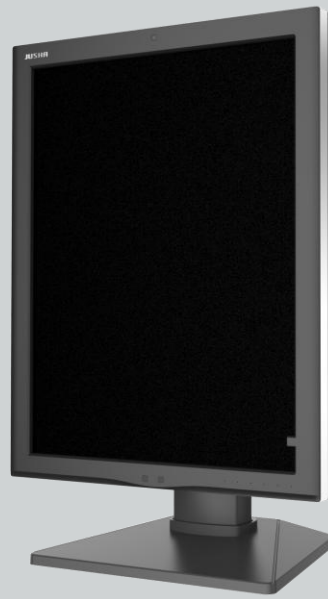# JUSHA 2MP Medical Display

C270 C270G M270 M270G
C260 C260G M260 M260G

User Manual

Document No.: JSWI-03-187

Nanjing Jusha Display Technology Co., Ltd.

8A, Block 1, Nanjing International Service Outsourcing Mansion, No.301
Hanzhongmen Street, Nanjing City, Jiangsu Province, 210036 China

Tel:　0086-25-83305050

Fax:　0086-25-58783273

Visit us at the website: www.jusha.com.cn

ENGLISH

Contents

Contents

1. Manual instructions

1.1 About this manual

- This manual aims to guide users how to install, configure and operate this professional medical display properly.

- When transfer the display to a third-party, please deliver this manual along with the display.

- Our goal is to provide you with the most accurate and usable documentation possible; if you discover errors, please let us know.

- For any further questions about this manual, you are welcome to contact Nanjing Jusha Display Technology Co., Ltd. (hereinafter referred to as JUSHA).

1.2 Explanation of symbols

This manual and product use the symbols below.

📄	**Note** Gives extra information about the described subject.
⚠️	**Warning** Indicates general cautionary, warning, or danger level information.
⚡	**Electrical Shock Caution** Indicates possibility of electric shock.
🚫	**Prohibition** Indicates a general prohibition.
⏚	**Mandatory Ground** Indicates that a ground that must be connected by the user for a device equipped with a ground terminal.

Manual instruction

⏚	**Functional Ground** Indicates conducting components are isolated from parts with dangerous voltage in the equipment.
(CCC)	***China Compulsory Certification (CCC)** Indicates the product meets the requirements of CCC.
FC	***Federal Communications Commission (FCC)** Indicates the product meets the requirements of FCC.
CE	***Conformite European Certification (CE)** Indicates the product meets the requirements of CE Certification.
EC REP	**European Authorized Representatives** Gives information of the Authorized European representatives.
♻	**Waste Electrical and Electronic Equipment Directive (WEEE) 2002/96/EC** Waste disposal should comply with local regulations.
📖	**Recommend to refer the User Manual**
🏭	**Manufacturer information**
JUSHA	**JUSHA trademark**
SN	**Product serial number**

* This display complies with these standards only when a medical grade power supply is used.

1.3 Safety information

⚠ **Warning:**
Read all the important safety information before installing and operating your display.

About the environment

- The equipment should be installed near an easily accessible outlet.

- Place the device on a flat, solid and stable surface that can support the weight of at least 3 devices. If you use an unstable cart or stand, the device may fall, causing injury to a child or adult, and serious damage to the device.

- Never use the display in the presence of flammable anesthetics mixture with air, oxygen or nitrous oxide.

- Never expose the display to rain or moisture. Never use the display near water - e.g. near a bathtub, washbasin, swimming pool, kitchen sink, laundry tub or in a wet basement.

- Please heed necessary space (at least 10cm) between the display and the wall for ventilation. Do not cover or block any ventilation openings in the cover of the set.

- Keep small object away from the product. If small object gets into the display, please shut off power supply immediately and contact us for technical support.

About the powering and grounding

- Please use power cord provided with the display. Please insert the plug into the socket firmly.

- Don't touch power cord or plug/unplug it when thundering, or it may cause electric shock.

- Please hold the attaching plug when you unplug it. Don't unplug it by pulling power cord, otherwise the power cord may be injured and result in electric shock.

- Do not overload wall outlets and extension cords as this may result in fire or electric shock.

- Please use the appropriate power supply. Please use the power supply within the voltage range specified in this manual, otherwise it may cause fire, electric shock or product damage.

- If the device is not used for a long time, disconnect it from the AC inlet to avoid damage by transient over-voltage.

■ To fully disengage the power to the device, please disconnect the power cord from the AC inlet.

■ Please make sure that this product connected with a qualified computer or other devices, or it is connected to the protective earth.

■ Make sure the display is grounded properly.

About the maintains and repairs

■ Product failure may cause fire, electric shock or equipment damage. If the product gives off smoke or makes unusual noises, cut off the mains supply as soon as possible and pull out the plug from the socket. Please contact JUSHA for technical support.

■ Repairing is limited to trained engineers. Do not try to repair or disassemble the product by yourself. It may cause product damage or personal injury.

■ Please don't touch a damaged LCD screen with bared hand. Because the leaking liquid crystal material contains toxic substance. Please contact doctor immediately once it happens.

Some useful recommendations

■ For mission critical applications, we strongly recommend that a replacement unit be immediately available.

■ Please avoid excessive compression on the LCD screen, which may cause damage to it.

■ In order to avoid scratches, don't touch the screen with sharp objects, such as pen or fingernail. Please use a soft cloth to clean the screen.

■ The operator should not touch the video interface (such as DVI port, VGA port and etc.), or it may result in potential ESD (Electronic Static Discharge) damage to the display.

■ The backlight of LCD has a service life limitation. We strongly suggest using this display in the recommended brightness to extend its service life.

■ Waste disposal should comply with local regulations.

■ If using this display improperly, potential interference to other

electronic devices around could be possible. Following methods are proposed to eliminate such interference:

◆ Relocate or reorient the device under interference.

◆ Set up curtain appliance between the display and the device under interference.

◆ Plug the display and the devices under interference into different power sockets.

ENGLISH

2. Overview

Thank you for choosing JUSHA 2MP professional medical Display!

- ◆ C270, C270G, C260 and C260G are chromatic 2MP LCD displays.

- ◆ M270, M270G, M260 and M260G are monochromatic 2MP LCD displays.

JUSHA 2MP professional medical display adopts advanced LED technology. It possesses the advantages of high luminance, more degree of grayscale, brightness uniformity, energy conservation, environment protection and long using-life, built-in LUT with DICOM standard, which are designed for various kinds of radiology imaging diagnosis and analysis.

Note:
1. M270G, M27***, JUSHA-M270, JUSHA-M270G, JUSHA-M27***, JUSHA-M23C, JUSHA-M23**C: where "*" represents the suffix. The suffixes indicate different marketing regions. The operation method and specifications is the same as M270.

M270 is described below as an example.

2. M260G, M26***, JUSHA-M260, JUSHA-M260G, JUSHA-M26***:

where "*" represents the suffix. The suffixes indicate different marketing

regions. The operation method and specifications is the same as M260.

M260 is described below as an example.

3. C270G, C27***, JUSHA-C270, JUSHA-C270G, JUSHA-C27***, JUSHA-C23C, JUSHA-C23**C: where "*" represents the suffix. The suffixes indicate different marketing regions. The operation method and specifications is the same as C270.

C270 is described below as an example.

4. C260G, C26***, JUSHA-C260, JUSHA-C260G, JUSHA-C26***:

where "*" represents the suffix. The suffixes indicate different marketing

regions. The operation method and specifications is the same as C260.

C260 is described below as an example.

5. "*" here means 0~9, A~Z or blank.

2.1 Features

- **16-bit grayscale display**

C270/M270 is armed with a 16-bit (RGB)image processing chip. It can present up to 281.47 trillion color in color image, and can present up to 65536 grayscale in grayscale image, which contribute to a more exquisite display, a smoother image and guarantee a perfect present of each medical image feature.

- **DICOM compliance**

To ensure the most accurate and consistent shadings possible, JUSHA carefully measures and sets every grayscale tones on the production line to produce a monitor compliant with DICOM.

- **Brightness immediately arise (BIA) technology**

Normally, it takes about 20 minutes for the traditional displays to reach the required luminance and remain stable. JUSHA develops the BIA technology, which shortens the waiting time to 30s by the innovation in luminance driver program.

- **X-ray film view (XFV) function**

Benefit from the high brightness LED backlight, the M270/M260/C270

/C260 provides the Film View mode which allows the diagnostician to use the display as a film lamp to view the conventional X-ray film.

- **Ambient Brightness Adaption (ABA) technology**

According to the changes of the ambient brightness, this technology can automatically adjust the display backlight to make the display effect more accurate.

- **SmarTouch® patent**

This patent technology can help doctors working in different mode to quickly select the corresponding optimal brightness.

- **Eco-guardian technology**

Eco-guardian technology means that intelligent management of power consumption. It can switch the different energy consumption mode according to the working state of display by infrared sensor technology, which prolongs the service life of the display.

2.2 Packing list

JUSHA 2MP LED Display comes with:

- the display with stand
- a graphics card
- a graphics driver CD
- a power adapter
- an AC power cord
- a DVI cable
- this user manual
- after-sales service record(in triplicate)
- a packing list
- JUSHA products warranty card
- a product certificate

Note:

1. If there is any accessory damage or loss, please contact us.

2. Please only use the original accessories supplied with the display. JUSHA is not responsible for any technical problems caused by using third-part accessories.

3. Please keep the original package. If you need to transport the product, use the original package.

2.3 Front view and keypad

The keys except power key are silk-free keys. Touch anyone key except power key to bring up the navigation key icons, as shown below.

Then if touch the key below ▤ ,the navigation key icons change, as shown below.

if touch the key ✓ ,the navigation key icons change ,as shown below

Overview

Keypad functions:

Function keys	Key icons	Function
Power LED		1.Steady white, the display works normally. 2.Quick blinking white, no signal. 3.Slow blinking white, energy saving mode. 4. Quick blinking orange, the display works. abnormally and bring up an OSD alert. 5. Dimmed, the display is off.
Power key		Enter/exit sleep mode
Exit key		Exit the OSD (sub)menu
Menu key		Bring up the main menu
Down key		To move through the (sub)menus
Up key		To move through the (sub)menus
Right key		change values or make selections
Left Key		change values or make selections
Confirm key		1.to go into a submenu 2.confirm adjustments and selections
X-ray film view (XFV) key		Turn on/off the X-ray film view function
SmarTouch key		Turn on/off SmarTouch function

Note:

The key icons are displayed above the keys, adapted to the functions that it is used for display setting.

2.4 Rear view and connection panel
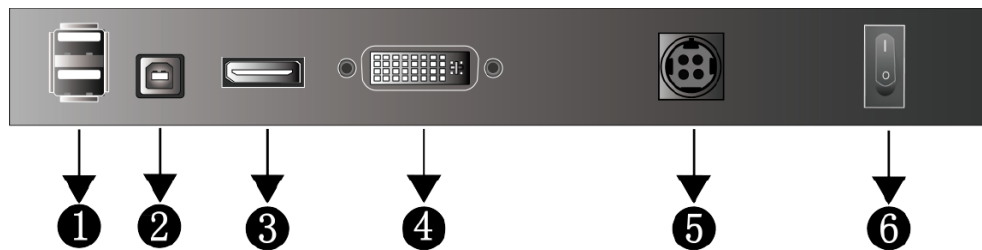
Display interfaces:

❶	USB interface2	❷	USB interface 1
❸	DP(Display Port) signal input interface	❹	DVI signal input interface
❺	Power input interface	❻	Power switch

Note:

When USB1 connects to the host, USB2 can connect to mouse or keyboard.

3. Display installation

3.1 Graphic card installation

Note:

Before start to install the graphic card, please make sure the computer motherboard supports the PCI Express graphic card and has an empty PCI Express x1 Slot. Carefully read the manual of the motherboard about how to install an expansion card.

1. Turn off the computer and unplug the power cord from the power outlet before installing the graphic card.

2. Open the computer chassis cover and locate a PCI Express x1 Slot that supports the graphic card. Remove the metal slot cover from the chassis back panel.

3. Align the card with the slot, and press down on the card until it is fully seated in the slot. Make sure the metal contacts on the card are completely inserted into the slot.

4. Secure the card's metal bracket to the chassis back panel with a screw.

5. If the graphic card need independent power supply, please access the power supply line to the graphic card.

6. After installation, replace the chassis cover and connect the display to the computer (See "**3.2Connecting the cables**"). After that, turn on the computer.

PCI Express x16 Slot
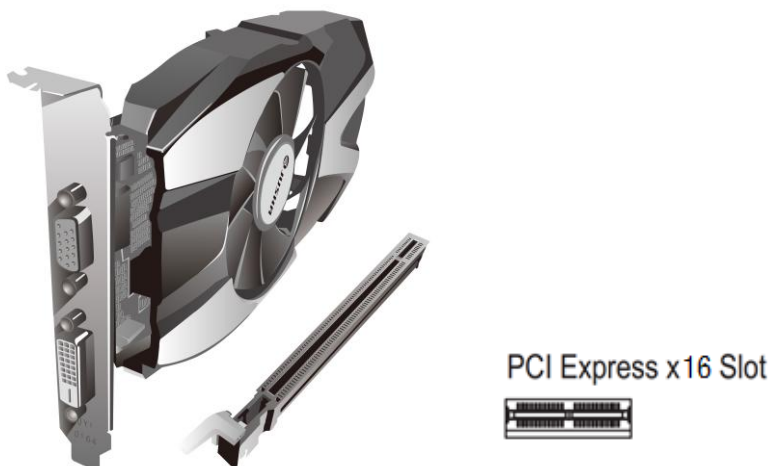
As for the video card driver installation, please refer to the driver

installation instructions in CD.

3.2 Connecting the cables

1. Connect the video signal cable of the display to the computer. This video signal cable can be DVI or DP, depending on the interfaces of the display and graphic card.

Note:
The display supported video interface scan be found in "**5.1 Technical specifications**".

2. Connect the supplied external DC power adaptor to the +12V power input of the display.

3. Turn on the power switch. When the power key indicator light is lit up, it means that the display has been powered up.

Warning:
Please read the "1.3 Safety information" carefully before connecting the power supply. Otherwise, it may cause electric shock or display permanent damage.

3.3 Adjusting the screen position

The position, height and angle can be adjusted to provide the

comfortable angle of observation.

3.3.1 Adjusting screen height

To move the screen up and down, please hold the screen at both sides and adjust it to an appropriate height.
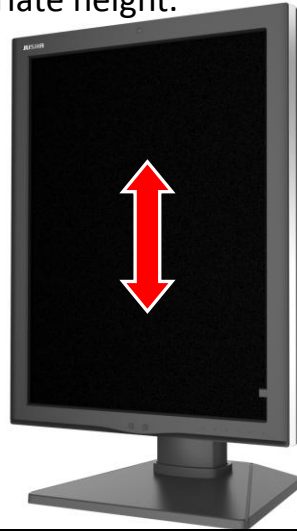
⚠️ **Warning:**
When moving the screen down, don't handle the stand of the display to avoid hand injury.

3.3.2 Adjusting the tilt and swivel angel

Please hold the screen at both sides and adjust it to a convenient tilt and swivel angel.

Note:
The allowed tilt angel range for this display is -5°(±2°) / +15°(±2°). The Swivel angel range is -45°(±2°) / +45°(±2°).

3.3.3 Rotating screen

1. Please remove all connections of the display at first.
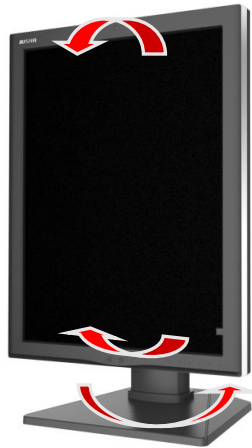
2. Move the screen up to the top height and tilt it to a suitable angle, in order to avoid the impact against table or fingers clipping.

3. When rotating, please hold the left and right sides with both hands. To rotate it from portrait to landscape, rotate it anti-clockwise. To rotate it from portrait to landscape, rotate it clockwise.
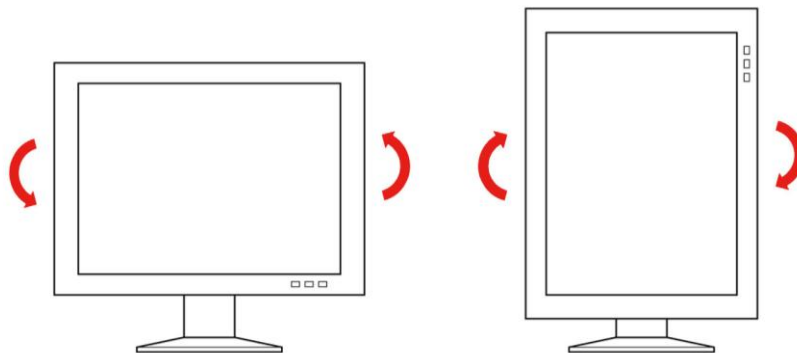
4. In the windows **<Screen Resolution>** control panel, pull down the **<Orientation>** menu. Select **<landscape>** or **<Portrait>**according to current display status.(The example is C270 which is the same as C260/M270/M260 in this function.)
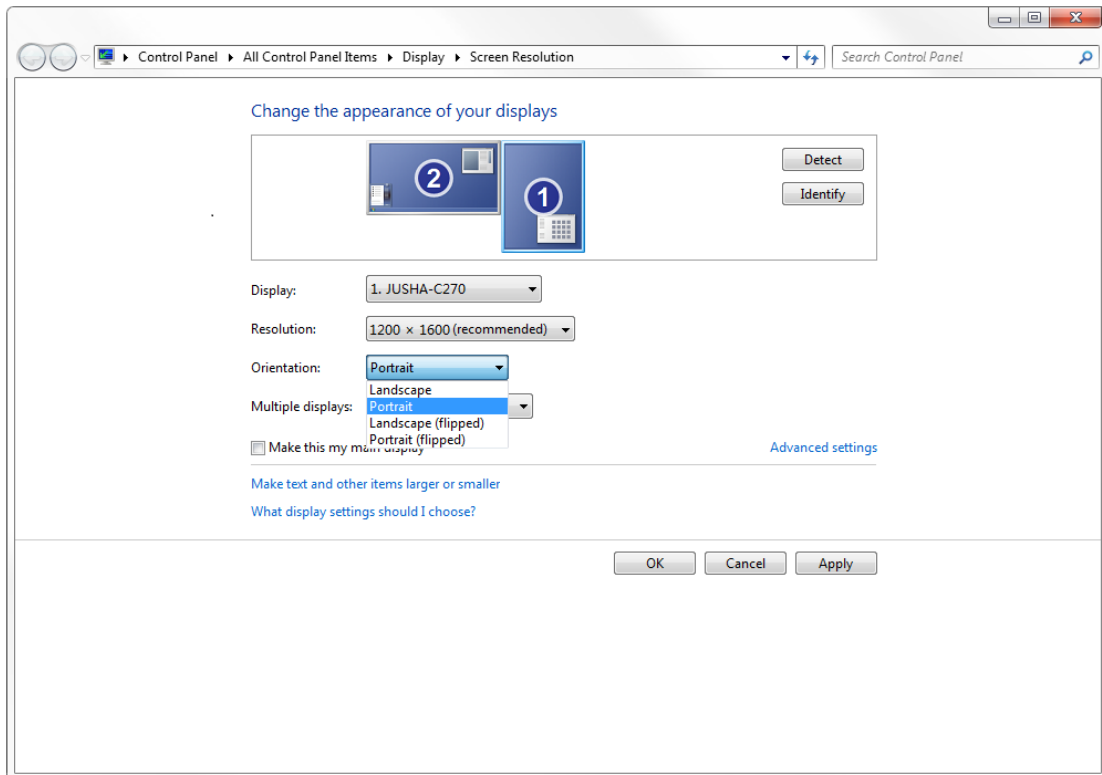
3.4 Installing the display to wall or suspension arm

This display can be installed onto wall or suspension arm that complies with the international VESA standards (100mm). It is supposed to remove the base and adopt the suspension arm which can support the weight of the display.

> ⚠ **Warning:**
> Contact a technician for the installation. JUSHA is not responsible for any damages to the product or harm to customers when the installation is done by the customer

ENGLISH

3.5 Multi-display configuration

Windows provides the multi-display feature that allow applications to make use of multiple display devices at the same time. This is useful whenever you need to maximize your onscreen workspace. For example, two displays can be used at the same time: one is used to view the medical images for diagnosis, while the other is used to browse the patient medical history or write the dialog report.

3.5.1 For Microsoft Windows XP operation system

1. The DVI, DP or HDMI interface on the graphic card is connected to the corresponding DVI, DP or HDMI interface on display by using video signal cables (Please refer to **"3.2 Connecting the cable"** section).

2. Right-click mouse button on the desk plank place, and then choose "Properties" in the pop-up menu.

3. Click "Setting" to open the display setting dialog.

4. Click "Identify" to identify multi-display number in windows XP system.

5. For example, the monitor in 2MP single screen mode corresponds to the number 1 of the 2MP display in Windows XP. Slide from left to right in "**Screen resolution**" to select the recommended resolution1600x1200.

6. Click the "Use this device as the primary monitor" item to setup the primary monitor. The task-bar and desktop item will display on the primary monitor.

7. Click "**To expand Windows desktop to the monitor**" item to expand Windows desktop to the selected monitor.

8. Finally, to click "**Sure**" to make the all of above options to take effect.

3.5.2 For Microsoft Windows 7 operation system

1. Connect the displays to the graphic card by DVI/DP port. (See "**3.2 Connecting the cable**").

2. Right click the windows desktop, and select the "Screen resolution" on the pop-up menu.

ENGLISH

3. Windows can automatically detect additional displays, as shown below.
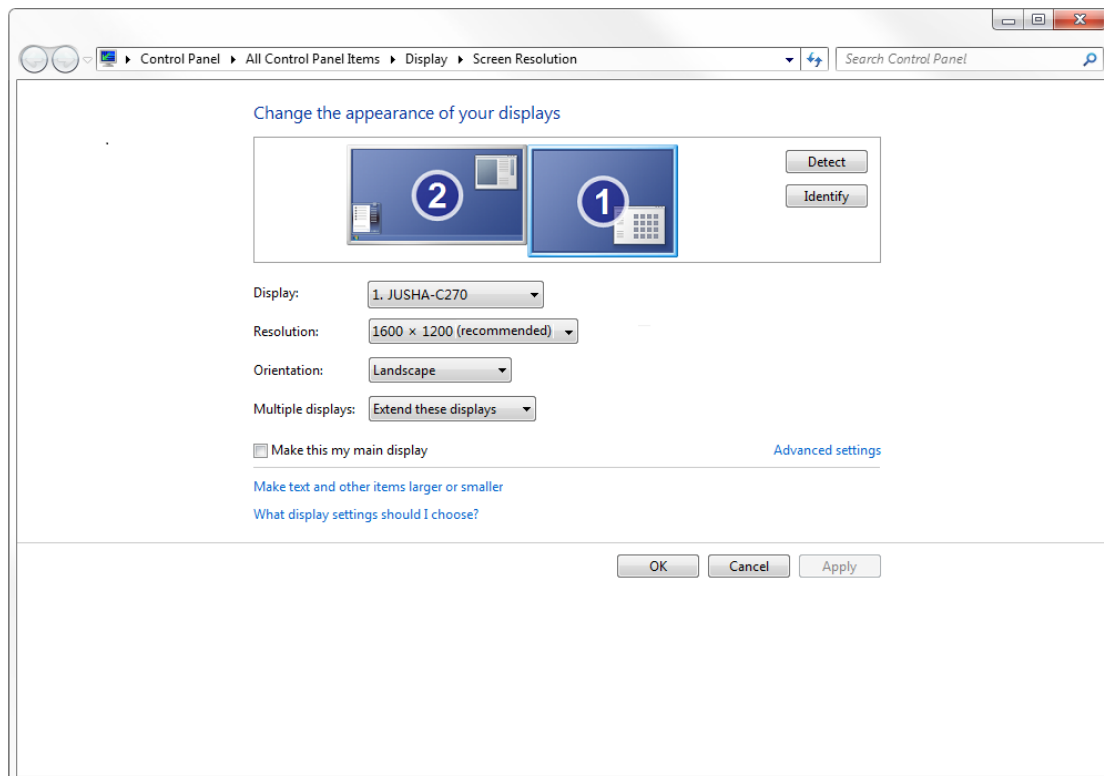
In the "**Screen resolution**" control panel, you can:

● Arrange the logical position of the two displays by dragging the display icons.

● Browse the connected display devices at the "**Display**" pull-down menu.

● Choose different multi-display mode in the "**Multiple display**" pull-down menu. For example, you can choose "**Extend these displays**" to obtain a larger onscreen workspace.

● Designate which screen is the primary one to display the windows Taskbar and Start menu by selecting the "**Make this my main display**" check box.

Note:

The setup method of multi-display extension function in Windows 8/10 is similar to windows 7

4. Display settings

4.1 Turn on the display

Turn on a computer connected to the display. Make sure that the display, graphic card and graphic card driver have been installed correctly. Turn on the AC switch and touch the power key ⏻ , and the power LED becomes steady white and the display will be switched on .

> ⚠️ **Warning:**
> The connected power supply also provides a switch that can be used to turn the power completely off. To use the display, please make sure to switch on this power supply. This can be done by pushing the on/off switch on the power supply into the " | " position.

4.2 Sleep mode

When the display is power-on, touch the power key ⏻ , then bring up" press the power key again to go into sleep mode" ,if you really need the display to go into sleep mode ,please touch the key ⏻ again in 10s ,and the display will turn off. At this time, the LED light will turn off.

4.3 OSD overview

User can change display settings by keypad and OSD (On Screen Display)menu to meet the needs of the working environment. Similarly, the user can also view the basic information and the current settings of the display by using OSD menu.

The OSD is divided into 3 regions:
- The top of the OSD shows the recommended solution and video input.
- The left-lower region is the main menu.
- The right-lower region is the sub-menu.

Display settings

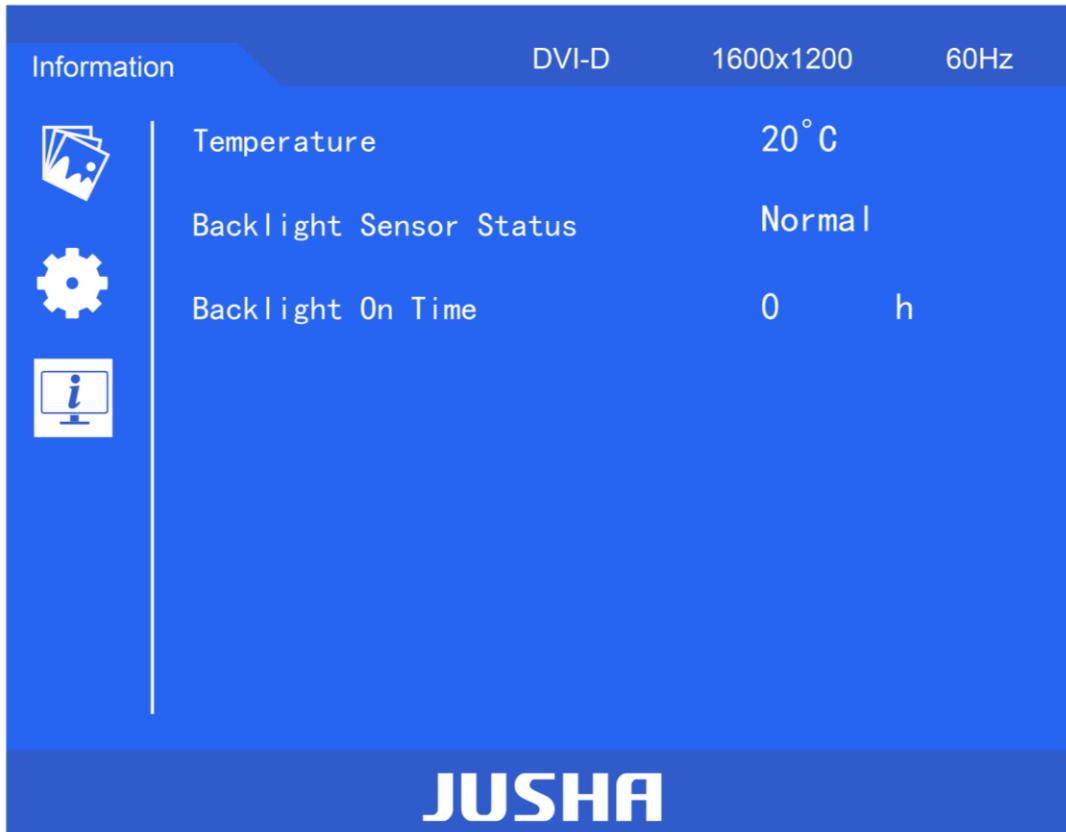| Image		DVI-D	1600x1200	60Hz
	Backlight	◄ ▯▯▯▯▯▯▯▯▯▯	50	►
	Curve	◄ DICOM	►	
	ReadingRoom	◄ Close	►	
	ABA	◄ OFF	►	
	PI	◄ OFF	►	

JUSHA

Setup		DVI-D	1600x1200	60Hz
	OSD Language	◄ English	►	
	Input Source	◄ DVI-D		
	Keypad Tone	◄ OFF	►	
	Factory Reset			

JUSHA

Information		DVI-D	1600x1200	60Hz
Temperature			20°C	
Backlight Sensor Status			Normal	
Backlight On Time			0	h

JUSHA

Note:

This menu is just an example, and the content of the menu is variation with different display. Please refer to the actual menu.

The key icons are displayed above the keys, adapted to the function that it is used for OSD menu dependent.

The following table shows structure of the OSD menu.

Main Menu	SUBMENU	Parameter Specification	Default Settings
Image	Backlight	0-100	50
	Curve	DICOM	DICOM
		DSI	
		DSA	
		GAMMA2.4	
		GAMMA2.2	
		CTMRI	
	ReadingRoom	Close	Close
		OR	
		ER	

		Viewing	
		Office	
		CTMRNM	
		Diagnostic	
		Auto*	
	ABA*	ON	OFF
		OFF	
	PI*	ON	OFF
		OFF	
Setup ⚙	OSD Language	English	English
		中文	
	Input Source	DVI	DVI
		DP	
	Keypad Tone	ON	OFF
		OFF	
	Factory Reset		
Information ℹ	Temperature	Real-time Information	Real-time Update
	Backlight Sensor Status		
	Backlight on Time		

📑 **Note:**

*Only M270/C270 have the function

📑 **Note:**

This product menu options and specification are subject to change without prior notice.

4.4 OSD operation

4.4.1 Open OSD

Bringing up the OSD menu can be done by:

1. In the state of that the display is turned on, touch anyone key except power key to bring up the navigation key icon.

2. Touch the menu icon corresponding key 📄 to bring up the OSD menu.

As a result, the OSD main menu comes up on the screen. However, if no further action is taken within the following 30 seconds, the OSD will disappear and the keys will be locked again.

4.4.2 Exit OSD

There are two ways to exit OSD menu as follows:

1. When OSD cursor is in the submenu region, touch the key ⬚ to back to the OSD main menu region. When OSD cursor is in the main menu region, touch the key ⬚ to exit OSD menu.

2. If no further action is taken within the following 30 seconds, the OSD menu will disappear automatically.

4.4.3 Change backlight

The backlight can be adjusted, and the operation is as follows:

1. Touch anyone key except power key to bring up the navigation key icon.

2. Touch the menu key ⬚ to bring up the OSD main menu. By default, the OSD cursor is in the ⬚ main menu.

3. Touch the key ⬚ to enter the submenu ⬚.

4. Touch the key △ or ▽ to move the cursor to the *<**Backlight**>* item

5. Touch the key ◁ or ▷ to make the value of the backlight progress bar item to decrease or increase. Set a luminance target value as desired.

📖 **Note:**
In order to prolong the lifetime of the LED backlight, we suggest using the default value of backlight.

4.4.4 Change Curve

There are six calibration curves built in the display, and the user can choose any one curve as desired. The operation is as follows:

1. Touch anyone key except power key to bring up the navigation key

icon.

2. Touch the menu key ▤ to bring up the OSD main menu. By default, the OSD cursor is in the 🖼 main menu.

3. Touch the key ✓ to enter the submenu 🖼.

4. Touch the key △ or ▽ to move the cursor to the *<Curve>* item

5. Touch the key ◁ or ▷ to choose any one curve as desired.

Note:

The DICOM curve built in the display is a precise calibration curve which can display more visible grayscale of medical image. We suggest choosing the default DICOM calibration curve on the most dialog of the medical image.

4.4.5 Reading Room

The display has ReadingRoom function to be chosen as desired. The operation is as follows:

1. Touch anyone key except power key to bring up the navigation key icon.

2. Touch the menu key ▤ to bring up the OSD main menu. By default, the OSD cursor is in the 🖼 main menu.

3. Touch the key ✓ to enter the submenu 🖼.

4. Touch the key △ or ▽ to move the cursor to the *<ReadingRoom>* item.

5. Touch the key ◁ or ▷ to select "Reading Room" function as desired.

Note:

ReadingRoom can only be enabled on your display when the DICOM display function is selected.

4.4.6 Ambient Brightness Adaptation

The display has Ambient Brightness Adaptation(ABA) function to be chosen as desired. The operation is as follows:

1. Touch anyone key except power key to bring up the navigation key icon.

2. Touch the menu key 📄 to bring up the OSD main menu. By default, the OSD cursor is in the 🖼 main menu.

3. Touch the key ✅ to enter the submenu 🖼 .

4. Touch the key △ or ▽ to move the cursor to the *<ABA>* item.

5. Touch the key ◁ or ▷ to turn on or off ABA function.

> **Note:**
>
> 1. The function of the ambient brightness adaptation and the function of the SmarTouch, X-ray film viewing cannot be used at the same time. Before open the function of the ambient brightness adaptation, the function of the SmarTouch, X-ray film viewing will automatically be closed.
>
> 2. When open the function of the ambient brightness adaptation, the brightness menu on the OSD menu can't be adjusted.

4.4.7 Presence Induction

The display has Presence Induction (PI) function to be chosen as desired. The operation is as follows:

1. Touch anyone key except power key to bring up the navigation key icon.

2. Touch the menu key 📄 to bring up the OSD main menu. By default, the OSD cursor is in the 🖼 main menu.

3. Touch the key ✅ to enter the submenu 🖼 .

4. Touch the key △ or ▽ to move the cursor to the *<PI>* item.

5. Touch the key ◁ or ▷ to turn on or off PI function.

4.4.8 Select language

The display provides two kinds of languages to be chosen from Chinese and English. The operation to choose OSD menu language is as follows:

1. Touch anyone key except power key to bring up the navigation key icon.

2. Touch the menu key 📄 to bring up the OSD main menu. By default, the OSD cursor is in the 🖼 main menu.

3. Touch the key △ or ▽ to move the cursor to the ⚙ main menu, and then touch the key ✅ to enter the submenu ⚙ .

4. Touch the key △ or ▽ to move the cursor to the *<OSD Language>*

item.

5. Touch the key ◁ or ▷ to choose Chinese or English language.

4.4.9 Select signal source

The display has different video input source to be chosen as desired. The operation is as follows:

1. Touch anyone key except power key to bring up the navigation key icon.

2. Touch the menu key ▤ to bring up the OSD main menu. By default, the OSD cursor is in the ▨ main menu.

3. Touch the key △ or ▽ to move the cursor to the ⚙ main menu, and then touch the key ⍻ to enter the submenu ⚙ .

4. Touch the key △ or ▽ to move the cursor to the *<Input Source>* item.

5. Touch the key ◁ to choose *<DVI>* or *<DP>*, and then touch the key ⍻ to confirm the selection.

4.4.10 Keypad Tone

The display has a keypad tone to be chosen as desired. The operation is as follows:

1. Touch anyone key except power key to bring up the navigation key icon.

2. Touch the menu key ▤ to bring up the OSD main menu. By default, the OSD cursor is in the ▨ main menu.

3. Touch the key △ or ▽ to move the cursor to the ⚙ main menu, and then touch the key ⍻ to enter the submenu ⚙ .

4. Touch the key △ or ▽ to move the cursor to the *<Keypad Tone>* item.

5. Touch the key ◁ or ▷ o turn on or off the keypad tone.

4.4.11 Factory Reset

Before delivery, the display has a default and recommended factory settings. User can reset factory settings this function. The operation to reset factory settings follows:

1. Touch anyone key except power key to bring up the navigation key icon.

2. Touch the menu key 🗐 to bring up the OSD main menu. By default, the OSD cursor is in the 🖼 main menu.

3. Touch the key △ or ▽ to move the cursor to the ⚙ main menu, and then touch the key ✅ to enter the submenu ⚙ .

4. Touch the key △ or ▽ to move the cursor to the *<Factory Reset>* item, and then touch the key ✅ to reset factory settings.

4.4.12 Display Status

By viewing OSD menu, get the current status information about the display, including temperature, backlight sensor status and backlight on time. The operation about the display status is as follows:

1. Touch anyone key except power key to bring up the navigation key icon.

2. Touch the menu key 🗐 to bring up the OSD main menu. By default, the OSD cursor is in the 🖼 main menu.

3. Touch the key △ or ▽ to move the cursor to the 🖳 main menu. At this moment, to view the display status information on the OSD submenu.

4.5 Feature function setting

For the convenience of users, M270/M260/C270/C260 provides shortcuts to quickly call useful special functions.

4.5.1 X-ray film viewing

Touch anyone key except power key to bring up the navigation key icon.

Then touch the key 🖳 to turn on or off the function of the X-ray film viewing.

Note:

1.The function of the X-ray film viewing and the function of the ambient brightness cannot be used at the same time. Once turning on the function of the X-ray film viewing, the function of the ambient brightness will automatically be closed. When turning off the function of the X-ray

film viewing, the function of the ambient brightness will automatically be opened.

2.When open the function of the X-ray film viewing, the main menu can't be bring up.

4.5.2   SmarTouch

Touch anyone key except power key to bring up the navigation key icon.

Then touch the key 🔲 to turn on or off the function of the SmarTouch.

Note:

1.The function of the SmarTouch and Ambient brightness cannot be used at the same time. When open the function of the SmarTouch, the function of the ambient brightness will automatically be closed. Only to close the function of the SmarTouch, the function of the ambient brightness will automatically be opened.

2.When open the function of the SmarTouch, the brightness menu on the OSD menu can't be adjusted.

Note:

1.The function of the X-ray film viewing and the function of the SmarTouch cannot be used at the same time. when the function of the X-ray film viewing is on, touch the key 🔲, the function of the X-ray film viewing is off,and at the same time the function of the SmarTouch is on.

5. Important Information

5.1 Technical specifications

5.1.1 M270

Input voltage	DC 12V
Power off consumption	<0.5W
Sleep mode consumption	<0.5W
Power consumption	< 50W
LCD panel	21.3 inch , monochrome TFT Liquid Crystal Display
Viewing angle	176°H, 176°V （CR > 10）
Resolution	1600x 1200 / 1200 x1600
Grayscale value	65536
Active screen size	432.0 (H) x 324.0(V) mm
DICOM calibrated luminance	100 cd/m^2-1000 cd/m^2 500 cd/m^2(default , typical)
Input video interface	DVI-D×1， DP×1
Net weight with stand	10.9±0.3 （kg）
Net weight w/o stand	6.5±0.3 （kg）
Operating environment	Temperature: 0°C - 40°C Humidity:20% - 85%(No condensation) Air pressure:700hPa - 1060hPa
Transportation and storage environment	Temperature:-20°C - 60°C Humidity:10% - 90%(No condensation) Air pressure:200hPa - 1060hPa
Certification standard	CCC

Note:
The specifications of JUSHA products are subject to change without notice.

5.1.2 M260

Input voltage	DC 12V
Power off consumption	<0.5W
Sleep mode consumption	<0.5W
Power consumption	< 50W
LCD panel	21.3 inch , monochrome TFT Liquid Crystal Display
Viewing angle	178°H, 178°V （CR > 10）
Resolution	1600x 1200 / 1200 x1600
Grayscale value	16384
Active screen size	432.0 (H) x 324.0(V) mm
DICOM calibrated luminance	100 cd/m^2-800 cd/m^2 400 cd/m^2 (default , typical)
Input video interface	DVI-D×1 ， DP×1
Net weight with stand	10.9±0.3 （kg）
Net weight w/o stand	6.5±0.3 （kg）
Operating environment	Temperature: 0°C - 40°C Humidity:20% - 85%(No condensation) Air pressure:700hPa - 1060hPa
Transportation and storage environment	Temperature:-20°C - 60°C Humidity:10% - 90%(No condensation) Air pressure:200hPa - 1060hPa
Certification standard	CCC,CE

Note:
The specifications of JUSHA products are subject to change without notice.

5.1.3 C270

Input voltage	DC 12V
Power off consumption	<0.5W
Sleep mode consumption	<0.5W
Power consumption	<50W
LCD panel	21.3 inch, Color active TFT Liquid Crystal Display
Viewing angle	178°H,178°V(CR ≥10)
Resolution	1600x 1200 / 1200 x1600
Color	281.47Trillion
Active screen size	432.0 (H) x 324.0 (V) mm
DICOM calibrated luminance	100 cd/m^2-600 cd/m^2 350 cd/m^2 (default , typical)
Input video interface	DVI-D×1， DP×1
Net weight with stand	10.9±0.3 （kg）
Net weight w/o stand	6.5±0.3 （kg）
Operating environment	Temperature:0°C - 40°C Humidity:20% - 85%(No condensation) Air pressure:700hPa - 1060hPa
Transportation and storage environment	Temperature:-20°C - 60°C Humidity:10% - 90%(No condensation) Air pressure:200hPa - 1060hPa
Certification standard	CCC,CE

Note:
The specifications of JUSHA products are subject to change without notice.

5.1.4 C260

Input voltage	DC 12V
Power off consumption	<0.5W
Sleep mode consumption	<0.5W
Power consumption	<50W
LCD panel	21.3 inch, Color active TFT Liquid Crystal Display
Viewing angle	178°H,178°V(CR ≥10)
Resolution	1600x 1200 / 1200 x1600
Color	4398 Billion
Active screen size	432.0 (H) x 324.0 (V) mm
DICOM calibrated luminance	100 cd/m^2-350 cd/m^2 250 cd/m^2 (default , typical)
Input video interface	DVI-D×1, DP×1
Net weight with stand	10.9±0.3（kg）
Net weight w/o stand	6.5±0.3（kg）
Operating environment	Temperature:0°C - 40°C Humidity:20% - 85%(No condensation) Air pressure:700hPa - 1060hPa
Transportation and storage environment	Temperature:-20°C - 60°C Humidity:10% - 90%(No condensation) Air pressure:200hPa - 1060hPa
Certification standard	CCC

Note:
The specifications of JUSHA products are subject to change without notice.

5.2 Environmental information

All materials of this product are below the limit requirement in ROHS, without toxic or hazardous substances.

5.3 Safety standard

Safety standard	This device complies with IEC 60601-1: 2005 + CORR. 1:2006 + CORR. 2:2007 + AM1:2012 EN 60601-1:2006/A1:2013 GB4943.1-2011
Compliance disclaimer	CCC、CE

5.4 Electromagnetic compatibility

5.4.1 EMC information

Warning: Display requires special precautions regarding EMC and need to be installed, put into service and used according to the following information.

1. Do not use other cables that aren't provided or specified by us. Using other cables may cause the increase of emission or decrease of immunity.
2. With the installation of the device, use only the delivered power supply or a spare part provided by a legal manufacturer. Using another can result in a decrease of the immunity level of the device.
3. Do not put any portable and mobile RF communications equipment close to display. Doing so may affect display.
4. Display should not be used adjacent to or stacked with other equipment. If adjacent or stacked use is necessary, the equipment or system should be observed to verify normal operation in the configuration in which it will be used.
5. Anyone who connects additional equipment to the signal input part or signal output parts, configuring a medical system, are responsible for that the system complies with the requirements of IEC/EN60601-1-2.

Guidance and manufacturer's declaration

Electromagnetic emissions - for all ME EQUIPMENT and ME SYSTEM

Table 1:Guidance and manufacturer's declaration – electromagnetic emissions		
The display is intended for use in the electromagnetic environment specified below. The customer or the user of the display should assure that it is used in such an environment.		
Emissions test	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11	Group 1	The display uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class A	The display is suitable for use in all establishments including domestic and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	A	
Voltage fluctuations/ Flicker emissions IEC 61000-3-3	Complies	

Electromagnetic immunity - for all ME EQUIPMENT and ME SYSTEM

Table 2:Guidance and manufacturer's declaration –Electromagnetic immunity			
The display is intended for use in the electromagnetic environment specified below. The customer or the user of the display should assure that it is used in such an environment.			
Immunity test	IEC 60601 Test level	Compliance level	Electromagnetic environment- guidance
Electrostatic Discharge(ESD) IEC 61000-4-2	±8 kV contact ±2kV, ±4kV, ±8kV, ±15kV air	±8 kV contact ±2kV, ±4kV, ±8kV, ±15kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	±2 kV for power supply lines ±1 kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV lines to lines ±2 kV lines to earth	±1 kV lines to lines ±2 kV lines to earth	Mains power quality should be that of a typical commercial or hospital environment.

Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5% U_T (>95% dip in U_T) For 0,5 cycle 40% U_T (60% dip in U_T) For 5 cycle 70% U_T (30% dip in U_T) For 25 cycle <5% U_T (>95% dip in U_T) For 5 cycle	<5% U_T (>95% dip in U_T) For 0,5 cycle 40% U_T (60% dip in U_T) For 5 cycle 70% U_T (30% dip in U_T) For 25 cycle <5% U_T (>95% dip in U_T) For 5 cycle	Mains power quality should be that of a typical commercial or hospital environment. If the user of display requires continued operation during power mains interruptions, it is recommended that the display be powered from an uninterruptible power supply or a battery.
Power frequency (50/60Hz) magnetic field IEC 61000-4-8	3A/m	3A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
Note: U_T is the AC mains voltage prior to application of the test level.			

Electromagnetic immunity for ME EQUIPMENT and ME SYSTEM that is not LIFE-SUPPORTING

Table 3:Guidance and manufacturer's declaration –Electromagnetic immunity			
The display is intended for use in the electromagnetic environment specified below. The customer or the user of the display should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment-guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80MHz	3V	Portable and mobile RF communications equipment should be used no closer to any part of the SYSTEM, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance $$d = [\frac{3.5}{V_1}]\sqrt{P}$$
Radiated RF IEC 61000-4-3	3 Vrms 80MHz to 2.5GHz	3V/m	

			$d = [\dfrac{3.5}{E_1}]\sqrt{P}$ 80MHz to 800MHz
			$d = [\dfrac{7}{E_1}]\sqrt{P}$ 800MHz to 2.5GHz
			Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meter (m).
			Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, should be less than the compliance level in each frequency range.
			Interference may occur in the vicinity of equipment marked with the following symbol:

Note 1: At 80 MHz and 800 MHz, the higher frequency range applies.

Note2:These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

a) Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating.

b) Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

Recommended separation distances between portable and mobile RF communications equipment and the ME EQUIPMENT and ME SYSTEM – for ME EQUIPMENT and ME SYSTEM that are not LIFE-SUPPORTING

Table 4:Recommended separation distances between portable and mobile RF communications equipment and the display			
The display is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the display can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the display as recommended below, according to the maximum output power of the communications equipment.			
Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter(m)		
	150kHz to 80 MHz $d = [\dfrac{3.5}{V_1}]\sqrt{P}$	80MHz to 800MHz $d = [\dfrac{3.5}{E_1}]\sqrt{P}$	800MHz to 2.5GHz $d = [\dfrac{7}{E_1}]\sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23
For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter. Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.			

5.4.2 EMC Guidelines

Below cables information are provided for EMC reference.

Cable	Max. cable length, Shielded/unshielded		Number	Cable classification
AC Power Line	1.7m	Unshielded	1 Set	AC Power
DVI Cable	1.9m	shielded	1 Set	DC Power
DP Cable	1.9m	shielded	1 Set	DC Power
USB Cable	1.9m	shielded	1 Set	DC Power

Important information regarding Electro Magnetic Compatibility (EMC)

LCD MEDICAL DISPLAY needs special precautions regarding EMC and put into service according to the EMC information provided in the user manual; LCD MEDICAL DISPLAY conforms to this IEC 60601-1-2:2014 standard for both immunity and emissions. Nevertheless, special precautions need to be observed:

➢ LCD MEDICAL DISPLAY with no ESSENTIAL PERFORMANCE is intended used in Professional healthcare facility environment.

➢ WARNING: Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the LCD MEDICAL DISPLAY, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result."

➢ The use of accessories and cables other than those specified by NANJING JUSHA DISPLAY TECHNOLOGY CO., LTD., with the exception of accessories and cables sold by NANJING JUSHA DISPLAY TECHNOLOGY CO., LTD. of LCD MEDICAL DISPLAY as replacement parts for internal components, may result in increased EMISSIONS or decreased IMMUNITY of the LCD MEDICAL DISPLAY.

➢ WARNING: Use of this equipment LCD MEDICAL DISPLAY adjacent to or stacked with other equipment should be avoided because it could result in improper operation."

➢ When the AC input voltage is interrupted, the LCD MEDICAL DISPLAY will shut down and if the power supply restored, it could be recovered automatically, this degradation could be accepted because it will not lead to unacceptable risks and it will not result in the loss of basic safety or essential performance

5.4.3 EMI information

EMI Voltage/ Radiated interference	IEC 60601-1-2:2014 EN 60601-1-2:2015 GB 17625.1-2012 GB/T 9254-2008

Table 1 - Emission

Phenomenon	Compliance	Electromagnetic environment
RF emissions	CISPR 11 Group 1, Class B	Professional healthcare facility environment
Harmonic distortion	IEC 61000-3-2 Class A	Professional healthcare facility environment
Voltage fluctuations and flicker	IEC 61000-3-3 Compliance	Professional healthcare facility environment

5.4.4 EMS Compliance

Table 1 - Enclosure Port

Phenomenon	Basic EMC standard	Immunity test levels
		Professional healthcare facility environment
Electrostatic Discharge	IEC 61000-4-2	±8 kV contact ±2kV, ±4kV, ±8kV, ±15kV air
Radiated RF EM field	IEC 61000-4-3	3V/m 80MHz-2.7GHz 80% AM at 1kHz
Proximity fields from RF wireless communications equipment	IEC 61000-4-3	Refer to table 2
Rated power frequency magnetic fields	IEC 61000-4-8	30A/m 50Hz or 60Hz

Table 2 – Proximity fields from RF wireless communications equipment

Test frequency (MHz)	Band (MHz)	Immunity test levels
		Professional healthcare facility environment
385	380-390	Pulse modulation 18Hz, 27V/m
450	430-470	FM, ±5kHz deviation, 1kHz sine, 28V/m
710	704-787	Pulse modulation 217Hz, 9V/m
745		
780		
810	800-960	Pulse modulation 18Hz, 28V/m
870		
930		
1720	1700-1990	Pulse modulation 217Hz, 28V/m
1845		
1970		
2450	2400-2570	Pulse modulation 217Hz, 28V/m
5240	5100-5800	Pulse modulation 217Hz, 9V/m
5500		
5785		

Table 3 – Input a.c. power Port

Phenomenon	Basic EMC standard	Immunity test levels
		Professional healthcare facility environment
Electrical fast transients/burst	IEC 61000-4-4	±2 kV 100kHz repetition frequency
Surges Line-to-line	IEC 61000-4-5	±0.5 kV, ±1 kV
Surges Line-to-ground	IEC 61000-4-5	±0.5 kV, ±1 kV, ±2 kV
Conducted disturbances induced by RF fields	IEC 61000-4-6	3V, 0.15MHz-80MHz 6V in ISM bands and between 0.15MHz and 80MHz 80%AM at 1kHz
Voltage dips	IEC 61000-4-11	0% U_T; 0.5 cycle At 0º, 45º, 90º, 135º, 180º, 225º, 270º and 315º
		0% U_T; 1 cycle and 70% U_T; 25/30 cycles Single phase: at 0º
Voltage interruptions	IEC 61000-4-11	0% U_T; 250/300 cycles

Table 4 – Signal input/output parts Port

Phenomenon	Basic EMC standard	Immunity test levels
		Professional healthcare facility environment
Electrical fast transients/burst	IEC 61000-4-4	±1 kV 100kHz repetition frequency
Conducted disturbances induced by RF fields	IEC 61000-4-6	3V, 0.15MHz-80MHz 6V in ISM bands between 0.15MHz and 80MHz 80%AM at 1kHz

6. Maintenance

1. Avoid screen over-heat

Please use the display in the recommended environment, including appropriate temperature, humidity and air pressure. Turn off the display or lower its luminance if not use, or it may cause over-heat damage. In addition, if the screen displays the same image for a long time, it may over-heat and cause damage to some pixels.

2. Maintain the proper humidity

The display can work properly at the humidity between 20% and 85%. When humidity is higher than 85%, the condensation may occur inside the display. It makes the display components easy to rust, corroded, or even short-circuit. Therefore, LCD display must be moisture proof. If the display is not used for a long time, user should power on the display once a month at least.

If there is condensation in the screen surface, use a soft cloth to wipe gently before turn on the power. If the moisture has got into the screen, put the screen to a warm (no higher than 60°C) and dry environment to evaporate the moisture. Power a humid LCD will cause a permanent damage.

3. Clean the display properly

It is recommended to clean the display regularly to maintain appearance and extend product service life.

To clean the screen:

1) Wipe the screen with a clean, soft, lint-free cloth.

2) For further cleaning, apply a small amount of non-ammonia, non-alcohol based cleanser onto the cloth and wipe the screen.

Warning:

1. Make sure the display is powered off before cleaning.

2. Never spray or pour any liquid directly onto the surface of the screen or case.

Maintenance

Some chemical cleanser may damage the screen and case of the display. We recommend you to use non-ammonia and non-alcohol based cleanser. We are not liable for damage resulting from ammonia or alcohol based cleanser.

4. Avoid shock and vibration

The LCD screen is quite fragile, so avoid strong shock and vibration. Falling to the ground or other strong shocks will cause damage to the LCD screen and the electrical components. Besides, please avoid any heavy pressure on the LCD screen surface.

5. Do not disassemble the display

Never try to disassemble the display or remove/change its LCD panel. Unauthorized repair and refit will result in temporary or permanent display failure.

Warning:

1. Please do not touch the metal part of power plug to avoid electric shock.

2. Please keep the power socket and 5V DC away from water.

3. Please do not drop the LCD Monitor to avoid hurt yourself.

7. Cleaning and Disinfection

7.1 Cleaning

It is recommended to clean the monitor regularly to maintain appearance and prolong product cycle life.

• Make sure the monitor is turned off.

• Never spray or pour any liquid directly onto the screen or case.

To clean the screen:

1. Wipe the screen with a clean, soft, lint-free cloth. This removes dust and other particles.

2. If still not clean, apply a small amount of non-ammonia, non-alcohol based glass cleaner onto a clean, soft, lint-free cloth, and wipe the screen.

Disclaimer

JUSHA does not recommend the use of any ammonia or alcohol-based cleaners on the monitor screen or case. Some chemical cleaners have been reported to damage the screen and/or case of the monitor. JUSHA will not be liable for damage resulting from use of any ammonia or alcohol based cleaners

7.2 Disinfection

It is recommended to disinfection the monitor using 75% alcohol regularly to disinfection the LCD Monitor.

7.2.1.1 Make sure the monitor is turned off.

7.2.1.2 Wipe the screen with a clean, soft, lint-free cloth.

Attention: Never spray or pour alcohol directly onto the screen or case.

8. Malfunction analysis

Note:

Please contact us if failed to resolve problem after reading the recommended solutions followed.

To solve the problem, please contact Nanjing Jusha display technology co., Ltd after-sales service or read the manual to find proper solutions. If you use the recommend below solution still can't solve the problem, please contact Nanjing Jusha display technology co., Ltd.

Problems	Probable solutions
The monitor does not respond	Check that the monitor's Power Switch is on. You turn on the system. Turn off the power and check the monitor's power cord and signal cable for proper connection.
"Out of Range display"	Check to see of the resolution or vertical frequency of your computer is higher than that of the LCD monitor. Reconfigure the resolution of your computer to make it less than or equal to 2048 x1536. 2048 x 1536 is optimal. See Appendix A for more information on resolution.
Screen too bright or dark	Modify <Backlight> (There if life cycle limit for backlight of monitor. When it becomes dark or vibrant, please contact us.)
Appear ghost	Please confirm in long time display the same image, whether to use screen savers or timer. Ghost is caused by the liquid crystal monitor itself characteristic, should avoid long time display the same image.
Leave traces on the screen to pressure.	Keep the screen is completely white can alleviate this problem.
Restart the computer graphics installed after found no new hardware tips	Graphic card is not inserted or PCI slot has a problem, change slot to install

Snowflake on screen	1. Connection problem of power wire or signal wire
	2. Main board static electricity or dust affection the connection of graphic card.
No figure after displaying well for a while	1. Connection problem of power wire or signal wire
	2. Main board static electricity or dust affection the connection of graphic card.

ENGLISH

9. Declarations

9.1 Legal notice

The auxiliary equipment that is connected with JUSHA display should meet the corresponding IEC Standard (data processing equipment should meet IEC 60950-1 Standard and armamentariums should meet IEC60601-1 Standard). In addition, all configurations should meet IEC 60601-1-1 Standard. Before a configuration is connected to signal output or input interface for processing system configuration, technician should make sure that the system meets IEC 60601-1-1 Standard.

Staffs that are responsible for connecting the display with system should make sure that installed devices meet IEC 60601-1-1 Standard. If there is any question, please contact with JUSHA Engineering Technology Service Department or local marketing representatives.

JUSHA markets its products through armamentarium manufacturers, distributors and franchisers. Therefore, please consult your seller whether he/she provides relevant maintenance service.

JUSHA will neither take any responsibility nor authorize anyone to take any responsibility for product distribution and its use. Please read carefully the related documents, operation instruction and labels on package before you apply the product so that you can use and maintain the product properly.

Please note that its performance will be affected by system configuration, software, application program and client's data and client's operating control. Though JUSHA product is compatible with many systems, client's specific function might be come true differently. Whether the product is suitable for specific purpose or application program it depends on clients, therefore, JUSHA should not guarantee for it.

JUSHA expressly disclaims all warranties of any kind, whether statutory, express or implied, including, but not limited to, implied warranties of merchantability, fitness for particular purpose and non-infringement. JUSHA hereby explicitly rejects all warranties and state of any kind, any property or extent whether statutory, express or it leads to any laws ,rules, commercial practice, conventions or trade disputes etc.

In no event shall JUSHA and its suppliers/franchisers be liable for any special, incidental, punitive, indirect or consequential damages (including, but not limited to, delay deliver, non-delivery, fault items, product design or production manufacture, being unable to use the product and service, loss of business or profits or other reasons, and any responsibility caused by buy or sell, lease, install or use related products, these terms and conditions and related articles of agreement.

The limits in this article and/or exclusions are not necessary suitable for some inadmissible exclusion clause, warranties or limited judicial districts. The maximum extent is permitted by applicable law in named jurisdiction under the circumstance.

JUSHA keeps patents, copyright and its exclusive right and all information in this manual including JUSHA all designs and related materials. Anyone cannot plagiarize JUSHA design or copy its product to sell or use without the company's explicit authority.

9.2 After sale service declaration

The after-sale warranty is three years from the date of purchase, only if the product has been used with the recommended brightness. We are responsible for the quality problems caused by non-artificial factors and the maintenances are free of charge.

Quality assurance is only for the product that Nanjing Jusha Display Technology Co.,Ltd provides. Any other third-party equipment problems are beyond the scope of this quality assurance.

Note:
The user must contact and get permission from JUSHA before sending back the product for repairs.

To avoid the damage and/or loss during transit, the user must deliver the product in its original package or other adequate package with an equal degree of protection to the local distributor. Meanwhile, user must present proof of the product purchase date.

The user is not allowed to repair the display from anywhere except the authorized after-service spots. The original serial number should not be modified or removed. Don't derogate from requirements of this manual, otherwise it may result in quality assurance failure.

This product provides limited responsibility for quality assurance. JUSHA isn't responsible for malfunction caused directly/indirectly/accidently by users themselves. Users should pay attention to the settings of the operation system and other applications. Above factors will affect the product performance.

Manufacture will provide circuit diagrams, component part lists, descriptions, calibration instructions to assist to SERVICE PERSONEL in parts repair.

9.3 Proprietary rights

Nanjing Jusha Display Technology Co., Ltd keeps the copyright of this manual and other related ownership. It is not allowed to copy, use or sell this manual without authorization of Nanjing Jusha Display Technology Co., Ltd

10. Contact information

Nanjing Jusha Display Technology Co., Ltd.

Address: 8A, Block 1, Nanjing International Service Outsourcing Mansion, No.301 Hanzhongmen Street, Nanjing City, Jiangsu Province, 210036 China

Tel: 0086-25-83305050

Fax: 0086-25-58783273

Free Hotline:400-820-0556   800-820-0556

Web: cn.jusha.com.cn