42PMA400E

Technical Specifications

DISPLAY

Effective Display Area	922 (Horizontal) x 522 (Vertical) mm
Aspect Ratio	16:9
Number of Pixels	1024 (Horizontal) x 1024 (Vertical) pixels
Pixel Pitch	0.90 (Horizontal) x 0.51 (Vertical) mm
Number of Colours	16.7 million colours (256 grey levels)
Panel Brightness	1000cd/m² (320cd/m² after filter)
Contrast Ratio	1000:1

COMPUTER INPUT

Video Format	RGB analogue, 0.7Vp-p, 75Ω
Sync Level	H/V Separate Sync and H/V Composite Sync: TTL, Sync on Green: 0.3±0.1 Vp-p, 75Ω
Frequencies	Horizontal: 24 ~ 106kHz, Vertical: 50 ~ 85Hz
Audio	Stereo, 470mV High Impedance
Connectors, RGB1	Video: Mini D-sub, 15 Pin x 1 Audio: 3.5mm Stereo Mini Jack x 1
Connectors, RGB2	Video: Mini D-Sub, 15 Pin x 1 Audio: 3.5mm Stereo Mini Jack x 1

COMPOSITE VIDEO INPUT

Format	PAL/SECAM/NTSC, Composite & S-Video
Signal Level	1.0Vp-p, 75Ω, Composite Sync
Connectors	Video: Phono x 1, S terminal x 1 Audio: Phono (L/R) x 1

COMPONENT VIDEO INPUT

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 = 0.7Vp-p, 75Ω Sync. on Y
Connectors	Video: Phono x 3 Audio: Phono (L/R) x 1

OUTPUTS

Audio	10W + 10W (6Ω) – speakers optional
Video Format	Loop though on composite only, BNC x 1,75Ω

CONTROLS

Video Format	Contrast, Brightness, Colour, Colour Tone, Sharpness
RGB	Contrast, Brightness, Display Size, Vertical Position, Horizontal Position, Clock Frequencies, Clock Phase
Colour Temperature	COOL: 9,300K, NORMAL: 7,600k, WARM: 6,500K USER: manual adjustment
Audio	Volume, Balance, Treble, Bass, Mute
Remote Control	Power, Input Select, Adjustment Menu Selection, Sound Volume Adjustment
Power Management	On/Off control via Signal Detection
RS232C	D-sub 9 pin

POWER

Power Supply	200 ~ 240V AC, (50/60Hz)
Power Consumption	350W (Standby: 2W)

PHYSICAL

Dimensions	1030 x 636 x 89 mm (WxHxD)
Weight	31kg

OPERATING CONDITIONS

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

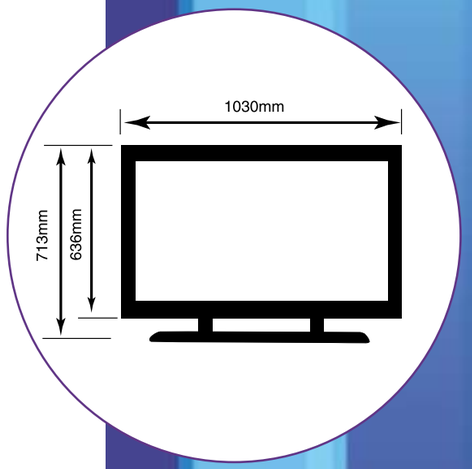
CERTIFICATION

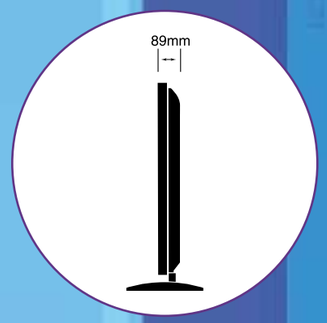
Safety	UL1950, CSA 22.2 No 950, EN60950
EMI	FCC class B, EN55022 class B
CE	EN61000-3-2, EN61000-3-3, EN50082-1 EN60950, EN55022

SUPPLIED ACCESSORIES

Power Cable, Infrared Remote Control Unit (with batteries, AA, R6), User Manual.

• 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.





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42PMA400E

High Performance 42” Plasma Display

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- 42” 16:9 Aspect Ratio Plasma Display
- New H^2 Panel and I^2 Intelligent Image Chip
- High Resolution ALIS Technology
- Comprehensive Video and Computer Inputs
- Life Extension Mode

HIGH PERFORMANCE 42" PLASMA DISPLAY

42PMA400E Features

Hitachi's new 42PMA400E plasma display incorporates a host of new technology features, which combine to produce the ultimate in picture performance. With 1024 x 1024 pixel high-resolution, 16:9 aspect ratio screen and an extra-high peak white brightness level of 1000cd/m^2, this Plasma display provides a higher quality picture. Among other technical advances featured are Hitachi's I^2 Intelligent Image Chip, which enables high quality progressive scan processing and high speed digital processing. Capable of conveying the breathtaking beauty of high resolution images and the minute details and crisp colours of UXGA computer generated 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 guide (vertical installation)

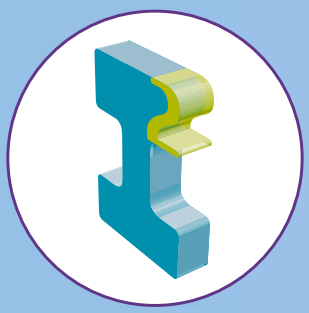

Executive offices


Showroom displays

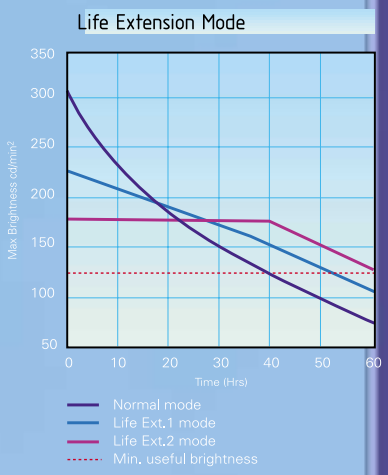

Fitness club displays

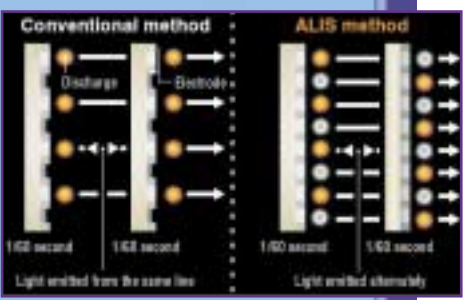

Visual art displays for spatial ambience

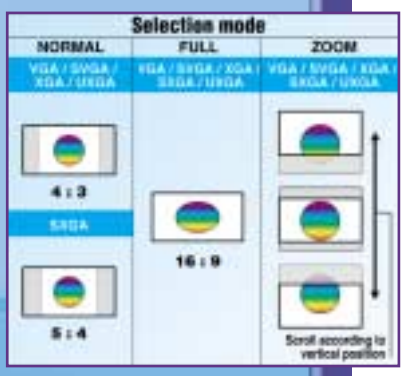
* Speakers shown are an optional extra



Hitachi's
I² Intelligent
Image Chip







H² Panel - Improved Brightness and Contrast

Designed to deliver outstanding picture quality, the 42PMA400E incorporates Hitachi's new H² Panel which delivers dynamic contrast and improved brightness. With a contrast ratio of 1000:1 and panel brightness of 1000 cd/m², this display reproduces amazing quality pictures.

Refinements to the phosphors and drive system have raised the brightness by 25%, while new optical characteristics of the panel and front filter have improved both overall image brightness and made colour reproduction more natural.

I² Intelligent Image Chip

The 42PMA400E features Hitachi's new I² 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, whilst also scanning pages/information far quicker to reduce flicker.

Life Extension Mode

The 42PMA400E is equipped with Life Extension Mode that limits the maximum brightness to either 75% or 60% and gradually increases the setting over time to keep the picture brightness constant. This can increase panel life by as much as 67%.

Comprehensive Input Options

To accommodate today's wide variety of signal sources, the 42PMA400E offers a full range of inputs.
A component video input caters for DVD, while two further inputs handle NTSC, PAL or SECAM signals in composite or S-Video formats (video loop through available on the composite video input). For computer sources, two RGB analogue inputs offer mini D-sub connectors with comprehensive synchronisation options.

RGB Video Input allows the plasma display to accept RGB signal from DVD players and/or Satellite/Cable boxes giving a clearer and sharper picture than via conventional inputs. Component/Progressive Scan input offers improved picture quality to the highest of standards. Coupled with Hitachi's I² Intelligent Image Chip, this high speed, high density digital processing ensures that even analogue terrestrial is displayed in high-density quality.

ALIS Technology

The 42PMA400E 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 42PMA400E accepts video signals with horizontal scanning frequencies from 24kHz 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 42PMA400E 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.

Manual Adjustable White Balance

This function allows you to set any desired colour temperature to achieve the correct white balance. In addition to three 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 42PMA400E 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 42PMA400E's 42-inch screen measures 922 x 522mm, the slim and lightweight unit is only 89mm in depth and weighs just 31kg (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 Stereo Amplifier

Equipped with built-in 10W per channel stereo power amplifier, the 42PMA400E can be connected to a pair of optional external speakers to provide a dynamic audio accompaniment to video viewing, presentations, etc.

Easy on the Environment

To make the 42PMA400E as environmentally friendly as possible, Hitachi has employed non-halogen resin for the front frame and no PVC is used in the structural parts. In addition, we have succeeded in reducing the ratio of shock-absorbing material used for packing by 25% compared with our previous displays.

42PMA400E is also compliant with radio emissions self-regulatory standard FCC Class-B, which means it generates only minimal electrical interference that should not effect the operation of nearby TV's, videos, radios, etc.

Options

Table Top Mount (see main picture)
Model: CMPAD05
700mm(W) x 77mm(H) x 300mm(D)

Angle Wall Mount
Model: CMPAK345
(Adjustable 0-20° in 5 steps)
536mm(W) x 575mm(H) x 22mm(D)

*Optional Speakers
100mm(W) x 636mm(H) x 90mm(D)