

Pioneer *sound.vision.soul*



See and Believe
Pioneer's 42", 50" and 60" Plasma Monitors



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Purchasing a Pioneer plasma screen is about confidence. The brand provides assurance that whatever the operating conditions, quality and reliability are guaranteed: criteria that achieve a new performance benchmark in our latest PDP-MXE20 range – the most advanced professional screens available.

The models share the processing and panel technologies that have secured numerous awards across Europe for our consumer TVs. The sleek black or silver panels* exude Pioneer quality to complement any environment, even more so when they're switched on, as the sublime HD images create the purest colours, exceptional contrast and the deepest darkest blacks for extraordinary realism.

As the professional sector places unique demands on screen technologies, Pioneer has added strength to style in the PDP-MXE20 range: the screens are engineered for efficiency, versatility, reliability and durability. Take a closer look at the perfect blend of looks and performance to see and believe how the optimum investment in professional plasma makes more sense than ever.

* Silver is available as an option on the PDP-50MXE20 only.

SEE AND BELIEVE

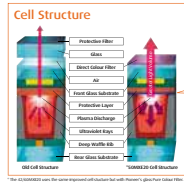
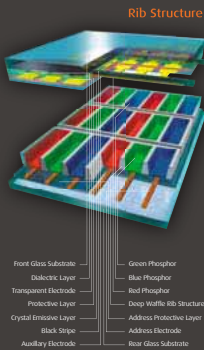


HD
1080i

The picture processing features recently unveiled in Pioneer's plasma TVs have secured an unprecedented array of awards and accolades. These breakthrough technologies - the heartbeat of the PDP-MXE20 range - enhance panel efficiency and deliver razor-sharp image performance.

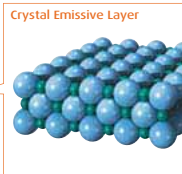


Pioneer invests significant resource in research, and we are one of only a few companies to retain two design groups to focus on the distinct demands of plasma screens for consumer and professional markets. While the PDP-MXE20 benefits from the collaboration of these teams, particularly in picture performance, engineers from the professional group have enhanced the panel to meet the tough demands of professional applications. Their brief was to ensure that sensational image performance is complemented by pragmatic qualities. And they've delivered. A range of intelligent techniques dramatically improve the robustness and durability of the screens; so Pioneer's displays not only deliver the industry's best images, they keep doing so throughout their lifecycle. Strengths that ensure that the PDP-MXE20 range looks as good on the balance sheet as it does on the wall.



PureBlack Panel

The latest incarnation of Pioneer's unique panel technology, the PUREBLACK PANEL, includes a plethora of advances to move image quality a visually stunning step forward. A redesigned Deep Waffle Rib Structure includes a switch to square pixels for the 50 and 60 inch models which ensures that images are true to life with no distortion - while the cell structure improves phosphorous discharge and decreases unwanted light output. Other advances include a new dielectric layer that greatly improves panel efficiency, a superior colour filter which delivers a higher level of colour accuracy and contrast, updated



phosphor, and a new Crystal Emissive Layer that generates better luminance performance, higher brightness and faster discharge response. The net effect of these advances produces bright, sharp and contrast-rich pictures complemented by increased overall energy efficiency.

New PureDrive PRO

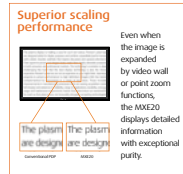
The panel's high efficiency and optimum picture quality are achieved by mounting the colour management, scaling, GEM and other image processing technologies on a chip set developed exclusively for Pioneer's professional plasma panels. Scaling performance, a vital factor for professional screens (especially when displaying PC



images and in video wall applications), has been improved to ensure that even high resolution signals are accurately reproduced. Image processing is further advanced by i-CLEAR Drive: depending on the video signal, this feature intelligently adjusts grey steps in darker areas to sharpen details. Since it doesn't ignore any data when scaling, even with highly detailed images, image processing is smoother and more precise. False contour noise is also completely eradicated for a sharp, flicker-free viewing experience.

Six professional modes

Adjust images through six 'Pro Modes' for professional applications:



- Under-Scan: displays 100% of the image, including the outer edges that are normally cut off.
- Colour Off: removes colour information for optimum display of black and white signals.
- Still Image Processing: suppresses movement to display still images accurately by varying movement detection processing.
- Pure Image: displays images as close as possible to the original signal with no image processing except I/P conversion.
- High Contrast: uses special dynamic range expansion to make images more vivid.
- Blue Only: used in broadcast and post production for display calibration.



Seamless Orbiter extends screen performance

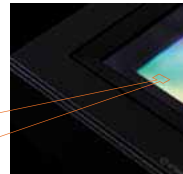
Conventional orbiter modes reduce ghosting by moving the displayed image by one pixel or more at regular intervals. Because the movement is noticeable to the eye, it can impair the viewing experience. To overcome this problem, the PDP-MXE20 screens include a unique Seamless Orbiter function that moves 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 to virtually eradicate ghosting without viewers noticing the process.

Various display modes extend performance

- Auto side mask: when a 4:3 image is displayed, the automatically set side mask is applied.
- 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.
- Screen reversal display: restores ghosting by reversing the colours of the area where ghosting occurs.
- Soft focus: blurs the edges of the image, making ghosting difficult to see.

Lower power consumption and five energy saver modes

Due to the efficiency of the PUREBLACK PANEL, the screens' power consumption figures are among the lowest in industry: PDP-42MXE20 (285 W), PDP-50MXE20 (340 W) and the PDP-60MXE20 (450 W). In addition to the standard mode, efficiency is further advanced by five energy saver modes that manage the peak intensity of high brightness images, including an automatic mode* which applies an ambient light sensor to adjust the settings to local light conditions.



Other features

- Two different sizes of GUI are available in large and small
- Multilingual on-screen display
- Display Call
- Point Zoom
- Intelligent Auto Set-up
- Colour Detail Adjustment
- Priority Input Mode
- IR and Key Lock / Memory Lock
- Portrait mode OSD
- Remote Controller ID
- Frame-rate conversion mode

*Not available on the PDP-60MXE20

The powerful PURE DRIVE PRO image processing engine is designed to support, as standard, a flexible range of dual-image options, so the screens present versatile canvasses to deliver engaging digital signage applications, improve presentations and support creative promotions. All Picture in Picture options and Side-by-Side modes can be managed by the remote control unit and RS-232C.



As part of Pioneer's drive to extend the applications of professional screens, our professional design team has created the Expansion Solutions concept. As well as the standard 15 Pin D-sub and DVI-D connector for PC and video signals, the displays include two open architecture expansion slots. One slot is dedicated to signal input with two optional Pioneer expansion cards available to handle the major video signals. The second is a unique communications slot and includes an RS-232C expansion card as standard. With their open architecture, the slots enable interchangeable cards to be designed by third party developers to handle current and future analogue, digital and communications signals. They also provide the flexibility for systems integrators to design plasma installations to customers' exact specifications.



Intelligent dual screen modes

Images in dual screen mode are delivered with identical pinpoint accuracy due to the processing power of PURE DRIVE PRO – a useful feature for video conference applications. Any two of the main inputs can be displayed together, either as two images of the same size, 'Picture and Picture', or as a larger main image next to a smaller sub-image, 'Picture out Picture'. Main and sub-images can also be swapped over to switch the audio source.



Dual Image Freeze

Dual Image Freeze temporarily pauses a displayed image. The still can be the sub-image in Picture in Picture mode or the left-hand image in the Side-by-Side mode. The image can be grabbed through the RCU to accentuate part of a presentation or broadcast content.



Picture in Picture display modes

The Picture in Picture mode allows the sub-image to be displayed in any one of the screen's four corners in a small window. There are four sub-image sizes to select from and the transparency of the window is adjustable up to a density of 80 per cent.

Picture in Picture Fade In/Out

This feature fades the sub-picture in and out in about one second for natural image movement.



Banner mode

In banner mode, it's simple to overlay text using a PC and PowerPoint or similar presentation tools.

There are ten positions available for the titles – eight horizontal settings and two portrait modes. The transparency of the on-screen text can also be adjusted up to a density of 80 per cent.

PowerPoint is a registered trademark of Microsoft Corporation.



Upgraded Side-by-side mode

In the full-screen mode, three display options are available. As well as a 50:50, a 4x3 image can be selected that's 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's also possible to present the images in a portrait format to enhance installation options*.

*External manipulation of the signal is needed



Sub-image detection

Sub-image detection enables a sub-image to be presented in any corner of the display. If the sub-image signal is lost, the screen reverts to the main picture only and the sub-image automatically reappears when the signal is restored. This standard feature provides a simple and effective method to display time sensitive content, highlight a new promotion or intermittently show a company logo or snapshot of information.



PDA-5003 Video Input/Output Terminals

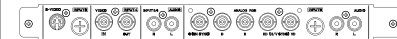
	Connector	Signal	Level/Impedance
Input 3	IN	Mini DIN 4 Pin 5 Terminal	Y: 1Vp-p/75Ω C: 0.286Vp-p/75Ω (NTSC) C: 0.33Vp-p/75Ω (PAL)
Input 4	IN	BNC	Composite video signal
	OUT	BNC	Composite video signal
Input 5	IN	BNC x 5	Y: 1Vp-p/75Ω
			RGB: 0.7Vp-p/75Ω
			Compatible with G on Sync HB/Cs, Vb: 1T1/75Ω or 2.2kΩ switchable Y: 1Vp-p/75Ω
		Component Video Signal	Pb/Cb, Pr/Cr: 0.525Vp-p/75Ω

(S, SB/A: 4.3 NTSC, PAL, PAL-M, PAL-N, SECAM)

PDA-5003 Audio Input/Output Terminals

	Connector	Level/Impedance
Audio Input (Input 3/A)	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-5003



PDA-5004



PDA-5004 Video Input/Output Terminals

	Connector	Signal	Level/Impedance
Input 3	IN	Mini DIN 4Pin 5 Terminal	Y: 1Vp-p/75Ω C: 0.286Vp-p/75Ω (NTSC) C: 0.33Vp-p/75Ω (PAL)
Input 4	IN	RCA	Composite video signal
	OUT	RCA	Composite video signal
Input 5	IN	RCAx3	Component video signal
			Pb/Cb, Pr/Cr: 0.525Vp-p/75Ω

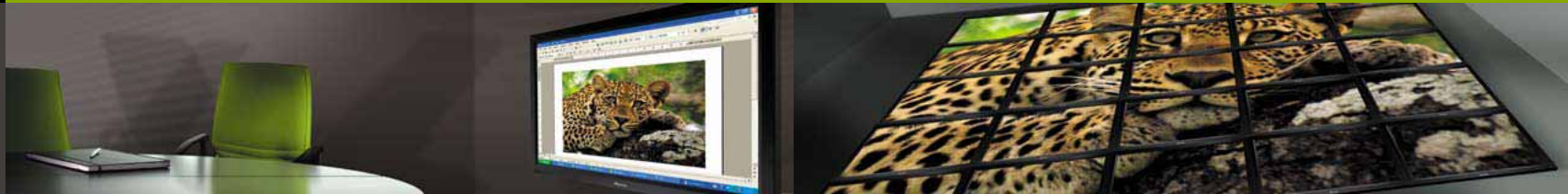
(S, SB/A: 4.3 NTSC, PAL, PAL-M, PAL-N, SECAM)

PDA-5004 Audio Input/Output Terminals

	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



As expected of the industry's leading professional screen, a high degree of flexible control comes as standard, features that improve the viewing experience and lower the cost of installation and screen management.



The Video Wall is an increasingly common application requirement and Pioneer provides all the professional control functions to easily configure creative and engaging displays.



Input 1
0.4 Seconds
Input 2



Input 2

High-speed image switching for smooth presentation and displays

The PDP-MXE20 range has a high-performance dual-image processing function that switches from one input to another in approximately 0.4 of a second.

A virtually instantaneous movement that ensures comfortable viewing of presentations and content displayed at exhibition halls or event venues.



Extensive RS-232C control

The RS-232C interface provides a wide range of remote commands. As well as the facility to manage all the screen's key functions, there's the option to control combination connections, variable baud rate setting, acknowledge function and more. Also, a Status Feedback capability is available. This returns details on the screen's status and, in the unlikely event of any errors, diagnoses the origin of the problem to enhance maintenance.

AMX Duet Partner control™

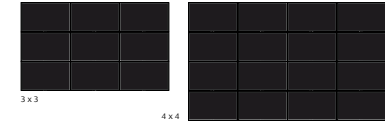
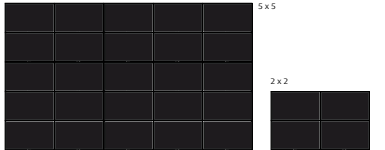
The screens apply AMX's acclaimed Duet Partner technology to smooth system integration, the RS-232C interface supports two-way communication with the AMX controller that manages the panels using Pioneer protocols.



Programmable and Repeat timer

With the ten-event programmable timer, it's easy to support remote content by creating a schedule and linking this to key functions including power on/off, input selection and the activation of screen management features like the Seamless Overlay.

The Repeat Timer feature has three events where you can switch between inputs and select features such as different picture in picture modes and video wall settings.



Display up to 25 PDPs

Configuring multi-screen video walls is easy. 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. Normal mode splits the image into multiple parts (up to 25) without losing any of the data that would normally be obscured by the PDP frame. Adjusted mode divides the picture into sections keeping the overall image complete as though looking through a window. Video Wall functions include Power on Delay, ABL Link, Auto ID Setting and Repeat Timer.



ABL Link

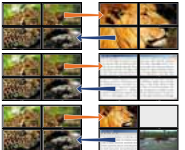
The ABL (Auto Brightness Limiter) Link function commands the video wall as if it were one display, setting the brightness of each screen at a uniform level (operates only with 2x2 and 3x3 configurations).

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).



Timer Function

The Programmable Timer and Repeat Timer function can also be used in video wall mode. The Repeat Timer can be used to manage the switching between two input signals for an adjustable period of time. The user can display an input signal for an amount of time and then switch to another input signal for a different period before the sequence is repeated. As well as setting time intervals, the user can select Normal or Adjusted mode and the number of divided images. The second signal doesn't need to come from the same source - multiple devices can be used as long as they share the same input address. Moreover, it's not necessary to programme each panel individually as they can be controlled from the master screen (available in 2x2 and 3x3 modes only).

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published by **PIONEER EUROPE N.V.**
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