

Pioneer *sound.vision.soul*



High Contrasts

Bright Whites

Deep Blacks

Vivid Colours

Crystal Clear Images



PDP-42MXE10 **42 Inch XGA Professional Plasma Display**



www.pioneer-eur.com

TECHNOLOGY

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FEATURES

CONTROL

VIDEO WALL

EXPANSION SOLUTIONS

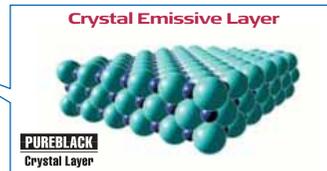
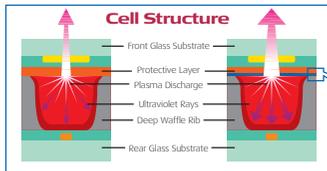
SPECIFICATIONS

Technology

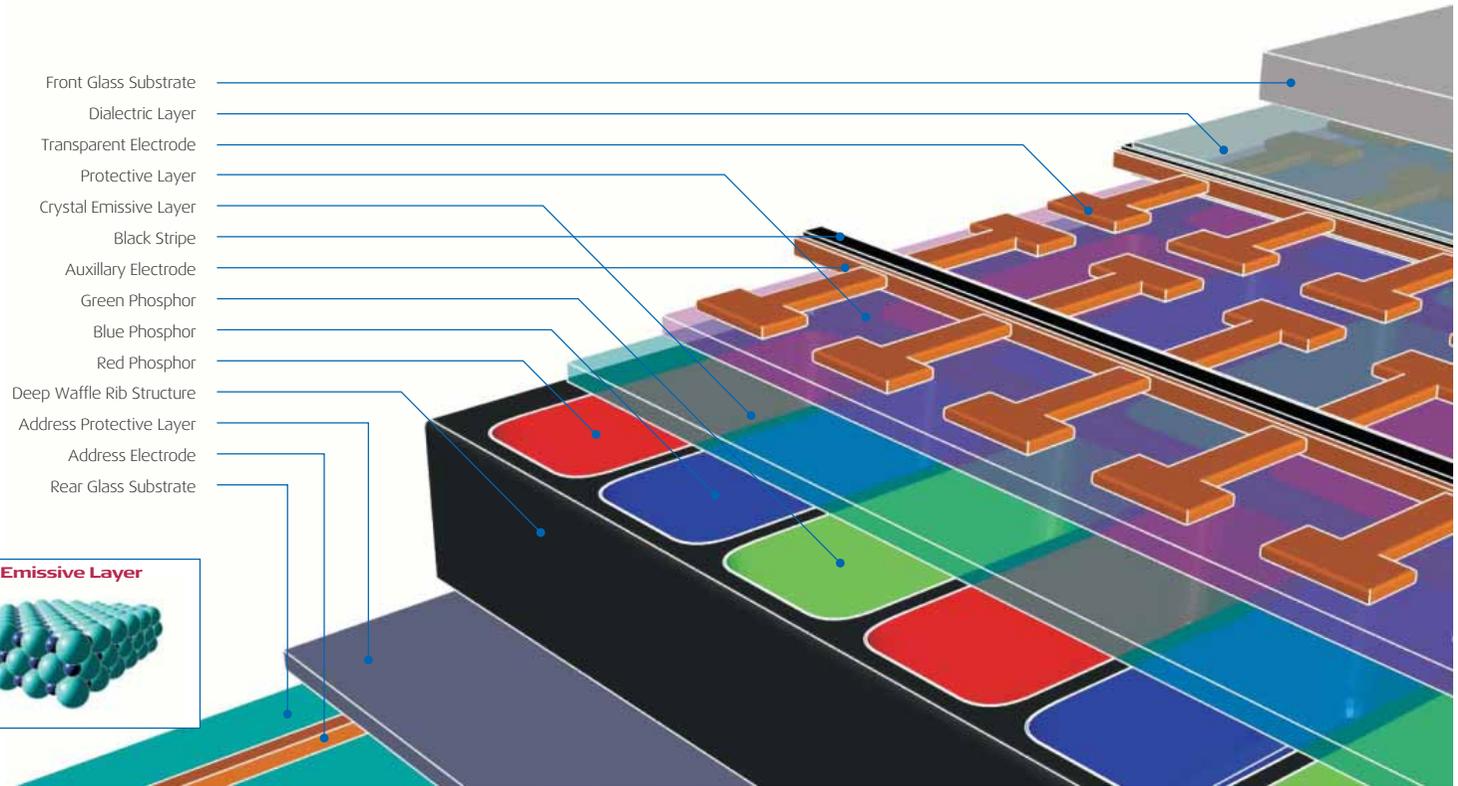
Pure Black Panel

Achieves the dual goals of higher brightness and greater contrast

PDP image quality takes another impressive step forward with Pioneer's new Pure Black Panel. In addition to our exclusive Deep Encased Cell Structure, it uses another breakthrough technology called Crystal Emissive Layer to achieve luminous efficiency that is much higher than previous models. The result is unprecedented high brightness of 1,400cd/m² and a contrast ratio of 3,000:1. Blacks are blacker, yet the lighter areas on the screen still maintain their true brightness values; assets that ensure that the PDP-42MXE10 provides an eye-catching display solution with an exceptional level of performance.



Front Glass Substrate
Dielectric Layer
Transparent Electrode
Protective Layer
Crystal Emissive Layer
Black Stripe
Auxiliary Electrode
Green Phosphor
Blue Phosphor
Red Phosphor
Deep Waffle Rib Structure
Address Protective Layer
Address Electrode
Rear Glass Substrate



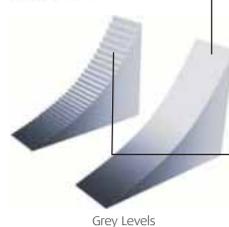
New Pure Drive Pro

Superb picture quality designed for professional applications

High efficiency and the best possible picture quality has been achieved by integrating colour management, scaling, GUI mix and other image processing technologies on a single chip that we developed exclusively for our professional monitors. Image processing is further enhanced by i-Clear Drive: depending on the video signal it intelligently adjusts grey steps in darker areas

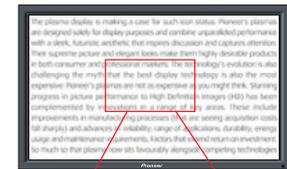
to sharpen details. Since it does not omit any data when scaling, even with highly detailed signals, image processing is smoother and more precise. False contour noise is also completely eliminated.

i-CLEAR Drive



Superior scaling performance

Even when the image is expanded by video wall or point zoom functions, the PDP-42MXE10 displays detailed information with exceptional purity.



Conventional PDP
at the best display technology are not as expensive as you might think. Stunning progress in picture performance to High Definition images (HD) has been complemented by a range of advantages in a range of areas.

PDP-42MXE10
at the best display technology are not as expensive as you might think. Stunning progress in picture performance to High Definition images (HD) has been complemented by a range of advantages in a range of areas.

Functions

Intelligent and flexible display options

The new Pure Drive Pro image processing engine greatly improves performance. This enables a wide range of new dual-image options (without the need for external processing) to be offered as standard specifications. The versatile features enhance digital signage applications, improve presentation capabilities and support innovative promotions. All Picture in Picture options and Side by Side modes can be managed by the remote control unit (RCU).



Upgraded side by side mode

In the full-screen mode, three display options are available; as well as a 50:50 split that is ideal for video conferencing, a 4x3 image can be selected which is tailor made for digital signage applications. This mode can be switched so that the smallest portion of the image is either on the left or right of the display. It is also possible to present the images in a portrait* format to enhance installation options.

*External manipulation of the signal is needed

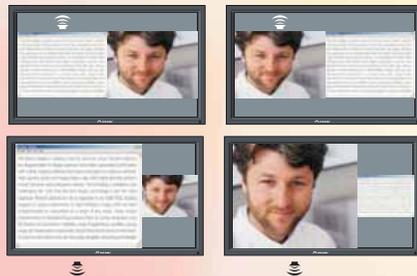
Banner mode

The display's versatility is further advanced by the banner mode, which allows text to be easily overlaid onto the screen. The banner — a 25% strip of the screen can be stationed at four positions (top, top-middle, middle-bottom and bottom) and its transparency adjusted between 0-80%. The feature provides a simple yet cost efficient and highly effective digital signage application; with one input connected to a PC, any standard off-the-shelf software can be used to author the banner content.



Intelligent Dual Screen Modes

Thanks to Pure Drive Pro's processing power, images in dual screen mode are delivered with identical pin-sharp accuracy,



ideal for video conferencing. Any two of the many inputs can be displayed together, either as two identically sized images Picture and Picture or as a larger main image next to a smaller sub image Picture out Picture. Main and sub images can be also be swapped over to switch the audio source.

In addition a Picture in Picture mode is available where the sub image can be displayed in any one of four corners of



the main screen in the form of a small window. The sub image can be set to one of four sizes and the transparency of the window can be changed between 0 and 80%.



Select four sub-image sizes and the visual mode.

Sub-image detection

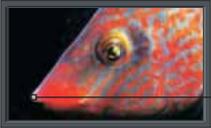
Sub-image detection is an engaging feature. It enables a sub-image to be presented in any corner of the display. When the sub-input is turned off, the PIP image disappears and when it's turned back on, it returns to the screen. This intelligent application is ideal to display time sensitive content, highlight a new promotion or intermittently show a company logo or snapshot of information.



Features

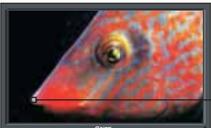
Seamless Orbiter alleviates burn-in

Conventional orbiter modes reduce ghosting by moving the displayed image by one pixel or more at regular intervals. Because viewers can notice the movement, it interferes with their viewing. The PDP-42MXE10 includes a unique Seamless Orbiter function that moves the entire image in extremely small steps of less than a pixel. The most effective orbiting pattern was adopted based on a variety of simulations, achieving the maximum possible mitigation of ghosting without viewers noticing the process.



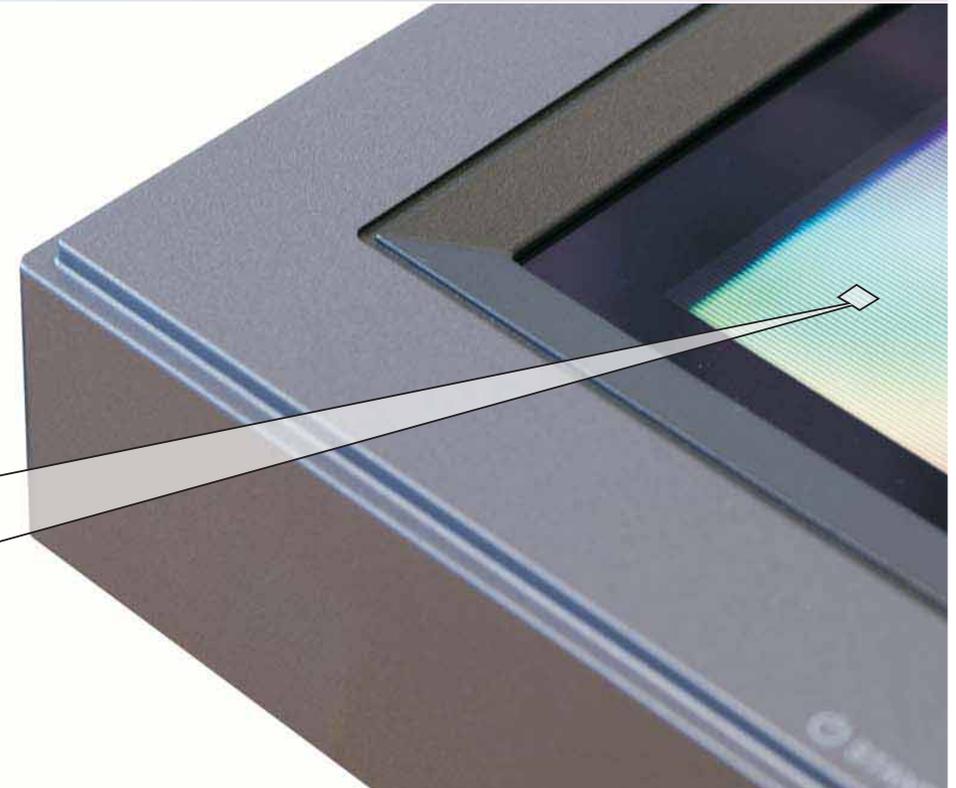
Conventional Orbiter Mode

The entire image moves one or more pixels at a time, easily noticeable in meetings.



Seamless Orbiter Mode

The entire image moves in extremely small steps undetectable to the human eye. Three types of processing can be selected to tailor the display's performance to the type of application and input — for example whether the content is primarily still or video images.



Various display modes to alleviate burn-in

- Side mask brightness adjustment: Adjusts side mask brightness during 4:3 image display.
- White signal display: Displays white over the entire screen. This restores ghosted locations to their former condition.
- Inverse mode: Reverses the image and full mask that turns the entire screen into a single colour.
- Soft focus: Blurs the edges of the image, making ghosting difficult to see.

Low power consumption and four energy saver modes

Due to the efficiency of the Pure Black Panel, the PDP-42MXE10's power consumption of 285W is the lowest in the industry.

Efficiency is further enhanced by the addition of energy saver modes, which manage the peak intensity of high brightness images. An automatic mode is featured which uses an ambient light sensor to set the optimum mode for the local lighting conditions.

Image adjustment Pro modes

- Under-Scan: Displays the complete video signal so that all broadcast information can be viewed.
- Colour-Off: Reduces colour noise for monochrome video.
- Image processing: Enables users to select from two modes designed to enhance the display of static images or video based content.
- Pure image: Displays input images without image processing except I/P conversion.
- High contrast mode: Uses special dynamic range expansion to make images more vivid.

Other Features

- Two different sizes of multi-lingual GUI.
- Portrait mode GUI.
- Display Call.
- Point Zoom.
- Intelligent Auto Set-up.
- Colour Detail Adjustment.
- Priority Input Mode.
- Layered Key Lock / Memory Lock.
- Remote Controller ID.

Control

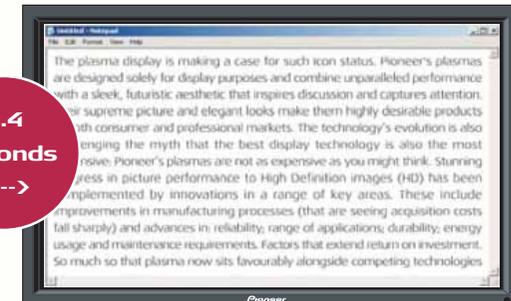


High speed image switching for smooth presentations and displays

The PDP-42MXE10 has a high performance dual image processing function that switches from one input image to another at the high speed of approx. 0.4 seconds. This ensures smooth, comfortable viewing of presentations in offices and displays at exhibition halls or event venues.



Input 1



Input 2

0.4
Seconds
<--->

Dual Image PiP Freeze

A PiP-freeze function is available to temporarily freeze a displayed image. The image can be grabbed via an RCU command to accentuate a part of a presentation or capture broadcast content. The picture can be displayed in PiP format or side by side mode.



RS-232C status feedback

When a command is transmitted from a control device to the PDP via the RS-232C interface, the PDP returns its status. This not only permits remote confirmation of current PDP status, but it can also specify the cause of errors (should they occur) to enhance service response. The PDP-42MXE10 provides high control capacity: combination connections, variable baud rate setting, acknowledge function and more.

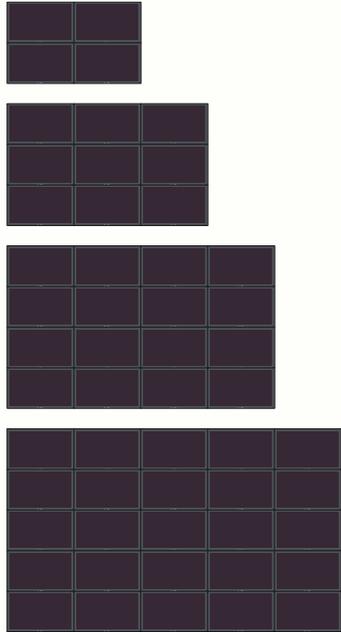
- Serial number Info
- Hour meter
- Power on/off Info
- Cause of error
- Product model Info
- Inside temperature Info
- Input signal Info

Programmable Timer

You can take advantage of a convenient weekly timer and seven programmable functions including power on/off, input selection, and activation of image burn-in prevention modes.



Video Wall



Video Wall can display up to 25 PDPs

Pioneer makes it easy to configure multi-monitor video walls. Possible configurations are 2x2, 3x3, 4x4 and 5x5. Two display modes have been designed to enhance Video Walls, Normal and Adjusted. In Normal Mode static information can be displayed without losing text within the bezel areas. It splits the image into four parts without losing any of the data that would normally be obscured by the PDP frame. Adjusted Mode divides the picture into four sections keeping the overall image complete as though looking through a window, ideal for displaying moving images. Video Wall functions include Power On Delay, ABL Link, Auto ID Setting and Repeat Timer.



Power On Delay

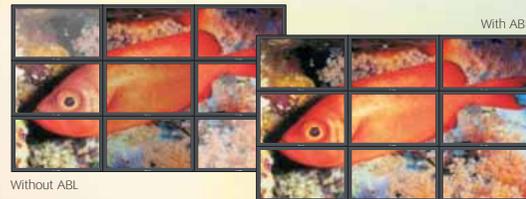
This function automatically staggers the powering up of each display to reduce the load on the power source.

Auto ID Setting

Automatically sets an ID for each display connected via a combination control cable to permit simpler error-free setting (operates only with 2x2 and 3x3 configurations).

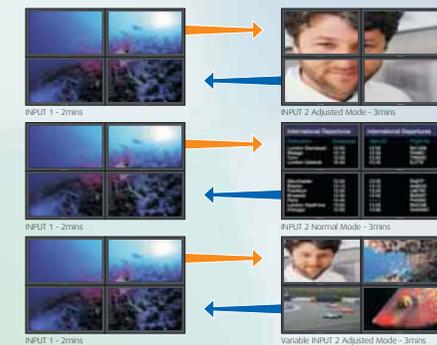
ABL Link

The ABL (Auto Brightness Limiter) Link function commands the video wall as if it were one display setting the brightness of each screen at a uniform level (operates only with 2x2 and 3x3 configurations).



Repeat Timer

Repeat Timer allows the switching between of two different inputs signals for an adjustable amount of time. The user can display an input signal for a period of time and then switch to another input signal for a different amount of time. In addition to controlling the time of this function, the user can control the Normal and Adjusted modes of each signal, and the number of divided images. The second input signal does not need to come from same source, multiple devices can be used as long as they all share a common Input address. It is not necessary to program each PDP separately as they are all controlled from the master PDP. (Display ID-1).



Expansion Solutions



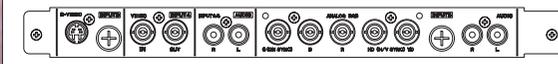
EXPANSION SOLUTIONS

Pioneer Plasma Displays provide unparalleled connectivity

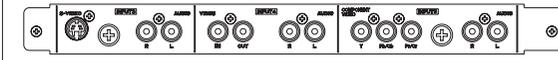
In addition to the standard 15 Pin D-sub and DVI-D connector*, the displays include two open architecture expansion slots. One slot is dedicated to signal input, with two optional Pioneer expansion cards available to handle all the major video signals. The second is a unique communications slot that includes an RS-232C expansion card as standard. With their open architecture, these slots enable interchangeable cards to be designed by third party developers to handle all current and future analogue, digital and communications signals. They also provide the flexibility for systems integrators to design plasma installations to customers exact specifications.

* The standard connectors are only compatible with video signals when a video card is installed (PDA-5003/ PDA-5004)

PDA-5003



PDA-5004



PDA-5003 Video Input/Output Terminals

Input	IN/OUT	Connector	Signal	Level/Impedance
Input 3	IN	Mini DIN 4 Pin S Terminal	Y/C Separate video signal	Y: 1Vp-p/75Ω C: 0.286Vp-p/75Ω (NTSC) C: 0.3Vp-p/75Ω (PAL)
Input 4	IN	BNC	Composite video signal	1Vp-p/75Ω
	OUT	BNC	Composite video signal	75Ω
Input 5	IN	BNC x 5	Analogue RGB Signal	RGB: 0.7Vp-p/75Ω
			G on Sync: 1Vp-p/75Ω	
			Compatible with G on Sync)	HD/CS,VD: TTL/75Ω or 2.2kΩ switchable
			Component Video Signal	Y: 1Vp-p/75Ω Pb/Cb, Pr/Cr: 0.525Vp-p/75Ω

(3.58/4.43 NTSC, PAL, PAL-M, PAL-N, SECAM)

PDA-5003 Audio Input/Output Terminals

Input	Connector	Level/Impedance
Audio Input (Input 3/4)	RCA pin x 2	L/R: 500mVrms / more than 10kΩ
Audio Input (Input 5)	RCA pin x 2	L/R: 500mVrms / more than 10kΩ

PDA-5004 Video Input/Output Terminals

Input	IN/OUT	Connector	Signal	Level/Impedance
Input 3	IN	Mini DIN 4Pin S terminal	Y/C Separate video signal	Y: 1Vp-p/75Ω C: 0.286Vp-p/75Ω (NTSC) C: 0.3Vp-p/75Ω (PAL)
Input 4	IN	RCA	Composite video signal	1Vp-p/75Ω
	OUT	RCA	Composite video signal	75Ω
Input 5	IN	RCaX3	Component video signal	Y: 1Vp-p/75Ω Pb/Cb, Pr/Cr: 0.525Vp-p/75Ω

(3.58/4.43 NTSC, PAL, PAL-M, PAL-N, SECAM)

PDA-5004 Audio Input/Output Terminals

Input	Connector	Level/Impedance
Audio Input (Input 3)	RCA pin x 2	L/R: 500mVrms/more than 10kΩ
Audio Input (Input 4)	RCA pin x 2	L/R: 500mVrms/more than 10kΩ
Audio Input (Input 5)	RCA pin x 2	L/R: 500mVrms/more than 10kΩ



PDP - 42 M X E 10 Specifications

Dimensions



General Specifications

Effective screen size (H x V)	921.6 x 515.3 mm
Aspect ratio	16:9
Number of pixels (H x V)	1024 x 768
Pixel pitch (H-RGB trio x V)	0.9 x 0.671 mm
Brightness	1400cd/m ² (peak / panel)
Contrast	3000:1
Grey scale	4096
External dimensions (W x H x D)	1022 x 610 x 98 mm
Weight	30.5 Kg
Power consumption	285 W
Power supply	AC 100 ~ 240V±10% 50/60Hz
RS-232C	D-sub Pin baud rate:1200, 2400, 4800, 9600, 19200, 38400 bps
Combination IN/OUT	Mini DIN Pin (x2)
Speaker Out	L/R impedance 8 ~ 16Ω/8W +8W(6Ω)
Operational temperature	0 °C ~ 40 °C
Operational humidity	20% ~ 80%
Operational pressure	760 ~ 1100hPa

Analogue and Digital PC Signal Support

Resolution H x V	Vf (Hz)	Hf (kHz)	Resolution H x V	Vf (Hz)	Hf (kHz)	
640 x 400	70.1	31.5	1280 x 960	85	85.9	
720 x 400	70.1	31.5	1360 x 768	60	47.7	
640 x 480	85.1	37.9	1360 x 768	60	47.7	
	59.9	31.5	1376 x 768	59.9	48.3	
	72.8	37.9	1280 x 1024	60	64	
	75	37.5		75	80	
	85	43.3		85	91.1	
	100.4	51.1		100.1	108.5	
120.4	61.3		1400 x 1050	60	65.3	
848 x 480	60	31		75	82.3	
852 x 480	60	31.7		85	93.9	
800 x 600	56.3	35.2	1680 x 1050	60	65.3	
	60.3	37.9	1600 x 1200	60	75	
	72.2	48.1		65	81.3	
	75	46.9		70	87.5	
	85.1	53.7		75	93.8	
	99.8	63		85	106.3	
	120	75.7		1920 x 1200	60	74.6
	60	48.4		1920 x 1200RB	60	74
	70.1	56.5		640 x 480	66.7	35
	75	60		832 x 624	74.6	49.7
85	68.7		1024 x 768	74.9	60.2	
100.6	80.5		1152 x 870	75.1	68.7	
119.4	95.5		1440 x 900	60	56	
1024 x 768	60	53.7	Work Station	60	64.6	
	72	64.9		1280 x 1024	71.2	75.1
	75	67.5		1280 x 1024	72	78.1
	85.2	45.1		1152 x 900	66	61.8
1280 x 768	59.8	48		1280 x 1024	76	71.7
	68.8	56		1280 x 1024	76.1	81.1
	60	49.7		1024 x 768	60	49.7
1280 x 800	60	53.1		1280 x 1024	60	63.9
1280 x 854	60	53.1				
1280 x 960	60	60				

Signal INPUT / OUTPUT Terminals

Input	Terminal	Signal	Signal Level / Impedance
Input 1	IN	Mini D-sub 15Pin	Analog RGB (Sync on G)
		Component Signal*	Y: 1Vp-p/75Ω Pb/Cb, Pr/Cr: 0.525Vp-p/75Ω(75Ω)
Input 2	IN	Mini D-sub 15Pin	Microsoft Plug & Play (VESA DDC 1/2B)
		DVI-D 24 Pin	Digital RGB (DVI 1.0 - w/ HDCP*) 175Ω Output Microsoft Plug & Play (VESA DDC 2B)

* Only with video card installed.

Analogue Video Signal Support

Vertical Fv(Hz)	Horizontal Fh(kHz)	Signal Format (Component/RGB)
50	15.6	576i/SDTV
	31.4	576p/SDTV
	37.5	720p/HDTV
60	28.1	1080i/HDTV
	56.3	1080p/HDTV
	62.5	1250p/HDTV
	15.8	480i/SDTV
	31.5	480p/SDTV
	45	720p/HDTV
	33.8	1080i/HDTV, 1035i/HDTV
67.5	1080p/HDTV	

Only with video card installed.

Digital video Signal Support (w/ HDCP)

Fv	Fh	Signal Format
50	15.6	576i/SDTV
	31.4	576p/SDTV
	37.5	720p/HDTV
60	28.1	1080i/HDTV
	56.3	1080p/HDTV
	62.5	1250p/HDTV
	15.8	480i/SDTV
	31.5	480p/SDTV
	45.0	720p/HDTV
	33.8	1080i/HDTV, 1035i/HDTV
67.5	1080p/HDTV	

EIA/CEA-861 (w/ HDCP)

Fv	Fh	Signal Format
50	15.6	720 (1440) x 576i
	31.3	720 x 576P
	37.5	1280 x 720P
	28.1	1920 x 1080i
	56.3	1920 x 1080P
	31.5	640 x 480P
60	15.8	720 (1440) x 480i
	31.5	720 x 480P
	45.0	1280 x 720P
	33.8	1920 x 1080i
	67.5	1920 x 1080P

Only with video card installed.

For Optional Accessories please visit www.pioneer-eur.com

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Pioneer cannot accept liability in cases where the equipment is damaged due to inappropriate installation location, improper assembly, installation, set-up, operation, renovation, or by natural disasters.

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