

SHARP

Be Original.

PN-70TH5
TOUCHSCREEN LCD MONITOR



**Bringing Revolutionary New
Dimensions to Your Communication**



BIG PAD

Featuring 4K resolution, the PN-70TH5 enhances the Sharp BIG PAD touchscreen LCD monitor lineup. Stunning 4K Ultra-HD resolution reproduces your content accurately with incredibly precise rendering of colour and detail. It offers the “Pen-on-Paper” user experience promised by the Sharp BIG PAD series, providing revolutionary writing comfort close to actually using a pen to write on real paper. The PN-70TH5 can play an especially valuable role in the architecture, design, and video industries, as well as in museums and libraries, all of which require precise detail and superior interactivity. With the highly advanced feature set of 4K, direct bonding, and capacitive touch technologies, Sharp takes you to the next level.

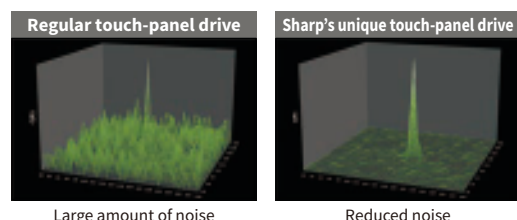
Leading Technologies to Change Your Perspective

4K Ultra-HD Quality

The PN-70TH5 employs an LCD panel with 4K Ultra-HD (3,840 x 2,160-pixel) resolution. This 70-inch LCD monitor with four times the resolution of full-HD renders the textures of videos and images and reproduces the finest details of small text and intricate graphics. Besides the obvious benefits for office and educational settings, the PN-70TH5 practically engulfs the viewer in highly realistic sensations and detailed accuracy. It satisfies the needs of professionals in industries such as architecture and engineering, as well as in academic settings and creative sectors.

Capacitive Touch Technology

Sharp's original capacitive touch technology gives the PN-70TH5 highly sensitive touchscreen operation. It allows ultra-precise multiple touch inputs to be detected X and Y conductive grids etched onto layers of display. This achieves high sensitivity and precision by reducing the noise level to one-eighth of conventional models. Say goodbye to unintended input errors. You can operate and write on the screen as intended with touch pens or fingers, and gain maximum benefit from its superb performance.



Large amount of noise

Reduced noise

Direct Bonding Technology

Thanks to direct bonding technology, the PN-70TH5 provides a consistent and natural feeling when you write on the screen. The LCD panel is bonded directly to the protective glass layer, thereby eliminating the air gap between them. This minimises the parallax difference and reduces the reflection and refraction of light. As a result, onscreen touch and writing operations are smooth and the display looks natural and offers clear visibility.



Simultaneous Writing

Keep everyone actively involved in the meeting or lesson by letting them write on the screen at the same time. The PN-70TH5 recognises 30 touch points, allowing up to four people to use a touch pen or finger simultaneously to add their creative input when the inspiration strikes. Brainstorming sessions, meetings, and lessons become more lively and productive.

Minimise Glare and Fingerprints

Protecting the surface of the PN-70TH5 is an anti-glare film that works to reduce glare and reflections and minimise fingerprint soiling.

Expandability for Further Convenience

Choice of Expansion Boards

An expansion slot compatible with the Intel® Mini Open Pluggable Specification (Mini OPS) is ready to support the addition of an optional board providing greater convenience and an expanded range of functionality. An optional board slides into the slot on the back of the monitor.



• Wireless Board (PN-ZB03W)

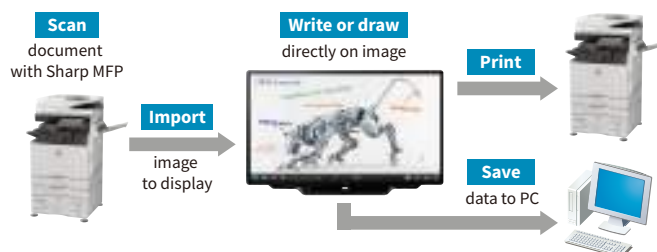
Up to 10 devices including Mac or Windows® computers, smartphones, and tablets can be connected wirelessly to the PN-70TH5. Input from four devices can be displayed in a 2 x 2 split-screen.

• HDBaseT™ Receiver Board (PN-ZB03H)

This board enables reception of HDMI™ video/audio and control signals sent via a single LAN cable from up to 100 metres away. Compatibility with HDBaseT 2.0 allows you to remotely operate a PC from a USB device connected to this board.

MFP Connectivity

The PN-70TH5 is compatible with Sharp MFPs. Scanned documents can be directly imported to SHARP Pen Software from a compatible Sharp MFP. Onscreen image data, including handwriting, can be sent to a PC for storage or to an MFP for printing.



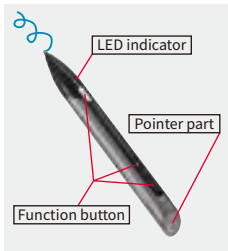
Crestron Connected™

Compatibility with Crestron Connected software enables you to remotely control and manage each monitor via a LAN network.

Boasting Superb Usability

High-precision Touch Pen with Pointer

This pressure-sensitive pointer pen fits comfortably in your hand and provides outstanding ease of use. With a 2 mm-pen tip, it enables you to draw thin lines or write fine text with high precision. In conjunction with the direct bonding and capacitive touch technologies employed by the PN-70TH5, it enhances the value of the Sharp “Pen-on-Paper” user experience. This multifunctional touch pen has buttons to control frequently used functions including page up/down, right mouse click, and the SHARP Pen Software link. It also has an LED indicator synchronised with the selected pen colour. Plus, it has a pointer function, enabling you to indicate specific items on the PN-70TH5 from a distance. Up to four people can use the pointer pens simultaneously and customise their own pointer icon including the shape, size, and colour, which enhances effective and efficient interaction and collaboration.



Palm Cancellation Function

This function prioritises pen recognition. It allows you to write with your palm resting on the screen, making it easy to write fine text or draw detailed graphics with excellent stability.

Touch OSD Menu

The Touch OSD Menu is designed for easy and intuitive access to frequently used functions and settings such as brightness, contrast, language selection, backlight on/off, freeze/unfreeze screen, and more.

Multi-Board Function

Up to three PN-70TH5 units can be linked side by side to display sequential pages. The Multi-Board Function* is the ultimate tool for communicating complex information, for example, roadmaps and spreadsheets.

* Only permits one unit to be touch-operated at the same time. For simultaneous touch operation of all the linked units, please consult with your local authorised Sharp dealer or representative. In a Multi-Board configuration, Sharp recommends limiting the display resolution to full-HD for the purpose of stable operation.

Versatile Installation

The PN-70TH5 can be installed in various orientations—landscape, portrait, or horizontal (face-up)—and at various angles* to match a diverse range of installation spaces or purposes. For example, face-up installation facilitates group discussions in an office or classroom where participants are looking down at the screen and writing simultaneously. Such versatility can change the way you communicate and encourages fresh ideas and innovation.



* Supports 20/45/90 degrees (backward). For other angles please consult with your local authorised Sharp dealer or representative.

Quad-Screen Display

You can display four screens in full-HD resolution simultaneously by simply connecting four PCs to the PN-70TH5 via video cables. The display is switchable between single-screen and quad-screen. This function greatly facilitates productive interactions in the office or classroom.

SHARP Touch Viewing Software

This software is a touch-operated onscreen user interface that lets you easily manipulate different types of files, including Microsoft® Office applications, videos, and web pages. The files are displayed onscreen as “sheets,” which can be stored in onscreen virtual “drawers.” This software brings convenience and originality to business meetings, in-store installations, and more.



Note: Available via the downloader on the bundled CD-ROM.

SHARP Display Connect

This software supports multifaceted wireless communication. Content on the PN-70TH5 screen, including handwritten notes, can be shared simultaneously with up to 50 devices. Also, files can be exchanged between devices connected to the PN-70TH5.

Note: Available via the downloader on the bundled CD-ROM.

4K Interactive Signage

The PN-70TH5 can play a powerful role in 4K interactive digital signage. The 4K Ultra-HD monitor makes content all the more appealing by delivering subtle texture and depth, and rendering fine text and graphics clearly. Plus, Sharp’s highly sensitive capacitive touch and direct bonding technologies boost an outstanding interactive signage experience providing precise touch responses and clear and natural visibility. The PN-70TH5 will find practical use not only in office situations, but also for many other applications, including sophisticated advertising in retail stores, malls, and showrooms, as well as signage in public areas and digital archives of museums and libraries. Sharp provides high-definition and high-precision solutions to satisfy the requirements of demanding interactive signage users.

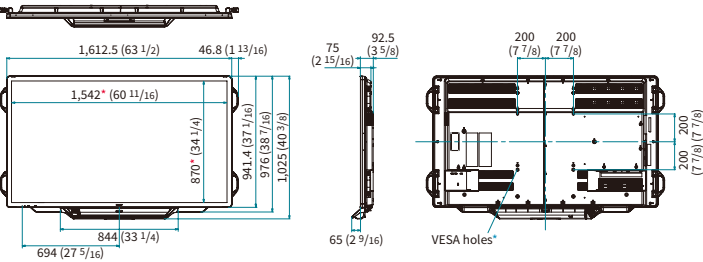


Specifications

Model Name		PN-70TH5
Installation		Landscape / Portrait / Face-up
LCD Panel	70-inch-class (69 1/2-inch [176.6 cm] diagonal) UV*A*1 LCD	
	Max. Resolution	3,840 x 2,160 pixels
	Max. Display Colours (approx.)	1.06 billion colours
	Pixel Pitch (H x V)	0.401 x 0.401 mm
	Max. Brightness (average)*2	300 cd/m²
	Contrast Ratio	4,000 : 1
	Viewing Angle (H/V)	176°/176° (CR ≥ 10)
	Active Screen Area (W x H) (approx.)	1,538.9 x 865.6 mm (60 3/16" x 34 1/16")
	Response Time	6 ms (grey to grey, avg.)
	Backlight	LED, edge lit
Touchscreen	Touch Technology	Capacitive touch
	PC Connection Port	USB (2.0 compliant) (Type B) x 2
	Power Supply	Supplied from main unit
	Multi Touch	30 points
	Protection Glass	Thickness: Approx. 1.9 mm*3 Shock resistance: 130 cm*4
Touch Pen	Communication	Wireless communication method
	Function Button	Yes
Computer Input	Video	Analogue RGB (0.7 Vp-p) [75Ω], HDMI, DisplayPort™ 1.2a
	Synchronisation	Horizontal/vertical separation (TTL: positive/negative), Sync on green*5, Composite sync (TTL: positive/negative)*5
	Plug & Play	VESA DDC2B
	Power Management	VESA DPMS
Input Terminals		PC analogue: Mini D-sub 15-pin x 1*6, HDMI (HDCP compatible, PC/AV signal compatible) x 3, 3.5 mm-diameter mini stereo jack x 1, Component video x 1*7, DisplayPort (HDCP compatible) x 2, RS-232 x 1
Output Terminals		3.5 mm-diameter mini stereo jack x 1, DisplayPort (HDCP compatible) x 1
Input/Output Terminals		LAN port (10Base-T/100Base-TX) x 1
Expansion Slot		13 V, 2.4 A (power supplied when expanding the functions with an optional part)
Speaker Output		10 W + 10 W
Mounting		VESA (4 points), 400 x 400 mm pitch, M6 screw
Power Supply		100V ~ 240 V AC, 50/60 Hz
Power Consumption		215 W
Environmental Conditions	Operating Temperature*8*9	5 °C to 35 °C
	Operating Humidity*9	20% to 80% RH (no condensation)
Dimensions (W x D x H) (approx.) (display only)		1,612.5 x 92.5 x 941.4 mm (63 1/2" x 3 5/8" x 37 1/16")
Weight (approx.)		57 kg (126 lbs)
Main Accessories		AC power cord, remote control unit, remote control unit battery (AAA size) x 2, set-up manual, cable clamp (insertion type) x 4, cable clamp x 3, USB cable, USB extension cable, RS-232C conversion cable, eraser, pen tray, touch pen, touch pen adapter, touch pen adapter screw, touch pen battery (AAA size), pen tip x 2, speaker cover x 2, camera mount, camera screw, speaker cover attachment screw/camera mount screw x 6, CD-ROM, SHARP Display Connect license, vertical sticker, blank sticker

*1 UVFA stands for Ultraviolet-induced Multi-domain Vertical Alignment, a photo-alignment technology that ensures uniform alignment of liquid crystal molecules. *2 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. *3 Including AG film on the front. *4 Approximate distance at which the glass panel can withstand the impact of a 500-gram iron ball dropped on its centre. *5 D-sub input terminal only. *6 When connecting with an analogue mini D-sub 15-pin jack, max. resolution is 1,920 x 1,200 pixels. *7 Analogue PC, video, and component video are switchable (on bottom interface); use the menu to select. Video and component video connections require conversion cable via mini D-sub 15-pin jack. *8 When using the monitor laying flat on a surface (when the monitor is tilted more than 20 degrees upward from the perpendicular in relation to a level surface) the ambient temperature must be within the range of 5°C to 30°C. Temperature conditions may change when using the monitor together with the optional equipment. In such cases, 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.

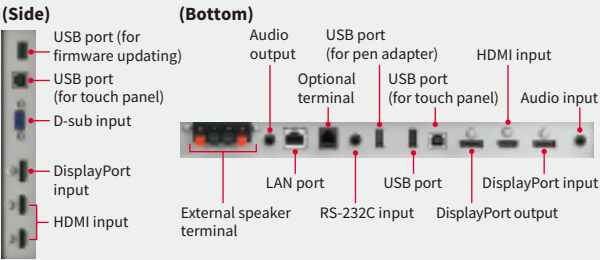
Dimensions



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

<System Requirements>	
Connected Equipment	
Hardware	PC/AT compatible machine with USB 2.0 port (CD-ROM drive required for installation)
OS	Windows® 7 (32-bit/64-bit), Windows® 8.1 (32-bit/64-bit), Windows® 10 (32-bit/64-bit) Mac OS X v10.11, macOS v10.12, Google Chrome™ OS v39 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



Option

- PN-ZL06 : Touch Pen
- PN-ZB03H : HDBaseT Receiver Board
- PN-ZB03W : Wireless Board

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