SHARP QUALITY AND BRILLIANCE

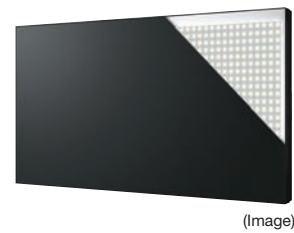## FOR VIDEO WALLS OF VIRTUALLY LIMITLESS SIZE AND POTENTIAL

Introducing the 60" Diagonal Class PN-V602 LCD video wall monitor with exceptionally high brightness, extraordinary image quality and ultra-slim bezel design.

High Brightness, High Visibility

With exceptionally high brightness of 1,500 cd/m², the PN-V602 excels in brightly lit indoor applications including window facing settings with high ambient light. Its high contrast helps ensure images are clearly visible from a distance, enabling PN-V602 video wall displays to be utilized in sports and entertainment facilities, transportation hubs, shopping malls and control centers where the PN-V602 can provide vivid high quality images, 24 hours a day, seven days a week.

Breathtaking Image Quality

The PN-V602's exceptional image quality comes from Sharp's industry leading LCD technologies. Sharp proprietary UV²A* technology incorporated into the 60" diagonal class LCD panel provides highly efficient use of light from the full-array LED backlight while simultaneously preventing light leakage. The results are exceptionally high quality images with bright whites, amazingly vivid colors and extremely deep blacks.

Sharp's full-array LED backlight, with LED elements evenly positioned across the entire panel, helps ensure that Sharp multi-screen displays are bright, beautiful and uniform.
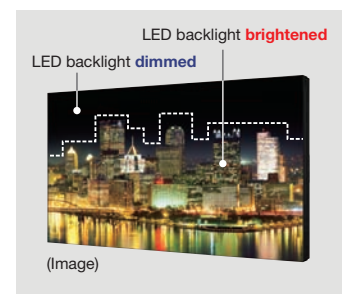

(Image)

* UV²A stands for "Ultraviolet-induced Multi-domain Vertical Alignment," a photo-alignment technology that ensures uniform alignment of liquid crystal molecules in a certain direction.

Local Dimming for High Contrast and Superb Energy Efficiency

Much of the PN-V602's exceptional performance – including outstanding black levels, high contrast and superb energy efficiency is due to local dimming of the LED backlight. Local dimming allows specific groups of LEDs to be dimmed for greater control of brightness and darkness in different areas of the screen. Since LEDs in a black area of the screen image can be independently turned off, local dimming can help to considerably reduce power consumption. This helps the PN-V602 deliver significantly better contrast (up to 1,000,000:1 contrast ratio with local dimming set to HIGH) and brightness (up to 1,500 cd/m²) compared to conventional LCD monitors, while utilizing less power.

Local Dimming

LED backlight **brightened**
LED backlight **dimmed**

(Image)

Power Consumption Comparison*

1,500 cd/m² Local dimming: OFF	500W
1,500 cd/m² Local dimming: HIGH	270W **Down by approx. 46%**
(ref) 700 cd/m² Local dimming: HIGH	155W

* Results of Sharp measurements when displaying broadcast content (sub-clause 11.6) stipulated under IEC 62087 Ed. 2.0 and with brightness set to maximum. Note that the power consumption reduction will vary depending on the images displayed.

Notes:
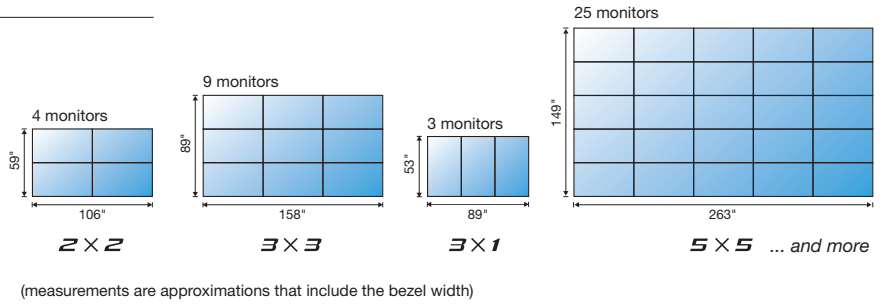1. The PN-V602 is intended for use in indoor environments. If the monitor is installed in a location exposed to excessive direct sunlight such as a windowfront, consult your installer to determine if additional measures to reduce ultraviolet and infrared radiation and ambient temperature are required.
2. The images in this brochure are simulated. Depending on the system, additional software/hardware may be required.

Create virtually seamless video walls with incredible brightness in almost any size and configuration.

Create Dynamic Video Walls

Almost any number of PN-V602 displays can be joined together to create high impact multi-screen video walls. These configurations may be controlled through RS-232C or over a network.* Their ease of control and ease of integration help simplify the design and installation of sophisticated video wall displays of most any size and shape.

* Optional PN-ZB02 expansion board is required for network control.

25 monitors

9 monitors

4 monitors

3 monitors

59"
106"
2 × 2

89"
158"
3 × 3

53"
89"
3 × 1

149"
263"
5 × 5 ... and more

(measurements are approximations that include the bezel width)
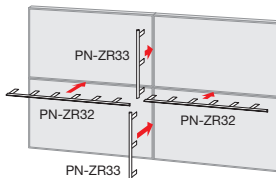
Choice of Installation Mode

The PN-V602 offers the choice of landscape, portrait or "face-up/face-down" installation. This allows customers to select the mode that best suits their content and application, greatly expanding the possibilities for video walls and digital signage displays.

Mirror Frames (option)

In multi-screen configurations, mirror frames minimize* the lines between slim-bezel PN-V602 displays by reflecting mirror images from the display content. This helps create more dynamic video walls with an even smoother big-picture effect.
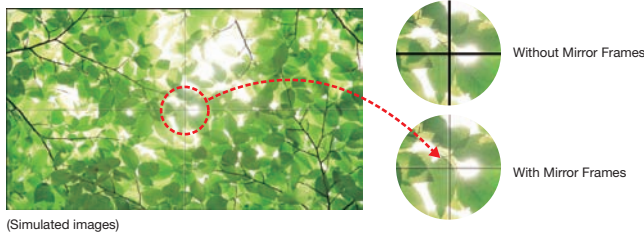
* Visibility of the seams between monitors will vary depending on on-screen images and viewing angle.

Mirror Frame Mounting

PN-ZR33
PN-ZR32   PN-ZR32
PN-ZR33

PN-ZR32 Long Mirror Frame
PN-ZR33 Short Mirror Frame

A Multi-Screen Configuration with Mirror Frames

Without Mirror Frames

With Mirror Frames

(Simulated images)

Brightness Sensor*

The brightness sensor function automatically adjusts backlight brightness to complement surrounding ambient light levels. In dark environments, backlight brightness automatically lowers, helping provide optimal viewing, along with energy savings.

* Requires optional PN-ZR01 control kit.
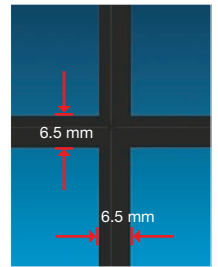
PN-ZR01 Control Kit (option)

When one of the monitors in a multi-screen configuration is fitted with a remote control sensor box, all of the monitors can be conveniently operated through one remote control unit. (UPC: 074000069022)

Remote control unit

Remote control sensor box

Ultra-Slim Bezel for Dynamic Video Walls

The PN-V602 boasts the slimmest bezel in the 60" diagonal class of LCD monitors[1] resulting in the lines between neighboring monitors in a video wall being only 6.5 mm[2] wide (2.4 mm right and bottom; 4.1 mm left and top)[3]. This enables the high impact display of video wall images of almost unlimited size and configuration.

6.5 mm

6.5 mm

[1] Based on available information as of September 1, 2011
[2] Does not include gap between monitors
[3] Non display area for neighboring monitors is 7.1 mm

Enlarge (Zoom) Display Mode
(for up to 25 Monitors)

The Enlarge (Zoom) display mode can spread one image across up to 25 monitors (in a 5 x 5 configuration) from a single PC, and without the need for external processors. The Frame Width Adjustment function virtually eliminates misalignment and helps enhance the quality of the enlarged image on a multi-screen display.

Single-screen display

5 x 5 (25-screen) display

24/7 Operation

Engineered for 24/7 certified commercial use, Sharp LCD video wall displays are designed to provide the reliability and durability needed for most any professional application.

ENERGY STAR® Qualified
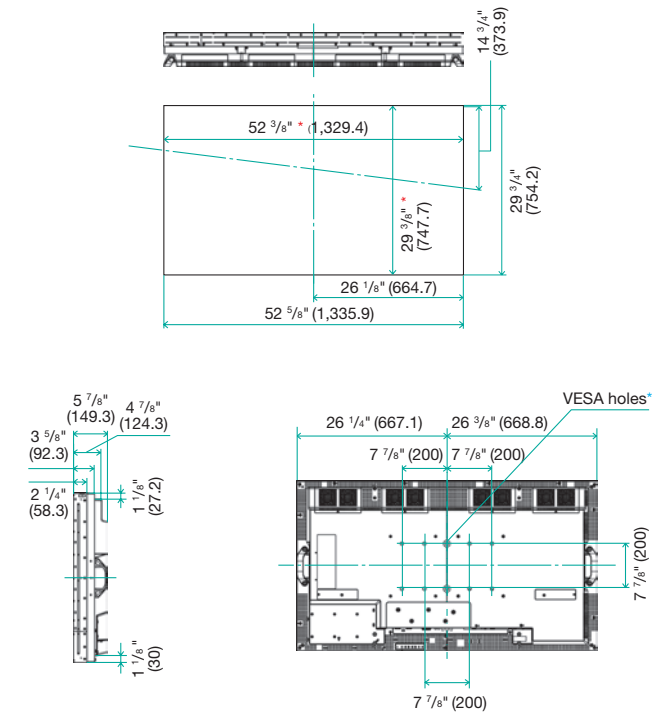
Sharp LCD video wall displays conform to ENERGY STAR qualifications, as well as the RoHS Directive restricting the use of hazardous substances.

ENERGY STAR

Specifications

Model Name		PN-V602
Installation		Landscape / Portrait / Face-up / Face-down (Note, face-up operation requires optional PN-ZR31 fan cover kit)
LCD Panel		60-inch class (60" diag.) widescreen (152.4 cm diag.), UV²A LCD
	Max. Resolution	1,366 x 768 pixels
	Max. Display Colors (approx.)	16.77 million colors
	Pixel Pitch (H x V)	0.973 x 0.973 mm
	Max. Brightness*1	1,500 cd/m²
	Contrast Ratio	1,000,000 : 1 (local dimming set to HIGH) 5,000 : 1 (without local dimming)
	Viewing Angle (H/V)	176°/176° (CR ≥ 10)
	Active Screen Area (W x H)	52 ⅝" x 29 ⁷/₁₆" (1328.8 x 747.1 mm)
	Response Time	6 ms (gray to gray, avg.)
Computer Input	Video	Analog RGB (0.7 Vp-p) [75 Ω], Digital (conforms to DVI 1.0 standards)
	Synchronization	Horizontal/vertical separation (TTL: positive/negative) Sync-on-green, Composite sync (TTL: positive/negative)
	Plug & Play	VESA DDC2B
	Power Management	VESA DPMS, DVI DMPM
Video Color System		NTSC (3.58 MHz, 4.43 MHz)*2 / PAL / PAL60 / SECAM
Input Terminals*3	Standard	PC analog: Mini D-sub 15-pin x 1*4, HDMI® (1080p compatible) x 1*5, 3.5 mm-diameter mini stereo jack x 1, Video*6, Component video*6, RS-232C: D-sub 9-pin x 1, Control Kit jack x 1
	Via Optional PN-ZB02 Board	PC digital: DVI-D 24-pin (HDCP compatible) x 1, PC analog: BNC x 1, Video: BNC x 1*6, S-Video x 1, Component video: BNC (Y, Cb/Pb, Cr/Pr) x 1*6, Audio: RCA pin (L/R) x 2
Output Terminals*3	Standard	Audio: RCA pin (L/R) x 1, RS-232C: D-sub 9-pin x 1
	Via Optional PN-ZB02 Board	PC digital: DVI-D 24-pin x 1, External speaker: 10W + 10W (6 Ω)
Input/Output Terminals*3	Via Optional PN-ZB02 Board	LAN port (10Base-T/100Base-TX)
Mounting		VESA (6 points), 7 ⁷/₈" (200 mm) pitch, M6 screw or VESA (4 points), 7 ⁷/₈" (200 mm) pitch, M6 screw
Power Supply		100V – 240V AC, 50/60 Hz
Power Consumption		510W (local dimming: OFF)
Environmental Conditions	Operating Temperature	0°C to 40°C
	Operating Humidity	20% to 80% RH (no condensation)
Dimensions (W x D x H) (approx.)		52 ⅝" x 5 ⁷/₈" x 29 ¹¹/₁₆" (1,335.9 x 149.3 x 754.2 mm) (Display section only, not including protrusions)
Weight (not including PN-ZB02) (approx.)		44 kg (97 lbs)
Packing Dimensions (W x D x H) (approx.)		62 ¼" x 15" x 36 ¾" (1,580 x 381 x 932 mm)
Limited Warranty		3 years on-site, parts and labor
UPC		074000069084

*1 Brightness will depend on input mode and other picture settings. Brightness level will decrease over time. Due to the nature of the equipment, it is not possible to precisely maintain a constant level of brightness. *2 Requires separately sold PN-ZB02 Interface Expansion Board. *3 Use a commercially available connection cable for PC and other video connections. *4 The mini D-sub 15-pin connector may be used with an analog RGB computer source, component video source or composite video source. This is menu selectable. When used with a component or composite video source, a commercially available conversion cable is required. *5 For both PC and AV components. *6 When the PN-V602 is equipped with the optional PN-ZB02 board, either the LCD monitor's standard-equipped video and component terminals or the PN-ZB02's video and component terminals can be selected for use from the menu.
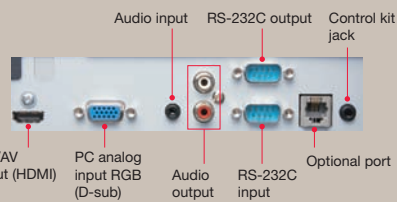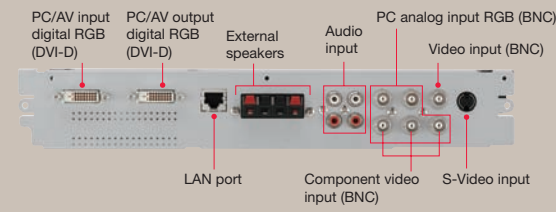
Dimensions

Units: inch (mm)
* Screen dimensions
* To use the VESA-standard mounting bracket, use M6 screws that are 8 to 10 mm plus the thickness of the bracket.

Input/Output Terminals

(standard)

Audio input — RS-232C output — Control kit jack

PC/AV input (HDMI) — PC analog input RGB (D-sub) — Audio output — RS-232C input — Optional port

PN-ZB02 Interface Expansion Board (option)

PC/AV input digital RGB (DVI-D) — PC/AV output digital RGB (DVI-D) — External speakers — Audio input — PC analog input RGB (BNC) — Video input (BNC)

LAN port — Component video input (BNC) — S-Video input

Other Options

- PN-ZR01 : Control Kit (remote controller and remote control sensor box)
- PN-ZR31 : Fan Cover Kit
- PN-ZR32 : Long Mirror Frame
- PN-ZR33 : Short Mirror Frame

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