SHARP

## The Sharp Way to Express Your Business
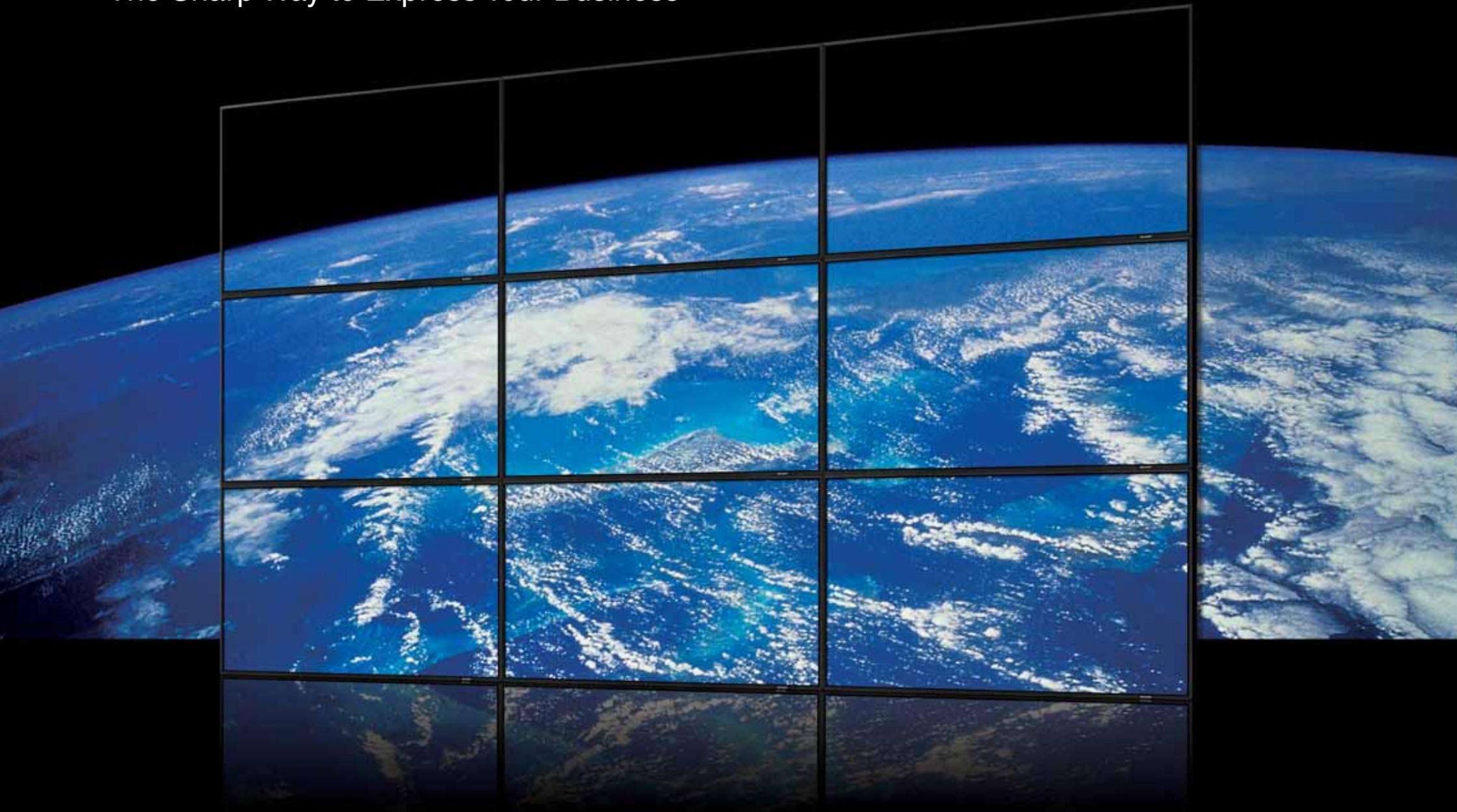
Display Solutions for Business

Sharp's large-format, high-performance LCD monitors are designed to meet the diverse needs of business users and boast solid reliability, superb durability, and easy operation. They come in a wide range of sizes with a choice of portrait or landscape installation, allowing customers to choose the monitor best suited to location and purpose. Not only are Sharp LCD monitors a dynamic and effective way to convey information, but they also add visual impact to offices and public spaces, with the added advantage of low power consumption. Also, Sharp's UV^{2}A technology, found in the PN-E601 and PN-E521, delivers extremely deep blacks and bright, vivid colours while offering additional energy savings through efficient use of light from the backlight. Just another reason why Sharp LCD monitors are such a dependable way to broaden business potential . . .
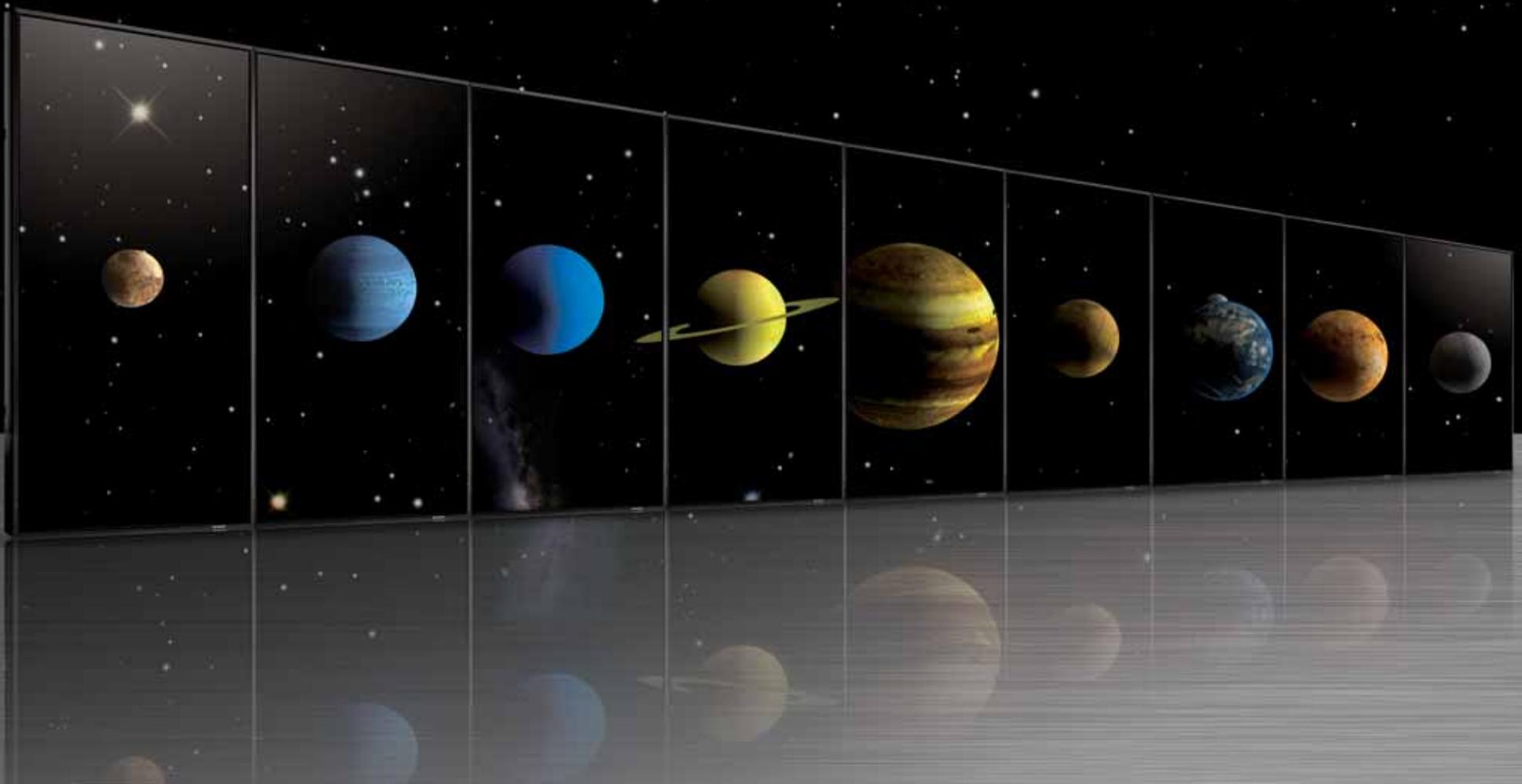
High Image Quality

The 1,920 (H) x 1,080 (V)-pixel full-HD resolution of Sharp LCD monitors ensures that none of the detail or visual impact is lost. Fine-print text and intricate graphics are stunningly crisp and clear. What's more, Sharp's cutting-edge LCDs, with their wide viewing angles, can be seen clearly from almost any direction even in brightly lit environments.

User-Friendly Expandability

Adding the Interface Expansion Board (option) gives these LCD monitors a full array of input/output jacks, enabling connection with other equipment for display of a wide variety of content. And Sharp Digital Signage Software provides total support—including programme editing, distribution, and display—for the development of creative display systems.

Versatile Installation

Freedom of installation is yet another benefit of these LCD monitors. Thin and lightweight, they are easy to mount and offer a choice of portrait*1 or landscape installation to suit content and application. Also, with Enlarge (Zoom) Display mode, installations of up to 5 x 5 monitors*2 can be placed together to display one grand image.

*1 Applies to the PN-E601/E521/E421.
*2 Some installations may require a commercially available signal divider.

Superior Durability

Built solid, Sharp LCD monitors are ideal for use in 24-hour stores, monitoring rooms, and other demanding environments that require around-the-clock operation seven days a week*. And thanks to a design that doesn't require mechanical air-ventilation fans, these LCD monitors operate silently with minimum dust intake.

* 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.

LB-1085
108-inch
TFT LCD

PN-E601
60-inch
UV²A LCD

PN-E521
52-inch
UV²A LCD

PN-E471
47-inch
TFT LCD

PN-E421
42-inch
TFT LCD

From Retail and Entertainment to Business and Education—Sharp LCD Monitors at Work in a Wide Range of Settings, Displaying a Wide Range of Content
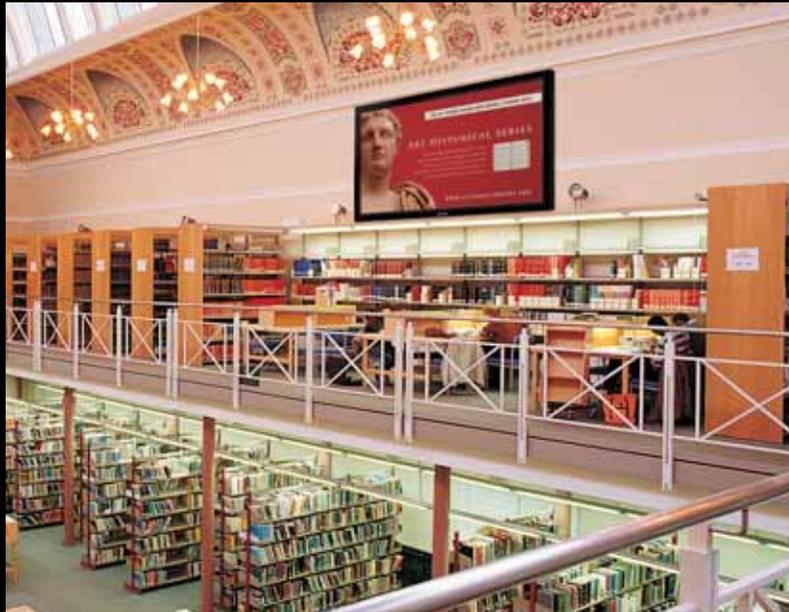

Hospitality Industry

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

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

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.

- Theatres
- Museums, galleries
- Libraries
- Public offices

Entertainment Centres

For ultra-efficient one-stop notification, information on exhibits, programs, related events, and souvenirs can all be posted on one high-resolution, high-brightness, high-contrast Sharp LCD monitor. And nothing conveys beauty, power, action, emotion, thrills, and suspense like eye-catching LCD images that slip seamlessly from monitor to viewer hearts and minds.

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

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
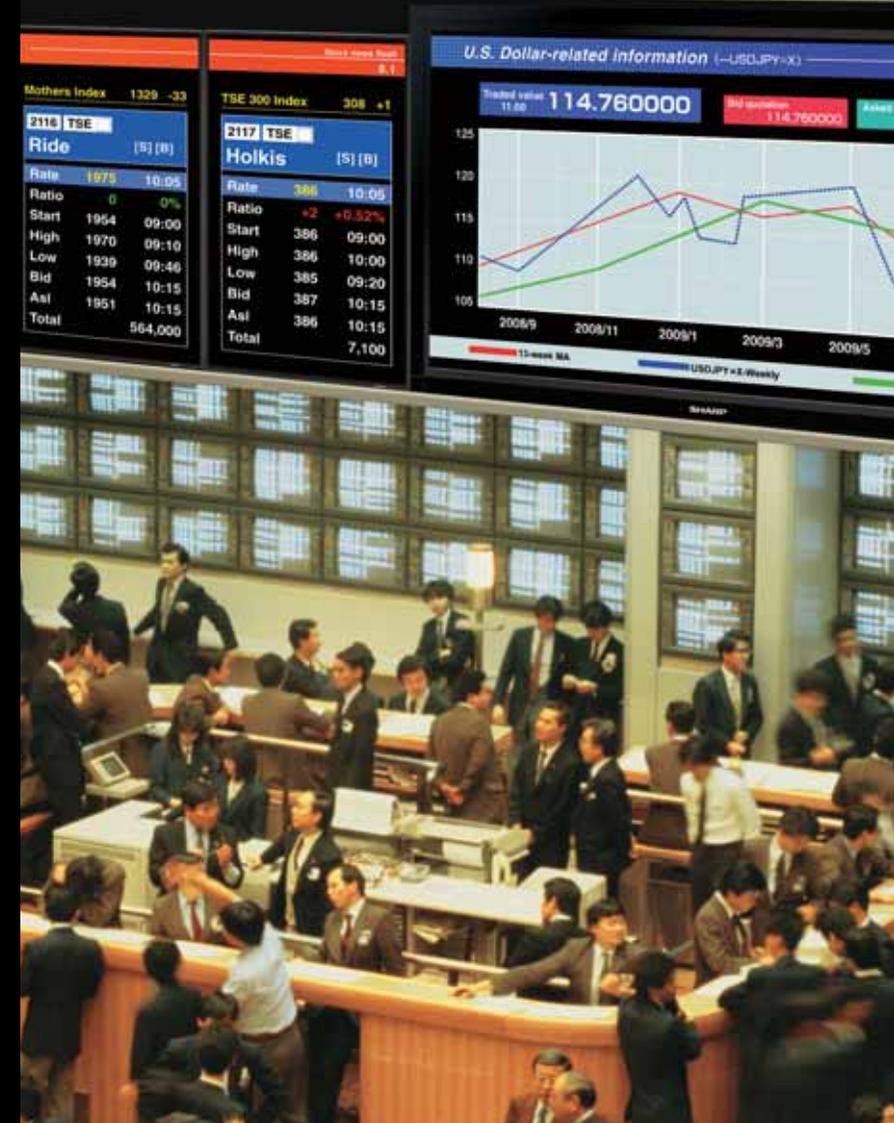
Financial Institutions

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

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 Interface Expansion Board

Educational Institutes

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.

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.

PN-E Series

Image Quality and Functions

Crisp, Clear High-Definition Detail

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

Standard HD panel
(1,366 H × 768 V pixels)

Full-HD panel
(1,920 H x 1,080 V pixels)

Next-Generation UV²A Technology

The LCD panels for the PN-E601/E521 incorporate next-generation 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.

Multi-Monitor Displays

With Mirror Display mode, the same image can be displayed on a daisy chain of Sharp LCD monitors for the powerful impact of visual repetition. Also, 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.

* Can only be used with PC signal input

• Mirror Display mode (Daisy chain connection)

#### • Enlarge (Zoom) Display mode

Single-monitor display   Enlarged four-monitor display

Choice of Installation Mode

Sharp LCD 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.

* Applies to PN-E601/E521/E421
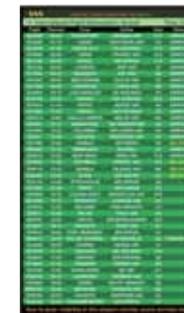
Dual Screen Display

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

Hardware Functionality Guide	Full high definition	UV²A technology	Multi-monitor (mirror/ enlarge)	Dual screen display (PIP, PbyP)	PN-ZB01 (option)	Built-in speakers	Carrying handles*4	VESA-compliant mounts	Fanless architecture	Slim bezel	24-hour-a-day operation	Power on delay	Built-in temperature sensor
LB-1085	●			●	●	●	●	●	●	●	●	●	
PN-E601	●	●	*1*2*3	●	●	●	●	●	●	●	●	●	*5
PN-E521	●	●	*1*2*3	●	●	●	●	●	●	●	●	●	*5
PN-E471	●		*1*2*3	●	●	●	●	●	●	●	●	●	*5
PN-E421	●		*1*2*3	●	●	●	●	●	●	●	●	●	*5

*1 Up to five monitors (using DVI daisy chain connection). *2 Up to 25x enlargement (5 x 5 monitors). Up to 2 x 2 monitors can be daisy-chained (digital) together; however, more monitors require commercially available picture signal divider.
*3 Daisy chain connection requires optional PN-ZB01 Interface Expansion Board. *4 Pre-assembled with main unit. *5 Reduces screen brightness when internal temperature reaches a certain level. *6 When using optional PN-ZB01 Interface Expansion Board.

Design

Slim Bezel

A new slim bezel and thinner profile create a stylishly slender design, while a brushed metal finish gives the entire bezel the look and feel of luxury. Together, these design elements ensure that Sharp LCD monitors are the picture of fine quality and elegance in offices and public spaces. As an added advantage, the slim bezel makes these monitors ideal for use in videowalls.

Outstanding Durability and Reliability

Sharp LCD monitors are rugged enough for continuous 24/7 operation* in the most demanding professional applications. In addition, fanless architecture dramatically reduces noise and minimises dust intake, ensuring highly reliable operation.

* 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.

Lightweight Design

By using resin for the backs of the monitors and improving the LCD parts and materials, Sharp has considerably reduced the weight of these models, making installation even less of an effort. The PN-E521, for example, weighs approximately 26% less than Sharp's previous 52-inch monitor (PN-S525).

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.

Carrying Handles for Safe Setup

The lightweight design of Sharp LCD monitors means that fewer workers and fewer man-hours are needed for installation. To ensure safe handling, the monitors come with heavy-duty carrying handles that can be conveniently stowed in the back of the monitor after installation is complete. VESA-compliant mounts provide right/left pivot and swivel, ensuring a high level of safety when mounted on a wall or suspended from a ceiling.

## Environmentally Friendly Design

The PN-E Series conforms to the ENERGY STAR® programme, an international system identifying energy-efficient products, and to the RoHS Directive restricting the use of hazardous substances.

Expandability

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
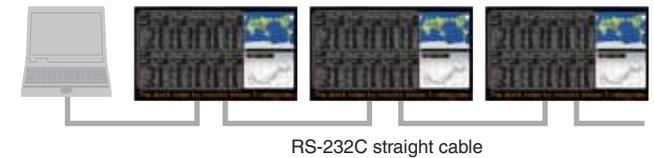
SNMP Support

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

PN-ZB01 Interface Expansion Board (optional)

To extend the range of applications via connection with various devices, an optional PN-ZB01 Interface Expansion Board is available, providing a number of inputs and outputs, including DVI-D, component video, external speakers, as well as an RJ-45 LAN connection.

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.

Web Browser Setting

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

* Available separately

ID setting	Scheduling	Log save/output	Hardware diagnostics	E-mail notification	Web browser setting	SNMP support	Self adjust
●	●	●	●	●*6	●*6	●*6	●
●	●	●	●	●*6	●*6	●*6	●
●	●	●	●	●*6	●*6	●*6	●
●	●	●	●	●*6	●*6	●*6	●
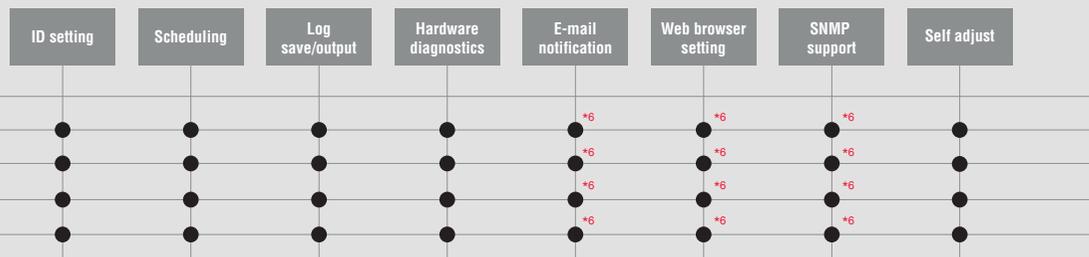
Other Key Features

Fanless Architecture

Sharp LCD monitors are designed to maintain airflow and dissipate heat without the use of mechanical air-ventilation fans, which can attract dust and create noise. The 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.

Power on Delay

The Power on Delay function allows a time delay between the startup of each monitor in videowalls 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.

Log Saving

To boost the troubleshooting efficiency of service technicians, the Log Save/Output function saves operating logs, signal changes, and information on operational irregularities.

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, regular display status updates can be sent to a specified e-mail address, and malfunctions can be reported.

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 of the LB-1085

Supreme High-Definition Clarity

With full-HD 1,920 (H) x 1,080 (V)-pixel resolution, the LB-1085 renders images with such captivating clarity that even the finest print, the most complex graphics, and the fastest-paced videos are stunningly crisp and clear.

Non-Stop Performance

Designed for around-the-clock use and rugged operating conditions, the LB-1085 is a reliable and commanding presence in 24-hour stores, surveillance rooms, and other demanding professional applications. Even after long hours of continuous operation*, this super-sized monitor delivers 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.

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.
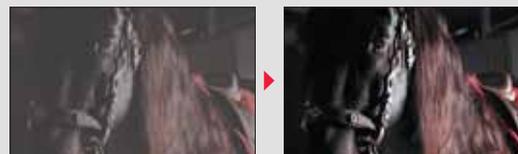
Without Active Contrast   With Active Contrast

Eco-Friendly Components

The LB-1085 complies to the strict RoHS Directive that restricts the use of hazardous substances.

Brightness Sensor

By automatically adjusting backlight brightness to complement surrounding brightness levels, the Brightness Sensor function ensures clear visibility wherever the LB-1085 is installed. In dark surroundings, backlight brightness automatically lowers, providing optimal viewing and energy savings as well.

In dark surroundings   In bright surroundings

Quick Shoot Smooth Action

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

Without Quick Shoot   With Quick Shoot

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.

STANDARD (standard mode)   DYNAMIC (vibrant, dynamic colour mode)

9

Environmentally friendly

fotolia

Ecological Responsibility

Ever since its foundation Sharp has been promoting innovative technologies, in order to protect and retain mankind´s quality of life and the ecosystem.
Sharp has been using solar technology for a long time – a milestone in the advance of alternative energies;

Sharp started researching in photovoltaic cells in 1959 already. Only a few years later the company initiated the production of solar cells, establishing Sharp as a leading manufacturer in that segment.
Solar pocket calculators, LCD flat screens, development of the first refrigerator with CFC-free vacuum coating, application of the plasma-cluster-ion-technology in air cleaners are further technologies fortifying the green thought.

Sharp embarks many strategies, protective to the environment. Every step in the product life cycle is focused on environmental sustainability - starting with the selection of materials, manufacturing, transportation and eventually recycling of the products.

Sharp goes green

By offering "green products" in consumer electronics, office equipment or household appliances, Sharp enables energy savings, thus supporting our ecosystem and protecting our quality of life.
Due to intelligent features, energy savings do also occur in the sector of computer monitors/LCD screens.

Low level electric power consumption, high durability of electronic equipment, abdication of certain chemicals, use of recyclable materials, supply of electronic spare parts for at least 7 years (after cease of production) – all these being indicators for Sharp´s ecological awareness.
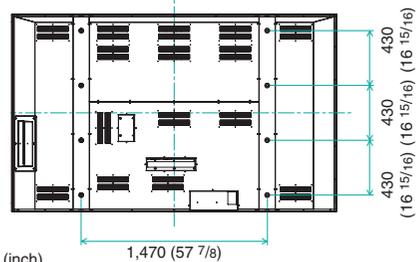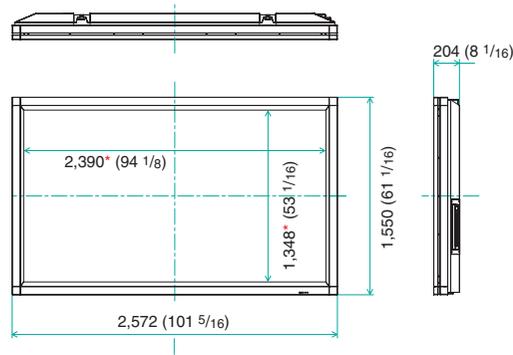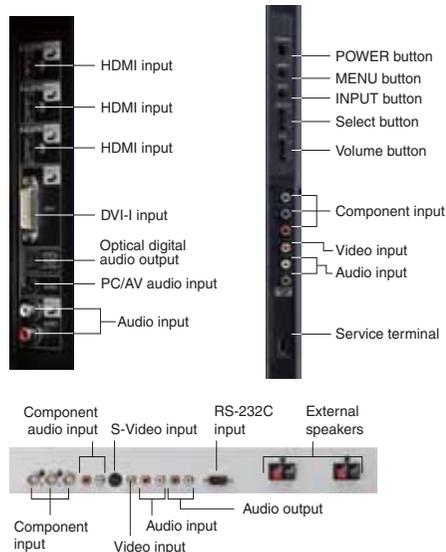
Dimensions & Connections

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

204 (8 1/16)

2,390* (94 1/8)
1,348* (53 1/16)
1,550 (61 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

- 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

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

Component input — Video input — Audio input — Audio output

60-Inch | Landscape/Portrait | PN-E601
Full High-Definition 60-Inch LCD Monitor
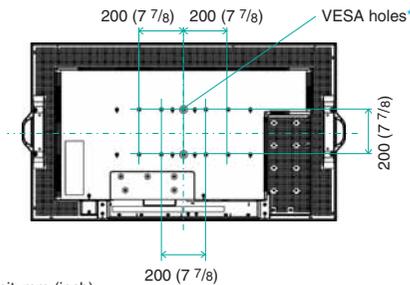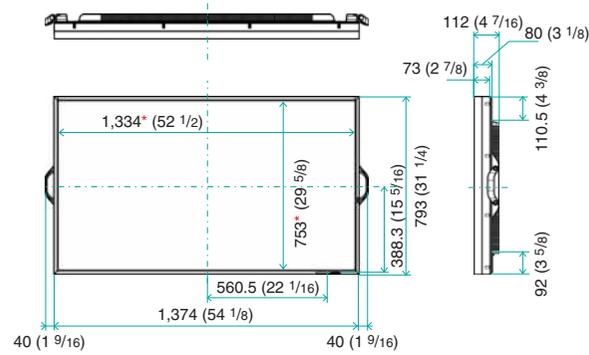
112 (4 7/16) 80 (3 1/8)
73 (2 7/8)
110.5 (4 3/8)

1,334* (52 1/2)
753* (29 5/8)
388.3 (15 5/16)
793 (31 1/4)

560.5 (22 1/16)
1,374 (54 1/8)
40 (1 9/16)   40 (1 9/16)
92 (3 5/8)

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.

Audio input   RS-232C output

PC/AV input (HDMI)   PC analogue input RGB (D-sub)   Audio output   RS-232C input   Optional port
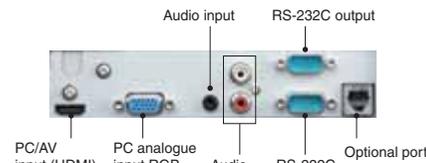
52-Inch | Landscape/Portrait | PN-E521
Full High-Definition 52-Inch LCD Monitor

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)

503 (19 3/16)
1,208 (47 9/16)
46 (1 13/16)   46 (1 13/16)
92.5 (3 5/8)

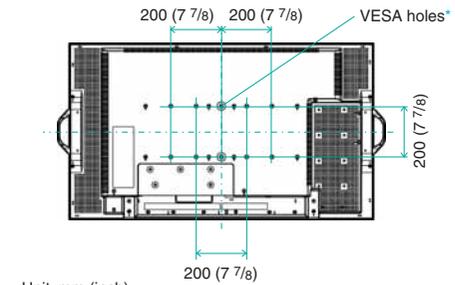200 (7 7/8) 200 (7 7/8)   VESA holes*

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.

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 (for the PN-E Series)

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

The PN-ZB01 fits in neatly in the back of the LCD monitor.

47-Inch — Landscape **PN-E471**
Full High-Definition 47-Inch LCD Monitor

Dimensions (Unit: mm (inch)):
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)
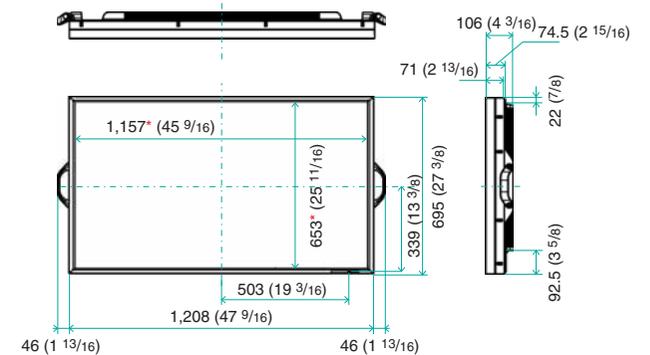200 (7 7/8), 200 (7 7/8), VESA holes*, 200 (7 7/8), 200 (7 7/8), 200 (7 7/8)

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.
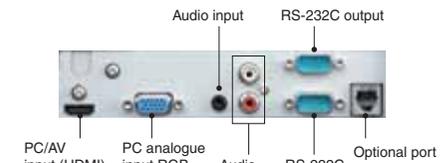
Audio input — RS-232C output
PC/AV input (HDMI) — PC analogue input RGB (D-sub) — Audio output — RS-232C input — Optional port
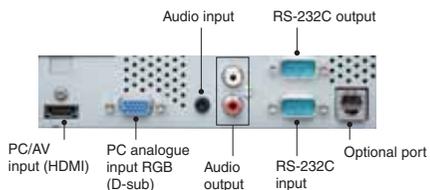
42-Inch — Landscape/Portrait **PN-E421**
Full High-Definition 42-Inch LCD Monitor

Dimensions (Unit: mm (inch)):
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.
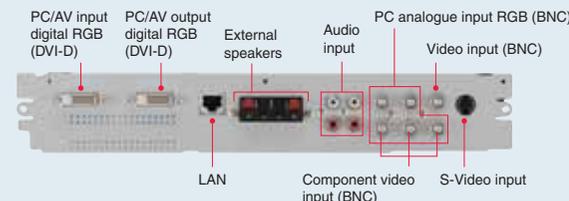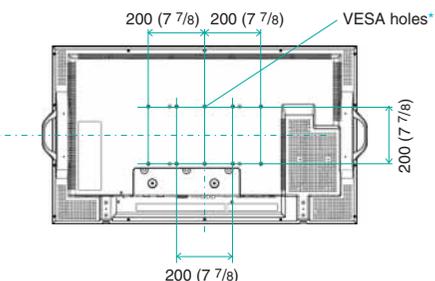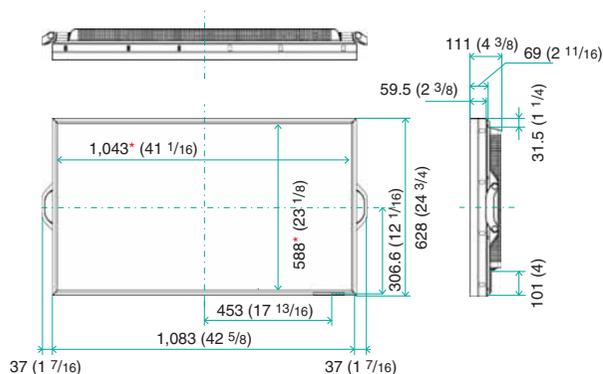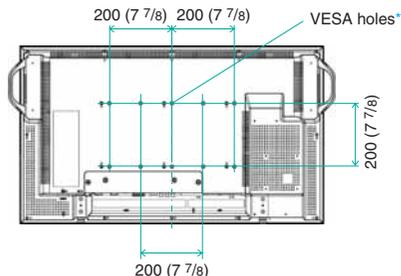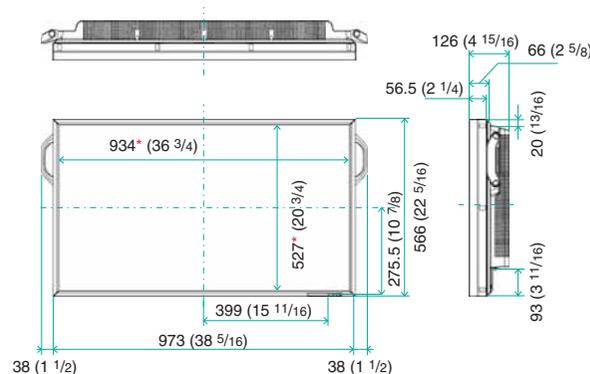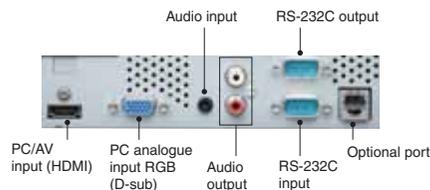
Audio input — RS-232C output
PC/AV input (HDMI) — PC analogue input RGB (D-sub) — Audio output — RS-232C input — Optional port

Supported Display Modes [1][2]

LB-1085

Display Mode			Horizontal Frequency (kHz)	Vertical Frequency (Hz)
PC[3]	VGA[4]	720 x 400	31.5 kHz	70 Hz
		640 x 480	31.5 kHz	60 Hz
			37.9 kHz	72 Hz
			37.5 kHz	75 Hz
	SVGA	800 x 600	35.1 kHz	56 Hz
			37.9 kHz	60 Hz
			48.1 kHz	72 Hz
			46.9 kHz	75 Hz
	XGA[4]	1,024 x 768	48.4 kHz	60 Hz
			56.5 kHz	70 Hz
			60.0 kHz	75 Hz
	WXGA	1,360 x 768	47.7 kHz	60 Hz
	SXGA	1,280 x 1,024	64.0 kHz	60 Hz
	SXGA+	1,400 x 1,050	65.3 kHz	60 Hz
	UXGA	1,600 x 1,200	75.0 kHz	60 Hz
	720p	1,280 x 720	37.5 kHz	50 Hz
			45.0 kHz	60 Hz
	1080i	1,920 x 1,080	28.1 kHz	50 Hz
			33.8 kHz	60 Hz
	1080p	1,920 x 1,080	56.3 kHz	50 Hz
			67.5 kHz	60 Hz

PN-E Series

Display Mode[5]		Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Dot Frequency (MHz)	PN-E601/E521/E471/E421		
					Analogue Signals	Digital Signals	
						DVI[7]	HDMI
VESA	640 x 480	31.5 kHz	60 Hz	25.175 MHz	○	○	○
		37.9 kHz	72 Hz	31.5 MHz	○	○	○
		37.5 kHz	75 Hz	31.5 MHz	○	○	○
	800 x 600	35.1 kHz	56 Hz	36.0 MHz	○	—	—
		37.9 kHz	60 Hz	40.0 MHz	○	○	○
		48.1 kHz	72 Hz	50.0 MHz	○	○	○
		46.9 kHz	75 Hz	49.5 MHz	○	○	○
	848 x 480	31.0 kHz	60 Hz	33.75 MHz	○	○	○
	1,024 x 768	48.4 kHz	60 Hz	65.0 MHz	○	○	○
		56.5 kHz	70 Hz	75.0 MHz	○	○	○
		60.0 kHz	75 Hz	78.75 MHz	○	○	○
	1,152 x 864	67.5 kHz	75 Hz	108.0 MHz	○	○	○
	1,280 x 768	47.8 kHz	60 Hz	79.5 MHz	○	○	—
		60.3 kHz	75 Hz	102.25 MHz	○	○	○
	1,280 x 800	49.7 kHz	60 Hz	83.5 MHz	○	○	○
	1,280 x 960	60.0 kHz	60 Hz	108.0 MHz	○	○	○
	1,280 x 1,024	64.0 kHz	60 Hz	108.0 MHz	○	○	○
		80.0 kHz	75 Hz	135.0 MHz	○	○	○
	1,360 x 768	47.7 kHz	60 Hz	85.5 MHz	○	○	○
	1,400 x 1,050	65.3 kHz	60 Hz	121.75 MHz	○	○	○
	1,600 x 1,200[6]	75.0 kHz	60 Hz	162.0 MHz	○	○	○
	1,680 x 1,050	65.3 kHz	60 Hz	146.25 MHz	○	○	○
	1,920 x 1,200[6]	74.0 kHz	60 Hz	154.0 MHz	○	○	○
Wide	1,280 x 720	44.7 kHz	60 Hz	74.4 MHz	○	○	○
	1,920 x 1,080	66.3 kHz	60 Hz	148.5 MHz	○[8]	○	○
		67.5 kHz	60 Hz	148.5 MHz	○[8]	○	○
US TEXT	720 x 400	31.5 kHz	70 Hz	28.3 MHz	○	○	○
Sun	1,024 x 768	48.3 kHz	60 Hz	64.13 MHz	○	—	—
		53.6 kHz	66 Hz	70.4 MHz	○	—	—
		56.6 kHz	70 Hz	74.25 MHz	○	—	—
	1,152 x 900	61.8 kHz	66 Hz	94.88 MHz	○	—	—
		71.8 kHz	76.2 Hz	108.23 MHz	○	—	—
	1,280 x 1,024	71.7 kHz	67.2 Hz	117.01 MHz	○	—	—
		81.1 kHz	76 Hz	134.99 MHz	○	—	—
	1,600 x 1,000	68.6 kHz	66 Hz	135.76 MHz	○	—	—

[1] There may be cases in which images are not displayed correctly depending on the computer in use, even if the display mode is within the range of supported display mode.
[2] All figures are estimates.
[3] Be sure to check the connection operations between the LCD monitor and PC before installation.
[4] VGA and XGA are registered trademarks of International Business Machines Corp.
[5] If the PC video output is in interlaced format, no images will be displayed.
[6] Reduced display.
[7] When using optional PN-ZB01 Interface Expansion Board.
[8] An optional dedicated graphics board is required to use the BNC analogue terminal.

Specifications

Model	LB-1085	PN-E601	PN-E521
Installation	Landscape	Landscape/portrait	Landscape/portrait
LCD Panel	108-inch widescreen (2,732.7 mm diagonal), TFT LCD	60-inch widescreen (152.5 cm diagonal), UV²A LCD	52-inch widescreen (132.2 cm diagonal), UV²A LCD
Max. Resolution	1,920 x 1,080 pixels	1,920 x 1,080 pixels	1,920 x 1,080 pixels
Max. Display Colours (approx.)	758 million colours	1,064 million colours	1,064 million colours
Pixel Pitch (H x V)	1.2405 x 1.2405 mm	0.692 x 0.692 mm	0.600 x 0.600 mm
Max. Brightness*1	400 cd/m²	500 cd/m²	500 cd/m²
Contrast Ratio	1200:1	5000:1	5000:1
Viewing Angle (H/V)	176°/176° (CR ≥ 10)	176°/176° (CR ≥ 10)	176°/176° (CR ≥ 10)
Active Screen Area (W x H)	2,381.76 x 1,339.74 mm (93 ²⁵/₃₂" x 52 ³/₄")	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")
Response Time	6 ms (gray to gray, avg.)	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)	Analogue RGB (0.7 Vp-p) [75Ω], Digital (conforms to DVI 1.0 standards)
Synchronization	Horizontal/vertical separation (TTL: positive/negative)	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	VESA DDC2B
Power Management	Not supported	VESA DPMS, DVI DMPM	VESA DPMS, DVI DMPM
Video Colour System	NTSC (3.58 MHz), PAL	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-I 29-pin (HDCP compatible, up to 1080p)*3	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	3.5 mm-diameter mini stereo jack x 1
Video	RCA x 2	BNC x 1**	BNC x 1**
S-Video	1	1**	1**
Component	RCA x 1, BNC x 1	BNC (Y, Cb/Pb, Cr/Pr) x 1** *6	BNC (Y, Cb/Pb, Cr/Pr) x 1** *6
HDMI	3 (1080p compatible)*4	1 (HDCP compatible)*4	1 (HDCP compatible)*4
Audio	RCA pin (L/R 4 channels)	RCA pin (L/R) x 2**	RCA pin (L/R) x 2**
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 1 channel)	RCA pin (L/R)	RCA pin (L/R)
Speakers	15W + 15W (4Ω)	10W + 10W (6Ω)**	10W + 10W (6Ω)**
Input/Output Terminals*2 LAN Port	–	1**	1**
RS-232C	D-sub 9-pin x 1 (input)	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	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	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	100V – 240V AC, 50/60 Hz
Power Consumption	1,130W	395W (without audio input), max. 400W	260W (without audio input), max. 265W
Standby Power Consumption	0.8W	2.0W (standby mode in Standard), 0.8W (standby mode in Low Power)	2.0W (standby mode in Standard), 0.8W (standby mode in Low Power)
Environmental Conditions Operating Temperature	0°C to 40°C	0°C to 40°C	0°C to 40°C
Operating Humidity	20% to 80% RH (no condensation)	20% to 80% RH (no condensation)	20% to 80% RH (no condensation)
Frame Width	Left/right: 91 mm, Top/bottom: 101 mm	19.8 mm	Left/right: 25.5 mm, Top/bottom: 21.0 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")	1,374 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")
Weight (approx.)	195 kg (429.9 lbs)	35 kg (77.2 lbs)	28 kg (61.7 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, 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)
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), 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

Model	PN-E471	PN-E421
Installation	Landscape	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/m^2	700 cd/m^2
Contrast Ratio	1000:1	3000:1
Viewing Angle (H/V)	178°/178° (CR ≥ 10)	178°/178° (CR ≥ 10)
Active Screen Area (W x H)	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)
Synchronization	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**
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	225W (without audio input), max. 260W	195W (without audio input), max. 225W
Standby Power Consumption	2.0W (standby mode in Standard), 0.8W (standby mode in Low Power)	2.0W (standby mode in Standard), 0.8W (standby mode in Low Power)
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, 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

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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*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.

** Requires separately sold PN-ZB01 Interface Expansion Board.

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