

# MAG Series OLED Monitor

MAG 321UP QD-OLED (3DD3)

User Guide

# Contents

Getting Started	3
Package Contents	. 3
Installing the Monitor Stand	. 4
Adjusting the Monitor	. 5
Monitor Overview	. 6
Connecting the Monitor to PC	. 8
OSD Setup	10
Navi Key	10
Hot Key	10
OSD Menus	11
G.I	12
Gaming	13
Professional	14
Image	15
Input Source	15
PIP/PBP	16
Navi Key	17
Settings	17
MSI OLED Care	19
Specifications	21
Preset Display Modes	23
Troubleshooting	25
Safety Instructions	26
TÜV Rheinland Certification	28
Regulatory Notices	29

#### Revision

V1.2, 2025/02

# **Getting Started**

This chapter provides you with the information on hardware setup procedures. While connecting devices, be careful in holding the devices and use a grounded wrist strap to avoid static electricity.

## **Package Contents**

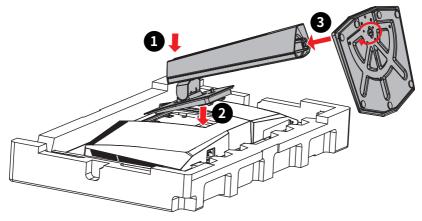
Monitor	MAG 321UP QD-OLED	
Documentation	Quick Start Guide	
Accessories	Stand	
	Stand Base with Screw(s)	
	Screw(s) for Wall Mount Bracket(s)	
	Power Cord	
Cables	DisplayPort Cable (Optional)	
	Ultra High Speed HDMI™ Cable (Optional)	

## 🛆 Important

- Contact your place of purchase or local distributor if any of the items is damaged or missing.
- Package contents may vary by country and model.
- The included power cord is exclusively for this monitor and should not be used with other products.

## **Installing the Monitor Stand**

- 1. Leave the monitor in its protective packaging. Align the stand to the monitor groove.
- 2. Push the stand towards the monitor groove until it locks in place.
- 3. Connect the base to the stand and tighten the base screws to secure the base.
- 4. Make sure the stand assembly is properly installed before setting the monitor upright.



# 🕼 Important

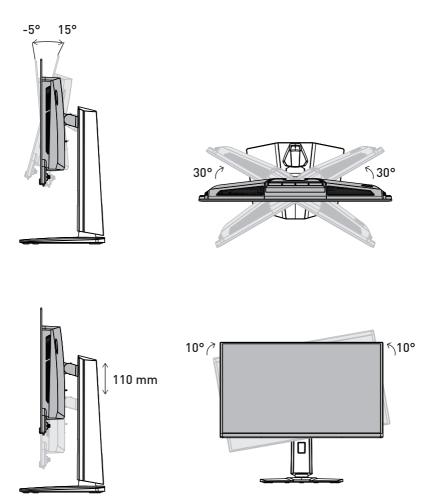
- Place the monitor on a soft, protected surface to avoid scratching the display panel.
- Do not use any sharp objects on the panel.
- The groove for installing the stand bracket can also be used for wall mount. Please contact your dealer for proper wall mount kit.

## Adjusting the Monitor

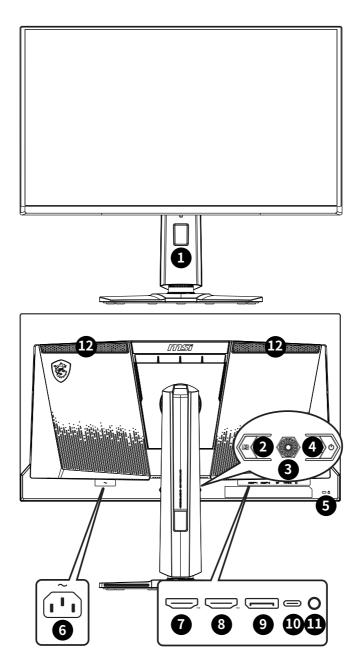
This monitor is designed to maximize your viewing comfort with its adjustment capabilities.

# Important

- Avoid touching the display panel when adjusting the monitor.
- Please slightly tilt the monitor backwards before pivoting it.



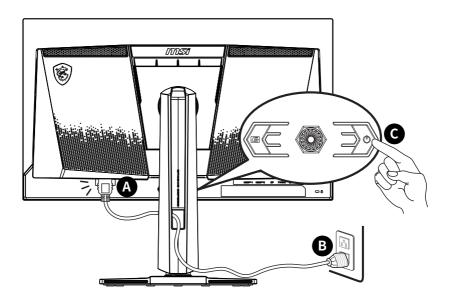
### **Monitor Overview**



1	Cable Routing Hole
2	Macro Key To activate OSD Application.
3	Navi Key
4	Power Button
5	Kensington Lock
6	Power Jack
1	HDMI <sup>™</sup> Connector HDMI <sup>™</sup> Supports HDMI <sup>™</sup> CEC, 3840x2160@165Hz as specified in HDMI <sup>™</sup> 2.1.
	Comportant To ensure optimal performance and compatibility, please use only HDMI <sup>™</sup> cables certified with the official HDMI <sup>™</sup> logo when connecting this monitor. For more information, please visit <u>https://www.hdmi.org/resource/cables</u> .
8	HDMI <sup>™</sup> Connector HEBOTOTION NIGHOFFINITION MULTIMETAMETERATE Supports 3840x2160@165Hz as specified in HDMI <sup>™</sup> 2.1.
	Important To ensure optimal performance and compatibility, please use only HDMI <sup>™</sup> cables certified with the official HDMI <sup>™</sup> logo when connecting this monitor. For more information, please visit <u>https://www.hdmi.org/resource/cables</u> .
9	DisplayPort
	Supports 3840x2160@165Hz as specified in DisplayPort 1.4. USB Type-C Port
10	This port supports DisplayPort Alternate (DP Alt) Mode and up to 5V/3A (15W) power delivery.
	Important
	Your USB-C signal source and cable must support DisplayPort Alternate Mode to enable video output to the monitor.
	Headphone Jack
D	Ventilator
	The ventilator on the enclosure is used for air convection and to prevent the equipment from overheating. Do not cover the ventilator. Please remove the protective film.

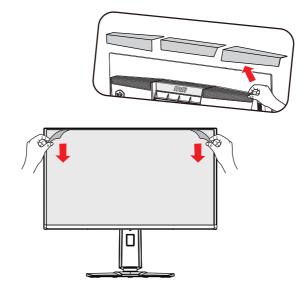
## **Connecting the Monitor to PC**

- 1. Turn off your computer.
- 2. Connect the video cable from the monitor to your computer.
- 3. Connect the power cord to the monitor power jack. (Figure A)
- 4. Plug the power cord into the electrical outlet. (Figure B)
- 5. Turn on the monitor. (Figure C)
- 6. Power on the computer and the monitor will auto detect the signal source.





Please remove the protective films from the display panel and ventilation ports before use to optimize performance and prevent overheating.



# **OSD Setup**

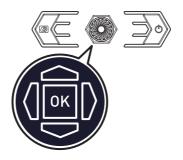
This chapter provides you with essential information on OSD Setup.

## Important

All information is subject to change without prior notice.

## Navi Key

The monitor comes with a Navi Key, a multi-directional control that helps navigate the On-Screen Display (OSD) menu.



#### Up/Down/Left/Right:

- selecting function menus and items
- adjusting function values
- entering into/exiting from function menus

#### Press (OK):

- launching the On-Screen Display (OSD)
- entering submenus
- confirming a selection or setting

## Hot Key

- Users may enter into preset function menus by moving the Navi Key up, down, left or right when the OSD menu is inactive.
- Users may customize their own Hot Keys to enter into different function menus.

## **OSD** Menus

msi 🥂	3840x2160 Pro Mode 60 Hz Eco	HDR Adaptive-Sync OFF OFF	HDMI 1
MAG 321U QD-OLED			
G.I.	Smart Crosshair	✓ lcon	
😥 Gaming	Optix Scope	Color	
☆ Professional		Position	Exit
🔛 Image		Reset	
→ Input Source			Move
РІР/РВР			
ගිට් Navi Key			
$\bigtriangledown$			Enter FW 1.0

## 🕼 Important

The following settings will be grayed out when HDR signals are received:

- Night Vision
- Al Vision
- Low Blue Light
- Brightness

- Contrast
- Color Temperature
- Optix Scope
- PIP/PBP

## G.I.

1st Level Menu	2nd/3rd Level Menu		Description			
Smart Crosshair	Icon	None           [+]           -¦-           !! ↑!	<ul> <li>Through AI algorithm the visibility of in-gan</li> <li>Users can select the c crosshair.</li> </ul>			
	Color	White Red				
	Position Reset	Auto				
Optix Scope	Scope Size	Small Medium Large	Scope is enabled, user can adjust the de		_	er can adjust the details ize" and "Scope Ratio"
	Scope Ratio	x1.5 x2				
		x3	Affected Function	Function Status		
	OFF ON		<ul> <li>» Adaptive-Sync</li> <li>» PIP/PBP</li> </ul>	Set to OFF		
			» Screen Size 1:1	Set to Auto		

## Gaming

1st Level Menu	2nd/3rd Level Menu		Description	
Game Mode	Premium Color		<ul> <li>Use Up or Down Button to select and preview mode effects.</li> <li>Press the OK Button to confirm and apply your</li> </ul>	
	User			
	FPS		mode type.	comminand apply your
	Racing			
	RTS			
	RPG			
Night Vision	OFF			es background brightness
	Normal		and is recommended	for FPS games.
	Strong			
	Strongest			
	A.I.			
Al Vision	OFF			age quality by optimizing
	ON		the contrast of images brightness.	and background
			Activating AI Vision will affect:	
			Affected Function	Function Status
			» Night Vision	Unable to select
Refresh Rate	Location	Left Top	System's preset Screen Refresh Rate.	
		Right Top		
		Left Bottom		
		Right Bottom		
		Customize		
	OFF			
	ON			
Alarm Clock	Location	Left Top	• After setting the time,	press the OK Button to
		Right Top	<ul><li>activate the timer.</li><li>Users have to manual</li></ul>	ly restore their preset
		Left Bottom	Alarm Clock after any	
		Right Bottom	reconnection.	
	Customize			
	OFF			
	15:00	00:01 ~ 99:59		
	30:00			
	45:00			
	60:00			

1st Level Menu	2nd/3rd Level Menu	Description
Adaptive-Sync	OFF ON	Adaptive-Sync prevents screen tearing.     Activating Adaptive-Sync will affect:     Affected Function Function Status     Screen Size 1:1 Set to Auto     PIP/PBP
	OFF	» Optix Scope     Set to OFF
DSC	OFF ON	<ul> <li>Users can toggle DSC (Display Stream Compression) on/off.</li> <li>For more DSC timing information, please check Preset Display Modes for DSC On/Off timing tables.</li> <li>Activating DSC will affect:</li> </ul>
		Affected Function Function Status
		» PIP/PBP » Screen Size 16:10 Unable to select

## Professional

1st Level Menu	2nd Level Menu	Description	
Pro Mode	Eco	• Use Up or Down Button to select and preview mode	
	User	effects.	confirm and apply your mode
	Anti-Blue	type.	communa apply your mode
	Movie		co" mode meets the requirements ow Blue Light" standard.
	Office		e RGB, and Display P3 will affect:
	sRGB	Affected Function	Function Status
	Adobe RGB	» Color Temperature	
	Display P3	» Low Blue Light Unable to select » Contrast	Unable to select
Low Blue Light	OFF	Low Blue Light protects your eyes against blue light When enabled, Low Blue Light adjusts the screen	
	ON	temperature to a more	
		When Pro Mode is set to Anti-Blue, it is mandatory enable Low Blue Light.	
			Blue Light monitor which will t emitted without adjusting the
Image Enhancement	OFF		enhances image edges to improve
	Weak	their acutance.	
	Medium		
	Strong	]	
	Strongest		

## Image

1st Level Menu	2nd/3rd Level Menu		Description	
Brightness	0-100		<ul> <li>Properly adjust Brightness according to the surrounding lighting.</li> </ul>	
Contrast	0-100		Properly adjust Contr	rast to relax your eyes.
Sharpness	0-5		Sharpness improves images.	clarity and details of
Color Temperature	Cool			on to select and preview
	Normal		mode effects.	to confirm and apply your
	Warm		mode type.	to commin and apply your
	Customization	R (0-100)	Users can adjust Colc Customization mode	
		G (0-100)	- customization mode.	
		B (0-100)		
Screen Size	Auto		Users can adjust Screen Size in any mode, any resolution and any screen refresh rate.     Activating Screen Size 1:1 will affect:	
	4:3			
	16:9		Affected Function	Function Status
	16:10		» Adaptive-Sync	Function Status
	1:1 24.5"		» Optix Scope	Set to OFF
			» PIP/PBP	
	27"			
DisplayHDR	True Black 400 Peak 1000 nits		Users can set the DisplayHDR to True Black 400 or Peak 1000 nits.	

## **Input Source**

1st Level Menu	2nd Level Menu	Description
HDMI™ 1		Users can adjust Input Source in any mode.
HDMI™ 2		
DP		
Туре С		
Auto Scan	OFF	Users can use the Navi Key to select Input Source at
	ON	<ul><li>below status:</li><li>While "Auto Scan" is set to "OFF" with the monitor at power saving mode;</li></ul>
		<ul> <li>While "No Signal" message box is shown on the monitor.</li> </ul>

### PIP/PBP

1st Level Menu	2nd/3rd Level Menu		Description	
OFF			• PIP (Picture in Picture) allows users to	
PIP	Source	HDMI™ 1	simultaneously display multiple video sources on one screen. One program is displayed on	
		HDMI™ 2	the full screen at the sa	me time as one or more played in inset windows.
		DP	PBP (Picture by Picture	
		Туре С	displays two input sour screen.	ces side-by-side on the
	PIP Size	Small	• Display Switch allows u	
		Medium	primary and secondary	•
		Large	<ul> <li>If there is only one sign Switch and Audio Switch</li> </ul>	
	Location	Left Top	<ul> <li>Users can adjust the rat switching mode 1/2.</li> </ul>	tio of window division by
		Right Top	<ul> <li>Activating PIP/PBP will</li> </ul>	affect:
		Left Bottom	Affected Function	Function Status
		Right Bottom	» Adaptive-Sync	Set to OFF
		Customize	» Optix Scope	
	Display Swit	ch	]   » HDMI™CEC	Set to OFF & unable to select
	Audio Switch	ı	» DisplayHDR	Unable to select
PBP	Mode 1		» DSC	Unable to select
	Mode 2		Activating PIP will affect	t:
	Customize		Affected Function	Function Status
	Source 1	HDMI™ 1	» Screen Size 24.5"/	Set to Auto
		HDMI™ 2	27"	
		DP	» Screen Size 1:1/ 16:10	Set to Auto & unable to select
		Туре С		
	Source 2	HDMI™ 1	Activating PBP will affe	
		HDMI <sup>™</sup> 2	- » Screen Size 1:1/ Set to Auto	Function Status
		DP		unable to select
		Туре С		
	Display Switch			
	Audio Switch	1		

## Navi Key

1st Level Menu	2nd Level Menu	Description
Up	OFF	• All Navi Key items can be adjusted via OSD Menus.
Down	Brightness	
Left Right	Game Mode	
G Key	Smart Crosshair	
	Alarm Clock	
	Input Source	
	PIP/PBP Mode	
	Refresh Rate	
	Info. On Screen	
	Night Vision	
	Optix Scope	

## Settings

1st Level Menu	2nd Level Menu	Description
Language	繁體中文	• Users have to press the OK Button to confirm
	English	<ul><li>and apply the Language setting.</li><li>Language is an independent setting. Users'</li></ul>
	Français	own language setting will override the factory
	Deutsch	default. When users set Reset to Yes, Language will not be changed.
	Italiano	
	Español	
	한국어	
	日本語	
	Русский	
	Português	
	简体中文	
	Bahasa Indonesia	
	Türkçe	
	(More languages coming soon)	
Transparency	0~5	• Users can adjust Transparency in any mode.
OSD Time Out	5~30s	• Users can adjust OSD Time Out in any mode.
Power Button	OFF	• When set to OFF, users can press the power button to turn off the monitor.
	Standby	• When set to Standby, users can press the power button to turn off the panel and backlight.

1st Level Menu	2nd Level Menu	Description
Info. On Screen	OFF	• The information of the monitor status will be
	ON	shown on the right side of the screen.
HDMI <sup>™</sup> CEC	OFF	HDMI <sup>™</sup> CEC (Consumer Electronics Control)
	ON	supports Sony PlayStation®, Nintendo® Switch™, Xbox Series X S consoles and various audio-visual devices that are CEC-capable.
		<ul> <li>If HDMI<sup>™</sup> CEC is set to ON:</li> </ul>
		<ul> <li>The monitor will automatically power on when the CEC device is turned on.</li> </ul>
		• The CEC device will enter power saving mode when the monitor is turned off.
		<ul> <li>When Sony PlayStation<sup>®</sup>, Nintendo<sup>®</sup> Switch<sup>™</sup>, or Xbox Series X S console is connected, Game Mode and Pro Mode will be automatically set to default modes and can be adjusted to users' preferred modes later.</li> </ul>
Type C PD Charge	OFF	• This function enables users to charge their
	ON	<ul><li>devices through a USB Type-C connector.</li><li>Type C PD Charge enables users to charge their</li></ul>
		devices through a USB Type-C connector, which can deliver up to 15W (5V/3A).
Power LED	OFF	• Users can toggle the Power LED on/off.
	ON	• During the Panel Protect process, the power LED indicator will blink orange until the process is complete.
Reset	YES	Users can Reset and restore settings to original
	NO	OSD Default in any mode.

## **MSI OLED Care**

1st Level Menu	2nd/3rd Level M	enu	Description	
Pixel Shift	Slow		• Pixel Shift moves the pixels of your screen at	
	Normal		regular intervals to reduce the possibility of screen burn-in or image retention.	
	Fast			
Panel Protect			<ul> <li>To maintain panel image quality, panel protect function will automatically activate when monitor using over 4 hours.</li> </ul>	
			• This protect function may take several minutes to complete.	
			• The power indicator will blink orange color until process done.	
			• During process executing, please do not unplug the power cord from monitor.	
			• During process executing, press power button again to cancel this function.	
Protect Notice	ect Notice Auto Usage 16 hrs		<ul> <li>When set to Auto, Protect Notice will pop up when the panel exceeds 4 hours of cumulative usage.</li> </ul>	
			• When set to Usage 16 hrs, Protect Notice will pop up when the panel exceeds 16 hours of cumulative usage.	
			• When Panel Protect is interrupted, Protect Notice will pop up upon next power-up.	
Static Screen	OFF		If Static Screen Detection is set to ON:	
Detection	ON		<ul> <li>When detecting static visuals over long periods of time, the monitor reduces brightness to prevent screen burn-in.</li> </ul>	
			<ul> <li>Once detecting moving visuals, the monitor restores its previous brightness setting.</li> </ul>	
	Starting in	50 Sec	• Starting in detects the time a static image	
		100 Sec	remains on the screen.	
	Time required	120 Sec	• Time required specifies the time for brightness	
		240 Sec	reduction after detecting a static image for 50/100 seconds.	
			• The brightness reduction level depends on the setting of Reducing Level.	
	Reducing Level	1-7	• Users can select a level for brightness reduction.	
			<ul> <li>Reducing effect depends on Brightness/ DisplayHDR setting.</li> </ul>	
Multi Logo Detection	OFF		• This function helps prevent image sticking phenomenon. When set to ON, brightness	
	ON		reduction of multi logo areas will kick in if logos are detected.	
	Reducing Level	1-2	• Users can select a level for brightness reduction.	
			<ul> <li>Reducing effect depends on Brightness/ DisplayHDR setting.</li> </ul>	

1st Level Menu	2nd/3rd Level Me	enu	Description		
Taskbar Detection	OFF		This function helps prevent image sticking     phanameters     When setts ON bricktness		
	ON		phenomenon. When set to ON, brightness reduction of taskbar areas will kick in if taskbars are detected.		
	Reducing Level	1-3	• Users can select a level for brightness reduction.		
			<ul> <li>Reducing effect depends on Brightness/ DisplayHDR setting.</li> </ul>		
Boundary Detection	OFF		<ul> <li>This function helps prevent image sticking phenomenon. When set to ON, brightness</li> </ul>		
	ON		reduction of boundary areas will kick in if boundaries, such as letters, pillars and vertical lines, are detected.		
	Reducing Level	1-3	• Users can select a level for brightness reduction.		
			<ul> <li>Reducing effect depends on Brightness/ DisplayHDR setting.</li> </ul>		
OLED Panel Info.			<ul> <li>This field shows the information of MSI OLED Care.</li> </ul>		

# **Specifications**

Monitor	MAG 321UP QD-OLED
Size	31.5 inch
Curvature	Flat
Panel Type	QD-OLED
Resolution	3840x2160 (UHD)
Aspect Ratio	16:9
Brightness	• Typical SDR: 250 nits
	• Peak HDR: 1000 nits
Contrast Ratio	1500000:1
Refresh Rate	165Hz
Response Time	0.03ms (GTG)
I/O	• 2 x HDMI <sup>™</sup> Connector
	• 1 x DisplayPort
	• 1 x USB Type-C Port
	• 1 x Headphone Jack
View Angles	178°(H), 178°(V)
DCI-P3*/ sRGB	99%/ 138.2%
Surface Treatment	Anti-Reflection
Display Colors	1.07B (10 bits)
Monitor Power Options	100~240Vac, 50/60Hz, 2.7A
Power Consumption	Power On < 210W
(Typical)	Standby < 0.5W
	Power Off < 0.3W
Adjustment (Height)	0~110mm
Adjustment (Tilt)	-5° ~ 15°
Adjustment (Swivel)	-30° ~ 30°
Adjustment (Pivot)	-10° ~ 10°
Kensington Lock	Yes

Monitor		MAG 321UP QD-OLED		
VESA Mounting		• Plate Type: 100 x 100 mm		
		• Screw Type: M4 x 10 mm		
		• Thread Diameter: 4 mm		
		• Thread Pitch: 0.7 mm		
		Thread Length: 10 mm		
Dimension (W x	H x D)	717 x 477 x 242 mm		
Weight	Net	9.1 kg		
	Gross	11.8 kg		
Environment	Operating	• Temperature: 0°C to 40°C		
		• Humidity: 20% to 90%, non-condensing		
		• Altitude: 0 ~ 5000m		
Storage		• Temperature: -20°C to 60°C		
		• Humidity: 10% to 90%, non-condensing		

\* Based on CIE1976 test standards.

# **Preset Display Modes**

## Important

- All information is subject to change without prior notice.
- HDMI<sup>™</sup> VRR (Variable Refresh Rate) synchronizes with Adaptive-Sync (ON/ OFF). For VRR ON/OFF status, please check Adaptive-Sync.

#### Standard Default Mode (DSC On)

Standard	Resolution		HDMI™	DP	USB-C
QHD	2560x1440	@60Hz	V	V	V
		@120Hz	V	V	V
UHD	3840x2160	@60Hz	V	V	V
		@120Hz		V	V
		@165Hz	V	V	V
Video Timing Resolution	720P		V	V	V
	1080P	@60Hz	V	V	V
		@120Hz	V	V	V
	2160P	@30Hz	V		
		@60Hz	V		
		@120Hz	V		
HDMI <sup>™</sup> VRR			V		

#### Standard Mode (DSC Off)

Standard	Resolution		HDMI™	DP	USB-C
Full HD	1920x1080	@60Hz	V	V	V
QHD	2560x1440	@60Hz	V	V	V
		@120Hz	V	V	V
UHD	3840x2160	@60Hz	V	V	V
		@120Hz		V	V
Video Timing Resolution	720P		V	V	V
	1080P	@60Hz	V	V	V
		@120Hz	V	V	V
	2160P	@30Hz	V		
		@60Hz	V		
		@120Hz	V		$\square$
HDMI <sup>™</sup> VRR			V		$\square$

#### PIP Mode (Not Support HDR)

Standard	Resolution		HDMI™	DP	USB-C
QHD	2560x1440	@60Hz	V	V	V
		@120Hz	V	V	V
UHD	3840x2160	@60Hz	V	V	V
		@120Hz	V	V	V
Video Timing Resolution	720P		V	V	V
	1080P	@60Hz	V	V	V
		@120Hz	V	V	V
	2160P	@30Hz	V	V	
		@50Hz	V	V	
		@60Hz	V	V	
		@120Hz	V	V	V

#### PBP Mode 1 (Not Support HDR)

Standard	Resolution		HDMI™	DP	USB-C
Video Timing Resolution	720P		V	V	V
Used for PBP Full Screen	2880x2160	@60Hz	V	V	V
	960x2160	@60Hz	V	V	V

#### PBP Mode 2/Customize (Not Support HDR)

Standard	Resolution		HDMI™	DP	USB-C
Video Timing Resolution	720P		V	V	V
Used for PBP Full Screen	1920x2160	@60Hz	V	V	V

#### Screen Size 16:10 (Not Support HDR)

Standard	Resolution		HDMI™	DP	USB-C
QHD+	2560x1600 @60Hz		V	V	V
		@120Hz	V	V	V

# Troubleshooting

#### The power LED is off.

- Press the monitor power button again.
- Check if the monitor power cable is properly connected.

#### No image.

- Check if the computer graphics card is properly installed.
- Check if the computer and monitor are connected to electrical outlets and are turned on.
- Check if the monitor signal cable is properly connected.
- The computer may be in Standby mode. Press any key to activate the monitor.

#### The screen image is not properly sized or centered.

• Refer to Preset Display Modes to set the computer to a setting suitable for the monitor to display.

#### No Plug & Play.

- Check if the monitor power cable is properly connected.
- Check if the monitor signal cable is properly connected.
- Check if the computer and graphics card are Plug & Play compatible.

# The icons, font or screen are fuzzy, blurry or have color problems.

- Avoid using any video extension cables.
- Adjust brightness and contrast.
- Adjust RGB color or tune color temperature.
- Check if the monitor signal cable is properly connected.
- Check for bent pins on the signal cable connector.

#### The monitor starts flickering or shows waves.

- Change the refresh rate to match the capabilities of your monitor.
- Update your graphics card drivers.
- Keep the monitor away from electrical devices that may cause electromagnetic interference (EMI).

# **Safety Instructions**

- Read the safety instructions carefully and thoroughly.
- All cautions and warnings on the device or User Guide should be noted.
- Refer servicing to qualified personnel only.

## Power

- Make sure that the power voltage is within its safety range and has been adjusted properly to the value of 100~240V before connecting the device to the power outlet.
- If the power cord comes with a 3-pin plug, do not disable the protective earth pin from the plug. The device must be connected to an earthed mains socket-outlet.
- Please confirm the power distribution system in the installation site shall provide the circuit breaker rated 120/240V, 20A (maximum).
- Always disconnect the power cord or switch the wall socket off if the device would be left unused for a certain time to achieve zero energy consumption.
- Place the power cord in a way that people are unlikely to step on it. Do not place anything on the power cord.
- If this device comes with an adapter, use only the MSI provided AC adapter approved for use with this device.

## Environment

- To reduce the possibility of heat-related injuries or of overheating the device, do not place the device on a soft, unsteady surface or obstruct its air ventilators.
- Use this device only on a hard, flat and steady surface.
- To prevent the device from tipping over, secure the device to a desk, wall or fixed object with an anti-tip fastener that helps to properly support the device and keep it safe in place.
- To prevent fire or shock hazard, keep this device away from humidity and high temperature.
- Do not leave the device in an unconditioned environment with a storage temperature above 60°C or below -20°C, which may damage the device.
- The maximum operating temperature is around 40°C.
- When cleaning the device, be sure to remove the power plug. Use a piece of soft cloth rather than industrial chemical to clean the device. Never pour any liquid into the opening; that could damage the device or cause electric shock.
- Always keep strong magnetic or electrical objects away from the device.

- If any of the following situations arises, get the device checked by service personnel:
  - The power cord or plug is damaged.
  - Liquid has penetrated into the device.
  - The device has been exposed to moisture.
  - The device does not work well or you can not get it working according to the User Guide.
  - The device has dropped and damaged.
  - The device has obvious sign of breakage.

# **TÜV Rheinland Certification**

## **TÜV Rheinland Low Blue Light Certification**

Blue light has been shown to cause eye fatigue and discomfort. MSI now offers monitors with TÜV Rheinland Low Blue Light certification to ensure users' eye comfort and well-being. Please follow the instructions below to reduce the symptoms from extended exposure to the screen and blue light.

- Place the screen 20 28 inches (50 70 cm) away from your eyes and a little below eye level.
- Consciously blinking the eyes every now and then will help to reduce eye strain after extended screen time.
- Take breaks for 20 minutes every 2 hours.
- Look away from the screen and gaze at a distant object for at least 20 seconds during breaks.
- Make stretches to relieve body fatigue or pain during breaks.

## TÜV Rheinland Flicker Free Certification

- TÜV Rheinland has tested this product to ascertain whether the display produces visible and invisible flicker for the human eye and therefore strains the eyes of users.
- TÜV Rheinland has defined a catalogue of tests, which sets out minimum standards at various frequency ranges. The test catalogue is based on internationally applicable standards or standards common within the industry and exceeds these requirements.
- The product has been tested in the laboratory according to these criteria.
- The keyword "Flicker Free" confirms that the device has no visible and invisible flicker defined in this standard within the range of 0 3000 Hz under various brightness settings.
- The display will not support Flicker Free when Anti Motion Blur/MPRT is enabled. (The availability of Anti Motion Blur/MPRT varies by products.)



Low Blue Light (Hardware Solution)

www.tuv.com



# **Regulatory Notices**

## **CE Conformity**

This device complies with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility (2014/30/EU), Low-voltage Directive (2014/35/EU), EPP Directive (2009/125/EC) and ROHS

directive (2011/65/EU). This product has been tested and found to comply with the harmonized standards for Information Technology Equipment published under Directives of Official Journal of the European Union.

## FCC-B Radio Frequency Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency



**E** 

energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the measures listed below:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

#### Notice 1

The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### Notice 2

Shielded interface cables and AC power cord, if any, must be used in order to comply with the emission limits.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1. This device may not cause harmful interference, and
- 2. This device must accept any interference received, including interference that may cause undesired operation.

#### MSI Computer Corp.

901 Canada Court, City of Industry, CA 91748, USA (626) 913-0828 www.msi.com

## WEEE Statement

Under the European Union ("EU") Directive on Waste Electrical and Electronic Equipment, Directive 2012/19/EU, products of "electrical and electronic equipment" cannot be discarded as municipal waste anymore and manufacturers of covered electronic equipment will be obligated to take back such products at the end of their useful life.



## **Chemical Substances Information**

In compliance with chemical substances regulations, such as the EU REACH Regulation (Regulation EC No. 1907/2006 of the European Parliament and the Council), MSI provides the information of chemical substances in products at: https://csr.msi.com/global/index

## **RoHS Statement**

#### Japan JIS C 0950 Material Declaration

A Japanese regulatory requirement, defined by specification JIS C 0950, mandates that manufacturers provide material declarations for certain categories of electronic products offered for sale after July 1, 2006. https://csr.msi.com/global/Japan-JIS-C-0950-Material-Declarations

#### India RoHS

This product complies with the "India E-waste (Management and Handling) Rule 2016" and prohibits use of lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers in concentrations exceeding 0.1 weight % and 0.01 weight % for cadmium, except for the exemptions set in Schedule 2 of the Rule.

#### **Turkey EEE Regulation**

Conforms to the EEE Regulations of the Republic Of Turkey

#### **Ukraine Restriction of Hazardous Substances**

The equipment complies with requirements of the Technical Regulation, approved by the Resolution of Cabinet of Ministry of Ukraine as of 10 March 2017, № 139, in terms of restrictions for the use of certain dangerous substances in electrical and electronic equipment.

#### Vietnam RoHS

As from December 1, 2012, all products manufactured by MSI comply with Circular 30/2011/TT-BCT temporarily regulating the permitted limits for a number of hazardous substances in electronic and electric products.

## Green Product Features

- Reduced energy consumption during use and stand-by
- Limited use of substances harmful to the environment and health
- Easily dismantled and recycled
- Reduced use of natural resources by encouraging recycling
- Extended product lifetime through easy upgrades
- Reduced solid waste production through take-back policy

## **Environmental Policy**

- The product has been designed to enable proper reuse of parts and recycling and should not be thrown away at its end of life.
- Users should contact the local authorized point of collection for recycling and disposing of their end-of-life products.
- Visit the MSI website and locate a nearby distributor for further recycling information.
- Users may also reach us at gpcontdev@msi.com for information regarding proper disposal, take-back, recycling, and disassembly of MSI products.
- Please visit <<u>https://us.msi.com/page/recycling</u>> for information regarding the recycling of your product in the US.

## Warning!

Overuse of screens is likely to affect eyesight.

#### **Recommendations:**

- 1. Take a 10-minute break for every 30 minutes of screen time.
- 2. Children under 2 years of age should have no screen time. For children aged 2 years and over, screen time should be limited to less than one hour per day.

## **Copyright and Trademarks Notice**

**MSi** MSI 微星 Copyright © Micro-Star Int' I Co., Ltd. All rights reserved. The MSI logo used is a registered trademark of Micro-Star Int' I Co., Ltd. All other marks and names mentioned may be trademarks of their respective owners. No warranty as to accuracy or completeness is expressed or implied. MSI reserves the right to make changes to this document without prior notice.

# **1□m**I™

The terms HDMI<sup>™</sup>, HDMI<sup>™</sup> High-Definition Multimedia Interface, HDMI<sup>™</sup> Trade dress and the HDMI<sup>™</sup> Logos are trademarks or registered trademarks of HDMI<sup>™</sup> Licensing Administrator, Inc.

## **Technical Support**

If a problem arises with your product and no solution can be obtained from the user's manual, please contact your place of purchase or local distributor. Alternatively, please visit https://www.msi.com/support/ for further guidance.



