



G27-X SE Liquid Crystal Display

User Guide



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Enterprise management No.: GVT2021008

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Product features

G27X SE display adopts active matrix technology, thin film transistor (TFT), IPS liquid crystal display and KFS-LED backlight.

Display features include:

- (27-inch) viewable area (measured diagonally)
5120 x 2880 (16:9) resolution, 10-bit color depth Support full-screen display function with lower resolution
- Color gamut range 99% sRGB 98%DCI-P3
- Support sRGB color gamut reduction function
- Global brightness of 450nit
- Contrast ratio of 2000:1
- Digital connection of USB Type-C, HDMI and DisplayPort.
- With use of USB Type-C cable, power can be supplied to compatible notebook computers through USB-PowerDelivery protocol
(maximum 100W), video and data signals can be received simultaneously, and Thunderbolt 4/USB4 is compatible
- High-strength structural technology of glass of the whole machine
- Full-lamination-introduce screen of mirror glass
- Removable bracket and Video Electronics Standards Association (VESA™) 100 mounting hole
- Equipped with two USB Type-C downlink data expansion ports
- Support HDR function
- Software blue light resistance function
- ΔE -Delta-E <2
- E-Mode paper-like black and white gray-scale display mode

Specification and parameter

Device type and name

LED liquid crystal display

Dimension

27 inches

Aspect ratio

16:9

Panel type

IPS

Resolution

5120x2880

Pixel density

218PPI

Refresh rate

75Hz

Color depth support

10 bit

Color gamut

99%SRGB 98%DCI-P3

Brightness

Typical 450cd/m²

Contrast ratio

2000:1

Response time

GTG 10ms

Screen coating

Full-lamination-introduce of mirror glass

Operating voltage

AC 100-240V (50/60Hz)

Power consumption

Typical 35Wat Max140Wat

Other features

HDR function USB-HUB expansion

Process and material

Body

ABS plastic and glass back plate

Weight

5.3KG (excluding bracket, only the body)

Panel

Four-edge equal width full-lamination-introduce panel

Bracket type

Vesa100mm*100mm

Port connection

DP (maximum resolution 5120x2880 60Hz)

HDMI (maximum resolution 5120x2880 60Hz)

USB-C (maximum resolution 5120x2880 60Hz)

*Compatible with Thunderbolt™4/USB4

USB-PD 100W fast charging AltMode DP

2xUSB-C (USB2.0 data expansion ports)

*480Mbps Speed

3.5mm-jack (audio output port)

Accessories and cables

1xHDMI cable 1.5m

1xDisplayPort cable 1.5m

1xUSB-C USB4 cable 1m

(USB4 40Gbps 5A100W cable)

2xUSB-C OTG adapter

1* instruction manual

View



Front View



Side View



Rear View (Simplified Version)



Side (Simplified Version)

*Height * width * thickness = 355mm*610mm*2.2mm *Appearance data, measurement or production may be with tolerance

Resolution and specification

Model	G27X SE
Scope of horizontal scanning	88 kHz to 178 kHz (automatic)
Scope of vertical scanning	24 kHz to 60 kHz (automatic)
Maximum resolution	3840 x 2160 60Hz
Video modes supported by HDMI	480p, 480i, 576p, 576i, 720p, 1080i, 1080p, QHD, UHD 4K
Video modes supported by DP	480p, 480i, 576p, 576i, 720p, 1080i, 1080p, QHD, UHD
Video modes supported by USB-C	480p, 480i, 576p, 576i, 720p, 1080i, 1080p, QHD, UHD

Note: The resolution of 5120 x 2880 of this display needs to be supported by new GPU via Displayport1.3/1.4.

It is recommended to use DP or USB-C port to connect the display to be compatible with new Thunderbolt™ 3 (⚡) USB4 devices.

Windows operating system

G1-27 显示器 2: 已连接到 Intel(R) Iris(R) Plus Graphics	
桌面分辨率	5120 × 2880
有源信号分辨率	5120 × 2880
刷新频率(Hz)	59.678 Hz
位深度	8 位
颜色格式	RGB
颜色空间	标准动态范围(SDR)

MacOS operating system

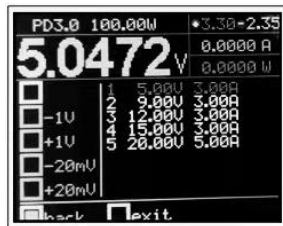
Intel Iris Plus Graphics:	
显示器:	
G1-27:	
分辨率:	5120 x 2880 (5K/UHD+ - 超高清增强版)
UI看起来类似:	2560 x 1440
帧缓冲深度:	30 位彩色 (ARGB2101010)
显示器序列号:	DX499046S
镜像:	关
联机:	是
旋转:	支持
自动调节亮度:	是
连接类型:	雷雳/DisplayPort

* Other operating systems require GPU driver from the GPU vendors to support HBR3 video mode output

Universal interface

USB-C uplink port x 1 	Maximum supported resolution 5120 x 2880 60Hz Speed 480mbps USB-PD
USB-C downlink port x 2 	USB downlink data expansion USB Speed 480mbps (5V 2.1A power supply capacity)
Displayport x 1  (Port function transfer)	Maximum supported resolution 5120 x 2880 60Hz HDR HBR3 32Gbps (HDCP2.3)
HDMI 2.1 x 1  (Port function transfer)	Maximum supported resolution 5120 x 2880 60Hz HDR (HDCP2.3)

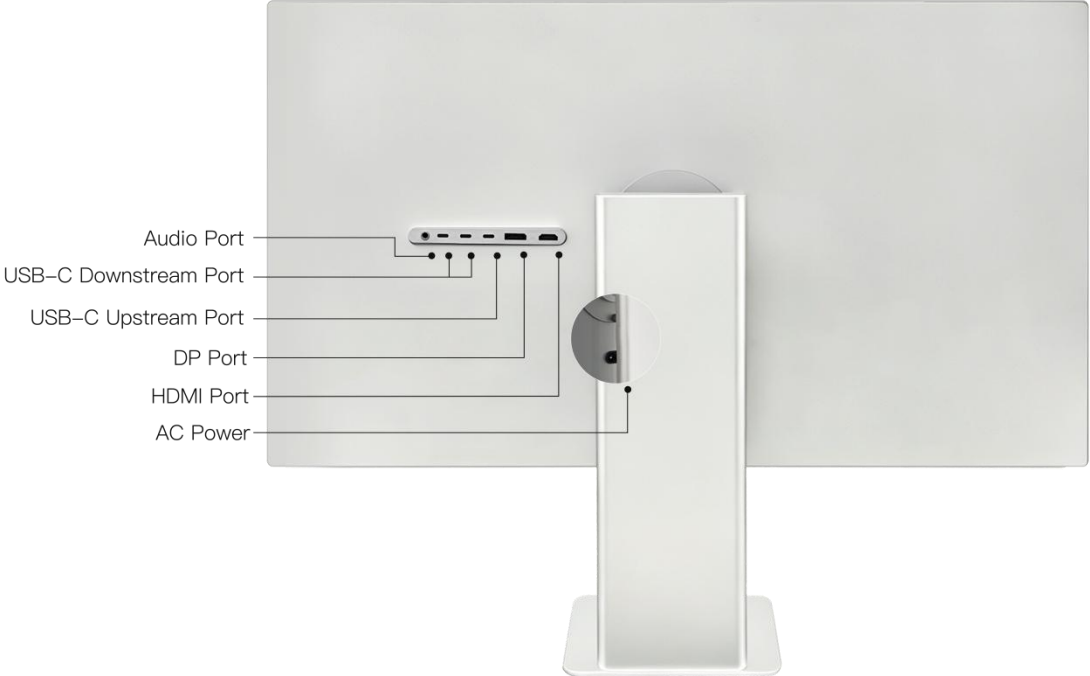
* Uplink USB-C port USB-PowerDelivery protocol



PDO output gear	5V-3A	9V-3A	12V-3A	15V-3A	20V-5A (with Emark 5A cable)
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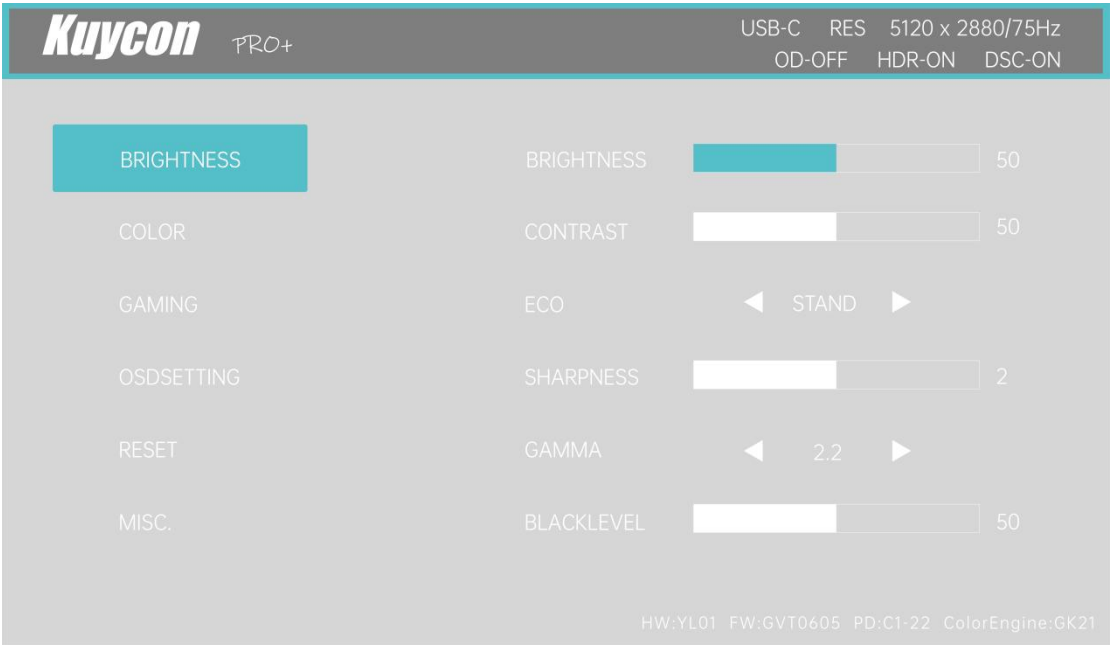
Display setting

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

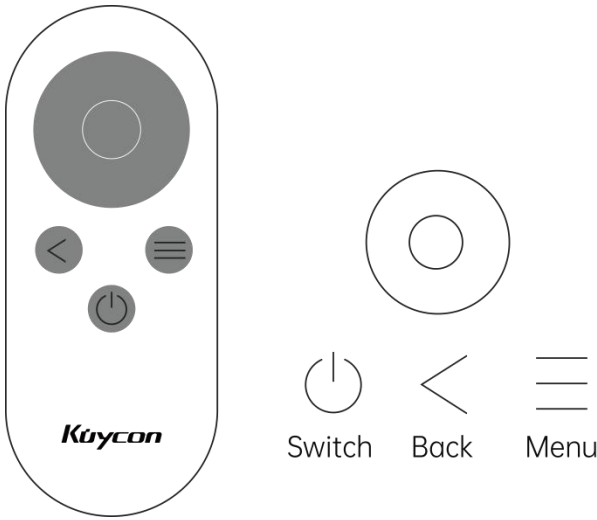


① AC power input	② HDMI	③ DP	④ USB-C uplink
⑤ USB-C downlink	⑥ USB-C downlink		/

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.

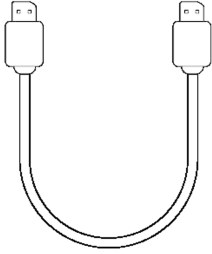
Installation Instructions

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

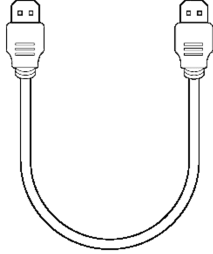


* When installing the stand, lay the panel face-down on a soft, cushioning material to avoid panel damage caused by pressure.

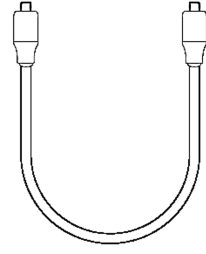
Accessories



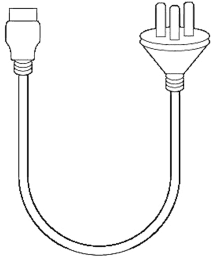
Displayport Cable 1.5m x 1



HDMI Cable 1.5m x 1



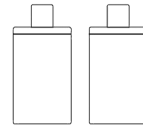
USB-C Cable 1m x 1



AC Power Cord 1.8m x 1



Paper Manual x 1



USB-C OTG Adapter x 2



Safety instructions

I. G27X SE display is equipped with a built-in power supply, and users shall pay attention to the good ground contact when connecting AC connecting cable to power supply socket.



II. The electronic power devices in G27X SE display are in contact type, passively dissipated by the body, and the body will be warm during use. In case of PD charging at full power, please pay attention to heat dissipation in surrounding area.



III. The front of the display is made of all-round glass material, please avoid cracking or breakage caused by hard objects bumping and bumping during use.



IV. Please avoid use of highly corrosive solution to clean the coating of display panel during daily maintenance and cleaning.



FAQs

Compatibility of hardware platform

The DP and USB-C interfaces of the display support 5K signal input in DP1.3/1.4 HBR3 mode with one cable, and the maximum resolution of HDMI2.0 only supports 4K. The hardware platform supports 5120x2880 resolution is as follows, and DP1.3/1.4 is required for receiving signals at the display end

Nvidia

Maxwell architecture series GPU	(6/7/9 series GPU needs the latest official DP firmware) Such as GTX750-980TI
Pascal architecture series GPU	GTX1050-1080TI
Turing architecture series GPU	GTX1650-RTX2080TI (direct TYPEC cable connection is available for GPU with USB-C VRlink)
Ampere architecture series GPU	RTX3050-4090

AMD

Polaris architecture series GPU	RX460-RX590
VEGA architecture series APU integrated graphics card and independent graphics card	VEGA8 VEGA56-VEGA Nano
RNDA/RNDA2 architecture series GPU	RedeonR7, RX5500-RX6900XT (direct TYPEC cable connection is available for RNDA2 GPU with USB-C)

Intel

UHD integrated graphics card of the 6-10 th generation mobile platform	UHD/Iris/Iris Pro (direct TYPEC cable connection is available in case of Thunderbolt 3)
Tiger Lake integrated graphics card of the 11 th generation mobile platform	Iris Xe (direct TYPEC cable connection is available in case of Thunderbolt 3)
Tiger Lake integrated graphics card of the 11 th generation desktop platform	Iris Xe (direct TYPEC cable connection is available in case of Thunderbolt 3)
UHD730/750/770 integrated graphics card of the 12th generation	4K60hz supported (direct TYPEC cable connection is available in case of Thunderbolt 3)

Mac

Apple MAC AMD independent graphics card series	For MPB, 2016 model supports Thunderbolt 3 one-cable direct connection for 4K [users of old MPB models must pay attention to connecting this display with miniDP cable]
Apple MAC Intel integrated graphics card series	Models after 2016 using Intel 6 core supports Thunderbolt 3 one-cable direction connection for 4k, such as 2016-2020 Macbook Macbook air
Apple MAC M1/M2 integrated graphics card series	Thunderbolt 3 one-cable connection for 4K is supported for the whole series
Apple iPad Pro series	Thunderbolt 3 one-cable connection for 4K is supported for the whole series
<u>Apple iMac series</u>	All series with independent graphics card after model 2015 supports

NUC

Intel nuc series host	NUC6- NUC13 and Hades Canyon support 4K
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Phone/Pad

Mobile phone or tablet computer	Nintendo SWITCH, Huawei MATE/P series, Smartisan series and Samsung S/NOTE series support same-screen or PC desktop mode
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Other

Other device	Sony PS4 pro PS5 and Microsoft XBOX support 4K@60HZ HDR with HDMI
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Full-function USB-TYPEC and Thunderbolt 3/4

The USB-C interface of the display transmits AltMode DP1.4 video protocol, combines USB data and supports PD reverse fast charging. Compatible, but without Thunderbolt 3/4 protocols When Thunderbolt 3/4 USB4 interface is connected, whether the display can support 5K resolution depends on the GPU port of the graphics card connected with the USB-C interface of the computer.

Users need to judge whether their computer USB-C interface supports, on one hand judge that whether the interface supports video output function, and on the other hand, to judge that whether the graphics card supports 5K resolution maximum.

When USB-C cable is connected to transmit 5K video signal, the actual working bandwidth reaches about 26Gbps, which requires the signal transmission quality of cable. It is required to use USB3.1 Gen2 / USB3.2 Gen2/USB4 40Gbps, and the materials and quality of wires and ports need to be qualified. Users shall pay attention to buying high-quality cables to avoid unnecessary troubles. If the power of 5A 100W is required for reverse power supply, users need to buy 5A cable with Emarker chip.

HDR function compatibility

The HDR function of G27X SE display is in automatic state by default, and can be turned off optionally. The HDMI interface is compatible with the HDMI2.0 Vesa HDR10 standard specification. The interface between DP and USB-C supports HDR function, is compatible with Vesa HDR10 standard specification, is supported by Windows10 operating system, and needs the support of display card and system version number after 1803. When the HDR function is enabled by a player or a game in the Windows operating system, the display will automatically switch to HDR display mode. During switch of display mode, the display will be black for 1s-2s, it is normal. In accordance with device support, MacOS operating system can turn on the [High Dynamic Range Contrast] option in the system display settings to detect that whether the HDR function is supported. Some Apple Mac series devices may fail to enable the HDR function.

*

When the HDR function is enabled manually in the system display settings, the picture will be different from the normal picture, it is normal.
When HDR function is enabled to display high dynamic picture content, the display backlight will be activated to the maximum working state.
After the played HDR video image or HDR game content is exited, the display will automatically switch to the default setting state.

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October 27, 2023 by Ehen