

42PMA500E

High Performance 42"
Plasma Display



* Shown with optional table mount

www.hitachidigitalmedia.com

- 42" 16:9 Aspect Ratio Plasma Display
- New H³ Panel and I² Advanced Image Processor
- Super Reality ALIS Technology
- Long Life Panel
- Comprehensive Computer Inputs

HIGH PERFORMANCE 42" PLASMA DISPLAY

42PMA500E Features

Hitachi's new 42PMA500E plasma display incorporates a host of new technology features, which combine to produce the ultimate in picture performance. With 1024 x 1024 pixel resolution, 16:9 aspect ratio screen and an extra-high peak white brightness level of 1100cd/m², this Plasma display provides a higher quality picture. Among other technical advances featured are Hitachi's I² Advanced Intelligent Image Chip, which enables high quality progressive scan processing and high speed digital processing. Capable of displaying the minute details and crisp colours of high resolution computer generated video images and graphics, this slim and space saving wide-screen display is ideal for visual communication applications.

Hitachi's Plasma Display Promotes Effective Communication in a Wide Range of Situations



Information boards in reception areas



In store installation



Executive offices



Showroom displays



Fitness club displays



Visual art displays for spatial ambience



* Shown with optional table mount



Hitachi's
I² Advanced
Intelligent
Image Chip

H³ Panel - Improved Brightness and Contrast

Designed to deliver outstanding picture quality, the 42PMA500E incorporates Hitachi's new H³ Panel which delivers dynamic contrast and improved brightness. With a contrast ratio of 1000:1 and panel brightness of 1100 cd/m², this display reproduces amazing quality pictures.

Refinements to the phosphors and drive system have raised the brightness of the H³ Panel by 10%, while new optical characteristics of the panel and front filter have improved overall image brightness and made colour reproduction more natural.

I² Advanced Intelligent Image Chip

The 42PMA500E features Hitachi's new I² Advanced Intelligent Image Chip which enables high quality progressive scan processing and high speed digital processing. This ensures the best contrast level for all signals that are run through the display panel. The Digital colour management allows tint and black levels to be independently controlled so that vivid and natural pictures can be obtained without affecting other colours. With 1024p High Performance Signal Processor, this feature can overlap the fields to create more lines resulting in clearer, sharper picture quality, with no discernible flicker.

Life Extension Mode

The 42PMA500E is equipped with Life Extension Mode that limits the maximum brightness to either 75% or 60% and gradually changes the setting over time to keep the picture brightness constant.

Video Upgrade Board*

The optional Video Upgrade Board provides the following inputs to accommodate today's wide variety of signal sources.

These include:

- Component/Composite Video for DVD/VCR
- Component or RGB/Composite for DVD/Set Top Box
- S-Video/Composite for VCR/Camcorder
- SCART (RGB/S-Video/Composite for DVD/Set Top Box/VCR)

DVI Digital PC Input:

The 42PMA500E also accepts Digital PC Signal Format through a 24pin DVI Connector, common with all PC Graphics Cards. This Digital PC Signal is compatible with TDMS format ranging from Horizontal (31~60kHz) to Vertical (56~85Hz), allowing an XGA of up to 75Hz PC Signal Format.

ALIS Technology

The 42PMA500E employs Hitachi's ALIS (Alternate Lighting of Surfaces) technology to achieve high resolution and high brightness. ALIS employs two closely spaced lines of phosphors for each line of a conventional screen and emits light from each line alternately. The result is a smoother more natural image without the obvious black lines between pixels that conventional panels display. Because ALIS uses different electrodes for odd and even lines, each electrode is only on for half the time of a conventional panel.

This reduced duty cycle significantly increases the screen's effective working life.

Multi-Scanning from VGA to UXGA

The 42PMA500E accepts video signals with horizontal scanning frequencies from 31kHz to 106kHz and vertical scanning (or frame) frequencies of between 50Hz and 85Hz. As a result, this display is capable of producing high quality pictures from almost any type of PC video output signal ranging from VGA to UXGA. Three screen modes are available to suit particular signal sources and applications. These modes are NORMAL (no change in the aspect ratio), FULL (enlargement/reduction of the aspect ratio to make the image fill the 16:9 screen), and ZOOM (no change in the aspect ratio but with vertical scrolling of the image on the screen). On top of this, the 42PMA500E also has a full complement of features that makes this display ideal for use as a PC monitor including automatic adjustment functions for PC signal compatibility, phase and clock frequency.

Multi Picture Modes

To add to the flexibility for presentations, this new feature, Multi Picture Modes, allows you to show a split screen with two images. This can be a choice of Picture and Picture or Picture in PC and is ideal for visual communication applications. (Only available when optional Video Board fitted).

Manual Adjustable White Balance

This function allows you to set any desired colour temperature to achieve the correct white balance. In addition to four fixed modes, there is a selector/manual mode that allows the user to precisely set each of the RGB colours separately to produce the exact desired result.

Features for Reduced Image Retention

The 42PMA500E has sophisticated screen saver features that enable the user to shift the picture by a variable number of pixels and time to help prevent static images marking the screen.

If these functions are employed when high contrast elements are displayed, image retention effects can be substantially reduced. In addition, this model has an input signal reverse display function and a whole-screen white display that refreshes the screen if any temporarily retained images are visible.

Compact and Versatile

While the 42PMA500E's 42-inch screen measures 922 x 522mm, the slim and lightweight unit is only 90mm in depth and weighs just 34.9kg (excluding the table stand). In addition to desktop use with the optional table stand, the display can be mounted on to a ceiling or wall using one of a variety of optional mounting units, in horizontal and vertical formats.

Built-in Amplifier

Equipped with built-in 12W per channel 1 bit Digital Audio Amplifier, the 42PMA500E can be connected to a pair of optional external speakers to provide a dynamic audio accompaniment to viewing, presentations, etc.

Easy on the Environment

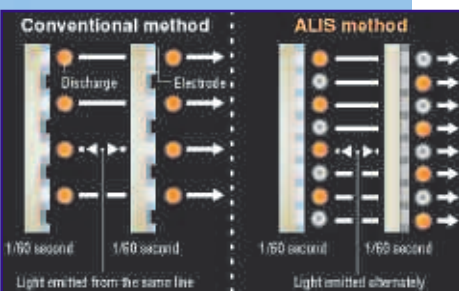
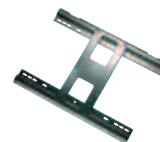
To make the 42PMA500E as environmentally friendly as possible, Hitachi has reduced the number of components contained within each Plasma, and make effective use of natural resources wherever possible. This has reduced the number of hazardous materials used by utilising lead free and non halogen resin, resulting in a more energy efficient panel.

Options

Table Mount
CMPAD30
750(W) x 155(H) x 240(D) mm

Wall Mount
PWT001
550(W) x 413(H) x 35(D) mm

Optional Speakers
CMPAS30S
102(W) x 636(H) x 91(D) mm



Selection mode		
NORMAL	FULL	ZOOM
VGA / SVGA / XGA / UXGA	VGA / SVGA / XGA / SXGA / UXGA	VGA / SVGA / XGA / SXGA / UXGA
4:3	16:9	16:9
5:4		Scroll according to vertical position

42PMA500E Plasma Monitor

Technical Specifications

Hitachi PDP (Plasma Display Panel) Monitor, which can only connect with PC.

PICTURE

Screen size	42"/106cmV
Screen type	Plasma
Pixels	1024 x 1024
Pixel pitch	0.90 (horizontal) x 0.51 (vertical) mm
Colours	16.7 Million
Gray level	256
Panel Luminance (Typical)	1100 cd/m ²
Contrast	1000:1

AUDIO

RMS Output	2 x 12W
Surround Sound	Matrix
TRUBASS	•
1 bit Digital AMP	•

CONNECTION

Connector RGB1 (digital)	24-pin DVI (1.0V+HDCP)
Connector RGB2 (analogue)	15-pin D-sub
Control (RS232C)	9-pin D-sub, RS232C 9600bps
Audio for RGB1	L/R mini-headphone jack
Audio for RGB2	L/R mini-headphone jack

COMPUTER INPUT

RGB1	24-pin DVI
Video Format	RGB digital, TMDS
Frequency	Horizontal: 31~60kHz, Vertical: 56~85Hz
Audio	Stereo, 470mV 270k Ω
RGB2	15-pin D-sub
Video Format	RGB analogue, 0.7V _{p-p} , 75 Ω
Sync level	H/V Separate Sync and H/V Composite Sync: TTL level
	Sync on Green: 0.3V _{p-p} , 75 Ω
Frequency	Horizontal: 31~106kHz, Vertical: 50~85Hz
Audio	Stereo, 470mV High Impedance

CONTROLS

RGB	Contrast, Brightness, Display Size, Vertical Position, Horizontal Position, Clock, Phase
Colour Temperature	COOL: 12,000K, NORMAL: 9,300K, WARM: 6,500K, Black & White, 5,400K, USER: manual adjustment
Audio	Volume, Balance, Treble, Bass, Mute
Remote Control	Power, Volume Up/Down, Mute, Input Select, Adjustment Menu, ID select
RS232C	9-pin D-sub Control through PC

GENERAL

Voltage	AC 100~240V/50~60Hz
Power Consumption	365W
Stand-by	<3W
Weight	34.9kg
Dimensions	1030 x 636 x 90 mm (WxHxD)
Stand	Optional (Swivel)

OPERATING CONDITION

Temperature	5 ~35°
Humidity	20 ~80% RH (non-condensing)
Pressure	800 ~1114 hPa (reference value: max altitude 1888m)

CERTIFICATION

Safety	EN60065
EMI	EN50013 class B
CE	EN55020, EN61000-3-2, EN61000-3-3

OPTIONS AVAILABLE

CMPAS30S	Optional Speakers
CMPAD30	Optional Table Mount
PWT001	Optional Wall Mount

Optional Video Board (CMPAVWIK)

CONNECTORS

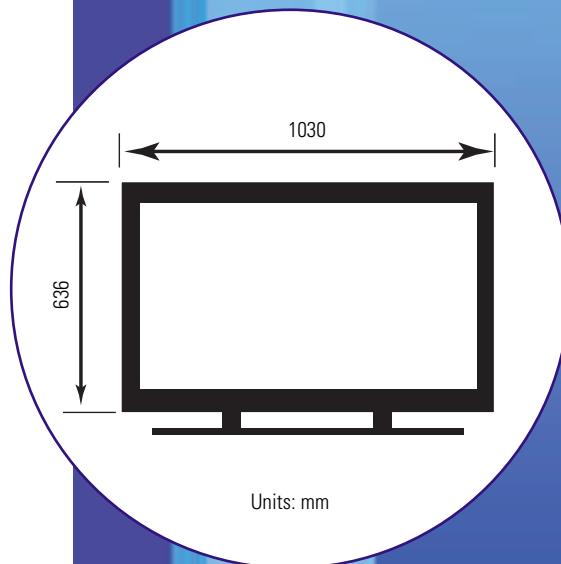
AV1	Phono x 4 (Component Input and Composite Input)
	Phono x 2 (Audio L and R Input)
AV2	Phono x 4 (Component or RGB Input and Composite Input)
	Phono x 2 (Audio L and R Input)
AV3	Phono x 2 (Composite Input and Composite Output)
	S-terminal Input (S-Video)
	Phono x 2 (Audio L and R Input)
AV4	SCART (RGB Input, Composite Input, Composite or TV Output, Audio L/R Input and Output, Mode Select, Fast Blanking)

INPUT SIGNAL FORMAT

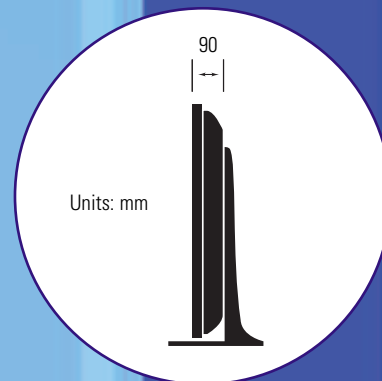
Component	480i, 480p, 575i, 575p, 720p, 1080i (50/60)
Format	Y, P _b , P _r or Y, C _b , C _r
Signal Level	Y=1.0V; P _b , C _b , P _r , C _r =0.7V _{p-p} , 75 Ω Sync. on y
Composite/S-Video	PAL/SECAM/NTSC 3.58/NTSC 4.43/PAL 60
Signal Level	1.0V _{p-p} , 75 Ω , Composite Sync
RGB	Normal Video RGB (50/60)

*Optional Video Board can be fitted prior to delivery.

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- When a plasma display is turned on, minute dots light up on the screen. Please be aware that in some parts of the screen may not light, while in other parts dots will always light. This is normal and is not a malfunction.
- To prevent overheating of the plasma panel an air cooling system is used. To assure proper operation of this system, the plasma display should be installed and operated in a vertical position. If the display is installed horizontally or at an excessive angle, heat may not be effectively dissipated and overheating could occur. This could lead to a malfunction.
- All on-screen images shown in this catalogue are simulated.
- Design and specifications are subject to change without notice.



Monitor Dimensions



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The specification above and photography is for reference only and may be subject to change.