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# HP PC Video Solutions

Technical Data

**Trouble Free  
Personal Computing**

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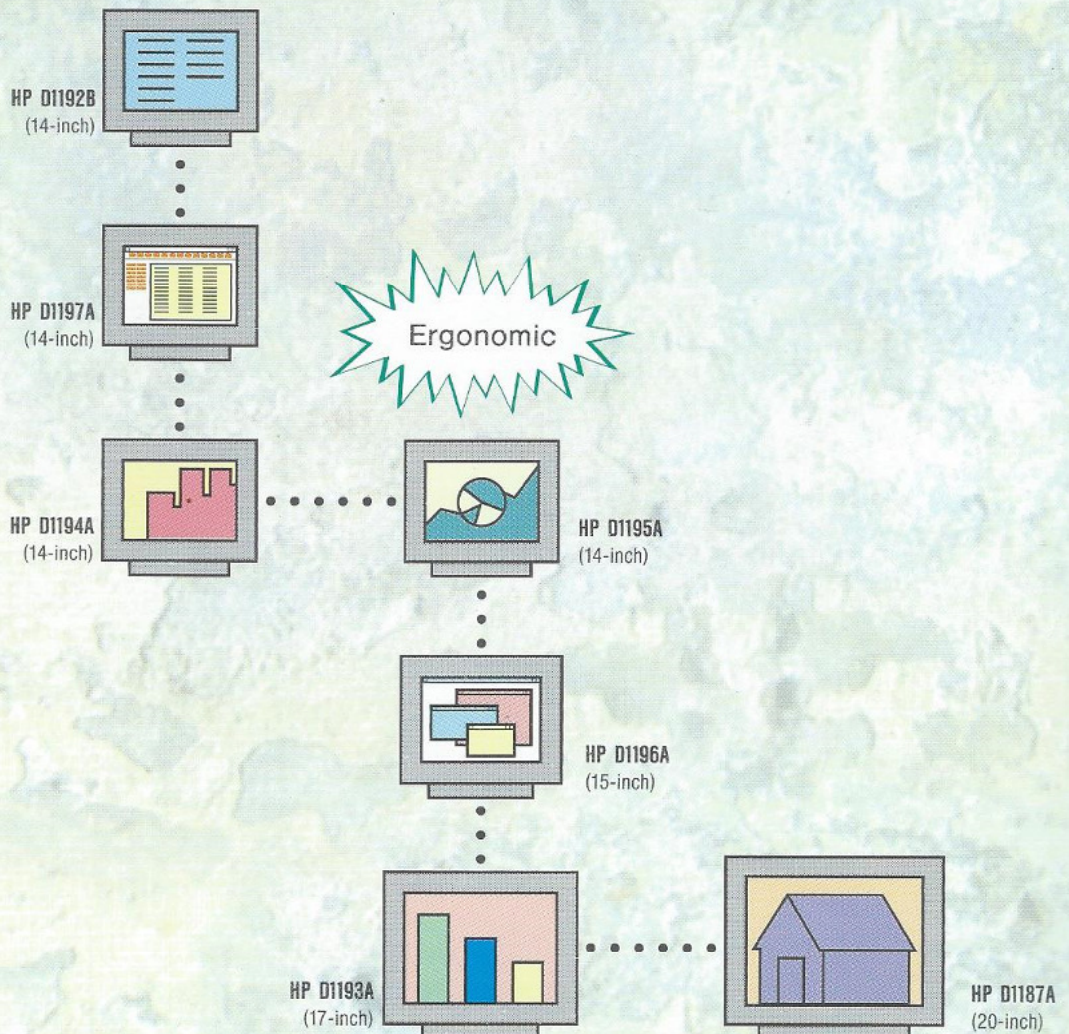
## Expand your range of vision

With today's demanding graphics applications – and today's concerns for ergonomics – selecting PC video products is just as important as selecting your PC. From entry-level office applications to graphics-intensive environments such as Microsoft® Windows and CAD, Hewlett-Packard can help you complete your computing solution with a wide range of video monitors. All at competitive prices, because high-quality video is no longer a luxury – it's a necessity.

### See the Difference

Together, HP PCs and monitors create high-quality solutions that enhance your work with fast video processing, the ability to fit more information on the screen, crystal-clear displays, and colours that make reading a pleasure.

Plus HP helps create a more comfortable computing environment by reducing low-frequency emissions, alleviating eyestrain with flicker-free operation and offering tilt and swivel bases for viewing comfort.



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## **Stretch your Mind without straining your Eyes**

HP offers the choice of three ergonomic displays with 14-inch, 15-inch or 17-inch tubes. These displays comply with the latest guidelines from the Swedish National Board for Measurement and Testing, MPRIL. In addition, the recently introduced HP Ergo Ultra VGA 15-inch Display has been designed to meet the ISO 9241 standard.

## **Trouble Free Personal Computing**

One of the most important qualities of all HP video solutions isn't written in the specifications. It's HP quality and reliability — and it's built into every product we make, so you can depend on every part of an HP computing solution.

We've learned that there's no such thing as random failure. So we subject all our video products to unrealistically extreme test conditions in order to identify and systematically eliminate the cause of any failure.

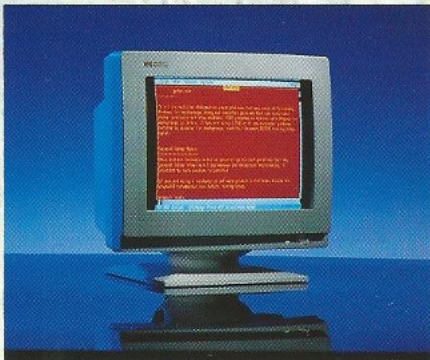
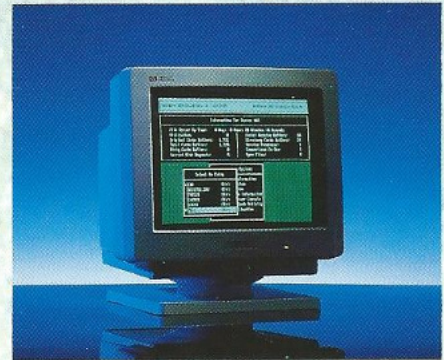


With video products tuned to your applications, plus the latest ergonomic features, HP video products help bring clarity and comfort to give you a trouble-free personal computing environment.

## HP Monochrome Display D1192B

The HP Monochrome VGA Display offers industry-standard VGA resolution on an easy-to-read, page-white display. It is ideal for text-intensive tasks such as word processing, as well as other applications for which colour is not required.

In addition, it is an excellent choice for most server applications.



## HP VGA Color Display D1197A

The HP VGA Color Display is the new entry-level colour monitor for all text and other office applications. This 14-inch colour monitor supports standard VGA resolution and offers standard image quality at a very attractive price. In addition, the integrated tilt and swivel base optimises user comfort.

It is a perfect display for MS-DOS® environments.

Monitors	HP Monochrome Display D1192B	HP VGA Color Display D1197A	HP Super VGA Display D1194A
<b>Features</b>			
Picture Tube	14-inch flat screen Paper white phosphor 64 shades of grey	14-inch P22 dark phosphor	14-inch P22 dark phosphor Dual-sync colour
Anti-Glare Surface	Non-glare	Yes	Direct etching
Dot Pitch	0.28 mm	0.39 mm	0.28 mm
Integrated Tilt and Swivel	Yes	Yes	Yes
Contrast and Brightness Controls	Yes	Yes	Yes
Horizontal Scan Rate	31.5 KHz	31.5 KHz	31.5 KHz and 37.9 KHz
Vertical Sync	50/60/70 Hz	60/70 Hz	60/70 Hz
<b>Refresh Rates</b>			
Text Mode	70 Hz	70 Hz	70 Hz
Graphics Mode:			
640 x 480 VGA	60 Hz	60 Hz	60 Hz
800 x 600 Super VGA			60 Hz
1024 x 768 Ultra VGA			60 Hz
1280 x 1024			
<b>Specifications</b>			
Input Signals	RGB Analog 15-pin Mini D-SUB	RGB Analog 15-pin Mini D-SUB	RGB Analog 15-pin Mini D-SUB
Power Supply	AC 220/240 V, 0.5 A 50 W	AC 100-240 V, 50-60 Hz 70 W max	AC 100-240 V, 47-87 Hz 70 W max
Weight	7.6 kg	11.4 kg	13 kg
Dimensions (H x W x D)	346 x 333 x 340 mm	364 x 354 x 390 mm	364 x 354 x 390 mm
Regulations:			
RFI and Safety	FCC Class B, FTZ 1046/84, UL, CSA, Nemko, SETI, SABS	FCC Class B, UL, CSA, Nemko, SETI, EN60950, EN55022, SABS	FCC Class B, FTZ 1046/84, UL, CSA, Nemko, SETI
Ergonomics	ZH1/618, GS Mark TUV	ZH1/618, GS Mark TUV	ZH1/618, GS Mark TUV
MPRII	No	No	No
ISO 9241	No	No	No



## HP Super VGA Display D1194A

The HP Super VGA Display offers 800 x 600 Super VGA resolution, in addition to any standard VGA resolution. Designed for business professionals, the high quality of the screen and fine resolution of the display tube are exceptionally well suited for high daily system utilisation.

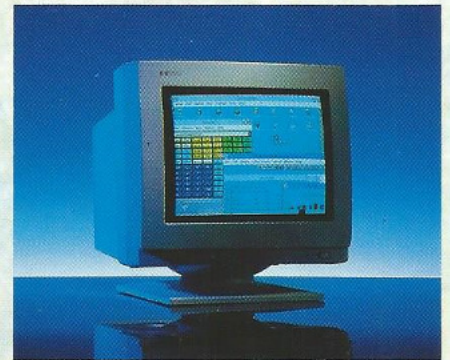
The Super VGA resolution maximises the amount of detail you can display without sacrificing readability. It's your best choice for using Windows on a 14-inch monitor.

## HP Ergo Super VGA Display D1195A

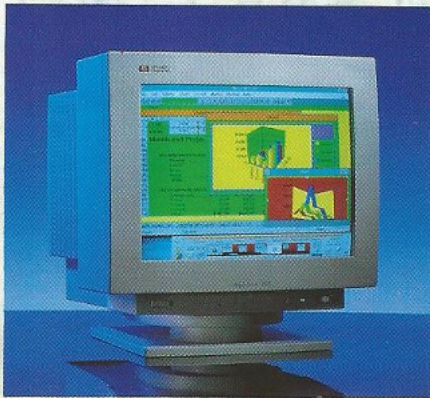
The HP Ergo Super VGA Display is designed for PC users who are sensitive to ergonomics. Supporting both VGA and Super VGA resolutions, it displays Super VGA at a faster vertical refresh rate of 72 Hz, eliminating screen flicker and significantly reducing eyestrain. It also complies with the Swedish

National Board for Measurement and Testing MPRII standards for low-radiation monitors.

A complete ergonomic video solution, this display is a must for those who spend extended periods of time in front of their PCs.



HP Ergo Super VGA Display D1195A	HP Ergo Ultra VGA 15" Display D1196A	HP Ultra VGA 17" Display D1193A	HP 20" High-Resolution Color Display D1187A
14-inch	15-inch flat screen	17-inch flat screen	20-inch
P22 dark phosphor		RGB medium-short persistence	P22 phosphor
Dual-sync colour	Multi-frequency colour	Multi-sync colour	Multi-sync colour
Silica-coated + ESF	Silica-coated + ESF	Silica-coated + ESF	Silica-coated
0.28 mm	0.28 mm	0.28 mm	0.31 mm
Yes	Yes	Yes	No - Option D1189A
Yes	Yes + centering + degauss	Yes + centering + full scan capability	Yes
31.5 KHz and 48.1 KHz	31.5, 37.8, 48.1, 48.4, 56.4 KHz	30-64 KHz	30-64 KHz
50/72 Hz	50/60/70/72 Hz	50-90 Hz	50-90 Hz
70 Hz	70 Hz	70 Hz	70 Hz
60 Hz	60 Hz/72 Hz	60 Hz/72 Hz	60 Hz/72 Hz
60 Hz/72 Hz	60 Hz/72 Hz	60 Hz/72 Hz	60 Hz/72 Hz
	60 Hz/70 Hz	60 Hz/70 Hz	60 Hz/70 Hz
			60 Hz
RGB Analog	RGB Analog	RGB Analog	Analog, RS423
15-pin Mini D-SUB	15-pin Mini D-SUB	15-pin Mini D-SUB	5 BNC connectors
AC 100-240 V, 47-87 Hz	AC 100-240 V, 47-63 Hz	AC 100-240 V, 50-60 Hz	AC 100/120 or 220/240 V, 47-63 Hz
70 W max	80 W max	130 W max	150-165 W typical
3 kg	14 kg	19.5 kg	31.6 kg
364 x 354 x 390 mm	366 x 354 x 400 mm	425 x 413 x 433 mm	449 x 498 x 534 mm
FCC Class B, FTZ 1046/84, UL, CSA, Nemko, SETI	FCC Class B, UL, CSA, Nemko, SETI, EN60950, EN55022, SABS	FCC Class B, FTZ 1046/84, UL, CSA, Nemko, SETI	FCC Class A, FTZ 1046/84, UL, CSA, Nemko, SETI, SABS, VDE 0871
ZH1/618, GS Mark TUV	ZH1/618, GS Mark TUV	ZH1/618, GS Mark TUV	ZH1/618, GS Mark TUV
Yes	Yes	Yes	No
No	Yes	Yes	No



## HP Ergo Ultra VGA 15-inch Display D1196A

The HP Ergo Ultra VGA Display is the ideal monitor for advanced office users who require more information on their screen for information-intensive applications. The 15-inch tube offers up to 30% more viewing area (full scan) compared to standard 14-inch displays. It supports resolutions from standard VGA up to Ultra VGA (1024 x 768) non-interlaced at a high refresh rate for "flicker-free" image.

It also complies with the Swedish National Board for Measurement and Testing MPRII standards for low-radiation monitors. In addition, the monitor is designed to meet the ISO 9241 regulations.

This monitor, like the HP Ultra VGA 17-inch Display, fully enhances the video capabilities of all HP Vectra 486 PCs.

*How to use this matrix - your system's video solution must match the refresh rate and the resolution of your monitor.*

Modes	Resolution	Colours	Refresh Rate Hz	Horizontal Scan Rate KHz	HP Vectra PCs			HP NetServers
					386/33N, 386/33NI, 486N <sup>1</sup> , 486NI, 486M	486XM	486U, 486ST	LE, LM
Standard VGA	640 x 480	16	60	31.5	●	●	●	●
Standard VGA	640 x 480	256	60	31.5	●	●	●	●
Standard VGA	640 x 480	32000	60	31.5	● <sup>2</sup>	●	●	●
Standard VGA	640 x 480	64000	60	31.5	●	●	●	●
Ergonomic VGA	640 x 480	16	72	37.9	●	●	●	●
Ergonomic VGA	640 x 480	256	72	37.9	●	●	●	●
Ergonomic VGA	640 x 480	32000	72	37.9	● <sup>2</sup>	●	●	●
Ergonomic VGA	640 x 480	64000	72	37.9	●	●	●	●
Super VGA	800 x 600	16	60	37.9	●	●	●	●
Super VGA	800 x 600	256	60	37.9	●	●	● <sup>4</sup>	●
Super VGA	800 x 600	64000	60	37.9	●	● <sup>3</sup>	●	●
Ergonomic Super VGA	800 x 600	16	72	48.1	●	●	●	●
Ergonomic Super VGA	800 x 600	256	72	48.1	●	●	● <sup>4</sup>	●
Ergonomic Super VGA	800 x 600	64000	72	48.1	●	● <sup>3</sup>	●	●
Ultra VGA	1024 x 768	16	60	48.4	●	●	●	●
Ultra VGA	1024 x 768	256	60	48.4	● <sup>2</sup>	●	● <sup>4</sup>	●
Ergonomic Ultra VGA	1024 x 768	16	70	56.5	●	●	●	●
Ergonomic Ultra VGA	1024 x 768	256	70	56.5	● <sup>2</sup>	●	● <sup>4</sup>	●
Ergonomic Ultra VGA	1024 x 768	64000	70	56.5	●	● <sup>3</sup>	●	●
Ultra VGA 2	1280 x 1024	256	60	63.4	●	● <sup>3</sup>	●	●
Ergonomic Ultra VGA 2	1280 x 1024	256	72	77.1	●	● <sup>3</sup>	●	●

1. 32000 colours supported on 486N models introduced after May '93

2. Requires 512-Kbyte DRAM Upgrade Kit (HP D2713A)

3. Requires 1-MB VRAM Upgrade Kit (D2942A)

4. Requires 512-Kbyte VRAM Upgrade Kit (HP D2326A)



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For more information, contact your HP authorised dealer or call your HP regional office for the location of your nearest sales office.

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