



LCD Monitor
User Manual

User Manual

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About this Manual

This Manual is applicable to the Monitor.

The Manual includes instructions for using and managing the product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version in the company website (<http://overseas.hikvision.com/en/>).

Please use this user manual under the guidance of professionals.

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Regulatory Information

FCC Information

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC compliance: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Conditions

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

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

EU Conformity Statement



This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the EMC Directive 2014/30/EU, the LVD Directive 2014/35/EU, the RoHS Directive 2011/65/EU.



2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.recyclethis.info



2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: www.recyclethis.info

Industry Canada ICES-003 Compliance

This device meets the CAN ICES-3 (A)/NMB-3(A) standards requirements.

Applicable Models

This manual is applicable to the model: LCD Monitor.

Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
 NOTE	Provides additional information to emphasize or supplement important points of the main text.
 WARNING	Indicates a potentially hazardous situation, which if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
 DANGER	Indicates a hazard with a high level of risk, which if not avoided, will result in death or serious injury.

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FOR YOUR SAFETY

Please read this manual carefully before using this monitor. Please keep it properly for further reference.

Warning:

To avoid fire or electric shock, the monitor must not be exposed to the rain or moisture. The monitor has dangerous high voltage inside. Do not open the casing. Repair can only be performed by qualified professionals.

Notes

- Do not install the monitor in places near heat (e.g. heater or air hose) or easily exposed to direct sunlight, or dusty areas, or places easily affected by mechanical vibration or shock.
- Please keep the original shipping carton and packaging material properly. These come in handy when carrying the monitor.
- Please repackage the monitor like the way it was packaged for shipping to ensure the best protection.
- Clean the monitor with a soft cloth regularly to keep it new. Slightly soak the soft cloth with neutral detergent to remove stubborn stains. Do not use strong solution, such as thinner, toluene or abrasive cleaner; otherwise the casing would be damaged. Please pull out the plug of the monitor before cleaning for safety concerns.
- Do not scratch the screen with hard objects; otherwise permanent damage may occur.
- Keep liquid out; otherwise component damage may occur.

Precautions

- Do not use the monitor near water, such as places near the sink, wash bowl, kitchen sink, laundry sink, swimming pool or damp basement.
- Do not place the monitor on an unstable cart, base or table. Human injury and severe damage to the device may occur if the monitor falls. Only use the cart or base recommended by the manufacturer or sold with the monitor.
- The notches and openings at the back and bottom of casing are for ventilation. Make sure that these openings are not blocked to ensure stable operation and avoid overheating. Do not place the monitor in a bed, on a sofa, carpet or a similar surface. Do not place the monitor near or above a heater or heating controller. Do not place the monitor on a bookshelf or in a cabinet set unless proper ventilation is available.
- Only use the type of power supply specified on the name plate. If you are not sure of the type of power supply in your home, consult your product dealer or local power company.
- This monitor is equipped with a three-pin plug (a plug that comes with an earthing pin). This plug is for the socket with earthing protection only. If this socket does not support the three-pin plug, please ask an electrician to install a correct socket or use an adapter to ground the

device safely. Do not damage the safety function of the earth plug.

- Please unplug the device during thunderstorm or when the device is not used for a long time. This avoids damage by surge voltage.
- Do not plug into a power strip or extension cord; otherwise overloading may occur. Overloading may lead to fire or electric shock.
- Do not put any foreign object into the notch on the casing of monitor; otherwise parts might be shorted and fire or electric shock may occur. Do not spray liquid onto the monitor.
- Do not repair the monitor by yourself. You might be exposed to dangerous voltage and other risks if opening or removing the casing. All repairs must be performed by a qualified maintenance technician.
- To ensure normal operation, the monitor can only be used with certified computer products. The voltage of the socket equipped with the computer must be between 100 and 240V AC (minimum 5A).
- The socket should be installed near this device and easily accessible.

Special precautions for LCD monitor

The followings are normal for the LCD monitor, not faults.

Notes

- The monitor might blink when it is used for the first time because of LED. Please turn off and turn on the power switch and check if blinking stops.
- The brightness of monitor might be uneven, depending on the wallpaper.
- The effective pixel of LCD monitor is 99.99% (or higher) and 0.01% (or even lower) of the pixels might be defective. For example, the pixel might be missing or remains lit.
- When the monitor shows the same image for a long time, the afterimage of the previous image might remain after switching to a new image due to the properties of LCD monitor. However, the monitor will gradually become normal.
- If the monitor turns black, blinks or doesn't light up, please contact a dealer or repair center for part replacement. Do not repair the monitor by yourself!

BEFORE YOU OPERATE THE MONITOR

Features

- 709mm (28") TFT LCD color monitor
- Clear display
- Recommended resolution: 1920 x 1080@60Hz (VGA), 3840 x 2160@60Hz (HDMI2.0/DP, graphics card support required)

Package contents

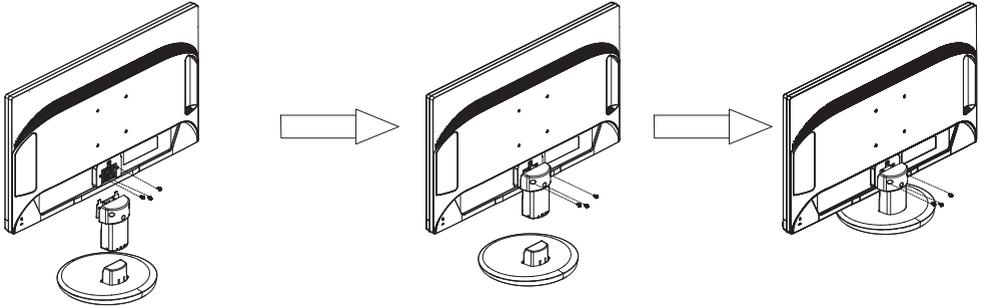
This product package includes the following objects:

1. LCD monitor
2. User manual
3. Power cord
4. HDMI wire
5. Base

Installation instruction

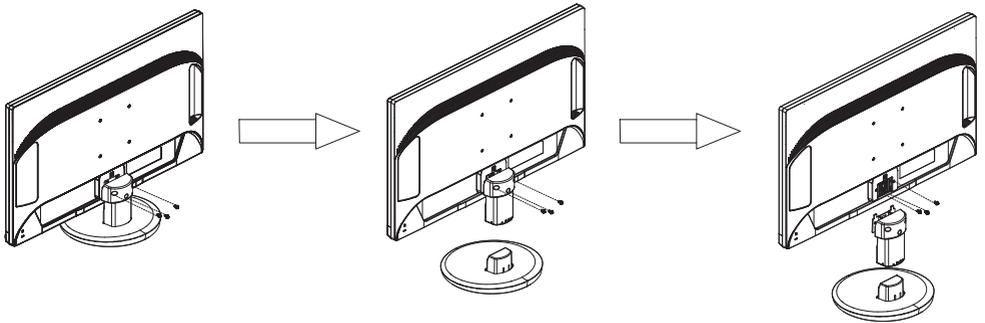
Installation:

1. Open the package, take out the LCD monitor and lay the monitor flat on a table.
2. Assemble the LCD monitor and base as shown. Tighten the screw clockwise.



Disassembly:

1. Lay the LCD monitor flat on a table as shown:
2. Loose the screw counterclockwise and remove the base.



Cable connection

Signal cable

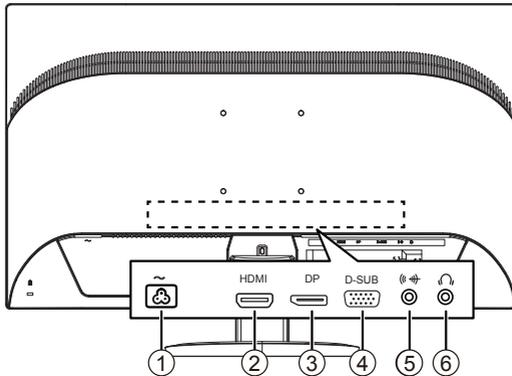
- Signal cable connection: Insert a 15-pin signal cable into the back of monitor and the VGA port of computer.
- HDMI cable connection: Insert a 19-pin HDMI cable into the back of monitor and the HDMI port of computer.
- DP cable connection: Insert a 20-pin cable into the back of monitor and the DP port of computer.

Power cord

1. Be sure to use the power cord complying with local specifications.
2. Connect the power cord with the AC port of adapter and socket matching the LCD monitor. Connect the DC cable of adapter with the DC plug of LCD monitor. Connect the AC power cable to the power socket or the socket of the computer, depending on the type of power cord that comes with the LCD monitor.

Warning:

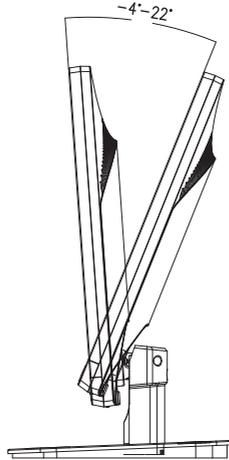
The AC socket is not grounded (not the three-pin type). Please install a proper earthing adapter (not included).



1	Power In
2	HDMI In
3	DP In
4	D-Sub In
5	Audio In
6	Phone Out

Adjusting the viewing angle

- For the best view, it is recommended that you stare at the front of the screen and adjust the monitor angle for your preference.
- Hold the base tight when adjusting the monitor angle to avoid pushing down the monitor.
- The tilted angle can be adjusted between -4° and 22° .



Notes

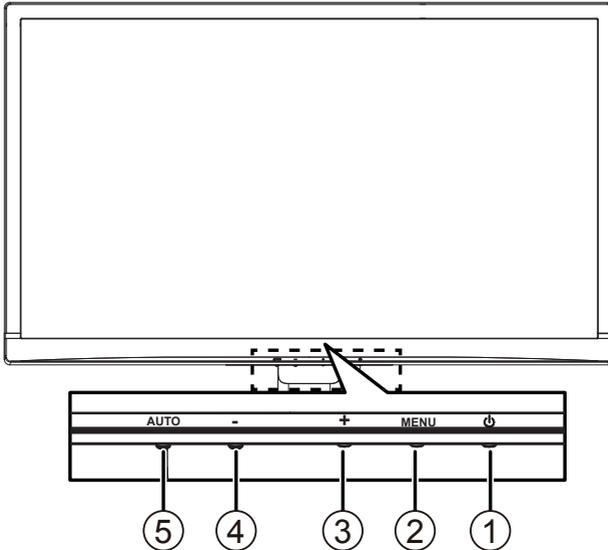
- Do not touch the LCD screen when adjusting the angle; otherwise the LCD monitor might be damaged or broken.
- When adjusting the angle, make sure that your finger or hand is not pinched by the monitor.

OPERATING INSTRUCTIONS

General operating instructions

Press the power button to turn on or off the monitor. Other control buttons are on the side of the monitor. Adjust the image for your preference by changing these settings.

- Connect the power cable.
- Insert the video cable for the monitor into the video card.
- Press the power button to turn on the monitor. The power indicator will light up.



External control buttons

1	Power button
2	Menu/Enter
3	+ / Volume
4	- / Eco Mode
5	Auto adjustment/Signal source/Exit

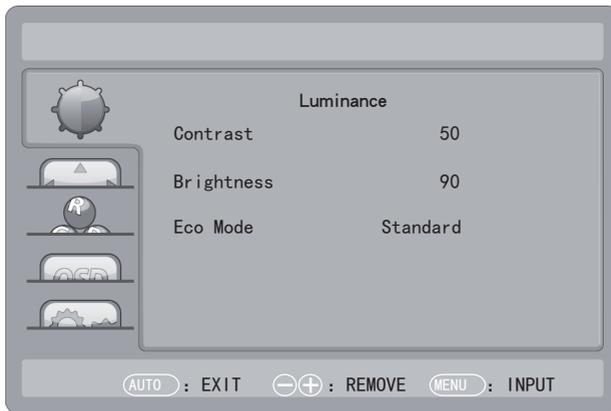
Front panel control

- Power button:
Press it to turn on or off the monitor.
- Power indicator:
Blue - "Power on" mode
Orange - "Standby" mode
Indicator off - "Power off" mode
- Menu / Enter:
Turn on the OSD menu or check the function adjustment. Exit the OSD menu when entering the brightness/contrast OSD status.
- + / Volume:
Press a hot key to turn on the volume control. Press "-" to adjust settings. Press the "Menu" button to confirm and exit the OSD.
- - / Eco Mode:
Turn on the "Eco Mode" (亮度情景模式) when closing the OSD. Browse and adjust icons when opening the OSD. Adjust a function when activating it.
- Auto adjustment button/Signal source/Exit:
 1. When closing the OSD menu, press the button in 3 seconds to active "Auto adjustment" (自动调整). "Auto adjustment" (自动调整) can be used to optimize the "H. Position" (水平位置), "V. Position" (垂直位置), "clock" (时钟) and "phase" (相位) (for VGA only).
 2. Press the button to select the input source from the external signal source.
 3. When opening the OSD menu, press the button to exit the OSD menu.

OSD Locked: To lock the OSD, press the "Menu" button when turning off the monitor. Press the power button to turn on the monitor. To unlock the OSD, press the "Menu" button when turning off the monitor. Press the power button to turn on the monitor.

How to adjust settings

1. Press the "Menu" button to display the OSD menu.
2. Press + or - to browse the entire menu. After highlighting the items you need, press the "Menu" button to open them.
3. Press + or - to browse the entire sub-menu. After highlighting the items you need, press the "Menu" button to activate them.
4. Press + or - to adjust settings.
5. To exit and save, press the "Exit" (退出) button. To adjust other settings, repeat Steps 2-4.



Adjusting the picture

Description of the functions of LED control button

Main menu items	Main menu icons	Sub-menu items	Sub-menu	Description
Luminance (明亮度)		Contrast (对比度)		Contrast adjustment
		Brightness (亮度)		Backlight adjustment
		Eco Mode (亮度情景模式)	Standard (标准)	Standard mode
			Text (节能)	Text mode
			Internet (网络)	Internet mode
			Game (游戏)	Game mode
			Movie (电影)	Movie mode
			Sports (运动)	Sports mode
Image Setup (图像设置)		Clock (时钟)		Adjust the "Clock" icon to reduce the noise on the vertical line.
		Phase (相位)		Adjust the "Phase" icon to reduce the noise on the horizontal line.
		H. Position (水平位置)		Adjust the H. Position of the image.
		V. Position (垂直位置)		Adjust the V. Position of the image.
		Image Ratio (图像比例)	Widescreen (宽屏)	4:3

Main menu items	Main menu icons	Sub-menu items	Sub-menu	Description
Color Temp (色温)		Warm (暖色)		Call the "Warm" color temperature setting from the EEPROM.
		Normal (正常)		Call the "Normal" color temperature setting from the EEPROM.
		Cool (冷色)		Call the "Cool" color temperature setting from the EEPROM.
		User (用户设定)	Red (红)	Red gain
			Green (绿)	Green gain
			Blue (蓝)	Blue gain
sRGB (for models with sRGB only)		Call the "sRGB" color temperature setting from the EEPROM.		
OSD setting (OSD 设置)		Timeout (显示时间)		Adjust the OSD timeout.
		Language (语言)		Select the OSD language.
Extra (其它)		Input select (输入选择)	D-SUB	Select the input signal source.
			HDMI	
			DP	
		DDC/CI	Off (关闭)	Select On/Off DDC/CI
			On (开启)	
		Reset (重置)	Yes (是)	Return the menu to default.
No (否)				
Information (显示信息)		Show the information of image signal source.		

Plug and play

Plug & Play features of DDC2B

This monitor complies with the "VESA DDC Standard" and it is equipped with VESA DDC2B capabilities. This monitor notifies the host system of its information on identification and display function, depending on the DDC level.

DDC2B is a two-way data channel based on I²C protocol. The host can request the EDID information through the DDC2B channel.

If no image input signal is available, the function of this monitor will not be available. The image input signal must be available for normal operation of the monitor.

This monitor complies with the "ECO" standard governed by VESA and NUTEK. The design of this function is to conserve electricity by reducing power consumption when the image input signal doesn't exist. If no image input signal is available, this function switches to "Off" mode automatically based on the setting of delay time. This helps reduce the power consumption of monitor. After the image input signal is recovered, the power is resumed and the image appears on the screen again. The image looks like "screen saver" (except when the monitor is turned off). Press a key on the keyboard or click mouse to return to the screen.

TECHNICAL SUPPORT (FAQ)

Problem	Possible solution
The LED of power supply does not light up.	<ul style="list-style-type: none"> • Please check whether the power switch is "ON". • Connect the power cable first.
Plug & Play is disabled.	<ul style="list-style-type: none"> • Check whether the computer system is compatible with Plug & Play. • Check whether the video card is compatible with Plug & Play. • Please check whether the pin of the plug of D-15 video cable is bent.
The image is blurry.	<ul style="list-style-type: none"> • Please adjust the contrast and brightness control buttons.
The image jitters or ripples appear on the image.	<ul style="list-style-type: none"> • Remove all the electrical devices that might cause EMI.
The LED power indicator is on (orange) but no video or image is available.	<ul style="list-style-type: none"> • The power switch of computer should be on. • The video card of computer should be inserted into the slot properly. • Check whether the video cable for the monitor is connected to the computer properly. • Check the video cable for the monitor and make sure that no pin is bent. • Press CAPS LOCK and observe the LED indicator of CAPS LOCK to ensure the normal operation of the computer. After pressing CAPS LOCK, the LED should be "on" or "of".
One of the primary colors (red, green or blue) is missing.	<ul style="list-style-type: none"> • Check the video cable for the monitor and make sure that no pin is bent.
The image on the screen cannot be centered or the size is wrong.	<ul style="list-style-type: none"> • Please adjust "Clock"* and "Phase"* or long-press the AUTO shortcut key.
Color defect occurs on the image (white doesn't look white).	<ul style="list-style-type: none"> • Please adjust the RGB color or select the color temperature.
Poor brightness or contrast	<ul style="list-style-type: none"> • If the screen is dimmed after being used for a while and the display function is affected, please send the monitor to a qualified repair center.

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No signal	<ul style="list-style-type: none">• Please check the connection of the signal cable. If the connector is loose, please fasten the screw on the connector.• Please check if the pin of the signal cable is broken.
The input signal is not supported.	The display mode setting of the computer is wrong. Please carry out settings according to page 16 "Factory presetting table".

*"Clock" manages the number of pixels scanned by a horizontal scanning line. If the frequency is wrong, vertical ripples appear on the screen and the image width would be wrong.

*"Phase" is used to adjust the phase of signal of pixel frequency. Horizontal noise appears on brighter images if the phase calibration is wrong.

APPENDIX

Specifications

LCD panel	Drive system	28" TFT color LCD monitor
	Size	709 mm diagonal lines
	Pixel pitch	0.16mm (H) × 0.16mm (V)
Input	Video signal	RGB analog signals (VGA)
		Digital signals (HDMI2.0/DP)
	Horizontal frequency	30KHz – 99KHz (VGA), 30KHz – 160KHz (HDMI2.0/DP)
Vertical frequency	50-75Hz (VGA), 23-80Hz (HDMI2.0/DP)	
Screen color		1.07 billion colors
Dot frequency		210MHz (VGA), 600MHz (HDMI2.0/DP)
Highest resolution		1920 x 1080@60Hz(VGA), 3840 x 2160@60Hz (HDMI2.0/DP, graphics card support required)
Plug & Play		VESA DDC2B™
Power consumption	"Boot" mode	≤70W
	"Standby" mode	≤0.5W
	"Shutdown" mode	≤0.5W
Input connector		D-SUB (15-pin)
		HDMI (19-pin)
		DP (20-pin)
Monitor size		Horizontal: 620.93 mm Vertical: 341.28 mm

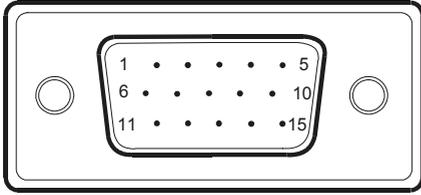
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Power Supply		100-240V ~, 1.5A, 50/60Hz
Operating environment conditions		Operating temperature: 0° to 40°C Storage temperature: -20° to 60°C Operating humidity: 5% to 85%
Dimension		659.7 (W) x 390.9 (H) x 49.3 (D) mm
Weight (net weight):		5.6 kg
External control buttons:	Switch	Power button
		Menu/Enter
		+ / Volume
		- / Eco Mode
		"Auto adjustment" button / Exit / Signal source
	Function button	Brightness
		Image Setup
		Color Temp.
		OSD Setup
		Other
Safety standard		CCC,CE,FCC

Factory presetting table

Specifications	Resolution	H. Frequency (KHz)	V. Frequency (Hz)
VGA	640×480 @60Hz	31.469	59.940
Mac-mode	640×480 @67Hz	35.000	66.667
VGA	640×480 @72Hz	37.861	72.809
VGA	640×480 @75Hz	37.500	75.000
Dos-mode	720×400 @70Hz	31.469	70.087
SVGA	800×600 @60Hz	37.879	60.317
SVGA	800×600 @72Hz	48.077	72.188
SVGA	800×600 @75Hz	46.875	75.000
Mac-mode	832×624 @75Hz	49.725	74.500
XGA	1024×768 @60Hz	48.363	60.004
XGA	1024×768 @70Hz	56.476	70.069
XGA	1024×768 @75Hz	60.023	75.029
WXGA	1366×768 @60Hz	47.712	59.790
HD	1280×720 @50Hz	37.500	50.000
HD	1280×720 @60Hz	45.000	60.000
SXGA	1280×1024 @60Hz	63.981	60.020
SXGA	1280×1024 @75Hz	79.976	75.025
UXGA	1600×1200 @60Hz	75.000	60.000
WSXGA	1440×900 @60Hz	55.935	59.887
WSXGA	1440×900 @75Hz	70.600	75.000
WSXGA+	1680×1050 @60Hz	64.670	59.880
WSXGA+	1680×1050 @60Hz	65.290	59.950
FULL HD	1920×1080 @50Hz	56.250	50.000
FULL HD	1920×1080 @60Hz	67.500	60.000
UHD (only for HDMI2.0/DP1.2)	3840×2160 @30Hz	65.688	29.981
UHD (only for HDMI2.0/DP1.2)	3840×2160 @60Hz	133.312	59.997

Connector pin assignment



Color display signal cable (15-pin)

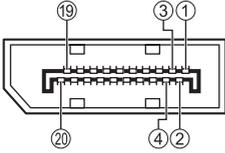
Pin no.	Function	Pin no.	Function
1.	Red	9.	+5V
2.	Green	10.	Ground
3.	Blue	11.	Ground
4.	Ground	12.	DDC serial data
5.	Testing cable	13.	Horizontal synchronization signal
6.	Red ground	14.	Vertical synchronization signal
7.	Green ground	15.	DDC serial clock
8.	Blue ground		



Color display signal cable (19-pin)

Pin no.	Function	Pin no.	Function
1.	TMDS data 2+	11.	TMDS clock mask
2.	TMDS data 2 mask	12.	TMDS clock
3.	TMDS data 2	13.	CEC
4.	TMDS data 1+	14.	Reserved (not used by the device)
5.	TMDS data 1 mask	15.	SCL
6.	TMDS data 1	16.	SDA
7.	TMDS data 0+	17.	DDC/CEC ground
8.	TMDS data 0 mask	18.	+5V power supply
9.	TMDS data 0	19.	Hot plug detection
10.	TMDS clock +		

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Pin no.	Function	Pin no.	Function
1.	ML_LANE3_N	11.	GND
2.	GND	12.	ML_LANE0_P
3.	ML_LANE3_P	13.	GND
4.	ML_LANE2_N	14.	GND
5.	GND	15.	AUX_CH_P
6.	ML_LANE2_P	16.	GND
7.	ML_LANE1_N	17.	AUX_CH_N
8.	GND	18.	HPD
9.	ML_LANE1_P	19.	RETURN (GND)
10.	ML_LANE0_N	20.	DP_PWR (3.3V, 500mA)



See Far, Go Further



Q41G28M108301A