



MAG Series

LCD Monitor

MAG 321UPD E14 (3DE4)

User Guide

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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 321UPD E14
Documentation	Quick Start Guide
Accessories	Stand with Screw(s)
	Stand Base with Screw(s)
	Power Cord
Cable	DisplayPort Cable

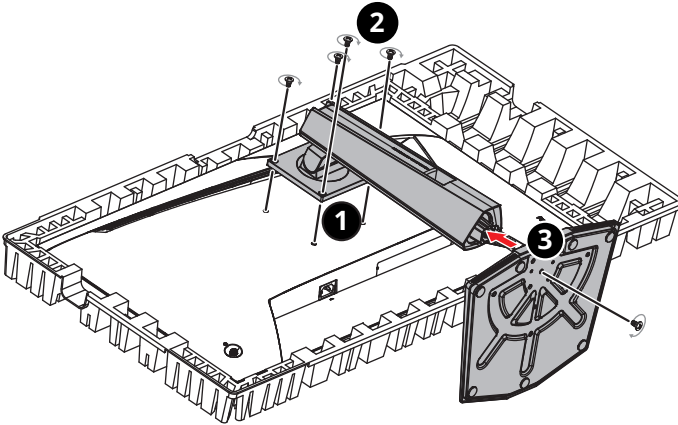


Important

- 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.

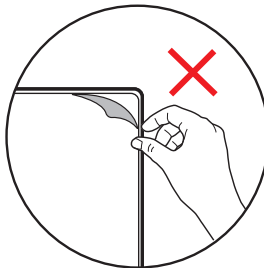
Installing the Monitor Stand

1. Leave the monitor in its protective packaging. Position the stand bracket on the monitor, ensuring the screw holes are aligned.
2. Tighten the stand bracket with screws.
3. Connect the base to the stand and tighten the base screw 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.
- This product comes with NO protective film to be removed by the user! Any mechanical damages to the product including removal of the polarizing film may affect the warranty!

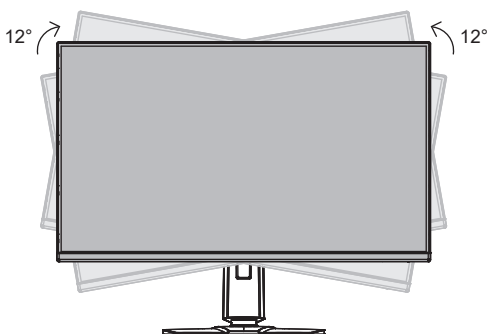
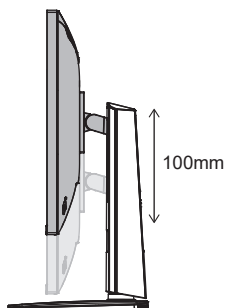
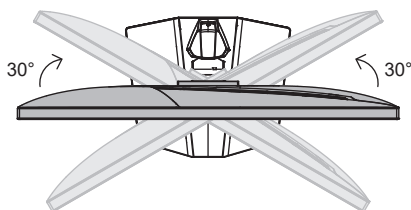
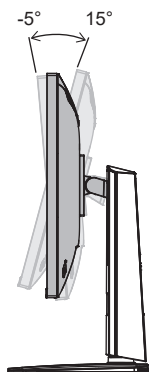


Adjusting the Monitor

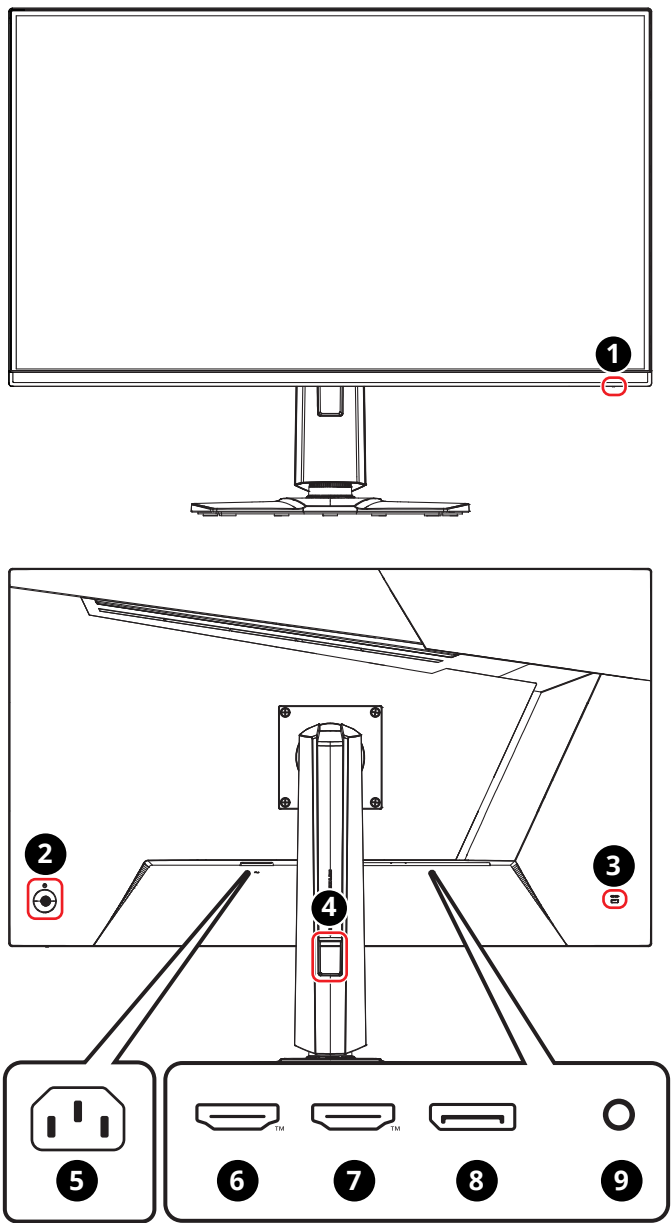
This monitor is designed to maximize your viewing comfort with its adjustment capabilities.

Important

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



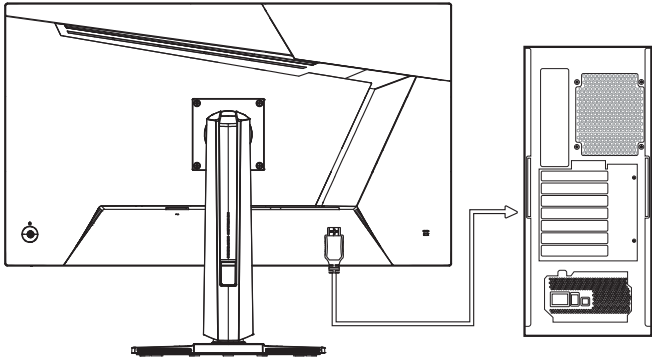
Monitor Overview



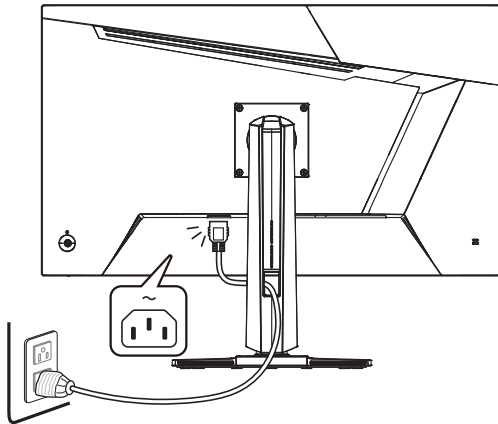
1	Power LED Lit in white after the monitor is turned on. If no signal input, the LED will turn into orange. Lit in orange when the monitor is in Stand-by mode.
2	Power Button & Navi Key
3	Kensington Lock
4	Cable Routing Hole
5	Power Jack
6	 HDMI™ Connector Supports HDMI™ CEC, 3840x2160@144Hz as specified in HDMI™ 2.1 (FRL 12G).  Important <i>To ensure optimal performance and compatibility, please use only HDMI™ cables certified with the official HDMI™ logo when connecting this monitor. For more information, please visit https://www.hdmi.org/resource/cables.</i>
7	 HDMI™ Connector Supports 3840x2160@144Hz as specified in HDMI™ 2.1 (FRL 12G).  Important <i>To ensure optimal performance and compatibility, please use only HDMI™ cables certified with the official HDMI™ logo when connecting this monitor. For more information, please visit https://www.hdmi.org/resource/cables.</i>
8	DisplayPort Supports 3840x2160@144Hz as specified in DisplayPort 1.4a (HBR3).
9	Headphone Jack

Connecting the Monitor to PC

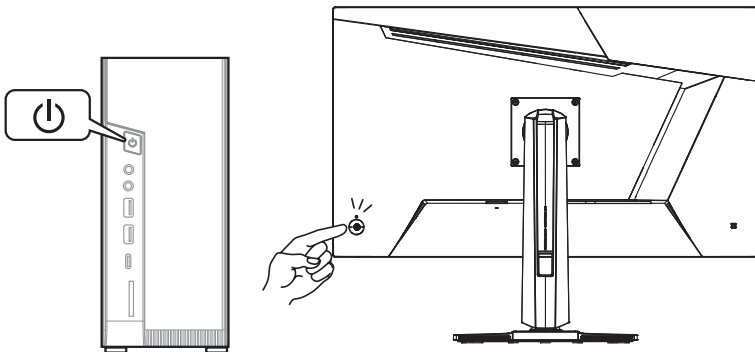
1. Connect the monitor to your computer with the video cable.



2. Plug in the monitor's power cable.



3. Turn on the monitor and your computer.



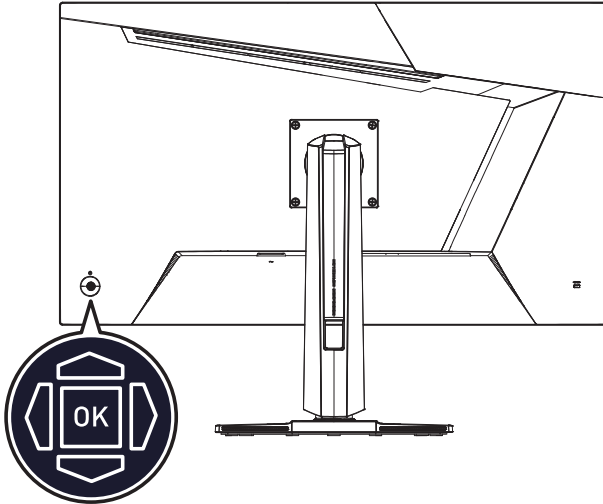
OSD Navi Key

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



Important

For OSD details, visit the product page on MSI's website.



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 Language

- Open the OSD menu and go to General > Language.
- Select your preferred language, then press OK to apply.

Specifications*

Monitor	MAG 321UPD E14
Size	31.5 inch
Curvature	Flat
Panel Type	IPS
Resolution	3840x2160 (UHD)
Aspect Ratio	16:9
Brightness	Typical SDR 300 nits
Contrast Ratio	1500 : 1
Refresh Rate (Maximum)	• UHD: 144Hz • FHD: 288Hz (Dual Mode)
Response Time	• GTG: 4ms • MPRT: 1ms
I/O	• 2 x HDMI™ Connector • 1 x DisplayPort • 1 x Headphone Jack
View Angles	178°(H) , 178°(V)
DCI-P3** / sRGB	94% / 132%
Surface Treatment	Anti-glare
Display Colors	1.07B, 10 bits (8 bits + FRC)
Monitor Power Options	100-240V~, 50/60Hz, 1.5A
Power Consumption (Typical)	• Power On < 108W • Standby < 0.5W • Power Off < 0.3W
Adjustment (Height)	0 ~ 100mm
Adjustment (Tilt)	-5° ~ 15°
Adjustment (Swivel)	-30° ~ 30°
Adjustment (Pivot)	-12° ~ 12°
Kensington Lock	Yes

Monitor		MAG 321UPD E14
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)		713.94 x 563.85 x 261.89 mm
Weight	Net	8.25 kg
	Gross	11.99 kg
Operating Environment		• Temperature: 0°C to 40°C • Humidity: 20% to 90%, non-condensing • Altitude: 0 ~ 5000m
Storage Environment		• Temperature: -20°C to 60°C • Humidity: 10% to 90%, non-condensing

* Some technical specifications of the device may be subject to change by the manufacturer. Please verify the specifications with the seller or the manufacturer's representative.

** Based on CIE1976 test standards.

Preset Display Modes



- All information is subject to change without prior notice.
- HDMI™ VRR (Variable Refresh Rate) synchronizes with Adaptive-Sync (ON/ OFF). For VRR ON/OFF status, please check Adaptive-Sync.
- To activate DSC-specific timing and frequency, ensure your graphics card supports DSC (Display Stream Compression).

Standard Mode

Standard	Resolution		DSC On		DSC Off	
			HDMI™	DP	HDMI™	DP
VGA	640x480	@60Hz	V	V	V	V
		@67Hz	V	V	V	V
		@72Hz	V	V	V	V
		@75Hz	V	V	V	V
SVGA	800x600	@56Hz	V	V	V	V
		@60Hz	V	V	V	V
		@72Hz	V	V	V	V
		@75Hz	V	V	V	V
XGA	1024x768	@60Hz	V	V	V	V
		@70Hz	V	V	V	V
		@75Hz	V	V	V	V
SXGA	1280x1024	@60Hz	V	V	V	V
		@75Hz	V	V	V	V
WXGA+	1440x900	@60Hz	V	V	V	V
WSXGA+	1680x1050	@60Hz	V	V	V	V
Full HD	1920x1080	@60Hz	V	V	V	V
QHD	2560x1440	@60Hz	V	V	V	V
		@120Hz	V	V	V	V
UHD	3840x2160	@60Hz	V	V	V	V
		@120Hz				V
		@144Hz	V	V	V	
Video Timing Resolution	480P		V	V		
	576P		V	V		
	720P		V	V	V	V
	720P	@120Hz	V	V	V	V
	1080P	@60Hz	V	V	V	V
		@120Hz	V	V	V	V
	2160P	@50Hz	V	V		
		@60Hz	V	V	V	V
@120Hz		V	V	V		
HDMI™ VRR			V		V	

4K Signal, Dual Mode

Standard	Resolution		HDMI™	DP
VGA	640x480	@60Hz	V	V
		@67Hz	V	V
		@72Hz	V	V
		@75Hz	V	V
SVGA	800x600	@56Hz	V	V
		@60Hz	V	V
		@72Hz	V	V
		@75Hz	V	V
XGA	1024x768	@60Hz	V	V
		@70Hz	V	V
		@75Hz	V	V
SXGA	1280x1024	@60Hz	V	V
		@75Hz	V	V
WXGA+	1440x900	@60Hz	V	V
WSXGA+	1680x1050	@60Hz	V	V
Full HD	1920x1080	@60Hz	V	V
		@120Hz (upscaled from 4K 60Hz input)	V	V
		@240Hz (upscaled from 4K 120Hz input)	V	V
		@288Hz (upscaled from 4K 144Hz input)	V	V
Video Timing Resolution	480P		V	V
	576P		V	V
	720P		V	V
	1080P	@60Hz	V	V
		@120Hz	V	V
HDMI™ VRR			V	

Non-4K Signal, Dual Mode

Standard	Resolution		HDMI™	DP
VGA	640x480	@60Hz	V	V
		@67Hz	V	V
		@72Hz	V	V
		@75Hz	V	V
SVGA	800x600	@56Hz	V	V
		@60Hz	V	V
		@72Hz	V	V
		@75Hz	V	V
XGA	1024x768	@60Hz	V	V
		@70Hz	V	V
		@75Hz	V	V
SXGA	1280x1024	@60Hz	V	V
		@75Hz	V	V
WXGA+	1440x900	@60Hz	V	V
WSXGA+	1680x1050	@60Hz	V	V
Full HD	1920x1080	@60Hz	V	V
		@85Hz	V	V
		@120Hz	V	V
		@165Hz	V	V
		@240Hz	V	V
		@288Hz	V	V
Video Timing Resolution	480P		V	V
	576P		V	V
	720P		V	V
	1080P	@60Hz	V	V
		@120Hz	V	V
HDMI™ VRR			V	

PIP Mode (Not Support HDR)

Standard	Resolution		HDMI™	DP
VGA	640x480	@60Hz	V	V
		@67Hz	V	V
		@72Hz	V	V
		@75Hz	V	V
SVGA	800x600	@56Hz	V	V
		@60Hz	V	V
		@72Hz	V	V
		@75Hz	V	V
XGA	1024x768	@60Hz	V	V
		@70Hz	V	V
		@75Hz	V	V
SXGA	1280x1024	@60Hz	V	V
		@75Hz	V	V
WXGA+	1440x900	@60Hz	V	V
WSXGA+	1680x1050	@60Hz	V	V
Full HD	1920x1080	@60Hz	V	V
QHD	2560x1440	@60Hz	V	V
UHD	3840x2160	@60Hz	V	V
Video Timing Resolution	480P		V	V
	576P		V	V
	720P		V	V
	1080P	@60Hz	V	V
	2160P	@50Hz	V	V
		@60Hz	V	V

PBP Mode (Not Support HDR)

Standard	Resolution		HDMI™	DP
VGA	640x480	@60Hz	V	V
		@67Hz	V	V
		@72Hz	V	V
		@75Hz	V	V
SVGA	800x600	@56Hz	V	V
		@60Hz	V	V
		@72Hz	V	V
		@75Hz	V	V
XGA	1024x768	@60Hz	V	V
		@70Hz	V	V
		@75Hz	V	V
SXGA	1280x1024	@60Hz	V	V
		@75Hz	V	V
WXGA+	1440x900	@60Hz	V	V
WSXGA+	1680x1050	@60Hz	V	V
Video Timing Resolution	720P		V	V
PBP 1:1/Customize	1920x2160	@60Hz	V	V

Screen Size 16:10 (Not Support HDR)

Standard	Resolution		HDMI™	DP
VGA	640x480	@60Hz	V	V
		@67Hz	V	V
		@72Hz	V	V
		@75Hz	V	V
SVGA	800x600	@56Hz	V	V
		@60Hz	V	V
		@72Hz	V	V
		@75Hz	V	V
XGA	1024x768	@60Hz	V	V
		@70Hz	V	V
		@75Hz	V	V
SXGA	1280x1024	@60Hz	V	V
		@75Hz	V	V
WXGA+	1440x900	@60Hz	V	V
WSXGA+	1680x1050	@60Hz	V	V
QHD+	2560x1600	@60Hz	V	V
		@120Hz	V	V
		@144Hz	V	V
Video Timing Resolution	720P		V	V
	1080P	@60Hz	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.



Low Blue Light
(Software
Solution)
Flicker Free

www.tuv.com

- 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.
- Turn on the optional Low Blue Light function.

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/SLMB is enabled. (The availability of Anti Motion Blur/MPRT/SLMB varies by products.)

Regulatory Notices

CE Conformity

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 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

European Union: This symbol on the product indicates that this product cannot be discarded as municipal waste. Instead, it is your responsibility to dispose of your waste electrical and electronic equipment by handing it over to a designated collection point for recycling. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where you purchased the product.



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.

Bangladesh RoHS Statement

This product shipped to Bangladesh complies with the RoHS requirements set forth in the Hazardous Waste (E-waste) Management Rules, 2021 by Government of Bangladesh.

For more information, please refer to: <https://csr.msi.com/global/bangladesh-rohs-statement>

Bangladesh E-waste Management Reminder

Please manage, dismantle, dispose of, or recycle e-waste properly as per the Environmental Protection Rules, 1997 to avoid the harm that may be caused to the environment and ecosystem, public interest and public health.

Material Declaration under India's Plastic Waste Management Rules:

INDOMSI COMPUTERS PRIVATE LIMITED

Regn. No.: IM-06-000-06-AAHCI0478A-25

Thickness $\geq$ 50 microns

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 <https://csr.msi.com/global/pevn_ewaste> and locate a nearby distributor for further recycling information.
- Please visit <<https://us.msi.com/page/recycling>> 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



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The terms HDMI™, HDMI™ High-Definition Multimedia Interface, HDMI™ Trade dress and the HDMI™ Logos are trademarks or registered trademarks of HDMI™ 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.