Optix Series

Portable Monitor

Optix MAG162V (3AA1)

Contents

Preparations before Use

This Chapter provides the information about hardware installation procedure. When connecting the Monitor, fix it carefully and use a grounding wrist strap for ESD protection.

Packed Items

Monitor	Optix MAG162V (3AA1)
Documents	Quick Start Guide
	Registration Card
	Warranty Card
Accessories	Leather Case
Cables	Mini HDMI cable
	Type-C cable
	USB to Type-C cable

⚠ *NOTE*

• *If you want to use a power adapter for charging, purchase a matching power adapter that has passed the CCC certification and meets the applicable standards.*
• *If any packed item is damaged or missing, contact the dealer in your place or in the place of purchase.*
• *The packed items may vary from country to country.*

Applicable Models (including but not limited to)

Apple	iPad Pro 11" (A1980)	Google	Pixel Book
	iPad Pro 12.9" (3 Gen) (A1876)		
	Macbook 12"	Razer	Blade Stealth 17
	Macbook Pro 13" (2016-2020)		
	Macbook Pro 15" (2017/2018)	DELL	XPS132in1
	Macbook Pro 16" (2019/2020)		XPS 13

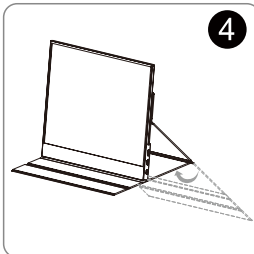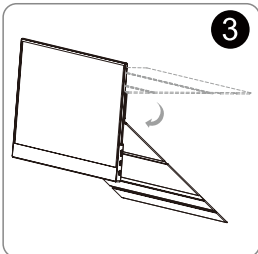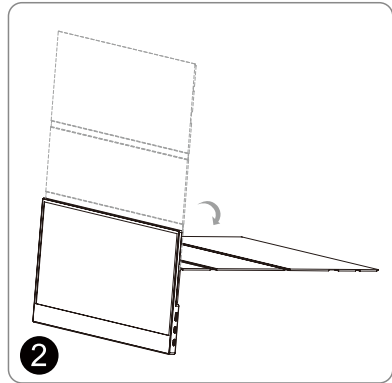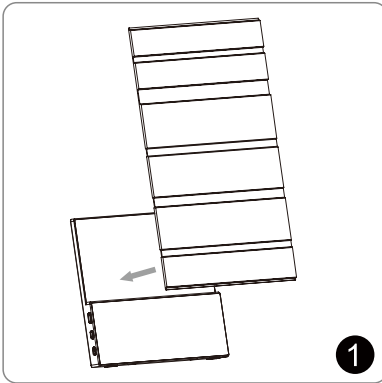| HP	EliteBook Folio G1 12.5	Samsung	Tab S4SM-T835C 10.5"
	Spectre 13-af001		
	Spectre x360 13-w021TU 13.3		

Install the Leather Case

⚠ *NOTE*

- *Place the Monitor on a soft and protected surface, in order to protect the display panel against scratches.*
- *Do not use any sharp objects on the panel.*

Optix MAG162V (3AA1)

1. Take out the Monitor, and turn the leather case from the bottom of the back of the Monitor towards the front of the Monitor.
2. Continue to turn the leather case, and make sure that its back support part fits the back of the Monitor when folded.
3. The leather case should be eventually turned from the bottom of the back of the Monitor to the front of the Monitor.
4. Place the bottom of the Monitor into the slot of the leather case.
5. Before putting down the Monitor, make sure that the leather case is properly installed or the Monitor is properly secured.
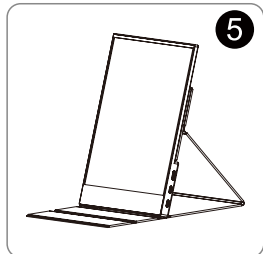
Product Overview

Optix MAG162V (3AA1)

❶	Power button
❷	Hot key
❸	Mini HDMI port **HDMI** HIGH-DEFINITION MULTIMEDIA INTERFACE
❹	Type-C port
❺	Type-C port
❻	Earphone jack

Connection to Other Devices

❶ Connection to HDMI Port of PC

HDMI   **Mini HDMI**

Signal transmission

Power supply

USB3.0   **Type-C**
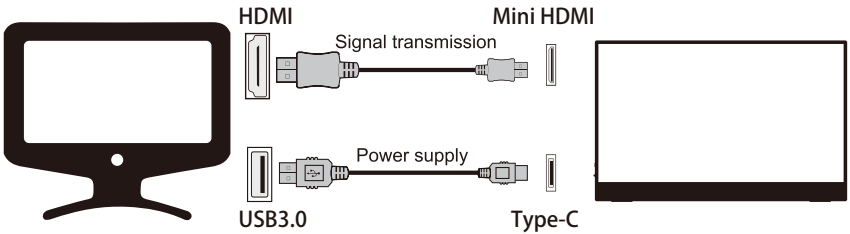
Note: the power supply should be greater than 10W.

❷ Connection to Type-C Port of Notebook

Type-C   **Type-C**

Signal transmission
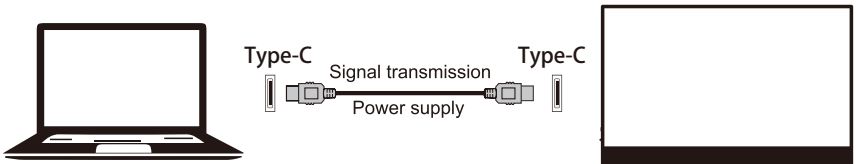
Power supply

Note: the power supply should be greater than 10W.

❸ Connection to Type-C Port of Mobile Phone

Type-C   **Type-C**

Signal transmission

Mobile power pack

Power supply

Type-C

Note: the power supply should be greater than 10W.

❹ Earphone Jack

Connect to earphone
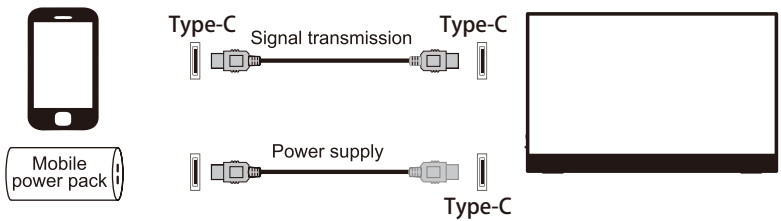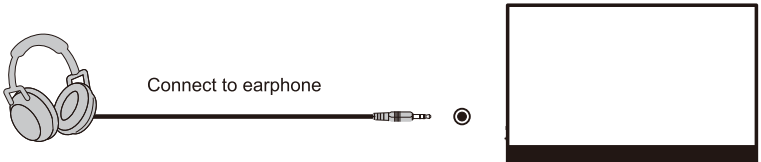
This product was supplied by TYPE C which shall be meet the LPS requirement.

OSD Settings

This Chapter provides the information about OSD settings.

⚠️ *NOTE*

All information is subject to change without prior notice.

Hot Key

The Monitor provides a hot key for multi-directional control, helping navigate through the OSD menu.

❶ LED indicator
❷ P key
❸ Up key
❹ OK key
❺ Down key
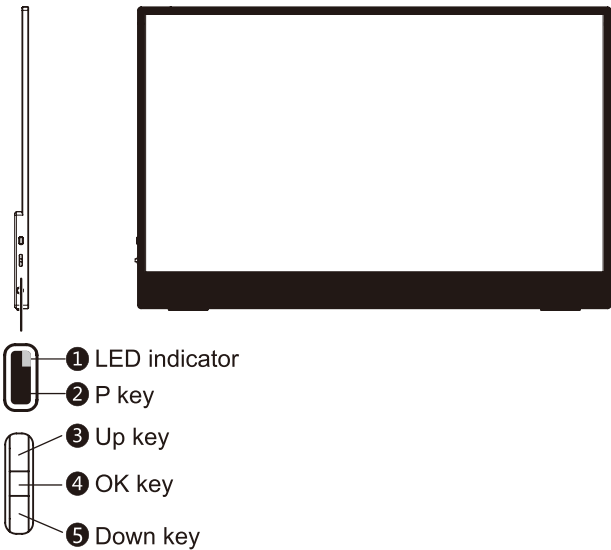
❶ LED indicator: [remain on: normal working state; flash: power-saving standby state]

❷ P key: [in OSD state: Return; in non-OSD state: Power]

❸ Up key: [in OSD sate: move up; in non-OSD state: brightness control]

❹ OK key: [in OSD state: Enter; in non-OSD state: OSD ON/OFF]

❺ Down key: [in OSD state: move down; in non-OSD state: volume control]

OSD Menu
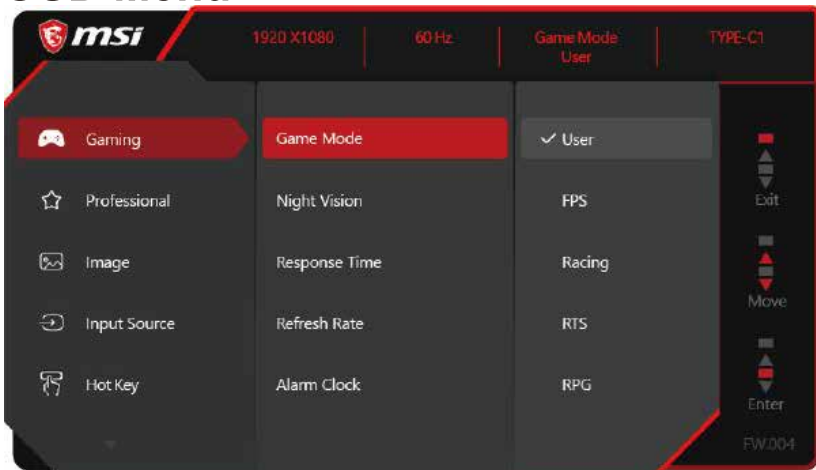
Gaming

Menu Item	Sub-menu Item	Description
Game Mode	User	• You can adjust all menu items. • Press [Up] or [Down] to select and preview a mode. • Press [OK] to enable the selected mode.
	FPS	
	Racing	
	RTS	
	RPG	
Night Vision	OFF	• This function can optimize the background [Brightness]. You are recommended to use it in FPS [Game Mode].
	Normal	
	Strong	
	Strongest	
	A.I.	
Response Time	Normal	• You can adjust the [Response Time] in any mode.
	Fast	
	Fastest	

Menu Item	Sub-menu Item		Description
Refresh Rate	Location	Left Top	• You can adjust the [Refresh Rate] in any mode.
		Right Top	• The [Location] of [Refresh Rate] is set to [Left Top] by default. You can adjust the [Location] in the OSD menu. Press [OK] to enable the selected [Location] of [Refresh Rate].
		Left Bottom	
		Right Bottom	
	OFF		
	ON		• The Monitor will operate under the [Refresh Rate] of the screen as preset in the operating system.
Alarm Clock	Location	Left Top	• You can adjust the [Alarm Clock] in any mode.
		Right Top	• Select an alarm time and press [OK] to activate the timer.
		Left Bottom	
		Right Bottom	• The [Location] of [Alarm Clock] is set to [Left Top] by default. You can adjust the [Location] as needed.
	OFF		
	15:00	00:01~ 99:59	
	30:00		
	45:00		
	60:00		

Professional

Menu Item	Sub-menu Item	Description
Pro Mode	User	• The [Pro Mode] is set to [User] by default.
	Anti-Blue	• You can adjust all menu items.
	Movie	• Press [Up] or [Down] to select and preview a mode.
	Office	• Press [OK] to enable the selected mode.
Low Blue Light	OFF	• Low Blue Light Default is Off.
	ON	• Pro Anti-Blue Mode have to enable Low Blue Light mandatory.

Menu Item	Sub-menu Item	Description
HDCR	OFF	• You can adjust the [HDCR] in any mode.
	ON	• [HDCR] can enhance the image quality by increasing image contrast.
		• When [HDCR] is set to [ON], the [Brightness] item will become grey and unavailable.
Image Enhancement	OFF	• [Image Enhancement] can enhance the edges of the image to increase sharpness.
	Weak	• You can adjust the [Image Enhancement] in any mode.
	Medium	
	Strong	
	Strongest	

Image

Menu Item	Sub-menu Item		Description
Brightness	0-100		• You can adjust the [Brightness] in User, RTS, RPG or Anti-Blue mode.
			• When [HDCR] is set to [ON], the [Brightness] item will turn grey.
Contrast	0-100		• You can adjust the [Contrast] in any mode.
Sharpness	0-5		• You can adjust the [Sharpness] in any mode.
			• [Sharpness] can improve the sharpness and details of the image.
Color Temperature	Cool		• The [Color Temperature] is set to [Normal] by default.
	Normal		• Press [Up] or [Down] to select and preview a mode.
	Warm		
	Customization	R (0-100)	• Press [OK] to enable the selected mode.
		G (0-100)	• You can select [Customization] and then customize the color temperature.
		B (0-100)	
Screen Size	Auto		• You can adjust the [Screen Size] in any mode and under any resolution and refresh rate.
	4:3		
	16:9		• The [Screen Size] is set to [Auto] by default.

Input Source

Menu Item	Description
HDMI	• You can adjust the [Input Source] in any mode. • Type-C
TYPE-C1	(1) Supports the maximum data transmission rate of 5Gbps (USB 3.2). (2) Supports the PD (Power Delivery) based power output and input function under different voltages (output: 5V 3A; input: 15V 3A). (3) Supports the image output function (maximum resolution: 1920×1080@60Hz).
TYPE-C2	Maximum normal load: Type-C load 5V 0.9A; Type-C load 9V 1.33A; Type-C load 12V 1.75A; Type-C load 20V 2.25A.

Hot Key

Menu Item	Sub-menu Item	Description
Up	OFF	• The [Up] key is set to [Brightness] by default. • The [Down] key is set to [Audio Volume] by default. • All hot key items can be adjusted in the OSD menu.
Down	Brightness	
	Game Mode	
	Alarm Clock	
	Input Source	
	Refresh Rate	
	Information on Screen	
	Audio Volume	

Setting

Menu Item	Sub-menu Item	Description
Language	繁體中文	• The [Language] is set to [English] by default.
	English	• Press [OK] to enable the selected [Language].
	Français	• [Language] is an independent setting. The user-defined language will replace the default language. When [Reset] is set to [Yes], the [Language] setting will not be changed.
	Deutsch	
	Italiano	
	Espanol	
	한국어	
	日本語	
	Русский	
	Português	
	简体中文	
	Bahasa Indonesia	
	Türkçe	
	(More languages will be provided later.)	
Transparency	0~5	• You can adjust the [Transparency] in any mode.
OSD Time Out	5~30s	• You can adjust the [OSD Time Out] in any mode.
Power Button	OFF	• When the [Power Button] is set to [OFF], you can press the [Power Button] to turn off the Monitor.
	Standby	• When the [Power Button] is set to [Standby], you can press the [Power Button] to turn off the panel and backlight.
Information on Screen	OFF	• The status information of the Monitor will be displayed on the right side of the screen.
	ON	• You can set the [Information on Screen] to [ON] or [OFF]. It is set to [OFF] by default.
Information on Screen	OFF	• The status information of the Monitor will be displayed on the right side of the screen.
	ON	• You can set the [Information on Screen] to [ON] or [OFF]. It is set to [OFF] by default.
Audio Volume		• Adjust the volume
Eco Mode	OFF	• While item enabled , Brightness Curved have changed to "Eco Mode" Curved.
	ON	• Below items have to gray out while Eco Mode enabled a.Game Mode b.Pro Mode c.HDCR
Reset	YES	• In any mode, you can [Reset] the OSD settings to their defaults.
	NO	

Specifications

Model No.	Optix MAG162V (3AA1)
Size	15.6 inch
Panel type	IPS
Resolution	1920 × 1080 @60 Hz
Aspect ratio	16:9
Brightness (nits)	250 nits (Typ.)
Contrast	1000:1
Refresh rate	60 Hz
Response time	4ms (Min.)
Input source interface	• Mini HDMI port × 1
I/O	• Mini HDMI port × 1 • Type-C port × 2 • Earphone jack × 1
Angle of view	178°(H), 178°(V)
Surface treatment	Anti-glare
Display color	262 K
Power input source	5 V - 20 V ⎓ 3 A
Power output source	5 V - 20 V ⎓ 1 A
Dimension (W × H × D)	358.0 mm × 228.5 mm × 11.5 mm
Weight	0.9 kg (net) / 2.7 kg (gross)
Ambient Conditions	Operating conditions	• Temperature: 0 °C ~ 40 °C • RH: 20% ~ 90%, non-condensing. • Altitude: 0 m ~ 5000 m
	Storage conditions	• Temperature: -20 °C ~ 60 °C • RH: 10% ~ 90%, non-condensing.

* Tested under the CIE1976 standards.

Preset Display Mode

Standard	Resolution		Optix MAG162V (3AA1)		
			HDMI	TYPE-C1	TYPE-C2
VGA	640 × 480	@60 Hz	V	V	V
		@67 Hz	V	V	V
		@72 Hz	V	V	V
		@75 Hz	V	V	V
Dos-Mode	720 × 400	@70 Hz	V	V	V
	720 × 480	@60 Hz	V	V	V
	720 × 576	@50 Hz	V	V	V
SVGA	800 × 600	@60 Hz	V	V	V
		@72 Hz	V	V	V
		@75 Hz	V	V	V
XVGA	1024 × 768	@60 Hz	V	V	V
		@75 Hz	V	V	V
SXVGA	1280 × 720	@50 Hz	V	V	V
		@60 Hz	V	V	V
	1280 × 1024	@60 Hz	V	V	V
		@75 Hz	V	V	V
WXGA+	1440 × 900	@60 Hz	V	V	V
WSXGA+	1680 × 1050	@60 Hz	V	V	V
Full HD	1920 × 1080	@50 Hz	V	V	V
		@60 Hz	V	V	V

Mode	Video Timing Resolution		Optix MAG162V (3AA1)		
			HDMI	TYPE-C1	TYPE-C2
480p	640 × 480p	@60 Hz	V	V	V
	720 × 480p		V	V	V
576p	720 × 576p	@50 Hz	V	V	V
720p	1280 × 720p	@50 Hz	V	V	V
		@60 Hz	V	V	V
1080p	1920 × 1080p	@50 Hz	V	V	V
		@60 Hz	V	V	V

Troubleshooting

The power LED fails to be turned on.

- Check whether the Monitor is powered on.
- Check whether the power cord is connected.

Plug and Play fails to be achieved.

- Check whether the PC matches Plug and Play.
- Check whether the graphics card matches Plug and Play.

The image is dim.

- Adjust the brightness and contrast.

Jerkiness or moire occurs to the image.

- Probably there is an electrical equipment causing electronic interference in the neighborhood, or the power supply is less than 10W.

The power LED remains on or flashes, but there is no image on the Monitor.

- Check whether the PC is powered on.
- Check whether the graphics card of the PC is installed properly.
- Check whether the signal cable of the Monitor is connected properly to the PC.
- Check the signal cable connector of the Monitor and make sure that the pins are not bent.
- Press [Caps Lock] on the PC keyboard and observe the power LED, in order to identify whether the PC is operating.

Some colors are missing (red/green/blue).

- Check the signal cable of the Monitor and make sure that the pins are not bent.

The image demonstrates chromatic aberration (white does not look white).

- Adjust the RGB color or reselect the color temperature.

The image signal is transmitted through the transmission cable, and the Monitor is powered on.

When the brightness or volume level is increased, the Monitor will automatically shut down.

- Connect the Monitor to the power cord.

After the USB to Type-C cable and the Type-C cable are connected successively, the Monitor displays "NO SIGNAL" on the blank screen.

- Unplug the USB to Type-C cable to achieve normal display, and then reconnect the USB to Type-C cable.

After the [DCR] is set to [ON], the screen will flicker when the preset mode is changed and the [Enter] key is pressed. (Each time the [Enter] key is pressed, the screen will flicker once.)

- When the [DCR] is set to [ON], the [Brightness], [Contrast] and [Preset Mode] will become unavailable. When the [Preset Mode] is set to any mode other than [Standard], the [Brightness], [Contrast] and [DCR] will become unavailable.

After Type C1 is connected to the PC, a yellow exclamation mark will appear at the "USB Serial" in the Device Manager.

- After downloading the CH340 driver, go to the Device Manager to install such driver, in order to achieve normal display.

Safety Precautions

- Read these safety precautions carefully.
- Pay attention to all CAUTION and WARNING provided on the Monitor or in the User Manual.
- Only qualified technicians are allowed to provide maintenance service.
- Keep the accompanying Quick Start Guide properly for future reference.
- Keep the Monitor away from any humid or high-temperature environment, in order to avoid fire and electric shock.
- Before installation, place the Monitor on a solid flat surface.
- Before connecting the Monitor to an electrical outlet, make sure that the power supply voltage falls within a safe range and is adjusted to 100V~240V as appropriate. Do not remove the protective grounding lug of the plug. The Monitor must be connected to a grounded electrical outlet.
- Before keeping the Monitor idle for a long time, unplug the power cord or turn off the switch of the electrical outlet to achieve zero energy consumption.
- The ventilation holes in the enclosure are designed for air circulation and prevention of overheating. Do not cover the ventilation holes.
- Do not place the Monitor in a bad environment where the storage temperature is higher than 60°C or lower than -20°C, or the Monitor could be damaged.
- Note: the maximum working temperature is about 40°C.
- The expected working environment of the product depends on the supplied power adapter.
- Before cleaning the Monitor, disconnect the power plug. Use a soft cloth to clean the Monitor. Do not use industrial chemical cleaners. Do not pour any liquid into the opening of the Monitor, in order to avoid device damage or electric shock.
- Place the power cord properly and prevent it from being stepped on. Do not place any objects on the power cord.
- Keep the Monitor away from objects with strong magnetism or strong electricity.
- In any of the following cases, contact the service personnel to repair the Monitor.
  - The cable is damaged.
  - Liquid has entered the Monitor.
  - The Monitor gets damp.
  - The Monitor does not work properly, or fails to be used normally according to the instructions provided in the User Manual.
  - The Monitor is damaged by a fall.
  - The Monitor is obviously damaged.
- To prevent the Monitor from tipping over, use an anti-tip fixing mechanism to fix the Monitor onto the table, so that the Monitor can be supported and secured properly.

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.

- Use the Reader/Anti-Blue mode or 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.)

Regulation Information

CE Compliance

This equipment has been tested and found to comply with the Electromagnetic Compatibility (EMC) Directive (2014/30/EU), the Low Voltage Directive (2014/35/EU), the Energy-related Products (ErP) Directive (2009/125/EC), and the RoHS Directive (2011/65/EU), and also conform to the Harmonized Standard for Information Technology Equipment released in the "Official EU Directives".

FCC-B Radio Frequency Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device as specified in 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 instructions, 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 following measures:

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

Statement 1
Change or modification without the explicit permission of the party responsible for compliance will disqualify user from use of the equipment.

Statement 2
To comply with the radiation limits, shielded connection cables and AC power cord (if any) must be used.
This equipment conforms to the requirements in Part 15 of the FCC Rules. Its operation meets the following two conditions:
1. This equipment does not cause harmful interference, and
2. This equipment must be capable of withstanding any received interference, including interference that could result in abnormal operation.

WEEE Statement

The European Union has developed a directive for waste electrical and electronic equipment (Directive 2012/19/EU), which expressly provides that "electrical and electronic equipment" shall no longer be disposed of as municipal waste and that all manufacturers of relevant electronic equipment shall recycle their products at the end of their service 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 of the Council), MSI provides the information of chemical substances in the product at:

https://storage-asset.msi.com/html/popup/csr/evmtprtt_pcm.html

Names and Contents of Hazardous Substances Contained in the Product

Part	Hazardous Substances					
	Pb	Hg	Cd	Cr (VI)	PBB	PBDE
PCBA*	╳	◯	◯	◯	◯	◯
LCD screen	╳	◯	◯	◯	◯	◯
Cable/connector	╳	◯	◯	◯	◯	◯
Output/input device	╳	◯	◯	◯	◯	◯
Speaker	╳	◯	◯	◯	◯	◯
Metal component	╳	◯	◯	◯	◯	◯
Plastic component/others	◯	◯	◯	◯	◯	◯
Accessories (e.g., power cord)	╳	◯	◯	◯	◯	◯

This form is prepared in accordance with SJ/T 11364.

◯: Indicates that the content of this hazardous substance in all homogeneous materials of the corresponding part is below the limit specified in GB/T 26572.

╳: Indicates that the content of this hazardous substance in at least one homogeneous material of the corresponding part is above the limit specified in GB/T 26572, but all parts conform to the requirements of RoHS.

* PCBA: Including the printed circuit board and the parts constituting it.
** If the Environment-friendly Use Period mark is provided on the battery, this mark shall be followed.
■ The content in the above list of toxic or hazardous substances or elements will be added or reduced depending on the difference in the parts of each model.
■ If the Environment-friendly Use Period mark is provided on a part of the product, this mark shall be followed.

Description of Environment-friendly Use Period

This electrical and electronic product contains some hazardous substances; it can be used safely within the Environment-friendly Use Period, and after this period, it shall enter the recycling system.

Instructions for the Regulations on Recycling of Waste Electrical and Electronic Products

To care for and protect the earth better, please send it to a local manufacturer with nationally recognized qualification for recycling according to the national applicable laws and regulations on recycling of waste electrical and electronic products when you no longer need this product or at the end of its service life.

Green Product Features

- Energy consumption can be reduced when this equipment is used or left idle.
- The use of hazardous substances is restricted to reduce the harm to environment and health.
- It can be disassembled and recycled easily.
- Recycling is encouraged to reduce the depletion of natural resources.
- The service life of the product is extended by simple product upgrade.
- A recycling strategy is employed to reduce solid wastes.

Environmental Policy

- This equipment and its parts have been designed to be reusable and recyclable; therefore, do not discard them carelessly at the end of their service life.
- Please contact a local authorized recycling station to recycle and dispose of products at the end of their service life.
- For more information about recycling, please visit the MSI website and find the latest distributor.
- You can also contact us by emailing to gpcontdev@msi.com to learn information about waste treatment, recovery, recycling and disassembly of MSI products.

WARNING!

Overuse of the screen may damage your vision.

Suggestions:

1. Take a 10-minute break every 30 minutes;
2. Children under the age of 2 years shall avoid watching the screen; children who are over 2 years old can only watch the screen for less than 1 hour every day.

Copyright and Trademark Statement

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Technical Support

If a problem arises with the product and no solution can be obtained from the User Manual, please contact your place of purchase or local distributor. Besides, please visit the MSI website for further guidance: https://www.msi.com/support/.