

# SHARP®

PN-K321  
PN-K322B

4K Ultra HD LED Monitor



*Displays of Power and Precision — 4K Ultra HD Monitors with IGZO Technology*  
(3,842 x 2,160 pixels)



Screen images simulated.

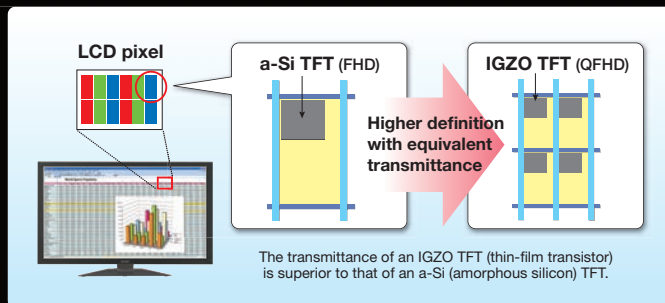
# A Quantum Leap in Visual Presentation

Prepare to be amazed. Sharp presents the groundbreaking PN-K321 and PN-K322B—professional-use LED monitors that deliver a stunning level of visual precision. Cutting-edge IGZO\* technology enables these monitors to achieve 4K Ultra HD resolution (3,840 x 2,160 pixels)—four times the detail of 1080p. The choice of the PN-K321 or the touchscreen-equipped PN-K322B means that the potential applications are extremely wide-ranging. Wherever there's a demand for the very finest in visual display quality, Sharp has the solution.

\* IGZO (InGaZnO) is an oxide comprising indium (In), gallium (Ga), and zinc (Zn).

## Ultra-High Resolution with IGZO Technology

IGZO technology offers the key advantages of extraordinarily high resolution and improved energy efficiency. The small size of semiconductors made with IGZO technology enables smaller-sized pixels, which in turn provide stunning high resolution. With **3,840 x 2,160 pixel resolution** (4K Ultra HD), the PN-K321/K322B monitors boast four times the resolution of 1080p full HD. This means users can view all the content of four HD screens on a single, seamless display. And because IGZO technology supports increased pixel transparency and reduced current leakage, the monitor can operate with reduced power consumption.



## Thin and Stylish

IGZO technology and edge-lit LED backlighting enable the monitors to sport a stylishly slender profile. Measuring only about 35 mm at the thickest point—or 36 mm on the PN-K322B—these sleek and lightweight monitors blend in effortlessly in almost any location.



\* 36 mm for PN-K322B

Screen images simulated.

## Simple Interface with Advanced Connectivity

The PN-K321 and PN-K322B support both DisplayPort™ and HDMI™ interfaces. 4K Ultra HD video signals can be transmitted via a single easy-connecting, clutter-reducing cable.



DisplayPort cable (included)



HDMI cable (commercially available)

## MST Mode for 4K Ultra HD Video at 60 fps

The PN-K321 and PN-K322B support MST (Multi-Stream Transport) mode as specified by the DisplayPort 1.2 standard. A single DisplayPort cable can transfer 3,840 x 2,160 video signals at 60 fps, resulting in smooth rendering of high-resolution video and fluid mouse operation.

## Choice of Installation Mode

Whether installed in a **landscape** or **portrait** orientation\*<sup>1</sup>, these monitors offer a convenient, high-impact way to convey information in a wide range of settings. The PN-K321 and PN-K322B both come with a model-specific stand\*<sup>1</sup> and offer compatibility with commercially available VESA\*<sup>2</sup> mounts.



PN-K321 (portrait)

\*<sup>1</sup> PN-K321 detaches from stand when switching orientation; PN-K322B stand can be used for landscape installation only.

\*<sup>2</sup> Video Electronics Standards Association.

## Built-In Speakers

Built-in speakers eliminate the need for external speakers and keep these monitors stylishly streamlined. The speakers emit sound from both sides of the screen for superb sound quality.

## Choice of Touchscreen Model

The PN-K322B adds multi-touch capability to the 4K Ultra HD monitor to further expand the possible applications.



### Touchscreen-Specific Stand

The PN-K322B can be set up in a **vertical** (90-degree) or **low-angle** (24-degree) position thanks to a dedicated stand that allows the monitor to slide easily between the two angles. The vertical set-up enables easy viewing of the monitor, whereas the low-angle set-up is ideal for touchscreen operation and onscreen writing by hand.



OR



### 10-Point Multi-Touch Screen

Seamlessly flush with the bezel, the PN-K322B's full-flat screen is ideal for touchscreen operations that involve swiping from the edge of the screen—for example, using the charm bar in Windows® 8. This touchscreen monitor is capable of recognizing 10 touch points at once, thereby expanding touch interface applications beyond merely writing on the screen. Users enjoy greater flexibility when interacting with sophisticated graphical content such as architectural designs or high-resolution photographic images.

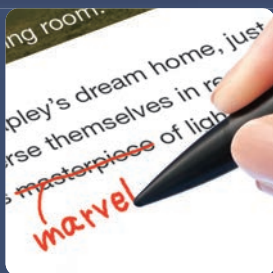
### Fine-Tipped Touch Pen

The dedicated touch pen allows smooth and extremely accurate onscreen writing of fine text and lines. The PN-K322B's pen features an **extra-small 2 mm tip** that enables users to easily underline text, add notations, draw illustrations, and make amendments to onscreen content.



### Smooth Onscreen Writing

Onscreen input is rendered with precision on the PN-K322B's touchscreen. This highly sensitive capacitive touchscreen is equally adept at receiving input from a hand or from the bundled touch pen. Users can enjoy the reassurance of stress-free writing.



### Palm Cancellation Function

To prevent unwanted hand input when the user's palm is resting on the touchscreen, a palm cancellation function can be selected to prioritise pen input.



## A Wide Range of Professional Applications



Post-production editing



Financial services

Bloomberg Professional® Service



Car dealers



Cosmetic services



Video game production



Museums, galleries

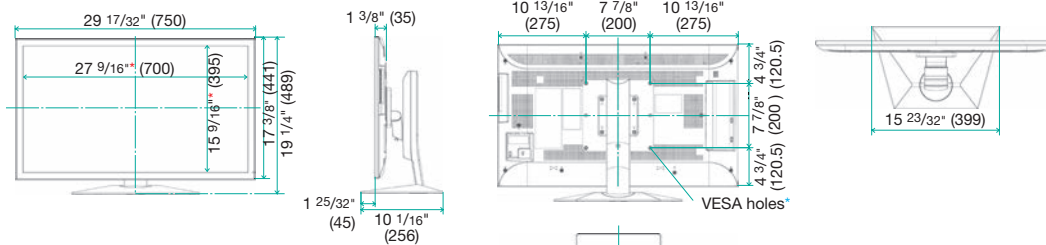
# Specifications

Model Name	PN-K321	PN-K322B
Installation	Landscape / Portrait	Landscape / Portrait (Note: Portrait installation not supported when used with supplied stand.)
LCD Panel	31-1/2-inch widescreen (80.1 cm diagonal) IGZO Ultra HD LCD	
Max. Resolution	3,840 x 2,160 pixels	
Max. Display Colors (approx.)	1.07 billion colors	
Pixel Pitch (H x V)	0.182 x 0.182 mm, 140 ppi	
Brightness*1	350 cd/m <sup>2</sup>	300 cd/m <sup>2</sup>
Contrast Ratio	800 : 1	
Viewing Angle (H/V)	176°/176° (CR <sub>2</sub> : 10)	
Active Screen Area (W x H)	27 7/16" x 15 7/16" (697.9 x 392.6 mm)	
Response Time	8 ms (grey to grey, avg.)	
Backlight	LED, edge lit	
Touchscreen	Touch Technology	Capacitive touch
	Multi Touch	10 points
Supported OS	Windows® 8*2, Windows® 7, Windows Vista®*3, Windows® XP*3	
Computer Input	Plug & Play	VESA DDC2B
	Power Management	Power Save (VESA DisplayPort)
Input Terminals*4	DisplayPort™ x 1, HDMI™ x 2 (HDCP compatible), RS-232C*5, 3.5 mm-diameter mini stereo jack x 1	
Output Terminals	3.5 mm-diameter mini stereo jack x 1	3.5 mm-diameter mini stereo jack x 1, Micro-USB x 1 (for touchscreen operation)
Built-in Speakers	2 W + 2 W	
Mounting	VESA (4 points), 200 mm pitch, M6 screw	
Power Supply	100V – 240V AC, 50/60 Hz	
Power Consumption	93 W*6 / 87 W*7	97 W*6 / 91 W*7
Environmental Conditions	Operating Temperature	0°C to 40°C
	Operating Humidity	20% to 80% RH (no condensation)
Dimensions (approx.) (W x D x H)	Without Stand	29 17/32" x 1 13/32" x 17 3/8" (750 x 36 x 441 mm)
	With Stand	29 17/32" x 10 1/16" x 19 1/4" (750 x 256 x 489 mm)
Weight (approx.)	Without Stand	16.5 lbs (7.5 kg)
	With Stand	28.7 lbs (13.0 kg)
Main Accessories	AC adaptor, CD-ROM, set-up manual, DisplayPort cable x 1, vertical sticker (logo), blank sticker, key label, cable clamp, RS-232C conversion cable, stand, operation manual	
	AC adaptor, CD-ROM, set-up manual, DisplayPort cable x 1, vertical sticker (logo), blank sticker, key label, cable clamp, RS-232C conversion cable, stand, operation manual, touch pen, USB cable	

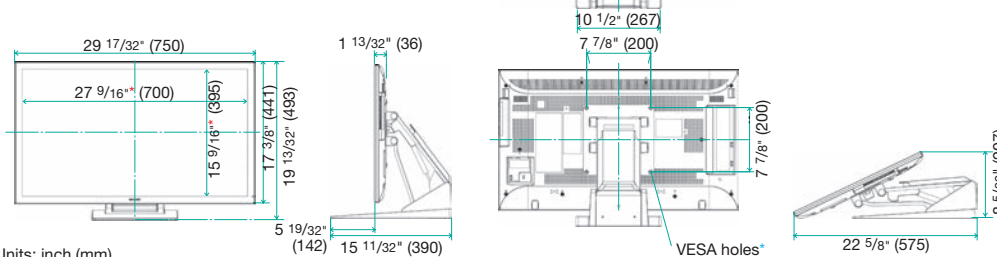
\*1 Brightness depends on input mode and other picture settings. Brightness level will decrease slightly over the lifetime of the product. Due to the physical limitations of the equipment, it may not be possible to maintain a precisely constant level of brightness. \*2 Supports Finger-only mode. \*3 Mouse operation only. \*4 Monitor comes standard with a DisplayPort cable. For HDMI connection, commercially available cables are required. \*5 Requires the bundled RS-232C conversion cable. \*6 When using the supplied AC adaptor. \*7 When using the monitor in DC 19.5V.

## Dimensions

### PN-K321



### PN-K322B



Units: inch (mm)

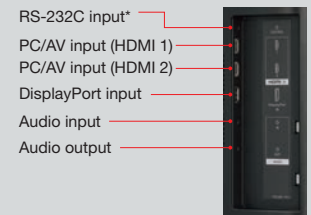
\* Screen dimensions

\* To use the VESA-standard mounting bracket, use M6 screws that are 8 to 10 mm plus the thickness of the bracket.

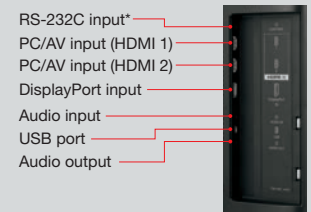
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## Input/Output Terminals

### PN-K321



### PN-K322B



\* Requires the bundled RS-232C conversion cable.



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