

# User Manual for DTS-4320KC



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**Change History of Revision**

Revision	Date	Contents of Revision Change	Remark
0.0	21.12.13	Release	

## Recommended Use

FOR OPTIMUM PERFORMANCE, PLEASE NOTE THE FOLLOWING WHEN SETTING UP AND USING THE TOUCH SCREEN MONITOR.

- **DO NOT OPEN THE MONITOR.**  
Opening or removing covers may expose you to dangerous shock hazards or other risks.  
Once you open it the warranty voids.
- To protect from electrical shock, unplug the display power supply from the wall before moving.
- Do not put anything on top of the monitor.
- Do not spill any liquids into the cabinet or use your monitor near water.
- Do not place this product on a sloping or unstable cart, stand or table, as the monitor may fall, causing serious damage to the monitor.
- If you connect or disconnect the HDMI cable while both of PC's and LCD monitor's power is turned on, the monitor might show some garbage on the screen or could be damaged. Please turn off the TFT-LCD monitor's power before connect or disconnect HDMI cable.
- Ensure that sufficient space is available around the display to provide air circulation for cooling.
- Ensure that ambient air temperature will not exceed the specified maximum temperature.
- Handle with care when transporting. Save packaging for transporting.
- Do not touch or press the surface of on the LCD panel, it will cause a permanent damage. Use only soft cloth with non-ammonia glass cleaner to clean the panel.

Thank you for your selection of 4K Touch Screen Display Monitor

Please take a few minutes to read this User's manual for the best performance of this monitor.

Information in this manual is subject to change without prior notice for improving design, function and etc.

## 1. Package Contents

Your LCD monitor package will consist of the primary components listed below.



Touch USB Cable



HMDI Cable

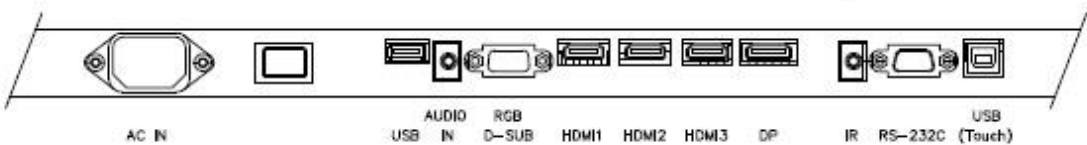
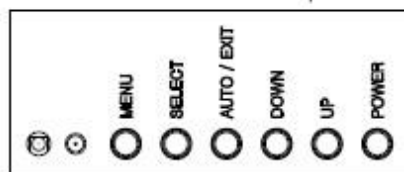
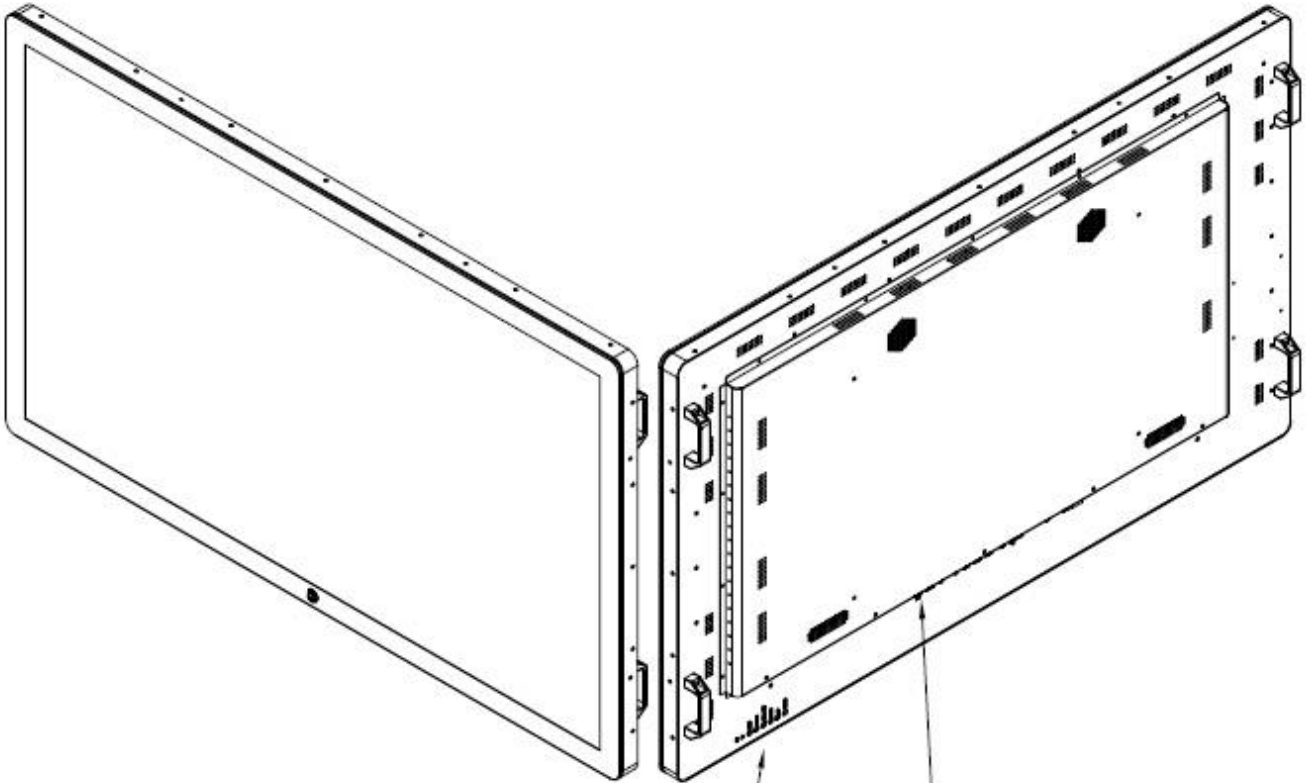


Power Cord

*\* It's possible that it can vary from country*

*Note ) Actual accessories may differ from those in this user's guide.*

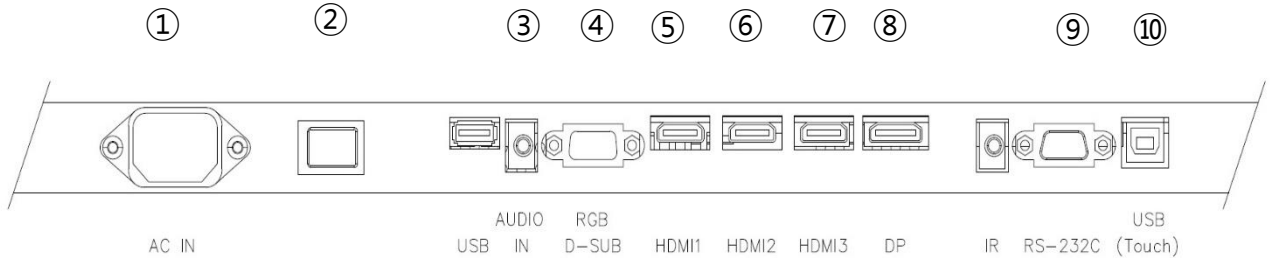
## 2. Product Configuration



**Interface Terminal ( Attached page 7 )**

Note ) Actual Touch Screen Monitor may differ from those in this user's drawing

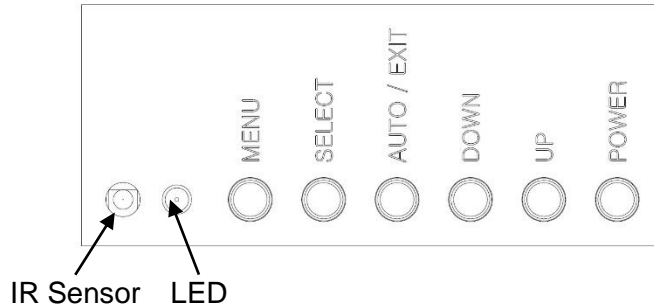
## 3. Interface Description



No	Name	Description
1	AC-Inlet	<ul style="list-style-type: none"> <li>AC input terminal : 100V~240V ( 50hz~60hz)</li> </ul>
2	Power Switch	<ul style="list-style-type: none"> <li>Power On/Off Switch</li> </ul>
3	HP Out	<ul style="list-style-type: none"> <li>For AUDIO In</li> </ul>
4	VGA	<ul style="list-style-type: none"> <li>For VGA Input 1</li> </ul>
5	HDMI1	<ul style="list-style-type: none"> <li>For HDMI(2.0) Input 1</li> <li>Connector to the digital video and audio input terminal</li> </ul>
6	HDMI2	<ul style="list-style-type: none"> <li>For HDMI(2.0) Input 2</li> <li>Connector to the digital video and audio input terminal</li> </ul>
7	HDMI2	<ul style="list-style-type: none"> <li>For HDMI(2.0) Input 2</li> <li>Connector to the digital video and audio input terminal</li> </ul>
8	DP1	<ul style="list-style-type: none"> <li>For DP Input 1</li> <li>Connector to the digital video and audio input terminal</li> </ul>
9	RS232	<ul style="list-style-type: none"> <li>For RS232 Input 1</li> </ul>
10	USB(Touch)	<ul style="list-style-type: none"> <li>Touch screen connect USB cable.</li> <li>Connect to PC's USB 2.0 port</li> </ul>

## 4. OSD Control Board Description

### 4.1 OSD Interface Description



No	Name	Description
1	IR Sensor	<ul style="list-style-type: none"> <li>• IR Sensor for remote control</li> </ul>
2	LED	<ul style="list-style-type: none"> <li>• Indicated LED               <ul style="list-style-type: none"> <li>- . Red Color : Display Power On</li> <li>- . Green Color : Display On</li> <li>- . Yellow Color : Display Error</li> </ul> </li> </ul>
3	POWER BUTTON	<ul style="list-style-type: none"> <li>• Display Power On / Off</li> </ul>
4	SELECT BUTTON	<ul style="list-style-type: none"> <li>• Selected to Input video source : Hot key</li> </ul>
5	UP BUTTON ( ▲ )	<ul style="list-style-type: none"> <li>• Check current input signal : Hot key</li> <li>• Up shift</li> </ul>
6	DOWN BUTTON ( ▼ )	<ul style="list-style-type: none"> <li>• Choose the present menu</li> <li>• Down shift</li> </ul>
7	RIGHT BUTTON ( ► )	<ul style="list-style-type: none"> <li>• Right /select &amp; Increases Volume level</li> <li>• Increase level</li> <li>• Right shift</li> </ul>
8	LEFT BUTTON ( ◀ )	<ul style="list-style-type: none"> <li>• AUTO/ LEFT Decreases Volume level : Hot key</li> <li>• Increase level</li> <li>• Left shift</li> <li>• Exit the present menu</li> </ul>
9	MENU BUTTON	<ul style="list-style-type: none"> <li>• Display the setting menu</li> <li>• Choose or cancel the present menu</li> </ul>



## 4.2 OPERATING THE MONITOR

To create the best picture, your LCD monitor has been preset at the factory with the COMPLIANT TIMING shown on page ???. You are also able to adjust the picture by following the button operation shown below.

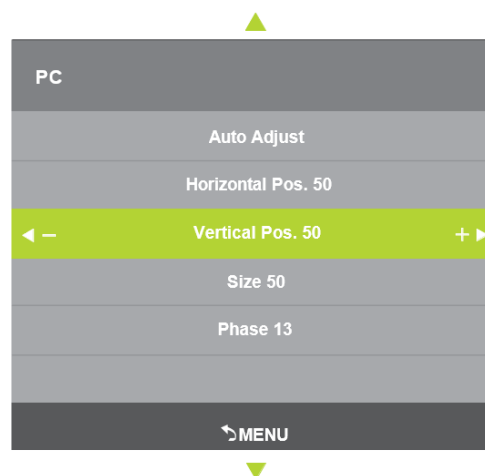
For more detailed adjustments, see page ?? for SCREEN ADJUSTMENTS.

- ① Press the MENU Button to start the On Screen Display feature. There are additional Menu items which can be switched by using the ◀ ▶ Buttons.



- ② Select the Menu item of the adjustment you want to make. Press the O Button and enter the menu page. Then, use the ◀ ▶ Buttons to highlight the desired adjustment item.
- ③ Press the O Button again. Use the ◀ ▶ Buttons to make the appropriate adjustment or setting.
- ④ Press the E IT Button to leave the menu, and the settings you just made would be automatically saved.

For example, to correct for vertical position, select Menu item of "PICTURE". Select "PC" by using the ◀/▶ Buttons. Press the OK Button. Then select "Vertical Pos." by using the ◀/▶ Buttons. Press the OK Button. Use the ◀/▶ Buttons to change the vertical position settings. The vertical position of the overall display should be changing accordingly while you are doing this.



## NOTE

- When button operations are aborted during adjustment, On-Screen Display disappears when the time set for the Menu time has passed.
- The MENU Button can be used to return previous menu item.
- Any changes are automatically saved in the memory when the On Screen Display disappears. Turning off the power should be avoided while using the Menu.
- Adjustments for Horizontal / Vertical Pos., Size and Phase are saved for each signal timing. Except for these adjustments, all other adjustments have only one setting which applies to all signal timings.

### ● LOC MODE

\* Available for OSD key button only.

Pressing and holding the MENU button and the Power Switch for about 3 seconds when the Menu is not displayed.

\* The OSD menu is not displayed when the OSD is locked. Pressing and holding the MENU button and the Power Switch for about 3 seconds when the Menu is not displayed.

The following OSD menu is displayed.

Adjustment Item	Problem / Option	
OSD Lock	On	The OSD menu is Locked.
	Off	The OSD menu is Unlocked.
Power Key Lock	On	The POWER SWITCH is Locked.
	Off	The POWER SWITCH is Unlocked.
Remocon Lock	On	The Remote Control is Locked.
	Off	The Remote Control is Unlocked.

### ● PALM REJECTION FUNCTION

Palm rejection is a way to disregard touch made with “a large contact area” while using pen or finger modes.

A large contact area : palm, clenched fist, elbow, arm, etc.

When you touch the screen with a pen or a finger, palm rejection is activated and the screen does not recognize touch made with the large contact area.



















## NOTE

The screen works only with conductive pens with  $\Phi$ 5-6mm diameter.

The touch panel does not recognize pens with smaller or large diameter.

Touch made by a pen is not recognized within 15mm distance from edge of the active display area.

## ADJUSTMENT MEN CONTENTS

Adjustment Item	Problem / Option		Button to Press	
Picture Mode	Vivid	For displaying outdoor scenery images.		
	Standard	For general windows environment and monitor default setting.		
	Soft	For displaying softly outline images.		
	User	Contrast	Too dull	 
			Too intense	 
		Brightness *1	Too dark	 
			Too bright	 
Color	Purplish	 		
	Greenish	 		
Sharpness	You can change the picture quality from 0 to 4 (soft to sharp). Press the  Button to change the picture quality in numerical order. Press the  Button to change the picture quality in reverse numerical order.			
Color Temperature	Cool	Bluish white		
	Medium	Greenish white		
	Warm	Reddish white		
	User	Red	Too weak	 
Green				
Blue		Too strong	 	
Aspect Ratio	Full	Full screen display		
	4:3	Displays all picture in 4:3 aspect ratio.		
	5:4	Displays all picture in 5:4 aspect ratio.		
	16:10	Displays all picture in 16:10 aspect ratio.		
	Zoom1 *2	Enlarge display		
	Zoom2 *2	Enlarge display even more		

\*1 Adjust the Brightness when you are using the monitor in a dark room and feel the screen is too bright.

\*2 Supported for HDMI and DisplayPort only.

## PICTURE



Adjustment Item	Problem / Option		Button to Press
PC *3	Auto Adjust *4	Adjusts Position, Size and Phase automatically.	
	Horizontal Pos.	Too far to the left	← →
		Too far to the right	← →
	Vertical Pos.	Too low	← →
		Too high	← →
Size	Too narrow	← →	
	Too wide	← →	
Phase	To correct flickering text or lines		← →
Gamma *5	You can set the Gamma. 1.8 / 2.2		
Backlight	Brightness of back light is reduced.		← →

\*3 Only PC-RGB(VGA) input.

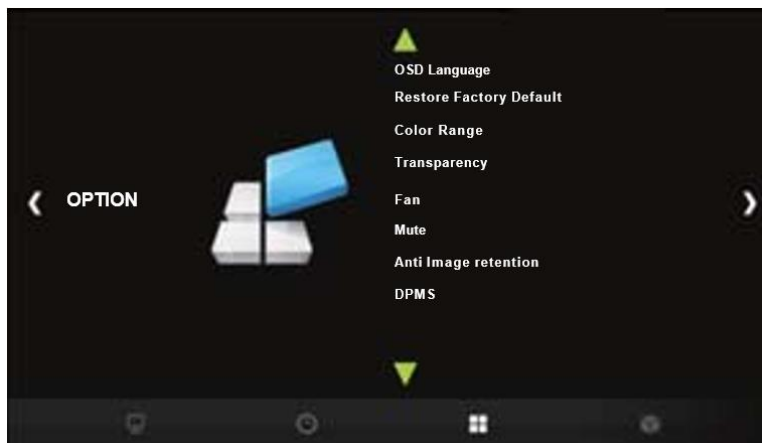
\*4 For best results, use the Auto Adjust in conjunction with the adjustment pattern. for SCREEN ADJUSTMENTS.

\*5 This item is switched by pressing the OK button successively.

**SCHEDULE**

Adjustment Item	Problem / Option	Button to Press
Date and Time	Adjust the current date and time for the internal clock. Year / Month / Day / Hour / Minute	
Off Time	Sets a recurring schedule. Off / Once / Every Day / Mon. - Fri. / Mon. - Sat. / Sat. - Sun. / Sunday	Hour / Minute
On Time	Sets a recurring schedule. Off / Once / Every Day / Mon. - Fri. / Mon. - Sat. / Sat. - Sun. / Sunday	Hour / Minute / Source (PC-RGB/ HDMI1/HDMI2/ HDMI3/DP)
Reset	Resets all settings in the Schedule menu.	

## OPTION

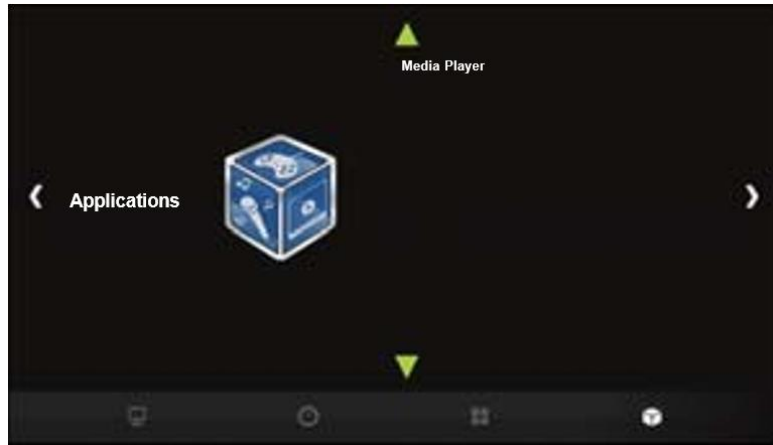


Adjustment Item	Problem / Option		Button to Press	
OSD Language	English	English	Nederlands	Dutch
	Français	French	Polski	Polish
	Español	Spanish	Русский	Russian
	Deutsch	German	Italiano	Italian
Restore Factory Default	Yes	Factory-preset data is restored.		
	No	Return to Menu.		
Color Range *2	Full	For full-range color scale signal		
	Limit	For limited color scale signal		
	Auto	For detect color signal		
Transparency	Set the transmittance of the OSD background. 0% / 25% / 50% / 75% / 100%			
Fan *1,2	On	Fan is turned on.		
	Off	Fan is turned off.		
Mute *2	On	Turn off the sound temporarily.		
	Off	Return the sound volume to the previous level.		
Anti Image Retention *2	On	Automatically displays swift moving patterns every 1 second to prevent image retention on the screen.		
	Off	Anti Image Retention is turned off.		
DPMS	On	DPMS is turned on.		
	Off	DPMS is turned off.		

\*1 If the screen is used in face-up position, please be sure to turn on the FAN function.

\*2 This item is switched by pressing the OK button successively.

## Applications



Adjustment Item	Problem / Option	Button to Press
Media Player	Go to the Media Player menu.	

## Play Multimedia Files

You can play photos, music, movies and texts on your monitor from:

· A USB device connected to this monitor.

- **Play multimedia files from USB device**

To play files on an external USB storage device, simply plug the device into the USB A jack on the monitor.

1. Connect your USB device to the USB port on this monitor.
2. In the "Applications" of the OSD menu, select Media Player.
3. Uses the remote control and follow the On - Screen instructions to operate.

- **USB Standard**

USB2.0

- **Supported file system**

FAT32

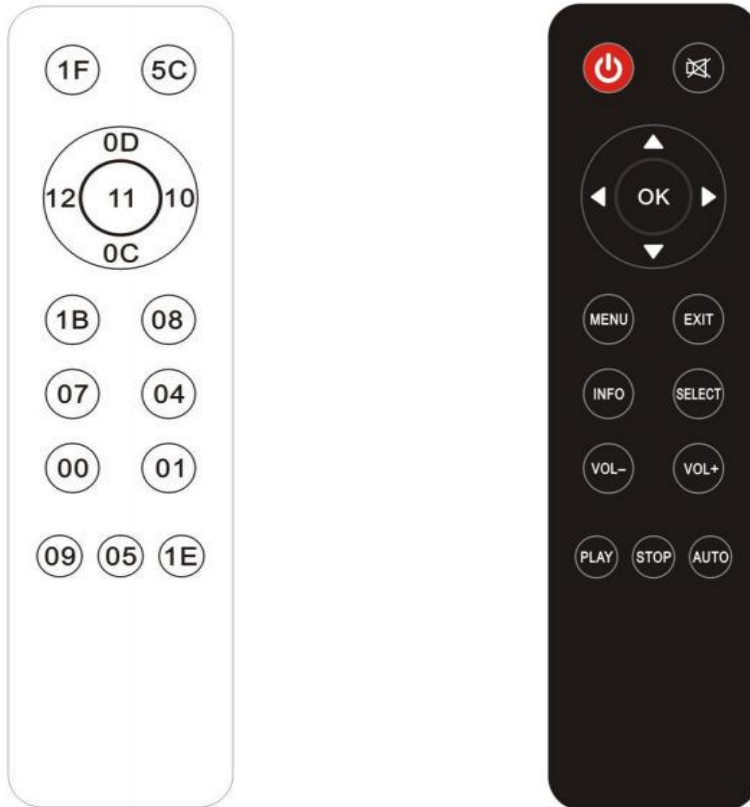
- **Supported file format**

- Music: MP3, MP4, AV
- Movie: D T, VOB, MPG, MPEG, ts, trp, tp, mp4, mov, 3gpp, 3gp, avi, mkv, asf
- Photo: JPEG, BM , PNG
- Text: txt

## 5. Remote Control

- Use a remote control up to 7 meters distance and 30 degree (left/right) within the receiving unit scope.

-Format : NEC



No	Button	Description
1	Power	• Switches the display power on and off
2	Mute	• Switches the audio on and off
3	Menu	• Enter the menu
4	Source	• Select the input video signal
5	(▲/▼)	• Up or Down shift
6	(◀/▶)	• Right or Left shift
7	OK	• Confirm the selection
8	- / +	• Increase or Decreases Volume level



## 6. Trouble shooting

Phenomenon	Confirmation and action
No Display	<ul style="list-style-type: none"> <li>• Check that the Power code is properly connected to the display.</li> <li>• Check that Power on/off button on the OSD</li> <li>• Check that the signal cable is properly connected to the display.</li> <li>• Try disconnecting the video cable from the display and connecting to another display if available to confirm the presence of proper video.</li> <li>• Make sure the resolution mode is supported by the display and check display settings of the PC</li> <li>• Confirm that the video cables is not defective.</li> </ul>
Image Persistence	<ul style="list-style-type: none"> <li>• Image persistence occurs when a ghost of an image remains on the screen after the screen image has been changed.</li> <li>• The LCD monitor's image persistence is not permanent. To erase an image ghost, turn the monitor off for several hours.</li> <li>• What happens is the liquid crystals after extended periods of operation.</li> <li>• Check for proper Max. Resolution and Frequency.</li> </ul>
Picture Quality & Image Stability	<ul style="list-style-type: none"> <li>• Check for proper video cable for proper grounding and shielding.</li> <li>• Check the signal source for proper signal.</li> <li>• Check for proper adjustment of the Phase and Frequency controls.</li> <li>• Check for proper recommended signal timing.</li> </ul>
Green LED not lit	<ul style="list-style-type: none"> <li>• Check for proper power and power connections.</li> </ul>
Display image is not properly sized	<ul style="list-style-type: none"> <li>• Press the "Select" button to Auto Adjust the display.</li> <li>• Adjust the Vertical and Horizontal size controls via the OSD.</li> <li>• (Reference setup adjustments)</li> <li>• Ensure that a supported mode is selected on the display card or system being used. Consult the display card or system manual for proper video.</li> </ul>
Display is present but "bar" Appear or roll across screen	<ul style="list-style-type: none"> <li>• Ground contact problem between computer and display.</li> <li>• Interference from adjacent equipment.</li> </ul>

Phenomenon	Confirmation and action
Image will not adjust	<ul style="list-style-type: none"> <li>• Video timing outside of range</li> <li>• Use the one-screen menu to adjust the clock setting.</li> <li>• Make sure timing is within VESA standard.</li> </ul>
Slight distortion in text or Graphics	<ul style="list-style-type: none"> <li>• Not working in native resolution</li> </ul>
Vertical shaded bars on Screen image	<ul style="list-style-type: none"> <li>• Horizontal size not properly adjusted. Adjust horizontal size</li> </ul>
Image is not stable	<ul style="list-style-type: none"> <li>• Monitor has incorrect or bad sync signals.</li> <li>• Check for proper video cable installation.</li> <li>• Replace suspected faulty cable.</li> <li>• Check to ensure that video source is within the display's operating range.</li> </ul>

## 7. Specification

### (1) MONITOR SPECIFICATIONS

ITEMS		SPECIFICATION
Panel	Screen Diagonal	42.51 inch
	Active Display Area	941.184 x 529.416mm
	Display Type	Transmissive mode, Normally black
	Max. Resolution	3,840 x 2,160
	Display Colors	1.07B Colors, 10Bits(D)
	Pixel Pitch	0.2451 x 0.2451mm
	Brightness	500 cd/m <sup>2</sup> (Typ.)
	Contrast Ratio	1000 : 1 (Typ.)
	Response Time (G to G)	8ms (Typ.)
	Viewing Angle	178°(H), 178° (V) Min.
	Lamp Life Time	30,000Hrs (Typ)
Input Video Signal		HDMI 2.0 x3, DP 1.2 x1 , VGA , RS232
Audio	Input / Output	HDMI, DP / Ø3.5 Phone Jack for Headphone, Speaker
	Speaker Output	8Wrms + 8Wrms ( ± 10%)
Control/OSD		6 KEY (MENU,SOURCE/▲,AUTO/▼,VOL◀,VOL▶,POWER)
Indication LED		Power Off : Led Off , St-by : Red Blinking , Normal : Green
Power Input		AC 100V~240V (50/60Hz)
Power Management		VESA DPMS

### (2) TOUCH SPECIFICATIONS

ITEMS	SPECIFICATION
Touch Type	PCAP (Projected Capacitive) EETI Controller
Touch Input Method	Finger
Number of Touch Point	20 Points Multi-Touch
Available Object size	Ø9mm(Finger)
Response Time	25ms
Thickness	5.45mm(Glass : 5mm, Sensor : 0.45mm)
Transmittance	84%(Typ.)
Position Accuracy	+/- 1mm (outside 3.5mm from edges) +/- 2mm (within 3.5mm from edges)
Interface	USB 1.1 FS, HID Compliant Plug & Play / RS232 (Option)
Supported OS	Windows 7/8/10/11, Linux (Linux USB/HID Driver) : above kernel Ver.2.4x/2.6x/3.x.x/4.x.x, Android (Android USB/HID Driver): : above Ver.2.3 to 9 , Mac OS 9 to 10.12 , QNX RTOS V6.3 to 6.6

**(3) MECHANICAL SPECIFICATIONS**

ITEMS	SPECIFICATION
Outline Dimension (HxVxD)	1018.2±1.2mm x 606.4±0.8mm x 61±0.8mm(Without Handle)
Weight(Net/ Gross)	36Kg Approx./ 42Kg Approx.
Standard Accessory	HDMI Cable, USB Cable, Power Cord, Remote control
VESA Mount Size	400 x 200 (mm) ,4-M6

**(4) CONNECTOR INTERFACE**

ITEMS	DESCRIPTION	
HDMI	HDMI 2.0 x3	
DP	DP 1.2 x1	
PC Audio Input	HDMI, DP	
Headphone Output	3.5ø Stereo Phone Jack	
USB (Touch Interface)	Connector	USB Type 'B' Female
	Power	USB Bus Powered
	Protocol	Human Interface Device(HID)
	Operation	Plug & Play
	Speed	USB 2.0 Full Speed

※Notice 1 : Do not set battery mode or power save mode in computer power option.

※Notice 2 : The standard of USB communication length is 5M(refer to usb.com)

When you use USB extension Cable, data loss and degradation might be able to be occurred.

In order to minimize data loss and degradation according to USB extension Cable using,

We highly recommend Repeater using to provide external power supply.

**(5)ENVIRONMENTAL CONDITIONS**

ITEMS	SEPECIFICATION
Operating Temperature	0 ~ 50 °C
Operating Humidity	10 ~ 90% (Non Condensing)
Storage Temperature	-20 ~ 60 °C
Storage Humidity	10 ~ 90% RH(Non Condensing)

**(6) ELECTRICAL SPECIFICATIONS**

ITEMS	SEPECIFICATION
Power Supply	AC 100V~240V (50/60Hz)
Power Consumption	Max. 1.3A