335F).
- Executive MemoMaker (HP 68330F).
- Executive Spreadsheet (HP 68332F).
- AdvanceWrite I (HP 27506F).
- AdvanceWrite II (HP 27507F).
- AdvanceWrite III (HP 27508F).
- TextCharts (HP 45406E).

\* For additional information on applications software for the Vectra PC (both Hewlett-Packard and tested third-party packages), please see Hewlett-Packard's quarterly Software and Accessory List.

## Peripherals

Hewlett-Packard  
Personal Computer Group  
10520 Ridgeview Ct.  
Cupertino, CA 95014

In Canada, write:  
Hewlett-Packard  
Marketing Department  
6877 Goreway Drive  
Mississauga, Ontario  
Canada, L4V1M8

For the dealer nearest you:  
In U.S.A., call (800) FOR-HPPC  
In Canada, call (800) 387-3867

---

### Monitors

- 12-inch monochrome monitor (HP 35731A).
- 12-inch color monitor (HP 35741A).

---

### Input Devices

- HP Touch Accessory (HP 35723A).
- HP Mouse (HP 46060A).
- HP-HIL Extension Module (HP 46080A).
- A-Size Digitizer (HP 46087A).
- B-Size Digitizer (HP 46088A).

---

### Plotters

- Six-pen A3/B-size technical plotter with serial interface (option 001) (HP 7475A).
- Eight-pen A3/B-size auto-feed plotter with serial interface (HP 7550A).

---

### Printers

- ThinkJet Printer with parallel interface (HP 2225C).
- ThinkJet Printer with serial interface (HP 2225D).
- Letter-quality printer with serial interface for the Vectra PC (option 826) (HP 2601A).
- LaserJet Printer (HP 2686A).
- LaserJet PLUS Printer with serial interface (option 200) or parallel interface (option 210) (HP 2686A).

---

### Accessories

- Serial/Parallel Interface (HP 24540A).
- Dual RS-232/422 Interface (HP 24541A).
- 128K byte Memory Expansion Kit (HP 45971A).
- 1/2M byte Memory Expansion Card (HP 45973A).
- 1M byte Memory Expansion Card (HP 45974A).
- Multimode Video Adapter (HP 45981A).
- Multimode Color Adapter (HP 45984A).
- Numeric Co-processor (HP 45987A).
- HP-IL Portable-Desktop Link (HP 82973A).
- Disc/Tape Interface for external data storage (HP 88500A).
- IBM 3278 Emulation Accessory (HP 50920A).
- Internal 1200-Baud Modem (HP 24550A).
- Internal 2400-Baud Modem (HP 24551A).
- Security Lock (HP 45986A).
- Floor Stand (HP 45989A).

---

### Documentation

- Vectra PC Technical Reference Manual (HP 45961A).
- Vectra PC MS-DOS Programmer's Reference Manual from Microsoft (HP 45962A).



MS™-DOS is a U.S. trademark of Microsoft, Inc.

Technical information in this document is subject to change without notice.