



***SenseThunder-E  
Thermal Camera***

# **Product Specifications**

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# Catalogue

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# Introduction

## 1.1 Description

SenseThunder-E is a high precision non-refrigerated infrared thermal camera. This product not only meets the requirement of high-precision infrared human body temperature measurement, but also associates the temperature with user's information automatically, thereby dispense with tedious manual registration. In the outbreak of the new coronary pneumonia, there is an urgent demand for long-distance temperature measurement, irregular temperature alert and blocking of traffic. The solution's combination with popular facial recognition devices in this situation, effectively meets the gobal demands and standards. There is no need to keep an eye on the screen, the device will trigger automatically. After the epidemic period, SenseThunder can be used in indoor entrance in campuses or office buildings, together with facial recognition products, to effectively screen people with abnormal body temperature for humane care.

## 1.2 Product Features

- ◆ Temperature Measurement Distance: 0.5m~2m
- ◆ Accuracy:  $\pm 0.3^{\circ}\text{C}$  (no black body required)
- ◆ Operating Environment: Indoor windless place

## 1.3 Functions

1. Communication and power supply with SensePass Pro via USB interface- easy to deploy.
2. After the temperature measurement function is turned on in SensePass Pro, it will recognize face(s) when the user walks to the speed gate, and the thermal camera will measure the user's forehead temperature at the same time. Only authorized users with normal temperature can pass the gate.
3. If the user's body temperature is higher than threshold (for example, the threshold is set to  $37.3^{\circ}\text{C}$ ), the user cannot pass the gate and the device will give a warning of irregular body temperature with three buzzer alerts.
4. Also, you can enable mask recognition function to regulate wearing behavior-

masker users pass regularly while block the passage without wearing masks. Thereby effectively stop tissue virus spreading by droplets.

**Note:** There is a specific software version for SensePass Pro, please consult technician for APK&ROM.

## Hardware

### 2.1 Appearance



### 2.2 Specifications

Name	SenseThunder-EThermalCameraV1.0		
Model	STE11AR01		
Performance	Detector	Vanadiumoxideuncooledinfraredfocalplane detector	
Image	BrightnessAdjustment& ContrastAdjustment	Manual0(default)/Auto1	
	Polarity	Blackheat/Whiteheat	
	Pseudo-color	18kinds	
	Electroniczoom	1.0~8.0× continuouszoom(stepsize0.1)	
	ImageFlip	Left/Right/Up/Down/Diagonal	
	ROI	Support18kindsofpseudo-colors	
Temperature measurement	Range	30°C~45°C	
	Accuracy	±0.3°C(noblackbodyrequired)	
	Tool		0fixedpointscanbeset.
			Thehighest/lowesttemperaturecaptureinscreen.
			Centerpointtemperaturemeasurement.
			12line/areaanalysistools.
		1isothermalanalysistool.	

	Temperature Correction	Manual and automatic calibration
Interface/Power	USB	DC4~6V
	Power Protection	Use extended components for over-voltage, under-voltage, reverse connection protection
	Power consumption	1.4W@25°C
	Expansion Component	USB3.0
Dimensions		44.5mm × 43mm × 49mm (W x D x H)
Weight		180g
Operating temperature		15°C~25°C (for indoor human body temperature measurement)
Storage Temperature		-40°C~+80°C
Operating Humidity		5~90%, Non-condensing
SensePass Pro Parameters	Recognition TAR/FAR	Threshold 0.90    TAR 99% / FAR 1/10,000
	Liveness TAR/FAR	Threshold 0.98    TAR 98% / FAR 1/10,000
	Recognition time	<500ms
	Facial Image in device	50,000
	Recognition Distance	0.5m-2m
	Mask Recognition	Support

## 2.3 Applicable Site



Speed Gate (connect with SensePass Pro)



Standing (connect with SensePass Pro)

# PRODUCTFUNCTIONS



## Facial Recognition

Automatically capture facial images, extract facial attributes, and recognize faces fast and accurately.



## Liveness Detection

Effectively measure against 3D printing, electronic screens, videos, pictures, masks, hoods, and other spoofing attacks by the binocular infrared liveness detection.



## Identity Verification

- \* Supports 1: N face image comparison in the database to verify identity accurately.
- \* Supports IC card, ID card reader to achieve cross comparison between faces and IDs.



## Access Management

Supports customized access for employees and visitors by time and location.



## Guest Greeting

Presents welcoming message and photo wall to provide a distinguished welcoming experience.



## Single/Multi-face Mode

Supports customized access modes. Single-face mode is suitable for door and gantry control; Multi-face mode is suitable for reception and attendance management.

# APPLICATION PARAMETERS

<b>Model</b>	SPS020-PRO
<b>Recognition Accuracy</b>	>99%
<b>AvatarCapacity</b>	50,000
<b>Weight</b>	700g
<b>Dimension</b>	235mm*132.8mm*19mm
<b>CaseMaterial</b>	Aluminumalloy/Silver
<b>Camera</b>	RGBCamera:2millionpixels IRCamera:1.3millionpixels 3x940nm,infraredsupplementallighting
<b>Screen</b>	8inchesmulti-touchcapacitivetouchscreen
<b>Communication</b>	Ethernet: 10/100/1000Mbps
	WIFI:IEEE802.11b/g/n(2.4G)
<b>Interface</b>	USB2.0,RelayCOM/NO/NC,RJ45,RS485,Wiegand,GPIO,HDMI
<b>OS</b>	Android7.1
<b>ServiceEnvironment</b>	Indoor
<b>WorkingTemperature</b>	-20°C~60°C
<b>WorkingHumidity</b>	5%~93%Condensation-free
<b>Installation</b>	Wall-mounted,Junctionbox(86x86mm),standing,rack-mounted(forspeedgate)
<b>Power</b>	Adapter:DC12V-2A POE:PSEClass4(IEEE802.3at)

## Bracket Accessories

Model	SPS020-Bracket01		SPS020-Bracket02		
<b>Parameters</b>	<b>Rendering</b>				
	<b>Installation</b>	Attachedtoagantry	Free-Standing		
	<b>Dimension</b>	227.00*67.30*70.47(mm)	1350*300*70.47(mm)		
	<b>Material</b>	Aluminumalloy			
	<b>Color</b>	Silver			



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