ZRT 智锐通

MSC-2401

AI Medical All-in-one PC
USER Manual V10

USER MANUAL
用户手册

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Statement

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⚠ Safety Instructions

1	Carefully read the product manual before using the product.
2	Store any uninstalled cards in anti-static protection bags.
3	Before removing the card from its packaging, touch a grounded metal object for a moment to discharge any static electricity from your body and hands.
4	Before removing the card from its packaging, touch a grounded metal object for a moment to discharge any static electricity from your body and hands.
5	When connecting the motherboard to the power supply, confirm the power voltage.
6	To avoid electric shock or product damage, always turn off the AC power or unplug the AC power cord from the outlet before removing, installing, or reconfiguring the motherboard or any card.
7	Before moving any cards, unplug the AC power cord from the outlet.
8	Ensure that all power cables are unplugged before connecting or disconnecting any devices.
9	To prevent unnecessary damage to the product caused by frequent power cycling, wait at least 30 seconds after shutting down before powering on again.
10	If any abnormalities occur during use, contact a professional for assistance.

Contents

Chapter 1 Product Introduction

1.1 Product Specification

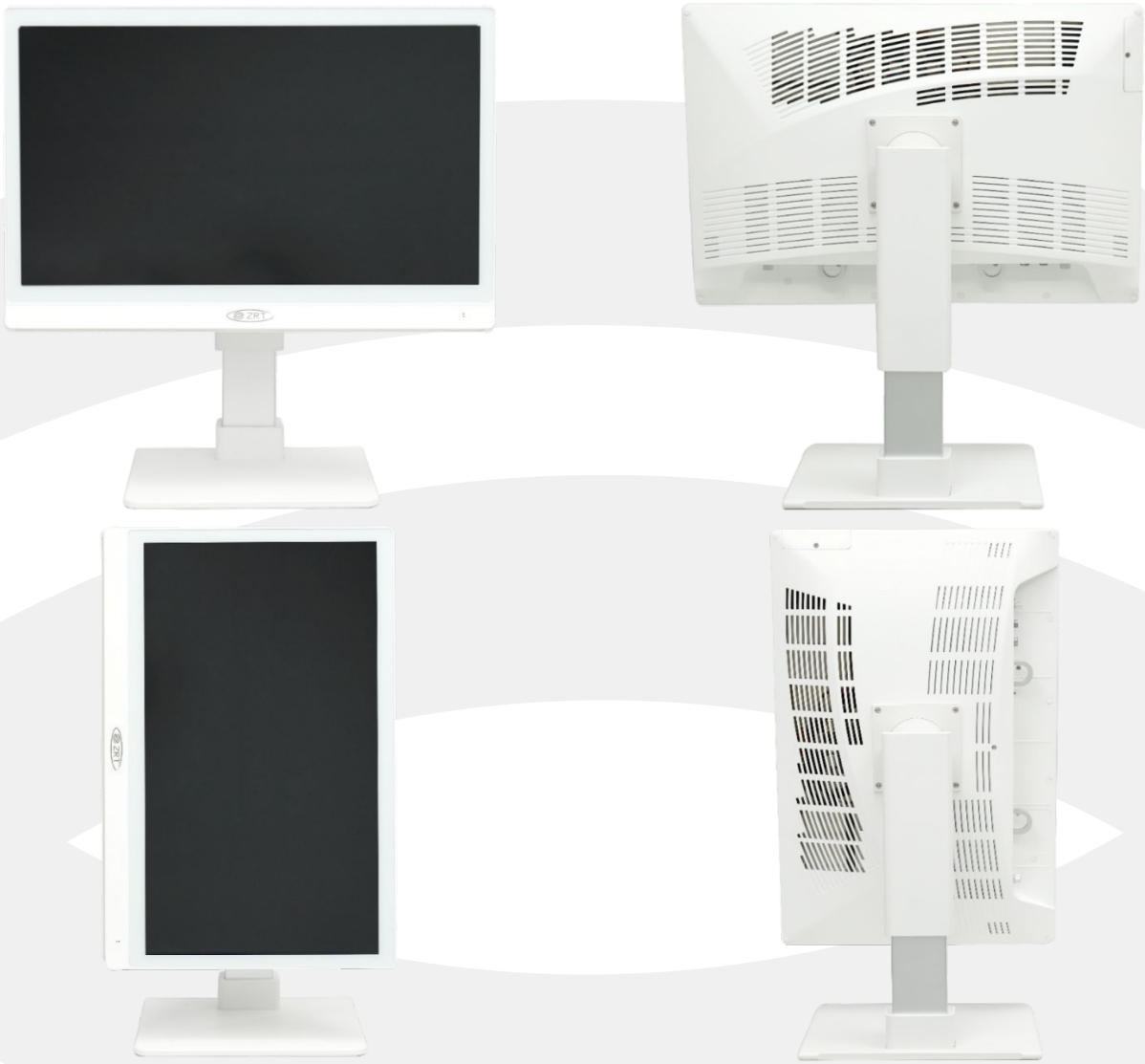
Model		MSC-2401
Configuration	Specification	Description
Display	Model	LM238WR2
	Display Panel	IPS
	Backlight Type	LED
	Color Bit	10bit
	Dimensions	544.7(H)*323.2(V)*13.8(D)mm(Typ.)
	Display Area (H*V)	525.66(H)*295.70(V)mm
	Resolution	3840*2160
	Brightness	540cd/m2(Center 1 Point, Typ.)
	Color Temp.	6500K
	Contrast	1200:1
	Chromatic Number	1.07B
	Color Gamut (DCI-P3)	98%
	Response Time	14ms
	Dot Pitch	0.2745(H)*0.2745(V)mm
	Frame Frequency	60Hz
	Viewing Angle	R/L 178(Typ.) U/D 178(Typ.))
	Curvature	N/A
	Touch Panel	Support

Processor	**CPU**	Intel 13th Raptor Lake-H I5/I7/I9		
	Options	i5-13500H	i7-13700H	i9-13900H
	Core Number	12	14	14
	Base Frequency	3.5GHz	3.7GHz	4.1GHz
	Max. Speed	4.7GHz	5GHz	5.4GHz
	L2 Cache	18MB	24MB	24MB
	TDP (W)	45W	45W	45W
	BIOS	256Mb SPI FLASH (compatible for 128Mb)		
Memory	**Technology**	DDR5		
	Max. Capacity	64G 3200MHz		
	Socket	2*SO-DIMM		
Expansion Slot	**M.2**	1*M.2 Key-M(2242/2280) for PCIe x4 1*M.2 Key-B (3042 /3052) for 4G/5G 1*M.2 Key-E(2230) for WIFI 1*M.2 Key-M(2242/2280) for PCIe x4 SDI Capture Card		
	SIM	1*SIM		
存储 Storage	**SATA**	1*SATA3.0		
Graphics	**I/O**	1*HDMI(From CPU)		
	Resolution	4096*2160@60Hz		
	Graphics Card Options	RTX3080m 16G RTX3060m 6G/12G		
USB	**Rear I/O**	1*USB3.0 3*USB2.0 2*USB3.0 (Aviation Connector optional)		
Audio	**Controller**	ALC897		
	Rear I/O	1*Line Out 1*MIC In		
Ethernet	**Controller**	Intel® Ethernet Controller i225-AT		
	Rear I/O	2*RJ45 10/100/1000M		
	Function	Support wake up and PXE		

Display Buttons	Functions	MENU, Light, +/-, Esc, Power Indicator, Screen Off
	Language	Chinese/English
Buttons	Rear I/O	2* Power Button 1* Reset Button
Other	LED	LED light bar (optional)
	2D Scanner	2D scanner (optional)
Power	Power Type	1*DC In(4P In)
	Power Consumption	300W
	Input Voltage	18~26V
Environment	Operating Temperature	-10~35℃ at 0.7m/s air flow
	Storage Temperature	-20~70℃
	Operating Humidity	10~95%(non-condensing)
	Operating Altitude	≤2000 meters
Physical	Dimensions	566(L)*375.5+95(W)*240(D)mm
	Color	White
OS	**Microsoft**	Windows 10、Windows 11
	Linux	Support
Certification	**Medical**	GB9706.1, GB9706.102

Structure	**Chassis**	Antibacterial plastic chassis,
	Base Stand	Height-Adjustable and Rotatable Base
	Package	High-strength, eco-friendly materials packaging, 1 unit/box
	Gross Weight	~10kg
	Vesa Mount	VESA mount (optional)
	Wall Mount	(Optional)
	Tilting Forward and Backword	Support

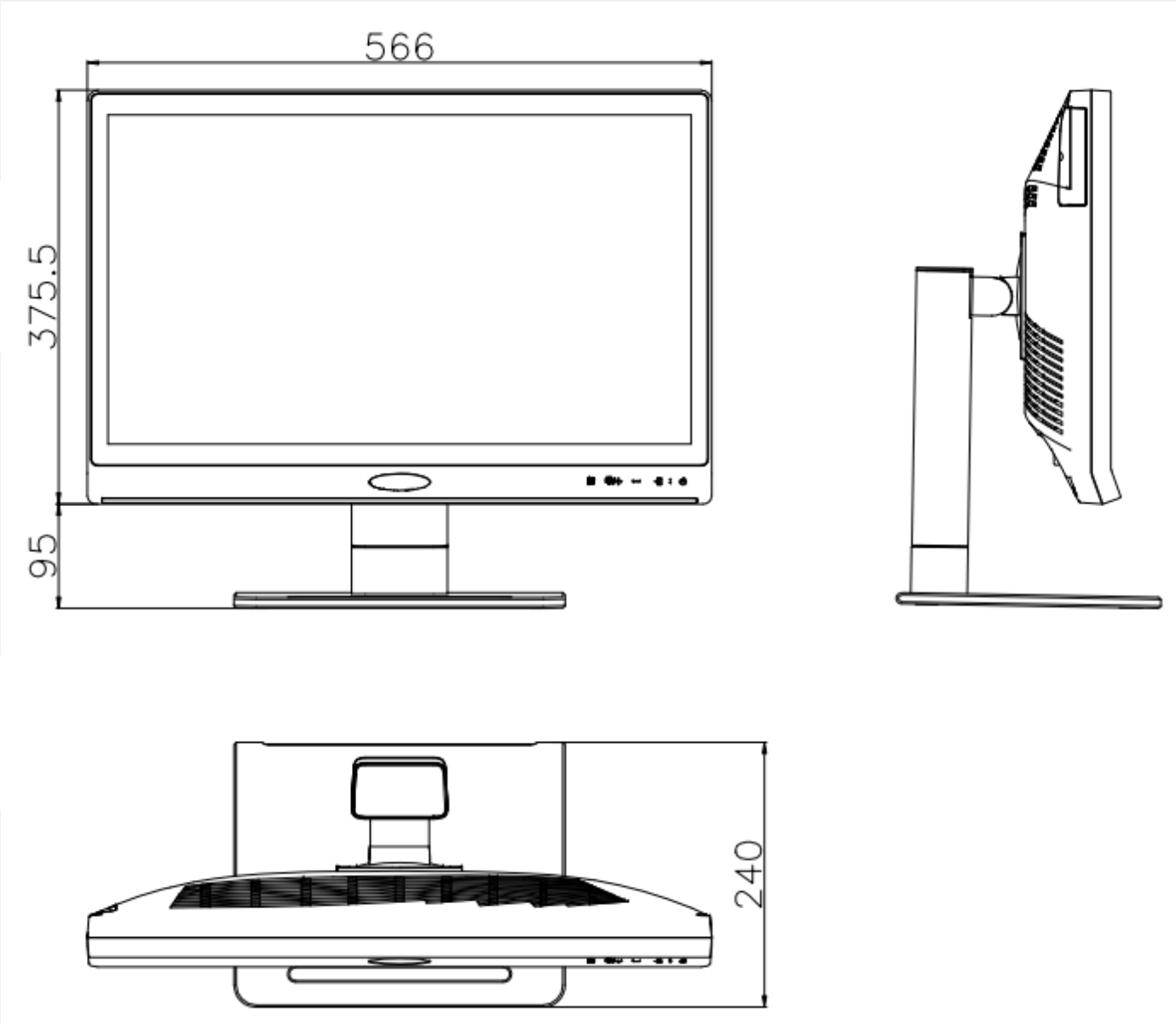
1.2 产品照片



Chapter 2 Installation Instructions

2.1 Port/Dimension

During installation, please refer to this diagram and carefully read the instructions below. Handle the components with care during the installation process. For certain parts, improper installation may prevent the device from functioning correctly.



Chapter 3 BIOS Setup

AMI BIOS Refresh

The BIOS provides low-level drivers for hardware resources and acts as a bridge between hardware and the operating system. As hardware and various application software continue to be updated, when your system encounters issues, such as when the system doesn't support the latest released CPU, you will need to upgrade your BIOS.

Note:

1. *Only upgrade the BIOS when necessary and if you encounter issues.*
2. *When upgrading the BIOS, please use the BIOS reading/writing program included on our driver disc, or download the updated version from the relevant website.*
3. *Do not turn off the power or restart the system during the upgrade process to avoid damaging your BIOS data, which could prevent the system from booting.*
4. *To prevent any accidents, please back up your current BIOS data before proceeding.*

AMI BIOS Description

When the computer is powered on, the BIOS performs self-diagnostics on the motherboard's hardware, sets hardware timing parameters, and finally hands over system control to the operating system. Proper configuration of BIOS parameters is critical for the system' s stability and optimal performance.

Entering BIOS Settings:

After the computer starts and completes the self-diagnostics, the following message will appear on the screen: "Del -> SETUP." At this point, press the **Del** key, and the BIOS will automatically enter the SETUP screen after detecting IDE and other devices.

Steps to enter and adjust BIOS settings:

1. Turn on the system or restart it. The monitor will display self-test information.
2. When the message "Press <Del> to enter setup" appears in the middle of the screen, press the **Del** key to enter the BIOS setup program.
3. Use the arrow keys to navigate to the option you want to modify, then press **Enter** to enter the submenu for that option.
4. Use the arrow keys and the **Enter** key to modify the selected values. Press **Enter** to select and edit the BIOS option.
5. At any time, press the **Esc** key to return to the previous screen.

Appendix

Appendix 1: Terms List

ACPI (Advanced Configuration and Power Interface)
The ACPI specification allows the operating system to control most of the power management for the computer and its attached devices.

BIOS (Basic Input/Output System)
The software that contains all input/output control code interfaces in a PC. It performs hardware detection when the system starts, initiates the operation of the operating system, and provides an interface between the OS and hardware. The BIOS is stored on a read-only memory chip.

BUS
A communication channel in a computer system through which data is exchanged between different components. It consists of a set of hardware lines. The BUS we typically refer to is the internal circuitry connecting the CPU and main memory components.

Chipset
An integrated set of chips designed to perform one or more related functions. We refer to the system-level chipset consisting of the Northbridge and Southbridge, which determines the architecture and main functions of the motherboard.

CMOS (Complementary Metal-Oxide-Semiconductor)
A widely used type of semiconductor known for its high speed and low power consumption. In this context, CMOS refers to the section of the CMOS RAM on the motherboard that is reserved for storing date, time, system information, and system parameter settings.

COM (Serial Port)
A general-purpose serial communication interface, typically using a standard DB9 male connector.

DIMM (Dual In-line Memory Module)
A small circuit board containing memory chips, providing a 64-bit memory bus width.

DRAM (Dynamic Random Access Memory)
A common type of general-purpose memory in computers. It typically uses a transistor and a capacitor to store one bit. As technology advances, the types and specifications of DRAM have become increasingly diverse in computer applications, such as SDRAM, DDR SDRAM, and RDRAM.

L2c (Inter-Integrated Circuit Bus)

A two-wire serial bus developed by Philips for connecting microcontrollers and their peripherals.

LAN (Local Area Network Interface)

A computer network composed of interconnected computers within a small area, typically within a business or a building. LANs generally consist of servers, workstations, and communication links, allowing multiple users to share expensive equipment and resources.

LED (Light Emitting Diode)

A semiconductor device that lights up when current flows through it, commonly used to visually display information, such as indicating power is on or the hard drive is working.

PnP (Plug and Play)

A specification that allows a PC to automatically configure external devices without user intervention. For this feature to work, BIOS support for PnP and a PnP expansion card are required.

POST (Power-On Self-Test)

During system startup, the BIOS performs a series of continuous diagnostic tests on the system, including checking the RAM, keyboard, hard drives, etc., to ensure they are correctly connected and functioning properly.

PS/2

A keyboard and mouse interface standard developed by IBM. The PS/2 port is a 6-pin DIN connector that can also be used to connect other devices, such as modems.

USB (Universal Serial Bus)

A hardware interface suitable for low-speed peripheral devices, commonly used to connect keyboards, mice, etc. A PC can connect up to 127 USB devices, providing a data transfer bandwidth of 12 Mbit/s. USB supports hot-swapping and multi-streaming, meaning USB devices can be plugged in while the system is running, and the system will automatically recognize and enable the device.

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