SHARP

Be Original.

PN-86HC1
PN-75HC1
PN-70HC1E

TOUCHSCREEN LCD MONITOR

A Smart All-in-One Touchscreen to Enliven Your Office or Classroom

BIG PAD

4K

3840 × 2160 Pixels

Looking for a smart interactive display for your office or classroom? Meet the all-in-one Sharp PN-86HC1/75HC1/70HC1E, a touchscreen LCD monitor that makes all your visual communications more lively and productive. Available in three sizes—86, 75, and 70 inches—this series opens up an affordable path to pristine 4K Ultra-HD resolution. A pre-installed launcher makes it quick and easy to start up and use the interactive whiteboard. With the PN-86HC1/75HC1/70HC1E, your lecture, presentation, or lesson will be more creative and involving.

Stress-Free Operation

IWB Launcher

Thanks to the built-in controller, it's easy to operate this all-in-one interactive whiteboard. You don't even need to hook up a dedicated PC. As long as the main unit's power is on, you can run the launcher. Then, with a single tap you can access the function you need.

Home screen of 86- and 75-inch models

Home screen of 70-inch model

Built-in Whiteboard

Switch to the whiteboard function to use the LCD monitor as a temporary writing board—no PC required. Even for first-time users, this simple write-and-erase function is a breeze to operate.

Display, Write, and Share Information

Even without a PC, you can use overlay mode to write onscreen annotations directly onto photos, videos, and documents. This function is especially handy when you need to share meeting notes with participants or others.

Note: The overlay function works differently on the PN-70HC1E and the PN-86HC1/75HC1.

Annotation on 86- and 75-inch models

Annotation on 70-inch model

One-Touch Buttons

The PN-86HC1/75HC1/70HC1E is designed with your convenience in mind. Buttons for frequently used functions such as power on/off, input switching, volume up/down, and freeze are neatly arranged on the front of the frame.

a Freeze Button

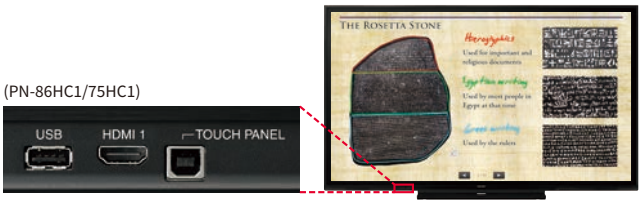
A press of this button lets you temporarily freeze or unfreeze the screen. While the display continues to show a paused onscreen image, you can stop and explain your point.

b Input Button

At the touch of a button, a list of inputs appears on-screen. You can then instantly select the input terminal you want.

Front Terminals

These make it easy to access teaching materials or other content stored on sources connected via HDMI™ and USB.



Flexible and Expandable

OPS-Compliant Slot

A slot on the PN-86HC1/75HC1/70HC1E brings compatibility with OPS (Open Pluggable Specification) controller modules. This means you can set up the monitor to run without having to connect it to a client PC. Without the extra bulk of a client PC, you've got more freedom when it comes to installation set-ups.

Slot on 86-inch model

Front-mounted Speakers

Two speakers are mounted low on the front of the LCD monitor. These speakers project sound more directly than rear-mounted speakers, giving you clearer sound for your lessons and meetings.

Simultaneous Writing

The LCD panel recognises up to 20* touch points. Up to four people at a time—even young students—can use a finger or touch pen to add their input when inspiration strikes. Meetings, lessons, and brainstorming sessions will come alive.

* PN-70HC1E has 10 touch points.

Built-in Controller

PN-86HC1/75HC1/70HC1E monitors feature an integrated controller that comes with 8 GB of internal memory. The PN-70HC1E model also supports external storage via SD card. It's easy to play back your photos and videos on one of these monitors. There's no need for a PC to run the main application.

Get Your Message Across

Interactive Touchscreen

The PN-86HC1/75HC1/70HC1E delivers innovation to the world of business and education. It enhances your visual communications by transforming presentations and lessons. In the classroom, visual and web-based content will help to keep students more focused and engaged.

Wireless Connectivity

These LCD monitors have built-in wireless functionality. Simply touch the screen and your smartphone, tablet, or computers* will immediately download an app that lets it send images wirelessly to the monitor. No need for tangled wires or conversion adapters.

* Compatible with Windows® and Android™ operating systems

Note: Requires wireless LAN access points to connect LCD monitor and devices.

4K Ultra-HD Quality

The PN-86HC1/75HC1/70HC1E supports 4K Ultra-HD and captures the fine textures of still and video images, while also reproducing the precise details of small text and complex graphics. It's an ideal large-scale monitor for professional use in a range of environments, from engineering and architecture to academia and creative fields.

User-Friendly SHARP Pen Software

The easy-to-launch SHARP Pen Software interface has a menu with smartly arranged icons. These give you easy access to pen settings and other useful functions. Further handy functions* include access to cloud storage, an e-mail address book, sticky notes, and bookmarks.

* Availability varies by country/region. For details, please consult your local authorised Sharp dealer or representative.

Note: Requires a separate Windows PC.

Built-in Media Player

These LCD monitors can play 4K Ultra-HD photo slideshows and videos without the need for a PC or set-top box.

16-Hour Daily Operation

The PN-86HC1/75HC1/70HC1E can be used continuously for up to 16 hours per day, providing reliable performance in the schoolroom or office.

<System Requirements>

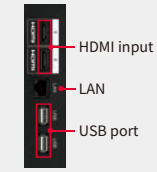
Connected Equipment	
Hardware	PC/AT compatible machine with USB 2.0 port (CD-ROM drive required for installation)
OS	Windows® 8.1 (32-bit/64-bit), Windows® 10 (32-bit/64-bit) macOS v10.13, macOS v10.14, Google Chrome™ OS v74 or later
Supplied Software (Windows®)	
CPU	Intel® Core™ i5-6360U or higher Intel® Core™ i7-6650U or higher recommended
Memory	4 GB or more
Hard disk	5 GB or more free space (additional space required for saving data)

To use the touch panel, connect the bundled USB cable to the computer. The touch panel operates with the standard driver of each OS. On the Mac, operation is only possible in single-touch mode.

Input/Output Terminals

[PN-86HC1/75HC1]

(Side)



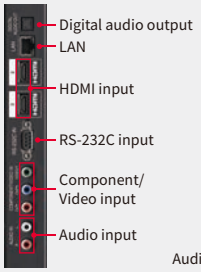
(PN-86HC1)

(Front)

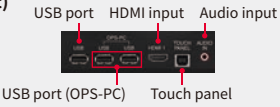
(Bottom)

[PN-70HC1E]

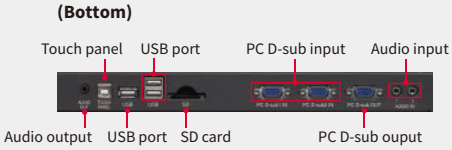
(Side)



(Front)



(Bottom)



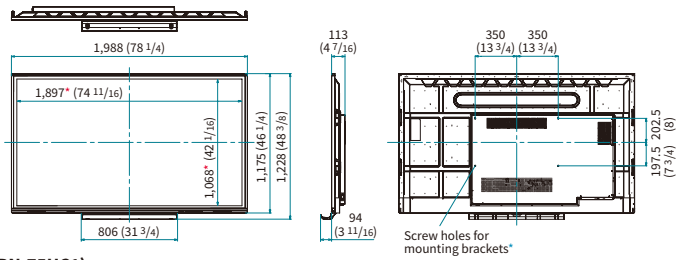
Specifications

Model Name			PN-86HC1	PN-75HC1	PN-70HC1E
Installation			Landscape		
LCD Panel			86-inch-class (85 9/16-inch [217.4 cm] diagonal) LCD	75-inch-class (74 1/2-inch [189.3 cm] diagonal) LCD	70-inch-class (69 1/2-inch [176.6 cm] diagonal) LCD
	Max. Resolution		3,840 × 2,160 pixels		
	Max. Display Colours (approx.)		1.07 billion colours		
	Pixel Pitch (H × V)		0.4935 × 0.4935 mm	0.4296 × 0.4296 mm	0.40075 × 0.40075 mm
	Max. Brightness (average)*1		400 cd/m²		350 cd/m²
	Contrast Ratio		1,200 : 1		4,000 : 1
	Viewing Angle (H/V)*2		178°/178° (CR ≧10)		176°/176° (CR ≧10)
	Active Screen Area (W × H) (approx.)		1,895.0 × 1,066.0 mm (74 5/8" × 41 15/16")	1,649.7 × 927.9 mm (64 15/16" × 36 9/16")	1,538.9 × 865.6 mm (60 9/16" × 34 1/16")
	Response Time		8 ms (grey to grey, avg.)		
	Backlight		LED, direct lit		
Touchscreen	Touch Technology		IR (infrared blocking detection method)		
	PC Connection Port		USB (2.0 compliant) (Type B) × 2 (Front × 1, Rear × 1)		
	Power Supply for Touch Panel		Supplied from main unit		
	Multi Touch		20 points		10 points
	Protection Glass		Thickness: Approx. 4.0 mm Shock resistance: 130 cm*3		
Touch Pen	Function Button		N/A (passive pen)		
Computer Input	Video		Analogue RGB (0.7 Vp-p) [75Ω], HDMI		
	Synchronisation		Horizontal/vertical separation (TTL: positive/negative)		
	Plug & Play		VESA DDC2B		
Video Colour System			NTSC (3.58 MHz)/NTSC (4.43 MHz)/PAL/PAL60 /SECAM		
Input Terminals*4	Front		HDMI (HDCP2.2 compatible, HDR10 supported) × 1		HDMI (HDCP2.2 compatible, HDR10 supported) × 1, 3.5 mm-diameter mini stereo jack × 1
	Rear		PC analogue: Mini D-sub 15-pin × 1, HDMI (HDCP2.2 compatible, HDR10 supported) × 2, 3.5 mm-diameter mini stereo jack × 1, AV mini jack × 1, Component mini jack × 1, RS-232C × 1		PC analogue: Mini D-sub 15-pin × 2, HDMI (HDCP2.2 compatible, HDR10 supported) × 2, 3.5 mm-diameter mini stereo jack × 2, AV RCA × 1*5, Component RCA × 1*5, Audio RCA × 1, RS-232C × 1
Output Terminals*4			3.5 mm-diameter mini stereo jack × 1, SPDIF × 1		PC analogue: Mini D-sub 15-pin × 1, 3.5 mm-diameter mini stereo jack × 1, SPDIF × 1
System	CPU		Arm® Cortex®-A53 processor (quad core)		
	Memory		1 GB		1.5 GB
	Internal Storage		8 GB		
	External Interface	Front	USB port (2.0-compliant, main unit & OPS) × 1		USB port (2.0-compliant, main unit) × 1, USB port (2.0-compliant, OPS) × 2
		Rear	LAN port (10BASE-T/100BASE-TX) × 1, USB port (2.0-compliant, main unit) × 2		LAN port (10BASE-T/100BASE-TX) × 1, SD card slot (SD/SDHC) × 1, USB port (2.0-compliant, main unit) × 3
	Wireless LAN		Wireless adapter		
Expansion Slot			19 V, 4.74 A (power supplied when expanding the functions with an optional part)		
Speaker Output			10 W + 10 W		
Mounting			4 points, 700 × 400 mm pitch, M8 screw	4 points, 600 × 400 mm pitch, M8 screw	4 points, 600 × 400 mm pitch, M6 screw
Power Supply*6			100 V – 240 V AC, 50/60 Hz		
Power Consumption*7			530 W	460 W	400 W
Environmental Conditions	Operating Temperature*8		5 °C to 35 °C		
	Operating Humidity*9		20% to 80% RH (no condensation)		
Dimensions (W × D × H) (approx.) (display only)			1,988 × 113 × 1,175 mm (78 1/4" × 4 7/16" × 46 1/4")	1,735 × 105 × 1,036 mm (68 5/16" × 4 1/8" × 40 13/16")	1,629 × 100 × 990 mm (64 1/8" × 3 15/16" × 39")
Weight (approx.)			80 kg (176.4 lbs)	61 kg (134.5 lbs)	54 kg (119 lbs)
Main Accessories			AC power cord, remote control unit, remote control unit battery (AAA size) × 2, set-up manual, blank sticker, cable clamp × 3, USB cable, pen tray, SHARP Pen software (CD-ROM), touch pen × 2, wireless adapter		

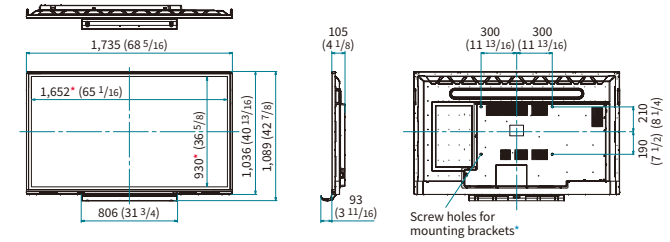
*1 Brightness depends on input mode and other picture settings. Brightness level will decrease slightly over the lifetime of the product. Due to the physical limitations of the equipment, it is not possible to maintain a precisely constant level of brightness. *2 Excluding the touch sensor part around the LCD panel. *3 Approximate distance at which the glass panel can withstand the impact of a 500-gram iron ball dropped on its centre. *4 Use a commercially available connection cable for PC and other video connections. *5 Composite video and component cannot be used simultaneously. *6 The AC power cord is an inlet type. The cable is bundled (3 pins). *7 When an option is installed on the expansion slot. When not installed: PN-86HC1: 420 W, PN-75HC1: 360 W, PN-70HC1E: 295 W *8 Temperature conditions may change when using the monitor together with the optional equipment. In such cases, please check the temperature conditions specified by the optional equipment. *9 Check the requirements of the computer and other devices to be connected, and make sure that all requirements are satisfied.

Dimensions

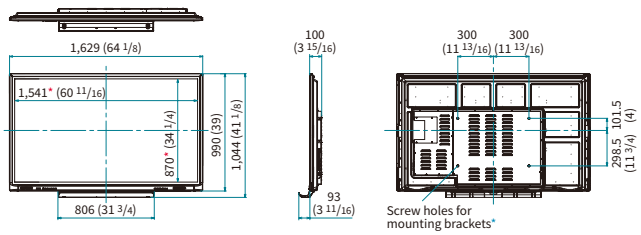
(PN-86HC1)



(PN-75HC1)



(PN-70HC1E)



Units: mm (inch)
* Screen dimensions
* Mounting bracket screws: for the PN-86HC1/75HC1, use M8 screws that are 10 to 12 mm long plus the bracket thickness; for the PN-70HC1E, use M6 screws that are 8 to 10 mm long plus the bracket thickness.

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