VINO2100

Face Mask and Temperature Detection System

User's Manual

Version 1.0
(October 2020)

iBASE

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Trademarks

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Compliance

CE

This product has passed CE tests for environmental specifications and limits. This product is in accordance with the directives of the Union European (EU). If users modify and/or install other devices in this equipment, the CE conformity declaration may no longer apply.

FC

This product has been tested and found to comply with the limits for a Class B 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 manufacturer's instructions, may cause harmful interference to radio communications.

WEEE

This product must not be disposed of as normal household waste, in accordance with the EU directive of for waste electrical and electronic equipment (WEEE - 2012/19/EU). Instead, it should be disposed of by returning it to a municipal recycling collection point. Check local regulations for disposal of electronic products.

Green IBASE

This product is compliant with the current RoHS restrictions and prohibits use of the following substances in concentrations exceeding 0.1% by weight (1000 ppm) except for cadmium, limited to 0.01% by weight (100 ppm).

- Lead (Pb)
- Mercury (Hg)
- Cadmium (Cd)
- Hexavalent chromium (Cr6+)
- Polybrominated biphenyls (PBB)
- Polybrominated diphenyl ether (PBDE)

Important Safety Information

Carefully read the precautions before using the device.

Environmental conditions:

- Lay the device horizontally on a stable and solid surface in case the device may fall, causing serious damage.
- Make sure you leave plenty of space around the device for ventilation.
- Use this product in environments with ambient temperatures 0˚C ~ 50˚C.
- DO NOT LEAVE THIS DEVICE IN AN ENVIRONMENT WHERE THE STORAGE TEMPERATURE MAY GO BELOW -20˚C OR ABOVE 70˚C. This could damage the device. The device must be used in a controlled environment.

WARNING

Attention during use:

- Do not use this product near water.
- Do not spill water or any other liquids on your device.
- Operate this device from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your distributor or local power company.
- If you use an extension cord, make sure that the total ampere rating of the product plugged into the extension cord does not exceed its limits.

Avoid Disassembly

You are not suggested to disassemble, repair or make any modification to the device. Disassembly, modification, or any attempt at repair could generate hazards and cause damage to the device, even bodily injury or property damage, and will void any warranty.

Warranty Policy

- **IBASE standard products:**

  24-month (2-year) warranty from the date of shipment. If the date of shipment cannot be ascertained, the product serial numbers can be used to determine the approximate shipping date.

- **3rd-party parts:**

  12-month (1-year) warranty from delivery for the 3rd-party parts that are not manufactured by IBASE, such as CPU, memory, HDD, power adapter, panel and touchscreen.

* PRODUCTS, HOWEVER, THAT FAILS DUE TO MISUSE, ACCIDENT, IMPROPER INSTALLATION OR UNAUTHORIZED REPAIR SHALL BE TREATED AS OUT OF WARRANTY AND CUSTOMERS SHALL BE BILLED FOR REPAIR AND SHIPPING CHARGES.

Technical Support & Services

1. Visit the IBASE website at www.ibase.com.tw to find the latest information about the product.
2. If you need any further assistance from your distributor or sales representative, prepare the following information of your product and elaborate upon the problem.

   - Product model name
   - Product serial number
   - Detailed description of the problem
   - The error messages in text or in screenshots if there is any
   - The arrangement of the peripherals
   - Software in use (such as OS and application software, including the version numbers)

3. If repair service is required, you can download the RMA form at http://www.ibase.com.tw/english/Supports/RMAService/. Fill out the form and contact your distributor or sales representative.

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Table of Contents

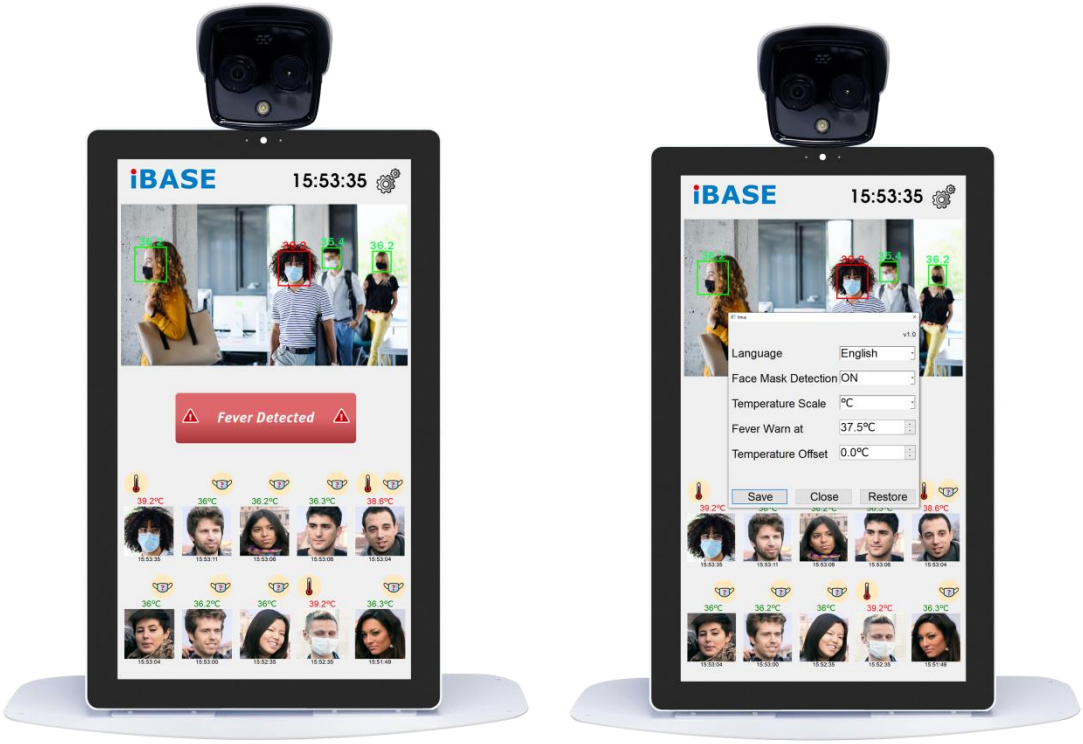
Chapter 1
General Information

The information provided in this chapter includes:

- Features
- Packing List
- Optional Accessories
- Specifications
- Product View
- Dimensions

1.1 Introduction

The VINO2100 is an all-in-one platform featuring a 7th Gen Intel® Core™ i7-7600U processor and a 21.5" IPS LCD touch panel with IP65 front-panel waterproof protection. It uses a high-precision thermal camera for body temperature measurements ranging from 35°C to 42°C (95°F to 107.6°F), precision of ±0.3°C. The VINO2100 features face mask recognition with 90+% accuracy in 50ms speed and can be used to intercept people not wearing face mask and who fail body temperature test. It supports sound/light alarm and access gate control for one by one walk-through inspection. Measuring 537.8 x 329.26 x 71.95mm, the fanless system has 8GB of DDR4 memory and 64GB SSD storage. A desktop mounting stand and the high-precision thermal camera are optional in the package.



Pictures of VINO2100

1.2 Features

- Face mask recognition with 90+% accuracy in 50ms speed
- Body temperature test with measurement range from 35°C ~ 42°C (95°F ~ 107.6°F), precision of ±0.3°C
- Real-time detection for multiple people
- Built-in Intel OpenVINO-based iVINO AI recognition software
- High-precision thermal camera
- IP65 front-panel waterproof protection
- Supports sound/light alarm and access gate control

1.3 Packing List

Your VINO2100 comes in three separate packages as listed below:

- VINO2100 system (in one package)
- VINOCAM2617 thermal camera (in one package)
- CB2617 thermal camera bracket & VINODKM desktop mounting stand (in one package)

1.4 Accessories

- 24V 180W power adaptor
- 2 x LAN to LAN cable (15cm)
- 1 x DC Jack to DC Jack Power cable (20cm)
- Screws and nuts for mounting
  (1) 4pcs M4*10mm Pan head screw with washer
  (2) 12pcs M4*8mm Pan head screw
  (3) 8pcs M4*8mm flat head screw
  (4) 4pcs M3*6mm flat head screw
- Driver DVD of motherboard

1.5 Optional Accessories

- Wireless Kit

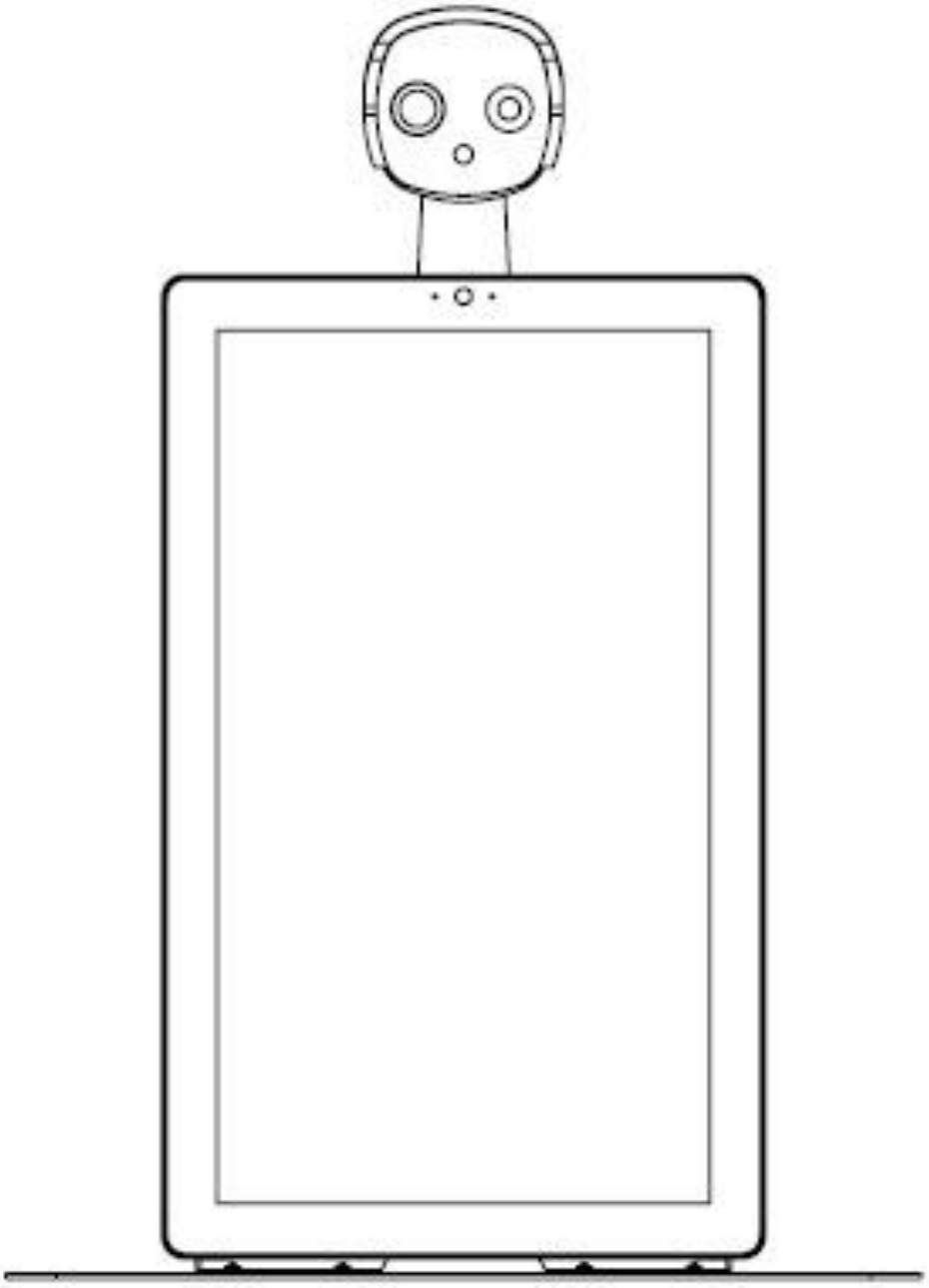
1.6 Specifications – VINO2100

System	
Motherboard	IB917AF-7600U
CPU	
Model	Intel® i7 7600U (2.8GHz~3.9GHz, 4MB cache) UPC-7210 -I76
TDP	15W
Memory	
Slots	2 x DDR4 SO-DIMM
Max. Support	32GB, Default 4GBx2
Edge I/O	
LAN / PHY	2 x RJ45 GbE LAN
Graphics	1 x HDMI type 1 x DP
USB	4 x USB3.0 f type A
COM	1 x D-SUB9 COM1 RS-232/422/485
Power switch	1 x rock switch
Power input	1 x power jack with screw locker
Wireless	2 x knock out antenna holes with cap at R&L side of rear cover
Expansion	
Onboard expansion	1 x mini PCIe with full mSATA support
System Fan	
CPU Fan	None
System Fan	None
Storage	
Storage Drive	1 x 2.5” HDD space default 64GB SSD
Others	
Speakers	2 x speakers via ID108 amplifier
Camera	1 x USB 1080P camera with digital microphone
Dimensions	
System Dimensions	537.8 x 329.26 x 71.95mm

Power	
Power	DC 24V
LCD Panel	
Model	21.5” MAV LCD panel
Resolution	1080x1920
Color	16.2M
View Angle	178°/178°(H/V) @ CR ≧ 10
Brightness	1000 nits
Backlight Lifetime	Min. 50000 hours
Touch Screen	
Touch Controller	Projected capacitive 10 points touch USB interface
Construction	
Front Bezel	AL 5052 white
Chassis	AL 5052 white
Mounting	VEAS 100x 100/200x100/desktop mounting holes at bottom
Others	Additional bracket for thermal camera and cable arrangement
Protection Class	Front side IP65, others IP30
Front Bezel	AL 5052 white
Operating System	
OS support	Windows 10, 64-bit
Environmental	
Temperature	Operating: 0°C~50°C Storage: -20°C~70°C
Humidity	10%~90% @40°C (non-condensing)
Standards	
Compliance	RoHS 2.0 REACH
Certification	CE/FCC class A +LVD

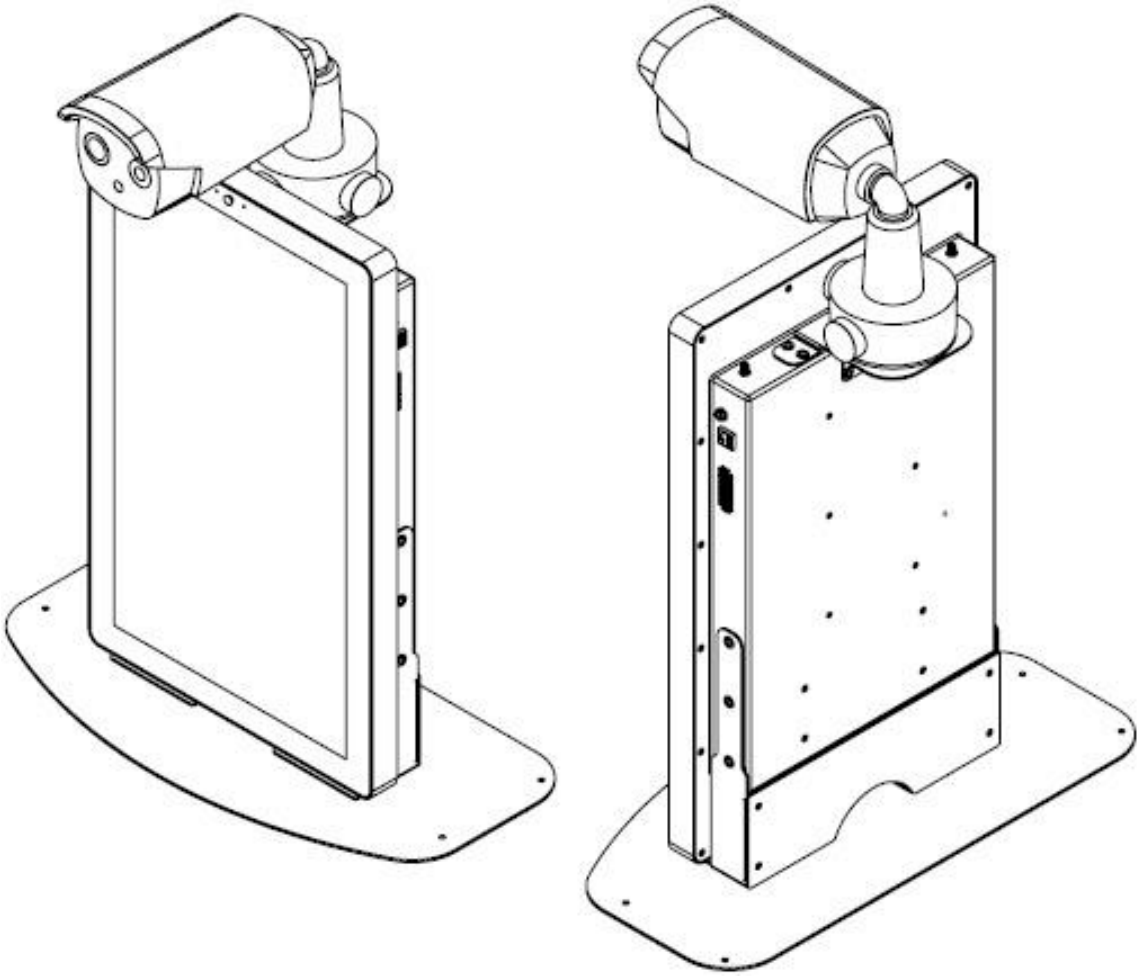
1.7 Product View

Front View

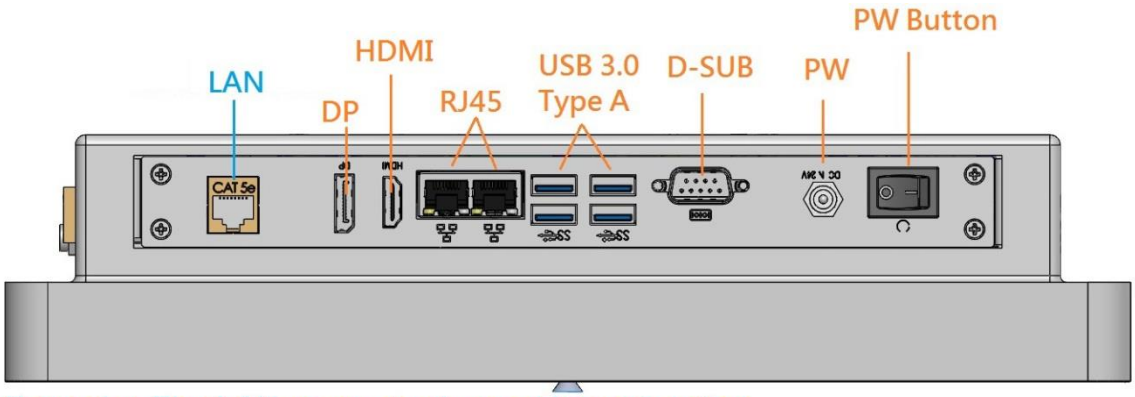


VINO2100 with Camera and Base Stand

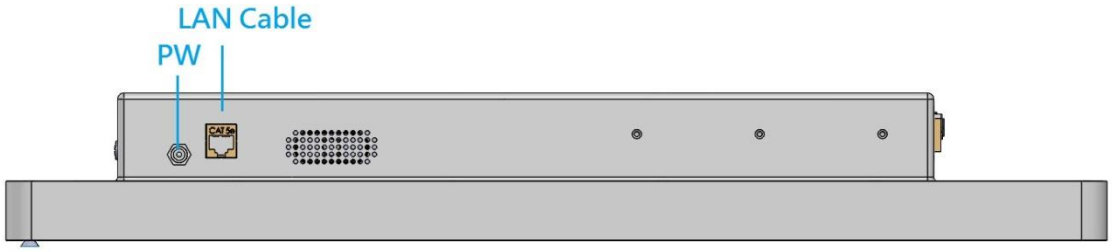
Oblique View



I/O View



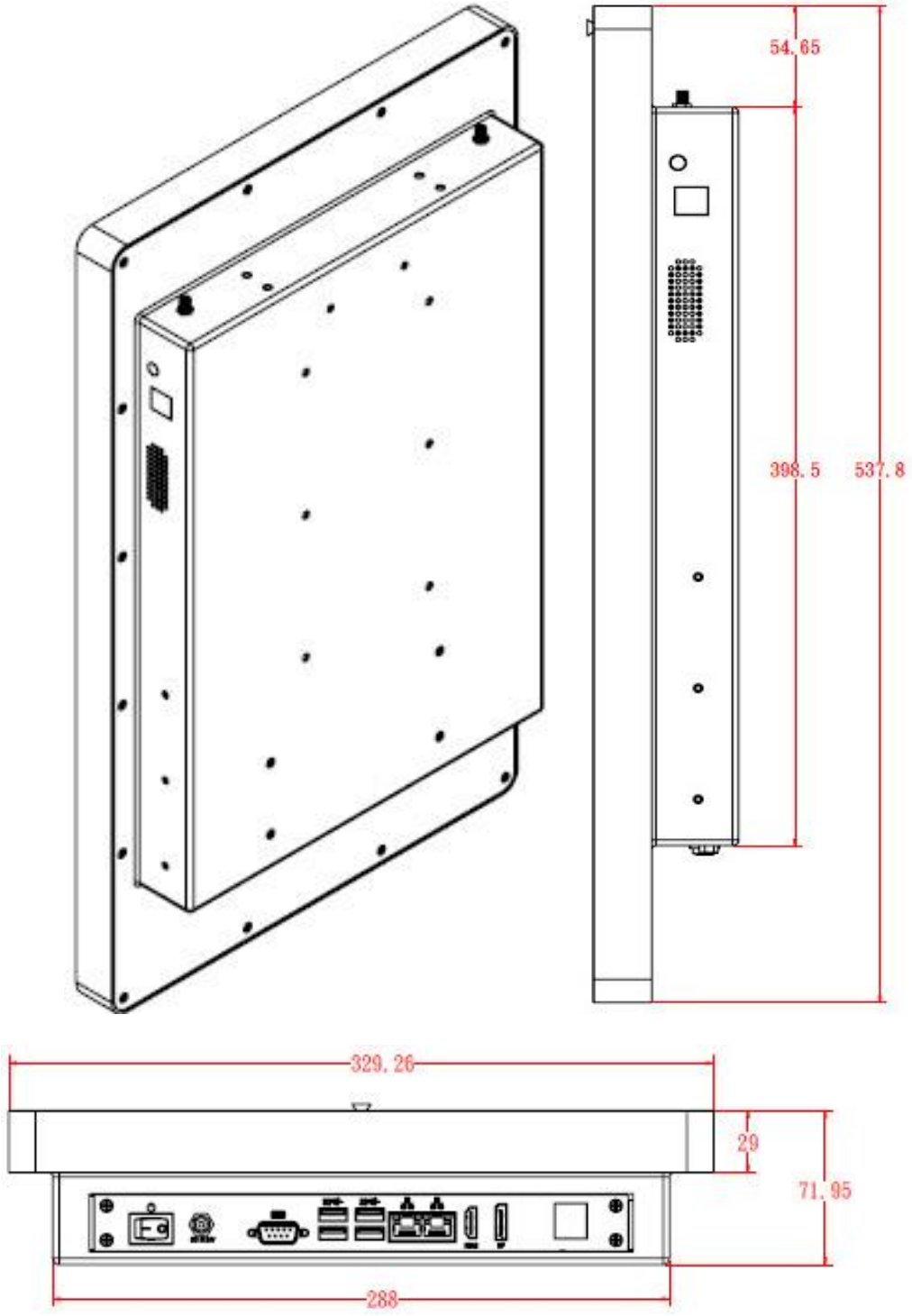
Remarks: The LAN connector is used in conjunction with the optional camera.

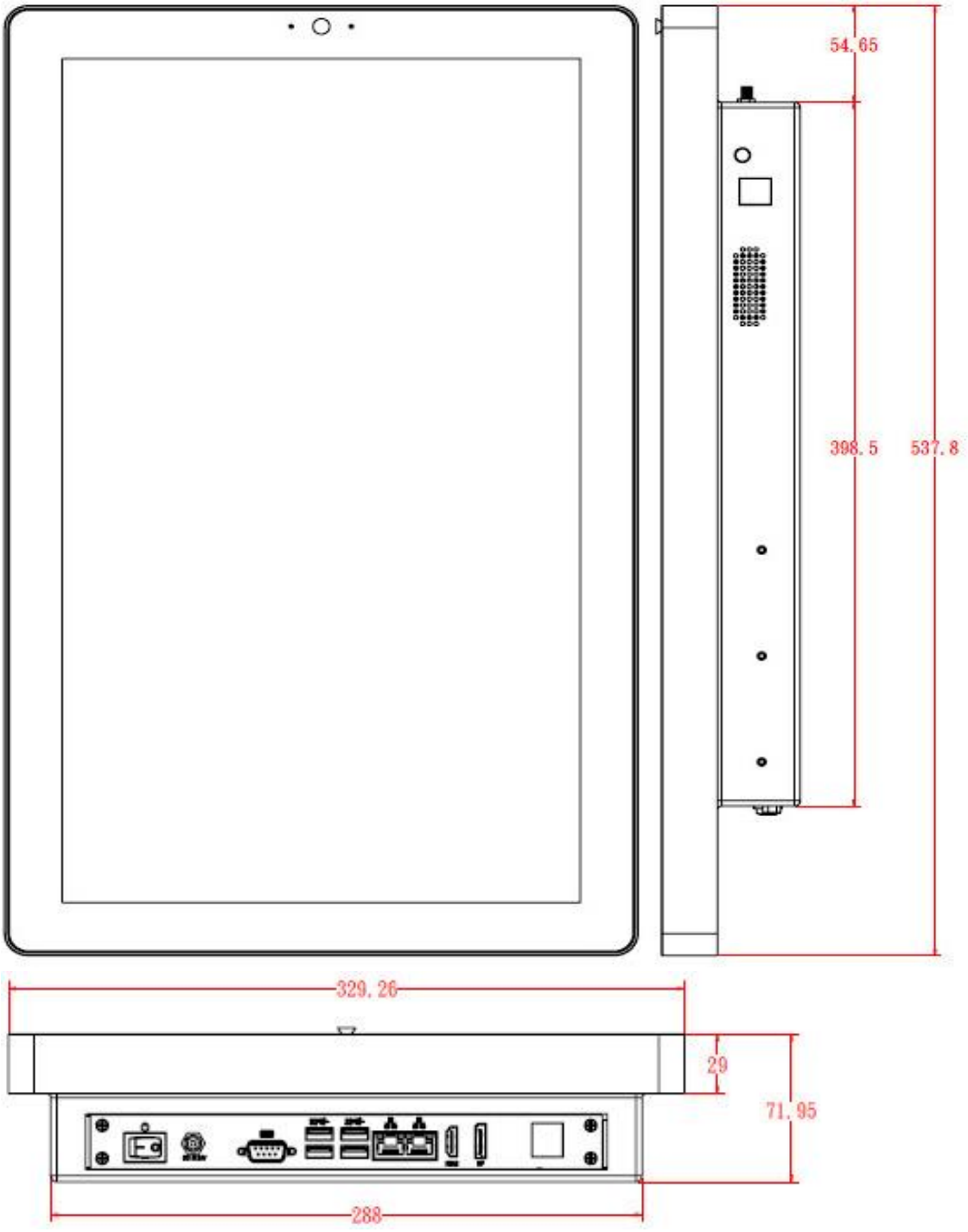


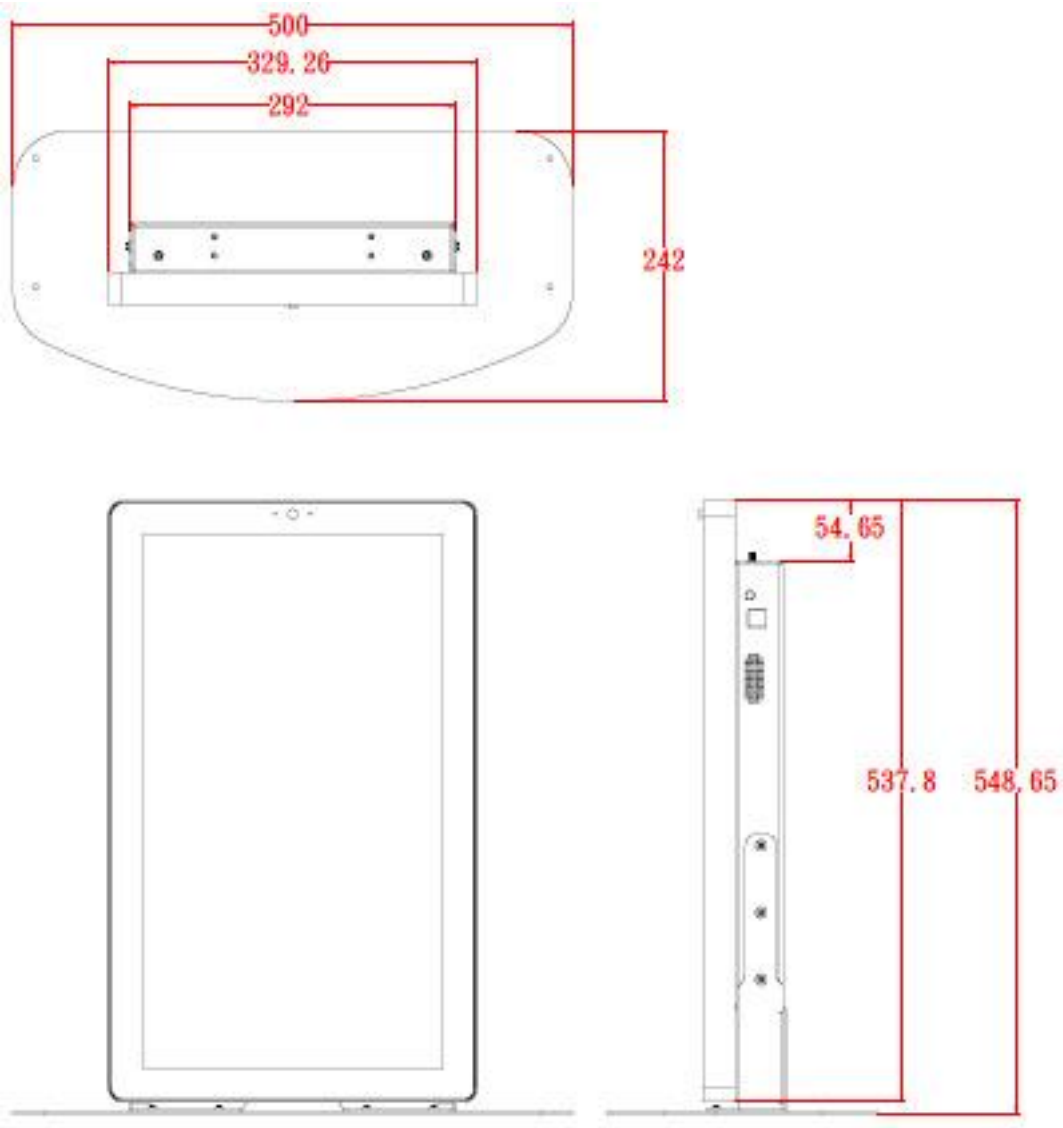
Remarks: The power connector and LAN cable connector are used in conjunction with the optional camera.

1.8 Dimensions

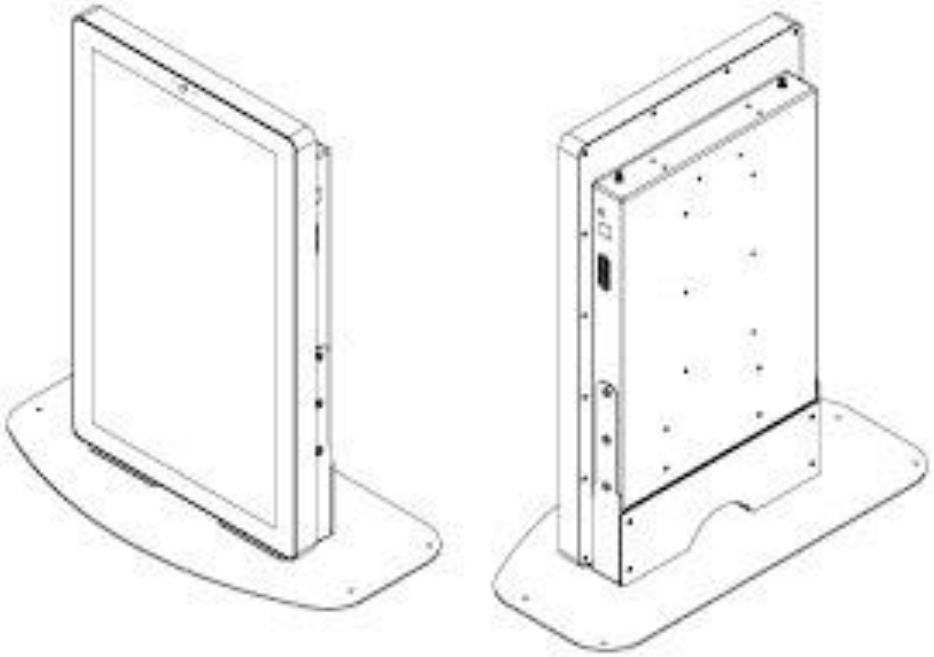
Unit: mm

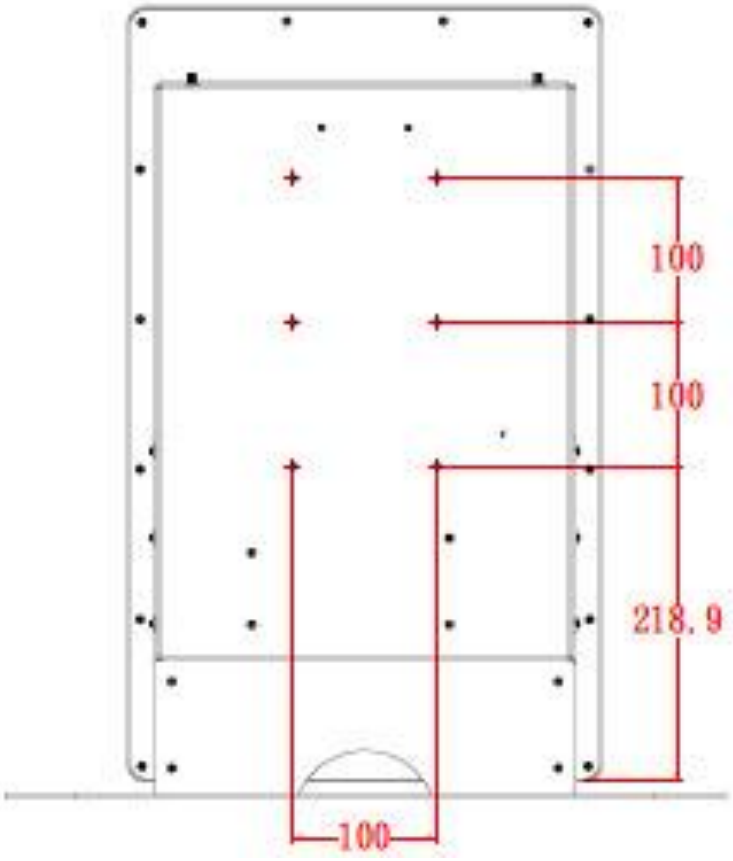



54.65
398.5
537.8
329.26
29
71.95
288

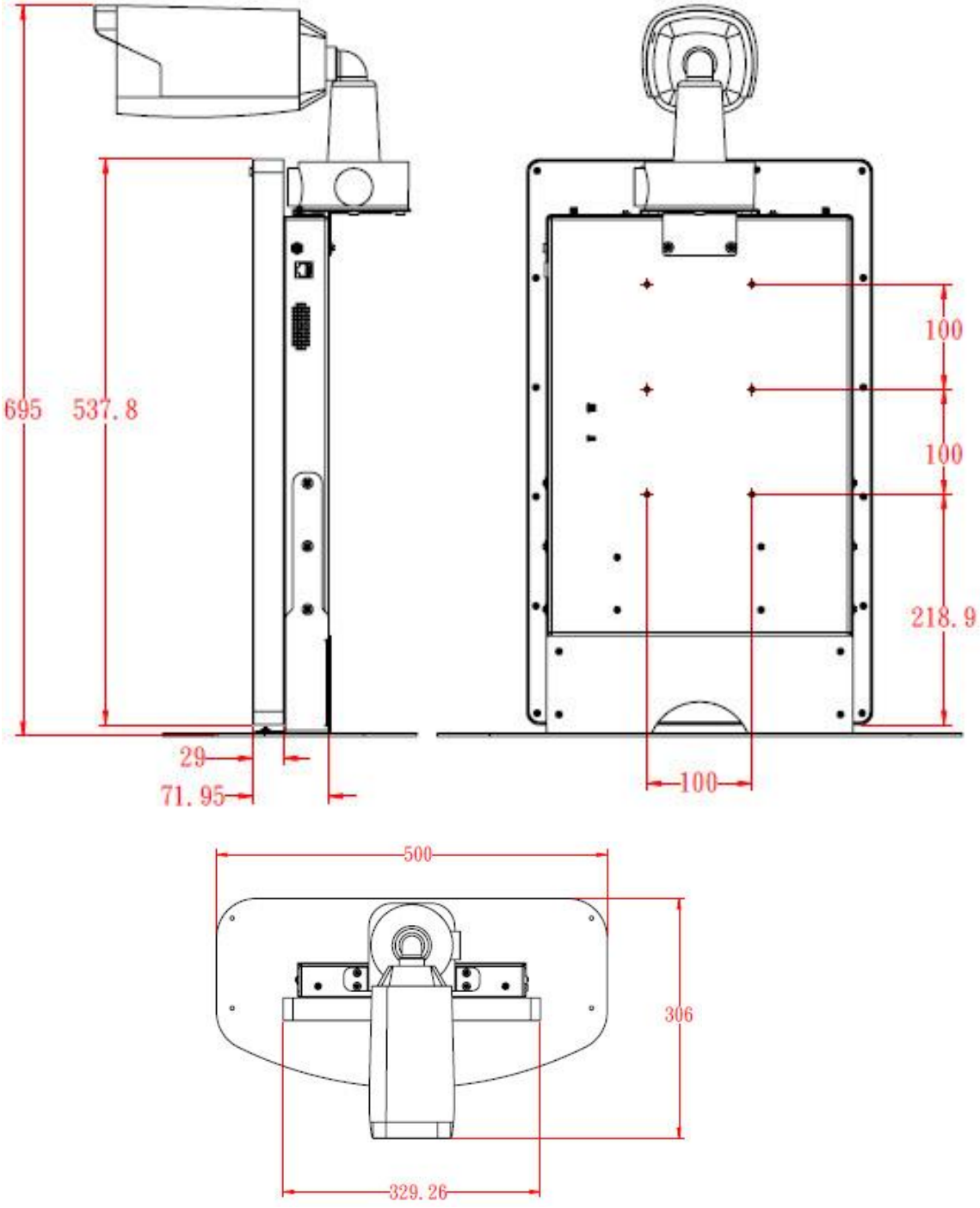


Base Stand and System Dimensions





Rear Measurements



Measurements of VINO2100 with Camera

Chapter 2
Installations

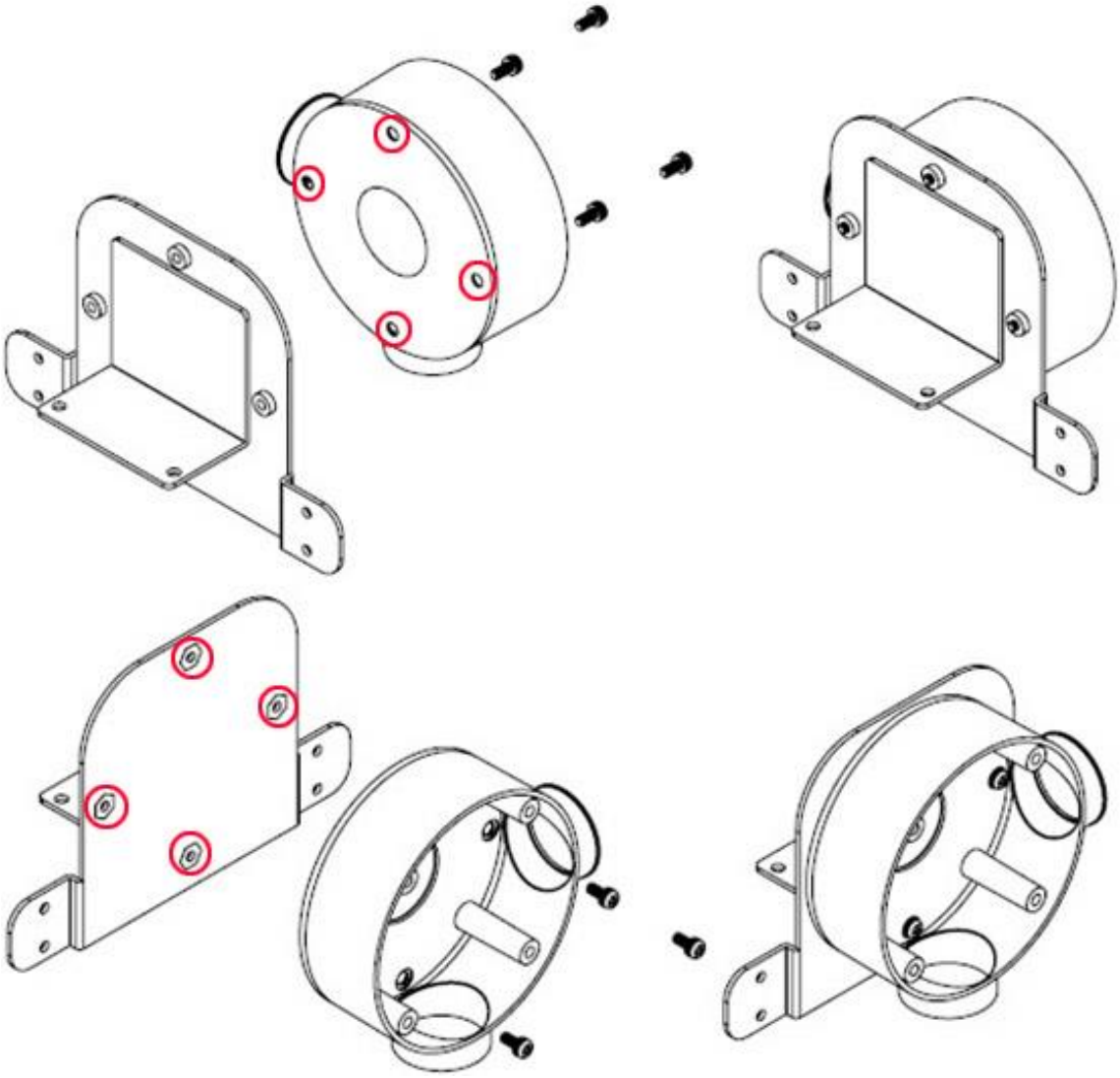
The information provided in this chapter includes:

- Assembling the Bottom Cover and Bracket
- Assembling the Thermal Camera and Bottom Cover
- Installing the Thermal Camera Assembly on VINO2100

2.1 Essential Installations

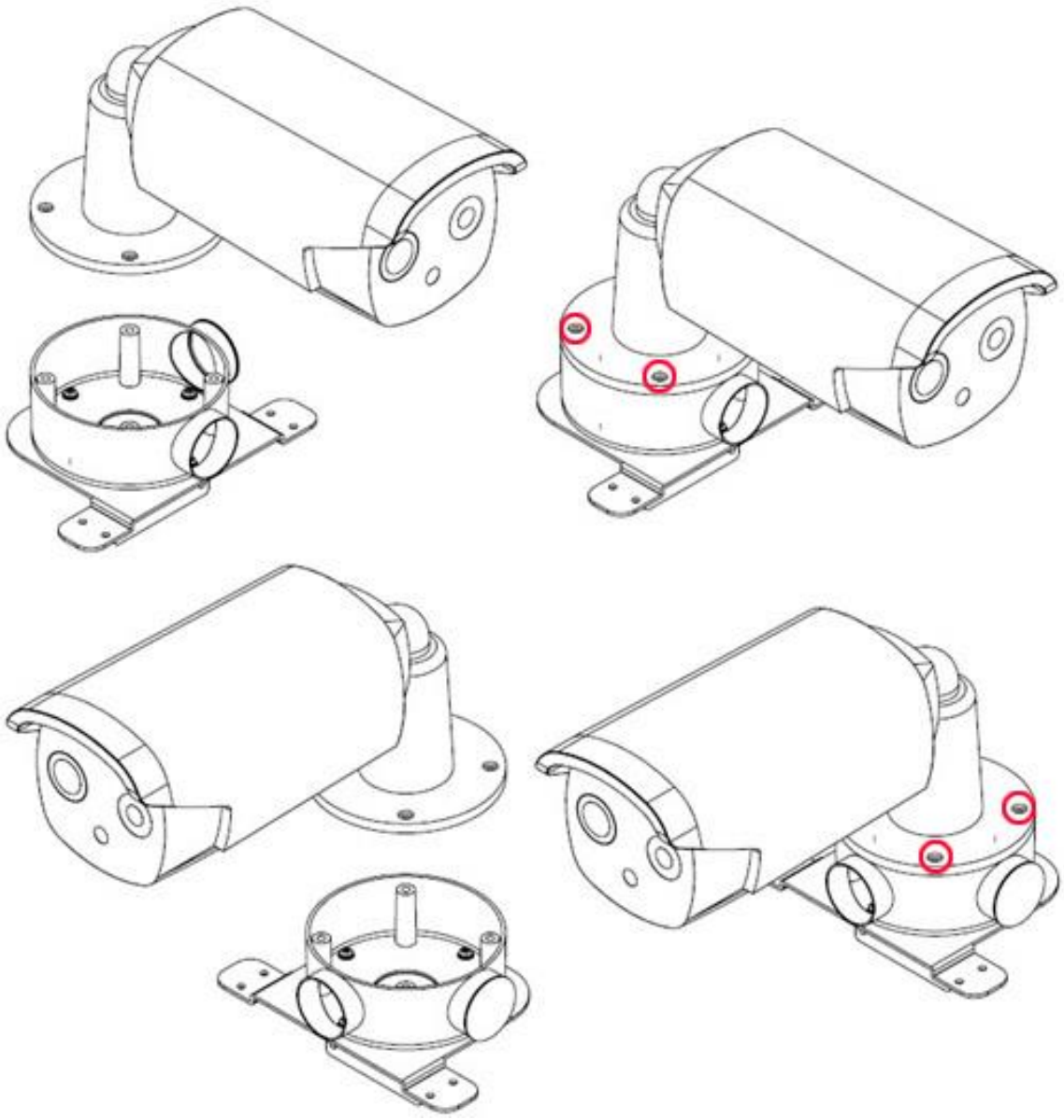
2.1.1 Assembling the Bottom Cover and Bracket

Use the **four** M4*10 pan head screws with washer provided to screw the two parts.



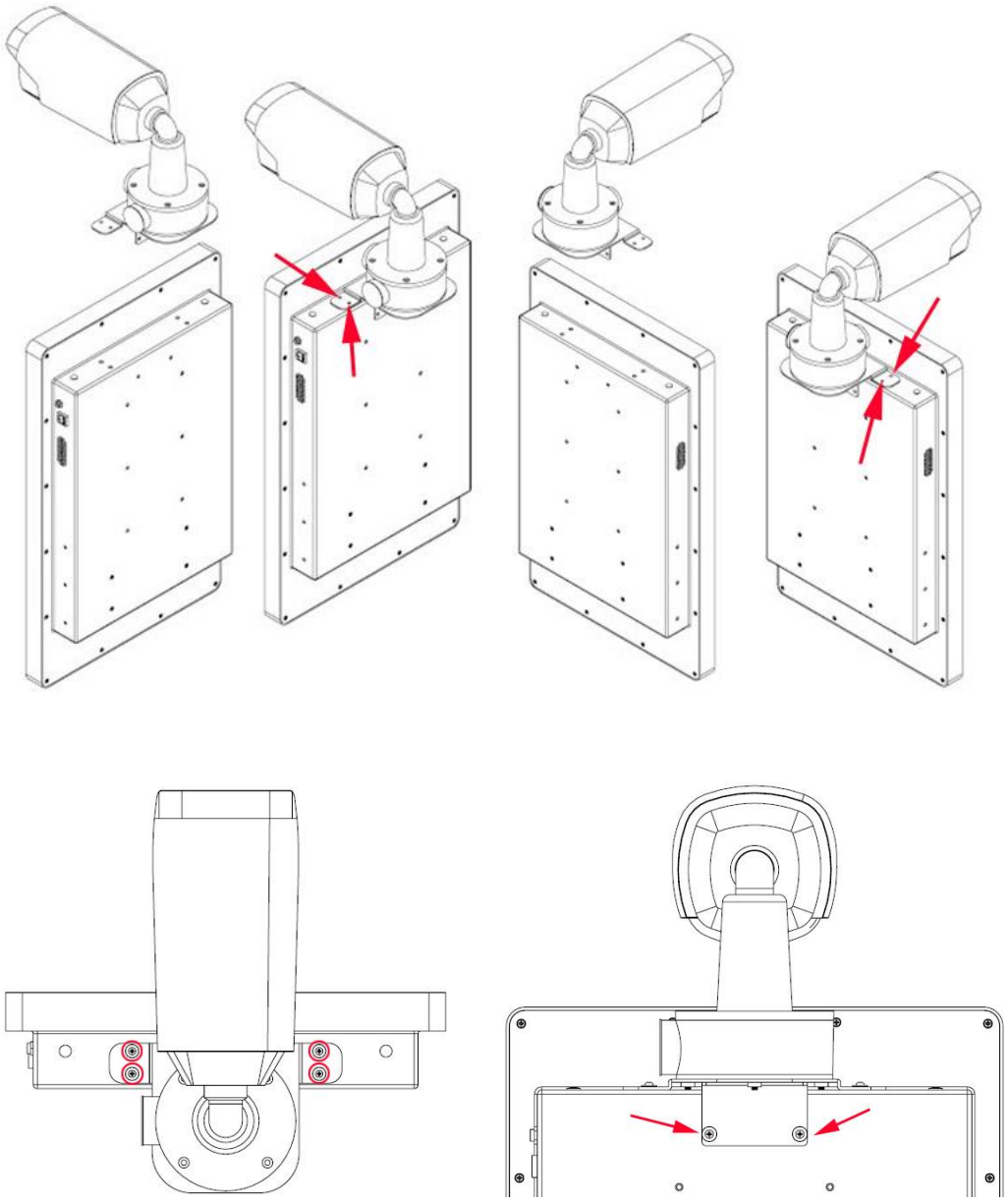
2.1.2 Assembling the Thermal Camera and Bottom Cover

Place the Thermal Camera on the bottom cover. Use the **four** long inch screws of the camera provided to screw the two parts.



2.1.3 Installing the Thermal Camera Assembly on VINO2100

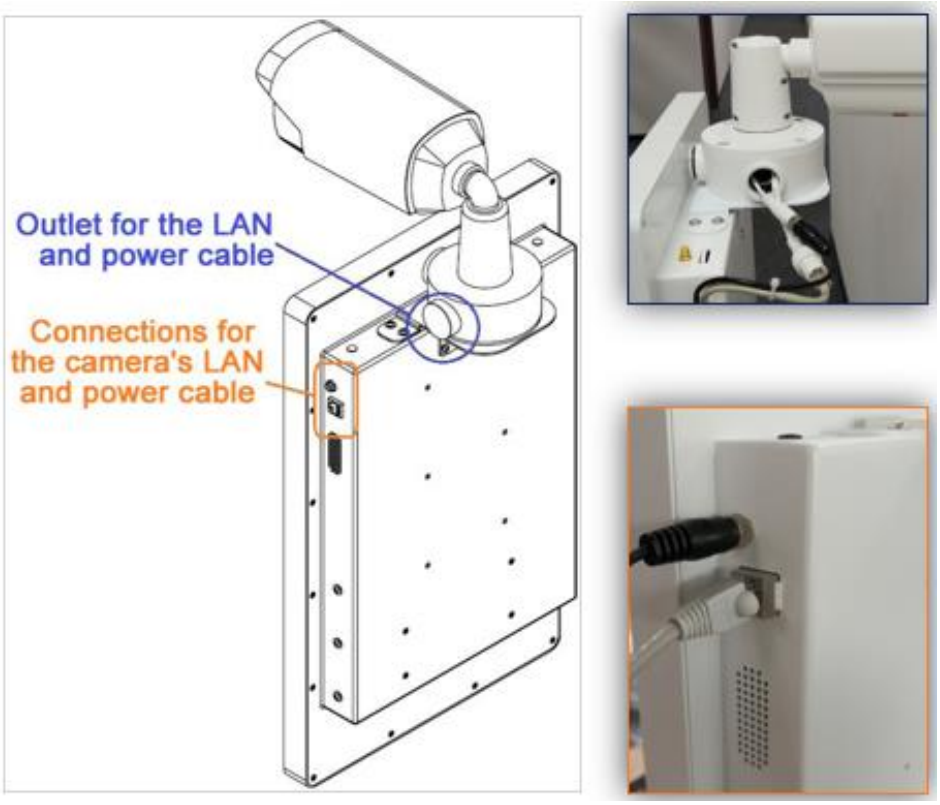
Put the assembled Thermal Camera and bracket on top of VINO2100 and use the four pan head screws (M4*8) to lock them together. Then use two pan head screws (M4*8) to lock the back side.



Top View (four screws)

Rear View (two screws)

Connect the first LAN cable and power cable between VINO2100 and thermal Camera.



Connect the second LAN cable between the two LAN ports as picture.

Chapter 3
iVINO Software

The information provided in this chapter includes:

- Introduction
- User Interface
- Settings
- Additional Notes

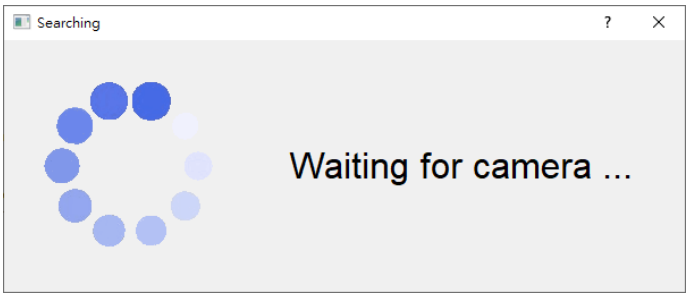
3.1 Introduction

iVINO is an intelligent face mask and body temperature automatic detection software that scans body temperature through face localization, and recognizes mask-wearing status at the same time. It performs face detection to provide best accuracy. It comes with a high-precision thermal sensor camera to detect body temperature from a distance. The mask-wearing recognition function can be used as a reminder for people at entrances in public venues to wear mask upon entering.

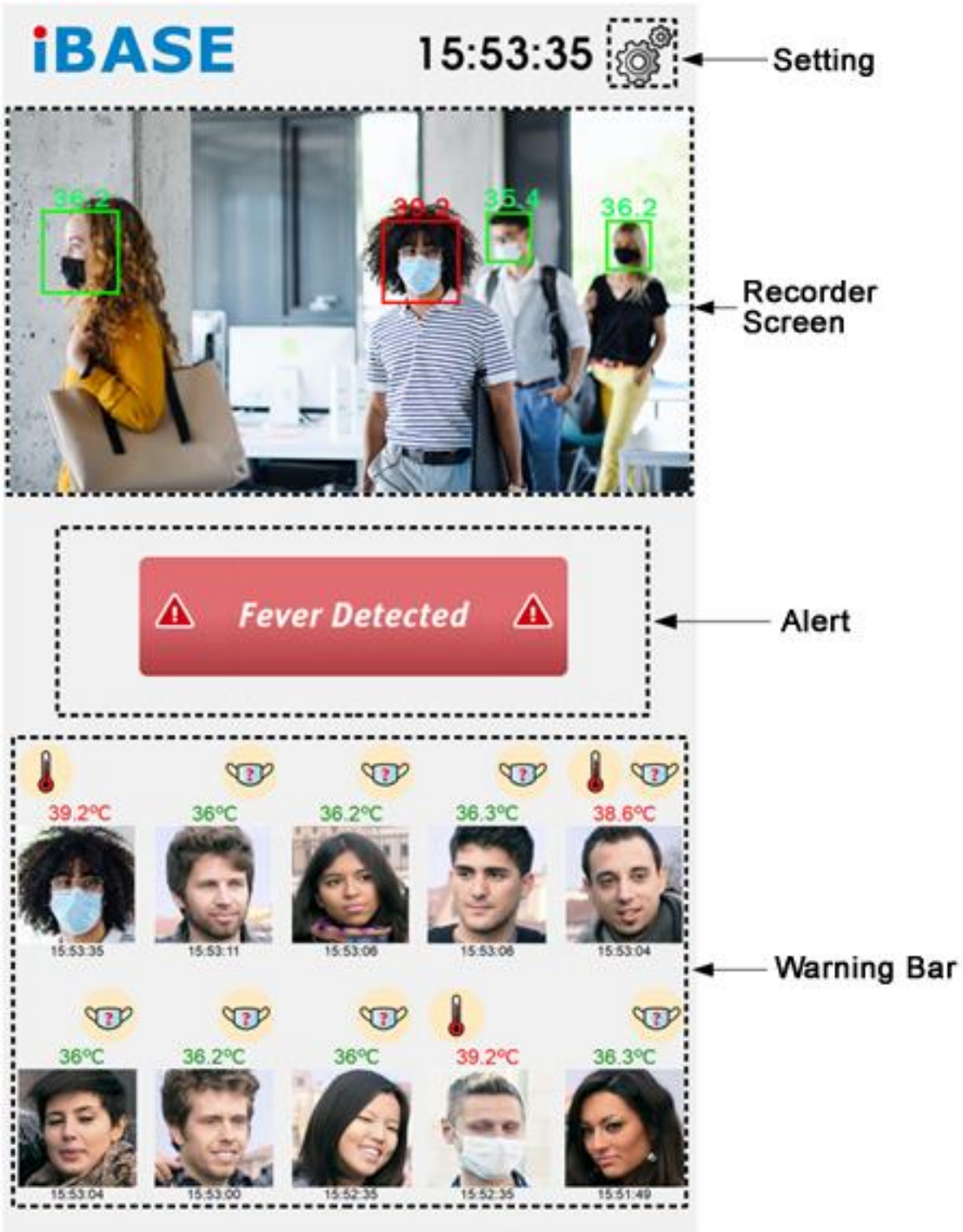
3.2 User Interface

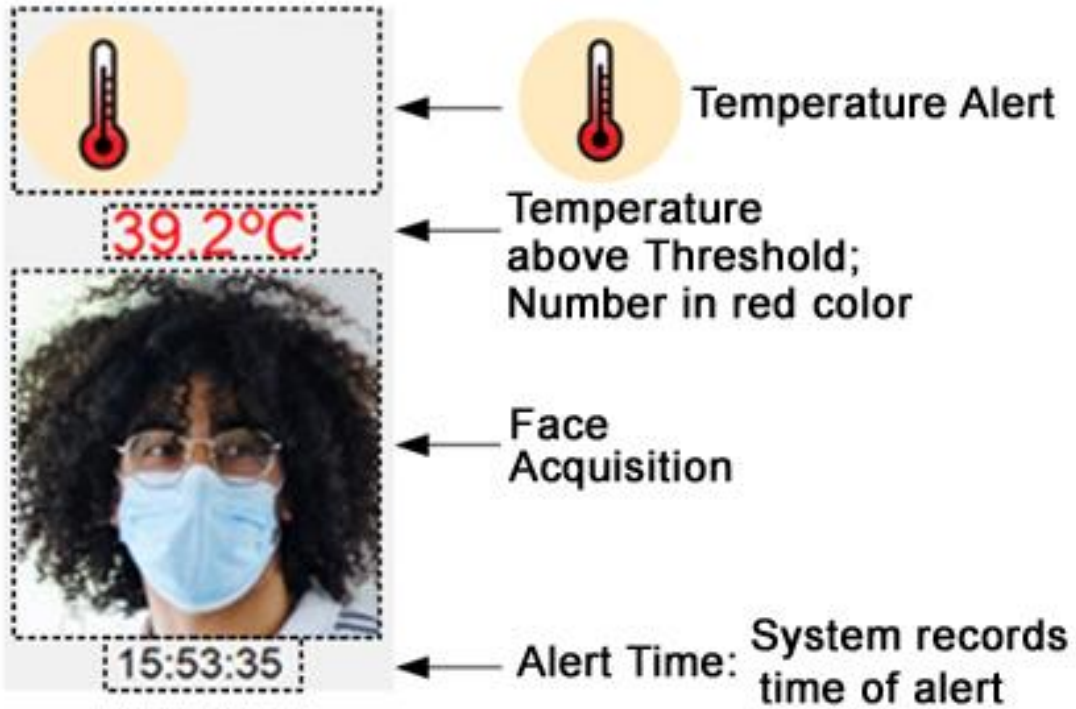
3.2.1 Power On

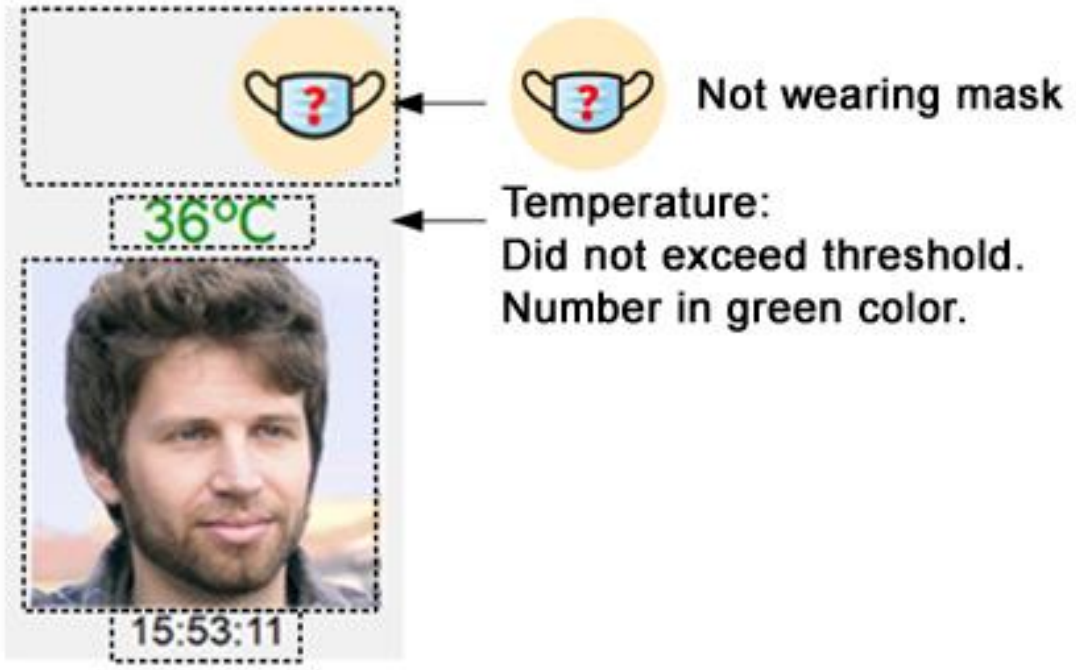
After the unit is switched on, it will take a while for the camera to be connected. When the camera is connected, it will enter the main screen. If the system stays on the main screen without changes for more than 3 minutes, please turn off the camera and check the power cable and network cable connections. Then, power on the unit again.



3.2.2 Main screen



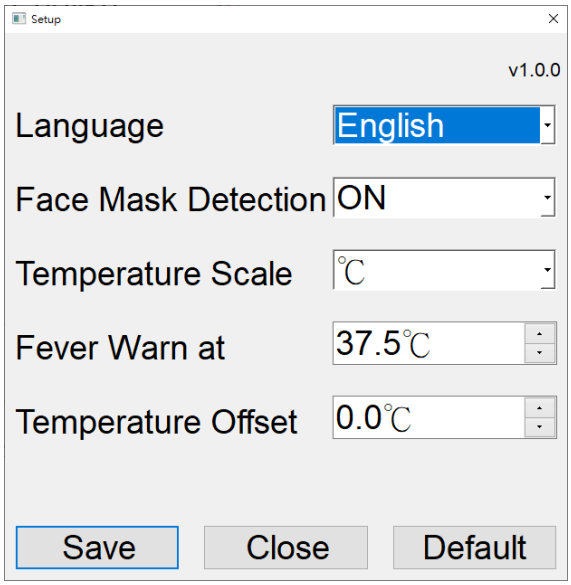

Temperature Alert
39.2°C
Temperature above Threshold; Number in red color
Face Acquisition
15:53:35
Alert Time: System records time of alert


Not wearing mask
36°C
Temperature: Did not exceed threshold. Number in green color.
15:53:11

3.2.3 Warning bar

Each warning bar will remain displayed for five minutes, and will be automatically cleared after five minutes. When an alert occurs, it will be displayed at the upper left position. When a new alert occurs, the alert bar will shift to the right, and if it exceeds the upper row, it will move to the lower left position

3.3 Settings



3.3.1 Language

The language of the alert status bar can be selected according to user needs. The default setting is English. The language setting currently supports Traditional Chinese and English.

3.3.2 Face Mask Detection

Select this to enable or disable the mask detection function. The default setting is ON.

3.3.3 Temperature Scale

The options are Celsius or Fahrenheit.
The default setting is Celsius.

3.3.4 Warning Temperature Threshold

The user can adjust the warning temperature threshold. An alert appears when the detected temperature exceeds the threshold. The default setting is 37.5°C (99°F).
The setting range is 25°C~ 50°C (77°F ~ 122°F)

3.3.5 Temperature Offset

In response to difference of equipment setting environments, users can adjust the temperature compensation value to align the detected temperature data with other temperature measurement tools. The default value is 0°C.

The setting range is -1°C ~ +1°C (-3°F ~ +3°F)

3.3.6 Save
Before saving, check whether all settings meet your requirements.

3.3.7 Close
Closes the window.

3.3.8 Default
Restores settings to the initial preset parameters. Please remember to use the Save function after restoring the settings to default.

3.4 Additional Notes

3.4.1
The best measurement distance is 3 to 3.5 meters.

3.4.2 The heat source in the environment may affect the temperature measurement. When the user fixes the angle of the lens at the entrance of the facility, the heat source may increase the ambient temperature at the entrance and affect temperature detection. The user can use "Temperature Offset" (the last item of the setting option) to adjust the error value