



# Dahua Thermal Human Temperature Measurement Solution



# Background

At the end of 2019, a new coronavirus outbreak broke out in Wuhan, China, which is characterized by human-to-human transmission, medical staff infection and community transmission. The disease has spread to China and around the world.

As at 1.00pm on 16 March 2020, there have been **298 confirmed cases** of COVID-19 in Australia.

Location	Confirmed cases
Australian Capital Territory	1
New South Wales	134
Queensland	62
South Australia	20
Tasmania	6
Victoria	57
Western Australia	18
<b>Total</b>	<b>298</b>

Across the world there have been more than **162,600** confirmed cases of COVID-19 and more than **6,300 deaths**.



# Scenarios

Epidemic Period



**Airport**



**Railway Station**



**Hospital**



**School**

General Period



**Entry and Exit**

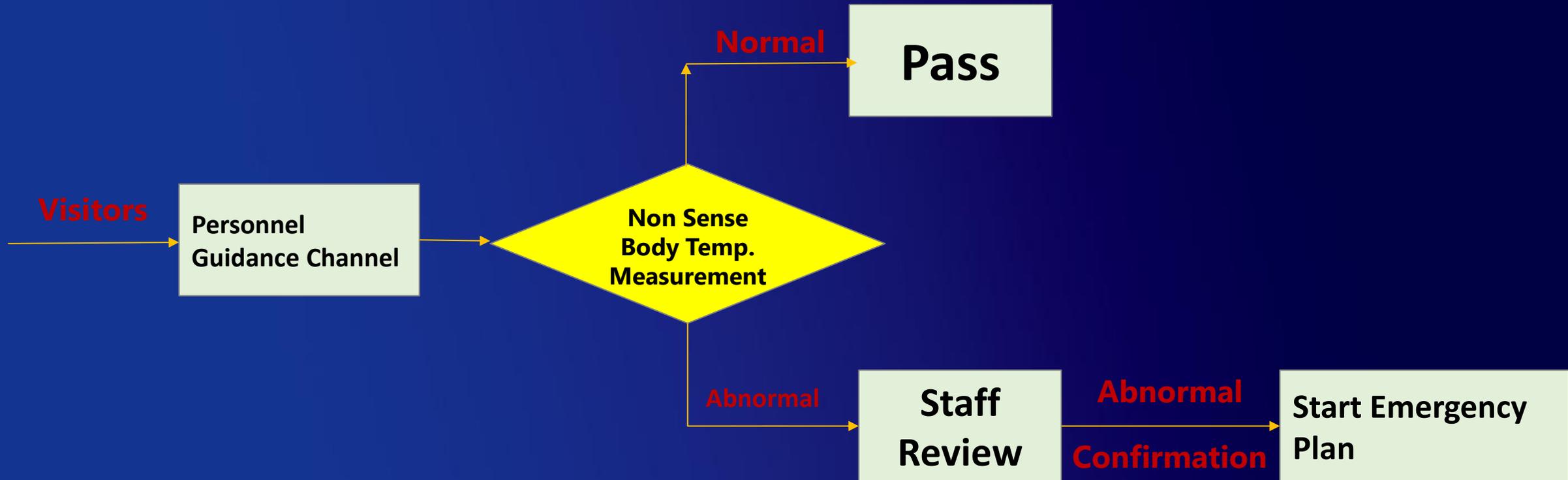


**Kitchen**

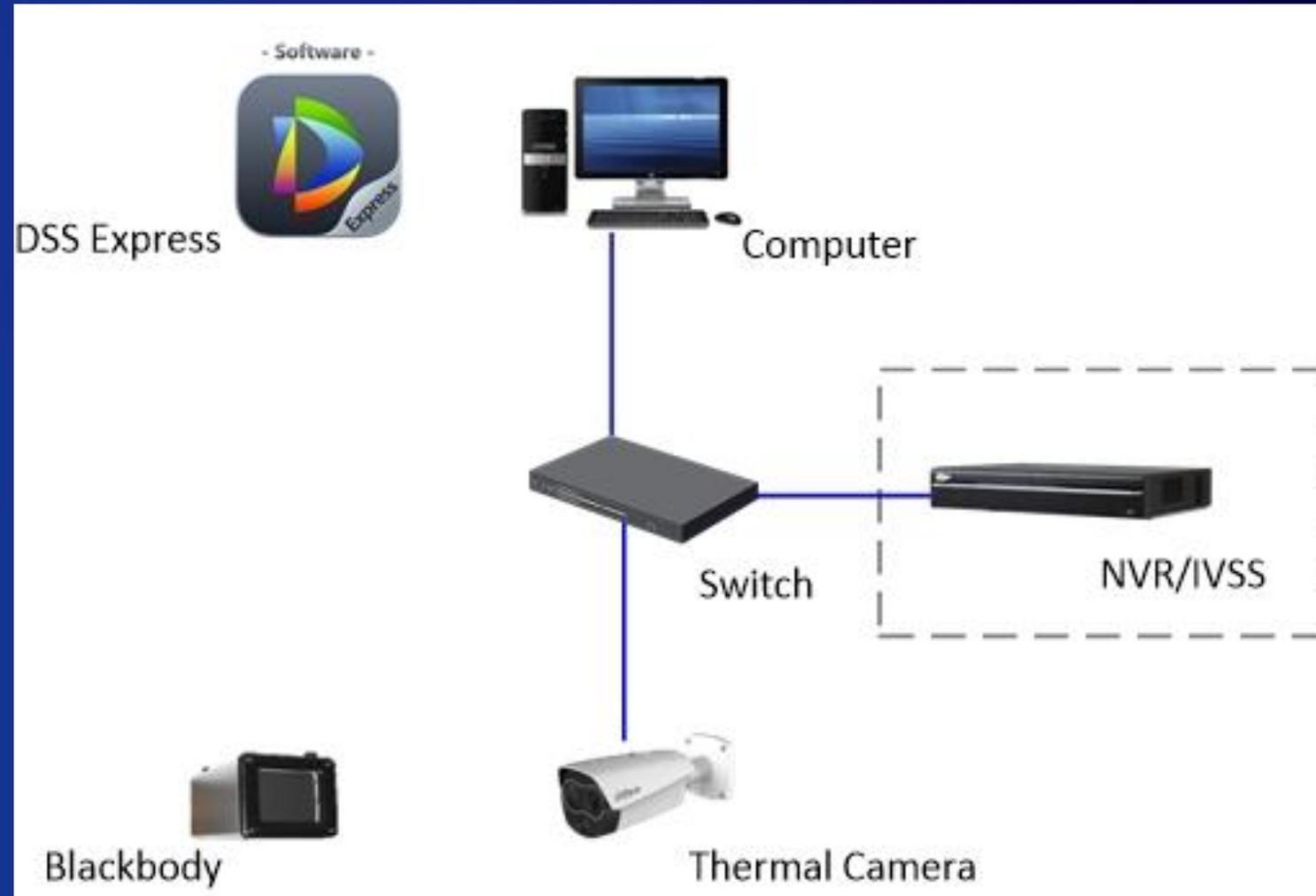


**Kindergarten**

# Solution



# Solution





## Thermal Network Value Hybrid Bullet Camera(Lite series) DH-TPC-BF3221-T

Vox uncooled focal plane detector

Resolution : 256\*192

Spectral Range : 8 $\mu$ m~14 $\mu$ m

Thermal lens : 3.5mm/7mm (optional)

NETD : <50 mK

Visible : 1/2.8"CMOS, 1080P

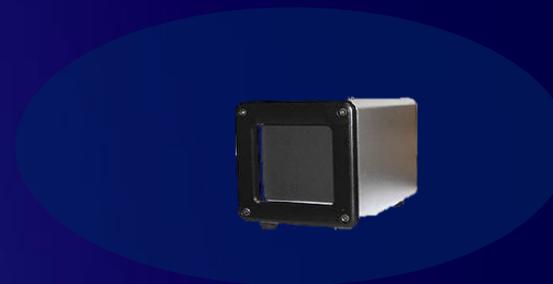
Visible lens : 4mm/8mm(optional)

Alarm : Built-in white light warning light, horn

Temperature measurement range : 30°C~45°C,

Temperature measurement accuracy :  $\pm 0.3^{\circ}\text{C}$ ,  
with blackbody

$\pm 1^{\circ}\text{C}$ , without blackbody



## Blackbody DH-TPC-HBB1

a constant temperature reference source

Working temperature : 40.0°C ( environment  
temperature +5.0°C~ 50.0°C)

Temperature resolution : 0.1°C

Temperature measurement accuracy :  $\pm 0.2^{\circ}\text{C}$   
(Single point)

Temperature stability :  $\pm ( 0.1 \sim 0.2 )^{\circ}\text{C}/30\text{min}$

Effective emissivity :  $0.97 \pm 0.02$

Power : 220VAC 50Hz

Ambient temperature and humidity : 0~40°C/  
 $\leq 80\% \text{RH}$

## High Accuracy

$\pm 0.3^{\circ}\text{C}$  (with blackbody)

## High Efficiency

Non - contact temperature detection, quick screening  
Long distance, wide coverage and multi – person detection

## Low Cost

Automatic early warning mechanism, saving a lot of  
manpower and reduce the risk of cross-infection

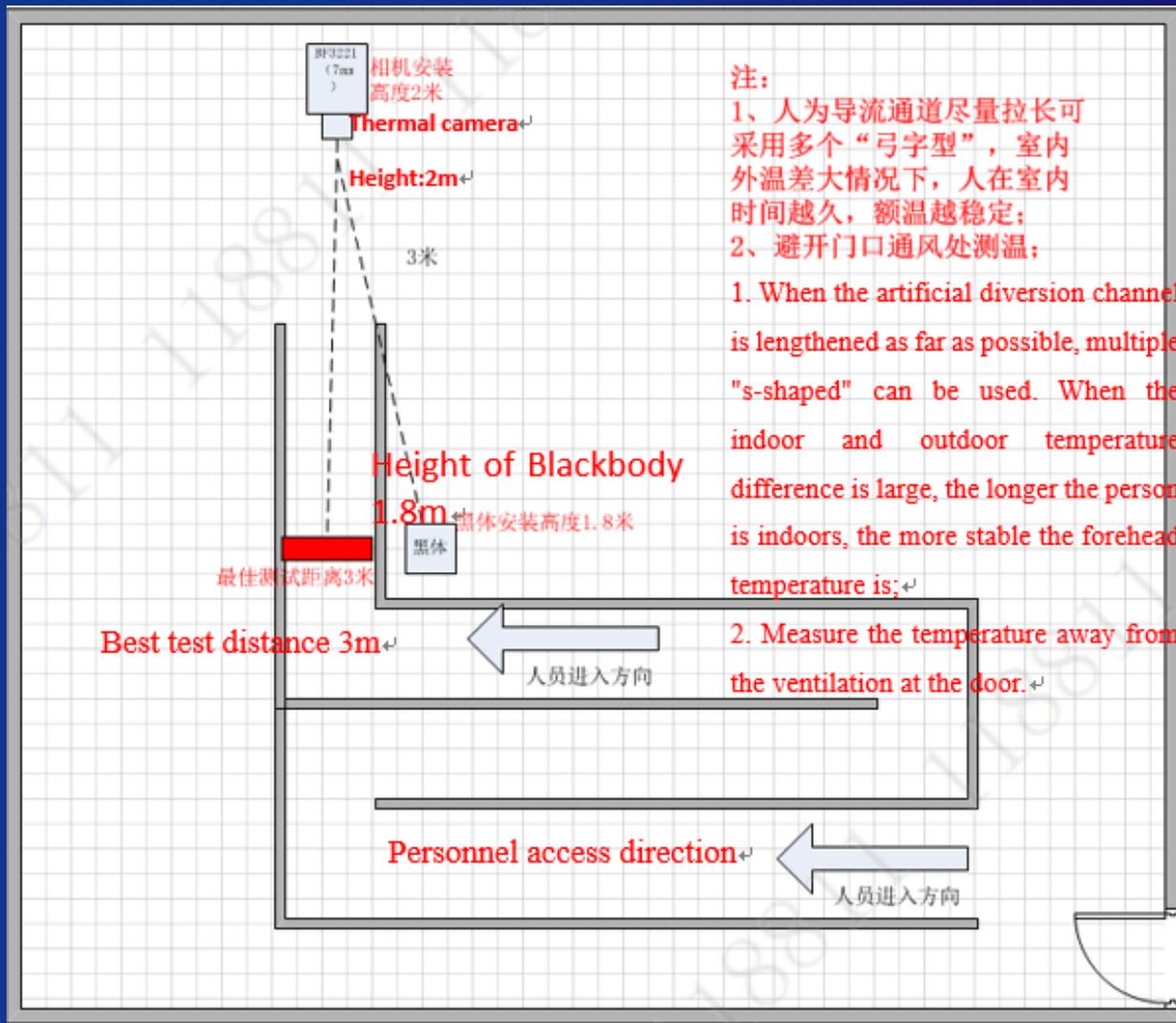
## Easy Deployment

Applied to small scenes such as entrances and exits  
Large scenes such as airports and railway stations with dense personnel

## Dating Back

Realize the historical data backtracking, data analysis and so on  
combined with the platform

# Installation

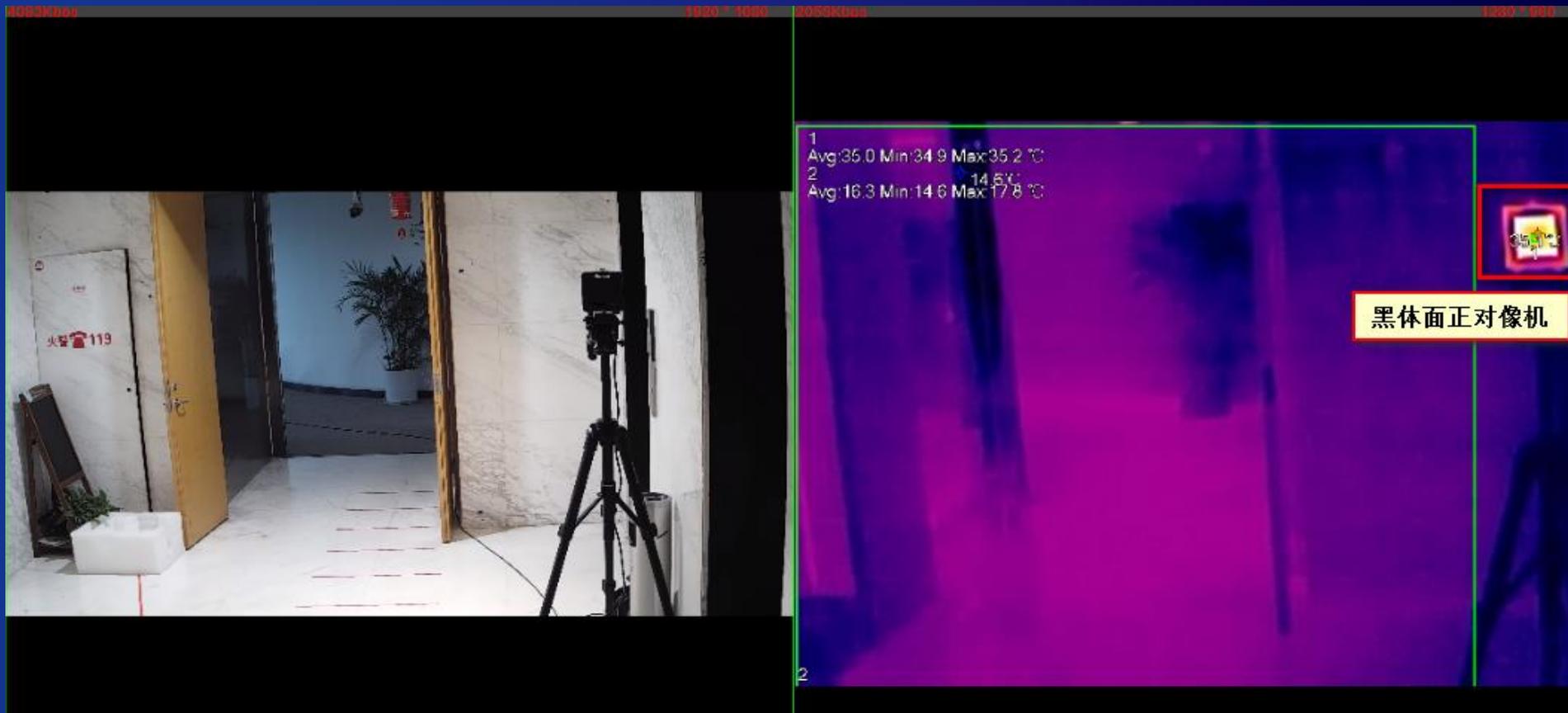


Lens	camera and blackbody	human forehead and the camera	Channel width
3.5mm	2m	2m	1.5m
7mm	3m	3m	1.3m

## Indoor&Enough illumination

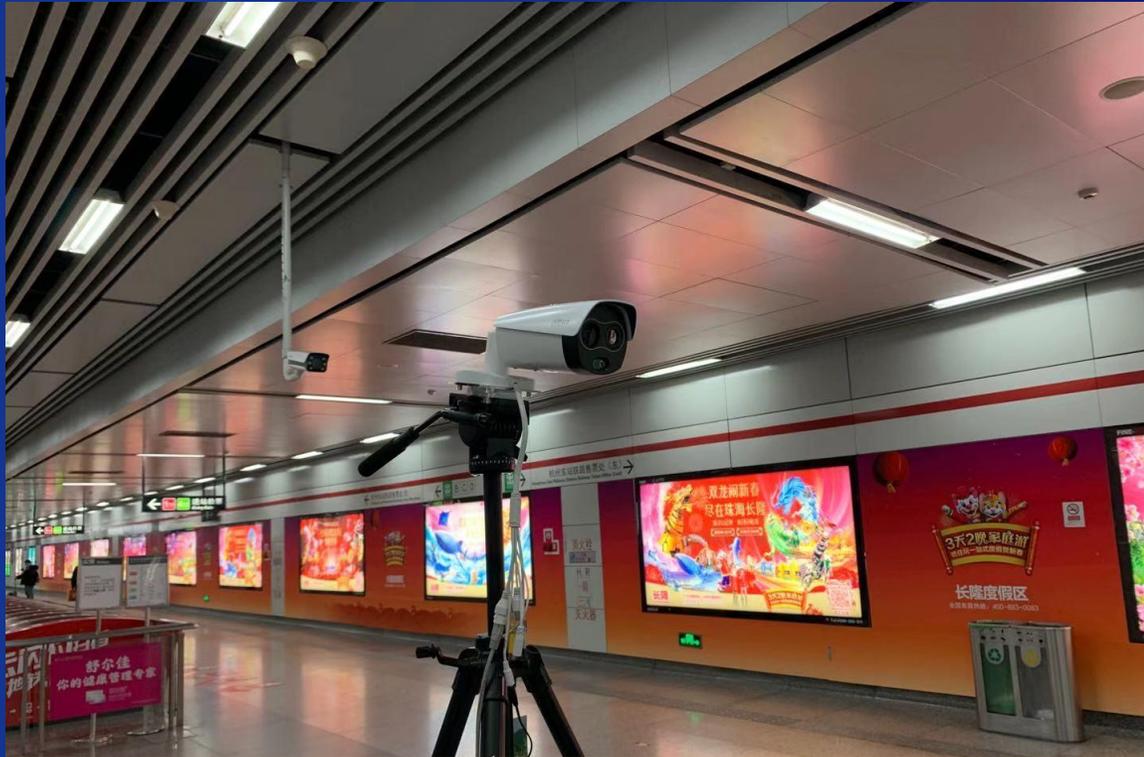
- ◆ No wind
- ◆ No sunshine
- ◆ No airflow
- ◆ No strong electromagnetic interference
- ◆ No vibration.

# Installation



- The blackbody radiation surface (note: the radiation surface shall not touch) should be facing the camera, the blackbody should be on the left or right side of the thermal imaging picture, and a fence around the tripod can be added to protect it.

# Success Case



**Hangzhou Metro**



**Shanghai Railway Station**

### 1、 What is blackbody? What is its function?

Blackbody can be simply understood as a constant temperature reference source. When testing human body temperature, blackbody is generally set to 35 °C by default, which is used for temperature correction of thermal imaging acquisition, so as to meet the accuracy requirements of  $\pm 0.3$  °C.

### 2、 How is CERTIFICATE

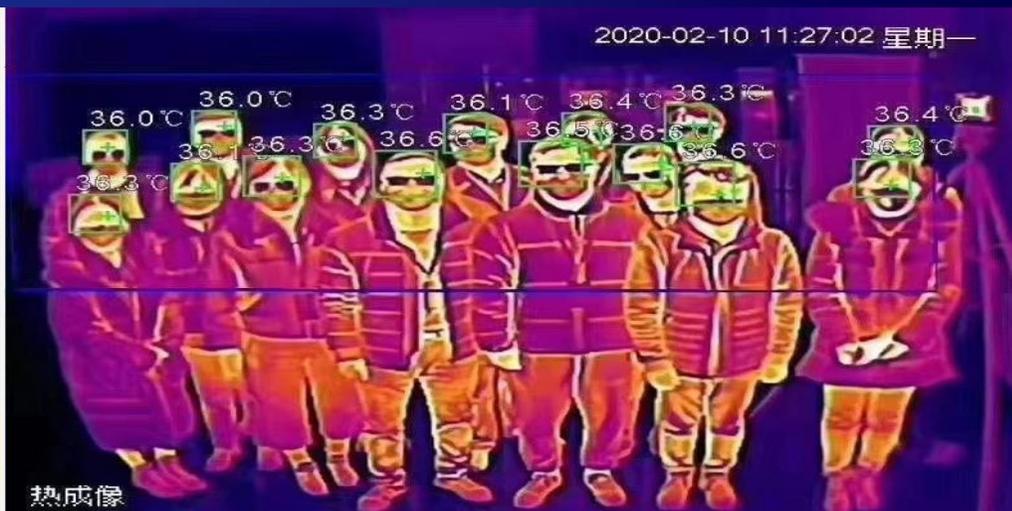
CE&FCC is available for thermal camera now and RCM will be ready in two weeks

### 3、 Where is the temperature detect

Forehead

### 4、 How many people can be max detected

15



## 4、 How to Configuration

We have very detail step-step operation and will with the first project configuration

## 5、 How to maintain the blackbody

- It is recommended to use a neutral cleaner to clean the blackbody shell and a soft brush to clean the dust on the radiant surface of the blackbody
- When not in use, put the equipment into the packaging box, and ensure the storage environment temperature and humidity appropriate
- The blackbody shall be managed and maintained by the designated personnel, keeping records of maintenance and use

Thanks