



P27ZB Liquid Crystal Display Monitor

User Guide



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Enterprise management No.: GVT2021008

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Product Features

The P27ZB monitor uses active matrix technology, thin-film transistor (TFT), and IPS liquid crystal panel.

Monitor features include:

- 27-inch viewable area (measured diagonally)
3840 × 2160 (16:9) resolution, up to 8.29 million pixels, 163 PPI
- New-generation Nano IPS Black wide-gamut fast panel
- Native 10-bit color depth
- Peak brightness up to 550 nits
- Static contrast ratio up to 2000:1
- Dual-mode refresh rate: 240Hz (UHD mode) / 480Hz (FHD mode)
- Color gamut coverage: 99% sRGB, 99% DCI-P3

Supports gamut clamping, M-BOOK mode, and grayscale display mode

- Digital connectivity: USB Type-C (80Gbps), HDMI 2.1 (48Gbps), DisplayPort 2.1 (80Gbps)

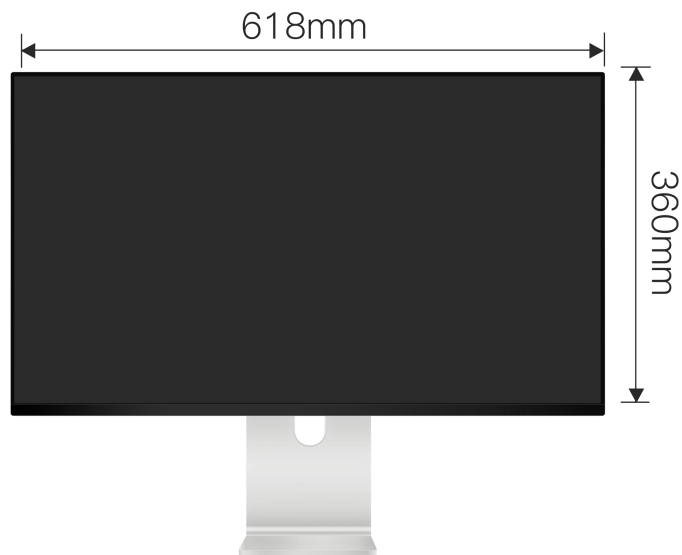
Compatible with DSC input via Mac Thunderbolt 5 and HDMI 2.1 interfaces

- 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 4/5 / USB4
- Removable stand with VESA™ 100 mm mounting holes
- Equipped with 2 USB Type-C downstream data expansion ports
- Supports HDR function, blue light reduction, OD response acceleration, and VRR (Variable Refresh Rate)
- ΔE -Delta-E <2

Specifications

<u>Kuycon P27ZB</u>			
Product Name	Gaming LCD Monitor	Color Gamut	99% <i>s</i> RGB 99%DCI-P3
Screen Size	27 Inches	Brightness	Full Screen 550 cd/m ²
Aspect Ratio	16:9	Contrast Ratio	2000:1
Panel Type	Nano IPS Black	Response Time	GTG 1ms
Resolution	3840x2160	Screen Coating	3H Anti-Glare
Pixel Density	163PPI	Operating Voltage	AC 100-220V
Refresh Rate	240-480Hz	Power Consumption	Typical: 45W, Max: 150W
Color Depth Support	10-bit, 1.07 Billion Colors	Other Features	USB-HUB
HDR	HDR600	Panel Surface	Matte Anti-Glare Screen
Body Material	6063 Aluminum Alloy CNC	USB	USB2.0
Body Craft	180 Grit Sandblasting, Anodized	Stand Type	VESA 100mm*100mm
Weight	5.25KG (Body only, stand excluded)	Stand Functions	Height Adjustment & Multi-angle Rotation
HDMI	HDMI2.1 FRL48Gbps	Power Adapter	Built-in Power Supply
DP	DP2.1 UHBR80Gbps	Remote Control	IR Remote Control (with battery)
USB-C	USB-C 80Gbps 【PD100W】	USB Flash Drive	8GB Card-style USB Flash Drive

View



正视图



侧视图



背视图（简约款）

Dimensions (H×W×D) = 360mm*618mm*23.5mm Weight=5.25KG (excluding stand)

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

Resolution Specifications

Model	P27ZB
Horizontal Scan Range	88 kHz to 255 kHz (Auto)
Vertical Scan Range	60 kHz to 255 kHz (Auto)
Maximum Resolution	3840x2160 240Hz
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@240Hz 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™4/5 and USB4 devices.

Windows Operating System

显示器信息	
Kuycon P27ZB 显示器 1: 已连接到 Intel(R) UHD Graphics	
桌面模式	3840 × 2160, 240Hz
活动信号模式	3840 × 2160, 240Hz
位深度	10 位
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
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 P27ZB:	
分辨率:	3840 x 2160 (2160p/4K UHD 1 - 超高清)
UI 看起来类似:	1920 x 1080 @ 240.00Hz
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 and DSC technology.

Packaging



Universal Interfaces

USB-C Upstream Port x1		Maximum Supported Resolution 3840x2160 240Hz HDR UHBR20 80Gbps (HDCP2.3)
USB-C Downstream Port x2		USB Downstream Data Expansion 480Mbps (5V 2A Power Delivery)
DisplayPort x1		Maximum Supported Resolution 3840x2160 240HzHDR UHBR20 80Gbps (HDCP2.3)
HDMI2.1 x2		Maximum Supported Resolution 3840x2160 240Hz HDR 48Gbps (HDCP2.3)

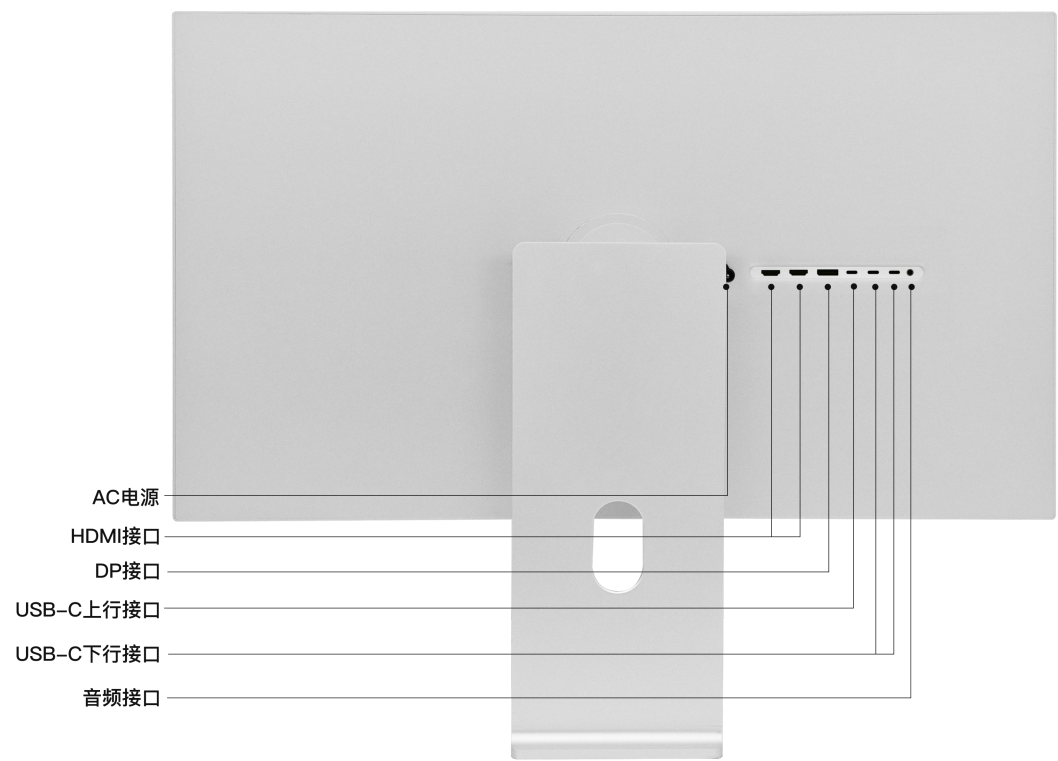
*USB-C Upstream Port, USB-Power Delivery compliant

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
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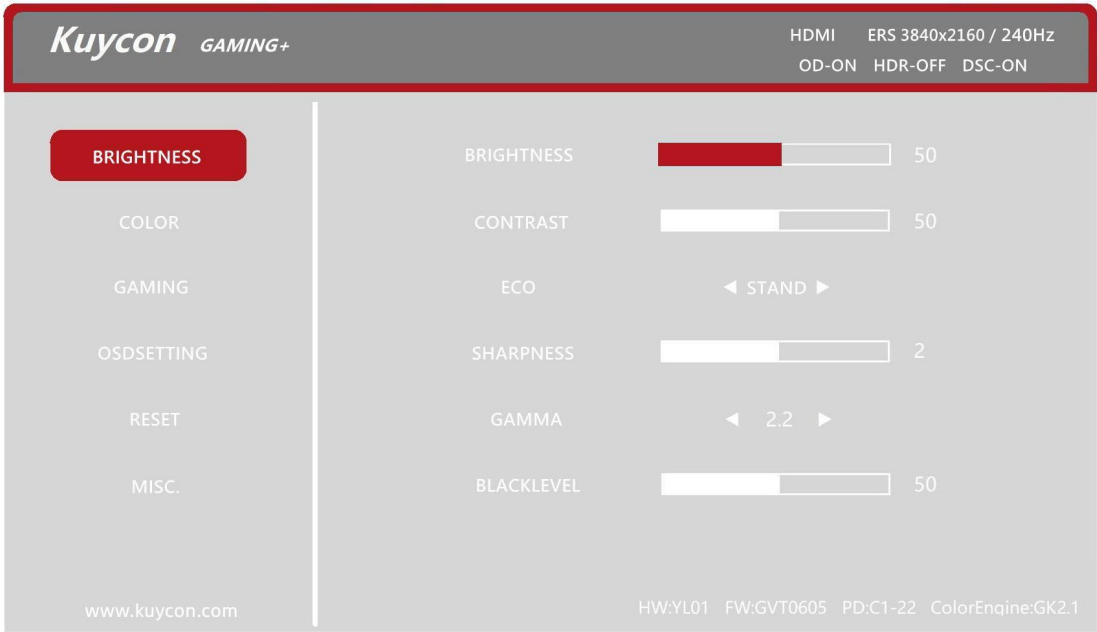
Monitor Settings

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



1	2	3	4	5	6	7
3.5mm Audio	USB-C Downstream Port	USB-C Downstream Port	USB-C Upstream Port	DP	HDMI	AC Input

Operating Instructions (OSD)



Instructions



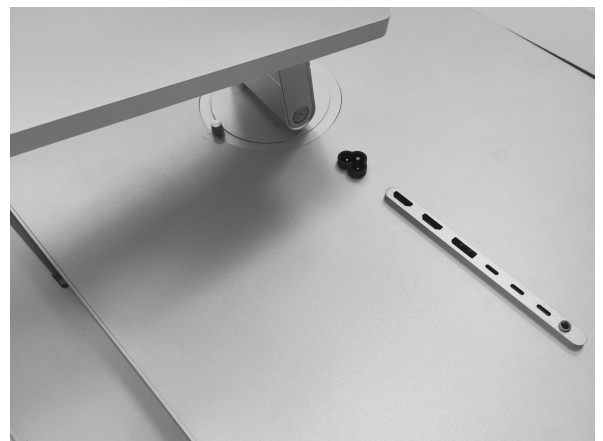
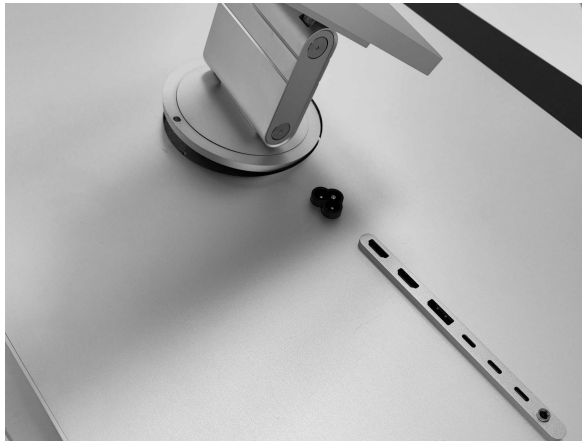
Note: The graphical OSD can be set to transparent. For remote control models, only the power key and status indicator light are retained.

Installation Instructions

- Open the packaging box and remove the buffer layer

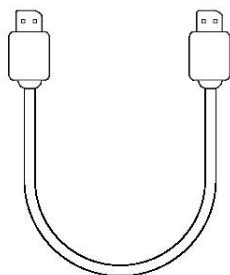


- Take out the stand and install it according to the VESA standard.

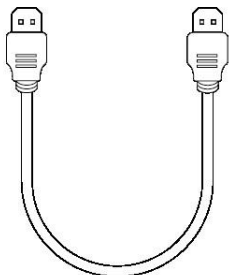


* When installing the stand, lay the panel face-down on a soft, cushioning material to avoid panel damage caused by pressure.

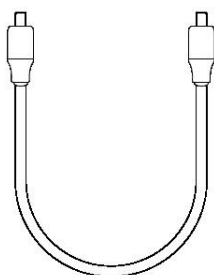
Accessories



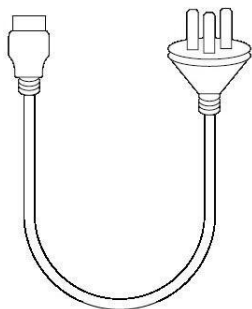
DP2.1 Cable x1.5m



HDMI2.1 Cable x1.5m



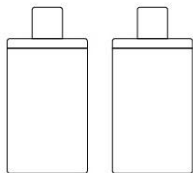
USB4 Cable x1m



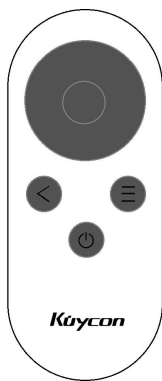
AC Cable x1.8m



USB Flash Drive 8G x1



USB-C to A OTG x2



Infrared Remote Control x1

USB Flash Drive Contents (in place of paper documents)
• Electronic Monitor Manual
• Factory Firmware & Update Firmware Description File
• Factory Color Management Report
• After-sales Warranty Policy Document
*All accessories and cables are packed inside the monitor box

Safety Instructions

I. The P27ZB 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 P27ZB 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 P27ZB monitor support 4K@240Hz input via DP 1.4 HBR3 with DSC, and DP 2.1 UHBR10 / UHBR13.5 / UHBR20 modes over a single cable. The HDMI 2.1 FRL 48Gbps interface supports up to 4K@240Hz. Hardware platforms supporting 4K@240Hz resolution are listed below:

Nvidia

Maxwell Architecture GPU	Not Supported
Pascal Architecture GPU	Not Supported
Turing Architecture GPU	GTX1650-RTX2080TI(Cards with USB-C VRLink support direct USB-C connection)
Ampere Architecture GPU	RTX3050-3090
Ada Lovelace Architecture GPU	RTX4060-4090
Blackwell Architecture GPU	RTX5060-5090(Supports DP2.1 UHBR20 mode with no compression)

AMD

Polaris Architecture GPU	Not Supported
VEGA Architecture APU GPU	Not Supported
RNDA-RNDA3 Architecture GPU	RedeonR7、RX5500-RX6900XT
RNDA4 Architecture GPU	RX7700-RX9070XT(Supports DP2.1 UHBR13.5 mode with no compression)

Intel

10th Gen Mobile UHD iGPU	Not Supported
11th Gen Tiger Lake iGPU	Iris Xe(Thunderbolt 3 devices support direct USB- C connection)
UHD730/750/770 iGPU	All models support 6K60Hz (Thunderbolt 4 devices support direct USB- C connection)
Intel Arc Discrete GPU	All models support 6K60Hz (Works with DP2.1 UHBR13.5 mode with no compression)

Mac

Apple Mac AMD Discrete GPU	Not Supported
Apple Mac Intel iGPU Series	After 2020, models with Intel 10th Gen core + Thunderbolt 3 support direct 6K60Hz
Apple Mac M1-M4 Integrated GPU Series	Full support for Thunderbolt 4/5 – direct connection via single cable 6K60Hz
Apple iPad Pro Series	Full support for Thunderbolt 4/5 – direct connection via single cable 6K60Hz
Apple iMac MacMini Series	2021 onwards models support 6K60Hz

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@60Hz HDR via HDMI

Full-Featured USB-Type-C Interface & Thunderbolt 4/5 / USB4

The USB-C port of the P27ZB monitor transmits video using the DisplayPort Alt Mode protocol, supports composite USB data, and features PD reverse fast charging. This port has been upgraded to be compatible with Thunderbolt 4/5 and USB4 protocols. When connected to a Thunderbolt 4/5 or USB4 interface, support for 4K 240Hz resolution depends on the GPU port connected to the computer's USB-C interface. Users need to verify whether their computer's USB-C port supports this mode by checking two conditions: first, whether the port supports video output; second, whether the GPU supports DisplayPort 1.4 & DSC or higher specifications. When using a USB-C cable to transmit 4K 240Hz video signals, the actual operating bandwidth reaches approximately 39Gbps, which imposes high requirements on the signal transmission quality of the cable. Only cables compliant with USB 3.1 Gen2 / USB 3.2 Gen2 / USB4 standards should be used, with reliable materials and quality for both cables and ports. Users are advised to purchase high-quality cables to avoid unnecessary problems. For devices requiring 100W reverse power delivery, a 5A cable with an E-Marker chip is required.

MacOS Compatibility

The P27ZB monitor is fully compatible with Mac series devices. It supports full-range color 4K 240Hz display via Thunderbolt 4/5 and HDMI 2.1 from the built-in GPU interfaces of Apple Silicon M-series chips. The USB-C port supports uncompressed full-range input at 80Gbps from the Thunderbolt 5 port of M4-series chips and is compatible with macOS HiDPI scaling. The MacBook series supports 100W PD fast charging. The monitor also supports quick switching and wake-up functions when connected to multiple Mac devices. USB-C ports on older Apple Silicon M1/M2/M3 chips only support a maximum refresh rate of 120Hz.

HDR Function Compatibility

The HDR function of the P27ZB monitor is set to Auto by default and can be disabled manually. The HDMI interface complies with the HDMI 2.1 VESA HDR10 standard. The DP and USB-C interfaces also support HDR in accordance with the VESA HDR10 standard, which requires a compatible graphics card and Windows 10 version 1803 or later. When HDR is launched by a media player or game in Windows, the monitor will automatically switch to HDR display mode. 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 device capability; HDR may not be available on some Apple Mac devices.

*

If you manually enable HDR in the system display settings, it is normal for the image to appear different from the normal picture.

When HDR is enabled for high-dynamic-range content, the monitor backlight remains at its default state and brightness can be adjusted manually.

After exiting HDR video playback or HDR game content, the monitor will automatically switch back to its default settings.

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2025.10.31 by Ehen