Panasonic
ideas for life

50-inch class TH-50PH20U
42-inch class TH-42PH20U

High Definition Plasma Displays

Faithful Image Reproduction
Raises the Quality of Digital Signage

50

42

TH-50PH20U

TH-42PH20U

HDMI HIGH-DEFINITION MULTIMEDIA INTERFACE | **SLOT 2.0** | **NANODRIFT** | ENERGY STAR

Expandability
Versatile video inputs and the new "SLOT2.0" function slot expand display applications.

NANODRIFT SAVER
New screen saver reduces image retention five times[1] more effectively than previous systems.

Tough Display with Long Service Life
Durable front glass panel and long service life of 100,000 hours[2].
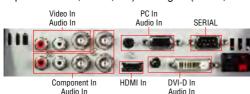
[1]: Compared to our previous "wobbling" screen saver.
[2]: Guideline operating hours before the panel brightness is reduced to half when the panel is used to display motion pictures in the Standard mode. Afterimages (burned-in images) and malfunctions are not taken into consideration.

New "Slot 2.0" Function Slot Expands Display Applications

Versatile Video Inputs

You can input both analog (Component Video, Video, PC) and digital (DVI-D, HDMI) video signals to the display. These standard-equipped terminals handle most of the commonly used video signals.

Video In
Audio In
PC In
Audio In
SERIAL
Component In
Audio In
HDMI In
DVI-D In
Audio In

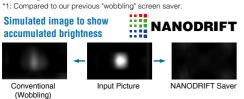### New Function Slot Expands Display Applications

The new "Slot 2.0" function slot lets you add display functions to match the intended use. Mounting an optional function board allows the display to support a variety of applications.

SLOT 2.0

Tough Display with Significantly Improved Image Retention

New Screen Saver NANODRIFT SAVER

The NANODRIFT Saver reduces image retention five times[1] more effectively than previous systems. It uses smooth, fine image movement to minimize the possibility of image retention without blocking the view.

[1]: Compared to our previous "wobbling" screen saver.

Simulated image to show accumulated brightness

NANODRIFT

Conventional (Wobbling)
Input Picture
NANODRIFT Saver

Tough Body Withstands Use in Public Spaces

Plasma displays feature a hard glass panel on the front. This front glass does not break easily even when an external impact is applied.

No damage to the display

Long Life[2] of approx. 100,000 Hours

Panasonic plasma displays provide sharp, beautiful images for many years.

[2]: Guideline operating hours before the panel brightness is reduced to half when the panel is used to display motion pictures in the Standard mode. Afterimages (burned-in images) and malfunctions are not taken into consideration.

The World's First[3] Lead-Free Plasma Display Panels

Panasonic proclaimed a "lead-free" design in all plasma display panels from 2006 onward. It also eliminated the use of polyvinyl chloride in internal wiring, all as a part of its active promotion of environmentally friendly manufacturing.

[3]: Announced on November 2, 2006. Achieved lead-free designs in all 140 models for worldwide markets.

eco ideas

Deep Blacks, Rich Gradation and a Wide Color Gamut Produce Truly Eye-Catching Images

Crisp Images with a High Contrast Ratio of 2,000,000:1[4]

Original image-processing technologies have enabled a high contrast ratio of 2,000,000:1[4]. This produces robust blacks that give images greater realism and depth.

[4]: The dark room contrast ratio of the panel unit that can be displayed simultaneously on the same screen. Measured in "Dynamic" picture mode using a white signal in a 4% window.

Comventional
PH20

Colors that are Faithful to the Original

This wide color gamut exceeds even the color reproduction range of the HDTV standard (ITU-R, BT.709). The colors that it produces are more faithful to the original and more natural.
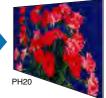
Comventional
PH20

Images are Beautiful even When Viewed from an Angle

These self-illuminating plasma displays provide large-screen images in all their natural beauty. The images are also sharp and crisp regardless of the viewing angle.

Ordinary VA-type LCD
PH20

Specifications

		TH-50PH20U	TH-42PH20U
Screen Size (Diagonal)		49.9-inch	41.6-inch
Aspect Ratio		16:9	16:9
Effective Display Area (W x H)		43.5" x 24.4" (1,105 x 622 mm)	36.2" x 20.4" (921 x 518 mm)
Resolution (H x V)		1,024 x 768 pixels	1,024 x 768 pixels
Pixel Pitch (H x V)		1.080 x 0.810 mm	0.900 x 0.675 mm
Contrast Ratio / Gradation		2,000,000:1[4] / 5,120 steps (equivalent)	
Moving Picture Resolution		720 lines	
Input	VIDEO IN	BNC x 1 [1.0 Vp-p, 75 ohms]	
	AUDIO IN (L/R)	RCA pin jack x 2 [0.5 Vrms]	
	COMPONENT IN	BNC x 3 [Y/G: with sync 1.0 Vp-p, 75 ohms; PB/B, PR/R: 0.7 Vp-p, 75 ohms]	
	AUDIO IN (L/R)	RCA pin jack x 2 [0.5 Vrms]	
	HDMI IN	HDMI TYPE A connector x 1	
	DVI-D IN	DVI-D 24-pin x 1; DVI Revision 1.0 compatible	
	AUDIO IN (L/R)	M3 jack x 1	
	PC IN	Mini D-sub 15pin x 1 [Y/G: with sync 1.0 Vp-p, 75 ohms; PB/B, PR/R: 0.7 Vp-p, 75 ohms; HD/VD: 1.0 - 5.0 Vp-p, high impedance], Plug & Play (VESA DDC 2B)	
	AUDIO IN	M3 jack x 1	
	SERIAL	D-sub 9-pin x 1 (External control terminal), RS-232C compatible	
Function Slot		SLOT2.0 x 1 (Vacant)	
Power Requirements		120 V AC, 50 Hz/60 Hz	120 V AC, 50 Hz/60 Hz
Power Consumption		350 W (Energy star 5.0, CEC)	290 W (Energy star 5.0, CEC)
Power off condition		0.2 W	0.2 W
Stand-by condition		Save Off: 0.9 W, Save On: 0.4 W	Save Off: 0.9 W, Save On: 0.4 W
Audio Output		16 W [8 W + 8 W] (10 % THD)	
Dimensions (W x H x D)		47.7" x 28.5" x 3.5" (1,210 x 724 x 89 mm)	40.2" x 24.1" x 3.5" (1,020 x 610 x 89 mm)
Weight (approx.)		72.8 lbs. (33.0 kg)	55.2 lbs. (25.0 kg)

■ Versatile Image Display Functions

Multi Display
Digital Zoom
Vertical Mounting

■ A Host of Utilities

● Weekly Command Timer ● Remote System Monitoring
● Audio Input Select ● Screen Saver Functions
● Tamper-Resistant Settings ● Energy-Saving Functions

Peripherals & Mounting Options

Pedestal
TY-ST20-K

Wall-hanging bracket (vertical)
TY-WK42PV20
* Also usable for vertical mounting

Wall-hanging bracket (angled)
TY-WK42PR20

Ceiling-hanging bracket
TY-CE42PS20

Mobile stand
TY-ST58PF20

Detachable stereo speakers
TY-SP50P8W-K (for 50" model)
TY-SP42P8W-K (for 42" model)

Touch panel
(Infrared Retroreflection-Detection System)
TY-TP50P10S (for 50" model)
TY-TP42P10S (for 42" model)

Anti-glare filter
TY-AR50P12W (for 50" model)
TY-AR42P12W (for 42" model)

● A variety of terminal boards are also available.

Specifications are subject to change without notice. As of February 18, 2010. CR10PH_U02