SHARP

Be Original.

Superbly Colour–Accurate, Dynamic Video Walls for Inspiring Signage

Discover the Power of Expression of Sharp's 70-inch Monitor for Compelling Video Walls

Just imagine the power of a video wall built out of the PN-V701. Huge, high-impact video walls can be created using fewer monitors with less bezel interruption across the entire on-screen image. And with upgraded colour calibration technology—SHARP Advanced UCCT—the PN-V701 gives high-quality video wall solutions that are sure to attract a crowd.

Video Walls that Draw a Crowd

The PN-V701 was developed specifically for use in multi-monitor installations in either portrait or landscape orientation. Thanks to its combined bezel width of just 4.4 mm*, large images on a video wall appear natural and almost seamless. The grand scale of the 70-inch monitor allows you to build video walls with fewer monitors and fewer bezels, which serves to minimise the non-displayed area.

Whether in an airport, railway station, shopping mall, or other public spaces, the PN-V701 expands the creative possibilities of visual communication.

* 1.5 mm (right/bottom), 2.9 mm (left/top)

4.4 mm
4.4 mm
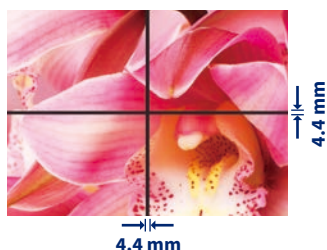
Excellent Image Quality

The PN-V701 incorporates Sharp's UV^{2}A* technology to ensure highly efficient use of light from the backlight and prevent light leakage, resulting in truly bright whites and extremely deep blacks. The LCD panel also boasts 1,920 (H) × 1,080 (V)-pixel full HD resolution, making everything from fine text to intricate graphics stunningly crisp and clear. A brightness of 700 cd/m^2 supports the PN-V701 in its digital signage duties. Four PN-V701 monitors set up in a 2 × 2 configuration, for example, can beautifully render every single pixel of 4K Ultra HD (3,840 × 2,160-pixel) content in a form equivalent to a huge 140-inch monitor. What's more, the PN-V701 employs SHARP Advanced UCCT (Uniform Colour Calibration Technology) to achieve brilliant uniformity of colour and brightness across the entire video wall.

* UV^{2}A stands for Ultraviolet-induced Multi-domain Vertical Alignment, a photo-alignment technology that ensures uniform alignment of liquid crystal molecules.
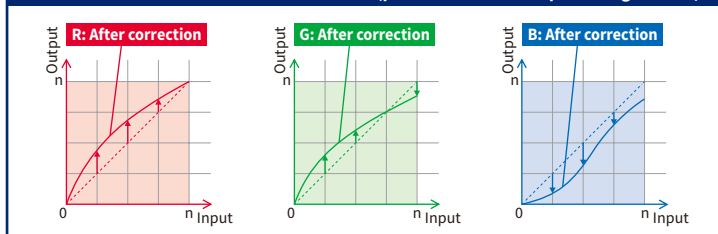
SHARP Advanced UCCT (Uniform Colour Calibration Technology)

To achieve high-quality video walls with superb uniformity of colour and brightness, Sharp developed SHARP Advanced UCCT. This unique out-of-the-box technology performs two functions: it corrects the colour and brightness within a monitor, and it reduces colour inconsistency among monitors by sophisticated colour management of each monitor. Thanks to this combination, the PN-V701 can create video walls of extremely high quality and dynamism.
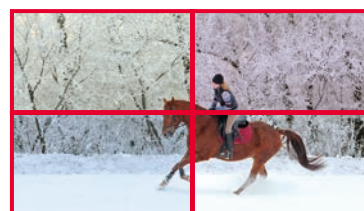
Hybrid correction of colour and brightness

The display characteristics of each small area in the LCD are measured in terms of RGB input signals. Uniformity of colour and brightness is then calibrated and corrected for each RGB signal element as shown in the graphs below. Sharp has further improved the accuracy of this technology for the PN-V701.
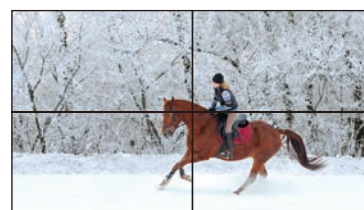
Gamma correction for RGB elements (part of the correction processing method)

R: After correction — Output n / Input n / 0

G: After correction — Output n / Input n / 0

B: After correction — Output n / Input n / 0

**Hybrid correction of colour and brightness**

Colour management of each monitor toward the target colour reproduction range

Colour management by 3D LUTs

The colour management of each monitor utilising 3D lookup tables (LUTs) achieves a high level of colour reproduction toward the predetermined target range. It greatly improves the consistency of colour quality between monitors creating a video wall.

After correction
Before correction
Average colour reproduction range
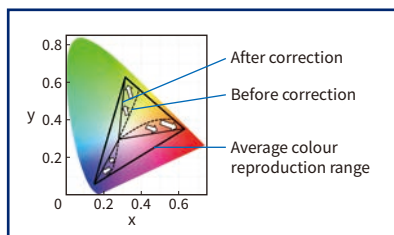
Note: Brightness level may decrease when activating SHARP Advanced UCCT.

Inverse Scan Function

When high-speed video is played on a video wall composed of multiple monitors, slight image misalignments between vertically placed monitors can occur. As a countermeasure, the Inverse Scan function comes standard with the PN-V701. This corrects image misalignments by alternating the scanning direction between vertically adjacent monitors, creating smooth and natural images on a large video wall.

Inverse Scan (OFF) **Inverse Scan (ON)**
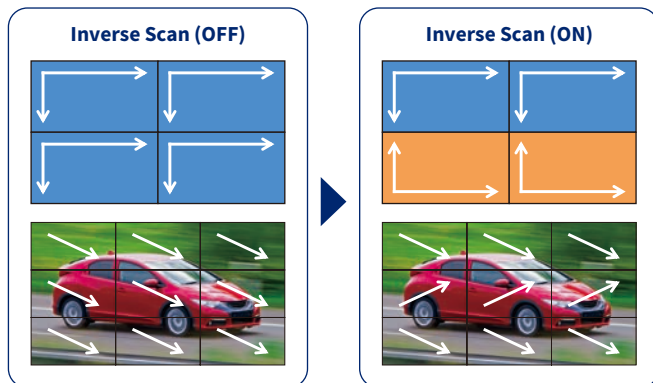
Note: Arrows show the direction of video scanning

Choice of Installation Mode

The PN-V701 offers a choice of landscape or portrait installation, allowing customers to select the mode that best suits their display content and application.

Control Kit (PN-ZR02)

When one of the monitors in a video wall is fitted with a remote control sensor box, all of the monitors can be conveniently operated through one remote control unit.

Remote controller

Remote control sensor box

Support for HDBaseT™ 2.0 (Option)

The PN-V701 features an expansion slot to accommodate an optional HDBaseT Receiver Board (PN-ZB03H). Installing this board allows the PN-V701 to receive HDMI™ video, audio signals, and control signals sent up to 100 metres via a single LAN cable*1. This brings convenient connectivity with HDMI devices such as PCs and BD players. Compatibility with the HDBaseT 2.0 standard allows you to remotely operate a PC from a USB device connected to the optional board*2. With HDBaseT 2.0 support, you can use fewer cables and reduce the time and cost of installation.

*1 Category 6 or higher shielded cable (available commercially)
*2 Requires an HDBaseT 2.0-compatible transmitter (available commercially). Not all USB devices are supported.

PN-ZB03H HDBaseT Receiver Board	
Supported standard	HDBaseT 2.0
Maximum resolution	4,096 x 2,160 (30 Hz)
Copy protection	HDCP pass-through
Transmission distance	Up to 328 feet / 100 m
Input/output terminals	HDBaseT x 1, LAN x 1 (10Base-T/100Base-TX), USB x 1 (USB 2.0)
Power supply	From the monitor

An optional board can slide into the slot on the back of the monitor.

24/7 Operation

Built solid, the PN-V701 is ideal for use in 24-hour stores and in other demanding professional applications that require round-the-clock operation seven days a week.

Specifications

Model Name		PN-V701
Installation		Landscape / Portrait
LCD Panel		70-inch-class (69 $\frac{1}{2}$-inch [176.6 cm] diagonal) UV^{2}A LCD
	Max. Resolution	1,920 x 1,080 pixels
	Max. Display Colours (approx.)	1.06 billion colours
	Pixel Pitch (H x V)	0.802 x 0.802 mm
	Brightness[1]	700 cd/m^2
	Contrast Ratio[1]	4,000 : 1
	Viewing Angle (H/V)	178°/178° (CR ≧10)
	Active Screen Area (W x H)	1,538.9 x 865.6 mm (60 $\frac{9}{16}$" x 34 $\frac{1}{16}$")
	Response Time	6 ms (grey to grey, avg.)
	Backlight	LED, full array
Computer Input	Video	Analogue RGB (0.7 Vp-p) [75 Ω], Digital (DVI 1.0 standard-compliant), DisplayPort™ 1.2, HDMI
	Synchronisation	Horizontal/vertical separation (TTL: positive/negative), Sync-on-green[2], Composite sync[2] (TTL: positive/negative)
	Plug & Play	VESA DDC2B
	Power Management	VESA DPMS, DVI DMPM
Input Terminals[3]		HDMI[4] x 2, Mini D-sub 15-pin x 1[5], DisplayPort x 1, 3.5 mm-diameter mini stereo jack x 1, RS-232C (D-sub 9-pin) x 1, Control kit terminal x 1, DVI-D 24-pin (HDCP compatible) x 1
Output Terminals[3]		DisplayPort[6] x 1, , 3.5 mm-diameter mini stereo jack x 1, RS-232C (D-sub 9-pin) x 1
Input/Output Terminals[3]		LAN: 10Base-T/100Base-TX x 1
Expansion Slot		13 V, 2.0 A (power supplied when expanding the functions with an optional part)
Mounting		VESA (4 points), 400 mm (15 $\frac{3}{4}$") pitch
Power Supply		100V—240V AC, 50/60 Hz
Power Consumption		380 W
Environmental Conditions	Operating Temperature	0°C to 40°C
	Operating Humidity	20% to 80% RH (no condensation)
Dimensions[7] (W x D x H) (approx.)		1,543.7 x 122 x 870.4 mm (60 $\frac{3}{4}$" x 4 $\frac{13}{16}$" x 34 $\frac{1}{4}$")
Weight (approx.)		37.0 kg (81.6 lbs)
Main Accessories		AC power cord, cable clamp x 6, CD-ROM, set-up manual, sticker x 2 (for concealing mounting hole of remote control sensor box)

*1 When uniformity is set to MODE 1. Brightness and contrast ratio depend on input mode and other picture settings. Brightness level will decrease slightly over the lifetime of the product. Due to the physical limitations of the equipment, it is not possible to maintain a precisely constant level of brightness. *2 D-sub input terminal only. *3 Use a commercially available connection cable for PC and other video connections. *4 For both PC and AV components. *5 Analogue PC, video, and component video are switchable (via the bottom interface); use the menu to select. Note that video and component video inputs require a conversion cable connected via the mini D-sub 15-pin jack. *6 For video signals only. *7 Display only, not including protrusions.
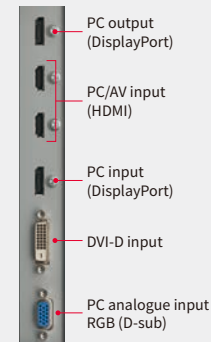
Dimensions
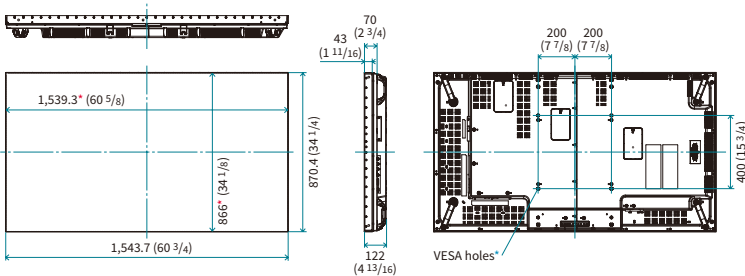
Units: mm (inch)
* Screen dimensions
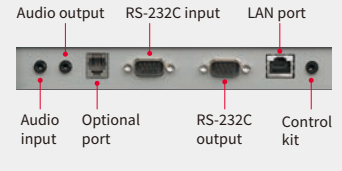* To use the VESA-standard mounting bracket, use M6 screws that are 8 to 10 mm plus the thickness of the bracket.
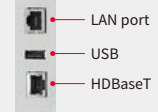
Input/Output Terminals

[standard]

(Side)
- PC output (DisplayPort)
- PC/AV input (HDMI)
- PC input (DisplayPort)
- DVI-D input
- PC analogue input RGB (D-sub)

(Bottom)
- Audio output
- RS-232C input
- LAN port
- Audio input
- Optional port
- RS-232C output
- Control kit

[option] PN-ZB03H
- LAN port
- USB
- HDBaseT

Options

- **PN-ZB03H : HDBaseT Receiver Board**
- **PN-ZR02 : Control Kit** (remote controller and remote control sensor box)

Distributed by: