

Instructions for Use

CuratOR[®] LX2420-T 2MP 23.8" LCD Monitor

Important

Please read the safety information and all information delivered with the product carefully to familiarize yourself with safe and effective usage.



Legal information

Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

 DANGER
indicates that death or severe personal injury will result if proper precautions are not taken.
 WARNING
indicates that death or severe personal injury may result if proper precautions are not taken.
 CAUTION
indicates that minor personal injury can result if proper precautions are not taken.
NOTICE
indicates that material damage can result if proper precautions are not taken.

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

Qualified personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

Use of EIZO products

 WARNING
EIZO products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by EIZO. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed.

Trademarks

All names identified by ® are registered trademarks of their respective owners. Please refer to the trademarks listed in the appendix. The remaining trademarks in this publication may be trademarks whose use by third parties for their own purposes could violate the rights of the owner.

Disclaimer of liability

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

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1 Introduction

1.1 Contents of this document

This document explains the functionality and the approved use of the CuratOR LX2420-T. To ensure clarity, it does not contain all detailed information on this product.

The contents of this document are neither part of a previous or existing agreement, commitment or legal relationship, nor does it modify such.

Note
This documentation is available in electronic format only. It can be found on the CD-ROM provided and can be downloaded from www.eizo-or.com .

1.2 Intended use

Intended purpose

The CuratOR LX2420-T is intended for the display of still images and moving images from various commercially available devices commonly used in a medical environment, in particular radiology. The monitor is optimized for the reproduction of grayscale X-ray images. The monitor is not suitable for mammography.

Intended patient population and medical conditions

The LX2420-T can be used for the intended purpose irrespective of age, body weight and gender.

The LX2420-T is intended to be used in combination with or mounted on medical devices. The monitor therefore has no direct contact with the patient.

The LX2420-T is intended to display still images and moving images from various commercially available (medical) devices commonly used in a medical environment. The monitor cannot be used for direct diagnosis and as main device for monitoring live support equipment.

Intended users

The intended users for the LX2420-T are qualified healthcare professionals.

Intended environment

The LX2420-T is intended to be used in professional healthcare facilities such as clinics and hospitals. The monitor can be used in operating rooms (OR) or near patients, but is not limited to them. The monitor is not intended for direct patient contact!

The LX2420-T is not suited for the following environments:

- Home-based healthcare facilities.
- Near short-wave therapy devices.
- Near an MRI-System.
- Built into vehicles, including ambulances.

Note
Serious incident Any serious incident that has occurred in relation to the device should be reported to the manufacturer and the competent authority of the Member State in which the user and/or patient is established.

1.3 User groups

User

In the following, healthcare personnel such as surgeons or medical technicians are referred to as the "user".

Service / service personnel

"Service" or "Service personnel" identifies authorized personnel with knowledge of electrical and signal connection, local standards for image quality requirements, and safety of medical products, for example a hospital technician or manufacturer of medical devices.

Cleaning staff

"Cleaning staff" refers to personnel responsible for cleaning medical devices.

2 Safety information

2.1 General safety instructions

Correct and safe operation of EIZO devices assume professional transport, storage, installation, and connection, as well as careful operation and service.

The devices may only be used for applications for which they are intended.

For safety reasons, the following precautions must be observed:

 DANGER
Please observe all warning information present on the device and in the instructions for use. There is a danger to life if warnings are not obeyed. Severe personal injury or damage to property may occur.
Observe the safety requirements of EN 60601-1 (IEC 60601-1) To prevent injury to patients and users, connect the electrical system in accordance with the safety requirements of EN 60601-1 (IEC 60601-1) for "Safety requirements for medical electrical systems".
Connecting the protective earth conductor If the device is connected to line power, the device must be connected to a protective ground conductor. This is the only way to ensure that the touch leakage current in a first fault event does not exceed 500 µA. The interruption of the device's protective conductor is considered a first fault event in accordance with EN 60601-1. Use the following measures to ensure that the leakage currents remain below the specified limits: • Separators for signal input unit or signal output unit • Use of a safety isolating transformer • Use of the additional protective ground terminal
Mounting of the monitor: The monitor's suspension arm must have its own protective ground conductor. This protective ground conductor guarantees, together with the protective ground conductor of the monitor, that the housing leakage current always remains less than 500 µA, even in the event of a single fault condition.
No unauthorized opening of the device / no unauthorized service or maintenance work The device may only be opened by qualified personnel. Likewise, service or maintenance work may only be carried out by qualified personnel. There is a risk of electric shock. No liability is accepted for death and injury to persons or damage to property resulting from work carried out by non-qualified personnel.
Do not touch components in the device If the device is connected to the line power, components in the device are subjected to high voltages. Touching the components may be fatal.
No contact between device and patients The device is not suitable for direct contact with a patient. The device and patient must never be touched simultaneously. Otherwise there is a danger to life and limb.

 DANGER

Please observe all warning information present on the device and in the instructions for use.

There is a danger to life if warnings are not obeyed. Severe personal injury or damage to property may occur.

Never use defective power cables

If a damaged or unsuitable power cable is used, it could result in a fire or electric shock. Only use power cables with PE contacts approved by the manufacturer.

Disconnect the power cable correctly

When disconnecting the power cable, always do so by holding the plug. Ensure that your hands are dry. There is a risk of electric shock.

Do not insert any objects into the housing

Objects inserted into the housing may result in an electric shock or damage to the device.

Do not place any objects on top of the device

If you place objects on top of the device, this can lead to overheating and fire.

Avoid penetration of liquid

Liquids seeping into the device may result in electric shock or device failure.

 CAUTION

Extensive damage to property may result if the device is not connected correctly

That is why you should observe the warning information:

Connection must be carried out by specialists

Please ensure that all steps are taken to avoid injuries or incorrect diagnoses.

- Only use the video cables specified by the manufacturer for the connection.
- Only use power cables with PE contacts.
- Only use power outlets with PE contacts.
- Do not connect too many devices to a power outlet or extension cable.
- Observe the information provided by the respective manufacturer.
- If required by the application or local regulations, QA software must be used for quality control and documentation.

Connection in the USA and Canada

Molded power supply plugs must comply with the requirements for "hospital grade attachments" CSA Std. C22.2 No. 21 and UL 498.

Connection in China

Only use power cables approved for China. These power cables are identified by the labels "CCC" or "CQC".

Observe the country-specific regulations

Observe all regulations of the country in which the device is used.

NOTICE

Extensive damage to property may result if the device is not connected correctly

That is why you should observe the warning information:

- Desktop installation:
Place the device on a solid and level surface. The attached stand, as well as the installation surface, must be suitable for the weight of the device.
- For mounting on a wall or ceiling suspension:
The mount unit must be suitable for the weight of the device.
- For installation in a rack:
Observe the installation sequence, and provide ventilation for the device.

Provide adequate air circulation

When installing the device, ensure that there is adequate air circulation for operation. The permissible ambient temperature range must not be violated. Otherwise, the device could be destroyed by overheating.

Avoid sources of heat

Do not install the device in the vicinity of sources of heat, such as radiators, heating appliances or other devices that can generate or emit heat.

Do not subject the device to jolting or shocks

The device contains sensitive electronic components that could be damaged by jolting or shocks.

Only switch on a cold device following adaptation to room temperature

If the device is brought into a room with a higher or rising temperature, condensed water will form in and on the device. Do not switch on the device until the condensed water has evaporated. Otherwise, the device could be damaged.

NOTICE

Extensive damage to property may result if the device is not connected correctly

That is why you should observe the warning information:

Transportation only in original packaging

Use the original packaging for transportation, and transport in the correct shipping position. Be sure in particular to protect the monitor LCD modules from shocks.

Care of device / cleaning agents

- Remove water drops immediately; extended contact with water discolors the surface.
- Only clean the surfaces using the cleaning agents referred to in the Instructions for Use.
- Monitor: The screen is extremely sensitive to mechanical damage. Absolutely avoid scratches, shocks, etc.

What to do if the device is faulty

If the following conditions exist, the device must be disconnected from the line power supply and checked by qualified personnel:

- Damage to the plug or power cable.
- After liquid seeps into the device.
- If the device has been exposed to moisture.
- If the device does not function or if a fault cannot be eliminated using the Instructions for Use.
- If the device has been dropped and/or the housing damaged.
- If the device smells of burning or makes peculiar noises.

Be aware of the monitors aging

Note that monitors can fail as a result of aging, and that image properties such as brightness, contrast, and color value can change.

Do not touch the monitor screen

Due to mechanical pressure or electrostatic discharges, touching the screen can result in brief disturbances to the image.

2.2 Product-specific safety instructions

CAUTION

Setting the monitor height

When the monitor is installed on a height-adjustable stand, setting the monitor height can result in injuries.

- Carefully change the monitor height.
- When changing the height of the monitor, make sure that you do not trap your fingers or any other objects.

CAUTION

Tilting the monitor

Tipping over the monitor can cause injuries or damage the device.

- Ensure that the monitor is stable after installing a stand.
- Ensure that the tilt angle between the monitor and the stand is set within the permissible range.

NOTICE

Subsequent installation of a stand

If a stand is subsequently attached to the monitor, the stand must meet the requirements of standard EN 60601 so that the system, comprising the stand and monitor, meets the requirements.

NOTICE

During touch operation

Be careful of the following points. Otherwise, damage may occur to the monitor.

- Do not strongly press, scratch, or poke the touch panel.
- Do not touch the touch panel with hard objects such as ballpoint pens or metals.

Note

No zero error rate

LCD monitors do not have a zero error rate. For this reason, the image parameters can change over time, e.g. reduced luminance or changing/fading colors.

Note

Image quality

To maintain constant image quality, EIZO recommends cleaning the monitor on a regular basis and checking image properties in accordance with all applicable local regulations.

3 Description

3.1 Scope of delivery

The device and various components are included in the scope of delivery. After unpacking, check the scope of delivery for correctness and completeness.

Note
Keep the packaging material for subsequent transport of the device.

Device

The CuratOR LX2420-T is a 2MP 23.8" LCD Monitor for installation in a ceiling or wall mount, or for installation in a stand. CuratOR LX2420-ST version has a reclining stand. Otherwise, the versions are identical.

Product	Order number	Description
CuratOR LX2420-T	6GF62003AL10	Monitor with touchscreen
CuratOR LX2420-ST	6GF62003AL01	Monitor with reclining stand and touch-screen

Components

The following components are included in the scope of delivery:

- Signal cable
 - DVI cable, 1.8 m
 - DP cable, 1.8 m
 - USB cable, 1.8 m
- CD-ROM with the documentation
- General safety instructions

3.2 Features

The CuratOR LX2420-T has the following features that permit a wide range of applications:

Perfect picture reproduction

The panel used with the LX2420-T enables a very large viewing angle and high luminance.

The LX2420-T provides a flicker-free picture, even at low refresh rates. The monitor thus meets the strictest ergonomic requirements.

Digital and analog video signals

Digital or analog video sources can be connected to the LX2420-T via the DVI-I input.

Digital video sources can be connected via the DisplayPort input.

Use the On Screen Display (OSD) to adapt the monitor if necessary.

Touchscreen-Operation

The LX2420-T features projected capacitive touch technology which is more durable and reliable compared to other touch technologies. The monitor accepts touch input from a bare finger or dedicated stylus. The touch screen can easily be operated while wearing gloves for use in sterile environments.

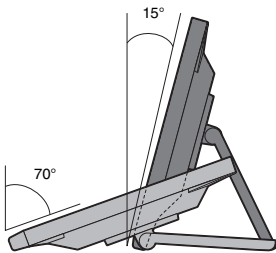
Full-flat Design

The Full-flat design of the CuratOR LX2420-T allows you to touch the screen right to the edge.



Reclining stand

The tilt angle of the CuratOR LX2420-ST can be adjusted steplessly. You can smoothly change the screen position to make it easier to work in a way that suits how you are using the monitor, such as for office work or multi-touch operations.



4 Setup and installation

CAUTION

Changes to device

Do not make any mechanical or electric changes to the device. Otherwise the device warranty becomes invalid.

The manufacturer is not liable for changes made to the device.

Note

The setup and installation may only be carried out by service personnel.

4.1 Installation site

Note the following conditions at the installation site.

NOTICE

The power switch and connections must be accessible at all times

When installing and connecting the monitor, ensure that the power switch and the connections are accessible at all times.

NOTICE

Condensation

If the device is brought into a warm environment from a cold one, condensation may form in the device. This could result in a short circuit when switching on the device, damaging it.

- Wait until the condensed water has evaporated, including that inside the device, before you switch it on. This can take several hours.

Sufficient ventilation

Ventilation holes are located on the rear of the housing.

If the ventilation holes are covered or closed, the heat generated in the monitor will not be dissipated sufficiently.

- Do not cover the ventilation holes.
- Do not close the ventilation holes.
- The minimum distance from the top, back, and side of the monitor to the wall must be at least 10 cm, and at least 15 cm from other heat-emitting devices.
- With the CuratOR LX2420-ST, which is equipped with a reclining stand, the minimum distance to the back of the monitor can be less than 10 cm at some points, depending on the angle of inclination. However, this is sufficient for satisfactory heat dissipation.

Avoid dusty environments

The monitor is intended for use in the clean environment of medical diagnostics. In dusty environments, ventilation holes in the back can allow dust to penetrate into the monitor. In the worst case, deposits are possible which become evident as dark spots in a white picture and result in deterioration of the luminance.

- Protect the monitor from dust, for example through appropriate construction measures at the installation site.
- During transport, use the original packaging or service packaging.

Maintain the permissible ambient temperature

The ambient temperature should be in a range of +5°C to +35°C ambient temperature. If the ambient temperature exceeds this range it could result in overtemperature in the monitor. In this case the Operation LED initially flashes orange. If the temperature continues to rise the LED will flash red and brightness will be reduced to prevent overheating.

Avoid reflections on the screen

The monitor has an anti-glare surface that is only effective if the screen is clean and grease-free.

- Comply with the specifications for Cleaning.
- Position the monitor to avoid reflections on the display area.
Reflections can be caused by lights, windows, furniture with shiny surfaces, or light-colored walls.
- In order to reduce reflections on the monitor, only use non-dazzling reflector bulbs for the ceiling lighting.

Avoid shocks and impacts

The monitor is sensitive to shock. Shocks and impacts on the panel surface can lead to total failure.

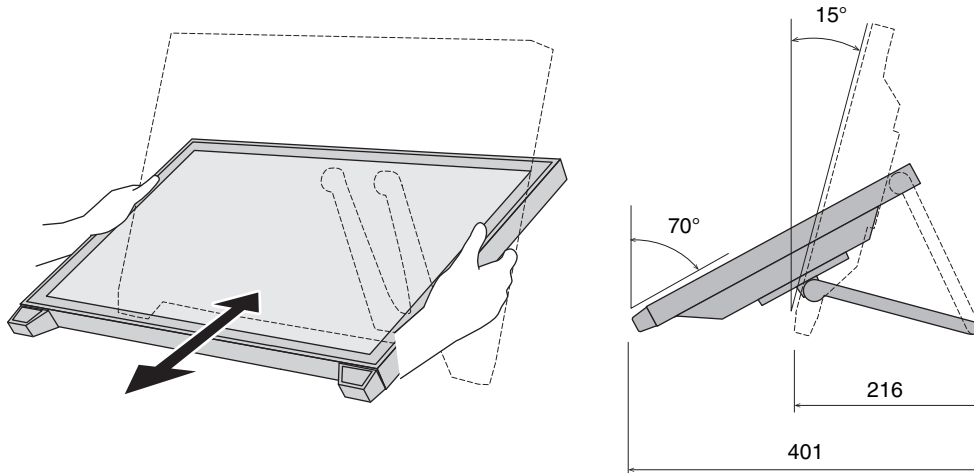
- Ensure that such mechanical influences are avoided.

Movable installation

If the monitor is installed such that it can move, make sure that persons or objects in the facility are not endangered by the monitor's range of movement.

4.2 Adjusting the Screen Angle

Hold the left and right edges of the monitor with both hands, and adjust the screen tilt to the optimum position for performing tasks.



NOTICE

- After the adjustment is finished, make sure that the cables are correctly connected.

4.3 Installing the monitor

Mounting on a pole or a monitor stand

Multiple monitors can be installed flush horizontally and vertically to one another. The monitor has a VESA 100 x 100 adapter.

Note the following during installation:

- The maximum torque for attaching to the holder is 1.2 ± 0.2 Nm.
- The screws used for attaching to the holder must meet the following requirements:

Number	4
Thread	M4
Solidity class	8.8
Insertion depth	max. 10 mm

- Mounts must be tested and approved by the manufacturer for the weight to be supported.
- An installed stand must be sufficiently stable to withstand tilting of up to 10° without toppling the monitor.

5 Connecting

Note

The connection may only be made by service personnel.

5.1 Safety information for connection

All safety information and warnings for the device must be observed to ensure danger-free operation.

CAUTION

Changes to device

Do not make any mechanical or electric changes to the device. Otherwise the device warranty becomes invalid.

The manufacturer is not liable for changes made to the device.

CAUTION

Shielding measures

Follow all shielding measures in accordance with local EMC directives. If these guidelines are not observed, device malfunction may result.

CAUTION

Grounding

The permissible leakage current is not exceeded during the first fault event in accordance with EN 60601-1. To ensure the greatest possible electrical safety, the device must be grounded with an additional protective earth conductor.

CAUTION

Excessive currents, short circuits, and ground faults

In accordance with national standards and regulations, protection against excessive currents, short circuits, and ground faults must be incorporated into the building installation.

NOTICE

Changes to device settings

Device settings may only be adjusted by service personnel.

NOTICE

Disconnecting from line power

Always set the power switch to "Off" before disconnecting the device from power. Otherwise the device could be destroyed.

NOTICE**Cable installation**

Observe the following instructions:

- Only shielded cables are to be used for all signal connections.
- The connecting cables must not be kinked.
- The minimum bending radius of a connecting cable generally equals five times the cable diameter.
- Do not route signal cables and power cables next to one another. Otherwise, line power subject to heavy interference could result in reversible pixel errors.
- The device must not share a line power supply with motors or valves (interference!).
- Externally connected cables can represent a trip hazard. Make sure that all incoming cables are safely routed.
- If the device offers strain relief mechanisms for the cables, use them to prevent unintended loosening of connected cables.

5.2 Device connectors

NOTICE**Isolating the device from mains supply**

Means of isolating the device from mains supply is by disconnecting the AC power line.

- Make sure that the AC power line is easily accessible.

5.2.1 Connector locations

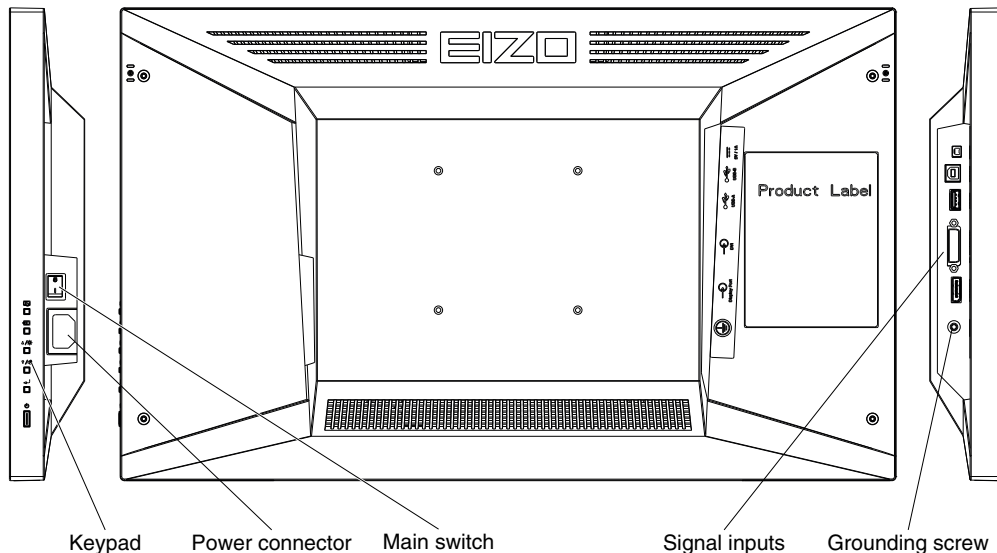


Fig.: Connector locations (rear view and side view)

5.2.2 Connection panel

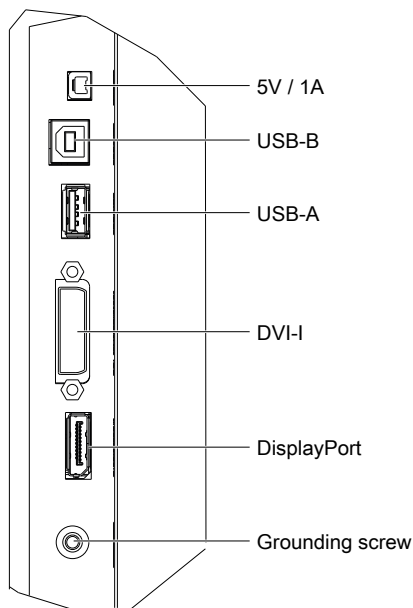


Fig.: Connection panel on the right side of the monitor

5V / 1A output

The monitor has a 5V / 1A output that can be used to supply external devices.

USB ports

The USB-A ports enable communication with external devices.

The USB-B port is needed for touch operation. It can also be used for service purposes.

DVI-I connector

The monitor has a DVI-I connector, which can process digital and analog input signals.

DisplayPort (DP) connector

The monitor has a DisplayPort connector, which can process digital input signals.

Grounding screw

The additional protective conductor is connected to the grounding screw.

Power connector (behind keypad)

The device's power supply is connected using an appliance plug.

Main switch (behind keypad)

The power switch is used to turn the device on and off.

Standby switch (keypad)

The standby switch is part of the keypad and is used to switch the device on and off.

5.3 Connecting the signal cable

CAUTION

Connector

Connectors may only be plugged in or removed by Service when the device is switched off.

Prerequisite

The monitor has to be installed in the ceiling suspension, wall mount, or stand.

Procedure

1. Connect the signal cable to the DVI-I connector or the DisplayPort connector of the monitor.
Note: All signal inputs can be connected at the same time.
2. Tighten the screws to secure the DVI-I signal cable.
3. For touch panel usage, connect the USB cable to the USB-B connector.

5.4 Connecting the power cable

DANGER

Connecting to line power

- The device is designed for line power with a protective earth conductor.
- To avoid risk of electric shock, this device must only be connected to line power with a protective earth conductor.
- Contact the responsible building technician or a qualified electrician if you are uncertain whether the line power is equipped with a protective earth conductor.

CAUTION

Risk of damage to the device

- Only use power cables or connection cables with protective earth conductor and appliance plug according to DIN 49547, IEC 60320 (max. length 3 m, cable e.g. H05VV-F 3x1.0 mm²). The cable must comply with the safety regulations of the respective country.
- Device fuses may only be replaced by authorized repair centers. The failure of a device fuse may result in a defect in the device. Do not use any other fuse.

CAUTION

Connector

Connectors may only be plugged in or removed by Service when the device is switched off.

Prerequisite

The monitor has to be installed in the ceiling suspension, wall mount, or stand.

Procedure

1. Connect the appliance plug to the monitor power connector.
2. The power cable can be secured using a cable grip.

6 Commissioning

Note
Commissioning may only be carried out by service personnel.

The following sections describe how to make the settings for optimum operation of the system, comprising the monitor and video source.

The video source for example can be a PC with graphics card, or a diagnostic imaging device.

6.1 Switching on the monitor

To switch on the monitor, proceed as follows:

- Switch on the monitor using the power switch.
Note: The power switch is located on the back of the monitor.
- Wait until the operation LED in the front panel of the monitor turns green.

6.2 Using a screen saver

Image sticking may occur with LCD monitors. Image sticking is an effect whereby a faint image of the previous screen contents can be seen after the display contents have changed. This occurs in particular when the same image content is displayed over an extended period of time.

You can prevent image sticking by using a screen saver with image content that changes regularly.

6.3 Selecting the LUT

Six LUTs (Look Up Tables) are predefined on the monitor. The requested LUT can be set with the function "LUT" in the OSD menu "image" or by quick link with the OSD menu closed by using the OSD button 3.

6.4 Adapting the monitor to an analog video source

Note
• To achieve optimum picture quality, the monitor must be operated with a graphics resolution of 1920 x 1080 (2 MP). A corresponding setting for the graphics card of the video source must be made. • To set the monitor optimally, allow it to warm up at least 30 minutes.

This section describes how to adapt the monitor to operate with an analog video source. The procedure is divided into the following steps:

- Adjust the position, phase and frequency.
- Adapt brightness and contrast.

6.4.1 Adjusting the position, phase, and frequency

Analog video sources deliver signals that have to be converted into digital signals by the LCD monitor using a video digitizer. Depending on the source, cable length, and video mode (e.g. VGA, SVGA, XGA), this conversion may cause certain deviations which cannot be corrected fully automatically by the monitor.

Comparison of position, frequency and phase

Note
The auto function for adjusting brightness and contrast is only available for analog signals. The picture quality for digital video signals is already optimized, and adjustment is not required.

If the image geometry is not shown correctly, proceed as follows:

1. Use the SMPTE test pattern for the display.
2. Select the function "Analog Settings" in the "Geometry" menu.
3. In the "Geometry > Analog Settings" menu, select the function "Auto Position/Frequency/Phase".
4. Start the autofunction with "Yes".
 - ⇒ The monitor recognizes the standard used, and has preprogrammed set-up values for each standard. However, depending on the graphics card used, fine adjustment may still be required for the selected standard.

Fine adjustment of the monitor

During fine adjustment, the monitor is adjusted manually to the respective video source. The fine adjustment encompasses settings for position, frequency, phase and image sharpness.

- In the menu "Geometry > Analog Settings" of the OSD, set the position, frequency and phase.

Note: By adjusting the image position, you ensure the full picture is displayed on the active area of the monitor, down to the last pixel. If the horizontal position is shifted 1 pixel too far to the right for example, a 1 pixel-wide edge on the right side of the picture is lost, and a 1 pixel-wide black column is displayed on the left side.
- Set the sharpness in the "Geometry" menu.

6.4.2 Adapting brightness and contrast

The brightness and contrast must be adjusted for the respective graphics card in the system on site due to different output levels.

Note
The exact brightness and contrast settings are only possible with a photometer.

Perform the following steps unless a specific procedure is specified for the system.

Adjustment of brightness and contrast

Note

The auto function for adjusting brightness and contrast is only available for analog signals. The picture quality for digital video signals is already optimized, and adjustment is not required.

1. Use the SMPTE test pattern for the display.
2. Select the function "Analog Settings" in the "Geometry" menu.
3. In the menu "Geometry > Analog Settings", select the function "Auto brightness/contrast".
4. Start the autofunction with "Yes".
 - ⇒ The automatic values for brightness and contrast are set. Optimization of brightness and contrast may be necessary depending on the graphics card. Therefore, perform the following steps.

Optimizing the values for brightness and contrast

1. Direct the photometer toward the black level (0% field) of the SMPTE test pattern.
2. Change to the "Geometry > Analog Settings" menu in the OSD.
3. Using the "Brightness" function, reduce the brightness value until the measured luminance no longer falls.
4. Increase the brightness value a little:
 - ⇒ This is the optimum brightness value.
5. Direct the photometer toward the white level (100% field) of the SMPTE test pattern.
6. Using the "Contrast" function, find the contrast value at which the luminance remains constant.
7. Lower the contrast value until there is an initial change in brightness.
 - ⇒ This is the optimum contrast value.
8. Exit the OSD to save the values.
 - ⇒ You have set the brightness and contrast for optimized display of the 5% and 95% squares of the SMPTE test pattern.

7 Operation

Once installed, user operation of the monitor consists of switching the power on and off.

After switching on the monitor, the operation LED is lit green continuously. If the LED lights up with another color, the monitor is not operating within normal operation.

Measures in the event of a failure

Note

Device malfunction in operation

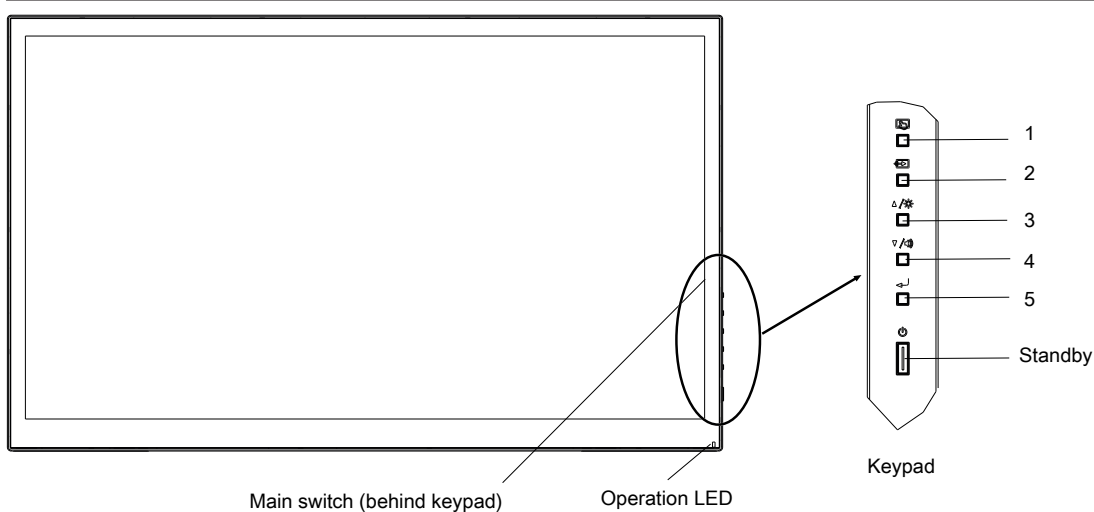
If the device is not working properly, check the system for basic connection and operating errors before contacting service personnel.

7.1 Operator controls

NOTICE

OSD operation by service personnel only

The following sections describe the operating elements and the OSD menu. The description is directed exclusively to service personnel.



The keypad is located on the side, the operating LED on the front.

The operation LED illuminates when power is supplied to the device and the power switch is turned on.

OSD keys

The OSD keys could be locked or unlocked.

The unlocked OSD keys have the following functions:

OSD key	Function
1	Touch enabled/ disabled (Display enabled / Touch disabled will be displayed as a message)
2	Exit / Hotkey: Input select
3	up - value increase / Hotkey: Mode (LUT select)
4	down - value decrease
5	Menu open/ Enter
Standby	ON/OFF

7.2 Lock or unlock OSD menu

CAUTION

Locking and unlocking the OSD menu

- Only authorized service personnel may lock or unlock the OSD menu.
- The OSD must be locked if inappropriate operation by the user can impact the intended use of the monitor.

Note

Unlock the OSD menu (prerequisites)

The OSD cannot be unlocked unless one of the following prerequisites is met:

- A signal is present at the selected signal input.
See also "Monitor settings" menu.
- Searching for sources becomes active once the monitor is switched on. Searching for sources terminates after about 10 seconds if power saving mode has been set in OSD, otherwise it will run continuously.

Unlock OSD menu

- Press key 5 and then key 3 three times.
(Key 1 is the first key from the top)

Lock the OSD menu

- In the OSD menu "Monitor Settings" under "OSD settings", set the "OSD keylock" function to "On".
The OSD menu then becomes locked once power to the monitor is cycled.

7.3 Overview of the OSD menu

Note

- The OSD menu is only available if a video source is connected.
- All signal inputs may be connected simultaneously.

You can use the OSD menu to change monitor settings or display information about the monitor. The following sections present the menus and available settings.

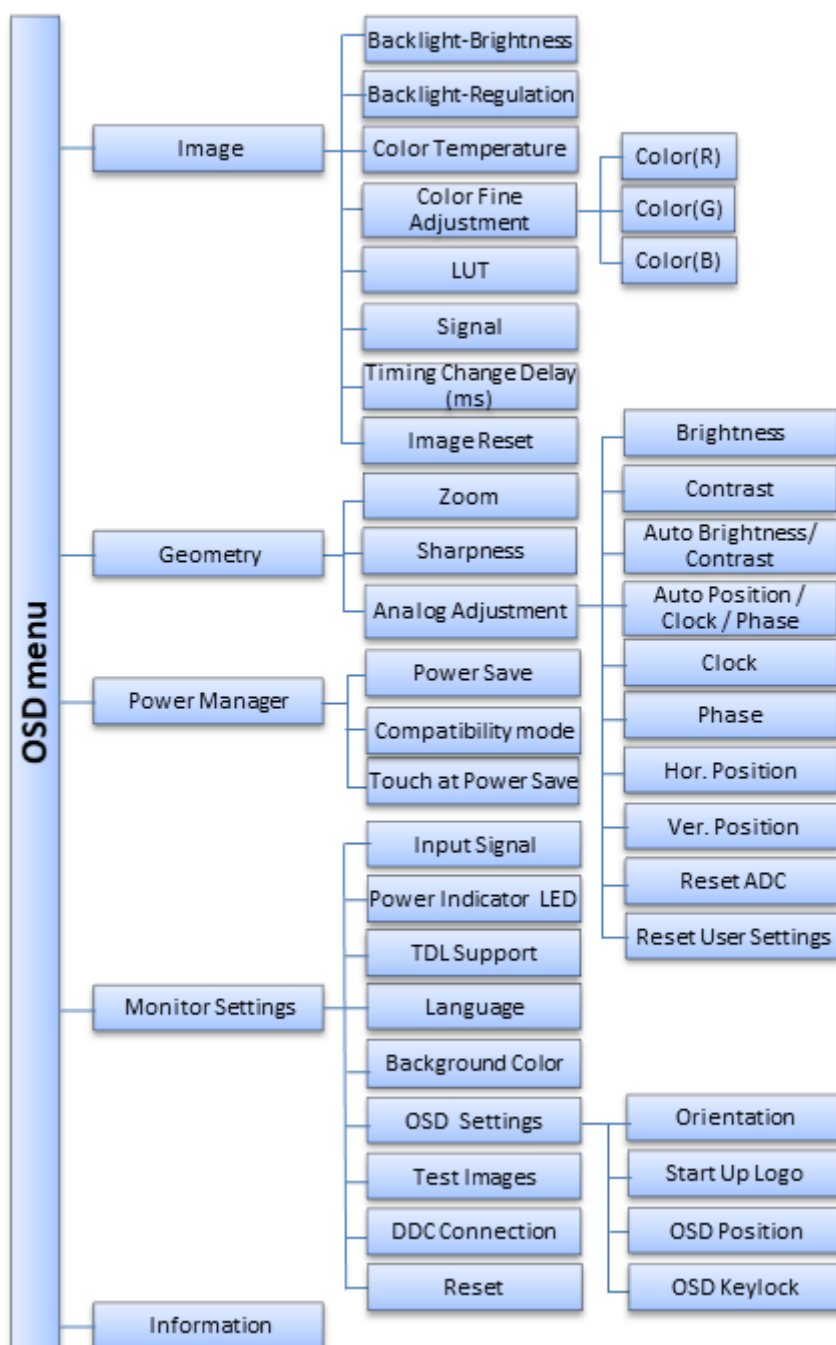
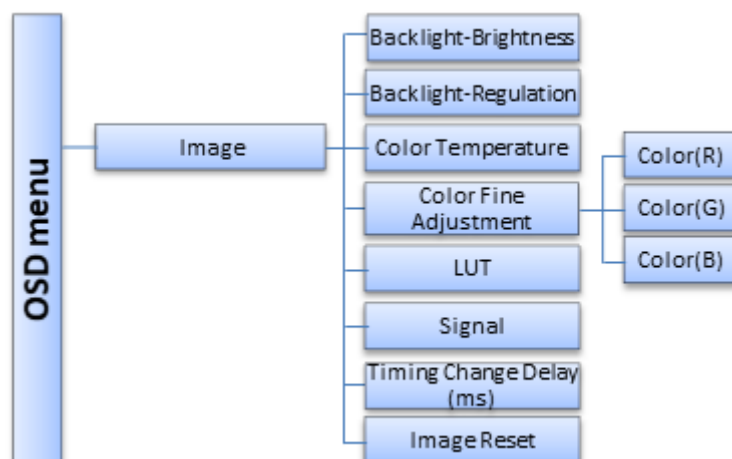


Fig.: Overview of the OSD menu

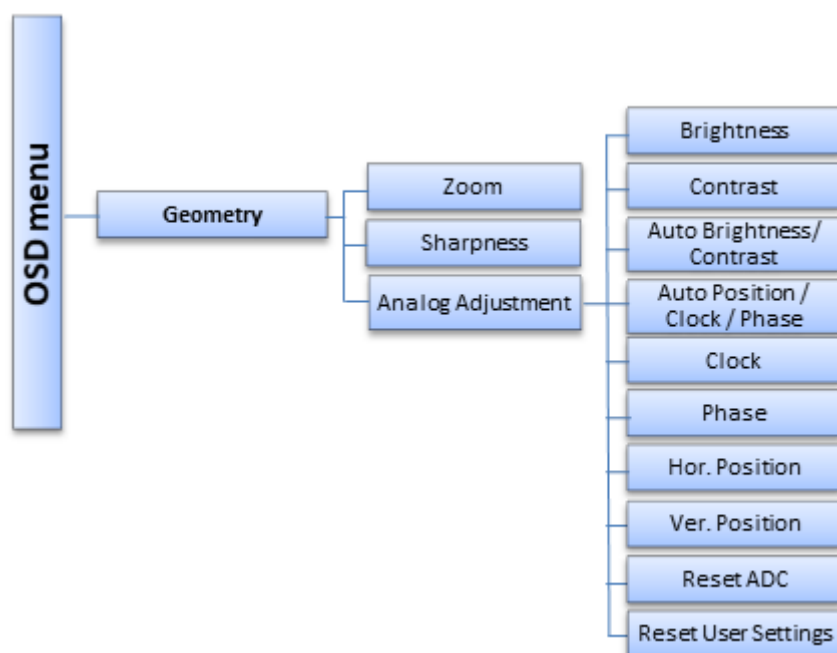
7.4 "Image" menu



Function	Values	Description
Backlight-Brightness	For activated regulation: -1023 ... 1023 If "Backlight Regulation" is set to "Off": 0 ... 4095	Set the brightness of the monitor backlight Correction value to adjust the overall brightness to the background lighting.
Backlight-Regulation	On Off	Set backlight rules If "On" is selected, the backlight brightness is changed to the set value using the backlight sensor. If "Off" is selected, backlight brightness is controlled using the set value. Note: The "Off" setting is only saved until the monitor is next switched on again.
Color Temperature	1: LUT Cal (6500K) 2: 7500K 3: 9300K 4: 9800K	Select color temperature Note: The function is available only if a LUT was activated with the "LUT" function. Two predefined, one variable and one LUT calibrated ("Native") color temperatures can be selected. The Color Temperature can be fine adjusted via the Color Fine Adjustment function.
Color Fine Adjustment	Red 0 - 255 Green 0 - 255 Blue 0 - 255	Set color manually Note: The function is available only if a LUT was activated with the "LUT" function. Change the values for the red, green, or blue proportion of the set color temperature.

Function	Values	Description
LUT	1-DICOM (n-400) 2-DICOM (0.8-400) 3-DICOM L2.2 4-CRT 5-CIE DIN6174 6-Gamma 2.2 No Correction	Select the Look Up Table (LUT) Note: If "No Correction" is selected, the functions "Color Temperature" and "Color Fine Adjustment" are not available. The LUT determines the monitor's gamma curve. By using a different LUT for example, you can highlight specific grayscale levels. Note: Select a DICOM LUT to view radiographic images.
Signal	Color RGB Monochrome (RGB) Monochrome (R) Monochrome (G) Monochrome (B)	Switch signal between color and monochrome - Color RGB: Color setting - Monochrome (RGB): Red, green and blue are displayed as grayscale weights. - Monochrome (R): The red channel is displayed as a monochrome signal. - Monochrome (G): The green channel is displayed as a monochrome signal. - Monochrome (B): The blue channel is displayed as a monochrome signal.
Timing Change Delay (ms)	Disabled 50 ... 500	Setting the delay for timing change The function is useful in the case of unwanted blankings at unstable signals. The "Timing change delay" value represents the time the display waits before reacting and synchronizing to a change of one of the following parameters: - H-Frequency - V-frequency - V-total Note: When enabled, the function cause a delay of several milliseconds even for a desired timing change. The higher the value of the function, the greater the delay.
Image Reset		Reset the image parameter to the default settings All settings made in the "Image" menu, except "Color Temperature", are reset to the defaults. The monitor settings and settings of the AD converter remain in place.

7.5 "Geometry" menu



Function	Values	Description
Zoom	Fill Screen Fill Aspect 1:1	Select image size Fill Screen: The picture is displayed to fill the complete screen (1920 x 1080 pixels). Fill Aspect: The picture is zoomed to the maximum screen area with retention of the aspect ratio. 1:1: The picture is displayed on screen in its original resolution.
Sharpness Note: The image sharpness can only be set if "1:1" is not selected for "Zoom" and the input resolution is not "1920 x 1080 pixels".	1 - 5	Set image sharpness Use this function for "softer" or "harder" display of the picture, or to reduce scaling artifacts. A smaller value generates a "softer" impression, a higher value a "harder" one. You have to determine the most suitable sharpness setting visually.

"Analog Adjustment" menu

Note

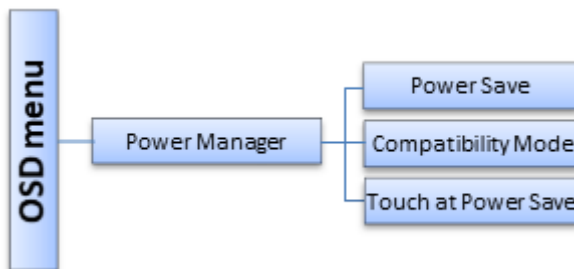
The "Analog Adjustment" menu is only displayed if an image source is connected to the analog input.

Function	Values	Description
Brightness	-99 ... 99	Set brightness Adapting the representation of darker picture areas.

Function	Values	Description
Contrast	-99 ... 99	Set contrast Adapting the representation of brighter picture areas.
Auto Brightness/Contrast	Yes No	Auto function Auto functions are used to automatically set the image parameters of analog signals. When you use this function, brightness and contrast are automatically set. Note: The quality of settings depends on the image content and type of synchronization. We recommend displaying an SMPTE test picture.
Auto Position/Clock/Phase	Yes No	Auto function Auto functions are used to automatically set the image parameters of analog signals. When you use the function, the position, clock, and phase are automatically set. Note: The quality of settings depends on the image content and type of synchronization. We recommend displaying an SMPTE test pattern.
Clock		Set the input signal clock If vertical lines easily display blurred, this can be corrected by adjusting the clock. Note: To correct the clock, we recommend displaying a vertical line from the "Pixel On/Off" test pattern.
Phase	0 ... 63	Set the input signal phase If vertical lines are slightly blurred, this can be corrected by adjusting the phase. Note: To correct the phase, we recommend displaying a vertical line from the "Pixel On/Off" test pattern.
Hor. Position		Shift the picture in the horizontal direction Note: The setting is optimal when the entire image to be displayed fills then entire display surface of the monitor, down to the last pixel (with the identical monitor and graphics card settings).
Ver. Position		Shift the picture in the vertical direction Note: The setting is optimal when the entire image to be displayed fills then entire display surface of the monitor, down to the last pixel (with the identical monitor and graphics card settings).
Reset ADC	Yes No	Reset analog settings If you perform this function, the brightness and contrast values will be reset to the values after the final adjustment.

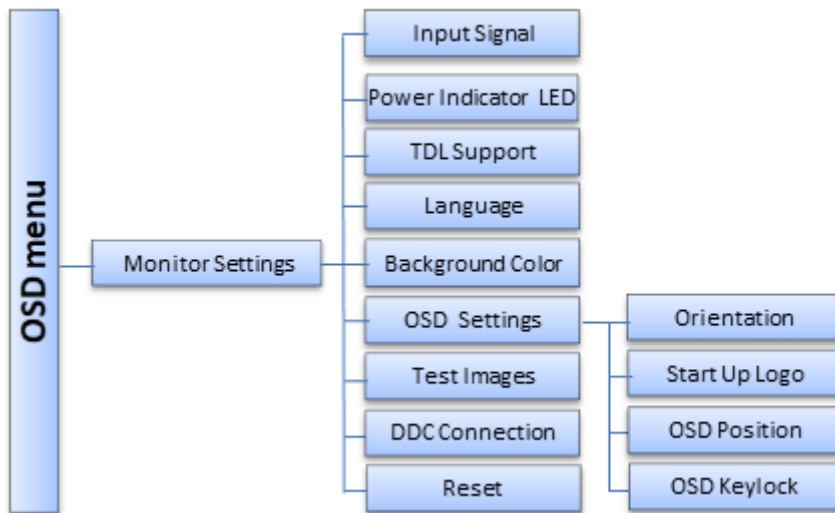
Function	Values	Description
Reset User Settings		Delete user settings The following settings will be reset to default values: • Brightness • Contrast • Position (horizontal and vertical) • Zoom • Clock • Phase • Sharpness • Color temperature

7.6 "Power Manager" menu



Function	Values	Description
Power Save	On Off	Set energy saving modes When "Power Save" is enabled, the backlight is switched off as soon as there is no input signal. This reduces energy consumption and increases the service life of the backlight. When "Power Save" is disabled, the backlight is not switched off.
Compatibility Mode	On Off	Set compatibility mode Depending on the PC and the graphics card used, the input signal may go undetected and the monitor may not be able to exit Power Save mode. Set this function to "On" if this occurs.
Touch at Power Save	On Off	Set whether touchscreen is active in Power Save mode.

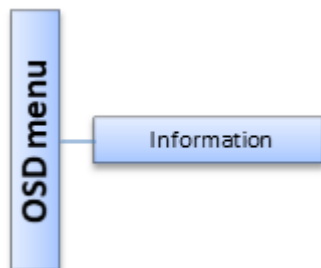
7.7 "Monitor settings" menu



Function	Values	Description
Input Signal	Auto Manual	Set the source scan When "Auto" is selected, the signal source is set automatically. When "Manual" is selected, the auto search function is deactivated, the monitor stays at the current input source. Another source can be set by hotkey function of operating key 4.
Power Indicator LED	On Off	Set the operation LED.
TDL Support	On Off	Set the TDL Support When "On", the DVI connector of the monitor powers the TDL module.
Language	Deutsch English	OSD menu language.
Background Color	Note: Only adjustable if "Zoom" is set to "1:1" in the OSD menu "Geometry".	Set border color If the displayed image has a border, its grayscale can be set here.
OSD Settings: Orientation	Landscape Format Portrait Format	
OSD Settings: Start Up Logo	On Off	Logo when starting the monitor The company logo is displayed when the monitor is started with the setting "On".

Function	Values	Description
OSD Settings: OSD Position	Center Upper Right Lower Right Lower Left Upper Left	Select the OSD menu position on the screen.
OSD Settings: OSD Keylock	On Off	Set keylock If you select "On", the OSD keys are locked when you leave the OSD menu or restart the monitor.
Test Images	Disabled 0 - 8	Select the test pattern to be displayed.
DDC Connection	Active Input DP DVI-D	Set communication interface Serial communication is always active. It can be rooted either on DP or DVI-D interface. "Active Input" allows to activate the communication on the selected input.
Reset	Yes No	Reset firmware to factory defaults The settings in the OSD menu "Image" and the AD converter remain in place.

7.8 "Information" menu



Function	Values	Description
Information	for display only	Displays the current monitor and operating data in the respective picture mode • Serial number • Power on time (h) • Backlight on time (h) • Input signal (resolution and signal frequency) • Mode (for analog signals only) • Temperature in the monitor [°C] • Firmware version

8 Cleaning and check settings

8.1 Cleaning

NOTICE

Device maintenance, cleaning and disinfecting

- Make sure liquids do not seep into the device. Liquids that seep into the device may result in an electric shock or failure of the device.
- The screen is extremely sensitive to mechanical influences. Absolutely avoid scratches, shocks, etc. for this reason.
- Clean the screen when dirty using a microfiber cloth and, if necessary, a recommended cleaning agent. Clean the housing parts with a recommended cleaning agent.
- Use only tested disinfectants.
- If a cleaning agent is sprayed directly onto the screen surface, use a microfiber cloth to remove drops which run down before they reach the edge of the panel.
- Remove drops of liquid from the device immediately. Contact with liquids over a longer period can cause discoloration or allow calcium deposits to form on the surface.

8.1.1 Recommended cleaning agents and disinfectants

Agent class	Tested cleaning agents and disinfectants
Aldehydes	Aldasan 2000, 4%
Quaternary compounds	Mikrozid sensitive liquid, neat Cleanisept 7.5 Vol.-% Mikrobac Tissues undiluted
Guanidine derivatives	Biguanid Fläche N, neat Acrylan undiluted
Chlorinated derivatives	Terralin protect, 2%
Alkylamines	Incidin PLUS; 8 Vol. %
Phenol and phenol derivatives	Helipur, neat
Peroxide compounds	Hydrogen peroxide 3% Apesin AP 100 3% Dismozon Plus 3.6% Incidin Oxy Foam undiluted Descogen Liquid undiluted Peridox RTU undiluted Incidin Oxy Foam S undiluted
Pyridine derivatives	Octenisept
Alcohol	Ethanol 96% Isopropyl alcohol 70% Cavi Wipes undiluted
Petrol	Petroleum benzine boiling range 100-120°C; CAS 64742-49-0

Agent class	Tested cleaning agents and disinfectants
Dishwashing detergent - active washing substances	Classic detergent, Good and cheap, EDEKA, 1 Vol%
Water	Tap water Distilled water
Detergents	Ammonium solution 1.65 Vol. %
Organic acids	Citric acid 1% (pH 2.2)
Lye / alkaline solution	limewash, saturated Ca(OH) ₂ solution
Hypochlorites	Sodium hypochlorite 10% Sodium hypochlorite 0.39%

Note

Information on cleaning or disinfection of other system components can be obtained from the respective instructions for use.

8.1.2 Prohibited cleaning agents and disinfectants

The following cleaning agents and disinfectants can bleach the paint after a longer period of application:

Agent class	Tested cleaning agents and disinfectants
Light gasoline	Petroleum spirit Petroleum ether

8.2 Check the settings** CAUTION****Checking the settings**

- The settings may only be checked by service personnel.
- The settings must not be checked in the presence of patients.

The picture quality of the monitor changes due to aging of the LCD unit and the backlight.

- Check the monitor settings at regular intervals in accordance with the local guidelines.
- Correct the settings if necessary.

9 Troubleshooting

9.1 Fault correction

Fault	Cause	Remedy
Operation LED dark No picture is displayed	Blown fuse Power cable not connected or connected incorrectly	- Contact service. - Check the power cable. - Is the power switch in the "On" position?
Operation LED green A picture is displayed	The applied video signal was recognized. No error.	
Operation LED flashes green No picture is displayed	The monitor scans for a suitable video signal: - No sync signal or video signal - The video source is not sending a video signal, or is sending an unknown timing. - The video source is sending an unknown timing	Measures: - Check the video cable. - Check the video source. - Set a different timing for the video source.
Operation LED lights up orange No picture is displayed	The monitor or video source is in energy saving mode.	- Exit the energy saving mode(s) - If no picture is still displayed and the operation LED is flashing green, perform the measures listed there.
Operating LED lights up red A picture is displayed	Overtemperature: The temperature threshold exceeded 52 °C.	Check the following: - Is the ambient temperature in the acceptable temperature range? - Are the housing cooling fins free and open? - Was the required distance between the monitor and other objects maintained during installation? - Is there a heat source near the monitor?
Operating LED flashes red A picture is displayed	Overtemperature: The temperature threshold exceeded 57 °C. Brightness is reduced. Brightness returns to the regular value as soon as the temperature falls sufficiently.	
Picture is without contrast and has a strong green shading	The video source is only transmitting a green signal	Switch to "Monochrome (G)" in the OSD menu.

Fault	Cause	Remedy
Miscellaneous	Loose plug	• Connect the loose plug and secure it.
	Defective cable	• Replace the defective cable.
	Touch operations do not work	• Check that the monitor and PC are connected with a USB cable. • Press Key 1 for enabling/disabling touch) • Check that the power cords of the monitor and PC are connected to a grounded main outlet. Failure to ground the equipment may result in malfunction.

10 Technical specifications

Note
Applicability of technical specifications All technical specifications are valid after a warm-up period of 30 minutes.

10.1 Monitor characteristics

Feature	Value
Type	TFT color LCD panel (AHVA)
Active Area	527.04 mm x 296.46 mm
Screen diagonal	604.70 mm (23.81")
Resolution	1920 x 1080 pixels
Pixel arrangement	3 subpixels per pixel
Contrast ratio	600:1 (minimum), 1000:1 (typically)
Screen brightness	480 cd/m ² (minimum) ... 600 cd/m ² (typically)
Horizontal viewing angle	± 89° (typically)
Vertical viewing angle	± 89° (typically)
Backlight	White LED

10.2 Monitor power requirements

Power connector	C13/C14 appliance socket
Line voltage	AC 100 ... 240 V (± 10%)
Line frequency	50 ... 60 Hz (± 5%)
Current consumption	max. 0.5 A
Maximum power consumption	< 46 W
Energy Saving Mode	< 2 W (touch on) < 1 W (touch off)

Power output supply

USB-A	5V/500mA
Hirose 5V	5V/1A

10.3 Inputs/Outputs

Analog/digital signal input

Analog	DVI-I connector (DVI-A)
Digital	DVI-I connector (DVI-D), Single Link DisplayPort connector
DDC	Via DVI-I connector

USB interface

Upstream	Via USB-B socket
Downstream	Via USB-A socket

10.4 Touch panel

Surface treatment	Anti-glare AG80 +/-10, Anti-smudge, Anti-finger-print
Surface hardness	7H
Communication method	USB transfer
Detection method	Projected capacitive technology
Supported OS	Microsoft Windows 7, 8, 10, 11, CE
Number of simultaneous touch points	Max. 10 points

10.5 Controls and connectors

Front	• Operation LED
Side	• Keys for OSD menu • Power switch • Power connection socket • 1 DVI-I socket • 1 DisplayPort socket • 1 USB-B, 1 USB-A • 5 V connector

10.6 Mechanical design

Housing components	ABS
Ventilation slots	In rear panel
Degree of protection	IP20 in accordance with DIN 40050
Connection panel	On the side
Weight in kg	6.2 kg $\pm$ 5% (6GF62003AL10) 6.7 kg $\pm$ 5% (6GF62003AL01)
Dimensions (W x H x D) in mm	557 x 339 x 54 (without stand)

10.7 Climatic conditions

In operation

Temperature range	+5°C to +35°C ambient temperature
Temperature gradient	Max. 5 °C/h, no condensation
Air pressure	700 hPa to 1060 hPa or 3000 m to -384 m height
Humidity	20% to 80%, non-condensing

For transport and storage (packed)

Temperature range	-20°C to +60°C ambient temperature
Temperature gradient	Max. 5 °C/h, no condensation
Air pressure	200 hPa to 1060 hPa or 11800 m to -384 m height
Humidity	10% to 90%, non-condensing

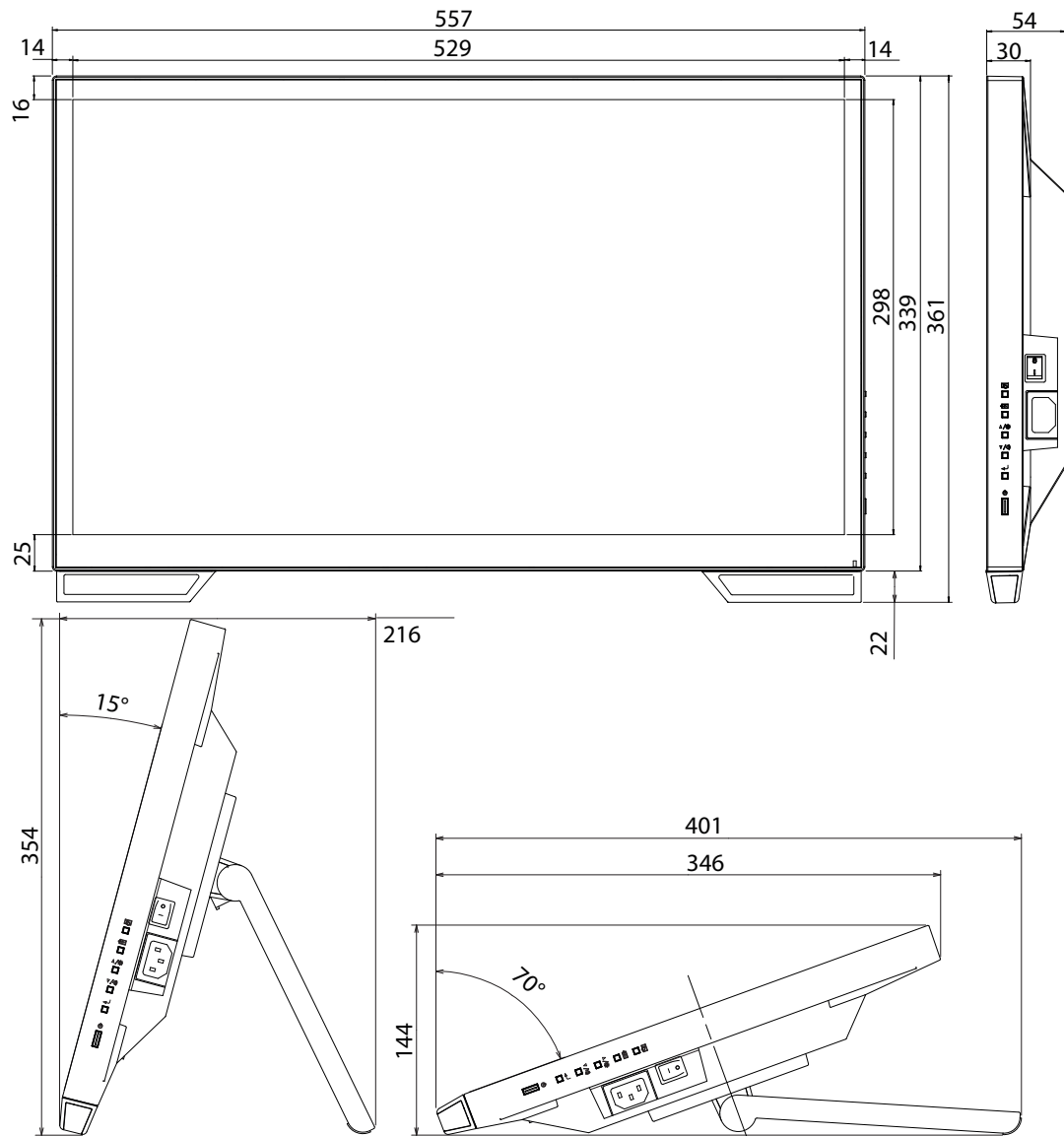
10.8 Safety specifications

Safety standards	• IEC/EN 60601-1 • CAN/CSA - C22.2. No. 60601-1 • UL60601-1 • GB 4943.1, fuse T3.15A 250V
Protection class	Protection class I
Degree of protection	IP20

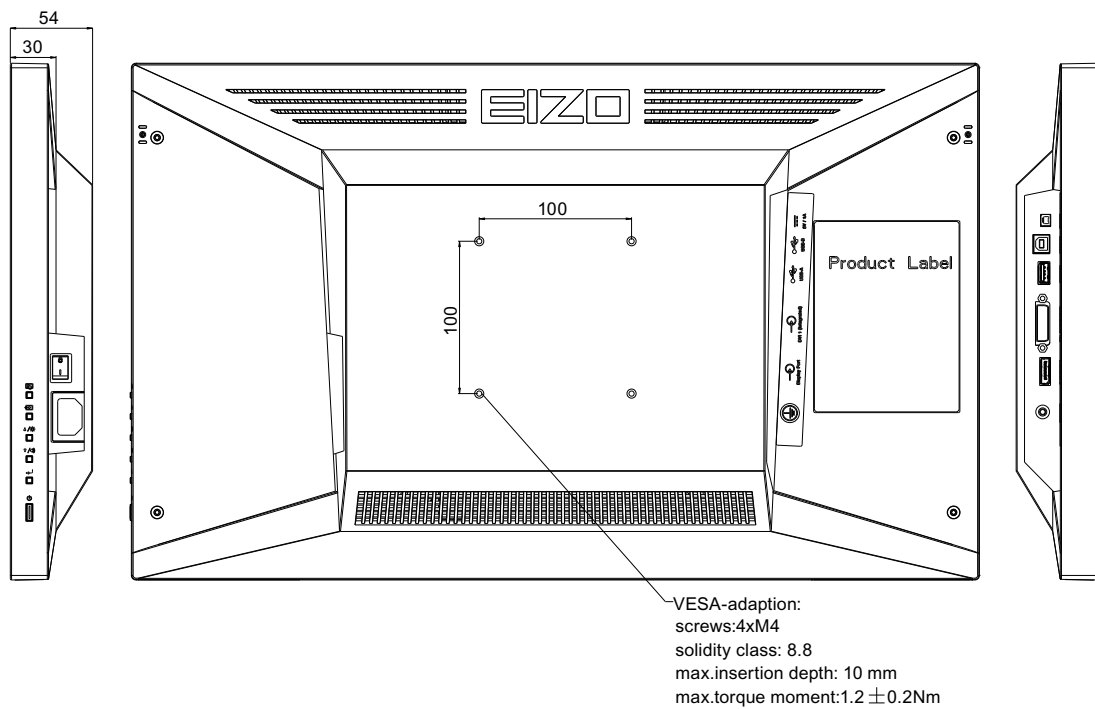
11 Dimension drawings

All dimensions in mm

11.1 Overview



11.2 Rear and side views



12 Appendix

12.1 Markings and symbols

Marking/symbol	Description
	Symbol for "Caution, observe accompanying documents".
	Symbol for "Dangerous voltage".
	CE marking (EU conformity mark).
	UKCA marking (UK conformity mark).
	Medical device in accordance with the European medical device regulation.
	MET marking, in accordance with U.S. and Canadian national regulations.
	RCM marking for conformity with Australian and New Zealand EMC standards.
	U.S. FCC marking for communication devices.
	CCC marking, in accordance with Chinese national regulations.
	BIS marking, in accordance with Indian national regulations.
	Symbol for the manufacturer of medical devices, supplemented by the date of manufacture.
	WEEE marking: Product must be disposed of separately; materials may be recycled.
	Marking according to ACPEIP (China-RoHS).
IP20	Symbol for degree of protection according to DIN EN 60529.
	Symbol for alternating current at line voltage input.
	Symbol for protective ground (ground).
	"On" symbol (voltage).
	"Off" symbol (voltage).
	Symbol "Refer to the instructions for use".
	UK Responsible Person.
	Swiss authorized representative (CH-REP).

12.2 Information on electromagnetic compatibility (EMC)

EIZO monitors were designed for the display of images and normal monitor operation.

 WARNING
Special EMC provisions are required for use of the CuratOR LX2420-T. Installation, assembly, and use must take place in compliance with the following instructions. • Only use the cables with appropriate shielding to avoid increased electromagnetic emission and reduced electromagnetic interference immunity of the device. Cable length: max. 3 m • The monitor should not be placed on other devices or positioned in their immediate vicinity. If devices have to be operated on or in the immediate vicinity of one another, the monitor or system must be monitored to ensure proper operation for the defined configuration. • When using a portable RF communications device, maintain a distance of at least 30 cm from all parts of the monitor, including cables. Otherwise, problem-free function of the device cannot be guaranteed. • Persons connecting additional devices to the signal input or output when configuring a medical system are responsible for ensuring compliance with standard IEC/EN 60601-1-2.

Electromagnetic radiation

The CuratOR LX2420-T is intended for use in the electromagnetic environments noted below.

Operators or users of the CuratOR LX2420-T have to ensure that the device is used in such an environment.

Radiation test	Conformity	Information regarding the electromagnetic environment
RF radiation CISPR11/EN 55011	Group 1	The CuratOR LX2420-T uses RF radiation for internal operation only. For this reason, the RF radiation is very low and is therefore unlikely that the monitor will cause interference in electronic devices in the immediate vicinity.
RF radiation CISPR11/EN 55011 GB9254	Class B	
Harmonic currents IEC/EN 61000-3-2 GB17625.1	Class D	
Voltage fluctuations/ flicker IEC/EN 61000-3-3	fulfilled	

Electromagnetic interference immunity

The CuratOR LX2420-T was tested with the following compliance levels in accordance with the test requirements for professional healthcare facilities, as established in IEC/EN 60611-1-2.

Operators or users of the CuratOR LX2420-T have to ensure that the device is used in such an environment.

Interference immunity test	Measurement level	Compliance level	Information regarding the electromagnetic environment
Electrostatic discharge (ESD) IEC/EN 61000-4-2	±8 kV contact ±15 kV air	±8 kV contact ±15 kV air	It is recommended to use the device on wood, concrete, or ceramic floors. If the floor is made of synthetic material, the relative humidity should be at least 30%.
Fast transient electric disturbances (bursts) IEC/EN 61000-4-4	±2 kV power lines ±1 kV input / output lines	±2 kV power lines ±1 kV input / output lines	The power supply quality has to correspond to that of typical industrial environments or hospitals.
Surge voltage IEC/EN 61000-4-5	±1 kV line against line ±2 kV line against ground	±1 kV line against line ±2 kV line against ground	The power supply quality has to correspond to that of typical industrial environments or hospitals.
Voltage dips, brief interruptions, and fluctuations of power supply lines IEC/EN 61000-4-11	0 % V_T for 0.5 periods and 1 period 70 % V_T for 25 / 30 periods at 50 / 60 Hz 0 % V_T for 250 / 300 periods at 50 / 60Hz	0 % V_T for 0.5 periods and 1 period 70 % V_T for 25 periods at 50 Hz 0 % V_T for 250 periods at 50 Hz	The power supply quality has to correspond to that of typical industrial environments or hospitals. If the monitor has to continue operation even if the power supply is interrupted, it is recommended to connect the device to an uninterruptible power supply or battery.
Magnetic fields with energy technology frequencies IEC/EN 61000-4-8	30 A/m (50 / 60 Hz)	30 A/m (50 Hz)	The magnetic fields with energy technology frequencies must be in an area that is representative of a typical location in a typical industrial environment or hospitals. The product should be kept at least 15 cm away from the source of power frequency magnetic fields during use.

Interference immunity test	Measurement level	Compliance level	Information regarding the electromagnetic environment
Line-based disturbances caused by RF fields IEC/EN 61000-4-6	3 V _{rms} 150 kHz to 80 MHz	3 V _{rms}	Portable and mobile RF communications devices may only be operated in the vicinity of the monitor and its components (including cables) when in compliance with the recommended minimum distance. It is determined using the formula for calculating the frequency of the transmitter. Recommended minimum distance $d = 0.6 \sqrt{P}$, 150 kHz to 80 MHz $d = 2 \sqrt{P}$, ISM bands between 150 kHz and 80 MHz $d = 0.35 \sqrt{P}$, 80 MHz to 800 MHz $d = 0.7 \sqrt{P}$, 800 MHz to 2.7 GHz In this case, "P" stands for the measured maximum nominal output power in watts (W) of the transmitter recommended by the transmitter manufacturer, and "d" for the recommended minimum distance in meters (m). The field strengths of fixed transmitters according to electromagnetic location measurement^{a)} have to be less than the compliance level in each individual frequency range. Interference can occur when used in the vicinity of devices identified with the following symbol. 
	6 V _{rms} ISM bands and radio amateur bands between 150 kHz and 80 MHz	6 V _{rms}	
Electromagnetic RF fields IEC/EN 61000-4-3	3 V/m 80 MHz to 2.7 GHz	10 V/m 80 MHz to 2.7 GHz	
Radiated fields in close proximity IEC/EN 61000-4-39	30 kHz Modulation: CW, 8 A/m 134.2 kHz Pulse modulation ^{c)} 2.1 kHz, 65 A/m ^{d)} 13.56 MHz, Pulse modulation ^{c)} 50 kHz, 7.5 A/m ^{d)}	30 kHz Modulation: CW, 8 A/m 134.2 kHz Pulse modulation ^{c)} 2.1 kHz, 65 A/m ^{d)} 13.56 MHz, Pulse modulation ^{c)} 50 kHz, 7.5 A/m ^{d)}	Immunity to proximity magnetic fields in the frequency range 9 kHz to 26 MHz.
Note • V_T is the alternating current voltage before application of the measurement level. • At 80 MHz and 800 MHz, the higher frequency range applies. • Guidelines regarding conducted disturbances induced by RF fields or radiated RF fields may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people. • The ISM bands between 150 kHz and 80 MHz are 6.765 MHz to 6.795 MHz, 13.553 MHz to 13.567 MHz, 26.957 MHz to 27.283 MHz, and 40.66 MHz to 40.70 MHz.			

- a) The field strengths of fixed transmitters, for example the base station for cordless and mobile telephones, radio, land mobile radio, ham radio, and television cannot be determined precisely in advance. To evaluate the electromagnetic environment using fixed transmitters, an electromagnetic location measurement should be included. If the measured field strength in the environment where the device is used exceeds the applicable RF compliance level, observe the monitor to ensure its proper operation. If improper operation is observed, in some circumstances additional measures may be necessary, such as reorienting or repositioning the device.
- b) Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.
- c) The carriers are modulated with a square wave signal with a 50% duty cycle.
- d) r.m.s., before modulation is applied.

Recommended minimum distance between portable or mobile RF communications devices and the CuratOR LX2420-T based on the output power of the transmitter

The CuratOR LX2420-T is intended for use in an electromagnetic environment in which interference due to electromagnetic radiation is controlled. For other portable and mobile RF communication devices (transmitters), the recommended minimum distance between the portable and mobile RF communication devices (transmitters) and the CuratOR LX2420-T applies as listed below. This is based on the maximum output power of the communication device.

Maximum nominal output power of the transmitter (W)	Recommended minimum distance according to the frequency of the transmitter (m)		
	150 kHz to 80 MHz $d = 0.6 \sqrt{P}$	80 MHz to 800 MHz $d = 0.35 \sqrt{P}$	800 MHz to 2.7 GHz $d = 0.7 \sqrt{P}$
0.01	0.06	0.04	0.07
0.1	0.19	0.11	0.22
1	0.60	0.35	0.70
10	1.90	1.11	2.21
100	6.00	3.50	7.00

For transmitters whose maximum nominal output power is not shown above, the recommended minimum distance "d" in meters (m) can be determined using the formula for calculating the frequency of the transmitter. "P" here stands for the transmitter's maximum measured nominal output power in watts (W), as recommended by the transmitter's manufacturer.

Note
- At 80 MHz and 800 MHz, the separation distance for a higher frequency range must be applied. - These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

Recommended minimum distance between portable or mobile RF communications devices and the CuratOR LX2420-T – tested immunity interference

The CuratOR LX2420-T is intended for use in an electromagnetic environment in which interference due to electromagnetic radiation is controlled. The operator or user of the monitor can help prevent electromagnetic interference by maintaining the recommended minimum distance between portable and mobile RF communications devices (transmitters) and the CuratOR LX2420-T.

The interference immunity regarding adjacent fields has been confirmed for the following wireless RF communications devices

Test frequency (MHz)	Bandwidth ^{a)} (MHz)	Service ^{a)}	Modulation ^{b)}	Maximum power (W)	Minimum distance (m)	Measurement level (V/m)	Compliance level (V/m)
385	380 - 390	TETRA 400	Pulse modulation ^{b)} 18 Hz	1.8	0.3	27	27
450	430 - 470	GMRS 460 FRS 460	FM ±5 kHz deviation 1 kHz sine	2	0.3	28	28
710	704 - 787	LTE band 13, 17	Pulse modulation ^{b)} 217 Hz	0.2	0.3	9	9
745							
780							
810	800 - 960	GSM 800/900 TETRA 800 iDEN 820 CDMA 850 LTE band 5	Pulse modulation ^{b)} 18 Hz	2	0.3	28	28
870							
930							
1720	1700 - 1990	GSM 1800; CDMA 1900 GSM 1900 DECT LTE band 1, 3, 4, 25 UMTS	Pulse modulation ^{b)} 217 Hz	2	0.3	28	28
1845							
1970							
2450	2400 - 2570	Bluetooth WLAN 802.11 b/g/n RFID 2450 LTE band 7	Pulse modulation ^{b)} 217 Hz	2	0.3	28	28
5240	5100 - 5800	WLAN 802.11 a/n	Pulse modulation ^{b)} 217 Hz	0.2	0.3	9	9
5500							
5785							

^{a)} For some radio services, only the frequencies for the radio contact from the mobile communications device to the base station (uplink) is included in the table.

^{b)} Carrier are modulated using a 50% duty cycle square wave signal.

12.3 FCC Declaration of Conformity

For U.S.A. , Canada, etc. (rated 100-120 Vac) Only
FCC Declaration of Conformity We, the Responsible Party EIZO Inc. 5710 Warland Drive, Cypress, CA 90630 Phone: +1 (562) 4 31 50 11 declare that the product • Trade name: EIZO • Model: CuratOR LX2420-T is in conformity with Part 15 of the FCC Rules. Operation of this product is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures. • Reorient or relocate the receiving antenna. • Increase the separation between the equipment and receiver. • Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. • Consult the dealer or an experienced radio/TV technician for help. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Note Use the specified cable below or EIZO signal cable with this monitor so as to keep interference within the limits of a Class B digital device. • AC Cord • Shielded Signal Cable
Canadian Notice
This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

12.4 China RoHS (Restriction of Hazardous Substances)

液晶显示器 LCD Monitor

型号 Model: 6GF62003A\$##

根据SJ/T11364-2014《电子电气产品有害物质限制使用标识要求》特提供如下有关污染控制方面的信息。

The following product pollution control information is provided according to SJ/T11364-2014 Marking for the restriction of the use of hazardous substances in electrical and electronic product.

电子信息产品污染控制标志说明 Explanation of Pollution Control Label



该标志表明本产品不含有超过中国标准GB/T26572-2011《电子电气产品中限用物质的限量要求》中限量的有毒有害物质。该标志还表示本产品废弃后可以回收利用，不应随意丢弃。

This symbol indicates the product does not contain hazardous materials in excess of the limits established by the Chinese standard GB/T26572-2011 Requirements of concentration limits for certain restricted substances in electrical and electronic products. The symbol also signifies that the product can be recycled after being discarded, and should not be casually discarded.

有毒有害物质或元素的名称及含量 Name and Concentration of Hazardous Substances

部件名称 Component Name	有毒有害物质或元素 Hazardous substances' name					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
液晶纯平屏幕 LCD Flat Screen	○	○	○	○	○	○
控制板 Controller Board	○	○	○	○	○	○
电源 Power Supply	○	○	○	○	○	○
其他 电路板 Other Circuit Boards	○	○	○	○	○	○
其他 (电缆等) Others (cables, etc.)	○	○	○	○	○	○
机架、底盘 Housing, Chassis	○	○	○	○	○	○
附件 (信号电缆、输电线等) Accessories (signal cable, power line, etc.)	○	○	○	○	○	○

部件名称 Component Name	有毒有害物质或元素 Hazardous substances' name
本表格依据SJ/T 11364 的规定编制。 O: 表示该有害物质在该部件所有均质材料中的含量均在GB/T 26572 标准规定的限量要求以下 X: 表示该有害物质至少在该部件的某一均质材料中的含量超出GB/T 26572 标准规定的限量要求 • 此表所列数据为发布时所能获得的最佳信息。 • 由于缺少经济上或技术上合理可行的替代物质或方案，此医疗设备运用以上一些有害物质来实现设备的预期临床功能，或给人员或环境提供更好的保护效果。 This list is based on SJ/T 11364. O: Indicates that this toxic or hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in GB/T 26572. X: Indicates that this toxic or hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in GB/T 26572. • Data listed in the table represents best information available at the time of publication. • Applications of hazardous substances in this medical device are required to achieve its intended clinical uses, and/or to provide better protection to human beings and/or to environment, due to lack of reasonably (economically or technically) available substitutes.	

产品中有毒有害物质或元素的名称及含量 Table of hazardous substances' name and concentration.

12.5 Declaration of compliance with India RoHS

We, EIZO Corporation, hereby declare and guarantee that this product has been designed and manufactured in compliance with the E-Waste management rule 2016 which prohibit the inclusion of the following substances except for the exemptions listed in schedule II.

- Lead, Mercury, Hexavalent Chromium, Polybrominated Biphenyls or Polybrominated Diphenyl Ethers exceeding a concentration of 0.1% by weight in homogeneous materials
- Cadmium exceeding a concentration of 0.01% by weight in homogeneous materials

For information on proper disposal and recycling of the product, please refer to the following website.

eizo.co.in/e-waste.php

12.6 Environmental protection

Comply with all local requirements and laws pertaining to the disposal of devices.

The device is in compliance with directive 2011/65/EU for limiting the use of specific hazardous materials in electric and electronic devices.

12.7 Additional devices

Connected devices must meet the relevant safety standards.

12.8 Warranty

Opening of the housing, or electrical or mechanical changes on or in the device, result in cancellation of the warranty. For warranty details, please contact the sales partner from whom you purchased the product. These warranty conditions are neither extended nor limited by the contents of this instruction manual.

12.9 Repairs

Please contact the sales partner from whom you purchased the product. The repair may only be carried out directly at EIZO or at a location expressly authorized by EIZO for this purpose.

12.10 Contact

Support during installation and for technical questions

www.eizo-or.com

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EIZO GmbH

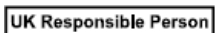
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Instructions for Use, 07/2024
CuratOR LX2420-T
1086415-001