



P27D Liquid Crystal Display Monitor

User Guide



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Enterprise management No.: GVT2021008

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Product Features

The P27D monitor uses active matrix technology, thin-film transistor (TFT), IPS LCD panel, and KFS-LED backlighting.

- 27-inch viewable area (measured diagonally), 3840 × 2160 (16:9) resolution, 10-bit color depth
- Color gamut: 99% sRGB, 96% DCI-P3
- Typical global brightness: 450 cd/m², peak brightness: 500 cd/m²
- New-generation IPS panel
- HDMI port supports FRL protocol and DSC with up to 144Hz refresh rate
- Digital connectivity via USB Type-C, HDMI, and DisplayPort
- Delivers power to compatible laptops via USB Power Delivery over a single USB Type-C cable (up to 100W), while receiving video and data signals; compatible with Thunderbolt 4 / USB4
- Equipped with fully laminated AR anti-glare integrated glass
- High-strength full-aluminum chassis with CNC precision machining and sandblasted anodizing finish
- Removable stand with VESA™ 100 mm mounting holes
- Equipped with 2 USB Type-C downstream data expansion ports
- Compatible with NVIDIA® G-SYNC®, AMD FreeSync™, and VRR
- Supports sRGB, aRGB, and DCI-P3 gamut clamp modes
- Supports 4-level OD response acceleration
- Supports HDR function
- Software-based blue light reduction
- ΔE-Delta-E <2
- E-Mode (paper-like black-white-gray display mode)

Specifications

<i>Kuycon P27D</i>			
Product Name	Gaming LCD Monitor	Color Gamut	99%sRGB 96%DCI-P3
Screen Size	27 Inches	Brightness	Typical: 450cd/m², Max: 500cd/m²
Aspect Ratio	16:9	Contrast Ratio	1000:1
Panel Type	IPS	Response Time	GTG 5ms
Resolution	3840x2160	Screen Coating	AR Coated Mirror
Pixel Density	163PPI	Operating Voltage	AC 100-220V
Refresh Rate	144Hz	Power Consumption	Typical: 40W, Max: 150W
Color Depth Support	10-bit, 1.07 Billion Colors	Other Features	USB-HUB
HDR	HDR10	Panel Surface	Four-sided uniform bezel panel
Body Material	6063 Aluminum Alloy CNC	USB	USB2.0
Body Craft	180 Grit Sandblasting, Anodized	Stand Type	VESA 100mm*100mm
Weight	5.5KG(Body only, stand excluded)	Stand Functions	Height Adjustment & Multi-angle Rotation
HDMI	HDMI2.1	Power Adapter	Built-in Power Supply
DP	DP1.4	Remote Control	IR Remote Control (with battery)
USB-C	USB-C 【PD100W】	User Manual	Paper User Manual*1

View



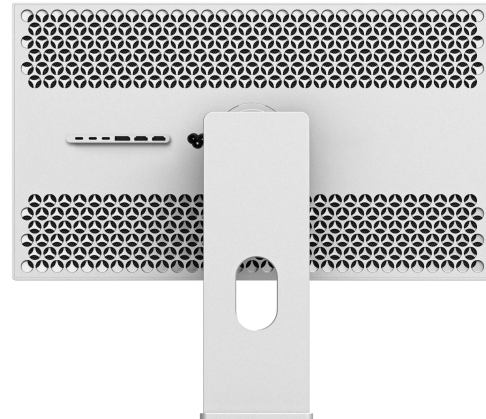
Front View



Side View



Rear View (Simplified Version)



Back View (Perforated Version)

Dimensions (H×W×D) = 360mm×618mm×22mm Weight=5.5kG (excluding stand)

*Appearance data may have production tolerances due to measurement variations.

Resolution Specifications

Model	P27D
Horizontal Scan Range	88 kHz to 178 kHz (Auto)
Vertical Scan Range	24 kHz to 60 kHz (Auto)
Maximum Resolution	3840 x 2160 144Hz
HDMI Supported Video Modes	480p、480i、576p、576i、720p、1080i、1080p、QHD、UHD 4K
DP Supported Video Modes	480p、480i、576p、576i、720p、1080i、1080p、QHD、UHD
USB-C Supported Video Modes	480p、480i、576p、576i、720p、1080i、1080p、QHD、UHD

Note: The resolution of 3840×2160@144Hz of this display needs to be supported by new GPU via Displayport 1.4/2.1.

*It is recommended to connect the monitor via DP or USB-C port, compatible with new Thunderbolt™3/4 and USB4 devices.

Windows Operating System

	Kuycon P27D 显示器 1: 已连接到 NVIDIA GeForce GTX3060 12GB
桌面分辨率	3840 x 2160, 144Hz
有源信号分辨率	3840 x 2160, 144Hz
位深度	10位 (递色)
颜色格式	RGB
颜色空间	标准动态范围 (SDR)
HDR 认证	未找到 有关 HDR 认证的详细信息
峰值亮度	500 尼特
显示器1的显示适配器属性	

MacOS Operating System

Apple M4:

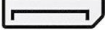
芯片组型号:	Apple M4
类型:	GPU
总线:	内建
核总数:	10
供应商:	Apple (0x106b)
Metal支持:	Metal 4
显示器:	
Kuycon P27D:	
分辨率:	3840 x 2160 (4K/UHD+-超高清增强版)
U看起来类似:	1920 x 1080
主显示器:	是
镜像:	关
联机:	是
旋转:	支持

*Other operating systems require the GPU vendor's graphics driver to support HBR3 video mode output.

Packaging



Universal Interfaces

USB-C Upstream Port x1		Maximum Supported Resolution 3840 x 2160 144Hz Speed 480mbps USB-PD
USB-C Downstream Port x2		USB Downstream Data Expansion USB Speed 480mbps (5V 2.1A Power Delivery)
DisplayPort 1.4 x1		Maximum Supported Resolution 3840 x 2160 144Hz HDR HBR3 32Gbps (HDCP2.3)
HDMI2.1 x2		Maximum Supported Resolution 3840 x 2160 144Hz HDR (HDCP2.3)

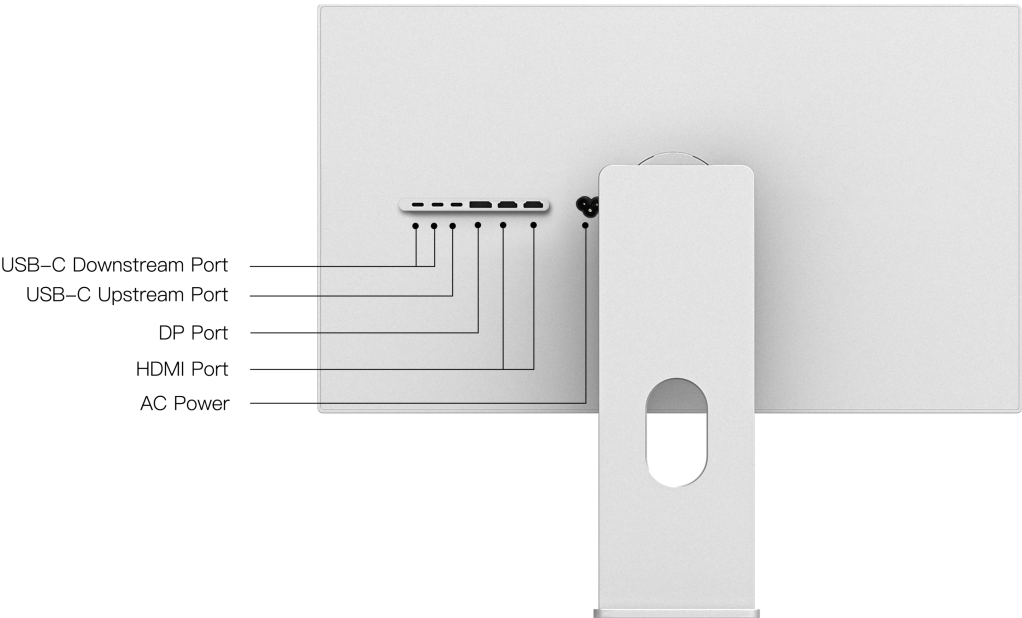
*USB-C Upstream Port, USB-Power Delivery compliant

PD3.0 100.00W		3.30-3.25
5.0472v		0.0000 A
		0.0000 W
☐	1	5.00V 3.00A
☐ -1V	2	9.00V 3.00A
☐ +1V	3	12.00V 3.00A
☐ -20mV	4	15.00V 3.00A
☐ +20mV	5	20.00V 5.00A
 back		☐ exit

PDO Output Levels	5V-3A	9V-3A	12V-3A	15V-3A	20V-5A 20V-5A(With 5A E- Mark cable)
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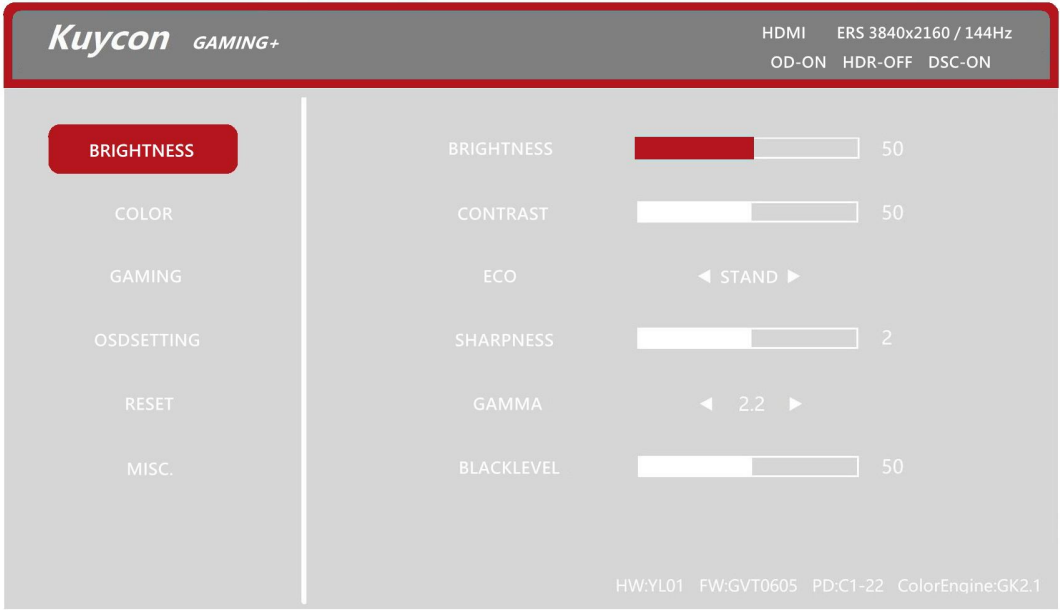
Monitor Settings

1. Connect the AC power cable 2. Connect the video signal 3. Connect USB peripheral devices

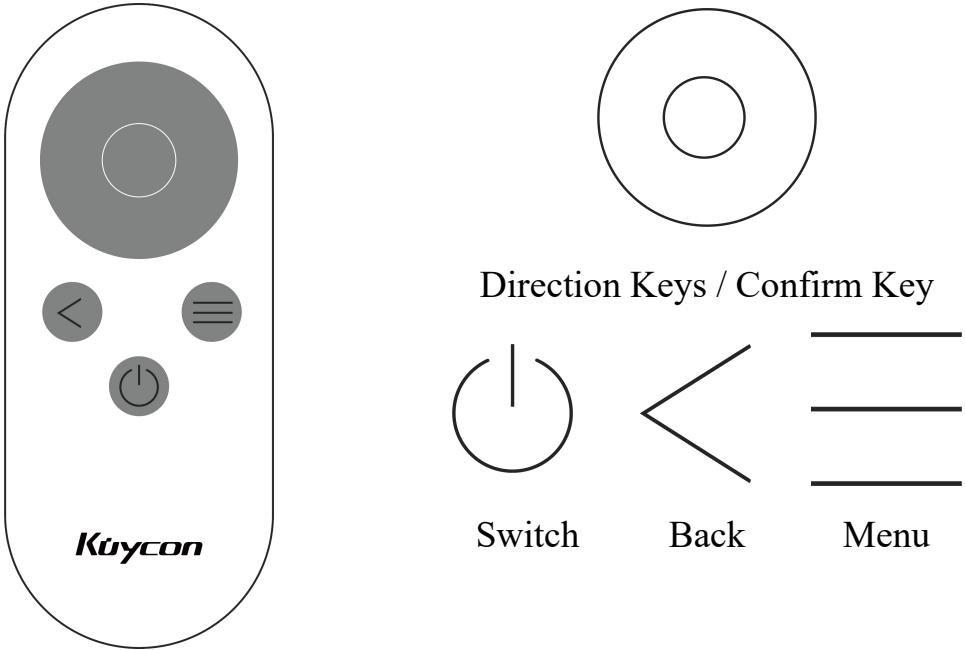


1	2	3	4	5	6	7
USB-C Downstream Port	USB-C Downstream Port	USB-C Upstream Port	DP	HDMI	HDMI	AC Input

Operating Instructions (OSD)



Instructions



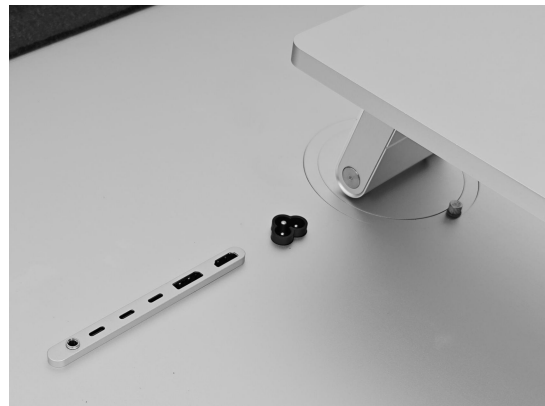
Note: The graphical OSD can be set to transparent. For remote control models, only the power key and status indicator light are retained.

Installation Instructions

- Open the packaging box and remove the buffer layer

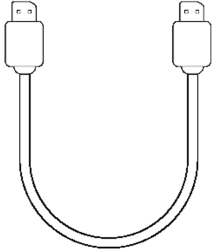


- Take out the stand and install it according to the VESA standard.

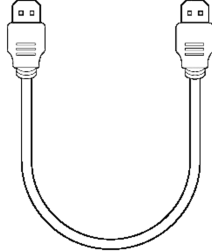


* When installing the stand, lay the panel face-down on a soft, cushioning material to avoid panel damage caused by pressure.

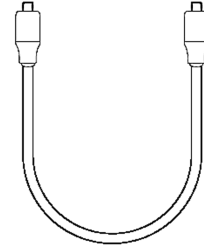
Accessories



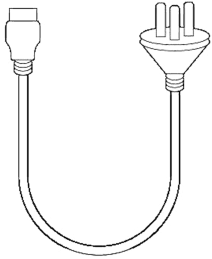
Displayport Cable 1.5m x 1



HDMI Cable 1.5m x 1



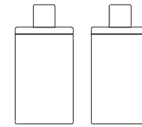
USB-C Cable 1m x 1



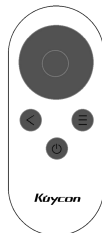
AC Power Cord 1.8m x 1



Paper Manual x 1



USB-C OTG Adapter x 2



Safety Instructions

I. The P27D monitor is made of full aluminum alloy. During operation, users must ensure the AC power cable connected to the power outlet has a proper earth ground connection.



II. The internal electronic power devices of the P27D monitor adopt contact-type passive heat dissipation via the monitor body. During use, the monitor body will be in a slightly warm state. When the PD fast charging is operating at full power output, please pay attention to heat dissipation around the monitor.



III. The front of the monitor is made of a full-glass structure. During use, please avoid hard objects colliding with or striking it to prevent cracking or breaking.



IV. When performing daily maintenance and cleaning on the monitor panel coating, avoid using highly corrosive solutions for cleaning.



FAQ

Hardware Platform Compatibility

The DP and USB-C ports of the monitor support 4K signals via single-cable input in DP 1.4 HBR3 mode. The HDMI 2.1 port supports a maximum resolution of 4K@144Hz only. Note: GPUs that support DP 1.4 HBR3 but do not support DSC will operate at a maximum refresh rate of RGB 120Hz or 422 144Hz. Hardware platforms supporting 3840×2160@144Hz resolution are listed below:

Nvidia

Turing Architecture GPU	GTX1650-RTX2080TI(Cards with USB-C VRlink support direct USB-C connection)
Ampere Architecture GPU	RTX3050-3090TI
Ada Lovelace Architecture GPU	RTX4060-4090

AMD

RNDA Architecture GPU	RedeonR7、RX5500-RX5600XT
RNDA2 Architecture GPU	RX6400-RX6950XT
RNDA3 Architecture GPU	RX7600-RX7900XTX

Intel

10th Gen Mobile Platform Iris iGPU	Iris/Iris Pro(with Thunderbolt 3, direct USB-C connection supported)
11th Gen Mobile Platform Tiger Lake iGPU	Iris Xe (with Thunderbolt 3/4, direct USB-C connection supported)
11th Gen Desktop Platform Tiger Lake iGPU	Iris Xe (with Thunderbolt 3/4, direct USB-C connection supported)
12th Gen Platform UHD730/750/770 iGPU	All support 4K144Hz (with Thunderbolt 3/4, direct USB-C connection supported)

Mac

Apple Mac M1/M2 Integrated GPU Series	All models support direct 4K connection via Thunderbolt 4
Apple iPad Pro Series	All models support direct 4K connection via Thunderbolt 4; iPadOS currently supports a maximum output of 60Hz
Apple iMac Series	All 2020 and later M1 models are supported

NUC

Intel NUC Series	NUC10-NUC13 and Phantom Canyon models all support 4K
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Phone/Pad

Mobile Phones / Tablets	Nintendo SWITCH, Huawei MATE/P series, Smartisan series, Samsung S/NOTE series all support same-screen display or PC mode
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Other

Other Devices	Sony PS4 Pro / PS5 and Microsoft Xbox series support 4K@120HZ HDR via HDMI 2.1
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Full-Featured USB-Type-C Interface & Thunderbolt 3/4

The USB-C port of the monitor transmits DisplayPort 1.4 Alt Mode video and composite USB data, and supports PD reverse fast charging. It is compatible with, but does not natively support, the Thunderbolt 3/4 protocol. Whether it can support 4K resolution when connected to a Thunderbolt 3/4 interface depends on the GPU port connected to the computer's USB-C port.

Users need to verify compatibility of their computer's USB-C port by checking two points: first, whether the port supports video output; second, whether the GPU supports a maximum resolution of 4K.

When transmitting 4K@144Hz video signals via a USB-C cable, the actual operating bandwidth reaches approximately 27Gbps, which requires high signal transmission quality of the cable. Cables conforming to USB 3.1 Gen2 / USB 3.2 Gen2 specifications should be used, with reliable materials and quality for both the cable and the port. Users are advised to choose high-quality cables to avoid unnecessary issues. For devices requiring up to 5A 100W reverse power delivery, a 5A cable with an E-Marker chip is required.

HDR Function Compatibility

The HDR function of the P27D monitor is set to Auto by default and can be manually disabled. The HDMI interface complies with the HDMI 2.1 VESA HDR10 standard, while the DP and USB-C interfaces also support HDR in accordance with the VESA HDR10 standard, which requires Windows 10 with a compatible graphics card and system version 1803 or later. When HDR is activated by a media player or game in Windows, the monitor will automatically switch to HDR display mode, and a black screen lasting 1–2 seconds during mode switching is normal. On macOS, you can enable the “High Dynamic Range Contrast” option in the system display settings to check HDR support based on your device, and HDR may not be available on some Apple Mac devices.

*

If you manually enable the HDR function in the system display settings, it is normal for the screen to appear different from the normal display.
When displaying high-dynamic-range content with HDR enabled, it is recommended to set the monitor backlight to its maximum brightness level for optimal performance.
After exiting HDR video playback or HDR game content, the monitor will automatically revert to its default display settings.