

# AOC

## LCD Monitor User Manual

**AG322QC4** LED backlight



**HDMI**<sup>®</sup>

[www.aoc.com](http://www.aoc.com)

©2019 AOC. All Rights Reserved.

---

Safety.....	3
National Conventions.....	3
Power .....	4
Installation.....	5
Cleaning.....	6
Other.....	7
Setup .....	8
Contents in Box .....	8
Setup Stand & Base.....	9
Adjusting Viewing Angle.....	10
Connecting the Monitor.....	11
FreeSync2 function.....	12
HDR.....	14
Hotkeys.....	15
Quick Switch.....	16
OSD Key Guide (Menu).....	17
OSD Setting.....	19
Game Setting.....	20
Luminance .....	21
Image Setup .....	22
Color Setup.....	23
Extra .....	24
OSD Setup .....	25
LED Indicator.....	26
Troubleshoot.....	27
Specification.....	28
General Specification.....	28
Preset Display Modes.....	29
Pin Assignments .....	30
Plug and Play.....	32

---

# 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 the attached power adapter (Output: 20Vdc, 6.0A)

Manufacturers: TPV ELECTRONICS (FUJIAN) CO., LTD. Model: ADPC20120

---

## 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.

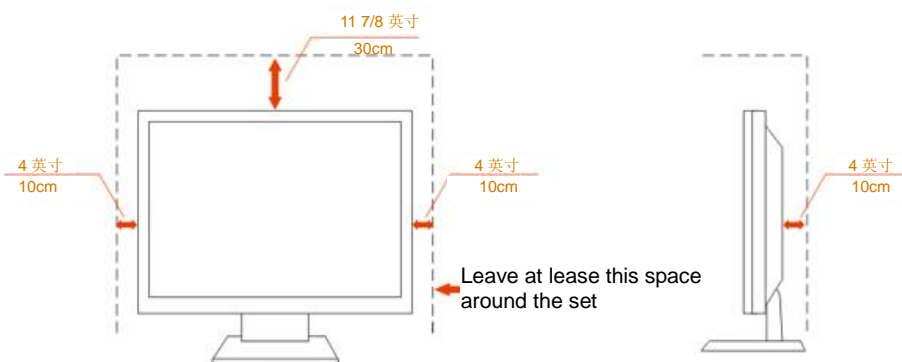
**!** Do not place the front of the product on the floor.

**!** 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.

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.


⚠ When 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.

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

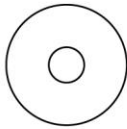
 Do not knock or drop the monitor during operation or transportation.

# Setup

## Contents in Box



Monitor



CD Manual



Warranty card



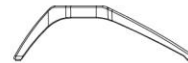
Adapter



Stand



Screws



Base



Hand Screw



Power Cable



Audio Cable



Analog Cable



DP Cable



HDMI Cable



USB Cable



Micphone Cable



Quick Switch Keypad

\* Not all signal cables (Audio, Analog, DP, HDMI, USB and Micphone cables) will be provided for all countries and regions. Please check with the local dealer or AOC branch office for confirmation.

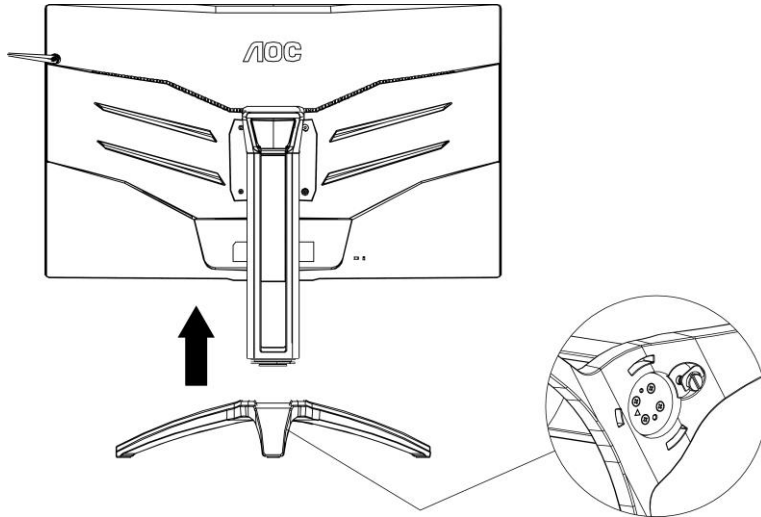


---

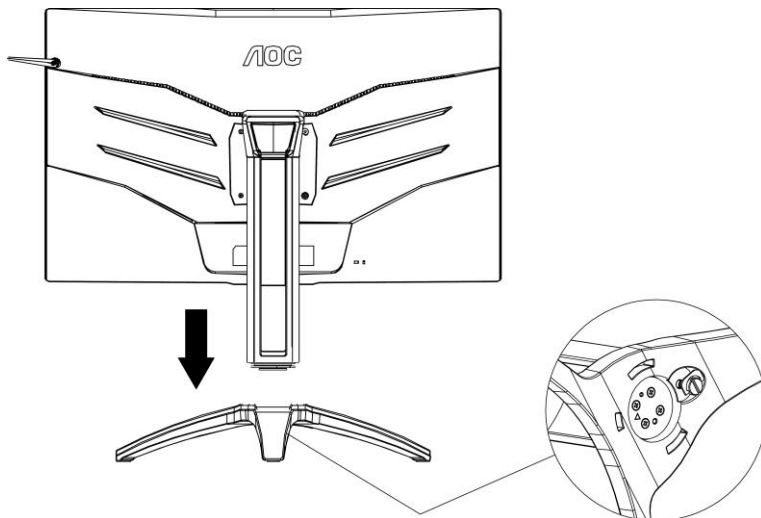
## Setup Stand & Base

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

Setup:



Remove:



---

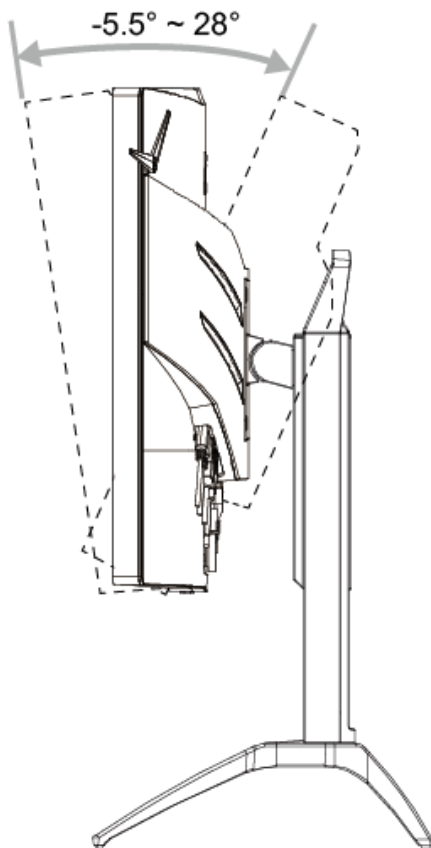
## Adjusting Viewing Angle

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:

Tilt angle:  $-5.5^{\circ}$  ~  $28^{\circ}$

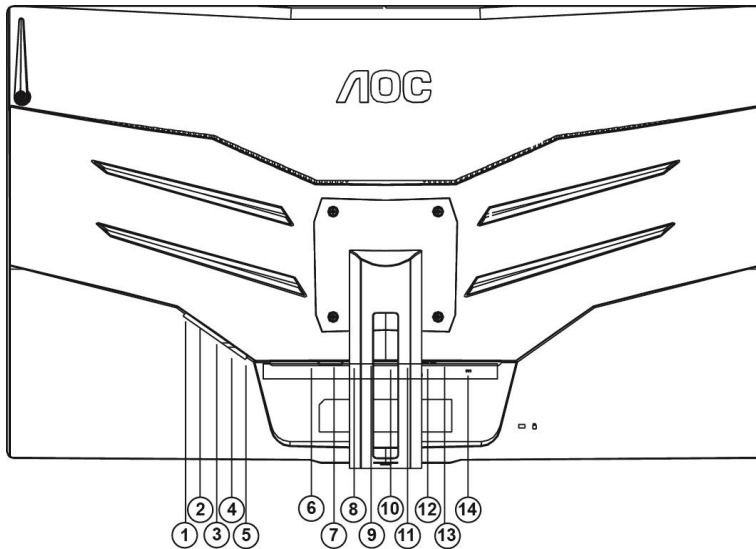


NOTE:

Do not adjust the viewing angle over 28 degrees in order to avoid damage.

# Connecting the Monitor

Cable Connections In Back of Monitor and Computer:



- 1 Microphone in
- 2 Earphone (Combined with Microphone)
- 3 USB3.0 downstream + fast charging(BC1.2)
- 4 USB3.0 downstream
- 5 USB3.0 upstream
- 6 HDMI-2
- 7 HDMI-1
- 8 DP-2
- 9 DP-1
- 10 VGA
- 11 Line in
- 12 Microphone out (Connect to PC)
- 13 Quick Switch Keypad
- 14 DC in

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

- 1 Connect the power cable to the DC port on the back of the monitor.
- 2 Connect one end of the 15-pin D-Sub cable to the back of the monitor and connect the other end to the computer's D-Sub port.
- 3 (Optional – Requires a video card with HDMI port) - Connect one end of the HDMI cable to the back of the monitor and connect the other end to the computer's HDMI port.
- 4 (Optional –Requires a video card with Audio port) - Connect one end of the Audio cable to the back of the monitor and connect the other end to the computer's Audio port.
- 5 (Optional–Requires a video card with DP port) –Connect one end of the DP cable to the back of the monitor and connect the other end to the computer's DP port.
- 6 Turn on your monitor and computer.
- 7 Video content supporting resolution:  
VGA: 1920 x1080@60Hz (Maximum)  
HDMI/DP: 2560x1440@144Hz (Maximum)

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

---

## FreeSync2 function

1. FreeSync2 function is working with DP/HDMI
2. Compatible Graphics Card: Recommend list is as the below, also could be checked by visiting [www.AMD.com](http://www.AMD.com)

- Graphics Cards
- Radeon™ RX Vega series
- Radeon™ RX 500 series
- Radeon™ RX 400 series
- Radeon™ R9/R7 300 series (excluding R9 370/X)
- Radeon™ Pro Duo (2016 edition)
- Radeon™ R9 Nano
- Radeon™ R9 Fury series
- Radeon™ R9/R7 200 series (excluding R9 270/X, R9 280/X)
  
- Processors
- AMD Ryzen™ 7 2700U
- AMD Ryzen™ 5 2500U
- AMD Ryzen™ 5 2400G
- AMD Ryzen™ 3 2300U
- AMD Ryzen™ 3 2200G
- AMD PRO A12-9800
- AMD PRO A12-9800E
- AMD PRO A10-9700
- AMD PRO A10-9700E
- AMD PRO A8-9600
- AMD PRO A6-9500
- AMD PRO A6-9500E
- AMD PRO A12-8870
- AMD PRO A12-8870E
- AMD PRO A10-8770
- AMD PRO A10-8770E
- AMD PRO A10-8750B
- AMD PRO A8-8650B
- AMD PRO A6-8570
- AMD PRO A6-8570E
- AMD PRO A4-8350B
- AMD A10-7890K
- AMD A10-7870K
- AMD A10-7850K
- AMD A10-7800
- AMD A10-7700K
- AMD A8-7670K

- 
- AMD A8-7650K
  - AMD A8-7600
  - AMD A6-7400K

## **Freesync2**

AMD's FreeSync2 HDR content visualization improvement involves defining a panel characteristics requirement that produces twice the color volume of standard SDR panel and a protocol requiring the Sink Device to report the panel's true color chromaticities, min/max luminance, peak luminance, and supported transfer function.

Common HDR10 displays requires an application to map into generic luminance range and use industry standard color space that can be signaled through AVI and HDR Info Frame. This in turn requires Sink to perform tone mapping to map GPU output to actual luminance range and color gamut of the physical panel. Tone mapping by the monitor may increase post processing latency .

The FreeSync2 can allow content to be mapped directly to the display's native color gamut and luminance range to preserve HDR image quality while avoiding multiple inefficient tone mapping and preserving low latencies image update.

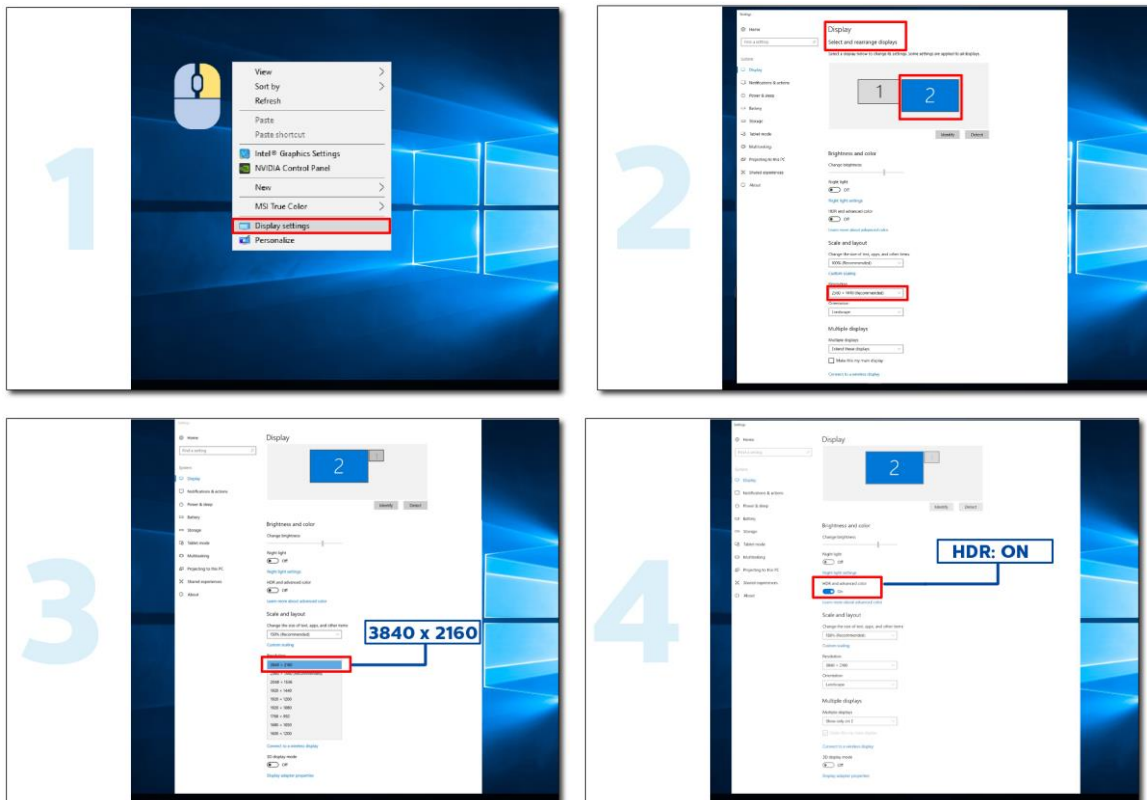
# HDR

It is compatible with input signals in HDR10 format.

The display may automatically activate the HDR function if the player and content are compatible. Please contact the device manufacturer and the content provider for information on the compatibility of your device and content. Please select “OFF” for the HDR function when you have no need for automatic activation function.

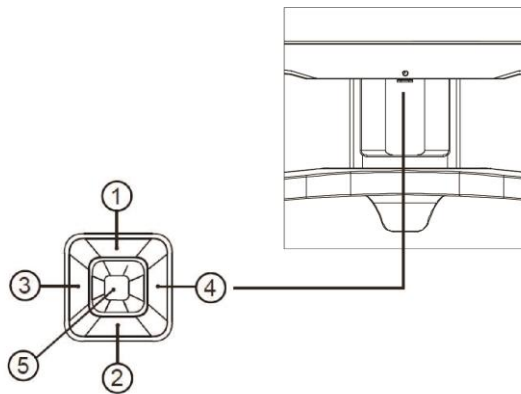
Note:

1. No special setting is needed for the DisplayPort/HDMI interface in WIN10 versions lower (older) than V1703.
2. Only the HDMI interface is available and the DisplayPort interface cannot function in WIN10 version V1703.
3. 3840x2160 @50Hz /60Hz not suggestion used in PC device only for UHD player or Xbox-ones / PS4-Pro.
  - a. The display resolution is set to 3840\*2160, and HDR is preset to ON. Under these conditions, the screen may slightly dim, indicating HDR has been activated.
  - b. After entering an application, the best HDR effect can be achieved when the resolution is changed to 3840\*2160 (if available).



---

## Hotkeys



1	Source/Auto/Exit
2	Dial Point
3	Game Mode/Left
4	LED color/Right
5	Power/ Menu/Enter

### **Power/Menu/Enter**

Press the Power button to turn on the monitor.

When there is no OSD, Press to display the OSD or confirm the selection. Press about 2 seconds to turn off the monitor.

### **Dial Point**

When there is no OSD, press Dial Point button to show / hide Dial Point.

### **Game Mode/Left**

When there is no OSD, press "Left" key to open game mode function, then press "Left" or "Right" key to select game mode (FPS, RTS, Racing, Gamer 1, Gamer 2 or Gamer 3) basing on the different game types.

### **LED Light Effects Control/Right**

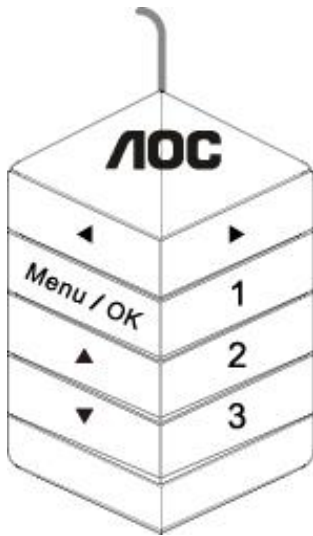
When there is no OSD, press "Right" key to active LED Light Effects Control function.

### **Source/Auto/Exit**

When the OSD is closed, press Source/Auto/Exit button will be Source hot key function. When the OSD is closed, press Source/Auto/Exit button continuously about 2 seconds to do auto configure (Only for the models with D-Sub).

---

## Quick Switch



◀:

When there is no OSD, press the ◀ button to open game mode function, then press ◀ or ▶ key to select game mode (FPS, RTS, Racing, Gamer 1, Gamer 2 or Gamer 3) basing on the different game types.

▶:

When there is no OSD, press “Right” key to active LED Light Effects Control function.

**Menu/OK:**

When there is no OSD, Press to display the OSD or confirm the selection.

▲:

When the OSD is closed, press ▲ button will be Source hot key function. When the OSD is closed, press Source/Auto/Exit button continuously about 2 seconds to do auto configure (Only for the models with D-Sub).

▼:

When there is no OSD, press Dial Point button to show / hide Dial Point.

**1:**

Press the 1 button to select Gamer 1 mode

**2:**

Press the 2 button to select Gamer 2 mode

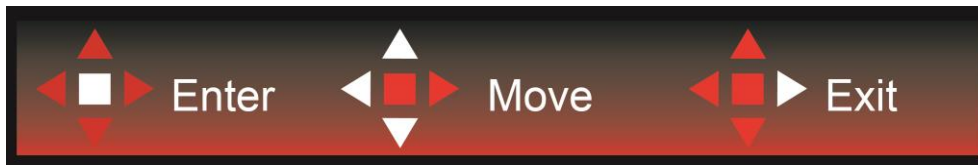
**3:**

Press the 3 button to select Gamer 3 mode



---

## OSD Key Guide (Menu)



Enter : Use Enter key to enter the next OSD level

Move : Use Left /Up / Down key to move OSD selection

Exit : Use Right key to exit OSD



Enter : Use Enter key to enter the next OSD level

Move : Use Right / Up / Down key to move OSD selection

Exit : Use Left key to exit OSD



Enter : Use Enter key to enter the next OSD level

Move : Use Up / Down key to move OSD selection

Exit : Use Left key to exit OSD



Move : Use Left / Right / Up / Down Key to move OSD selection



Exit : Use Left key to exit OSD to previous OSD level

Enter : Use Right key to enter next OSD level

Select : Use Up / Down key to move OSD selection



Enter : Use Enter key to apply the OSD setting and back to previous OSD level

Select : Use Down key to adjust OSD setting



Select : Use Up / Down key to adjust OSD setting

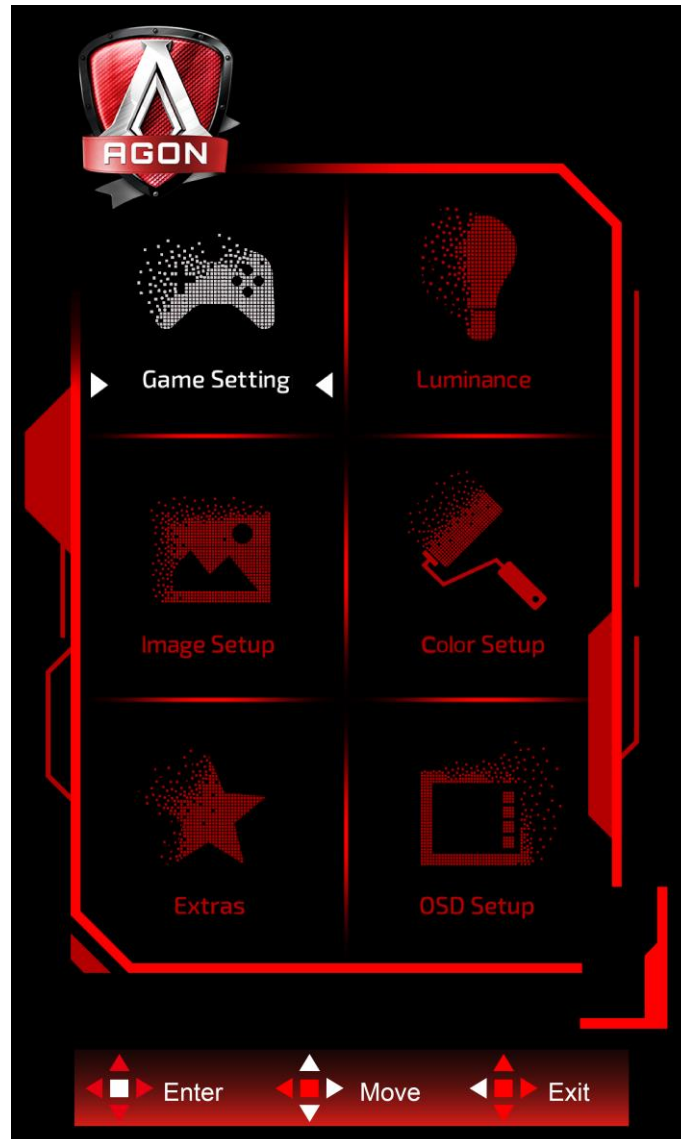


Enter : Use Enter key to exit OSD to previous OSD level

Select : Use Left / Right key to adjust OSD setting

# OSD Setting

Basic and simple instruction on the control keys.

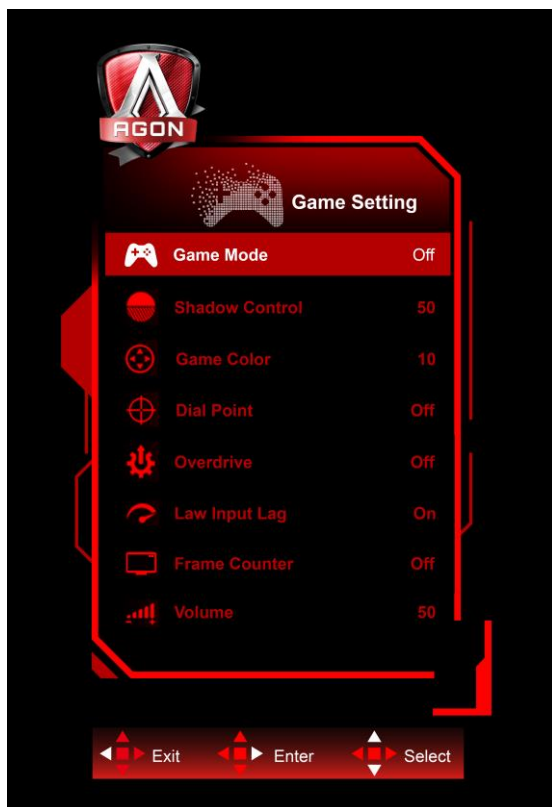



- 1) Press the **MENU-button** to activate the OSD window.
- 2) Follow Key Guide to move or select (adjust) OSD settings
- 3) OSD Lock/Unlock Function: To lock or unlock the OSD, press and hold the **Down-button** for 10s while OSD function is not active.

## Notes:

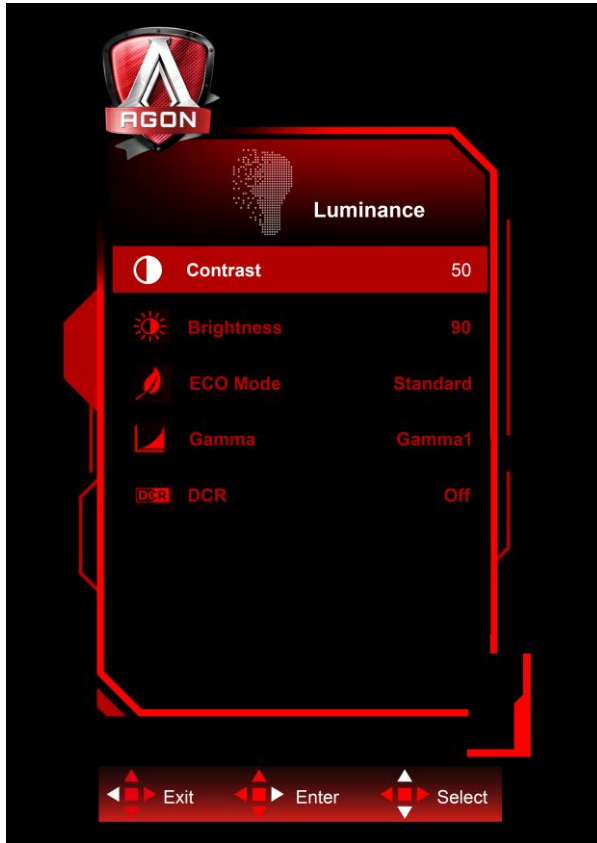
- 1) If the product has only one signal input, the item of "Input Select" is disable to adjust.
- 2) ECO modes (except Standard mode), DCR, DCB mode and Picture Boost, for these four states that only one state can exist.

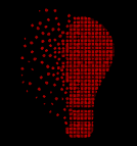
## Game Setting



	Game Mode	FPS	For playing FPS (first Person Shooters) games. Improves dark theme black level details.
		RTS	For playing RTS (Real Time Strategy). Improves the image quality.
		Racing	For playing Racing games, Provides fastest response time and high color saturation.
		Gamer 1	User's preference settings saved as Gamer 1.
		Gamer 2	User's preference settings saved as Gamer 2.
		Gamer 3	User's preference settings saved as Gamer 3.
		off	No optimization by Smart image game
	Shadow Control	0-100	Shadow Control Default is 50, then end-user can adjust from 50 to 100 or 0 to increase contrast for clear picture. 1. If picture is too dark to be saw the detail clearly, adjusting from 50 to 100 for clear picture.. 2. If picture is too white to be saw the detail clearly, adjusting from 50 to 0 for clear picture
	Low Input Lag	On/off	Turn off frame buffer to decrease input lag
	Game Color	0-20	Game Color will provide 0-20 level for adjusting saturation to get better picture.
Overdrive	Weak/Medium/Strong/Off	Adjust the response time.	
Volume	0-100	Volume Adjustment	
Dial Point	On/off	The "Dial Point" function places an aiming indicator in the center of screen for helping gamers to play First Person Shooter (FPS) games with an accurate and precise aiming.	
Frame Counter	Off / Right-Up / Right-Down / Left-Down / Left-Up	Display V frequency on the corner selected	

## Luminance

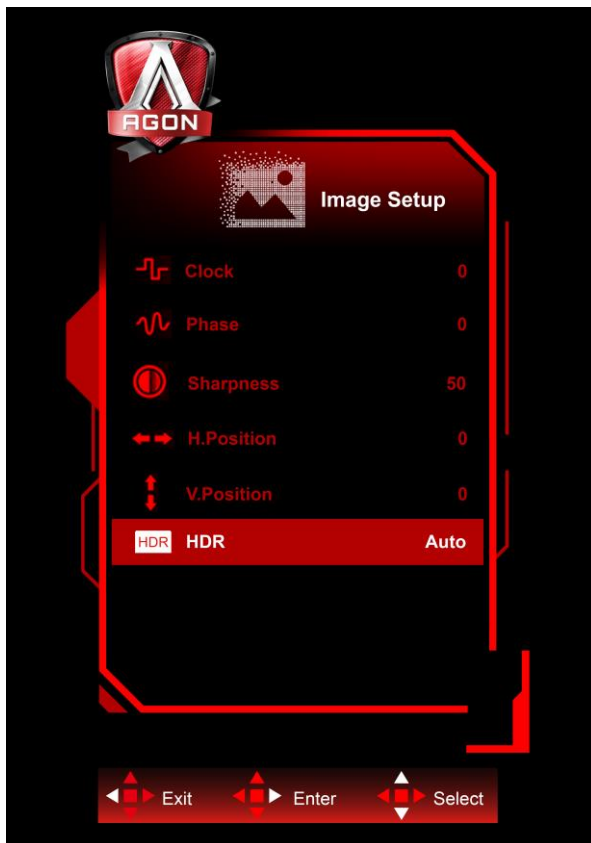


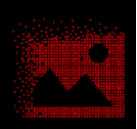
	Contrast	0-100	Contrast from Digital-register.	
	Brightness	0-100	Backlight Adjustment	
	Eco mode	Standard		Standard Mode
		Text		Text Mode
		Internet		Internet Mode
		Game		Game Mode
		Movie		Movie Mode
		Sports		Sports Mode
	Gamma	Gamma1		Adjust to Gamma 1
		Gamma2		Adjust to Gamma 2
Gamma3			Adjust to Gamma 3	
DCR	Off/On		Disable/ Enable dynamic contrast ratio	

### Note:

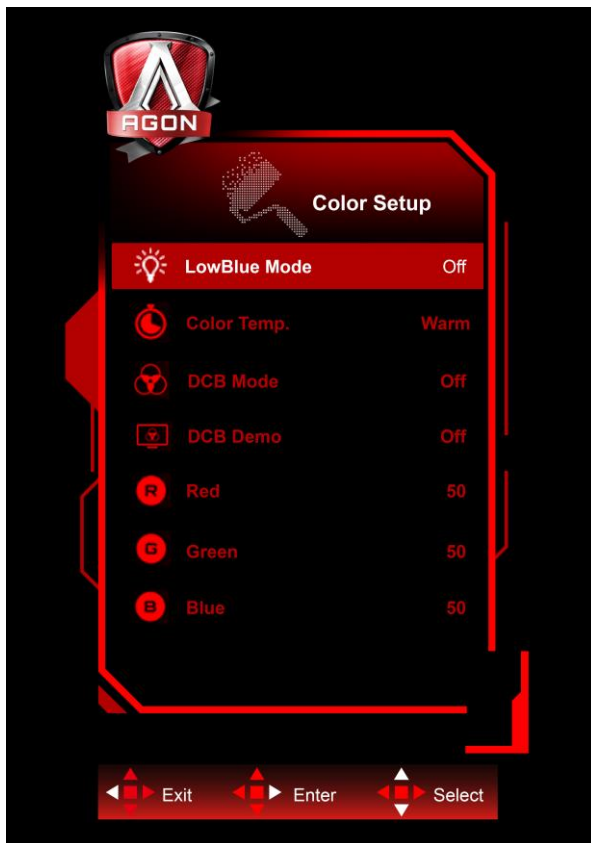
When HDR under Image Setup is set to Auto & Input Source has HDR content, ECO mode will become HDR / HDR Picture / HDR Movie / HDR Game.


## Image Setup



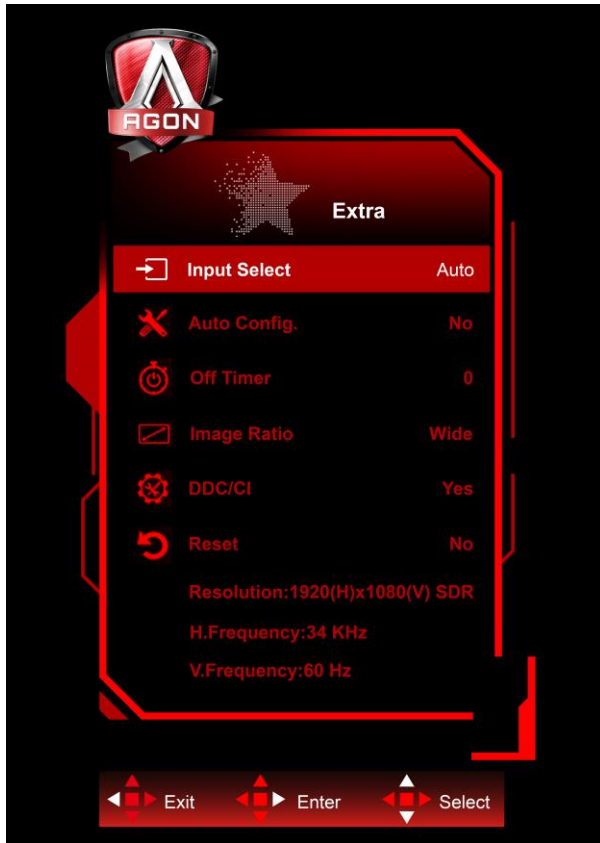
	Clock	0-100	Adjust picture Clock to reduce Vertical-Line noise.
	Phase	0-100	Adjust Picture Phase to reduce Horizontal-Line noise
	Sharpness	0-100	Adjust picture sharpness
	H. Position	0-100	Adjust the horizontal position of the picture.
	V. Position	0-100	Adjust the vertical position of the picture.
	HDR	Off/Auto	Disable or Enable HDR


## Color Setup



	LowBlue Mode	Off / Multimedia / Internet / Office / Reading		Decrease blue light wave by controlling color temperature.	
	Color Temp.	Warm			Recall Warm Color Temperature from EEPROM.
		Normal			Recall Normal Color Temperature from EEPROM.
		Cool			Recall Cool Color Temperature from EEPROM.
		sRGB			Recall SRGB Color Temperature from EEPROM.
	User	Red			Red Gain from Digital-register
		Green			Green Gain Digital-register.
		Blue			Blue Gain from Digital-register
	DCB Mode	Full Enhance	on or off		Disable or Enable Full Enhance Mode
		Nature Skin	on or off		Disable or Enable Nature Skin Mode
		Green Field	on or off		Disable or Enable Green Field Mode
Sky-blue		on or off		Disable or Enable Sky-blue Mode	
AutoDetect		on or off		Disable or Enable AutoDetect Mode	
DCB Demo		on or off		Disable or Enable Demo	

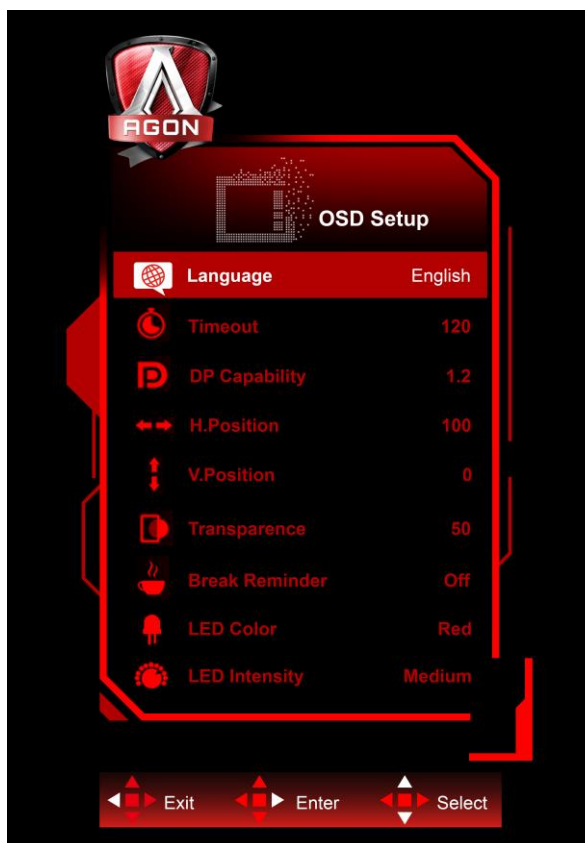
## Extra

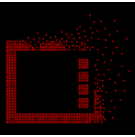


	Input Select	AUTO/D-SUB/HDMI1/HDMI2/DP1/DP2	Select Input Signal Source
	Auto Config	yes or no	Auto adjust the picture to default
	Off timer	0-24hrs	Select DC off time
	Image Ratio	Wide / 4:3 / 1:1 / 17"(4:3) / 19"(4:3) / 19"(5:4) / 19"W(16:10) / 21.5"W(16:9) / 22"W(16:10) / 23"W(16:9) / 23.6"W(16:9) / 24"W(16:9) / 27"W(16:9)	Select image ratio for display.
	DDC-CI	yes or no	Turn ON/OFF DDC-CI Support
	Reset	yes or no	Reset the menu to default



## 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
	Transparence	0-100	Adjust the transparence of OSD
	Break Reminder	on or off	Break reminder if the user continuously work for more than 1hrs
	DP Capability	1.1/1.2	please be noted that only DP1.2 support free sync function
	LED Color	Red / Green / Blue	Adjust color of the LED
	LED Intensity	Off / Weak / Medium / Strong	Adjust intensity of the LED

### Notes:

If the DP video content supports DP1.2, please select DP1.2 for DP Capability; otherwise, please select DP1.1

---

## LED Indicator

Status	LED Color
Full Power Mode	Blue
Active-off Mode	Orange

# Troubleshoot

Problem & Question	Possible Solutions
<b>Power LED Is Not ON</b>	Make sure the power button is ON and the Power Cord is properly connected to a grounded power outlet and to the monitor.
<b>No images on the screen</b>	<ul style="list-style-type: none"> <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 D-sub cable) Check the D-sub-15 cable connection. (Connected using the HDMI/DP cable) Check the HDMI/DP cable connection. * D-sub/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>
<b>Picture Is Fuzzy &amp; Has Ghosting Shadowing Problem</b>	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.
<b>Picture Bounces, Flickers Or Wave Pattern Appears In The Picture</b>	Move electrical devices that may cause electrical interference as far away from the monitor as possible. Use the maximum refresh rate your monitor is capable of at the resolution you are using.
<b>Monitor Is Stuck In Active Off-Mode"</b>	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.
<b>Missing one of the primary colors (RED, GREEN, or BLUE)</b>	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.
<b>Screen image is not centered or sized properly</b>	Adjust H-Position and V-Position or press hot-key (AUTO).
<b>Picture has color defects (white does not look white)</b>	Adjust RGB color or select desired color temperature.
<b>Horizontal or vertical disturbances on the screen</b>	Use Windows 7/8/10 shut-down mode to adjust CLOCK and FOCUS. Press to auto-adjust.

# Specification

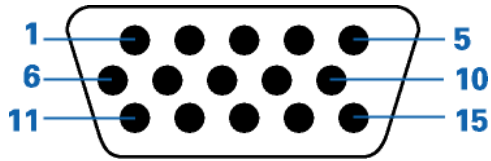
## General Specification

Panel	Model name	AG322QC4		
	Driving system	TFT Color LCD		
	Viewable Image Size	80.0 cm diagonal		
	Pixel pitch	0.2724mm(H) x 0.2724mm(V)		
	Video	R, G, B Analog Interface & HDMI Interface & DP Interface		
	Separate Sync.	H/V TTL		
	Display Color	16.7M Colors		
Others	Horizontal scan range	30k~160kHz(VGA, HDMI 1.4b) 30k~230kHz(HDMI 2.0, DP)		
	Horizontal scan Size(Maximum)	697.344mm		
	Vertical scan range	50~146Hz(VGA) 48~146Hz(HDMI,DP)		
	Vertical Scan Size(Maximum)	392.256mm		
	Optimal preset resolution	1920x1080@60Hz RB(VGA) 2560 x1440 @60Hz (HDMI, DP)		
	Plug & Play	VESA DDC2B/C/I		
	Input Connector	VGA /HDMI/DP/Line in/Microphone In		
	Input Video Signal	Analog: 0.7Vp-p(standard), 75 OHM, TMDS		
	Output Connector	Earphone out/Microphone in		
	Power Source	20Vdc, 6.0A		
	Power Consumption	Typical(Brightness = 90,Contrast = 50)	55W	
		Max. (brightness = 100, contrast =100)	≤110W	
Power saving		≤0.5W		
Off timer	0~24 hrs			
Physical Characteristics	Connector Type	VGA\ HDMI\DP\Earphone out/Microphone In		
	Signal Cable Type	Detachable		
	Dimensions & Weight:			
	Height(with Base)	524.66~634.66mm		
	Width	712.7mm		
	Depth	266.5 mm		
	Weight(Monitor only)	9.17Kg		
Environmental	Temperature	Operating	0°~ 40°	
		Non-Operating	-25°~ 55°	
	Humidity	Operating	10% ~ 85% (non-condensing)	
		Non-Operating	5% ~ 93% (non-condensing)	
	Altitude	Operating	0~ 5000 m (0~ 16404ft )	
		Non-Operating	0~ 12192m (0~ 40000ft )	

## Preset Display Modes

STANDARD	RESOLUTION	HORIZONTAL FREQUENCY(kHz)	VERTICAL FREQUENCY(Hz)
VGA	640x480@60Hz	31.469	59.94
VGA	640x480@67Hz	35	66.667
VGA	640x480@72Hz	37.861	72.809
VGA	640x480@75Hz	37.5	75
VGA	640x480@100Hz	51.08	99.769
VGA	640x480@120Hz	61.91	119.518
DOS MODE	720x400@70Hz	31.469	70.087
DOS MODE	720x480@60Hz	29.855	59.710
SD	720x576@50Hz	31.25	50
SVGA	800x600@56Hz	35.156	56.25
SVGA	800x600@60Hz	37.879	60.317
SVGA	800x600@72Hz	48.077	72.188
SVGA	800x600@75Hz	46.875	75
SVGA	800x600@100Hz	63.684	99.662
SVGA	800x600@120Hz	76.302	119.97
SVGA	832x624@75Hz	49.725	74.551
XGA	1024x768@60Hz	48.363	60.004
XGA	1024x768@70Hz	56.476	70.069
XGA	1024x768@75Hz	60.023	75.029
XGA	1024x768@100Hz	81.577	99.972
XGA	1024x768@120Hz	97.551	119.989
SXGA	1280x1024@60Hz	63.981	60.02
SXGA	1280x1024@75Hz	79.975	75.025
Full HD	1920x1080@60Hz	67.5	60
FHD	1920x1080@100Hz	113.221	99.93
FHD	1920x1080@120Hz	137.26	119.982
QHD	2560x1440@60Hz	88.787	59.951
QHD	2560x1440@75Hz	111.028	74.968
QHD	2560x1440@144Hz	222.056	143.912

## Pin Assignments

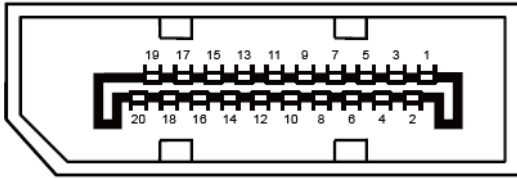


15-Pin Color Display Signal Cable

Pin Number	15-Pin Side of the Signal Cable	Pin Number	15-Pin Side of the Signal Cable
1	Video-Red	9	+5V
2	Video-Green	10	Ground
3	Video-Blue	11	N.C.
4	N.C.	12	DDC-Serial data
5	Detect Cable	13	H-sync
6	GND-R	14	V-sync
7	GND-G	15	DDC-Serial clock
8	GND-B		



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.