

# *Kuycon*

G27-X Professional Monitors

User Guide



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## Product Features

The G27-X monitor features active-matrix technology, thin film transistors (TFT), and LCD and LED backlighting

Display features include:

- 68 cm ( 27" ) viewing area ( measured diagonally )  
5120 x 2880 (16:9) resolution , with full screen display capabilities for lower resolutions
- Colour range 99% sRGB 99% DCI-P3
- Digital connectivity with USB Type-C, HDMI and Displayport.
- Power can be supplied to compatible laptops via the USB-C power delivery protocols (up to 100W ) and is Thunderbolt 3/USB-4 compatible.
- Specially designed Corning full lamination full coverage glass
- AR anti-glare film and AF anti-smudge film on the outside
- Next-generation H-IPS display panel with optical coating
- Removable bracket and VESA™ 100mm mounting holes
- Equipped with 2 USB-C downlink data expansion ports
- HDR support – maximum peak backlight brightness is unlocked when HDR feature is active

- Blue light filter function

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## Product Specifications

### Specifications

Device type	LED LCD Display
Size	27 inches
Aspect ratio	16:9
Panel type	H-IPS
Resolution	5120x2880
Pixel density	218PPI 14.7 million pixels
Colour depth	Native 8-bit (appr. 1.07 billion colours)
Refresh rate	60 Hz
Colour gamut	99% sRGB 99% DCI-P3
Brightness	Typical 520cd/m <sup>2</sup> Peak 590cd/m <sup>2</sup>
Contrast	1200:1
Response time	Grayscale 12ms Full colour 14ms
Screen coating	High-transparency glass coated with AR+AF
Operating voltage	AC 100-240V (50/60Hz)
Power consumption	Typical 56W Peak 170W (inc. PD)
Other features	HDR feature, USB hub extension

### Processing and Materials

Body	All CNC anodised and sandblasted aluminium
Panel	OGS fully laminated glass, AF+AR coated
Weight	5.5kg (net without bracket)
Bracket type	VESA 100mm*100mm

### Connection Ports

DP1.4	Max resolution 5120x2880 60Hz
HDMI2.0	Max resolution 3840x2160 60Hz
USB-C	Max resolution 5120x2880 60Hz Compatible with Thunderbolt™ 3 and USB4

2x USB-C	USB2.0 data expansion port * 480Mbps speed
3.5mm jack	Audio output port

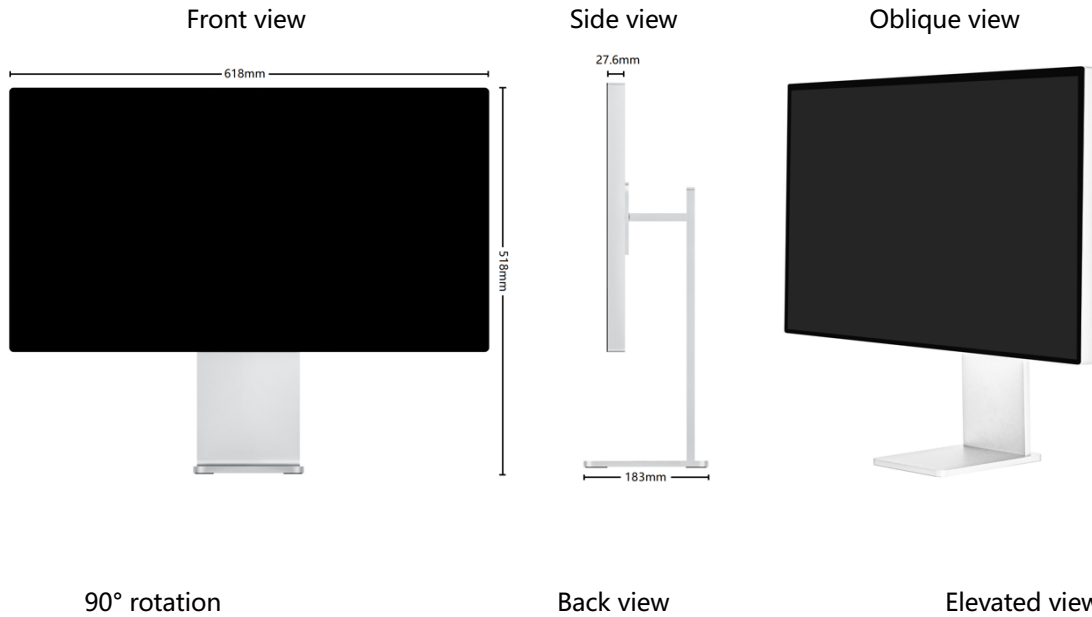
**Accessories and Cables**

1x HDMI cable	1.5m
1x DisplayPort cable	1.8m
1x USB-C 3.2 Gen2 cable	1m (20Gbps 5A 100W cable)
2x USB-C OTG Adapter	
1x 8GB USB stick	E-docs, firmware & colour report

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**Views**





\* Height, width and thickness = 359mm\*618mm\*27.6mm  
 \* External data measurement parallax and production tolerances exist

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## Resolution Specifications

Model	G27X
Horizontal scanning range	88 kHz to 178 kHz ( automatic )
Vertical scanning range	24 kHz to 60 kHz ( automatic )
Maximum resolution	5120 x 2880 60Hz
HDMI video mode support	480p、 480i、 576p、 576i、 720p、 1080i、 1080p、 QHD、 UHD 4K
DP video mode support	480p、 480i、 576p、 576i、 720p、 1080i、 1080p、 QHD、 UHD、 WUHD 5K
USB-C video mode support	480p、 480i、 576p、 576i、 720p、 1080i、 1080p、 QHD、 UHD、 WUHD 5K

Note : This 5120x2880 monitor requires a newer GPU with DP1.4 (4-lane hbr3 x 8.1Gbps display

output support

\*Recommended to use DP or USB-C port to connect to monitor, compatible with newer Thunderbolt™ 3/USB-4 devices.

Windows	
Desktop resolution	5120x2880
Active signal resolution	5120x2880
Refresh rate	59.678Hz
Bit depth	8-bit
Colour format	RGB
Colour space	SDR
MacOS	
Desktop resolution	5120x2880
UI resolution	2560x1440
Framebuffer depth	30-bit colour (ARGB2101010)
Serial number	DX499046S
Mirror image	Off
Internet connection	Yes
Rotation	Supported
Automatic brightness adjustment	Yes
Connection type	Thunderbolt/DisplayPort

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

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

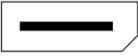
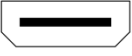
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## Packaging





# Connection Interfaces

<p><b><u>USB-C uplink port</u> x 1</b></p> 	<p>Maximum supported resolution 5120x2880 60Hz Speed 480mbps USB-PD</p>
<p><b><u>USB-C downlink port</u> x 2</b></p> 	<p>USB downlink data extension Speed 480mbps ( 5V 2.1A power supply capability )</p>
<p><b><u>Displayport1.4</u> x 1</b></p> 	<p>Maximum supported resolution 5120x2880 60Hz HDR HBR3 32Gbps (HDCP2.2)</p>
<p><b><u>HDMI2.0</u> x 1</b></p> 	<p>Maximum supported resolution 3840x2160 60Hz HDR 18Gbps (HDCP2.2)</p>

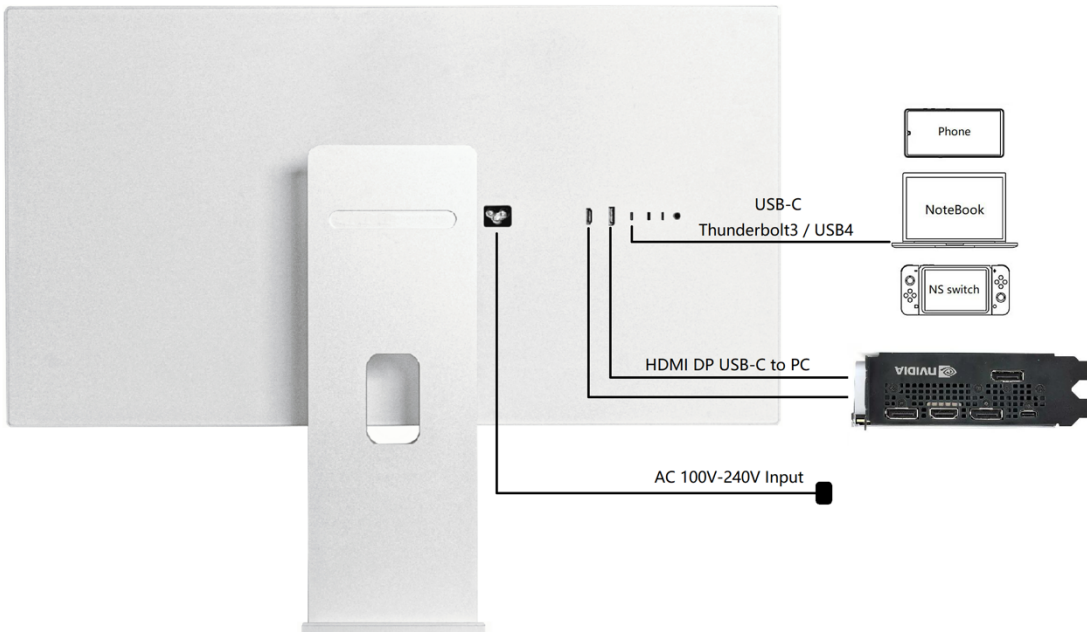
\* Uplink USB-C port USB PowerDelivery protocol



<b>PDO output</b>	5V-3A	9V-3A	12V-3A	15V-3A	20V-5A (using cable with Emark 5A)
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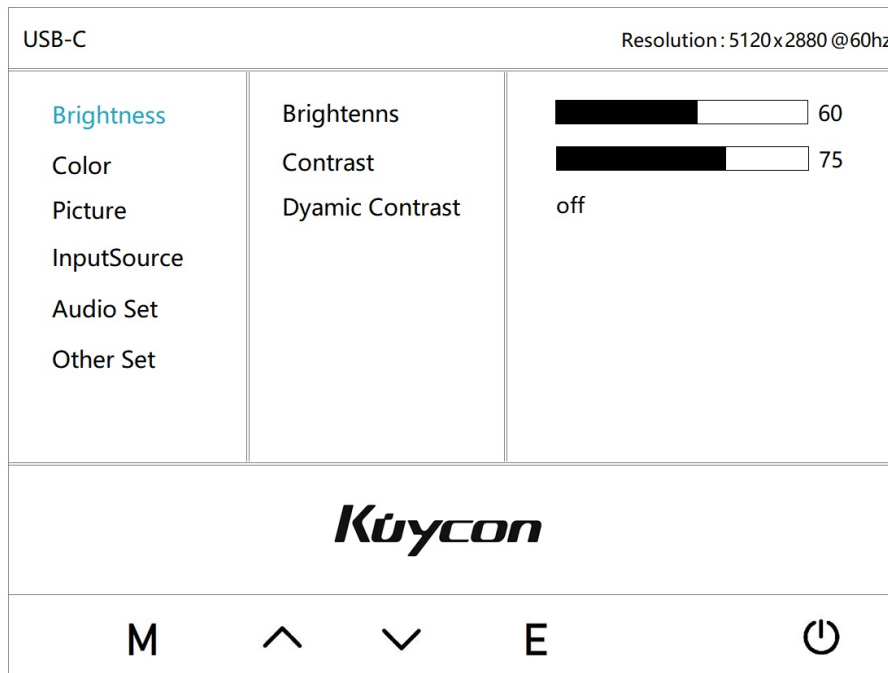
## Monitor Setup

1. Connect the AC cable to power the monitor
2. Connect the video cable
3. Connect any USB expansion peripherals



① AC power input	② HDMI	③ DP	④ USB-C uplink
⑤ USB-C downlink	⑥ USB-C downlink	⑦ 3.5mm audio	/

## Operating Instructions ( OSD )



menu/enter	up/+	down/-	eixt	power
菜单/确认	上/+	下/-	退出	开关

Note: You can set the graphical OSD transparency, and the key-prompt icons are equidistant from the physical keys to facilitate blind operation.

## Installation Instructions

- Open the box and remove the foam layer on the top

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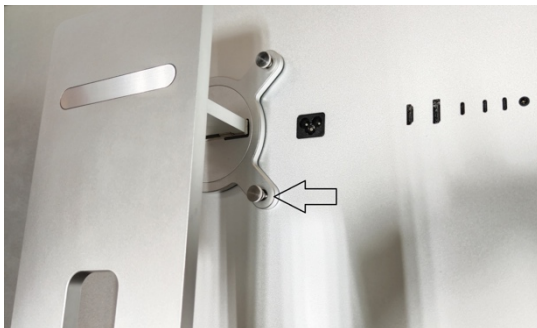


②



- Take out the bracket and mount it to the VESA

③










\* When mounting the stand, keep the panel facing flat on a cushioned soft object to avoid any pressure that might cause the panel to break.

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## Addons

<b>Displayport</b> cable	1.8 米 x 1	
<b>HDMI</b> cable	1.5 米 x 1	
<b>USB-C</b> cable	1 米 x 1	
<b>USB-A to C</b> cable	1.5 米 x 1	
<b>AC</b> power cord	1.5 米 x 1	
<b>USB-C OTG</b> adapter	x 2	
<b>USB2.0</b> USB stick	x 1	

\* All accessories and cables are placed inside the monitor packaging.  
USB flash drive with documentation ( instead of paper ) :

• Electronic file of the monitor manual
• Factory firmware and firmware changelogs for the monitor
• Factory colour management report for the monitor
• After-sales warranty policy service document

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# Safety Notice

一、 The G27-X monitor is made of all aluminium and other metals, during use the user needs to pay attention to make sure that the AC cable is connected to a power supply with a good ground contact.



二、 The G27-X monitor has internal electronic power devices that are contacted by the body for passive heat dissipation, and during use the body will be warm. Pay attention to heat dissipation in the surrounding area if the PD is charged quickly and at full power.



三、 The front of the monitor is made of an all-glass structure, so try to avoid breakage or shattering caused by hard objects during use.



四、 Avoid using highly corrosive solutions for cleaning the monitor screen during daily maintenance as it may damage the monitor.



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## Frequently Asked Questions

### Hardware compatibility

The monitor's DP and USB-C interfaces support 5K signals in DP1.4 HBR3 mode input in one line, HDMI 2.0 supports 4K maximum. 5120x2880 resolution is supported on the following platforms (DP1.3/1.4 is required for receiving signals on the monitor side)

#### **Nvidia**

Maxwell architecture cards	(9 series cards need to be flashed with the latest official firmware ) e.g. GTX950-980TI
Pascal architecture cards	GTX1050-1080TI
Turing architecture cards	GTX1650-RTX2080TI ( cards using USB-C VRLink can be connected directly using type-C )
Ampere architecture cards	RTX3050-3090

#### **AMD**

Polaris architecture cards	RX460-RX590
VEGA architecture series APU core cards	VEGA8 VEGA56-VEGA Nano
RNDA/RNDA2 architecture cards	RedeonR7、RX5500-RX6900XT ( 带有 USB-C 的 RNDA2 显卡 )

	可以 TYPEC 线直连 )
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## Intel

10 <sup>th</sup> Gen Icelake Core	Iris/Iris Pro ( with Thunderbolt 3 for direct type-C cable connection )
11 <sup>th</sup> Gen Tiger Lake Core	Iris Xe ( with Thunderbolt 3 for direct type-C cable connection )
11 <sup>th</sup> Gen Tiger Lake Core	Iris Xe ( with Thunderbolt 3 for direct type-C cable connection )

## Mac

Apple MAC AMD Core Graphics Series	MPB requires 2017 or 2018 models after the unique graphics support for Thunderbolt 3 Direct Connect 5K (older MPB models must note that this monitor does not support Thunderbolt 3 protocol for 5K)
Apple MAC Intel Core Graphics Series	2019 models after the use of Intel 10 <sup>th</sup> Gen Icelake Core support Thunderbolt 3 Direct Connect 5K such as: 2020 models of MacBook and MacBook Air
Apple MAC M1 Integrated Graphics Series	All series support Thunderbolt 3 Direct Connect 5K
Apple iPad Pro Series	All series support Thunderbolt 3 Direct Connect 5K
Apple Mac Series	Full range of 18 post-DVI support

## NUC

Intel NUC Series mainframes	NUC10, NUC11 and Pluto Canyon are only supported in the new version released after 5K support
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## Phone/Pad

Mobile or tablet	Nintendo Switch, Huawei Mate/P series, Hammer series, Samsung S/Note series all support mirror or PC desktop mode
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## Other

Other devices	Sony PS4, Pro, PS5, Microsoft Xbox series using HDMI support 4K@60Hz HDR
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## Full-featured USB TYPE-C interface with Thunderbolt 3/4

The display USB-C port runs AltMode DP1.4 video protocol, composite USB data, and supports PD reverse fast charging. Compatible with but does not have Thunderbolt 3/4 protocol. The ability to support 5K resolution when plugged into Thunderbolt 3/4 depends on the GPU port of the graphics



card connected to the computer's USB-C port.

Users need to determine whether their computer's USB-C interface supports, firstly, whether the interface supports the video output function, and secondly, whether the graphics card supports up to 5K resolution.

When using a USB-C cable connection to transmit a 5K video signal, the actual operating bandwidth reaches about 28Gbps, which is a requirement for the signal transmission quality of the cable. USB3.1 Gen2 / USB3.2 Gen2 needs to be used, the cable and port material and quality needs to be passed, users need to pay attention to buy good quality cables which are high enough specification to avoid unnecessary trouble with incompatibility. If you need to run 5A 100W power for the reverse power supply feature, you need to buy a 5A cable with an Emarker chip.

### HDR feature compatibility

The G27-X monitor HDR function is automatic by default and can be switched off optionally. The HDMI interface is compatible with HDMI 2.0 Vesa HDR10 standards, and DP and USB-C interfaces support HDR following Vesa HDR10 standards. Windows 10 operating system support requires a graphics card and system version 1803 onwards. The HDR function is activated by the player or game within the Windows OS and the monitor will automatically switch to HDR display mode. Depending on the device support, the MacOS operating system can enable the [High Dynamic Range Contrast] option in the system display settings to detect whether HDR is supported.

\*

When the HDR function is turned on manually in the system settings, it is normal for the screen to appear different from what it does normally.
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When the HDR function is switched on to display high dynamic content, the monitor backlight will activate to its maximum operational state.
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The monitor will automatically switch back to the default setting after exiting the HDR content being played.
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