# **JOC**



LCD Monitor User Manual

22B15H2



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# **Safety**

### **National Conventions**

The following subsections describe notational conventions used in this document.

#### Notes, Cautions, and Warnings

Throughout this guide, blocks of text may be accompanied by an icon and printed in bold type or in italic type. These blocks are notes, cautions, and warnings, and they are used as follows:



NOTE: A NOTE indicates important information that helps you make better use of your computer system.



**CAUTION**: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.



**WARNING**: A WARNING indicates the potential for bodily harm and tells you how to avoid the problem. Some warnings may appear in alternate formats and may be unaccompanied by an icon. In such cases, the specific presentation of the warning is mandated by regulatory authority.

#### **Power**

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 supplied to your home, consult your dealer or local power company.

The monitor is equipped with a three-pronged grounded plug, a plug with a third (grounding) pin. This plug will fit only into a grounded power outlet as a safety feature. If your outlet does not accommodate the three-wire plug, have an electrician install the correct outlet, or use an adapter to ground the appliance safely. Do not defeat the safety purpose of the grounded plug.

Unplug the unit during a lightning storm or when it will not be used for long periods of time. This will protect the monitor from damage due to power surges.



Do not overload power strips and extension cords. Overloading can result in fire or electric shock.

To ensure satisfactory operation, use the monitor only with UL listed computers which have appropriate configured receptacles marked between 100-240V AC, Min. 5A.



The wall socket shall be installed near the equipment and shall be easily accessible.



For use only with included power adapter:

Manufacturer: Shenzhen Suoyuan Technology Co., Ltd.

Model: SOY-1200200EU-539

### Installation

Do not place the monitor on an unstable cart, stand, tripod, bracket, or table. If the monitor falls, it can injure a person and cause serious damage to this product. Use only a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with this product. Follow the manufacturer's instructions when installing the product and use mounting accessories recommended by the manufacturer. A product and cart combination should be moved with care.

Never push any object into the slot on the monitor cabinet. It could damage circuit parts causing a fire or electric shock. Never spill liquids on the monitor.



Do not place the front of the product on the floor.

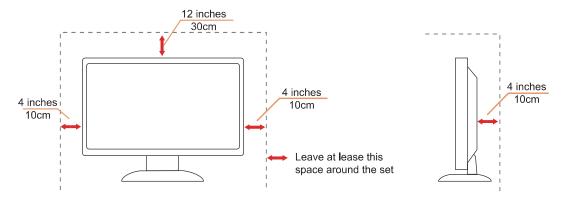
If you mount the monitor on a wall or shelf, use a mounting kit approved by the manufacturer and follow the kit instructions.

Leave some space around the monitor as shown below. Otherwise, air-circulation may be inadequate hence overheating may cause a fire or damage to the monitor.

To avoid potential damage, for example the panel peeling from the bezel, ensure that the monitor does not tilt downward by more than -5 degrees. If the -5 degree downward tilt angle maximum is exceeded, the monitor damage will not be covered under warranty.

See below the recommended ventilation areas around the monitor when the monitor is installed on the wall or on the stand:

#### Installed with stand



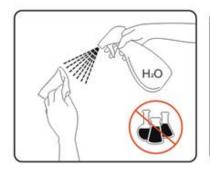
# Cleaning

/ Clean the cabinet regularly with cloth. You can use soft-detergent to wipe out the stain, instead of strong-detergent which will cauterize the product cabinet.

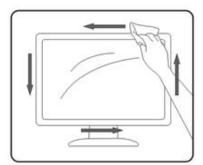
Nhen cleaning, make sure no detergent is leaked into the product. The cleaning cloth should not be too rough as it will scratch the screen surface.



Please disconnect the power cord before cleaning the product.







# **Other**

If the product is emitting a strange smell, sound or smoke, disconnect the power plug IMMEDIATELY and contact a Service Center.



Make sure that the ventilating openings are not blocked by a table or curtain.



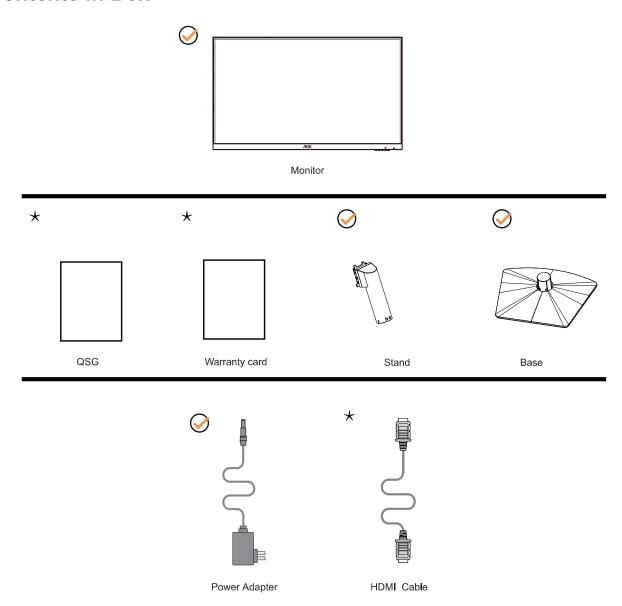
not engage the LCD monitor in severe vibration or high impact conditions during operation.



1 Do not knock or drop the monitor during operation or transportation.

# Setup

### **Contents in Box**

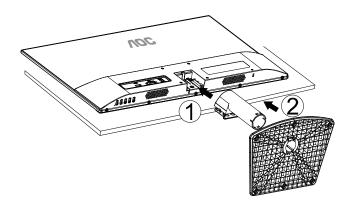


Not all signal cables will be provided for all countries and regions. Please check with the local dealer or AOC branch office for confirmation.

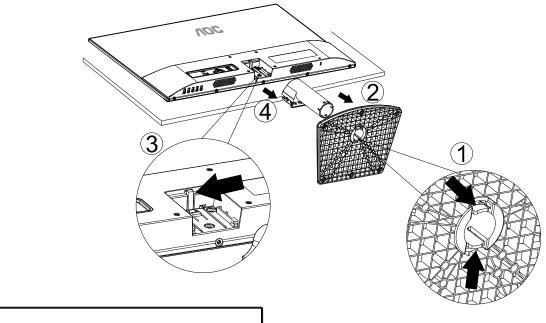
# **Setup Stand & Base**

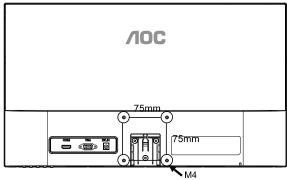
Please setup or remove the base following the steps as below.

#### Setup:

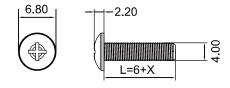


#### Remove:





壁挂孔螺丝规格: M4\*(6+X)mm(X=壁挂架铁件厚度)

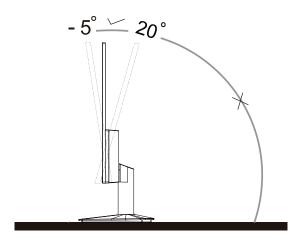


# **Adjusting Viewing Angle**

For optimal viewing it is recommended to look at the full face of the monitor, then adjust the monitor's angle to your own preference.

Hold the stand so you will not topple the monitor when you change the monitor's angle.

You are able to adjust the monitor as below:





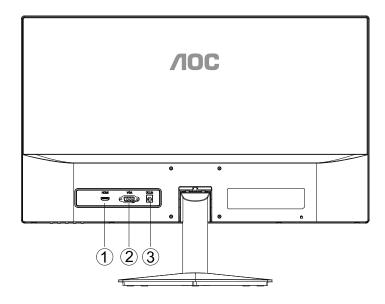
Do not touch the LCD screen when you change the angle. It may cause damage or break the LCD screen.

#### Warning

- To avoid potential screen damage, such as panel peeling, ensure that the monitor does no t tilt downward by more than -5 degrees.
- Do not press the screen while adjusting the angle of the monitor. Grasp only the bezel.

# **Connecting the Monitor**

Cable Connections In Back of Monitor and Computer:



- 1. HDMI
- 2. D-SUB
- 3. Power

#### **Connect to PC**

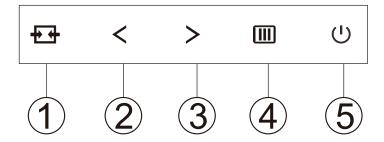
- 1. Connect the power adaptor to the back of the display firmly.
- 2. Turn off your computer and unplug its power cable.
- 3. Connect the display signal cable to the video connector on the back of your computer.
- 4. Plug the power cord of your computer and the power adaptor of your display into a nearby outlet.
- 5. Turn on your computer and display.

If your monitor displays an image, installation is complete. If it does not display an image, please refer Troubleshooting.

To protect equipment, always turn off the PC and LCD monitor before connecting.

# **Adjusting**

### **Hotkeys**



| 1 | Source/Auto/Exit |
|---|------------------|
| 2 | Clear Vision/<   |
| 3 | Image Ratio/>    |
| 4 | Menu/Enter       |
| 5 | Power            |

#### Menu/Enter

Press to display the OSD or confirm the selection.

#### **Power**

Press the Power button to turn on the monitor.

#### Image ratio/>

When the OSD menu is turned off, press the ">" key to enter the image scale switching function, and press the "<" or ">" key to switch between 4:3 or widescreen modes. If the input resolution of the product is widescreen mode, the "Image Ratio" item in the OSD cannot be adjusted.

#### Source/Auto/Exit

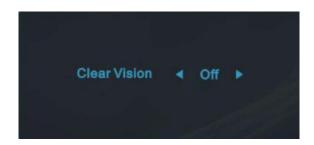
When the OSD menu is turned off, if the input is a D-SUB signal source, holding down this key for about 2 seconds will enter the automatic adjustment function. The automatic adjustment function will automatically set the horizontal position, vertical position, clock, and phase.

When the OSD menu is turned off, press this key to activate the signal source switching function. Continuously press this key to select the signal source displayed in the information bar, and press the menu key to adjust to select the signal source.

When the OSD menu is active, this button serves as the exit key (to exit the OSD menu).

#### Clear Vision/<

- 1. When the OSD is not displayed, press the "<" button to activate Clear Vision. one
- 2. Use the "<" or ">" button to select settings such as weak, medium, strong, or off. The default setting is always' off '



3. Press and hold the "<" button for 5 seconds to activate the Clear Vision demo, and the message "Clear Vision Demo: on" will appear on the screen. Press the menu or exit button, and the message will disappear. Press and hold the ' <' button again for 5 seconds to close the Clear Vision demonstration.(Clear Vision demo: On) Five seconds.



The Clear Vision function can convert low resolution blurry images into clear and vivid images, providing the best image viewing experience.

|                          | Weak              | Adicat Olasa Vision              |  |
|--------------------------|-------------------|----------------------------------|--|
| Clear Vision             | Medium            |                                  |  |
|                          | Strong            | Adjust Clear Vision.             |  |
|                          | Off               |                                  |  |
| Clear Vision demonstrate | Disable or Enable | Disable or enable demonstrations |  |

### **OSD Setting**

Basic and simple instruction on the control keys.



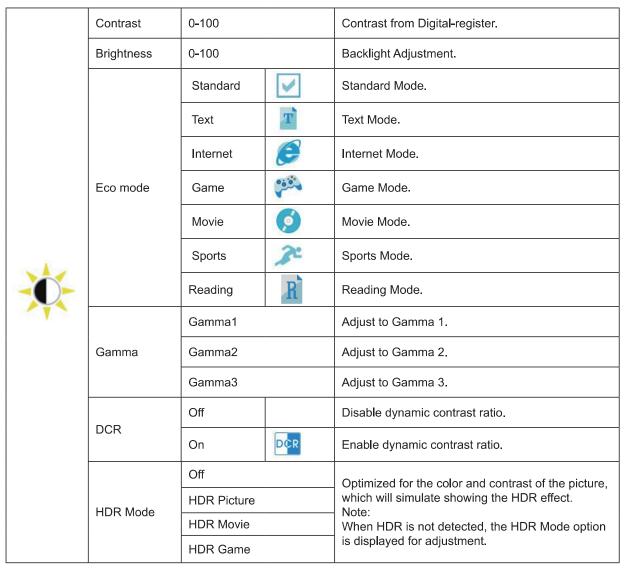
- 1). Press the **IIII MENU-button** to activate the OSD window.
- 2). Press < Left or > Right to navigate through the functions. Once the desired function is highlighted, press the IIII MENU-button to activate it, press < Left or > Right to navigate through the sub-menu functions. Once the desired function is highlighted, press IIII MENU-button to activate it.
- 3). Press < Left or > to change the settings of the selected function. Press + to exit. If you want to adjust any other function, repeat steps 2-3.
- 4). OSD Lock Function: To lock the OSD, press and hold the III MENU-button while the monitor is off and then press U power button to turn the monitor on. To un-lock the OSD press and hold the III MENU-button while the monitor is off and then press U power button to turn the monitor on.

#### Notes:

- 1). If the product has only one signal input, the item of "Input Select" is disable to adjust.
- 2). If the product input signal resolution is the local resolution, the "Image Ratio" item is invalid.
- 3). ECO modes (except Standard mode), DCR, DCB mode and Picture Boost, for these four states that only one state can exist.

#### Luminance





#### Note:

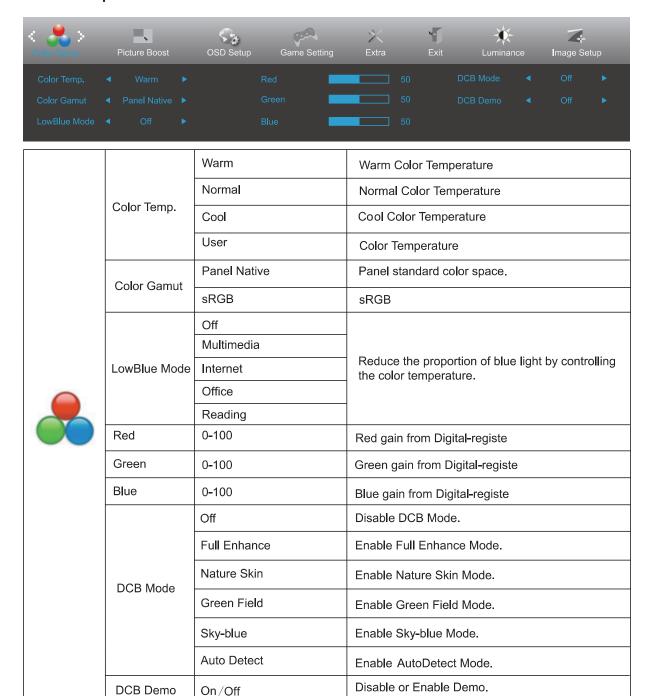
1) When "HDR Mode" is set to "non-off", the items "Contrast", "Eco Mode", "Gamma" cannot be adjusted.

# Image Setup



| Clock       | 0-100 | Adjust the image clock to reduce vertical line noise   |
|-------------|-------|--|
| Phase       | 0-100 | Adjust the image phase to reduce horizontal line noise |
| Sharpness   | 0-100 | Adjust the sharpness of the image.                     |
| H. Position | 0-100 | Adjust the horizontal position of the image            |
| V. Position | 0-100 | Adjust the vertical position of the image.             |

#### **Color Setup**



#### Note:

When "HDR Mode" or "HDR" under "Brightness" is set to non-off, all items under "Color Settings" cannot be adjusted.

When Color Setup is set to sRGB, all other items under Color Gamut cannot be adjusted.

### **Picture Boost**



|             | Bright Frame | On or Off | Disable or Enable Bright Frame.   |
|-------------|--------------|-----------|-----------------------------------|
| ( <u>6 </u> | Frame Size   | 14-100    | Adjust Frame Size.                |
|             | Brightness   | 0-100     | Adjust Frame Brightness.          |
| •           | Contrast     | 0-100     | Adjust Frame Contrast.            |
|             | H. position  | 0-100     | Adjust Frame horizontal Position. |
|             | V. position  | 0-100     | Adjust Frame vertical Position.   |

#### Note:

Adjust the brightness, contrast, and position of the Bright Frame for better viewing experience.

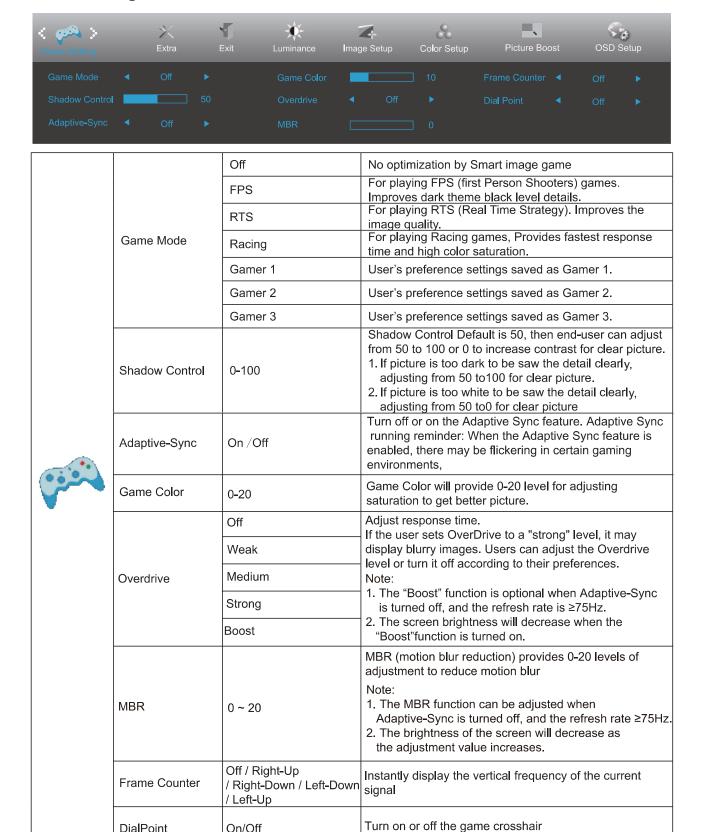
When "HDR Mode" or "HDR" under "Luminance" is set to "non-off", all items under "Picture Boost" cannot be adjusted.

### **OSD Setup**



| Language       |            | Select the OSD language.                              |
|----------------|------------|---|
| Timeout        | 5-120      | Adjust the OSD Timeout.                               |
| H. Position    | 0-100      | Adjust the horizontal position of OSD.                |
| V. Position    | 0-100      | Adjust the vertical position of OSD.                  |
| Volume         | 0-100      | Volume Adjustment.                                    |
| Transparence   | 0-100      | Adjust the transparence of OSD.                       |
| Break Reminder | On or Off  | Break reminder if the user continuously work for more |
| Dicak Reminder | 011 01 011 | than 1hrs.  |

#### **Game Setting**



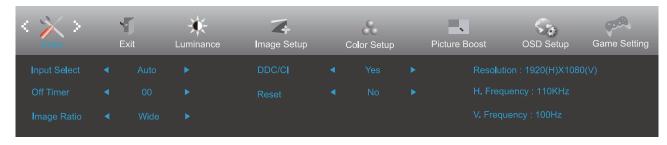
#### Note:

DialPoint

On/Off

When "HDR Mode" under "Luminance" is set to "non-off", the items "Game Mode", "Shadow Control", "Game Color", cannot be adjusted.

#### **Extra**



|    | Input Select | Auto/D-SUB/HDMI | Select Input Signal Source.              |
|----|--------------|-----------------|--|
| 01 | Off Timer    | 0-24hrs         | Select DC off time.                      |
|    | Image Ratio  | Wide / 4:3      | Choose widescreen or 4:3 display format. |
|    | DDC/CI       | Yes or No       | Turn ON/OFF DDC/CI Support.              |
|    | Reset        | Yes or No       | Reset the menu to default.               |

### Exit



| Exit | Exit the main OSD |
|------|-------------------|
|------|-------------------|

# **LED Indicator**

| Status          | LED Color |
|-----------------|-----------|
| Full Power Mode | White     |
| Active-off Mode | Orange    |

# **Troubleshoot**

| Problem & Question   | Possible Solutions  |  |
|--|---|--|
| Power LED Is Not ON  | Make sure the power button is ON and the Power Cord is properly connected to a grounded power outlet and to the monitor.  |  |
| No images on the screen  | <ul> <li>Is the power cord connected properly? Check the power cord connection and power supply.</li> <li>Is the cable connected correctly? (Connected using the VGA cable) Check the VGA cable connection. (Connected using the HDMI cable) Check the HDMI cable connection. (Connected using the DP cable) Check the DP cable connection. * VGA/HDMI/DP input is not available on every model.</li> <li>If the power is on, reboot the computer to see the initial screen (the login screen), which can be seen. If the initial screen (the login screen) appears, boot the computer in the applicable mode (the safe mode for Windows 7/8/10) and then change the frequency of the video card. (Refer to the Setting the Optimal Resolution) If the initial screen (the login screen) does not appear, contact the Service Center or your dealer.</li> <li>Can you see "Input Not Supported" on the screen? You can see this message when the signal from the video card exceeds the maximum resolution and frequency that the monitor can handle properly. Adjust the maximum resolution and frequency that the monitor can handle properly.</li> <li>Make sure the AOC Monitor Drivers are installed.</li> </ul> |  |
| Picture Is Fuzzy & Has<br>Ghosting Shadowing Problem                   | Adjust the Contrast and Brightness Controls.  Press to auto adjust.  Make sure you are not using an extension cable or switch box. We recommend plugging the monitor directly to the video card output connector on the back.   |  |
| Picture Bounces, Flickers Or<br>Wave Pattern Appears In The<br>Picture |   |  |
| Monitor Is Stuck In Active Off-<br>Mode"                               | The Computer Power Switch should be in the ON position. The Computer Video Card should be snugly fitted in its slot. Make sure the monitor's video cable is properly connected to the computer. Inspect the monitor's video cable and make sure no pin is bent. Make sure your computer is operational by hitting the CAPS LOCK key on the keyboard while observing the CAPS LOCK LED. The LED should either turn ON or OFF after hitting the CAPS LOCK key.  |  |
| Missing one of the primary colors (RED, GREEN, or BLUE)                | Inspect the monitor's video cable and make sure that no pin is damaged.  Make sure the monitor's video cable is properly connected to the computer.   |  |
| Screen image is not centered or sized properly                         | Adjust H-Position and V-Position or press hot-key (AUTO).   |  |
| Picture has color defects (white does not look white)                  | Adjust RGB color or select desired color temperature.   |  |
| Horizontal or vertical disturbances on the screen                      | Use Windows 7/8/10 shut-down mode to adjust CLOCK and FOCUS. Press to auto-adjust.  |  |
| Regulation & Service   | Please refer to Regulation & Service Information which is in the CD manual or www.aoc.com (to find the model you purchase in your country and to find Regulation & Service Information in Support page.   |  |

# **Specification**

# **General Specification**

|                 | Model Name                    | 22B15H2  |                           |              |  |
|-----------------|-------------------------------|--|---------------------------|--------------|--|
|                 | Driving System                | TFT Color LCD                                    |                           |              |  |
|                 | Viewable Image Size           | 54.5 cm diagonal                                 |                           |              |  |
| Panel           | Pixel Pitch                   | 0.2493mm(H) x 0.241 mm                           | (V)                       |              |  |
|                 | Video                         | HDMI Interface & R,G,B                           |                           |              |  |
|                 | Separate Sync.                | H/V TTL  |                           |              |  |
|                 | Display Color                 | 16.7M  |                           |              |  |
|                 | Horizontal Scan Range         | 30k-85kHz (D-SUB)<br>30k-115kHz (HDMI)           |                           |              |  |
|                 | Horizontal scan Size(Maximum) | 478.656mm  |                           |              |  |
|                 | Vertical Scan Range           | 48-75Hz (D-SUB)<br>48-100Hz (HDMI)               |                           |              |  |
|                 | Vertical Scan Size(Maximum)   | 260.28mm   |                           |              |  |
|                 | Optimal Preset Resolution     | 1920x1080@75Hz(D-SUB)<br>1920x1080@100Hz(HDMI)   |                           |              |  |
| Others          | Max Resolution                | 1920x1080@75Hz(D-SUB) *<br>1920x1080@100Hz(HDMI) |                           |              |  |
|                 | Plug & Play                   | VESA DDC2B/CI                                    |                           |              |  |
|                 | Power Source                  | R/G/B / HDMI                                     |                           |              |  |
|                 | Power Consumption             | 12V 2.0A   |                           |              |  |
|                 |                               | Typical(default brightness and contrast) 20.5W   |                           | 20.5W        |  |
|                 | Connector                     | Max. (brightness = 100, contrast =100)           |                           | ≤ 22.5W      |  |
|                 |                               | Standby mode ≤ 0.3W                              |                           | ≤ 0.3W       |  |
| Physical        | Connector Type                | D-Sub/HDMI                                       |                           |              |  |
| Characteristics | Signal Cable Type             | Detachable                                       |                           |              |  |
|                 | Tomporature                   | Operating  | 0°C~ 40°C                 |              |  |
|                 | Temperature                   | Non-Operating                                    | -25°C~ 55°C               |              |  |
| Environmental   | 11                            | Operating  | 10% ~ 85% (non-           | -condensing) |  |
|                 | Humidity                      | Non-Operating                                    | 5% ~ 93% (non-condensing) |              |  |
|                 | Altri                         | Operating  | 0m~ 5000 m (0ft           | ~ 16404ft )  |  |
|                 | Altitude                      |  | 0m~ 12192m (0f            | t~ 40000ft ) |  |

<sup>\*:</sup> Due to compatibility issues with some graphics cards, when D-SUB signal is input, if the resolution 1920x1080@75Hz If any errors occur, please adjust the refresh rate to 60Hz.

# **Preset Display Modes**

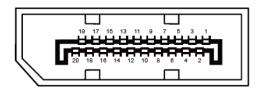
| STANDARD      | RESOLUTION      | HORIZONTAL<br>FREQUENCY(KHz) | VERTICAL<br>FREQUENCY(Hz) |
|---------------|-----------------|------------------------------|---------------------------|
|               | 640x480@60Hz    | 31.469                       | 59.94                     |
| VGA           | 640x480@72Hz    | 37.861                       | 72.809                    |
|               | 640x480@75Hz    | 37.500                       | 75.000                    |
| MAC MODES VGA | 640x480@67Hz    | 35.000                       | 66.667                    |
| IBM MODE      | 720x400@70Hz    | 31.469                       | 70.087                    |
|               | 800x600@56Hz    | 35.156                       | 56.25                     |
| SVGA          | 800x600@60Hz    | 37.879                       | 60.317                    |
| SVGA          | 800x600@72Hz    | 48.077                       | 72.188                    |
|               | 800x600@75Hz    | 46.875                       | 75.000                    |
| MAC MIDE SVGA | 835 x 624@75Hz  | 49.725                       | 74.500                    |
|               | 1024x768@60Hz   | 48.363                       | 60.004                    |
| XGA           | 1024x768@70Hz   | 56.476                       | 70.069                    |
|               | 1024x768@75Hz   | 60.023                       | 75.029                    |
| SXGA          | 1280x1024@60Hz  | 63.981                       | 60.020                    |
| SAGA          | 1280x1024@75Hz  | 79.976                       | 75.025                    |
| WSXG          | 1280x720@60Hz   | 45.000                       | 60.000                    |
| VVSAG         | 1280x960@60Hz   | 60.000                       | 60.000                    |
| WXGA+         | 1440x900@60Hz   | 55.935                       | 59.876                    |
| WSXGA+        | 1680x1050@60Hz  | 65.290                       | 59.954                    |
|               | 1920x1080@60Hz  | 67.500                       | 60.000                    |
| FHD           | 1920x1080@75Hz  | 83.909                       | 74.986                    |
|               | 1920x1080@100Hz | 110                          | 100                       |

According to VESA standard, different operating systems and graphics cards may have a certain error (+/-1HZ) when calculating refresh rate (field frequency), the specific refresh rate (field frequency) please refer to. The object shall prevail.

# **Pin Assignments**



| Pin No. | Signal Name        | Pin No. | Signal Name               | Pin No. | Signal Name     |
|---------|--------------------|---------|---------------------------|---------|-----------------|
| 1.      | TMDS Data 2+       | 9.      | TMDS Data 0-              | 17.     | DDC/CEC Ground  |
| 2.      | TMDS Data 2 Shield | 10.     | TMDS Clock +              | 18.     | +5V Power       |
| 3.      | TMDS Data 2-       | 11.     | TMDS Clock Shield         | 19.     | Hot Plug Detect |
| 4.      | TMDS Data 1+       | 12.     | TMDS Clock-               |         |                 |
| 5.      | TMDS Data 1Shield  | 13.     | CEC                       |         |                 |
| 6.      | TMDS Data 1-       | 14.     | Reserved (N.C. on device) |         |                 |
| 7.      | TMDS Data 0+       | 15.     | SCL                       |         |                 |
| 8.      | TMDS Data 0 Shield | 16.     | SDA                       |         |                 |



#### 20-Pin Color Display Signal Cable

| Pin No. | Signal Name   | Pin No. | Signal Name     |
|---------|---------------|---------|-----------------|
| 1       | ML_Lane 3 (n) | 11      | GND             |
| 2       | GND           | 12      | ML_Lane 0 (p)   |
| 3       | ML_Lane 3 (p) | 13      | CONFIG1         |
| 4       | ML_Lane 2 (n) | 14      | CONFIG2         |
| 5       | GND           | 15      | AUX_CH(p)       |
| 6       | ML_Lane 2 (p) | 16      | GND             |
| 7       | ML_Lane 1 (n) | 17      | AUX_CH(n)       |
| 8       | GND           | 18      | Hot Plug Detect |
| 9       | ML_Lane 1 (p) | 19      | Return DP_PWR   |
| 10      | ML_Lane 0 (n) | 20      | DP_PWR          |

# **Plug and Play**

#### Plug & Play DDC2B Feature

This monitor is equipped with VESA DDC2B capabilities according to the VESA DDC STANDARD. It allows the monitor to inform the host system of its identity and, depending on the level of DDC used, communicate additional information about its display capabilities.

The DDC2B is a bi-directional data channel based on the I2C protocol. The host can request EDID information over the DDC2B channel.

### **Copyright description**



HDMI、HDMI High-Definition Multimedia Interface and other terms、HDMI trade appearance and HDMI labels are all HDMI Licensing Administrator, Inc. is a trademark or registered trademark.

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