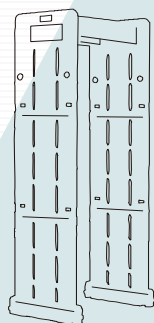


● Plate metal detection door



● Portable metal detection door



● Oval metal detection door

Can choose to match a variety of multi-location smart metal detection security doors

AI Double Thermal Image Intelligent System Quick Operation Manual

NIME20-V3.0

服务卡



Functional configuration diagram



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一、Product Introduction

Thermal imaging temperature measurement module pixels up to 256x192

- Pixel size 12um, thermal sensitivity (NETD):

W60mK (@25° C, F#=1.1)

- Non-contact personnel temperature measurement,

accuracy: ± 0.3C (target temperature 30C~50'C)

- Distance for human body temperature measurement: 1 meter to 5 meters

- Built-in 1080P visible light image sensor

- Built-in deep learning algorithm, can detect the temperature of 20 people at the same time

- Maximum output frame rate:

Visible light: 1920x1080@25fps,

Thermal imaging: 256x192@25fps

- HDMI output preview audio and video, real-time display of traffic and abnormal temperature

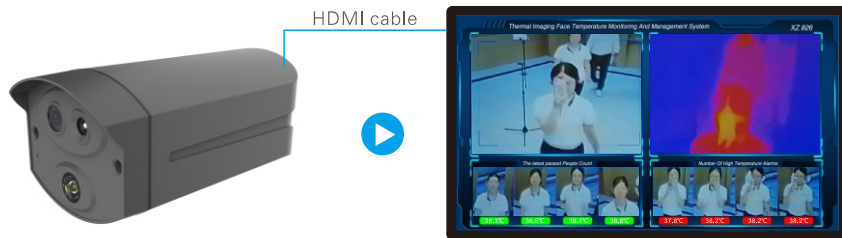
- Built-in EMMC storage, can keep 100,000 temperature measurement records, can use tools to export data to PC

- Built-in white light filling light, support abnormal temperature sound alarm

- Small and exquisite



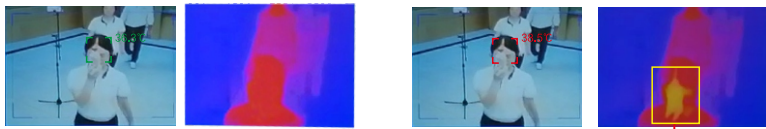
1.1.2 Typical application



HDMI monitor screen

● display the normal body temperature status

● Display high temperature status



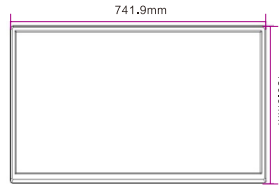
Hot spot

The thermal imaging camera collects information through the camera, transmits it to the HDMI display screen, and records the body temperature status of the passing person.

1.1.3 The specifications of thermal imaging camera

Parameter	Name	2 million binocular thermal imaging camera
The temperature measurement parameters of thermal imaging	The type of sensor	Silicon oxide uncooled infrared focal plane detector
	Resolution	256x192, Pixel size 12 μm
	lens	focal distance: 6mm, Field of view: 35° (level)
	Temperature measurement accuracy	± 0.3°C, Target temperature 30°C~50°C
	The distance of temperature	1m~5m
	Black body calibration	support
Visible light mode parameter	Image sensor	1/2.8" 2.0M Pixel Progressive Scan CMOS
	Minimum illumination	0.005Lux@F1.2 (Color mode) 0.001 Lux@F1.29 (Black and white mode)
	Wide dynamic range	≥80dB
	Signal to noise ratio	≥46dB (AGC OFF)
	focal distance	4mm
	Field of view	Horizontal perspective 84°、Vertical viewing angle 45°
AI	Face capture	Built-in deep learning AI algorithm, support simultaneous detection of 20~30 faces, face detection, exposure, scoring, screening, snapshot upload
	Temperature abnormal alarm	High temperature alert (The default value is 37.3C)
Network protocol		Support RTSP, RTP, TCP, UDP, UPNP, DHCP, PPPoE, ONVIF, GB/T 28181 and so on
Hardware interface	Power connector	DC connector
	Network interface	1 road 10/100BaseT ethernet, RJ45connector
General specification	Operating	-20°C~55°C
	Working humidity	0%~90% RH (No condensation)
	Protection level	IP65
	Power supply	12VDC
	Power consumption	≤5W (Without heating)
	Product size	80mm*42mm*49mm
	weight	<1kg

2. 32 inch display specifications



Parameter	Name		32 inch display
Display parameters	Type of backlight	LED	
	Screen resolution	1366*768	
	Perspective	178 °	
	Color	16.7M(8bit)	
	Brightness	250cd/m2	
	Response time	6ms	
exterior			OD-20Thin frame, streamlined body, obsidian black ultra-thin body
Hardware parameters	Motherboard configuration	The input port of computer video : VGA IN	
		The input port of HD video : HDMI	
		Composite video port : CVBS/AV—组	
		Computer audio input port : PC AUDIO IN	
		Audio output port : EARPHONE OUT	
		Multimedia port : USB	
		Analog signal input port: RFIN	
Characteristic parameter	TV system	Image format: PAL	
		Sound system: BG、DK、I、MN	
		Decoding: :3D digital comb filter、3DImage motion noise reduction 、3D sports	
		Adaptive comb filtering, etc.	
	Speaker characteristics	The type of speaker : built-in speaker high and low bass	
Speaker power: 5W*2			
Input voltage			Alternating current: 110~ 220V 50/60HZ
Standby power			<0.5W
Service life			> 60000 hours
Bare metal size			741.9*79.8*439.9mm
Use environment			Relative humidity ≤ 80%
			storage temperature -10~60℃
			Operating temperature 0~ 40℃

3. Audible alarm

3.1 product description

1. The sound and light alarm uses the sound effect chip to be amplified by the inductance to drive the buzzer to sound; the timing circuit is used to control the ultra-bright LED light to emit a shining light signal. When an alarm occurs at the scene and confirmed, the sound and light alarm installed at the scene can be activated by linkage programming of the alarm controller of the control center.

2. Sound and light alarms are generally combined with infrared detectors and door sensors to form a sound and light anti-theft alarm system. When infrared detectors or door sensors detect an intrusion, they will immediately send an alarm signal to the sound and light alarm. The sound and light alarm will alarm immediately .

3.2 Specification



Product Name	Sound-light Alarm	Flash Frequency:	150 times/minute
Color:	Red	Size	122x72x43mm
Sound Pressure:	≥ 110dB/300mm)	Current	230-310mA
Rated Power:	2W (12DVC)	Voltage	12V DC

4. Product Description

The intelligent system of AI double temperature measurement is composed of AI binocular temperature measurement intelligent camera and AI thermal imaging screening system software. The camera is an AI intelligent product integrating high-precision thermal imaging temperature sensor, built-in intelligent face capture algorithm, ISP image processing and other technologies. With face detection, temperature detection, face snapshot and other powerful functions. Combined with AI thermal imaging screening system software, the body temperature and face images of people passing through the camera's field of view can be accurately captured. It can effectively help users to monitor the temperature status of people in and out, and help prevent the epidemic. It is widely used in school road, office building, station and other entrance scenes.

5. Device interface



6. Interface Definition:

NO.	Interface Name	Interface Spe.
1	Power Interface	12VDC
2	Internet Interface	RJ45 network interface
3	Power Interface	1: +NO Often used the port. 2: -COM common port 3: Empty
4	Internet Interface	1: Audio Input 2: Audio cable 3: Audio Output 4: Empty

二、Equipment Installation

2.1 Installation location selection

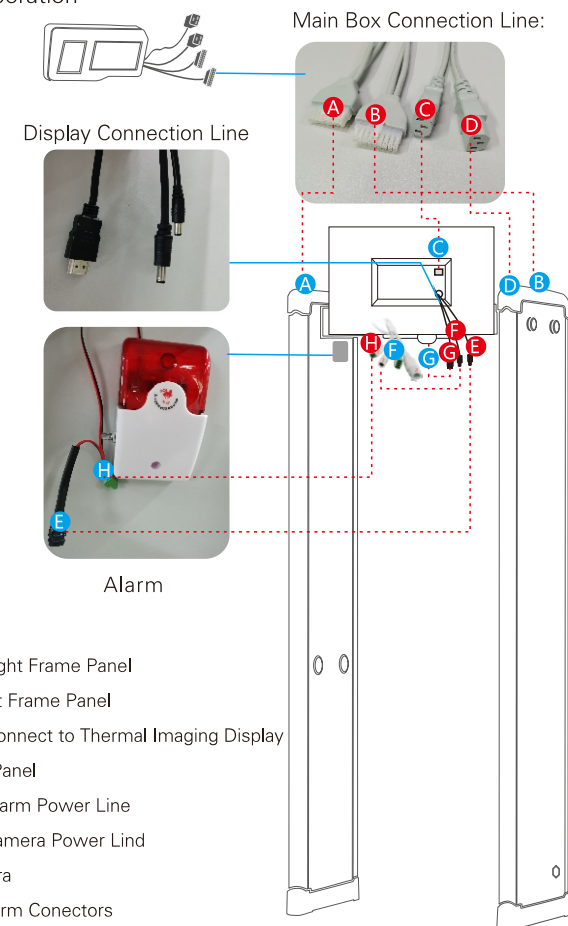
- 1、The camera is placed directly in front of the channel to capture the face.
- 2、It is proposed to erect a height of about 2 meters ; Recommended camera viewing Angle is 0~5 degrees
- 3、In order to ensure the temperature detection effect, it is better to set the equipment at a distance of 1 meter (range: 1~2.5 meters) from the collection point of personnel.

2.2 Installation environment specification

11、Lighting requirements: no backlight, no obvious reflection on the face, uniform light and no shadow. In addition, in order to ensure that the spot lighting is sufficient when capturing human faces, it is suggested that if the faces in the lens are not bright enough, lighting equipment should be added accordingly to fill the light on human faces (generally 250~800Lux).

2、Light and wind requirements: It is recommended that the equipment be installed indoors to ensure that there is no wind between the equipment and personnel, and no direct sunlight, so as to avoid the phenomenon of too low and too high temperature measurement caused by heat dissipation of blow wind and direct sunlight.

2.3 Installation detailed operation



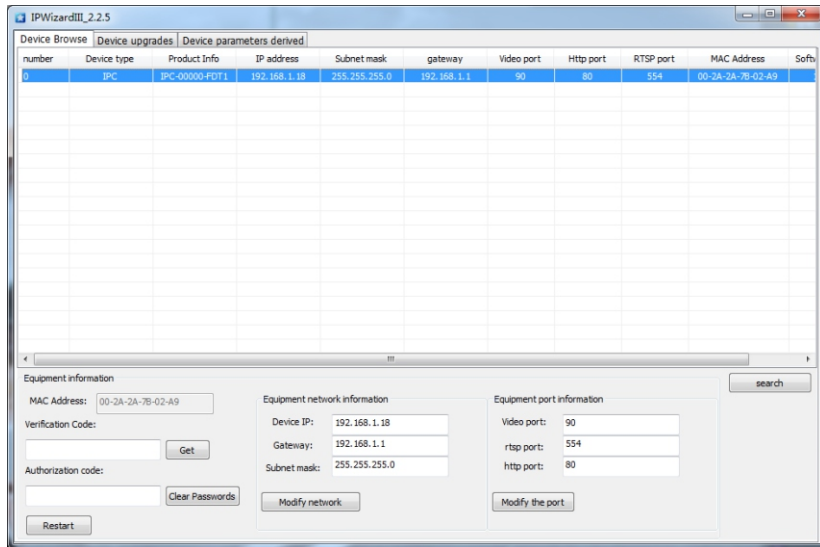
- A A Right Probe Line connect to Right Frame Panel
- B B Left Probe Line connect to Left Frame Panel
- C C Thermal Imaging Power Line connect to Thermal Imaging Display
- D D Probe wire connect to Frame Panel
- E E 12V Power Line connect to Alarm Power Line
- F F 12V Power Line connect to Camera Power Lind
- G G USB Cable connect to Camera
- H H 3 Connectors connect to 3 Alarm Conectors

三、Quick Use instructions

3.1 Device Attachment

Connect the device to the PC correctly through the network cable; After the device is powered on, open the search tool on the computer and search for the DEVICE IP address. The device IP address can also be modified through the tool.

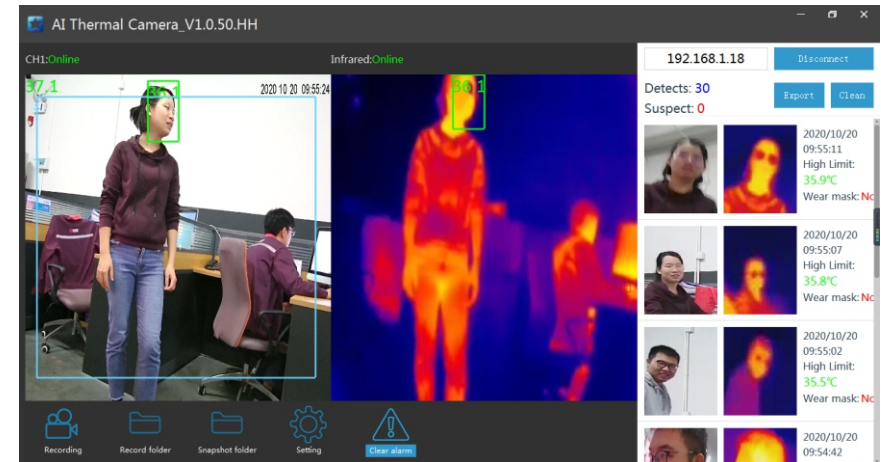
Note: The default factory device IP address is 192.168.1.18



3.2 AI thermal imaging screening system

After the device is powered on, AI thermal imaging screening system software is used to connect the device, preview images, manual recording, recording folder, capture folder, parameter configuration, alarm clearance, picture capture preview, record export and clearance operation

3.2.1 Introduction to main interface



【 Video preview window 】 : After connecting the device, the video camera can play visible light or thermal imaging real-time video

【 IP input box 】 : Enter the IP address of the device. Note that the factory default IP address of the device is 192.168.1.18.

【 Connect/Disconnect device 】 : Click [Connect Device] to connect to the device, preview real-time video, display real-time face snapshot pictures and temperature. Click "Disconnect device" to disconnect the connection and close the preview.

【 Snapshot display bar 】 : In the video preview mode, it displays the captured face snapshot picture and body temperature of the current screen.

【 Manual recording 】 : Turn on or off the recording function in the client.

【 Video folder 】 : click to open the folder saved by manual recording.

【 Snapshot folder 】 : click to open the folder where the snapshot pictures are saved.

【 IParameter Configuration 】 : Click open to configure the parameters of face snapshot and temperature alarm.

【 Clear the alarm 】 : After clicking the button, the alarm will be cancelled.

【 Detection times 】 : The total number of face capture is counted and displayed.

【 Suspected number 】 : The total number of face captures higher than the high temperature threshold is counted and displayed.

【 Export records 】 : Export statistical records and save them as Excel files.

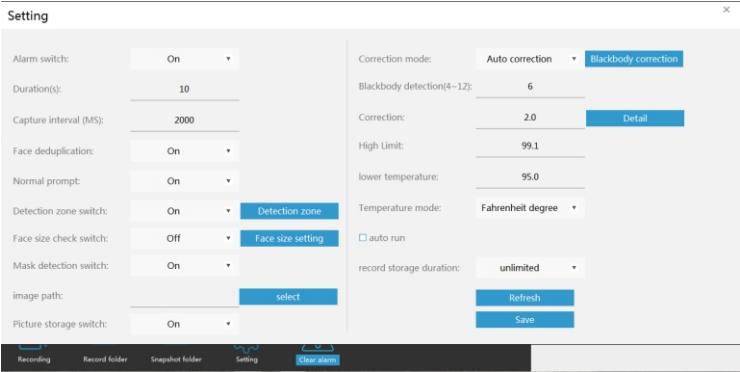
【 Clear record 】 : The number of statistics will be cleared to zero.

3.2.2 Capture File

Users can click this button to view the daily face snapshot pictures in this interface.
Note: Folder name with date.

3.2.3 Parameter Configuration

Click the "Parameter Configuration" button to enter the interface and modify parameter configuration. As shown below:



【 Alarm switch 】 : Turn on/off the function of temperature alarm. After switching, click save configuration to take effect.

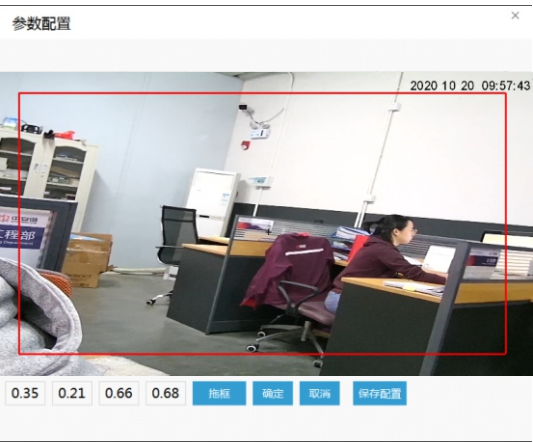
【 Prompt time 】 : The duration of temperature alarm prompt is 10 seconds by default, which can be customized by users.

【 Capture interval 】 : The interval between repeated face capture of the same person on the camera screen is 1000ms by default. This setting is not valid when the face is reactivated.

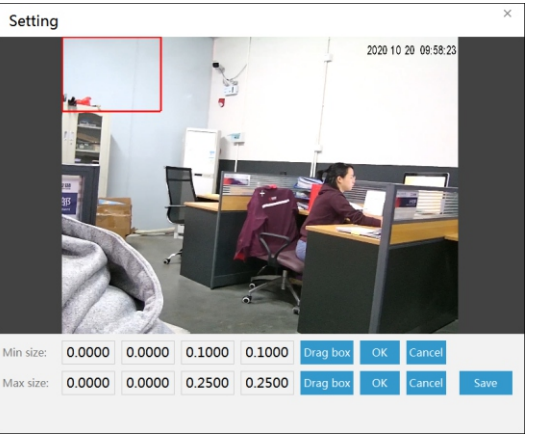
【 Face de-duplication 】 : The number 0 is off, and 1 is enabled. The same person in the camera frame is only captured once before walking out of the frame without repeating the capture. Turn off this feature and keep snapping pictures of your face.

【 Normal beep 】 : Turn on or off the normal beep used to test body temperature.

【 Detection area switch 】 : The detection area can be turned on or off. After it is turned on, the detection area can be set on the detection area setting interface. The high temperature area should be avoided when testing the regional setting. The bold area should be set in the channel area. As shown in the figure below:



【 Face size detection switch 】 Turn on or off the face size limitation function. In order to guarantee the accuracy of body temperature measurement, it is suggested to limit human temperature measurement distance through face size to avoid temperature measurement deviation caused by too close or too far temperature measurement distance. Specific operation: people at a distance of 2 meters distance from the camera, in the face size Settings dialog interface from actual face the size of the smallest face size, and then at about 1.6 m according to the



actual maximum face size, face size calibration to ensure that most of the face at the beginning of the 2 meters distance measuring temperature, the distance is too close to stop measuring temperature, avoid high temperature conditions in close test. As shown in the figure below:

【 Picture path 】 : You can customize the storage path for capturing face pictures and manual recording

【 Temperature correction mode 】 : Temperature correction mode switch, with automatic correction, black body correction, debugging mode optional. The default is automatic correction mode.

Automatic correction: The algorithm automatically corrects and compensates the temperature.
:

【 Temperature correction 】 : Increase the compensation temperature to improve the accuracy of temperature measurement under harsh environment. Compensation parameters can be set in time.

Setting

Correction:

Time 1:

00:00:00

00:00:00

2.0

Time 2:

00:00:00

00:00:00

2.0

Time 3:

00:00:00

00:00:00

2.0

Time 4:

00:00:00

00:00:00

2.0

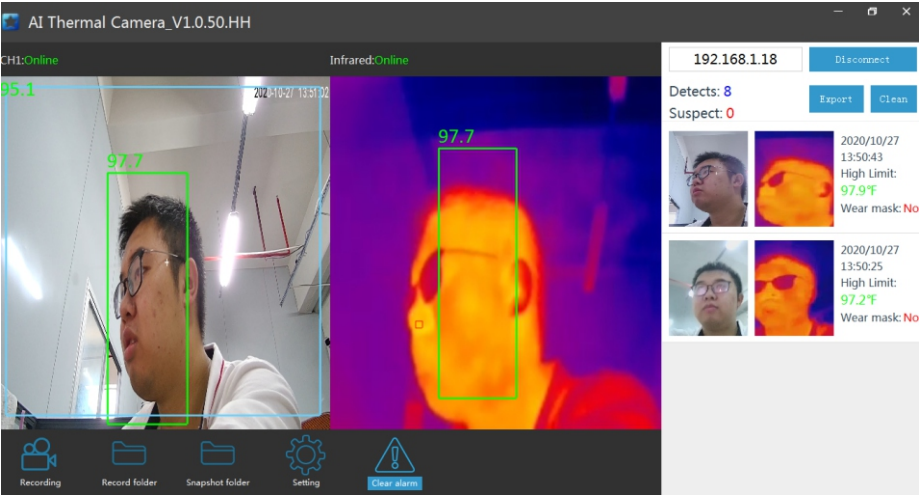
Refresh

OK

【 Maximum temperature 】 : alarm temperature threshold, higher than this value, the software will alarm. The alarm temperature can be set manually.

【 Lower limit of temperature 】 : Set the lower limit of detection temperature. When the temperature is lower than the lower limit, face will not be captured. It is effective in manual correction mode and black body correction mode, but invalid in automatic correction mode.

【 Temperature mode 】 : You can switch between Celsius and Fahrenheit, and the snapshot interface will be displayed synchronously after the switch.



四、Device program upgrade

Users can upgrade the program using a browser or PC tool;

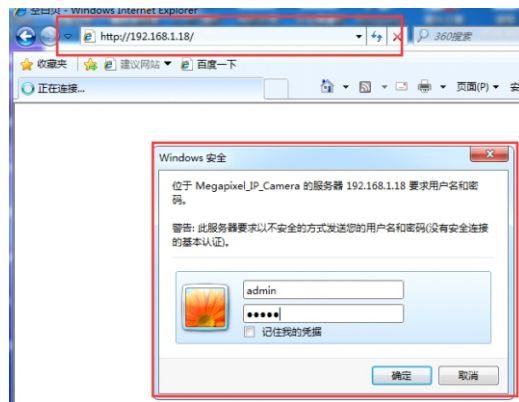
Note: browser upgrade package suffix. Ifu, PC tools upgrade package suffix. Bin

4.1 Web upgrade program

Note: the browser can only use IE kernel browser, QQ browser and 360 secure browser.

Internet Explorer Edge and 360 speed are not available.

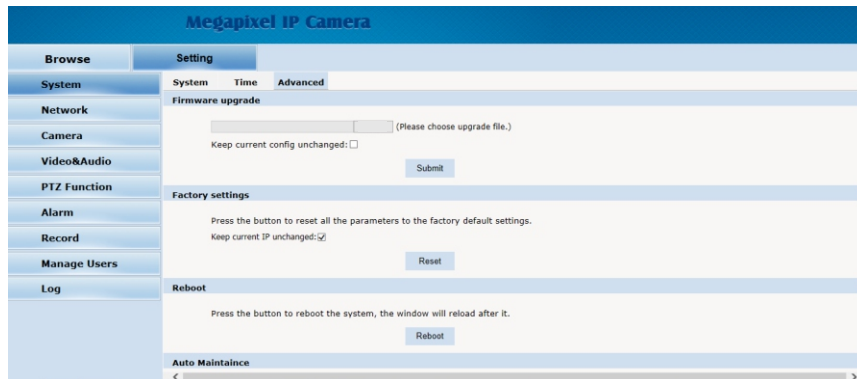
Step 1: Open browser, enter the device IP address, and enter the username admin and password admin.



Step 2: click setup -> system -> maintenance in turn to enter the upgrade interface

Step 3: Click browse to select the app.IFU upgrade package.

Step 4: Click the "Upload" button to start the upgrade. Wait for the completion of the upgrade and the webpage will automatically refresh.



Special note: at present, only iFU format upgrade package is supported on the web page. Bin file upgrade is not supported

4.2 Tool upgrade program

Step 1: Open the PC search tool IPWIZARD2.0.3 and above. For a single device, select Direct upgrade.

Step 2: For batch upgrade of multiple devices, if all of them are factory values, the IP address of the devices will be in conflict, and the IP address needs to be modified, please refer to the following figure

