SHARP

Visual Dynamics
Professional LCD Monitors from Sharp

Because Impact Is Everything

So much information, so little time. With businesses everywhere vying for attention, making a strong impact is critical to success. Nothing does that better, or bigger, than a digital signage solution made up of multiple Sharp LCD monitors. The nearly seamless display of targeted content on large video walls provides a powerful communicative punch that immediately attracts more eyes and holds more attention. Isn't that what it's all about?
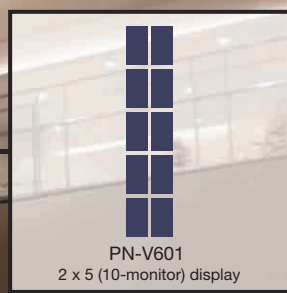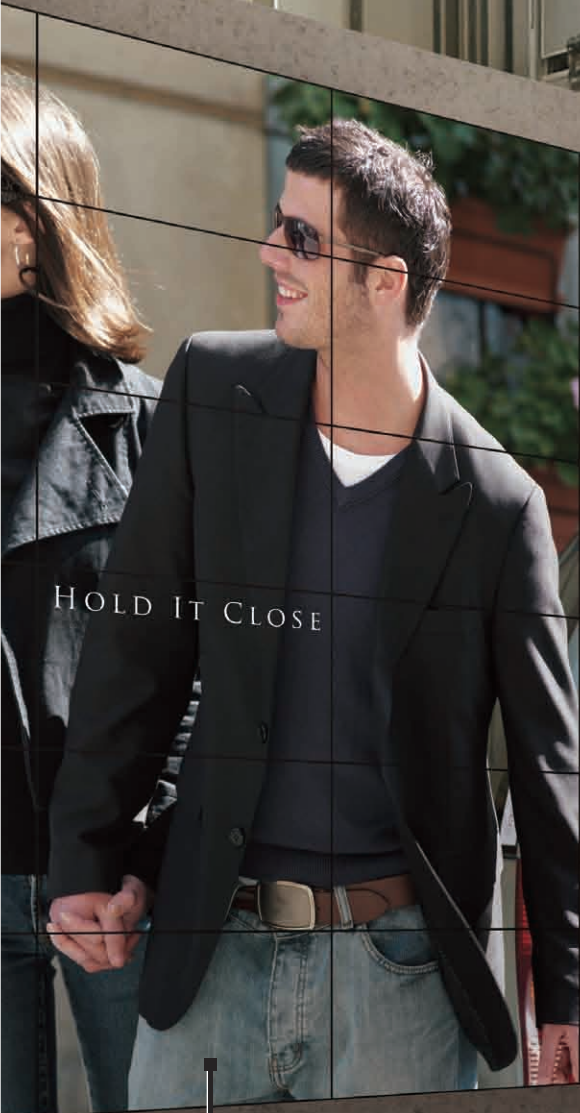
PN-V601
3 x 3 (9-monitor) display

PN-V601
2-monitor display

COLOR LIFE

I&K

FASHIONABLE FEATURES

HOLD IT CLOSE

PN-V601
3 x 6 (18-monitor) display
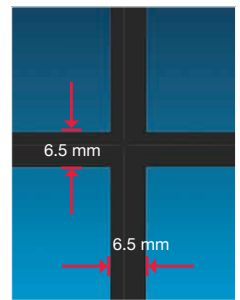
PN-V601
2 x 5 (10-monitor) display

→ *7F Showroom*

Note: The above image is an illustration of a 9-monitor (3 x 3) video wall with mirror frames mounted.

Multiply the Imagination

Designed for video wall applications, the PN-V601 boasts an ultra-slim bezel that makes the lines between neighbouring monitors an almost seamless 6.5 mm[1] wide (2.4 mm right and bottom, 4.1 mm left and top)[2]. This allows for the dynamic display of large, crisp images that catch the eye and capture the attention. And since these multi-monitor configurations can be effortlessly set up almost anywhere space allows, the only thing left to do is tap the boundless human imagination and explore all the possibilities multi-monitor configurations have to offer.

[1]: Does not include the gap between the monitors. [2]: Non-display area for neighbouring monitors is 7.1 mm.

6.5 mm

6.5 mm

Mirror Frames (option)

In multi-monitor configurations, Mirror Frames minimise* the lines between slim-bezel PN-V601 monitors by reflecting mirror images from the display content. This creates more dynamic video walls and an even smoother big-picture effect.

* Visibility of the seams between monitors will vary depending on such factors as the on-screen images and the viewing angle.

PN-ZR32
Long Mirror Frame

PN-ZR33
Short Mirror Frame

Mirror Frame mounting

PN-ZR33
PN-ZR32
PN-ZR32
PN-ZR33
(PN-V601)
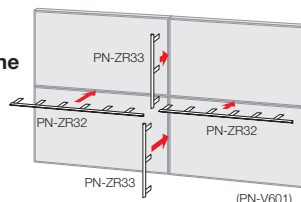
A multi-monitor configuration with Mirror Frames
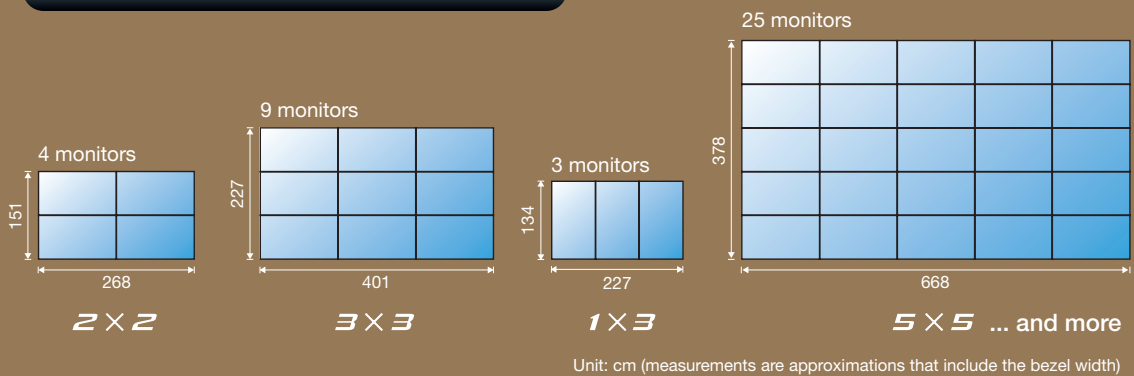

Without Mirror Frames

(Simulated images)

With Mirror Frames

Sharp's PN-V601 is the ideal choice for exciting, nearly seamless multi-monitor configurations. High-impact and impressively sized, this sleek 60-inch monitor brings a multitude of digital signage possibilities to shopping malls, airports, museums, and countless other public places.

Create Dynamic Video Walls

4 monitors
151
268

2 × 2

9 monitors
227
401

3 × 3

3 monitors
134
227

1 × 3

25 monitors
378
668

5 × 5 ... and more

Unit: cm (measurements are approximations that include the bezel width)

Multiple PN-V601 monitors can be joined together to create video walls configured to a variety of purposes and settings. Easy to assemble and easily controlled via the RS-232C interface or a network*, video walls composed of Sharp PN-V601 monitors bring dynamic, high-impact exposure to commercial display content.

* PN-ZB02 Interface Expansion Board is required for control via a network.

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

The Enlarge (Zoom) Display mode can spread one image from a PC across up to 25 monitors (in a 5 x 5 configuration). The Frame Width Adjustment function eliminates misalignment and boldly enhances the enlarged image on a multi-monitor display.

Single-monitor display   5 x 5 (25-monitor) display
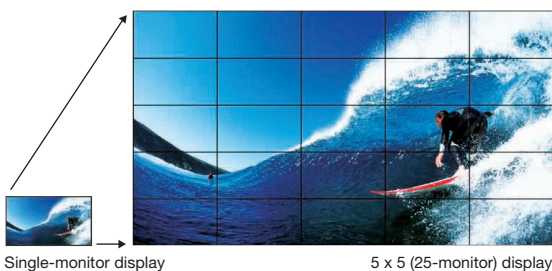
24/7 Operation

The PN-V601 is rugged enough for continuous 24/7 operation in the most demanding professional applications.

Full-Array LED Backlight

To give the PN-V601 more uniform brightness than conventional CCFL* backlighting can offer, Sharp has positioned LED elements across the entire panel directly behind the liquid crystal layers, ensuring that Sharp multi-monitor displays are consistently bright and beautiful.

* Cold Cathode Fluorescent Lamp

(Image)
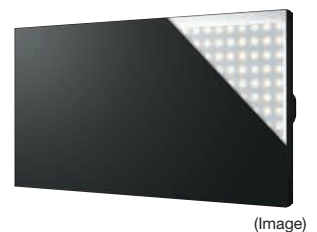
PN-ZR01 Control Kit (sold separately)

When one of the PN-V601s in a multi-monitor configuration is fitted with a remote control sensor box, all of the monitors can be conveniently operated through one remote control unit. And to help with overall energy savings, a brightness sensor automatically adjusts the brightness of the backlight to match the ambient lighting.

Remote   Remote control
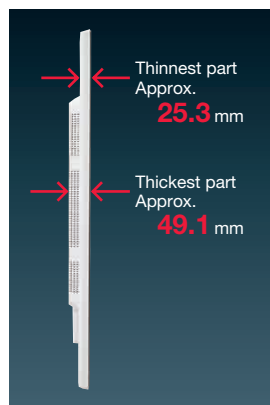control unit   sensor box

Sleek and compact, the PN-T321 brings exceptional style and performance to business-boosting digital signage applications. With its built-in Slide Show function, the PN-T321 can operate PC-free as a basic stand-alone digital signage system for hotel and conference facilities, corporate lobbies, waiting rooms, retail stores, museums, and more.

Slide Show Function

Thanks to its Slide Show function, the PN-T321 can be used as a basic stand-alone digital signage system, without a PC or a network connection. Simply inserting a USB thumb drive into the PN-T321 enables the playback of up to 600 stored still image (JPEG and PNG) and audio files (MWA and MP3). Photos, posters, and other still image data can be shown with ease on the PN-T321, accompanied by audio playback via conveniently built-in speakers. And the PN-T321 comes with a USB thumb drive cover to prevent theft of that data storage device.

USB port on the back
of the PN-T321

Sharp Digital Signage Software (option)

For advanced use, Sharp Digital Signage software provides support for the distribution and display of content, including high-quality video images. Content can also be distributed over a PC network.
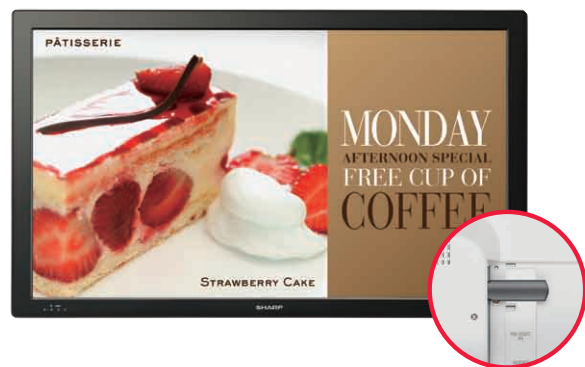
Thin and Lightweight

The stylishly designed 32-inch-class PN-T321 measures just 49.1 mm thick and weighs only 7.8 kg, making it easy to place in almost any location, including stores and other commercial establishments, offices, and public spaces. And with such a thin, lightweight profile, the PN-T321 can be easily mounted in either portrait or landscape installation to suit a variety of uses.

Thinnest part
Approx. **25.3** mm

Thickest part
Approx. **49.1** mm

24/7 Operation

Built solid, the PN-T321 is ideal for use in 24-hour stores and other demanding professional applications that require around-the-clock operation seven days a week.

Energy-Efficient

The LED backlight on the PN-T321 helps ensure reliable performance with low power consumption. In fact, the PN-T321 consumes approximately 37% less energy than conventional CCFL-backlight displays.*

* Compared to Sharp PN-325

PN-E Series models are no ordinary professional LCD monitors. Ranging in size from 42 to 60 inches, these durable digital signage solutions offer versatile installation, outstanding image quality, and around-the-clock reliability that add up to extraordinary performance.

Choice of Installation Mode

PN-E Series monitors offer a choice of landscape or portrait installation, allowing customers to select the mode that best suits their display content and application. While portrait installation offers the look and impact of a poster, landscape installation puts wide images on vivid display.
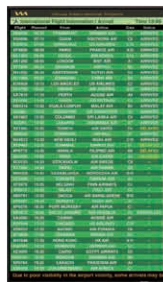
Portrait installation

Superb Image Quality

For vivid, high-contrast images, PN-E601/E521 LCD panels incorporate Sharp's UV^{2}A technology,* which prevents light leakage from the backlight to enable the display of extremely deep blacks. And all PN-E Series monitors boast 1,920 (H) x 1,080 (V)-pixel full-HD resolution to ensure that none of the detail or visual impact is lost. Thanks to full-HD resolution, everything from fine text to intricate graphics is stunningly crisp and clear.

* UV^{2}A stands for "Ultraviolet-induced multi-domain Vertical Alignment," a photo-alignment technology that ensures uniform alignment of liquid crystal molecules in a certain direction.

LB-1085

For 108 Inches of Stunning High-Definition Impact

For dynamic, full-HD impact on a grand scale, the 108-inch LB-1085 renders images with captivating clarity. As durable as it is enormous, the LB-1085 delivers reliable around-the-clock performance in even the most demanding environments.

Active Contrast

Thanks to the Active Contrast function, images displayed on the LB-1085 are analysed to provide optimal brightness and contrast levels for each scene. Dark scenes are rendered in true-to-life gradations for dynamic visual expression.
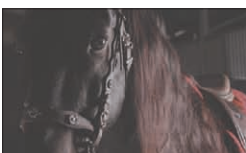
Without Active Contrast   With Active Contrast
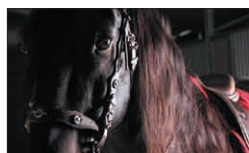
Quick Shoot Smooth Action

The LB-1085's Quick Shoot function shortens response time to give fast-action video scenes smoother, more lifelike motion.

Screen Mode Selection

Through its AV Mode function, the LB-1085 offers a choice of screen modes—standard, dynamic, movie, and game—to complement videos from various sources.

By integrating a 60-inch Sharp LCD monitor, a highly sensitive touchscreen, and original user-intuitive pen software, Sharp has made the PN-L601B the ideal tool for meetings, videoconferencing, presentations, corporate training, classroom lessons, and other applications where communication is key. The result is minimum effort and maximum work efficiency with Sharp's PN-L601B touchscreen LCD monitor.

Uniformly Bright Screen with Low Energy Consumption

The PN-L601B's 60-inch LCD panel incorporates Sharp's UV²A photo-alignment technology for efficient utilisation of light and Sharp's LED backlight technology for bright, energy-efficient lighting. And because the LED elements in Sharp's full-array LED backlight are evenly positioned across the entire panel, the PN-L601B provides uniform screen brightness and easy readability, even in bright environments.

(Image)

Accurate Touchscreen Response

To minimise the perception of misalignment between on-screen images and the tip of the touch pen, Sharp decreased the space between the PN-L601B's touchscreen and its LCD panel, ensuring accurate-to-the-spot writing and stress-free operation. And the PN-L601B employs Sharp's proprietary infrared detection system to heighten touchscreen interactivity through multiple infrared sensors that can locate the position of the touch pen with impressive accuracy.

Touchscreen   Protective glass   LCD panel
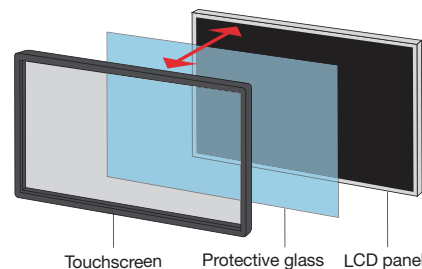
Sharp's Original Pen Software

Developed specifically for the PN-L601B, the intuitive Sharp Pen Software allows anyone to smoothly and easily operate this touchscreen LCD monitor. Once documents or images created on any application software have been captured as JPEG images and displayed on the touchscreen, users can quickly write and draw directly on the screen surface using the touch pen or a finger. Screen images can easily be enlarged or rotated, and everything that appears on the screen, even handwritten annotations such as text or drawings, can be saved or exported for printout.
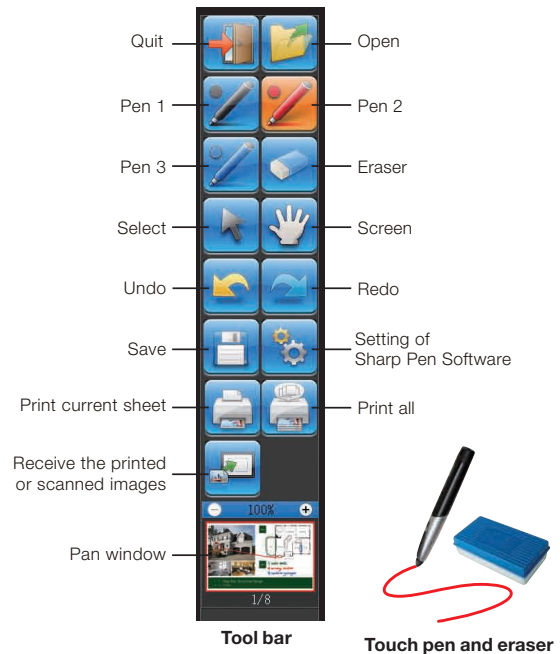
The Digital Signage Advantage

As a digital signage solution with touchscreen functions, the PN-L601B offers a convenient, high-impact way to convey information in a wide range of settings.

Quit	Open
Pen 1	Pen 2
Pen 3	Eraser
Select	Screen
Undo	Redo
Save	Setting of Sharp Pen Software
Print current sheet	Print all
Receive the printed or scanned images	
Pan window	

Tool bar

Touch pen and eraser

With a quick click to the bundled touch pen, this user-friendly interface links directly to on-screen functions for pen-colour selection and screen erasing. Users can choose from three preset colours or select the eraser function.

Streamlined Communications via Direct MFP* Connection

Connecting the PN-L601B to a Sharp MFP with colour-scanning function makes for faster, smoother communications. Documents and images scanned from the MFP can be imported directly to the pen software for display on the PN-L601B. For added convenience, image data shown on the PN-L601B—including notations—can be saved to a PC or sent directly to an MFP for printout.

* Multifunction printer

Scan a paper document with an MFP

Import the image to the display

Save the data to a PC

Write or draw directly on the image

Print
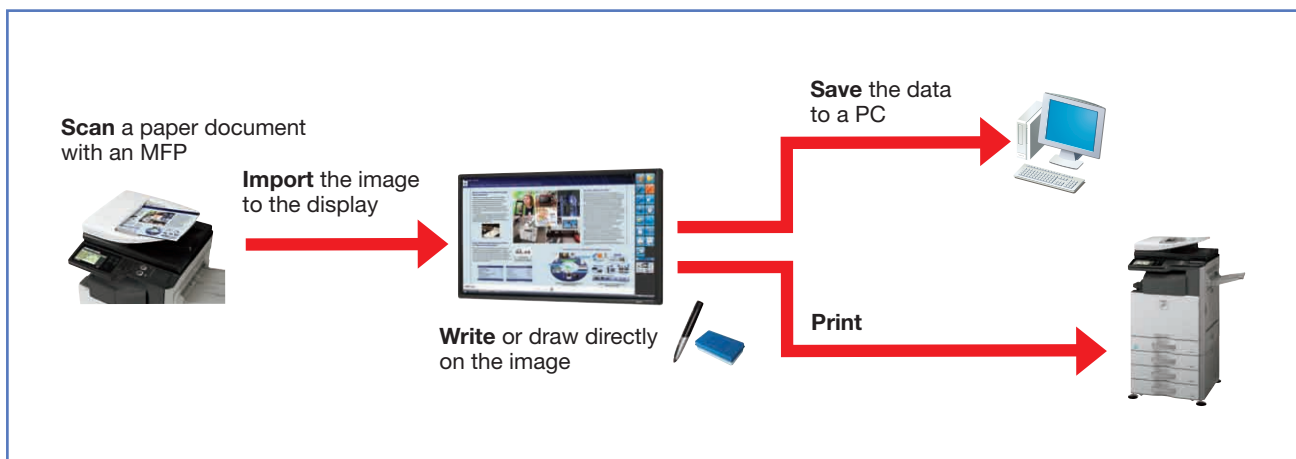
Public Facilities

Highly visible displays are the perfect platform for conveying important information about public services, procedures, and events. When installed in public spaces, Sharp LCD monitors are an effective, easily viewable way to reach a large number of people.

• Museums   • Libraries   • Public offices

Hospitality Industry

Thanks to LCD-vivid depictions, restaurants can realistically display their most savoury selections along with daily menus and specials, and hotels can announce weekly or monthly events and special offers in an easy-on-the-eye format that gets the message across.

• Cafeterias, bars   • Restaurants
• Hotel lobbies
• Information bureaus

Sharp LCD Monitors Bring Enhanced Communication

Retail Establishments

With Sharp LCD monitors, whatever is on display will catch the eyes and the attention of customers and passers-by coming and going in all directions. Product image displays are rendered enticingly vivid and clear, even in brightly lit areas. And for dramatic impact in large spaces, the use of multiple LCD monitors or of Sharp's massive 108-inch model makes a powerful impression.

• Shopping malls   • Supermarkets   • Stores

Corporate Offices

In showrooms, Sharp LCD monitors add impact to product displays through realistic images that highlight a product's materials, design, and features down to the smallest detail, leaving visitors intrigued and inspired to buy.
At videoconferences, Sharp LCD monitors capture facial expressions with such clarity that participants share a true sense of "being there"—regardless of actual distance apart—making for lively, productive discussions.

• Videoconferences   • Presentations
• Boardrooms   • Showrooms

Surveillance and Control Rooms

Designed for 24/7 use and rugged operating conditions, Sharp LCD monitors are durable, reliable, and energy efficient. Their wide array of interfaces* allows compatibility with a broad range of systems, and high definition enables the clear display of small text and intricate surveillance diagrams.

* Requires optional PN-ZB01/ZB02 Interface Expansion Board

Educational Institutions

The vivid, high-definition display of text, colour graphics, and videos on Sharp LCD monitors brings school lessons to life, capturing students' attention and enhancing their understanding. Large screen sizes ensure that the information on display can easily be seen from all corners of the classroom.

Transportation Facilities

Easy-to-spot, easy-to-look-at Sharp LCD monitors make ideal information hubs at transportation facilities, where the display of information on departures/arrivals, delays/cancellations, timetables, and travel guides is essential. And thanks to wide viewing angles, Sharp LCD monitors can easily be seen from all directions.

- Train/bus stations
- Airports
- Car rental offices
- Travel agencies

High-Quality Visual Dynamics and
to a World of Signage Possibilities

Financial Institutions

Sharp's high-definition LCD monitors clear the way for the display of complex diagrams and small text. And with the simultaneous, real-time posting of stock prices, interest rates, available services, and news updates, viewers can get large volumes of information from one source, in one glance.

- Banks
- Brokerage firms

Medical Institutions

Sharp LCD monitors are a boon to medical institution staff and patients. For staff members, the clear display of detailed medical information such as test results, treatment options, and administrative policies boosts information sharing and keeps meetings running smoothly and efficiently. For patients and visitors, posting important information in waiting rooms is both a convenience and a comfort.

Note: These LCD monitors are not designed for any medical applications in which an extremely high level of reliability and safety is required to maintain a person's life and health.

Entertainment Centres

For ultra-spectacular visuals at gyms, stadiums, galleries, and theatres, stunning background scenes and information on related events, souvenirs, exhibits, and programmes can all be displayed on high-resolution, high-brightness, high-contrast Sharp LCD monitors. When it comes to on-site ads and announcements, nothing conveys beauty, emotion, and action like eye-catching LCD images that slip seamlessly from the monitor into the hearts and minds of viewers.

- Theatres
- Galleries
- Stadiums
- Gyms

Image Quality and Functions

LED Backlight

The PN-V601 and PN-L601B feature a full-array LED backlight in which the LED elements are evenly positioned across the entire panel to provide uniform screen brightness. In the PN-T321's edge-lit LED backlight, the LED elements are located at the edges of the panel, giving the monitor an extremely thin profile.

UV²A Technology

The LCD panels for the PN-E601/E521/L601B incorporate UV²A technology*. In addition to eliminating light leakage from the backlight, making it possible to display extremely deep blacks, this technology also enables the most efficient use of light from the backlight, thereby saving energy while displaying bright whites and vivid colours.

* 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.

Crisp, Clear High-Definition Detail

Full-HD 1080p resolution (1,920 H x 1,080 V pixels) brings images to life with vivid, true-to-life details. Everything from thin lines to fine text to photographic images can be displayed in stunning clarity.

Brightness Sensor

The Brightness Sensor function ensures clear visibility by automatically adjusting backlight brightness to complement surrounding brightness levels. In dark surroundings, backlight brightness automatically lowers, providing optimal viewing and energy savings as well.

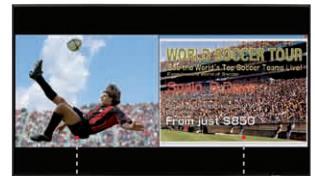In dark surroundings   In bright surroundings

Dual Screen Display

Picture-in-Picture (PIP) mode allows an AV-sourced image to be displayed within a PC-sourced one (or vice versa), while Picture-by-Picture (PbyP) mode puts images from AV and PC sources side by side for split-screen viewing.

- **Picture-in-Picture mode**
- **Picture-by-Picture mode**

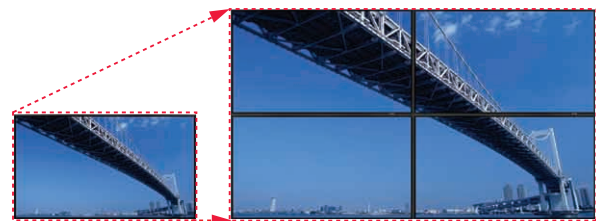PC display   AV display   AV display   PC display

Enlarge (Zoom) Display Mode

Multiple monitors can be grouped together to display one enlarged image, thanks to Enlarge (Zoom) Display mode*, which corrects the framing of that image to eliminate misalignment between monitors.

* Used with PC and AV signal output on PN-V601.

Single-monitor display   Enlarged four-monitor display

Mirror Display Mode (Daisy Chain)

With Mirror Display mode, the same image can be displayed on a daisy chain of PN-V601, PN-E Series, and PN-L601B monitors for the powerful impact of visual repetition.

Reliablity/Durability

24/7 Operation

Designed for around-the-clock use and rugged operating conditions, Sharp LCD monitors are a reliable and commanding presence in 24-hour stores, surveillance rooms, and other demanding professional applications. Even after long hours of continuous operation*, these monitors deliver a sharp, clear picture.

* Image persistence may occur when the same static image is continuously displayed for extended periods of time. Image persistence can be gradually removed by displaying a video or moving graphics.

Power on Delay

The Power on Delay function allows a time delay between the startup of each monitor in video walls or multi-monitor installations. This reduces the load placed on the power supply when a number of monitors are turned on at the same time.

Fanless Architecture

Fanless architecture maintains airflow and dissipates heat without the use of mechanical air-ventilation fans, which can attract dust and create noise. This fanless design also facilitates monitor maintenance.

Built-In Temperature Sensor

Should the temperature inside a monitor rise, a built-in sensor will detect it, and the backlight system will automatically adjust to keep the temperature within operational level*.

* The monitor automatically goes to standby mode when the internal temperature remains consistently above operational level.

User-Friendly Design

Environmentally Friendly Design

Sharp LCD monitors conform to the ENERGY STAR® programme*, an international system identifying energy-efficient products, and to the RoHS Directive restricting the use of hazardous substances.

* Except for LB-1085

Built-In Speakers

Built-in speakers eliminate the need for external speakers and keep Sharp LCD monitors stylishly streamlined. The speakers emit sound from both sides of the monitors, making them ideal for conveying audio information and playing location-appropriate background music.

Choice of Installation Mode

Equally eye-catching in both landscape and portrait modes, Sharp LCD monitors* offer a choice of installation modes to suit the display content, setting, and purpose. Landscape installation gives vivid expression to wide images, and portrait installation offers all the appeal and impact of a poster.

* Except for LB-1085

VESA-Compliant Mounts

VESA-compliant mounts provide right/left pivot and swivel, ensuring a high level of safety when LCD monitors are mounted on a wall or suspended from a ceiling.

Carrying Handles for Safe Setup

To ensure safe handling, Sharp LCD monitors come with heavy-duty carrying handles that can be conveniently stowed in the back* of the monitor after installation is complete.

* Applies to the PN-E Series

Display Management

ID Setting

Thanks to an RS-232C interface, Sharp LCD monitors can be easily controlled and monitored from a central location via a PC. Each monitor can be assigned an individual ID code to specify when remotely turning that monitor on or off, changing its input, or making various screen adjustments and settings.
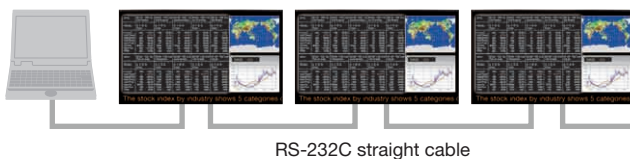
RS-232C straight cable

Scheduling

For total ease of operation, the Schedule function allows up to eight settings to be pre-programmed for automatic monitor turn on/off at precise times on a daily, weekly, or one-time basis.

Log Saving/Output

To boost the troubleshooting efficiency of service technicians, operating logs, signal changes, information on operating irregularities, and other such data can be saved and tracked.

Hardware Diagnostics

The Hardware Diagnostics function detects any irregularities in power supply voltage and indicates it on the monitor.

E-Mail Notification

With the E-Mail Notification function, display status updates will be sent periodically to a specified e-mail address. A notice will also be sent if a malfunction occurs.

Web Browser Setting

Sharp LCD monitors can be easily operated through a Web browser and monitor control software*.

* Available separately

SNMP Support

Display status, continuous operating time, and other parameters can be monitored over a local area network using Simple Network Management Protocol (SNMP).

Self Adjust Function

With an analogue PC connection, when a change occurs to the input signal timing, the clock phase will automatically adjust accordingly.

Outstanding Features

Hardware Functionality Guide

	Image Quality and Functions							User-Friendly Design				
	LED backlight	UV²A technology	Full HD	Brightness sensor	Dual screen display (PIP, PbyP)	Enlarge (zoom) display	Mirror display (daisy chain)	ENERGY STAR certified	Built-in speakers	Portrait installation	VESA-compliant mounts	Carrying handles
PN-V601	●		●	*2	●	*3	*4*5	●		●	●	*7
PN-E601		●	●		●	*3	*4*5	●	●	●	●	*7
PN-E521		●	●		●	*3	*4*5	●	●	●	●	*7
PN-E471R		●	●		●	*3	*4*5	●	●	●	●	*7
PN-E421		●	●		●	*3	*4*5	●	●	●	●	*7
LB-1085			●	●								
PN-T321	*1							●		●	●	
PN-L601B	●	●	●		●		*4*5	●	●	*6	●	*7

*1 Edge-lit.
*2 Requires optional PN-ZR01 Control Kit.
*3 Up to 25x enlargement (5 x 5 monitors).
*4 Up to five monitors (using DVI daisy chain connection).
*5 Requires optional Interface Expansion Board.
*6 Pen software works with landscape installation only.
*7 Pre-assembled with main unit.
*8 Reduces screen brightness when internal temperature reaches a certain level.

Sharp Digital Signage Software

Sharp Digital Signage Software is a versatile management software package that provides total support for the creation, scheduling, distribution, and display of a wide range of programmes for Sharp LCD monitors installed in offices, commercial establishments, and public spaces.

- To facilitate programme **editing**, four frames for such diverse content as still images, video, HTML, and Flash can be freely arranged, and two message bars—with multi-language support and a variety of fonts and backgrounds to choose from—can be displayed horizontally or vertically.
- To ensure easy setup of programme **distribution** schedules, Sharp Digital Signage Software features a user-friendly interface.
- To smoothly manage programme **display**, power and input can be remotely controlled, and displays can be remotely monitored.

Programme editing screen

HTML

Still images

Video FLASH

Horizontal message bar

Display screen

Launcher window
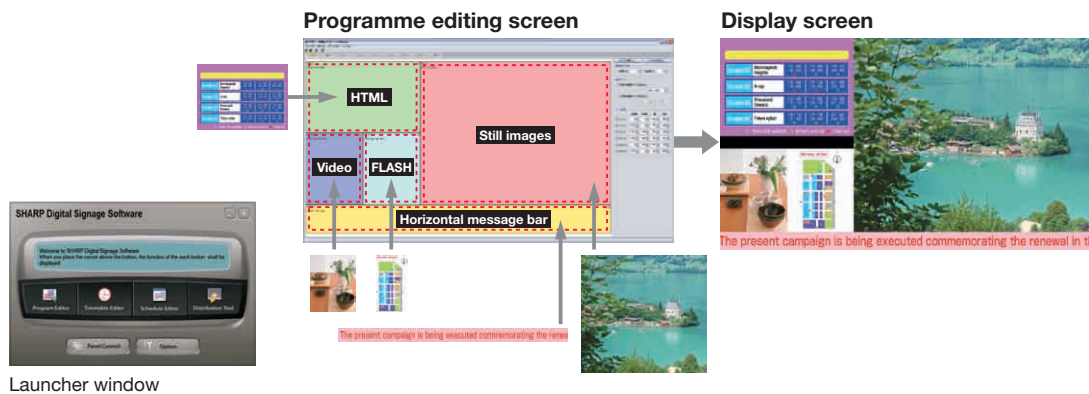
System Requirements

PC	CPU: Celeron® M 1.3GHz or higher (Pentium® 4 processor recommended) 2GHz or higher Pentium® 4 recommended for movie/high-content programmes
OS	Microsoft® Windows® XP (32-bit)/Vista® (32-bit/64-bit), Microsoft® Windows® 7 (32-bit/64-bit), Microsoft® Windows Server® 2003/2008 (English version)
Memory	256MB or more (512MB or more recommended)*1
Hard Disk	20MB or more free space (additional space required for saving data)
Monitor (for controller PC)*2	Full-colour display with minimum resolution of 1,024 x 768 (recommended 1,920 x 1,080)
Monitor (for client PC)*3	Sharp LCD monitor: PN-V601, PN-E Series, LB-1085, PN-T321, PN-L601B
Interface	USB port (when using USB memory), LAN port (PN-SS02 network version only; requires TCP/IP protocols)
Other	Microsoft® Internet Explorer® 6.0 or later, Microsoft® PowerPoint® Viewer 2003/2007, Microsoft® Windows Media® Player 9 or later, Adobe® Flash® Player, QuickTime Player 7 or later (for QuickTime content)*4

Supported Files

Background and Display Frames 1 to 4	MPEG, MPEG1, MPEG2, MPEG4, WMV (format for playing back on Windows Media® VIDEO - Windows Media® Player), MOV (format for playing back on QuickTime Player), Adobe® Flash® (format for playing back on Adobe® Flash® Player), PowerPoint®, HTML, JPEG, BMP, GIF, PNG
Audio	WAVE, MP3, AU, AIFF, WMA (format for playing back on Windows Media® Audio - Windows Media® Player), MIDI, MOV (format for playing back on QuickTime Player)

Depending on CPU speed, memory, and other factors, it may not be possible to use some video, subtitles, and other content.

*1 For use with Windows Vista® or Windows® 7, please follow Vista or 7 requirements.
*2 For creating and editing programmes and schedules. *3 Display used for displaying programmes on the PN-SS01 Stand-Alone and PN-SV01 Viewer versions. *4 Some files may require third-party codec.
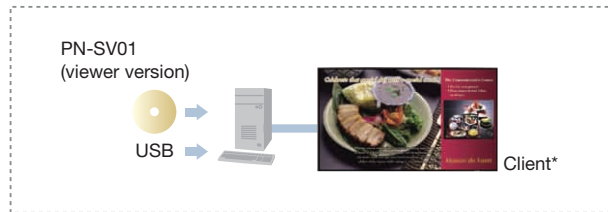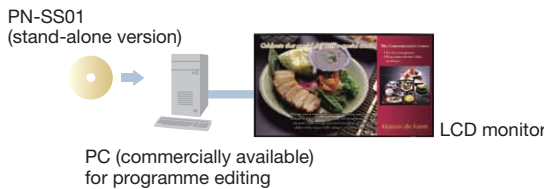
Reliability/Durability				Display Management							
24/7 operation	Power on delay	Fanless architecture	Built-in temperature sensor	ID setting	Scheduling	Log save/output	Hardware diagnostics	E-mail notification	Web browser setting	SNMP support	Self adjust
●	●	●	● [8]	●	●	●	●	● [5]	● [5]	● [5]	●
●	●	●	● [8]	●	●	●	●	● [5]	● [5]	● [5]	●
●	●	●	● [8]	●	●	●	●	● [5]	● [5]	● [5]	●
●	●	●	● [8]	●	●	●	●	● [5]	● [5]	● [5]	●
●	●	●	● [8]	●	●	●	●	● [5]	● [5]	● [5]	●
●	●	●									
●	●	●	● [8]								
●	●	●	● [8]	●	●	●	●	● [5]	● [5]	● [5]	●

For Use in Stand-Alone or Network Systems

• PN-SS01 Stand-Alone Version

In stand-alone systems, PN-SS01 software enables programmes to be edited on a single PC for display on a single LCD monitor according to a set schedule. Programmes can be transferred to another client* via a USB flash drive.

Stand-Alone System Configuration

PN-SS01 (stand-alone version)
PC (commercially available) for programme editing
LCD monitor

PN-SV01 (viewer version)
USB
Client*

* Each client represents a separate PC and Sharp LCD monitor

• PN-SS02 Network Version

In network systems, PN-SS02 software enables programmes to be edited and stored on a networked PC then distributed via the network to up to 100 clients* according to a set schedule.

• PN-SV01 Viewer Version

Used on the client* side, PN-SV01 viewer software allows programmes edited with PN-SS01 or PN-SS02 software to be displayed on the client's LCD monitor according to a set schedule.

Network System Configuration

PN-SS02 (network version)
PC (commercially available) for programme editing and distribution
PN-SV01
PN-SV01
PN-SV01 (viewer version)
Client*
Client*
Client*
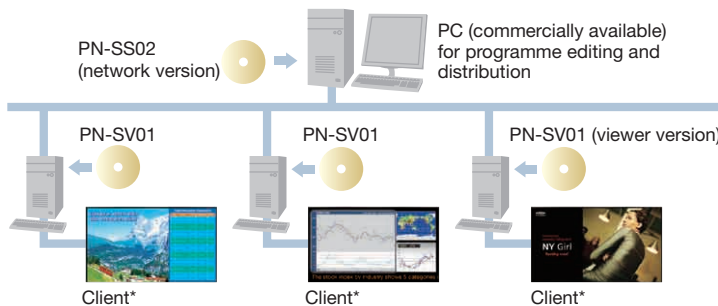
Sharp Digital Signage Software Configuration

Version name	Number of software installations required
PN-SS02 network version	1
PN-SV01 viewer version	Same as the number of clients*

* Each client represents a separate PC and Sharp LCD monitor

Dimensions & Connections

108-Inch　Landscape　LB-1085　Full High-Definition 108-Inch LCD Monitor

2,390* (94 1/8)

1,348* (53 1/16)

1,550 (61 1/16)

204 (8 1/16)

2,572 (101 5/16)

430 (16 15/16)
430 (16 15/16)
430 (16 15/16)

1,470 (57 7/8)
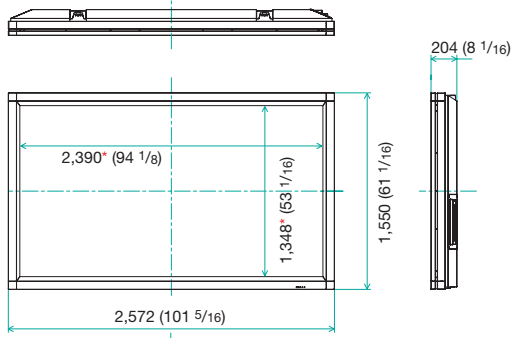
Unit: mm (inch)
* Screen dimensions

Input/Output Terminals

Component audio input
S-Video input
RS-232C input
External speakers

Component input
Video input
Audio input
Audio output

HDMI input
HDMI input
HDMI input
DVI-I input
Optical digital audio output
PC/AV audio input
Audio input

POWER button
MENU button
INPUT button
Select button
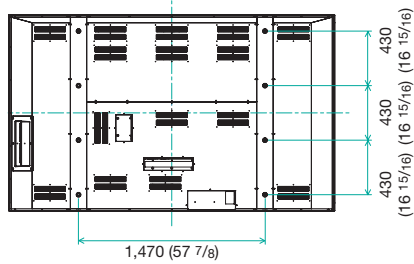Volume button

Component input
Video input
Audio input

Service terminal
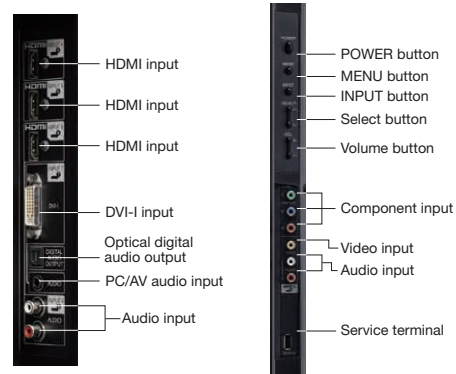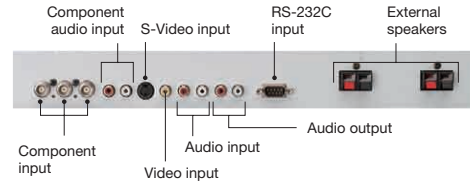
60-Inch　Landscape/Portrait　PN-V601　High-Definition 60-Inch LCD Monitor
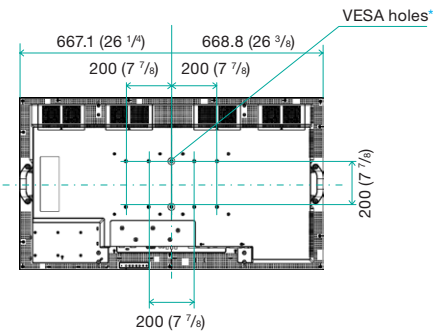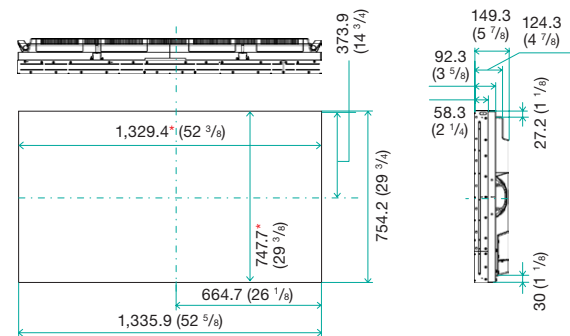
373.9 (14 3/4)

149.3 (5 7/8)　124.3 (4 7/8)

92.3 (3 5/8)

58.3 (2 1/4)

27.2 (1 1/8)

30 (1 1/8)

1,329.4* (52 3/8)

754.2 (29 3/4)

747.7* (29 3/8)

664.7 (26 1/8)

1,335.9 (52 5/8)

VESA holes*

667.1 (26 1/4)　668.8 (26 3/8)

200 (7 7/8)　200 (7 7/8)

200 (7 7/8)

200 (7 7/8)

200 (7 7/8)

Unit: 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)

Audio input
RS-232C output
Control kit jack

PC/AV input (HDMI)
PC analogue 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 analogue input RGB (BNC)
Video input (BNC)

LAN
Component video input (BNC)
S-Video input
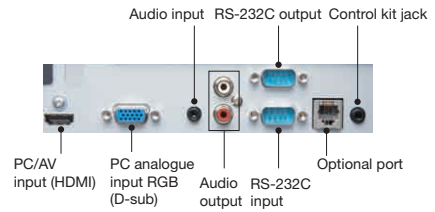
Landscape/Portrait **PN-E601** Full High-Definition 60-Inch LCD Monitor

112 (4 7/16) 80 (3 1/8)
73 (2 7/8)
110.5 (4 3/8)
1,334* (52 1/2)
753* (29 5/8)
388.3 (15 5/16)
793 (31 1/4)
92 (3 5/8)
560.5 (22 1/16)
1,374 (54 1/8)
40 (1 9/16)   40 (1 9/16)

200 (7 7/8) 200 (7 7/8)   VESA holes*
200 (7 7/8)
200 (7 7/8)

Unit: 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)

Audio input   RS-232C output

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

PN-ZB01 Interface Expansion Board (option)

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

LAN   Component video input (BNC)   S-Video input

Landscape/Portrait **PN-E521** Full High-Definition 52-Inch LCD Monitor

106 (4 3/16) 74.5 (2 15/16)
71 (2 13/16)
22 (7/8)
1,157* (45 9/16)
653* (25 11/16)
339 (13 3/8)
695 (27 3/8)
92.5 (3 5/8)
503 (19 3/16)
1,208 (47 9/16)
46 (1 13/16)   46 (1 13/16)

200 (7 7/8) 200 (7 7/8)   VESA holes*
200 (7 7/8)
200 (7 7/8)

Unit: 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)

Audio input   RS-232C output

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

PN-ZB01 Interface Expansion Board (option)

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

LAN   Component video input (BNC)   S-Video input

Dimensions & Connections

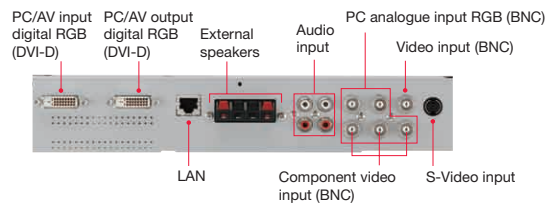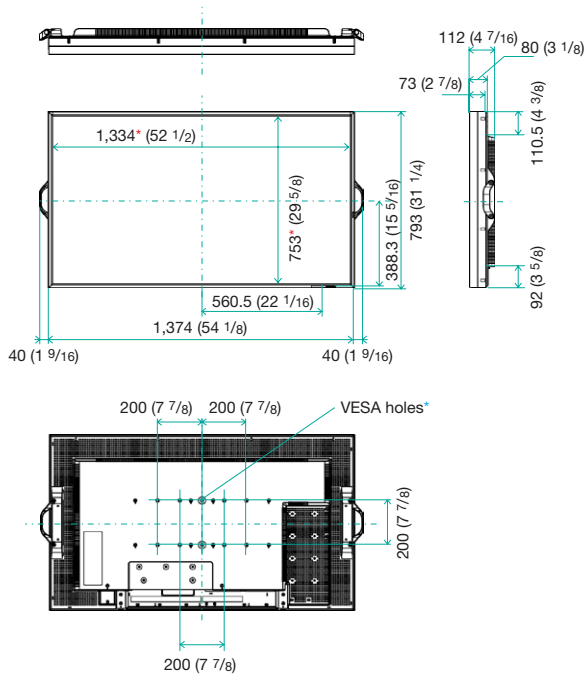## 47-Inch Landscape/Portrait PN-E471R Full High-Definition 47-Inch LCD Monitor
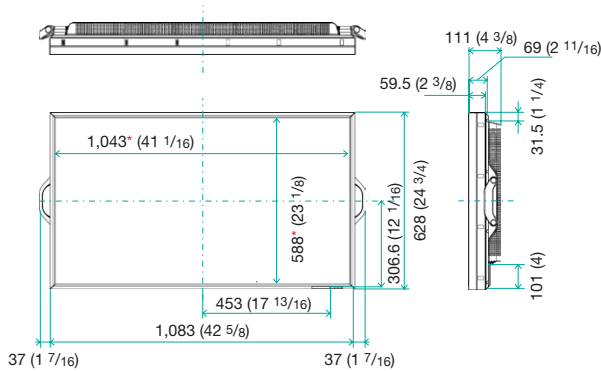
111 (4 3/8) 69 (2 11/16)

59.5 (2 3/8)

31.5 (1 1/4)

1,043* (41 1/16)

588* (23 1/8)

306.6 (12 1/16)

628 (24 3/4)

101 (4)

453 (17 13/16)

1,083 (42 5/8)

37 (1 7/16) 37 (1 7/16)

200 (7 7/8) 200 (7 7/8) VESA holes*
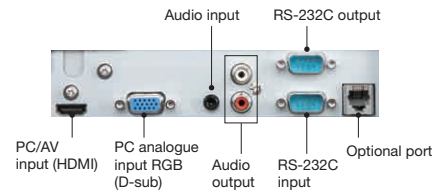
200 (7 7/8)
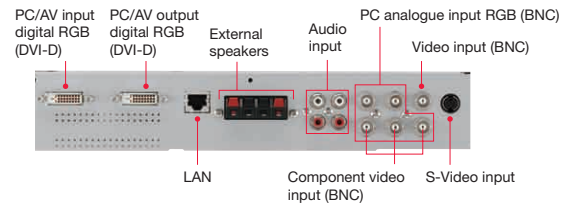
200 (7 7/8)

Unit: 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.
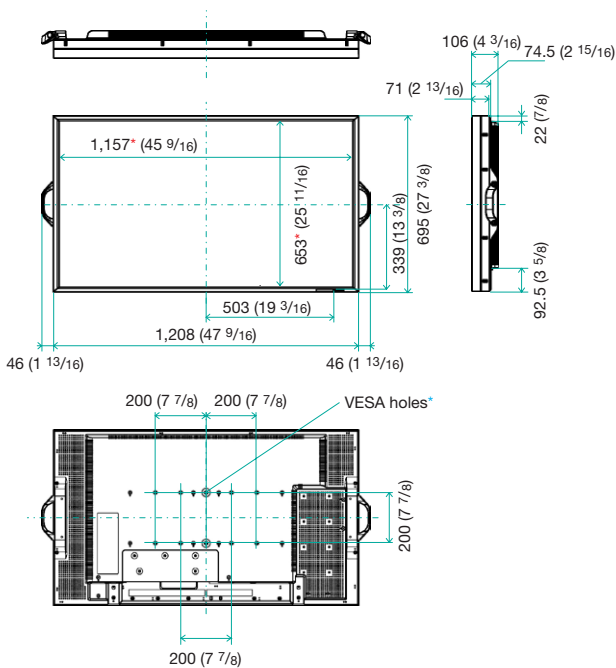
Input/Output Terminals (standard)

Audio input RS-232C output

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

PN-ZB01 Interface Expansion Board (option)

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

LAN Component video
input (BNC) S-Video input

42-Inch Landscape/Portrait PN-E421 Full High-Definition 42-Inch LCD Monitor
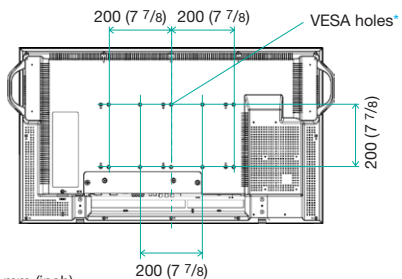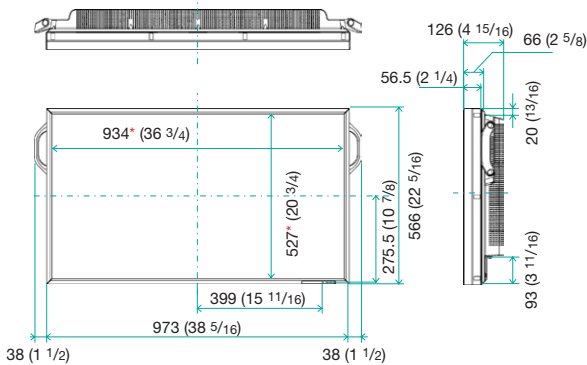
126 (4 15/16) 66 (2 5/8)

56.5 (2 1/4)

20 (13/16)

934* (36 3/4)

527* (20 3/4)

275.5 (10 7/8)

566 (22 5/16)

93 (3 11/16)

399 (15 11/16)

973 (38 5/16)

38 (1 1/2) 38 (1 1/2)

200 (7 7/8) 200 (7 7/8) VESA holes*
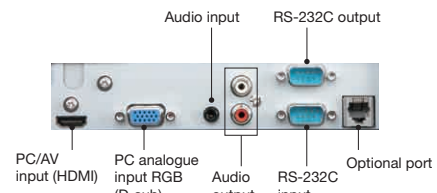
200 (7 7/8)

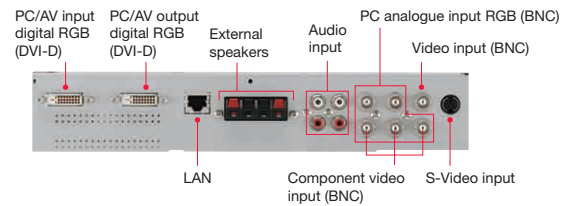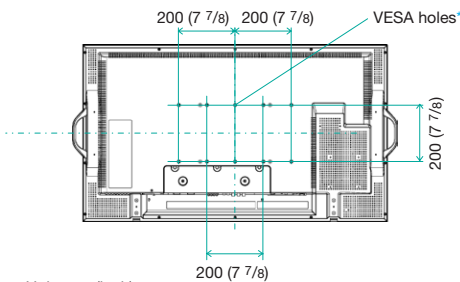200 (7 7/8)

Unit: 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)

Audio input RS-232C output

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

PN-ZB01 Interface Expansion Board (option)

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

LAN Component video
input (BNC) S-Video input

Landscape/Portrait **PN-T321** High-Definition 32-Inch-Class LCD Monitor
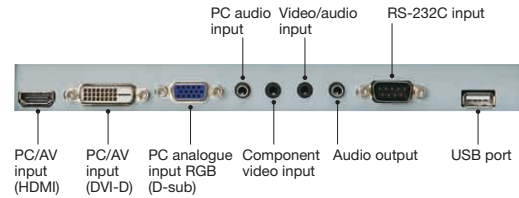
49.1
(1 30/32)

1.7 (2/32)
(VESA holes)

25.3 (1)

82.3 (3 8/32)

90.4 (3 18/32)

25.9 (1)

700.8 (27 19/32)*

460.2 (8 4/32)

215.5 (8 15/32)

395.4 (15 18/32)

332 (13 23/32)

768.6 (30 8/32)

Input/Output Terminals

PC audio input

Video/audio input

RS-232C input

PC/AV input (HDMI)

PC/AV input (DVI-D)

PC analogue input RGB (D-sub)

Component video input

Audio output

USB port

384.3 (15 4/32) 384.3 (15 4/32)

200 (7 28/32)

Cover for USB thumb drive

83.5 (3 9/32)

100.4 (3 31/32)

(352 [13 27/32)
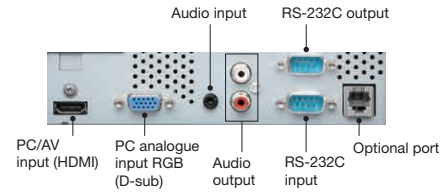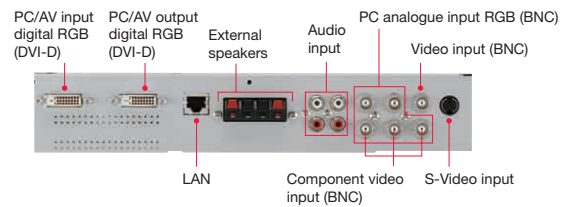
200 (7 28/32)

129.3 (5 3/32)

VESA holes*

Unit: 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.

Landscape/Portrait* **PN-L601B** Full High-Definition 60-Inch LCD Monitor

* Pen software works with landscape installation.

131 20
(5 1/8) (3/4)

104
(4 1/8)

71.5
(2 7/8)

130 (5 1/8)

1,339*
(52 3/4)

831 (32 3/4)

757.5*
(29 7/8)

111 (4 3/8)

1,413 (55 5/8)

601 (23 5/8)

20 (3/4) 20 (3/4)

Input/Output Terminals (standard)

Audio input

RS-232C output

PC/AV input (HDMI)

PC analogue input RGB (D-sub)

Audio output

RS-232C input

Optional port

VESA holes*

200 200 200
(7 7/8) (7 7/8) (7 7/8)

371 (14 5/8)

371 (14 5/8)

371 (14 5/8)

200 (7 7/8)

PN-ZB01 Interface Expansion Board (option)

PC/AV input digital RGB (DVI-D)

PC/AV output digital RGB (DVI-D)

External speakers

Audio input

PC analogue input RGB (BNC)

Video input (BNC)

LAN

Component video input (BNC)

S-Video input
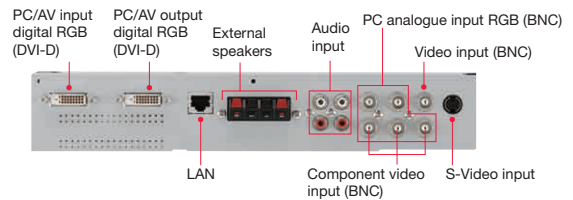
Unit: mm (inch)
* Screen dimensions
* To use the VESA-standard mounting bracket, use M6 screws
  that are 8 to 10 mm plus the thickness of the bracket.
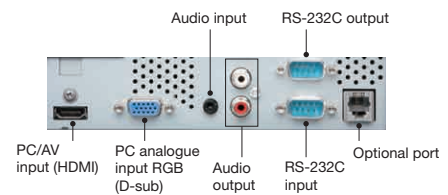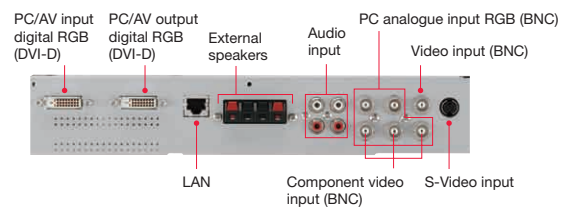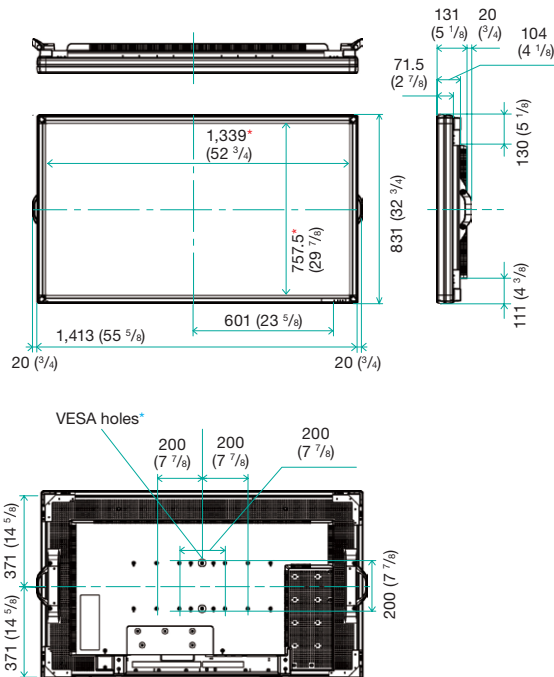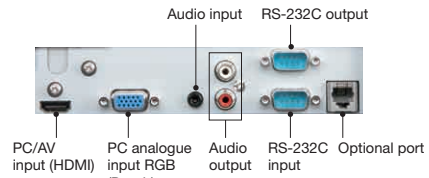
The optional Interface Expansion Board fits neatly in the back of the LCD monitor.
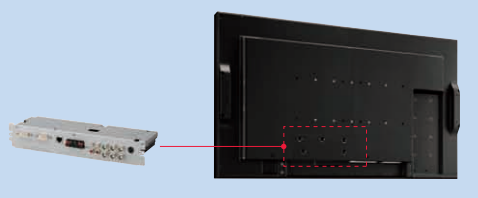
Specifications

Model	LB-1085	PN-V601
Installation	Landscape	Landscape/portrait
LCD Panel	108-inch widescreen (2,732.7 mm diagonal), TFT LCD	60-inch widescreen (152.5 cm diagonal), TFT LCD
Max. Resolution	1,920 x 1,080 pixels	1,366 x 768 pixels
Max. Display Colours (approx.)	758 million colours	16.77 million colours
Pixel Pitch (H x V)	1.2405 x 1.2405 mm	0.973 x 0.973 mm
Max. Brightness[1]	400 cd/m²	700 cd/m²
Contrast Ratio	1200:1	2400:1
Viewing Angle (H/V)	176°/176° (CR ≥ 10)	176°/176° (CR ≥ 10)
Active Screen Area (WxH)	2,381.76 x 1,339.74 mm (93 $^{25}/_{32}$" x 52 $^{3}/_{4}$")	1,328.8 x 747.1 mm (52 $^{5}/_{8}$" x 29 $^{7}/_{16}$")
Response Time	6 ms (gray to gray, avg.)	6 ms (gray to gray, avg.)
Computer Input Video	Analogue RGB (0.7 Vp-p) [75Ω], Digital (conforms to DVI 1.0 standards)	Analogue RGB (0.7 Vp-p) [75Ω], Digital (conforms to DVI 1.0 standards)
Synchronisation	Horizontal/vertical separation (TTL: positive/negative)	Horizontal/vertical separation (TTL: positive/negative), Sync on green, Composite sync (TTL: positive/negative)
Plug & Play	VESA DDC2B	VESA DDC2B
Power Management	Not supported	VESA DPMS, DVI DMPM
Video Colour System	NTSC (3.58 MHz), PAL	NTSC (3.58 MHz, 4.43 MHz)**, PAL, PAL60, SECAM
Input Terminals[2] PC/AV Video	DVI-I 29-pin (HDCP compatible, up to 1080p)[3]	DVI-D 24-pin** (HDCP compatible), Analogue mini D-sub 15-pin, Analogue BNC**
PC/AV Audio	3.5 mm-diameter mini stereo jack x 1	3.5 mm-diameter mini stereo jack x 1
Video	RCA x 2	BNC x 1**
S-Video	1	1**
Component	RCA x 1, BNC x 1	BNC (Y, Cb/Pb, Cr/Pr) x 1**
HDMI	3 (1080p compatible)[4]	1 (1080p compatible)[4]
Audio	RCA pin (L/R 4 channels)	RCA pin (L/R) x 2**
Other	—	Control Kit terminal x 1
Output Terminals[2] Computer Signal	—	DVI-D 24-pin**
Audio	RCA pin (L/R 1 channel)	RCA pin (L/R)
Speakers	15W + 15W (4Ω)	10W + 10W (6Ω)**
Input/Output Terminals[2] LAN Port	—	1**
RS-232C	D-sub 9-pin x 1 (input)	D-sub 9-pin (input x 1, output x 1)
Speaker Output	—	10W + 10W
Mounting	Optional mounting required	VESA (6 points), 200 mm (7 $^{7}/_{8}$") pitch, M6 screw or VESA (4 points), 200 mm (7 $^{7}/_{8}$") pitch, M6 screw
Power Supply	200V – 240V AC (single-phase, 3-wire type), 50/60 Hz	100V – 240V AC, 50/60 Hz
Power Consumption	1,130W	480W
Environmental Conditions Operating Temperature	0°C to 40°C	0°C to 40°C
Operating Humidity	20% to 80% RH (no condensation)	20% to 80% RH (no condensation)
Frame Width	Left/right: 91 mm Top/bottom: 101 mm	Right/bottom: 2.4 mm Left/top: 4.1 mm
Dimensions (approx.) W x D x H	2,572 x 204 x 1,550 mm (101 $^{5}/_{16}$" x 8 $^{1}/_{16}$" x 61 $^{1}/_{16}$")	1,335.9 x 149.3 x 754.2 mm (52 $^{5}/_{8}$" x 5 $^{7}/_{8}$" x 29 $^{11}/_{16}$")
Weight (approx.)	195 kg (429.9 lbs)	44 kg (96.9 lbs)
Package Dimensions (approx.) W x D x H, Weight	2,755 x 745 x 2,020 mm, 317 kg (108 $^{15}/_{32}$" x 29 $^{11}/_{32}$" x 79 $^{17}/_{32}$", 698.9 lbs)	1,580 x 381 x 932 mm, 55 kg (62 $^{1}/_{4}$" x 15" x 36 $^{3}/_{4}$", 121.3 lbs)
Main Accessories	Power cord (3-pin[5], approx. 4 m), remote controller and batteries (AA size x 2), operation manual, bolt caps, power cord holder clamp	Power cord (3-pin[5], approx. 3 m), operation manual, CD-ROM, stand hole protection cover

For horizontal (face-up) installation, the optional PN-ZR31 Fan Cover is required. For details, consult your Sharp dealer/representative. |

PN-E601	PN-E521
Landscape/portrait	Landscape/portrait
60-inch widescreen (152.5 cm diagonal), UV²A LCD	52-inch widescreen (132.2 cm diagonal), UV²A LCD
1,920 x 1,080 pixels	1,920 x 1,080 pixels
1,064 million colours	1,064 million colours
0.692 x 0.692 mm	0.600 x 0.600 mm
500 cd/m²	500 cd/m²
5000:1	5000:1
176°/176° (CR ≥ 10)	176°/176° (CR ≥ 10)
1,329.1 x 747.6 mm (52 5/16" x 29 7/16")	1,152.0 x 648.0 mm (45 3/8" x 25 1/2")
6 ms (gray to gray, avg.)	6 ms (gray to gray, avg.)
Analogue RGB (0.7 Vp-p)[75Ω], Digital (conforms to DVI 1.0 standards)	Analogue RGB (0.7 Vp-p) [75Ω], Digital (conforms to DVI 1.0 standards)
Horizontal/vertical separation (TTL: positive/negative), Sync on green, Composite sync (TTL: positive/negative)	Horizontal/vertical separation (TTL: positive/negative), Sync on green, Composite sync (TTL: positive/negative)
VESA DDC2B	VESA DDC2B
VESA DPMS, DVI DMPM	VESA DPMS, DVI DMPM
NTSC (3.58 MHz, 4.43 MHz)**, PAL, PAL60, SECAM	NTSC (3.58 MHz, 4.43 MHz)**, PAL, PAL60, SECAM
DVI-D 24-pin** (HDCP compatible), Analogue mini D-sub 15-pin, Analogue BNC** *6*7	DVI-D 24-pin** (HDCP compatible), Analogue mini D-sub 15-pin, Analogue BNC** *6*7
3.5 mm-diameter mini stereo jack x 1	3.5 mm-diameter mini stereo jack x 1
BNC x 1**	BNC x 1**
1**	1**
BNC (Y, Cb/Pb, Cr/Pr) x 1** *6	BNC (Y, Cb/Pb, Cr/Pr) x 1** *6
1 (HDCP compatible)*4	1 (HDCP compatible)*4
RCA pin (L/R) x 2**	RCA pin (L/R) x 2**
—	—
DVI-D 24-pin** (HDCP compatible, PC/AV signal)	DVI-D 24-pin** (HDCP compatible, PC/AV signal)
RCA pin (L/R)	RCA pin (L/R)
10W + 10W (6Ω)**	10W + 10W (6Ω)**
1**	1**
D-sub 9-pin (input x 1, output x 1)	D-sub 9-pin (input x 1, output x 1)
10W + 10W	10W + 10W
VESA (6 points), 200 mm (7 7/8") pitch, M6 screw or VESA (4 points), 200 mm (7 7/8") pitch, M6 screw	VESA (6 points), 200 mm (7 7/8") pitch, M6 screw or VESA (4 points), 200 mm (7 7/8") pitch, M6 screw
100V – 240V AC, 50/60 Hz	100V – 240V AC, 50/60 Hz
395W (without audio input), max. 400W	260W (without audio input), max. 265W
0°C to 40°C	0°C to 40°C
20% to 80% RH (no condensation)	20% to 80% RH (no condensation)
19.8 mm	Left/right: 25.5 mm Top/bottom: 21.0 mm
1,374 x 112 x 793 mm (54 1/8" x 4 7/16" x 31 1/4")	1,208 x 106 x 695 mm (47 9/16" x 4 3/16" x 27 3/8")
35 kg (77.2 lbs)	28 kg (61.7 lbs)
1,580 x 381 x 932 mm, 44 kg (62 3/16" x 15" x 36 3/16", 97 lbs)	1,420 x 372 x 836 mm, 36 kg (55 29/32" x 14 21/32" x 32 29/32", 79.4 lbs)
Power cord (3-pin*5, approx. 3 m), remote controller and batteries (AA size x 2), CD-ROM, operation manual, stand hole protection cover x 2, vertical sticker (operation panel) x 1, vertical sticker (logo) x 1, blank sticker x 1, cable clamp x 2	Power cord (3-pin*5, approx. 3 m), remote controller and batteries (AA size x 2), CD-ROM, operation manual, stand hole protection cover x 2, vertical sticker (operation panel) x 1, vertical sticker (logo) x 1, blank sticker x 1, cable clamp x 2

Specifications

Model	PN-E471R	PN-E421
Installation	Landscape/portrait	Landscape/portrait
LCD Panel	47-inch widescreen (119.3 cm diagonal), TFT LCD	42-inch widescreen (106.7 cm diagonal), TFT LCD
Max. Resolution	1,920 x 1,080 pixels	1,920 x 1,080 pixels
Max. Display Colours (approx.)	1,064 million colours	1,064 million colours
Pixel Pitch (H x V)	0.542 x 0.542 mm	0.485 x 0.485 mm
Max. Brightness[*1]	700 cd/m²	700 cd/m²
Contrast Ratio	1200:1	3000:1
Viewing Angle (H/V)	178°/178° (CR ≥ 10)	178°/178° (CR ≥ 10)
Active Screen Area (WxH)	1,039.7 x 584.8 mm (40 $^{15}/_{16}$" x 23")	930.2 x 523.3 mm (36 $^{5}/_{8}$" x 20 $^{5}/_{8}$")
Response Time	9 ms (gray to gray, avg.)	8 ms (gray to gray, avg.)
Computer Input Video	Analogue RGB (0.7 Vp-p) [75Ω], Digital (conforms to DVI 1.0 standards)	Analogue RGB (0.7 Vp-p) [75Ω], Digital (conforms to DVI 1.0 standards)
Synchronisation	Horizontal/vertical separation (TTL: positive/negative), Sync on green, Composite sync (TTL: positive/negative)	Horizontal/vertical separation (TTL: positive/negative), Sync on green, Composite sync (TTL: positive/negative)
Plug & Play	VESA DDC2B	VESA DDC2B
Power Management	VESA DPMS, DVI DMPM	VESA DPMS, DVI DMPM
Video Colour System	NTSC (3.58 MHz, 4.43 MHz)**, PAL, PAL60, SECAM	NTSC (3.58 MHz, 4.43 MHz)**, PAL, PAL60, SECAM
Input Terminals[*2] PC/AV Video	DVI-D 24-pin** (HDCP compatible), Analogue mini D-sub 15-pin, Analogue BNC** *6*7	DVI-D 24-pin** (HDCP compatible), Analogue mini D-sub 15-pin, Analogue BNC** *6*7
PC/AV Audio	3.5 mm-diameter mini stereo jack x 1	3.5 mm-diameter mini stereo jack x 1
Video	BNC x 1**	BNC x 1**
S-Video	1**	1**
Component	BNC (Y, Cb/Pb, Cr/Pr) x 1** *6	BNC (Y, Cb/Pb, Cr/Pr) x 1** *6
HDMI	1 (HDCP compatible)*4	1 (HDCP compatible)*4
Audio	RCA pin (L/R) x 2**	RCA pin (L/R) x 2**
Other	—	—
Output Terminals[*2] Computer Signal	DVI-D 24-pin** (HDCP compatible, PC/AV signal)	DVI-D 24-pin** (HDCP compatible, PC/AV signal)
Audio	RCA pin (L/R)	RCA pin (L/R)
Speakers	10W + 10W (6Ω)**	10W + 10W (6Ω)**
Input/Output Terminals[*2] LAN Port	1**	1**
RS-232C	D-sub 9-pin (input x 1, output x 1)	D-sub 9-pin (input x 1, output x 1)
Speaker Output	10W + 10W	10W + 10W
Mounting	VESA (6 points), 200 mm (7 $^{7}/_{8}$") pitch, M6 screw or VESA (4 points), 200 mm (7 $^{7}/_{8}$") pitch, M6 screw	VESA (6 points), 200 mm (7 $^{7}/_{8}$") pitch, M6 screw or VESA (4 points), 200 mm (7 $^{7}/_{8}$") pitch, M6 screw
Power Supply	100V – 240V AC, 50/60 Hz	100V – 240V AC, 50/60 Hz
Power Consumption	245W (defalt settings/without audio input), max. 260W	195W (defalt settings/without audio input), max. 225W
Environmental Conditions Operating Temperature	0°C to 40°C	0°C to 40°C
Operating Humidity	20% to 80% RH (no condensation)	20% to 80% RH (no condensation)
Frame Width	19.5 mm	19.5 mm
Dimensions (approx.) W x D x H	1,083 x 111 x 628 mm (42 $^{5}/_{8}$" x 4 $^{3}/_{8}$" x 24 $^{3}/_{4}$")	973 x 126 x 566 mm (38 $^{5}/_{16}$" x 4 $^{15}/_{16}$" x 22 $^{5}/_{16}$")
Weight (approx.)	25.5 kg (56.2 lbs)	22 kg (48.5 lbs)
Package Dimensions (approx.) W x D x H, Weight	1,240 x 280 x 790 mm, 31 kg (48 $^{13}/_{16}$" x 11 $^{1}/_{32}$" x 31 $^{3}/_{32}$", 68.3 lbs)	1,100 x 264 x 704 mm, 28 kg (43 $^{5}/_{16}$" x 10 $^{13}/_{32}$" x 27 $^{23}/_{32}$", 61.7 lbs)
Main Accessories	Power cord (3-pin*5, approx. 3 m), remote controller and batteries (AAA size x 2), CD-ROM, operation manual, stand hole protection cover x 2, vertical sticker (operation panel) x 1, vertical sticker (logo) x 1, blank sticker x 1, cable clamp x 2	Power cord (3-pin*5, approx. 3 m), remote controller and batteries (AAA size x 2), CD-ROM, operation manual, stand hole protection cover x 2, vertical sticker (operation panel) x 1, vertical sticker (logo) x 1, blank sticker x 1, cable clamp x 2

*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 Use a commercially available connection cable for PC and other video connections.
*3 The monitor is not equipped with a mini D-sub 15-pin terminal. Analogue PC signals can be input from the DVI-I terminal with the use of a commercially available conversion cable or adaptor.
*4 For both PC and AV components.
*5 Use a 3-pin compatible power outlet.
*6 The analogue and component BNC terminals are switchable. Use the menu to select.
*7 Does not support plug & play.
*8 Use the bundled conversion cable and a commercially available RCA pin.
*9 The slide show function can play back files in the jpg, png, mp3, and wma formats.
** Requires separately sold Interface Expansion Board.

PN-T321
Landscape/portrait
31.5-inch widescreen (80 cm diagonal), TFT LCD
1,366 x 768 pixels
16.77 million colours
0.511 x 0.511 mm
420 cd/m²
2500:1
176°/176° (CR ≥ 10)
697.7 x 392.3 mm (27 7/16" x 15 7/16")
6.5 ms (gray to gray, avg.)
Analogue RGB (0.7 Vp-p) [75Ω], Digital (conforms to DVI 1.0 standards)
Horizontal/vertical separation (TTL: positive/negative), Sync on green, Composite sync (TTL: positive/negative)
VESA DDC2B
VESA DPMS, DVI DMPM
NTSC (3.58 MHz, 4.43 MHz), PAL, PAL60, SECAM
DVI-D 24-pin (HDCP compatible), Analogue mini D-sub 15-pin,
3.5 mm-diameter mini stereo jack x 1
RCA pin (L/R) x 1
—
RCA pin (Y, Cb/Pb, Cr/Pr) x 1*8
1 (HDCP compatible)
3.5 mm-diameter mini stereo jack, RCA pin (L/R) x 1*8
USB port x 1 (for slide shows)*9
—
3.5 mm-diameter mini stereo jack
8W + 8W
—
D-sub 9-pin (input x 1)
8W + 8W
VESA (4 points), 200 mm (7 7/8") pitch, M6 screw
100V – 240V AC, 50/60 Hz
82W
0°C to 40°C
20% to 80% RH (no condensation)
Left/right: 33.9 mm   Top/bottom: 32.4 mm
769 x 49.1 x 461 mm (30 9/32" x 1 30/32" x 18 5/32")
7.8 kg (17.2 lbs)
884 x 578 x 170 mm, 10 kg (34 26/32" x 21 18/32" x 6 22/32", 22.0 lbs)
Power cord (approx. 4 m), remote controller, CD-ROM, set-up manual, stickers (operation panel, blank, Sharp logo), cable clamp, cover for USB thumb drive, conversion cable x 2

PN-L601B		
Installation		Landscape/portrait (pen software works with landscape installation)
LCD Panel		60-inch widescreen (152.5 cm diagonal), UV²A LCD
	Max. Resolution	1,920 x 1,080 pixels
	Max. Display Colours (approx.)	1,064 million colours
	Pixel Pitch	0.692 x 0.692 mm
	Max. Brightness*1	400 cd/m²
	Contrast Ratio	4000:1
	Viewing Angle (H/V)	160°/160° (CR ≥ 10)
	Active Screen Area (W x H)	1329.1 x 747.6 mm (52 5/16" x 29 7/16")
	Response Time	6 ms (gray to gray, avg.)
Touchscreen	Touch Technology	Infrared blocking detection method
	PC Connection Port	USB (1.1 standard)
	Power Supply	PC through USB port
	Driver	OS: Windows® XP (32-bit/64-bit ver.), Windows Vista® (32-bit/64-bit ver.), Windows® 7 (32-bit / 64-bit ver.)
	Protection Glass Thickness	Approx. 3.0 mm (including AR coating on both sides)
Touch Pen	Transportation	Ultrasonic communication method
	Button	2 function buttons
Computer Input	Video	Analogue RGB (0.7 Vp-p) [75Ω], Digital (conforms to DVI 1.0 standards)
	Synchronisation	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 Colour System	With optional PN-ZB01	NTSC (3.58 MHz, 4.43 MHz), PAL, PAL60, SECAM
Input Terminals	Standard	PC analogue: Mini-D-sub 15-pin x 1, HDMI x 1*4, 3.5 mm-diameter mini stereo jack x 1, RS-232C D-sub 9-pin x 1
	With optional PN-ZB01	PC digital: DVI-D 24-pin x 1, PC analogue: BNC x 1*6*7, Video: BNC x 1, S-Video x 1, Component video: BNC (Y, Cb/Pb, Cr/Pr) x 1*6, Audio: RCA pin (L/R) x 2*6
Output Terminals	Standard	Audio: RCA pin (L/R) x 1, RS-232C D-sub 9-pin x 1
	With optional PN-ZB01	PC digital: DVI-D 24-pin x 1, External speakers 10W + 10W (6Ω)
Input/Output Terminals	With optional PN-ZB01	LAN port
Power Supply		100V – 240V AC, 50/60 Hz
Power Consumption		245W
Environmental Conditions	Operating Temperature	5°C to 35°C
	Operating Humidity	20% to 80%RH
Dimensions (W x D x H) (approx.) (Display only)		1,413 x 131 x 831 mm (55 5/8" x 5 1/8" x 32 3/4")
Weight (not including PN-ZB01) (approx.)		51 kg (112.4 lbs)
Main Accessories		Touch pen, battery (AAA size), pen tip (for touch pen), eraser, holder, power cord (approx. 3 m), remote controller and batteries (AA size x 2), CD-ROM, set-up manual, stand hole protection cover x 2, vertical sticker x 2 (for operation panel & logo), blank sticker x 1, cable clamp x 2, USB cable (3.5 m) x 1

More About the Products

Using the Product
- Mounting the monitor on the wall requires special expertise, and should be carried out by an authorised Sharp dealer. You should never attempt to perform any of this work yourself. Sharp will bear no responsibility for accidents or injuries caused by improper mounting or mishandling.
- The TFT colour LCD panel used in these monitors is engineered using high-precision technology. However, there may be minute points on the screen where pixels never light or are permanently lit. Also, if the screen is viewed from an acute angle there may be uneven colours or brightness. Please note that these are not malfunctions but common phenomena of LCDs and will not affect the performance of the monitor.
- Continuous display of static images may result in temporary image persistence on the screen.
- Please note that using these monitors' screen-size switching or dual-screen display functions to compress or expand the screen for commercial or public viewing in cafés, hotels, and the like may infringe on the rights of the creators, as protected by copyright laws in each country.

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