

# Panasonic

## TH-42PHD5EX

42-inch diagonal High Definition Plasma Display



- **HDTV Monitor**
- **XGA Resolution**
- **1,024 Shades**

## Plasma Reality Technology

Panasonic's ongoing development of "Plasma Reality Technology" is part of our pursuit of ultimate reality in image reproduction.

Plasma Reality Technology is a synergetic group of picture-enhancing technologies including the Real Black Drive System, Advanced Plasma AI, and Real Gamma Correction that lift plasma display image quality to an entirely new level by dramatically boosting brightness, contrast and gradation.

### • Real Gamma Correction

The Real Gamma Correction technology has enabled the industry-first reproduction of 1,024 shades of gradation in a high-definition plasma display. By optimizing the gradation in each scene, this technology results in far better reproduction of the low-light portions of the image, a weakness in many conventional plasma displays. Up to 2,048 shades can be reproduced by using the optional TY-42TM4D DVI Terminal Board for a DVI digital RGB signal connection.

### • Real Black Drive System

Conventional plasma displays tend to illuminate blacks, which lowers the contrast. In Panasonic plasma display, however, the pre-discharge emission intensity is greatly reduced, and the number of emissions per field is cut from the usual 12 to 1. This dramatically reduces black levels and provides deeper, richer blacks. It also achieves the industry's highest contrast, with a 3000 : 1 contrast ratio.

### • Advanced Plasma AI (Adaptive Brightness Intensifier)

The Advanced Plasma AI increases the discharge cycles for dark scenes, and produces extremely precise control of the brightness level. The result is extremely vivid whites with unprecedented brightness.

### 3:2 Pulldown

The 3:2 Pulldown technology automatically detects a 3:2 film-based source, then uses still-image processing for each individual image to achieve clear, smooth-flowing images with a level of detail that closely approaches that of the original film.

\* Works with 480i and NTSC format signals.

### New Asymmetrical Cell Structure Panel

The asymmetrical arrangement of the red, blue and green cells results in a dramatically improved light-emitting balance of the three primary colors. This reproduces purer whites while maintaining a high level of brightness. The use of a new front protection glass filter and new phosphors also expands the range of color reproduction, resulting in more vivid blues and deeper reds.

## Specifications

DISPLAY	
Screen Size	42" (106 cm) diagonal
Screen Aspect	16 : 9 Wide
Number of Pixels	786,432 (1024 x 768) pixels
Pixel Pitch	0.90 mm
Displayable Colors	16.77 million colors
Contrast	3000 : 1
Color System	NTSC/PAL/SECAM/PAL 60Hz/M-NTSC
Audio Output	16 W (8 W x 2)
On-Screen Display	US English/UK English/Spanish/French/German/Italian/Chinese
Screen Coating	AR (Anti-Reflection) Coating
GENERAL	
Power Supply	AC 120 V, 50/60Hz
Maximum Current	5 A
Power Consumption	375 W
Dimensions (W x H x D)	40.2" x 24" x 3.5" (1020 x 610 x 89 mm)
Weight	66.1 lbs. (30.0 kg)
EMI Regulations	FCC Part. 15 Class A Digital Equipment
Safety Standards	UL6500/C-UL (CAN/CSA-E65-94)

**Panasonic Broadcast & Television Systems Company**  
Division of Matsushita Electric Corporation of America

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## XGA Resolution

With a native XGA resolution, the Panasonic plasma display can accurately display personal computer signals ranging from VGA and SVGA to XGA mode. It can also support compression display of SXGA and UXGA signals.

## HDTV Monitor

You can connect component video inputs to the unit and view digital TV broadcasts in either HDTV (1080i or 720p), EDTV (480p) or SDTV (480i) formats. The ultra-high resolution of the Panasonic plasma display fully reproduces high-definition pictures from 720p HDTV signals.

\* In order to view DTV programming, the plasma display must be connected to a separate DTV digital receiver.

## Slot-type Interface

Panasonic plasma display features a slot-type interface for easy expandability. The slot accepts an optional DVI terminal board for direct RGB digital signal connection.

## Screen Savers

Select from a total of three screen savers to minimize the risk of uneven phosphor aging. The White Bar Scroll is designed for ordinary still-image displays, Screen Reversal is for text-screen displays, and Side Panel Adjustment is for 4:3 format images. All three can be started up in manual mode, or they can be set to automatically start/stop at preset times in timer mode or for preset periods in interval mode. To provide phosphor protection for 4:3 format images, all units are factory set with the Side Panel Adjustment turned ON and the Aspect Control set to JUST mode.

## Preset Input Signals

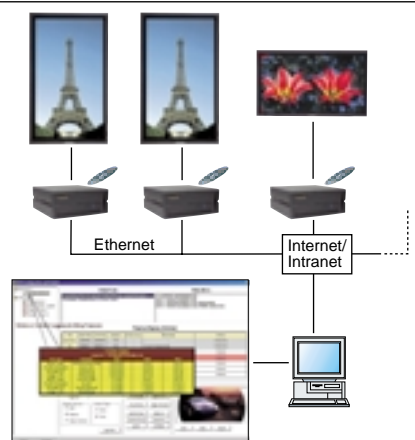
Signal name	Horizontal frequency (kHz)	Vertical frequency (Hz)	
AV input			
NTSC	15.734	59.95	
PAL	15.625	50	
PAL60	15.734	59.95	
SECAM	15.625	50	
Modified NTSC	15.734	59.95	
Component/RGB input			
525(480)/60i	15.734	59.94	
625(575)/50i	15.625	50	
525(480)/60p	31.468	59.94	
625(575)/50p	31.25	50	
750(720)/60p	45	60	
1125(1080)/60i	33.75	60	
1125(1080)/50i	28.125	50	
1125(1080)/24p	27	24	
1125(1080)/24sf	27	48	
PC input			DVI
640 x 400@70	31.5	70	
640 x 480@60	31.5	59.94	√
Mac 13 (640 x 480)	35	67	
640 x 480@75	37.5	75	
852 x 480@60	31.7	60	√
800 x 600@60	37.9	60	√
800 x 600@75	46.9	75	
800 x 600@85	53.7	85	
Mac 16 (832 x 624)	49.7	75	
1024 x 768@60	48.4	60	√
1024 x 768@70	56.5	70	
1024 x 768@75	60	75	
1024 x 768@85	68.7	85	
Mac 21 (1152 x 870)	68.7	75	
1280 x 1024@60	64	60	
1280 x 1024@75	80	75	
1280 x 1024@85	91.1	85	
1600 x 1200@60	75	60	

## HD Digital Signage Solution



### DVD-Ram/R HD Player iDVR100

The iDVR100 Digital Video Replay server can be teamed with Panasonic plasma displays to deliver high definition video for cost-effective presentation systems. The iDVR100 plays stunning 720p and 1080i HD images plus surround sound. The iDVR100 is networkable via Ethernet, allowing video content to be distributed to a specific iDVR, or a group of iDVRs, over an IP network (either public internet or corporate intranet).



## TERMINALS

Composite Video Input	BNC coaxial x 1, 1Vp-p/75 ohms
Composite Video Output	BNC coaxial x 1 (loop-through)
S-Video Input	S terminal x 1, Y: 1Vp-p/75 ohms, C: 0.286Vp-p/75 ohms
Audio Input (for Video)	RCA phono type connectors (L, R) (1 set)
RGB Input (PC)	Mini D-sub 15-pin x 1 (VGA, SVGA, XGA display & SXGA, UXGA compressed display) fH: 15.6 110 kHz; fV: 48 120 Hz
Audio Input (for PC)	M3 stereo plug
Component/R,G,B Input RGB, HD, VD	BNC coaxial x 5 Video: 0.7Vp-p/75 ohms; Sync: TTL level/0.3Vp-p (75 ohms); H, V Separate Sync/Composite Sync fH: 15.6 110 kHz; fV: 48 120 Hz
Y, Pb (Cb), Pr (Cr)	Y: 1Vp-p/75 ohms; Pb (Cb), Pr (Cr) : 0.7Vp-p/75 ohms fH: 15.75/31.5/33.7/45 kHz
Audio Input (for Component/R,G,B)	RCA phono type connectors (L, R) (1 set)
Serial (RS232C)	D-Sub 9-pin

Have assembly and installation done by a qualified electrician.  
Specifications are subject to change without notice.