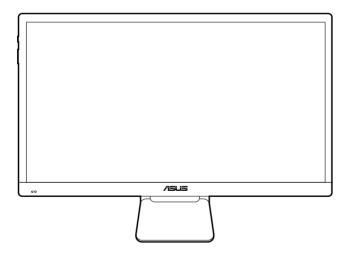
# **FISUS**PQ22U Series Portable OLED Monitor

# User Guide





### First Edition

22 2018

### Copyright © 2018 ASUSTeK COMPUTER INC. All Rights Reserved.

No part of this manual, including the products and software described in it, may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language in any form or by any means, except documentation kept by the purchaser for backup purposes, without the express written permission of ASUSTEK COMPUTER INC. ("ASUS").

Product warranty or service will not be extended if: (1) the product is repaired, modified or altered, unless such repair, modification of alteration is authorized in writing by ASUS; or (2) the serial number of the product is defaced or missing.

ASUS PROVIDES THIS MANUAL "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL ASUS, ITS DIRECTORS, OFFICERS, EMPLOYEES OR AGENTS BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES (INCLUDING DAMAGES FOR LOSS OF PROFITS, LOSS OF BUSINESS, LOSS OF USE OR DATA, INTERRUPTION OF BUSINESS AND THE LIKE), EVEN IF ASUS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES ARISING FROM ANY DEFECT OR ERROR IN THIS MANUAL OR PRODUCT.

SPECIFICATIONS AND INFORMATION CONTAINED IN THIS MANUAL ARE FURNISHED FOR INFORMATIONAL USE ONLY, AND ARE SUBJECT TO CHANGE AT ANY TIME WITHOUT NOTICE, AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY ASUS. ASUS ASSUMES NO RESPONSIBILITY OR LIABILITY FOR ANY ERRORS OR INACCURACIES THAT MAY APPEAR IN THIS MANUAL. INCLUDING THE PRODUCTS AND SOFTWARE DESCRIBED IN IT.

Products and corporate names appearing in this manual may or may not be registered trademarks or copyrights of their respective companies, and are used only for identification or explanation and to the owners' benefit, without intent to infringe.

# **Contents**

Conte	ents		III			
Notic	es		iv			
Safet	y inform	ation	v			
Care	& Clean	ing	vi			
Takel	back Ser	rvices	vii			
Chap	oter 1:	Product introduction				
1.1	Welco	ome!	1-1			
1.2	Packa	ge contents	1-1			
1.3	Monite	or introduction	1-2			
	1.3.1	Front view	1-2			
	1.3.3	Other Functions	1-3			
Chap	oter 2:	Setup				
2.1	Attach	ning the arm/base	2-1			
2.2	Adjus	2-1				
2.3	Monit	or standing positions	2-2			
2.4	Conne	ecting the cables	2-3			
2.5	Turnir	ng on the monitor	2-3			
Chap	oter 3:	General instructions				
3.1	OSD (	OSD (On-Screen Display) menu				
	3.1.1	How to reconfigure	3-1			
	3.1.2	OSD function introduction	3-1			
3.2	Speci	fications summary	3-9			
3.3	Troub	Troubleshooting (FAQ)3-10				
3.4	Suppo	Supported operating modes3-11				

# **Notices**

### **Federal Communications Commission Statement**

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

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

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 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 outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



The use of shielded cables for connection of the monitor to the graphics card is required to assure compliance with FCC regulations. Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.



As an Energy Star® Partner, our company has determined that this product meets the Energy Star® quidelines for energy efficiency.

# Canadian Department of Communications Statement

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

This class B digital apparatus complies with Canadian ICES-003.

This Class B digital apparatus meets all requirements of the Canadian Interference - Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Réglement sur le matériel brouiller du Canada.

# **Safety information**

- Before setting up the monitor, carefully read all the documentation that came with the package.
- To prevent fire or shock hazard, never expose the monitor to rain or moisture.
- Never try to open the monitor cabinet. The dangerous high voltages inside the monitor may result in serious physical injury.
- If the power supply is broken, do not try to fix it by yourself. Contact a qualified service technician or your retailer.
- Before using the product, make sure all cables are correctly connected and the power cables are not damaged. If you detect any damage, contact your dealer immediately.
- Slots and openings on the back or top of the cabinet are provided for ventilation. Do not block these slots. Never place this product near or over a radiator or heat source unless proper ventilation is provided.
- The monitor should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supply to your home, consult your dealer or local power company.
- Use the appropriate power plug which complies with your local power standard.
- Do not overload power strips and extention cords. Overloading can result in fire or electric shock.
- Avoid dust, humidity, and temperature extremes. Do not place the monitor in any area where it may become wet. Place the monitor on a stable surface.
- Unplug the unit during a lightning storm or if it will not be used for a long period
  of time. This will protect the monitor from damage due to power surges.
- Never push objects or spill liquid of any kind into the slots on the monitor cabinet.
- To ensure satisfactory operation, use the monitor only with UL listed computers which have appropriate configured receptacles marked between 100-240V AC.
- If you encounter technical problems with the monitor, contact a qualified service technician or your retailer.
- Adjustment of the volume control as well as the equalizer to other settings than the center position may increase the ear-/headphones output voltage and therefore the sound pressure level.
- The adapter is only used for this monitor, do not use it for other purpose.
   Your device uses one of the following power supplies:
  - Manufacturer: Delta Electronics Inc., Model: ADP-65SD B



This symbol of the crossed out wheeled bin indicates that the product (electrical, electronic equipment, and mercury-containing button cell battery) should not be placed in municipal waste. Please check local regulations for disposal of electronic products.

# AEEE yönetmeliğine uygundur

# **Care & Cleaning**

- Before you lift or reposition your monitor, it is better to disconnect the cables and power cord. Follow the correct lifting techniques when positioning the monitor. When lifting or carrying the monitor, grasp the edges of the monitor. Do not lift the display by the stand or the cord.
- Cleaning. Turn your monitor off and unplug the power cord. Clean the monitor surface with a lint-free, non-abrasive cloth. Stubborn stains may be removed with a cloth dampened with mild cleaner.
- Avoid using a cleaner containing alcohol or acetone. Use a cleaner intended for use with the monitor. Never spray cleaner directly on the screen, as it may drip inside the monitor and cause an electric shock.

# The following symptoms are normal with the monitor:

- You may find slightly uneven brightness on the screen depending on the desktop pattern you use.
- When the same image is displayed for hours, an afterimage of the previous screen may remain after switching the image. The screen will recover slowly or you can turn off the Power Switch for hours.
- When the screen becomes black or flashes, or cannot work anymore, contact your dealer or service center to fix it. Do not repair the screen by yourself!

# Conventions used in this guide



WARNING: Information to prevent injury to yourself when trying to complete a task.



CAUTION: Information to prevent damage to the components when trying to complete a task.



IMPORTANT: Information that you MUST follow to complete a task.



NOTE: Tips and additional information to aid in completing a task.

### Where to find more information

Refer to the following sources for additional information and for product and software updates.

### 1. ASUS websites

The ASUS websites worldwide provide updated information on ASUS hardware and software products. Refer to http://www.asus.com

# 2. Optional documentation

Your product package may include optional documentation that may have been added by your dealer. These documents are not part of the standard package.

# **Takeback Services**

ASUS recycling and takeback programs come from our commitment to the highest standards for protecting our environment. We believe in providing solutions for our customers to be able to responsibly recycle our products, batteries and other components as well as the packaging materials.

Please go to <a href="http://csr.asus.com/english/Takeback.htm">http://csr.asus.com/english/Takeback.htm</a> for detail recycling information in different region.



# 1.1 Welcome!

Thank you for purchasing the ASUS® OLED monitor!

The latest widescreen OLED monitor from ASUS provides a broader, brighter and crystal-clear display, plus a host of features that enhance your viewing experience.

With these features, you can enjoy the convenience and delightful visual experience that the monitor brings to you!

# 1.2 Package contents

Check your package for the following items:

- ✓ OLED monitor.
- Monitor base
- Quick start guide
- ✓ Warranty card
- Y Power cord
- Y Power adapter
- ✓ Micro HDMI to HDMI cable
- ✓ USB cable.
- ✓ Color Calibration Testing Report
- Leather case
- ✓ Carry bag

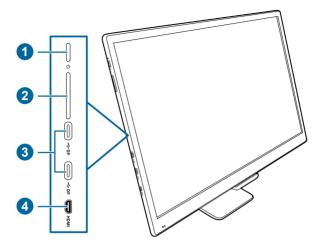


If any of the above items is damaged or missing, contact your retailer immediately.

ASUS PQ22U Series OLED Monitor

# 1.3 Monitor introduction

# 1.3.1 Front view



# 1. U Power button/power indicator

- Turns the monitor on/off when the OSD menu is not displayed.
- The color definition of the power indicator is as the below table.

Status	Description
Blue	On
Amber	Standby mode
Off	Off

- Enters or exits the OSD menu after the monitor is turned on.
- Enacts the selected OSD menu items when the OSD menu is displayed.
- With a long press for 2 seconds: returns to the previous page when the OSD menu is displayed.

# 2. Up/Down button:

- Increases/Decreases values or moves your selection up/down/left/right when the OSD menu is displayed.
- Toggles the Key Lock function between on and off with a long press on the Down button for 5 seconds.

# 3. DisplayPort type-C in:

- This port connects the power cord.
- This port is for connection with a DisplayPort type-C compatible device.

### 4. Micro HDMI port:

• This port is for connection with an HDMI compatible device.

# 1.3.2 Other Functions

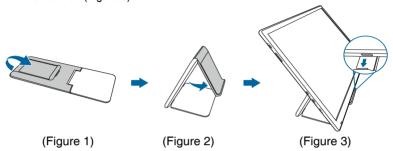
# • HDR

The monitor supports HDR format. When detecting HDR content, an "HDR ON" message will pop up and display in the Information page.

# 2.1 Attaching the arm/base

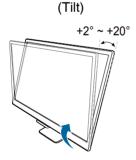
To assemble the monitor base:

- 1. Adjust the monitor base as illustrated so that it stands (Figure 1, Figure 2).
- 2. Put the monitor into the base, making sure the base fits into the groove on the monitor. (Figure 3).



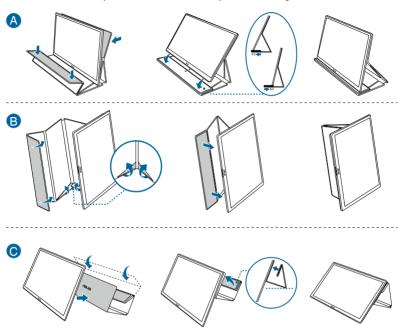
# 2.2 Adjusting the monitor

- For optimal viewing, we recommend that you look at the full face of the monitor, then adjust the monitor to the angle that is most comfortable for you.
- Hold the stand to prevent the monitor from falling when you change its angle.
- You can adjust the monitor's angle from +2° to +20°.

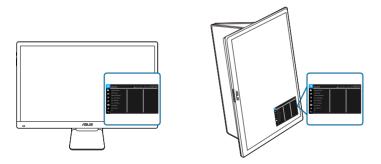


# 2.3 Monitor standing positions

You can also stand up the monitor in several positions using the leather case.



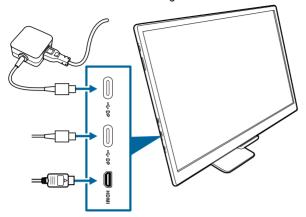
The OSD menu item will automatically rotate when the monitor rotates.



2-2 Chapter 2: Setup

# 2.4 Connecting the cables

Connect the cables as the following instructions:



# • To connect the power cord:

- Connect the power adapter securely to one of the monitor's DisplayPort type-C input.
- Connect one end of the power cord to the power adapter and the other end to a power outlet.

# • To connect the HDMI/DisplayPort cable:

- a. Plug one end of the HDMI/DisplayPort cable to the monitor's HDMI/ DisplayPort jack.
- Connect the other end of the HDMI/DisplayPort cable to your device's HDMI/DisplayPort jack.



When these cables are connected, you can choose the desired signal from the Input Select item in the OSD menu.

# 2.5 Turning on the monitor

Press the power button  $^{\circlearrowleft}$  . See page 1-2 for the location of the power button. The power indicator  $^{\circlearrowleft}$  lights up in blue to show that the monitor is ON.

# 3.1 OSD (On-Screen Display) menu

# 3.1.1 How to reconfigure



- Press the power button to activate the OSD menu after the monitor is turned on.
- Press the Up/Down button to navigate through the functions. Highlight the
  desired function and press the power button to activate it. If the function
  selected has a sub-menu, Press the Up/Down button to navigate through the
  sub-menu functions. Highlight the desired sub-menu function and press the
  power button to activate it.
- 3. Press the Up/Down button to change the settings of the selected function.
- 4. To exit and save the OSD menu, highlight → and press the power button. Or you can press and hold the power button for 2 seconds. To adjust other functions, repeat steps 1-3.

### 3.1.2 OSD function introduction

### 1. Splendid

This function contains 8 sub-functions you can select for your preference. Each mode has the Reset selection, allowing you to maintain your setting or return to the preset mode.



To activate this function, you need to do the following: turn off Ambient Effect and disable HDR on your device.



- Standard Mode: Best choice for document editing with SplendidPlus Video Enhancement.
- sRGB Mode: Compatible with sRGB color space, sRGB mode is the best choice for document editing.
- Adobe RGB Mode: Compatible with Adobe RGB color space.
- Rec. 2020 Mode: Compatible with Rec. 2020 color space.
- **DCI-P3 Mode:** Compatible with DCI-P3 color space.
- Rec. 709 Mode: Compatible with Rec. 709 color space.
- User Mode 1/User Mode 2: Allows you to make color adjustments in the Adanced Setting. You can also save one or two ProArt Calibration profiles as User Mode 1/User Mode 2 after executing ProArt Calibration and then have quick access here.

Function	Standard Mode	Mode	Adobe RGB Mode	Rec. 2020 Mode	DCI-P3 Mode	Rec. 709 Mode	User Mode 1/ User Mode 2
Color Temp.	6500K	Disable	Disable	6500K	6500K	Disable (6500K)	Disable
Brightness	50	Disable	50	50	50	50	50
Contrast	80	Disable	80	80	80	80	80
Sharpness	Enable (0)	Enable (0)	Enable (0)	Enable (0)	Enable (0)	Enable (0)	Enable (0)
Saturation	Middle (50)	Disable	Middle (50)	Middle (50)	Middle (50)	Middle (50)	Middle (50)
Hue	Middle (50)	Disable	Middle (50)	Middle (50)	Middle (50)	Middle (50)	Middle (50)
Advanced Setting	Enable (default)	Disable	Enable (default)	Enable (default)	Enable (default)	Enable (default)	Disable
Gamma	Enable	Disable	Disable (2.2)	Enable (2.2)	Disable (2.6)	Enable (2.2)	Disable

### 2. Color

Set a desired color setting from this menu.



To activate this function, you need to do the following: turn off Ambient Effect and disable HDR on your device.



- Brightness: The adjusting range is from 0 to 100.
- Contrast: The adjusting range is from 0 to 100.
- **Saturation**: The adjusting range is from 0 to 100.
- Hue: Shifts the image color between green and purple.
- Color Temp.: Contains 5 modes including 9300K, 6500K, 5500K, 5000K and P3-Theater.



P3-Theater is only available when DCI-P3 mode is selected.

- **Gamma**: Allows you to set the color mode to 2.6, 2.4, 2.2, 2.0 or 1.8.
- **Black Level**: To adjust the initialized 1<sup>st</sup> signal level of darkest gray level.
- Advanced Setting:
  - Six-axis Hue adjustment.
  - \* Six-axis Saturation adjustment.
  - \* Adjusts the gain levels for R, G, B.
  - \* Adjusts the black level offset values for R, G, B.
- Color Reset:
  - Current Splendid color mode reset:
     Resets the color settings of current color mode to the factory default value.
  - \* All Splendid color mode reset: Resets the color settings of all color modes to the factory default value.

### 3. Image

Set the image related setting from this menu.



- **Sharpness**: The adjusting range is from 0 to 100.
- Aspect Control: Adjusts the aspect ratio to full, 4:3, 1:1 or OverScan.



4:3 is only available when input source is in 4:3 format. OverScan is only available for the HDMI input source when PBP is turned off.

# 4. PIP/PBP Setting

The PIP/PBP Setting allows you to open up another sub-window connected from another video source besides the main-window from your original video source. By activating this function, the monitor displays up to 2 pictures from different video sources.



To activate this function, you need to do the following: disable HDR on your device.



• **PIP/PBP Mode**: Selects PIP, PBP or PBP x 3 function, or turn it off.

 PIP/PBP Source: Selects the video input source from among HDMI, DisplayPort-C-1, and DisplayPort-C-2. The table below shows the input source combinations.

	Main-window				
		HDMI	DisplayPort-C-1	DisplayPort-C-2	
Sub- window	HDMI		Yes	Yes	
	DisplayPort-C-1	Yes		Yes	
	DisplayPort-C-2	Yes	Yes		

- Color Setting: Selects an individual Splendid Mode for the selected PIP/ PBP source. (Up to 2 Splendid Modes can be chosen.)
- PIP Size: Adjusts the PIP size to Small, Middle, or Large. (Only available for the PIP mode)

### 5. QuickFit

The QuickFit function contains 2 types of patterns: (1) Alignment Grid (2) Ruler. To activate the patterns, press the power button. Press the power button again to return.



 Ruler: This pattern presents physical ruler on top and left side. You can long press the Up button for 5 seconds to switch the measurements between metric and imperial.



 Alignment Grid: The grid patterns facilitate designers and users to organize content and layout on a page and achieve a consistent look and feel.



# 6. Input Select

In this function, you can select your desired input source.





If one Thunderbolt port is plugged, the other one outputs DisplayPort signal only.

# 7. System Setup

Allows you to adjust the system.



• **Splendid Demo Mode**: Splits the screen into two for Splendid modes comparison. (DCI-P3 Mode and sRGB Mode only)



To activate this function, you need to do the following: turn off PIP/PBP, turn off Ambient Effect and disable HDR on your device.

ECO Mode: Reduces power consumption.



To activate this function, you need to do the following: disable HDR on your device.

### HDR<sup>-</sup>

- "HDR ASUS".
- \* "HDR\_HLG" complies with HLG (Hybrid Log-Gamma). Once "HDR\_HLG" is selected, you have to manually adjust the setting if you prefer other options.

# Power Saving:

- \* "1st Level" allows all signals to be automatically detected when the monitor enters power saving mode.
- \* "Deep Level" does not allow all signals to be automatically detected when the monitor enters power saving mode to achieve the maximum benefit in power saving.

### OSD Setup:

- \* Adjusts the OSD timeout from 10 to 120 seconds.
- \* Enables or disables the DDC/CI function.
- \* Adjusts the OSD background from opaque to transparent.
- \* Adjusts the OSD rotation.
- Language: There are 21 languages for your selection, including English, French, German, Italian, Spanish, Dutch, Portuguese, Russian, Czech, Croatian, Polish, Romanian, Hungarian, Turkish, Simplified Chinese, Traditional Chinese, Japanese, Korean, Thai, Indonesian, Persian.
- **Key Lock**: To disable all function keys. Press the Down button for more than 5 seconds to cancel the key lock function.
- Power Indicator: Turns the power LED indicator on/off.
- Human Sensor: turns on/off the Human Sensor function and adjusts its sensitivity. The effective range is from 30 to 70 cm at center front of the sensor. The default setting is Low.
  - \* OFF: Human sensor is disabled and the monitor will not display power saving messages.
  - Low: Sensor distance is around 30 cm.
  - \* Medium: Sensor distance is around 50 cm.
  - \* High: Sensor distance is around 70 cm.



The detective range may be slightly different if user wears dark or bright colored clothing. Set the sensitivity to High when wearing black or other dark clothes.



If the function is enabled and no activity is detected, the monitor will gradually lower its brightness while displaying energy saving messages. The monitor resumes normal brightness once it detects human activity again. After a set period of time into power saving mode, the monitor will enter standby mode.



Please do not put any object too close to the Human Sensor to avoid any interference.

- Information: Shows the monitor information.
- All Reset: "Yes" allows you to restore the default settings.

# **Specifications summary** 3.2

Panel Type	OLED
Panel size	21.6" (16:9, 54.86 cm) wide screen
Max. Resolution	3840 x 2160
Pixel pitch	0.1245 mm
Brightness	335 cd/m² (Typ.) Peak white, 134 cd/m² (Max.) Full
	white
Contrast Ratio (Min.)	100,000:1
Viewing angle (H/V) CR>10	178°/178°
Display colors	1.07 billion (10 bit)
Color gamut	Adobe RGB 99.5%, sRGB 100%, DCI-P3 95%
Response time	0.1 ms (Gray to gray)
SplendidPlus Video Enhancement	Yes
SplendidPlus selection	8 color preset modes
Color temperature selection	5 color temperatures
Digital input	HDMI v2.0b, DisplayPort v1.2 through Type-C
Earphone jack	No
USB 3.0 port	No
Colors	Gray
Power LED	Blue (On)/Amber (Standby)
Tilt	+2°~ +20°
Swivel	No
Pivot	No
Height Adjustment	No
Kensington lock	No
AC input voltage	AC: 100~240V
Power consumption	Power On: < 38 W (Typ.), Standby: < 0.8 W (Typ.), Power Off: 0.35 W
Temperature (Operating)	0°C~40°C
Temperature (Non-operating)	-20°C~+60°C
Dimension (W x H x D)	510.9 mm x 382.1 mm x 128.2 mm (with stand) 510.9 mm x 313.9 mm x 8.5 mm (without stand)
	713 mm x 576 mm x 182 mm (package)
Weight (Esti.)	2.16 kg (Net); 1.5 kg (without stand); 8.8 kg (Gross)
Multi-languages	21 languages (English, French, German, Italian, Spanish, Dutch, Portuguese, Russian, Czech, Croatian, Polish, Romanian, Hungarian, Turkish, Simplified Chinese, Traditional Chinese, Japanese, Korean, Thai, Indonesian, Persian)
Accessories	HDMI micro to HDMI cable, USB cable, power cord, power adapter, quick start guide, warranty card, color calibration testing report, leather case, carry bag
Compliance and Standards	Energy Star, UL/cUL, CB, CE, ErP, FCC, ICES-3, CCC, CEL, BSMI, CU, RCM, VCCI, UkrSEPRO, J-MOSS, RoHS, WEEE, PSE, Windows 7, 8.1 and 10 WHQL, Mac Compliance**

<sup>\*</sup>Specifications are subject to change without notice.
\*\*Requires Mac OS 10.10.x, 10.11.x, 10.12.x.

# 3.3 Troubleshooting (FAQ)

Problem	Possible Solution
Power LED is not ON	<ul> <li>Press the  button to check if the monitor is in the ON mode.</li> <li>Check if the power cord is properly connected to the monitor and the power outlet.</li> <li>Check if the power switch is ON.</li> </ul>
The power LED lights amber and there is no screen image	<ul> <li>Check if the monitor and the computer are in the ON mode.</li> <li>Make sure the signal cable is properly connected the monitor and the computer.</li> <li>Inspect the signal cable and make sure none of the pins are bent.</li> <li>Connect the computer with another available monitor to check if the computer is properly working.</li> </ul>
Screen image is too light or dark	<ul> <li>Adjust the Contrast and Brightness settings via OSD.</li> </ul>
Screen image bounces or a wave pattern is present in the image	<ul> <li>Make sure the signal cable is properly connected to the monitor and the computer.</li> <li>Move electrical devices that may cause electrical interference.</li> </ul>
Screen image has color defects (white does not look white)	<ul> <li>Inspect the signal cable and make sure that none of the pins are bent.</li> <li>Perform All Reset via OSD.</li> <li>Adjust the R/G/B color settings or select the Color Temperature via OSD.</li> </ul>
HDR content is not played properly	<ul> <li>Make sure the input source supports HDR playback (with proper system settings and latest software).</li> </ul>
	<ul> <li>Make sure the content is HDR encoded.</li> </ul>
No sound or sound is low	<ul> <li>Ensure that the HDMI/DisplayPort cable is properly connected to the monitor and the computer.</li> <li>Adjust the volume settings of both your monitor and HDMI/DisplayPort device.</li> <li>Ensure that the computer sound card driver is properly installed and activated.</li> </ul>

# 3.4 Supported operating modes

Resolution	Vertical Frequency	Horizontal	Pixel
Frequency	(Hz)	Frequency (KHz)	(MHz)
640x350	70(N)	31.47(P)	25.18
640x480	59.94(N)	31.47(N)	25.18
640x480	72.82(N)	37.87(N)	31.5
640x480	75.00(N)	37.5(N)	31.5
720x400	70.08(P)	31.47(N)	28.32
800x600	56.25(P)	35.16(P)	36.00
800x600	60.32(P)	37.88(P)	40.00
800x600	72.12(P)	48.08(P)	50.00
800x600	75.00(P)	46.86(P)	49.50
848x480	60(P)	31.0(P)	33.75
1024x768 1024x768	60.00(N)	48.36(N)	65.00 75.00
1024x768	70.069(N) 75.00(N)	56.476(N) 60.02(N)	78.75
1152x864	75.00(N) 75.00(P/N)	67.5(P/N)	108.00
1280x720	60	44.77(N)	74.5
1280x768	60(N)	47.8(N)	79.5
1280x768	75(P)	60.3(P)	102.25
1280x800	60(P)	49.7(N)	84.5
1280x960	60.00(N)	60.00(P)	108.00
1280x1024	60.02(P)	63.98(P)	108.00
1280x1024	75.02(P)	79.98(P)	135.00
1366x768	59.79(P)	47.712(P)	85.50
1400x1050	60(P)	65.3(N)	121.75
1440x900	59.89(P)	55.94(N)	106.50
1600x1200	60.00(P)	75.00(P)	162.00
1680x1050	60.00(P)	65.29(N)	146.25
1920x1080	60.00(P)	67.5(P)	148.5
1920x1200 (Reduced Blanking)	59.95(N)	74.038(P)	154
1920x1200	59.885(P)	74.556(N)	193.25
2560x1080	59.978(N)	66.636(P)	181.25
2560x1440	59.951(N)	88.787(P)	241.50
3840x2160	24(P)	52.593(N)	266.75
3840x2160	25	54.786(N)	278.75
3840x2160	30(P)	67.5(N)	297
3840x2160	50(P)	111.174(N)	587
3840x2160 (Reduced Blanking)	60(N)	133.313(P)	533.25
3840x2160	60(N)	135(P)	594.0

When the monitor is operating in the video mode (ie, not displaying data) using the HDMI connector, the following high definition modes shall be supported in addition to standard definition video.

Resolution	Vertical Frequency (Hz)	Horizontal Frequency (KHz)
	24	27
1000 v 1000n	50	56.25
1920 × 1080p	59.94	67.43
	60	67.5
	50	28.13
1920 × 1080i	59.94	33.72
	60	33.75
1440x480P	59.94	31.47
1440X480P	60	31.5
1440x576P	50	31.25
	50	37.5
1280 × 720p	59.94	44.95
	60	45
720 × 576p	50	31.25
700 400	59.94	31.47
720 × 480p	60	31.5
640 × 490p(\/CA\	59.94	31.47
640 × 480p(VGA)	60	31.5
720(1440) × 576i	50	15.63
	59.94	15.73
720(1440) × 480i	60	15.75

<sup>\*</sup> Modes not listed in the table may not be supported. For optimal resolution, we recommend that you choose a mode listed in the table above.

3-12