K-TECH
FIRMIN HOUSE

Mass Fever Screening & Pandemic Control Systems

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Thermal & Optical Bi–spectrum Network Bullet Camera

This Intelligent AI binocular thermal imaging system is composed of AI binocular temperature detecting camera and AI thermal imaging screening system.

Integrated by the thermal temperature detecting sensor of high-accuracy, built-in intelligent face capture algorithm, and ISP image processing technology, this device accurately enables temperature and face detection, as well as face capture.

It can effectively help to monitor and detect the body temperature of entry and exit people, and therefore help in the prevention of the pandemic situation.

KEY FEATURES

- High sensitivity thermal module with 256 x 192 resolution.
- NETD is less than 60 mk (@25° C, F#=1.0).
- Supports contrast adjustment.
- Leading thermal image processing technology: Adaptive AGC, DDE, 3D DNR.
- Up to 15 palettes of adjustable color.
- Reliable temperature-anomaly alarm.
- Temperature Range From -15°C to +150°C
- High quality optical module with 2 MP resolutio.
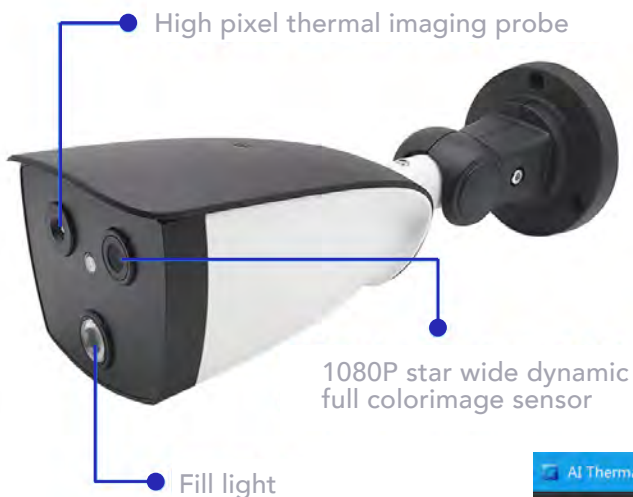- Bi-spectrum image fusion, picture-in-picture preview.

PRODUCT APPEARANCE
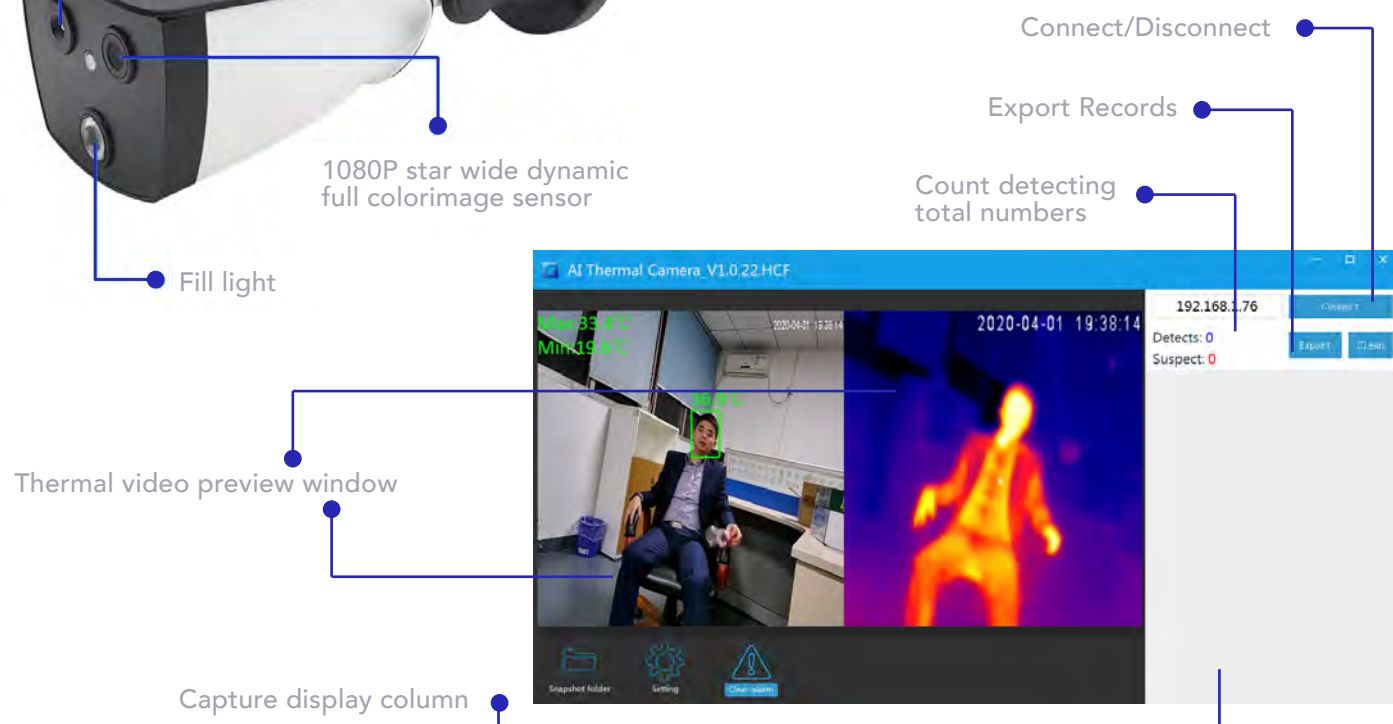

DEVICE INTERFACE FUNCTION DEFINITION

Interface No	Interface Name	Functional Indicators
1	Power Interface	12VDC
2	Network Interface	RJ45 Network Interface
3	Relay Interface	+：NO Normally Open Port -：COM Public Port
4	Audio Interface	1: Audio Input 2: Audio Ground 3: Audio Output 4: Empty

PRODUCT INTERFACE

PRODUCT DESCRIPTION
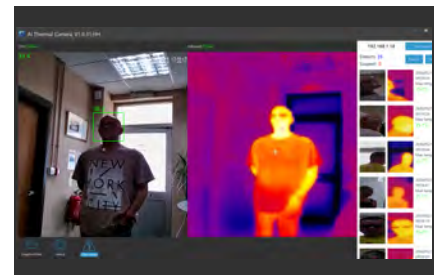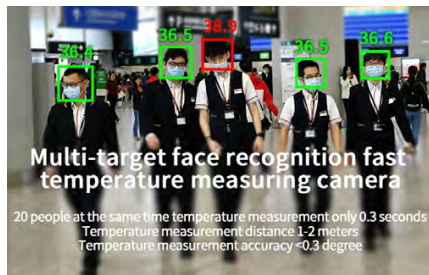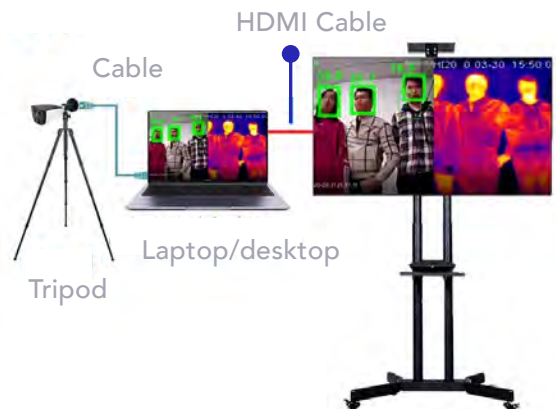
High pixel thermal imaging probe

1080P star wide dynamic full colorimage sensor

Fill light

Thermal video preview window

Capture display column

MAIN INTERFACE INTRODUCTION

Connect/Disconnect

Export Records

Count detecting total numbers

COMPOSITION STRUCTURE

COMPOSITION 1

Cable

Laptop/desktop

Tripod

COMPOSITION 2

HDMI Cable

Cable

Laptop/desktop

Tripod

Multi-target face recognition fast temperature measuring camera

20 people at the same time temperature measurement only 0.3 seconds
Temperature measurement distance 1-2 meters
Temperature measurement accuracy <0.3 degree

Long-distance flash temperature measurement + face comparison

Detection distance 1 ~ 2 m

1 ~ 2 m long distance recognition, >99% recognition rate, recognition speed
Less than 0.3 seconds, no need to queue

1 ~ 2 m

MULTI-SCENARIO APPLICATION

SCHOOLS

RETAIL

OFFICES

BUILDINGS

STATIONS

GYMS

TECHNICAL SPECIFICATIONS

Thermal

Image Sensor	VOx Uncooled Focal Plane Arrays
Resolution	256×192
Pixel Interval	12µm
NETD	Less than 60 mK (@25°C,F#=1.1)
Aperture	F1.0
Field of View	35° × 27° (H × V)

Optical

Image Sensor	1/2.8" 2.0M Pixel CMOS
Resolution	1920×1080P
Min. Illumination	Color: 0.005Lux @ (F1.2, AGC ON), B/W: 0.001 Lux @ (F1.2, AGC ON)
Field of View	84° × 45° (H × V)
Focal Length	4mm
Shutter Speed	1s to 1/100,000s
White Balance	Auto/Manual/ATW (Auto-tracking White Balance)/Indoor/Outdoor/Daylight Lamp/Sodium Lamp
Day & Night	ModeIR cut filter with auto switch
WDR	80 dB

Feature

Bi-spectrum Image Fusion	Fusion view of thermal view and overlaid details of the optical channel
Picture in Picture	Combines details of thermal and optical image PIP, overlay thermal image on optical image
Smart Function	Smart Function
Face snapping	Built-in deep learning AI algorithm. Supports simultaneous detection of 20-30 faces
Temperature Measurement	Support global and local temperature
Temperature Range	From -15°C to +150°C
Temperature Accuracy	Target temperature 35°C ^ 38°C ±0.3 °C
	Target temperature 20°C ^ 33°C ±0.6 °C
	Target temperature 38°C ^ 50°C ±0.6 °C

Network

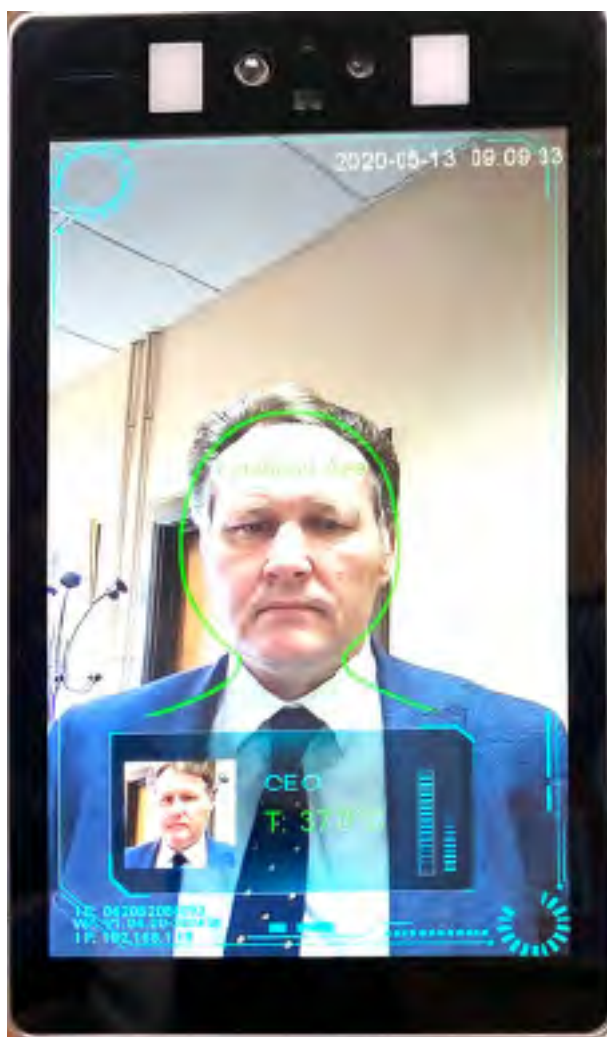|	
Main Stream	Thermal: 25fps(1920 × 1080, 1280 × 720)
Sub Stream	Thermal: 25fps(704 × 576, 352 × 288)
Video Compression	H.264 (Baseline/Main/High Profile) /MJPEG/H.265
Audio Compression	G .711u/G.711a/G.722.1/MP2L2/G.726/PCM
Protocols	TCP/IP, ONVIF, GB/T 28181, DHCP, RTP, RTSP, PPPoE, UPnP, UDP
API	ONVIF (Profile S, Profile G, Profile T), SDK

TECHNICAL SPECIFICATIONS CONT.

General	
Web Client Language	Languages: English, Chinese
Power	DC 12V, 0.65A
Work Temperature/Humidity	From -20°C to 55°C; Humidity: 95% or Less
Protection Level	Level IP67
Dimension	246 mm × 101 mm × 81 mm (with bracket)
Weight	Approx. 1.0 kg

Binocular Face Recognition and Temperature Detection Machine

MODEL KA-9201R-8T

2MP Face recognize+temperature detection 8inch smart camera

KEY FEATURES

- Built-in non-contact high-precision thermal imaging module + live detection in one.
- Temperature detection range 35°C~42°C.
- Precision±0.3°C.
- Body temperature and mask detection.
- Built-in FACE ++ deep learning face recognition algorithm; supports a 50,000 face database.
- 100 ms fast identification.
- 8 inch HD LCD display.
- Local alarm output after abnormal temperature.
- Freely configure multiple usage modes.
- Ultra-thin metal shell.
- Can record identification information and temperature information, save traceability.
- Excellent environmental adaptability, including low light and a strong backlight. Supports automatic face exposure.
- Supports Wigan protocol, can directly drive access control and control various gates.
- Rich hardware interface, integrated 100M Ethernet interface, audio interface, Wiegand interface, relay interface, TF card, USB and other interfaces.
- Supports 2D, 3D digital noise reduction.
- Low power consumption, main board power consumption is as low as 5 watts.
- Supports the secondary development of device-side application software, and various software and hardware customisation.

PRODUCT APPEARANCE

TERMINAL INTERFACE FUNCTION DEFINITION

Interface No	Pin	Interface Name	Functional Indicators
1 Power interface)	/	Power Supply	12VDC
2 (network interface)	/		RJ45network interface
3 (Switch interface)	+ -	Alarm-NO Alarm-NO	NO Normally open port COMPublic port
4 (Wiegand interface)	1 2 3 4	VCC Wiegand_D1 Wiegand_D0 GND	12VDC Wigan protocol data port D1 Wigan protocol data port D0 Signal ground

PRODUCT SIZE
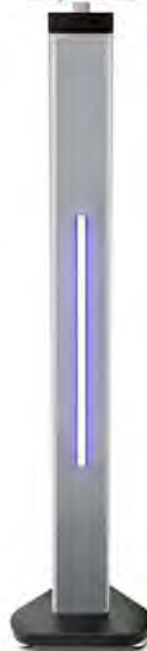
COMPOSITION STRUCTURE

DESKTOP STYLE

- Base thickness 3.8cm
- With 2 USB interfaces
- Base with adjusting screw
- Cool blue light band
- Environment protection paint for cold rolled sheet

Temperature sensor — FHD HD camera
LED lamp — LED lamp
Horn area — Horn area
Infrared fill light — Date display area
— Face recognition area
8-inch HD display — Body temperature condition

STANDARD STYLE

- Base thickness 120cm
- With 2 USB interfaces
- Base with adjusting screw
- Cool blue light band
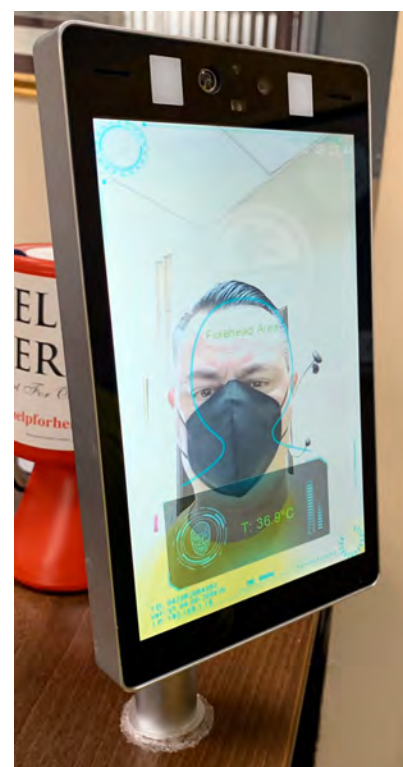- Environment protection paint for cold rolled sheet

TECHNICAL SPECIFICATIONS

Display	
Display	8 inch LCD
Thermal	Thermal
Sensor	Thermal imaging infrared temperature sensor
Temperature	Range：35~42℃, Precision：±0.3℃
Detect distance	0.4m~0.7m

Visible parameters	
Lens	focal length 1.8mm, Field of View：118°
Mini illum	0.005Lux@F1.2 color mode
Dynamic Range	≥120dB
S/N Ratio	≥46dB（AGC OFF）
Exposure mode	Program mode (customizable shutter interval), shutter mode（1/5 - 1/20,000s）support for slow shutter
White balance	Auto, indoor, outdoor, sodium lamp mode, manual
Digital noise reduction	Support DNR,3DNR
Day and night mode	Fixed color

Image and compression	
Video compression	H.265 Main Profile / H.264 High profile / M-JPEG
Max resolution	1920x1080@30fps

Resolution	
Main stream	1920x1080、1280x960、1280x720、720x576
Substream	640x480、352x288、320x240、176x144
MJPEG	1920x1080、1280x720、closed
Output bit rate	(CBR or VBR), Bitstream setting range：32Kbps~10Mbps
Audio compression	G711, PCM
Character overlay	Support channel name, date and time overlay, adjustable overlay position;

AI	
Number of face bases	50,000 sheets
Recognition speed	≤300ms
Live detection	support
Mask detection	support
Body temperature	support

TECHNICAL SPECIFICATIONS CONT.

Interface	
Power	DC12V
Network	1ch10/100BaseT Ethernet RJ45 interface
Wiegand	1ch Wiegand output interface
Switch	1ch relay output
SD card	Up to 128G
MIC	Built-in
Audio	Built-in 2ch audio output
Physical Characteristic	Physical Characteristic
Working Humidity	-10°C ~50°C
Working Humidity	0%-90% RH
Power Consumption	5W
Size	215x125x20mm
Weight	＜1kg

SCOPE OF APPLICATION

AISLES, GATES, GATES AND OTHER CONTROLLED ENTRANCE AREAS

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Technology that allows businesses to go back to work safely; employees and customers at the forefront of mind.