

MAG Series

LCD Monitor

MAG 345CQR (3DD1)

User Guide

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Revision

V1.1, 2024/11

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

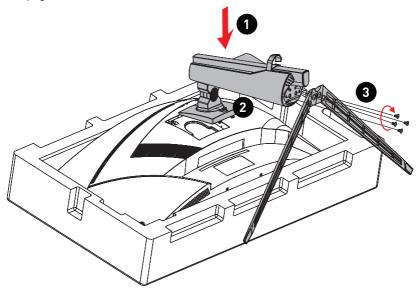
Monitor	MAG 345CQR	
Documentation	Quick Start Guide	
Power Cord Accessories Stand with Screw(s)		
Cables	DisplayPort Cable (Optional)	



- Contact your place of purchase or local distributor if any of the items is damaged or missing.
- Package contents may vary by country.
- 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.
- 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!



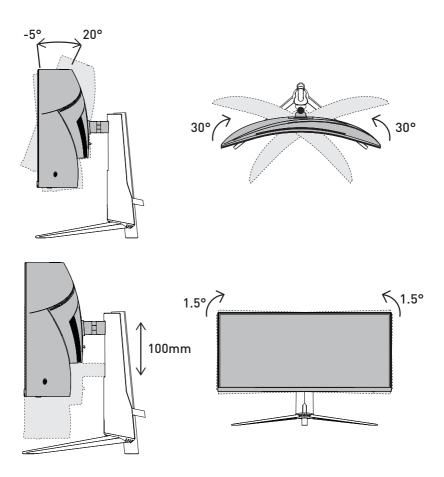
Adjusting the Monitor

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

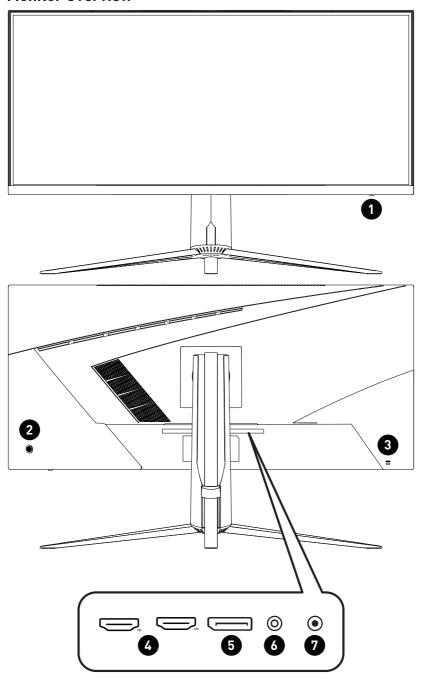


/ Important

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



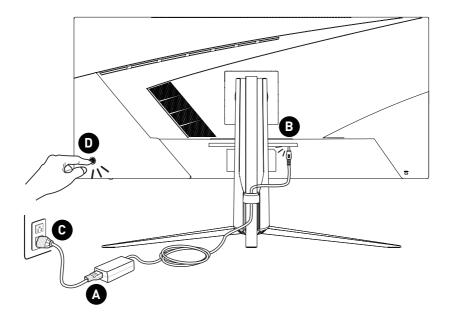
Monitor Overview



	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	HDMI™ Connector HDMI™
	Supports 3440x1440@100Hz as specified in HDMI™ 2.0b.
	1 Important
	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 .
6	DisplayPort
	Supports 3440x1440@180Hz as specified in DisplayPort 1.4a.
6	Headphone Jack
7	Power Jack

Connecting the Monitor to PC

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



OSD Setup

This chapter provides you with essential information on OSD Setup.

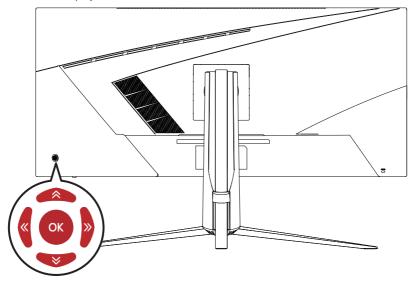


Important

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





1mportant

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

- Night Vision
- MPRT
- Low Blue Light
- HDCR

- Brightness
- Contrast
- Color Temperature
- PIP/PBP

Gaming

1st Level Menu	2nd/3rd Level Menu	Description
Game Mode	FPS Racing RTS Use Up or Down Button to select and pr mode effects. • Press the OK Button to confirm and app mode type.	Use Up or Down Button to select and preview
	RPG	
Night Vision	OFF	This function optimizes background brightness
	Normal	and is recommended for FPS games.
	Strong	
	Strongest	
	A.I.	

1st Level Menu	2nd/3rd Lev	/el Menu	Description	
A.I. Vision	0FF			image quality by optimizing
	ON		the contrast of image brightness.	es and background
			Activating A.I. Vision	will affect:
			Affected Function	Function Status
			» Night Vision	
			» HDCR	Unable to select
			» Brightness » MPRT	Set to OFF
Response Time	Normal		Setting to Fastest wi	II reach the chartest
Response Time	Fast		response time and h	elp improve blurred images
	Fastest		when playing very fa	st games.
MPRT	0FF		MPRT is available wh	nen the refresh rate is over
			85 Hz.	
	ON		Activating MPRT will	
			» Response Time	Function Status
			» Brightness	Unable to select
			» HDCR	
			» PIP/PBP	Set to OFF
			» Adaptive-Sync » Screen Size 1:1	Set to Auto (adjustable)
Refresh Rate	Location	Loft Ton	• Location is adjustable	e in OSD Menu. Press the
Refresir Kate	Location	Left Top Right Top	OK Button to confirm	and apply your Refresh
		Left Bottom	Rate Location.	
		Right Bottom	System's preset Scre	and works at the Operating een Refresh Rate.
		Customize	_	
	OFF	Justonnize	-	
	ON		_	
Alarm Clock	Location	Left Top	After setting the time	e, press the OK Button to
		Right Top	activate the timer.	., p
		Left Bottom	 Users have to manual Alarm Clock after an 	ally restore their preset
		Right Bottom	reconnection.	y rio perior todo una
		Customize	-	
	OFF	ı	-	
	15:00	00:01 ~ 99:59	1	
	30:00	1		
	45:00	1		
	60:00	1		

1st Level Menu	2nd/3rd Level Menu		Description	
Screen Assistance	Icon	None	Users can adjust Scr mode.	een Assistance in any
		[+] [+] - - - - -	mode.	
	Position			
	Reset			
Adaptive-Sync	OFF		Adaptive-Sync prever	nts screen tearing.
	ON		Activating Adaptive-S	Sync will affect:
			Affected Function	Function Status
			» MPRT » PIP/PBP	Set to OFF
			» Screen Size 1:1	Set to Auto (adjustable)

Professional

1st Level Menu	2nd Level Menu	Description	
Pro Mode	Eco	• Use Up or Down Button to select and preview mo	
	User	effects. • Press the OK Button t	to confirm and apply your mode
	Anti-Blue	type.	to commin and apply your mode
	Movie		
	Office		
	sRGB		
Low Blue Light	OFF	Low Blue Light protects your eyes against blue light. When enabled, Low Blue Light adjusts the screen column temperature to a more yellow glow.	
	ON		
		When Pro Mode is set enable Low Blue Ligh	t to Anti-Blue, it is mandatory to t.
HDCR	OFF	HDCR enhances image quality by increasing the contrast of images. Activating HDCR will affect:	
	ON		
		Affected Function	Function Status
		» Brightness	Unable to select
		» MPRT	Set to OFF

1st Level Menu	2nd Level Menu	Description		
MPRT	OFF	MPRT is available wh Activating MPRT will a	en the refresh rate is over 85 Hz.	
	ON	Activating MPRT witt affect:		
		Affected Function	Function Status	
		» Response Time	llackie to coloct	
		» Brightness	Unable to select	
	» HDCR			
		» PIP/PBP	Set to OFF	
		» Adaptive-Sync		
	» Screen Size 1:1	Set to Auto (adjustable)		
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		Properly adjust Bright surrounding lighting.	
Contrast	0-100		Properly adjust Contr	rast to relax your eyes.
Sharpness	0-5		Sharpness improves images.	clarity and details of
Color Temperature	Cool Normal Warm R (0-100) G (0-100) B (0-100)			on to select and preview
			mode effects. • Press the OK Button to confirm and apply your mode type. • Users can adjust Color Temperature in Customization mode.	
Screen Size	Auto	,	Users can adjust Screen Size in any mode, any	
	4:3 16:9 21:9 1:1		resolution and any soActivating Screen Siz	
			Affected Function	Function Status
			» MPRT » Adaptive-Sync	Set to OFF
			» PIP/PBP	

Input Source

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

PIP/PBP

1st Level Menu	2nd/3rd Le	vel Menu	Description	
OFF			PIP (Picture in Picture) allows users to	
PIP	Source	HDMI™1	simultaneously display multiple video sou on one screen. One program is displayed	
		HDMI™2		ne time as one or more lisplayed in inset windows.
		DP	PBP (Picture by Picture)	1 7
	PIP Size	Small		it sources side-by-side on
		Medium		users to switch between
		Large	primary and seconda	
	Location	Left Top	If there is only one sign Switch and Audio Switch	
		Right Top	·	,
		Left Bottom		clockwise.
	Right Bottom	Activating PIP/PBP will affect:		
	Display Swi	itch	Affected Function Function Status	
	Audio Swite	ch	» Response Time » MPRT	Unable to select
PBP (X2)	Source 1	HDMI™1	» Adaptive-Sync	Set to OFF
		HDMI™2	» HDMI™ CEC	Set to OFF & Unable to select
		DP	» PIP: Screen Size 1:1	
	Source 2	HDMI™1	» PBP: Screen Size	Set to Auto & Unable to select
	HDMI™2	4:3/ 16:9/ 21:9/ 1:1	to setteet	
		DP		
	Display Switch			
	Audio Swito	ch		

Navi Key

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

Settings

1st Level Menu	2nd Level Menu	Description	
Language	繁體中文	Users have to press the OK Button to confirm and ap	
	English	the Language setting.	
	Français	Language is an independent setting. Users' own language setting will override the factory. When users	
	Deutsch	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.	

1st Level Menu	2nd Level Menu	Description	
RGB LED	Red	RGB LED offers unique lighting effects for your	
	Green	monitor.	
	Blue		
	White		
	Breathing		
	Marquee		
	Rainbow		
	OFF		
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.	
Info. On Screen	OFF	The information of the monitor status will be shown on	
	ON	the right side of the screen. • Users can enable or disable the Info. On Screen.	
HDMI™ CEC	OFF ON	HDMI™ CEC (Consumer Electronics Control) supports Sony PlayStation®, Nintendo® Switch™, Xbox Series XIS consoles and various audio-visual devices that are CEC-capable. If HDMI™ CEC is set to ON: The monitor will automatically power on when the CEC device is turned on. The CEC device will enter power saving mode when the monitor is turned off. When Sony PlayStation®, Nintendo® Switch™, or Xbox Series XIS console is connected, Game Mode and Pro Mode will be automatically set to default modes and can be adjusted to users' preferred modes later.	
Reset	YES	Users can Reset and restore settings to original OSD Default in any mode.	
	NO		

Specifications

Monitor	MAG 345CQR		
Size	34 inch		
Curvature	Curve 1000R		
Panel Type	VA		
Resolution	3440 x 1440 (UWQHD)		
Aspect Ratio	21:9		
Brightness	Typical SDR 300 nits		
Contrast Ratio	3000:1		
Refresh Rate	180Hz		
B	1ms (MPRT)		
Response Time	4ms (GtG)		
	HDMI™ 2.0b Connector x2		
1/0	DisplayPort 1.4a x1		
	• Headphone Jack x1		
View Angles	178°(H), 178°(V)		
DCI-P3*/ sRGB	95%/ 120%		
Surface Treatment	Anti-glare		
Display Colors	1.07B (8 bit + FRC)		
Monitor Power Options	19V === 3.42A		
External Power Supply	Model: ADS-65HI-19A-1 19065E		
Power Input	100~240Vac, 50~60Hz, 1.5A		
Power Output	19V === 3.42A		
Adjustment (Height)	0 ~ 100mm		
Adjustment (Tilt)	-5° ~ 20°		
Adjustment (Swivel)	-30° ~ 30°		
Adjustment (Pivot)	-1.5° ~ 1.5°		
Kensington Lock	Yes		
	• Plate Type: 100 x 100 mm		
	• Screw Type: M4 x 10 mm		
VESA Mounting	Thread Diameter: 4 mm		
	• Thread Pitch: 0.7 mm		
	Thread Length: 10 mm		
Dimension (W x H x D)	797.5 x 518.9 x 332.3 mm		

Monitor		MAG 345CQR	
Weight	Net	7.7 kg	
	Gross	11.3 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



All information is subject to change without prior notice.

Standard	Resolution		Standard Mode	
Standard			HDMI™	DP
Full HD	1920x1080	@60Hz		V
QHD	2560x1440	@60Hz		V
		@120Hz	V	V
иманр	3440x1440	@50Hz	V	
		@60Hz		V
		@100Hz	V	V
		@120Hz		V
		@165Hz		V
		@180Hz		V
Video Timing Resolution	720P		V	V
	1080P	@60Hz	V	V
		@120Hz	V	V
	2160P	@30Hz	V	
		@60Hz	V	
	2560x1080P	@60Hz	V	
		@120Hz	V	
Special EDID for PBP used	1720x1440	@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.



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

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), ErP 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 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, \mathbb{N}^2 139, in terms of restrictions for the use of certain dangerous substances in electrical and electronic equipment.

Vietnam RoHS

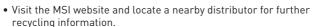
As from December 1, 2012, all products manufactured by MSI comply with Circular 30/2011/TT-BCT temporarily regulating the permitted limits for a number of hazardous substances in electronic and electric products.

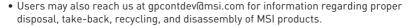
Green Product Features

- 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.





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.

