

## 1. INTRODUCTION

Minion8 is an intelligent device for face detection, face recognition and temperature measurements using thermal infrared camera combined with artificial intelligence technology. It can achieve a temperature measurement accuracy of  $\pm 0.3^{\circ}\text{C}$  with a mini black body. It can recognize face with 99% accuracy with or without masks. It support up to 20,000 face comparison libraries, and display face recognition + temperature measurement results in the real time through the display screen. User can also set alarm for any specific temperature value, for example a higher value for fever detection.



Device Structure

## 2. INDEX PARAMETERS

Temperature measurement and image technical parameters:

- ❖ Thermal infrared resolution:  $160 \times 120$ .
- ❖ Temperature measurement range:  $0^{\circ}\text{C} \sim 50^{\circ}\text{C}$
- ❖ Temperature measurement accuracy:  $\pm 0.5^{\circ}\text{C}$ ,  $\pm 0.3^{\circ}\text{C}$  after blackbody calibration.
- ❖ Measurement distance: The temperature measurement distance of human body is less than 3m.
- ❖ Infrared field of view angle:  $40^{\circ}$ .
- ❖ Binocular 2-megapixel visible light camera.
- ❖ Visible light field of view:  $65^{\circ}$ .

## Device specifications:

- ❖ Dual-core 900M processor.
- ❖ 1GB memory, 4GB storage.
- ❖ 8-inch 1280 × 800 resolution screen.
- ❖ The screen supports 5-point touch, and the response time is less than 48ms.
- ❖ Screen surface hardness: 6H.
- ❖ Screen color: 16M; screen contrast: 1000.
- ❖ Screen transmission rate:  $\geq 85\%$ , screen brightness: 500Cd / m<sup>2</sup>.
- ❖ Support HDR.
- ❖ Fill light 4 + 12 infrared + visible light.
- ❖ Speaker: 8  $\Omega$  1W.

## Other functional details:

Category	Description		
Supported formats	Video		H. 264/H. 265 MPJPEG Codec
	Audio		MP3
	Image		JPEG
Interface	Wireless	2G/3G/4G	Not available
		Wi-Fi	Optional
		BT	Not available
		GPS	Not available
	Wired	RS485	x1
		Wiegand	x1 Software configuration Output or Input
		LAN	X1 (10M/100M)
	Universal	USB	x1
Application	Access control function	Door open button	x1
		Relay	x1
		Door sensor, Alarm	x1
	IC	Frequency	13.56MHz
		Card type	IC/CPU
		Reading speed	Not available
		Success rate	99%
	Human interface	Vivo detection (real human, not dummy or image)	Yes

		1: N	1:20000
		Recognition accuracy	99%
	Auto illumination	Object sensing	Microwave sensor
		Light-sensitive	Light sensor
	Second generation card	Reading speed	Not available
Package	Adapter		x1
	User manual		Yes. PDF version.
	Quality certificate		x1
Operating temperature			-20℃ to +60℃
Waterproof grade			IP54

### 3. STRUCTURE AND ACCESSORIES

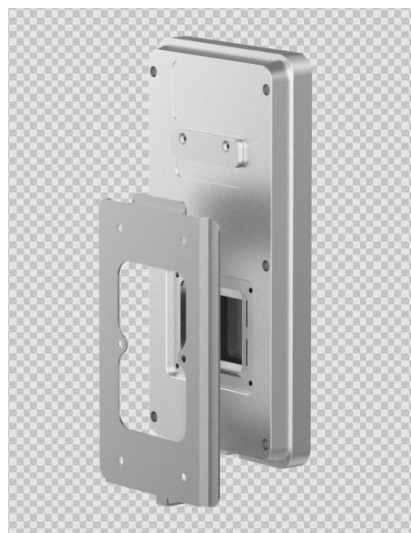
Height: 237.3 mm,

Width: 127.2 mm,

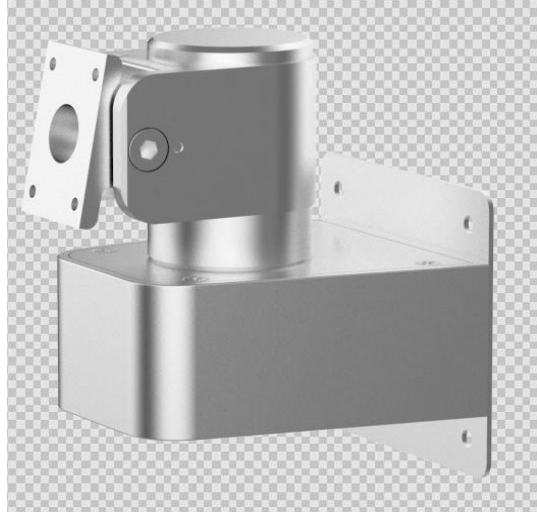
Thickness: 32 mm.

### 4. DIFFERENT STRUCTURAL INSTALLATION METHODS:

#### Installation method 1:



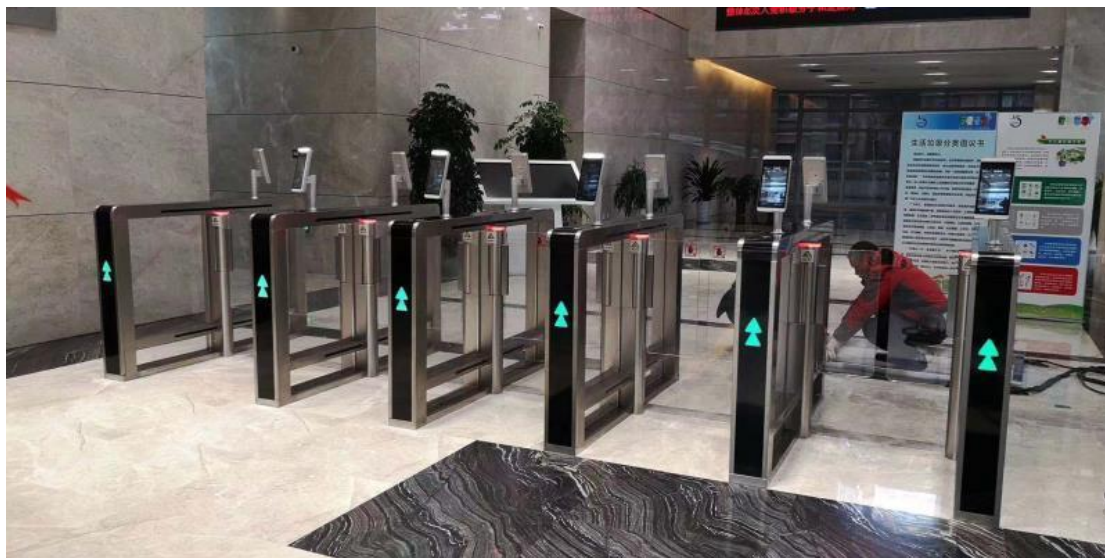
**Installation method 2:**



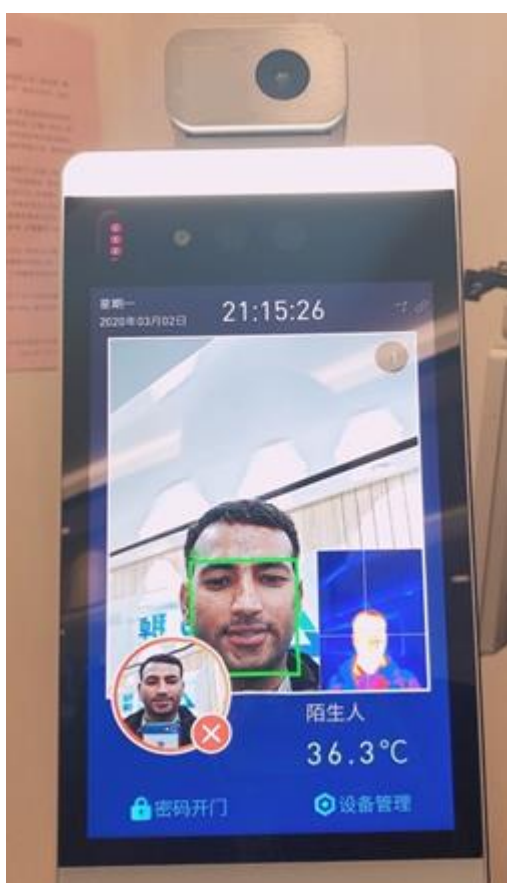
**Installation method 3:**



## 5. ALREADY IN USE EXAMPLES:



A deployment scenario as a reference



Face detection, Face recognition  
And Temperature measurement  
without mask.



Face detection, Face recognition  
And Temperature measurement  
with mask.