



P27Z Liquid Crystal Display Monitor

User Guide



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Enterprise management No.: GVT2021008

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Product Features

The P27Z monitor uses active matrix technology, thin-film transistor (TFT) and IPS LCD panel.

Monitor features include:

- 27-inch viewable area, 5120 x 2880 (16:9) resolution, 218PPI
- New generation Ultra Fast IPS wide color gamut high-speed panel
- Native obsidian optical compensation + full-fit borderless mirror high-transmittance AR panel
- Supports FRC 10-bit color depth display
- Up to 600 nits brightness and 1500:1 contrast ratio
- Supports dual-mode fast switching, with maximum refresh rates of 5K@180Hz and 2K@330Hz
- Color gamut coverage: 99% sRGB, 98% DCI-P3 Supports gamut clipping, M-BOOK mode and grayscale display mode
- Digital connectivity via USB Type-C 80Gbps, HDMI 2.1 48Gbps and DisplayPort 2.1 80Gbps. Compatible with Thunderbolt 5 for Mac devices and HDMI 2.1 DSC input
- Supplies power to compatible laptops via USB Type-C cable using USB Power Delivery protocol (up to 100W), while receiving video and data signals, compatible with Thunderbolt 4/5 / USB4
- Removable stand and VESA™ 100 mm mounting holes
- Equipped with 2 USB Type-C downstream data expansion ports
- Supports HDR function, blue light reduction, OD acceleration response, VRR variable refresh rate
- Built-in stereo 6-unit dual-channel speakers
- ΔE -Delta-E <2

Specifications

<i><u>Kuycon P27Z</u></i>			
Product Name	Gaming LCD Monitor	Color Gamut	99% sRGB 98% DCI-P3
Screen Size	27 Inches	Brightness	Full Screen 600cd/m ²
Aspect Ratio	16:9	Contrast Ratio	1500:1
Panel Type	Ultra Fast IPS	Response Time	GTG 1ms
Resolution	5120x2880	Screen Coating	Mirror AR glass with full lamination
Pixel Density	218PPI	Operating Voltage	AC 100-220V
Refresh Rate	180Hz/Max 330Hz	Power Consumption	Typical: 40W, Max:145W
Color Depth Support	10-bit, 1.07 Billion Colors	Other Features	USB-HUB
HDR	HDR600	Panel Surface	Mirror screen with four-sided uniform bezels
Body Material	6063 Aluminum Alloy CNC	USB	USB2.0
Body Craft	180 Grit Sandblasting, Anodized	Stand Type	VESA 100mm*100mm
Weight	5.2KG(Body only, stand excluded)	Stand Functions	Height Adjustment & Multi-angle Rotation
HDMI	HDMI2.1 FRL48Gbps	Power Adapter	Built-in Power Supply
DP	DP2.1 UHBR20 80Gbps	Remote Control	IR Remote Control (with battery)
USB-C	USB-C 80Gbps 【PD100W】	Manual	Paper Product Manual x1

View



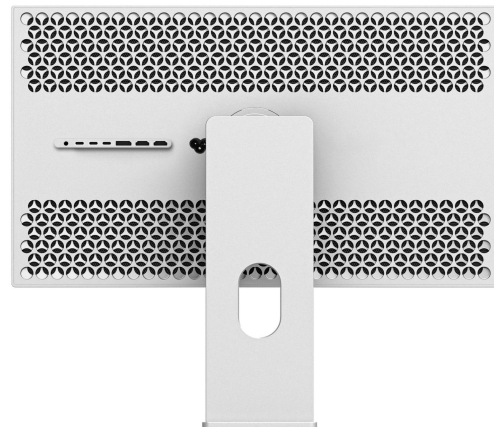
Front View



Side View



Rear View (Simplified Version)



Rear View (Perforated Version)

Dimensions (H×W×D) =360mm*618mm*22mm Weight=5.2KG (excluding stand)

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

Resolution Specifications

Model	P27Z
Horizontal Scan Range	88 kHz to 255 kHz(Auto)
Vertical Scan Range	60 kHz to 255 kHz(Auto)
Maximum Resolution	2560x1440 320Hz
HDMI Supported Video Modes	480p、 480i、 576p、 576i、 720p、 1080i、 1080p、 QHD、 UHD 4K
DisplayPort 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 5120x2880@165Hz 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 P27Z 显示器 1: 已连接到 Intel(R) UHD Graphics	
桌面模式	5120 x 2880, 165Hz
活动信号模式	5120 x 2880, 165Hz
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 P27Z :	
分辨率:	5120 x 2880
UI 看起来类似:	2560 x 1440 @ 165Hz
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 5120x2880 180Hz HDR 80Gbps(HDCP2.3)
USB-C Downstream Port x2		USB Downstream Data Expansion 480Mbps (5V 2A Power Delivery)
DisplayPort x1		Maximum Supported Resolution 5120x2880 180Hz HDR UHBR20 80Gbps(HDCP2.3)
HDMI 2.1 x2		Maximum Supported Resolution 5120x2880 180Hz HDR 48Gbps(HDCP2.3)

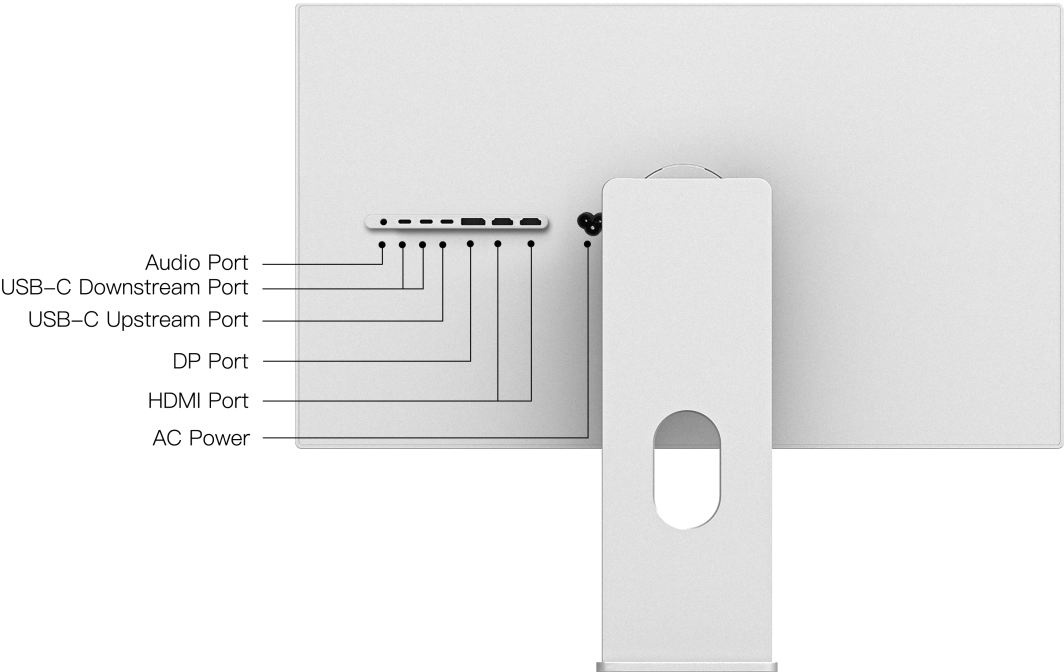
*USB-C Upstream Port, USB-Power Delivery compliant

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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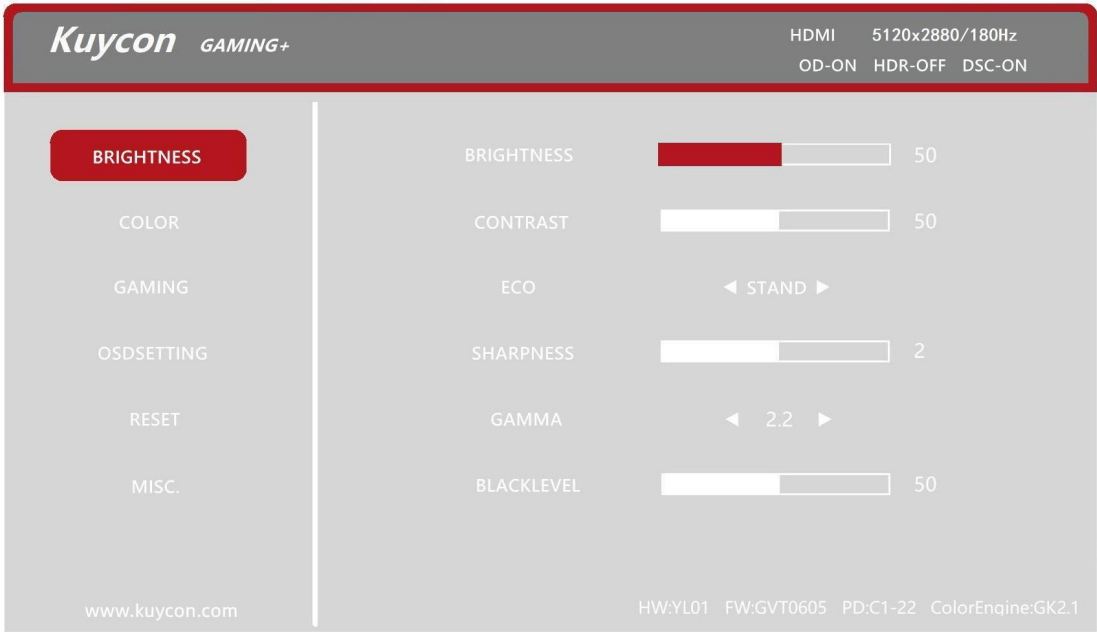
Monitor Settings

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

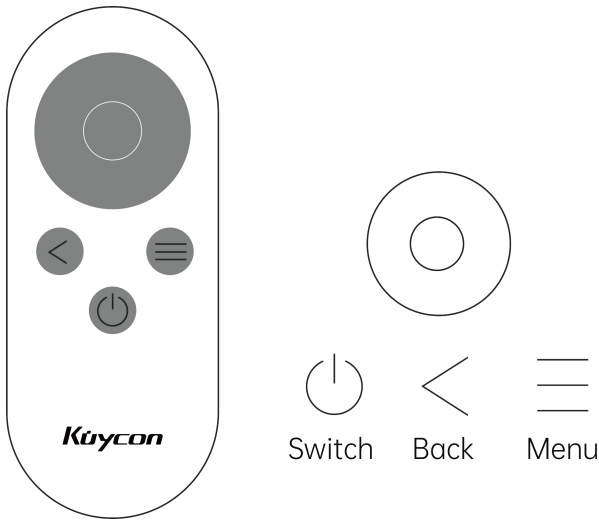


1	2	3	4	5	6	7	8
3.5mm Audio	USB-C Downstream Port	USB-C Downstream Port	USB-C Upstream Port	DP	HDMI	HDMI	AC Input

Operating Instructions (OSD)



Instructions



Note: Graphical OSD can set the transparency, and the model of remote control only keeps the on-off key and status indicator light.

Installation Instructions

- Open the packaging box and remove the buffer layer

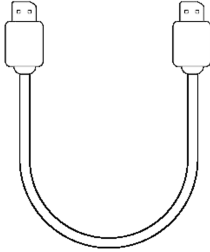


- Take out the stand and install it according to the VESA standard.

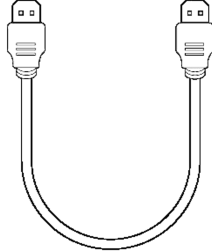
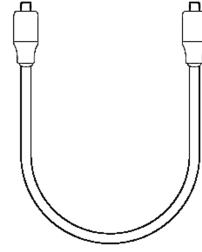


* When installing the stand, lay the panel face-down on a soft, cushioning material to avoid panel damage caused by pressure.

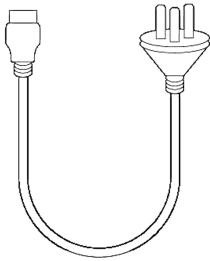
Accessories



Displayport Cable 1.5m x 1

**HDMI Cable 1.5m x 1**

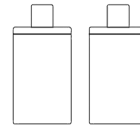
USB-C Cable 1m x 1



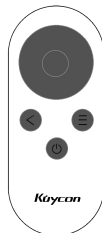
AC Power Cord 1.8m x 1



Paper Manual x 1



USB-C OTG Adapter x 2



Infrared Remote Control x1

Safety Instructions

I. The P27Z monitor is made of full aluminum alloy material. During use, users need to pay attention to ensuring that the AC power cable is properly connected to the power socket with good ground contact.



II. The internal electronic power devices of the P27Z 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

The DP and USB-C ports of the P27Z monitor support 5K 165Hz signal input via DP 1.4 HBR3 DSC, as well as DP 2.1 UHBR10 / UHBR13.5 / UHBR20 single-cable transmission. HDMI 2.1 FRL 48Gbps supports a maximum resolution of 5K 180Hz. Hardware platforms compatible with 5K 165Hz resolution are as follows:

Special Notes
Since 5K 180Hz requires high bandwidth support, enabling 180Hz refresh rate via DP or USB-C port requires the monitor to switch to DP 2.1 operating mode, and the graphics card must also support DP 2.1 (e.g. RTX 50 series GPUs). Enabling 180Hz via the HDMI port requires a high-performance dedicated graphics card.

Nvidia

Maxwell Architecture GPU	Not Supported
Pascal Architecture GPU	Not Supported
Turing Architecture GPU	GTX1650-RTX2080TI (Graphics cards with USB-C VR Link support direct USB-C cable connection)
Ampere Architecture GPU	RTX3050-3090
Ada Lovelace Architecture GPU	RTX4060-4090
Blackwell Architecture GPU	RTX5060-5090 (Supports input via DP 2.1 UHBR20 DSC mode)

AMD

Polaris Architecture GPU	Not Supported
VEGA Architecture APU GPU	Not Supported
RNDA-RNDA3 Architecture GPU	RedeonR7、RX5500-RX6900XT
RNDA4 Architecture GPU	RX7700-RX9070XT (Support input via DP 2.1 UHBR13.5 DSC mode)

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 5K 144Hz (Thunderbolt 4 devices support direct USB-C connection)
Intel Arc Discrete GPU	All models support 5K 165Hz

Mac

Apple MAC Intel iGPU Series	Intel 10th Gen Core processors and later 2020 platforms support Thunderbolt 3 single-cable direct connection at 5K 60Hz.
Apple MAC M1-M3 Integrated GPU	Full support for Thunderbolt 4/5 – direct connection via single cable 5K 60Hz
Apple MAC M4-M5 Integrated GPU	Full support for Thunderbolt 4/5 – direct connection via single cable 5K 165Hz
Apple iPad Pro Series	Full support for Thunderbolt 4/5 – direct connection via single cable 5K 60Hz
Apple iMac MacMini Series	2022 onwards models support 5K 165Hz

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

Other

Other Devices

Sony PS4 Pro / PS5 and Microsoft Xbox series support 4K@120Hz HDR via HDMI

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

The USB-C port of the P27Z monitor adopts DP Alt Mode for video transmission, integrates USB data transmission and supports PD reverse charging. This port has been upgraded to be compatible with Thunderbolt 4, Thunderbolt 5 and USB4 protocols. Whether 5K 165Hz resolution can be achieved when connected to Thunderbolt 4/5 or USB4 ports depends on the GPU channel connected to the USB-C interface of your device.

Users need to confirm two requirements of their computer's USB-C port: first, whether the port supports video output; second, whether the GPU supports DisplayPort 1.4 & DSC or higher bandwidth protocols.

When transmitting 5K 165Hz video signals via USB-C cable, the actual operating bandwidth is about 40Gbps, which imposes strict requirements on cable transmission quality. Cables must meet USB 3.1 Gen 2, USB 3.2 Gen 2 or USB4 specifications with reliable materials and build quality. High-quality cables are recommended to avoid signal issues. For 100W PD reverse power delivery, a 5A cable with an Emarker chip is required.

HDR Function Compatibility

The HDR function of the P27Z monitor is set to Auto by default and can be disabled manually. The HDMI port complies with HDMI 2.1 and VESA HDR10 standards, and both DP and USB-C ports support VESA HDR10. It is compatible with Windows 10 Version 1803 and above, with a compatible graphics card required. Once HDR is enabled by media players or games on Windows, the monitor will automatically switch to HDR mode. A 1–2 second screen blackout during mode switching is normal. For macOS devices, users can enable the High Dynamic Range option in system display settings to check HDR compatibility. Some Mac devices may not support HDR activation.

*

If the HDR function is manually enabled in the system display settings, it is normal for the screen to show differences compared to the normal display.

When the HDR function is enabled to display high dynamic range content, the monitor's backlight will remain in its default working state and can be manually adjusted for brightness.

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

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