HIKVISION®
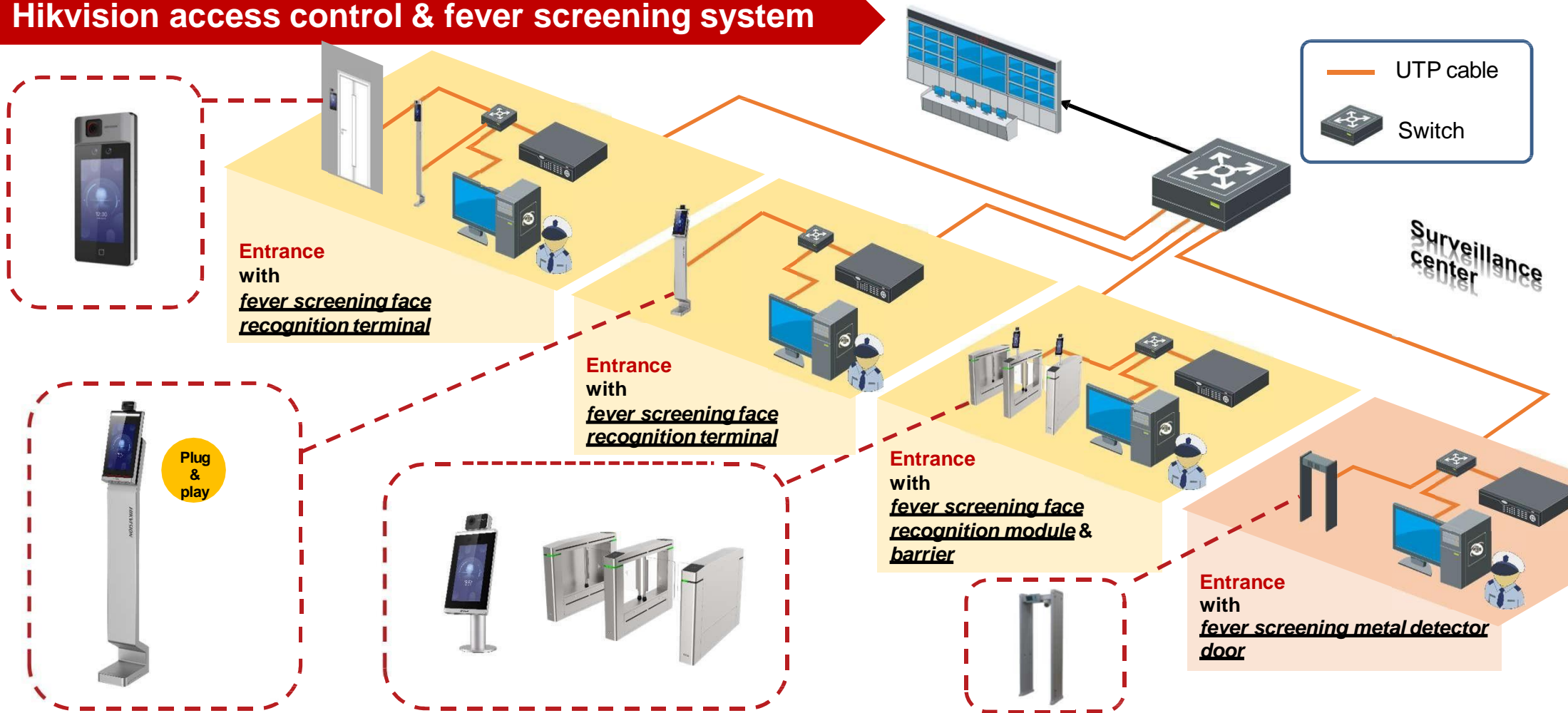
# Hikvision
# Access Control + Fever Screening
# Solutions

IPSC – Access Control and Video Intercom PDT

# System Topology

HIKVISION®

UTP cable

Switch

Surveillance center

**Entrance with** *fever screening face recognition terminal*

**Entrance with** *fever screening face recognition terminal*

**Entrance with** *fever screening face recognition module* **&** *barrier*

**Entrance with** *fever screening metal detector door*
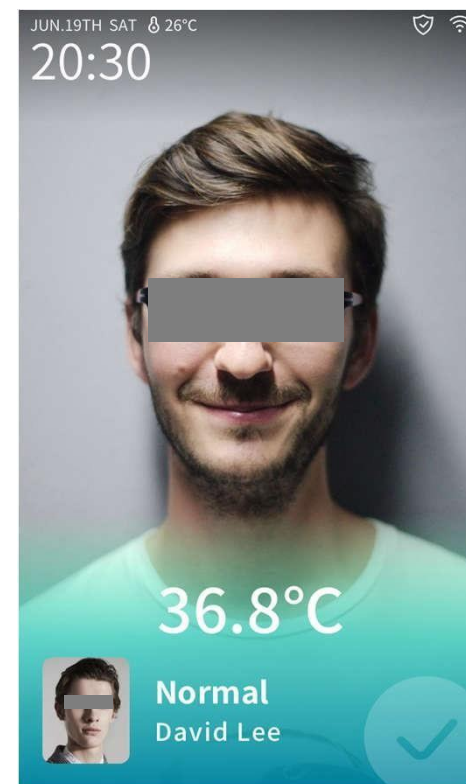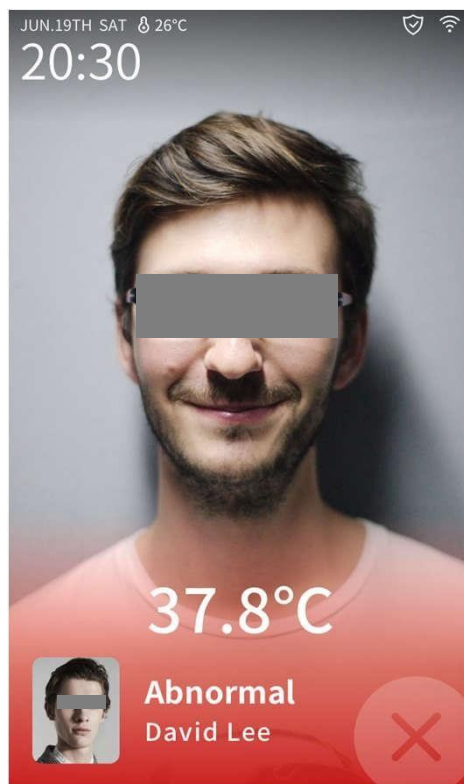
Plug & play

# Contents

➤ **Fever screening face recognition terminals**

➤ **Fever screening metal detector door**

# Fever Screening
# Face Recognition Terminals

# Solution Introduction

**Results display**



*(\*Above display images are only for reference)*

# Products Introduction

HIKVISION®

# Products Introduction

## Products Overview

| | DS-K5604A-3XF/V | DS-K1T671TM-3XF | DS-K5671-3XF/ZU |
|---|---|---|---|
| | Plug & play | | |
| **LCD screen** | 10.1 inch | 7 inch | 7 inch |
| **Face capacity** | 50,000 | 50,000 | 50,000 |
| **Card capacity** | N/A | 50,000 M1 cards | N/A |
| **Thermal imaging resolution** | 120 x 160 | 120 x 160 | 120 x 160 |
| **Temperature range and accuracy** | 30-45°C (±0.5 °C) | 30-45°C (±0.5 °C) | 30-45°C (±0.5 °C) |
| **Authentication Distance** | 0.3-2m | 0.3-2m | 0.3-2m |
| **Mask detection** | Support | Support | Support |
| **Fast temperature measurement** | Support | Support | Support |
| **Deployment** | Plug & play, floor standing Including power adaptor | Wall mounting/ floor standing with mounting pole | Face recognition module for barriers |

# Products Introduction - Highlights

**HIKVISION**

Fever screening face recognition terminal

**Plug & play**
*Rapid deployment*.
Free of wiring, installation and configuration.

**Various verification methods**
Supporting *fast temperature measurement* and *face recognition with fever screening*.

**Plug & play**

**Enhanced verification performance**
Face recognition verification duration *less than 0.2s*.
Supporting *face anti-spoofing.*

**Long term fever screen**
Authentication distance: 0.3-2 m.

**Mask detection**
Supporting *face mask wearing alert* and *forced mask wearing alert.*

**Dedicated for fever screening**
Temperature range: *30°C to 45°C.*
Temperature accuracy:*±0.5 °C*.

DS-K5604A-3XF/V

# Products Introduction - Highlights

**HIKVISION**

Fever screening face recognition terminal

**Flexible deployment**
Supporting *wall mounting* and *floor standing with mounting pole*.

**Various verification methods**
Supporting *fast temperature measurement* and *face/card recognition with fever screening*.

**Enhanced verification performance**
Face recognition verification duration *less than 0.2s*.
Supporting *face anti-spoofing.*

**Long term fever screen**
Authentication distance: 0.3-2 m.

**Mask detection**
Supporting *face mask wearing alert* and *forced mask wearing alert.*

**Dedicated for fever screening**
Temperature range: *30°C to 45°C.*
Temperature accuracy:*±0.5 °C.*

# Products Introduction - Highlights

**HIKVISION**

**Fever screening face recognition module for barriers**

**Easy to deployment**
Fever screening face recognition module for barriers.

**Enhanced verification performance**
Face recognition verification duration _less than 0.2s_.
Supporting _face anti-spoofing._

**Mask detection**
Supporting _face mask wearing alert_ and _forced mask wearing alert._

DS-K5671-3XF/T

**Various verification methods**
Supporting _fast temperature measurement_ and _face recognition with fever screening_.

**Long term fever screen**
Authentication distance: 0.3-2 m.

**Dedicated for fever screening**
Temperature range: _30°C to 45°C,_
Temperature accuracy: _±0.5 °C_.

# Products Introduction – Thermal Technology

**Comparison between thermal imaging and thermopile technology**

## Thermopile technology

Temperature：36.9℃

Temperature：43.3℃

Fixed area of measurement

Fixed area of measurement

**3-rd party thermopile solution**

## ★ Thermal imaging technology

03-18-2020 星期三 15:49:22

Forehead temperature measurement by AI algorithm

High-temperature object (hot water)

Camera 02

Hot try

**Hikvision thermal imaging**

**Summary**：
Measuring the maximum temperature value in a fixed small area. After face authentication, the maximum temperature value of the fixed area is obtained for display.
Since the thermopile itself cannot detect faces, it cannot ensure that face temperature is measured, or whether it is the authenticated person.

**Summary**：
Generating hot try by measuring the temperature of all the objects in the measuring scale, detecting faces by AI algorithm, and extracting the temperature of forehead.
The thermal module matches the forehead temperature and face to ensure the authenticity and validity of temperature measurement.

# Products Introduction – Thermal Technology

**HIKVISION**

## Comparison between thermal imaging and thermopile technology

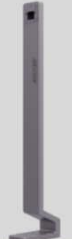| Type | Thermopile | Thermal imaging | Comments |
|---|---|---|---|
| Resolution | 32X32 | 120X160 | —— |
| Measurement distance | 0.3m~0.5m | 0.3m~2m(depends on focus of device) | —— |
| Measurement scale | Small, fixed area of the screen | Large scale, any area within the screen | |
| Adaptability | Asking for high adaptability of personnel | No need deliberate cooperating, except for entering the screen | **Thermopile:**<br>• Limited measurement scale,<br>• Low accuracy and efficiency of fever screen. |
| Efficiency | 5 s/person | 1 s/person | |
| Measurement and face matching | Temperature measurement can not be matched accurately, authenticity and validity of temperature measurement are limited. | Face detection and face forehead temperature accurately match, "one face, one temperature", temperature measurement data is true and effective. | **Thermal imaging：** ⭐<br>• Bigger measurement scale,<br>• AI algorithm for face detection,<br>• High accuracy and efficiency of fever screen. |
| Measurement error | Temperature measurement area is limited, the measurement subject can not be guaranteed, the temperature will be any part of the person or other objects within the screen. | Face detection tracking, guaranteed that the measurement is the temperature of the person's forehead, and the true body temperature is similar. | |
| Labor cost | The temperature measurement process requires the management personnel to participate in the whole guide, the labor cost is high. | Temperature measurement process requires little involvement of managers, and labor cost is low. | |

# Products Introduction - Terminal

**HIKVISION**

| Device Model | SAP Code | Description | Picture |
|---|---|---|---|
| DS-K5604A-3XF/V | 302917211 | • Plug &play<br>• 10.1-inch LCD touch screen,2 Mega pixel wide-angle lens<br>• Max.50,000 faces capacity Temperature range: 30-45℃, accuracy: ±0.5℃;<br>• Supports 6 attendance status, including check in, check out, break in, break out, overtime in, overtime out<br>• Face Recognition Duration(1:N) ≤0.2s<br>• Authentication Distance: 0.3m ~ 2m | Hot |

# Products Introduction - Terminal

**HIKVISION**

| Device Model | SAP Code | Description | Picture |
|---|---|---|---|
| DS-K1T671TM-3XF | 302917210 | • 7-inch LCD touch screen,2 Mega pixel wide-anglelens<br>• Built-in Mifare card reading module;<br>• Max.50,000 faces capacity , Max.50,000 cards;<br>• Temperature range: 30-45℃, accuracy: ±0.5℃;<br>• Supports 6 attendance status, including check in, check out, break in, break out, overtime in, overtime out<br>• Face Recognition Duration(1:N) ≤0.2s<br>• Authentication Distance: 0.3m ~ 2m | |
| DS-KAB671-B (Optional) | 305700583 | • The mounting pole for DS-K1T671TM-3XF<br>• Material: SPCC<br>• Weight: 6.7 kg (14.8 lb.)<br>• Dimension (W × H × D): 98.5 mm × 1342 mm × 225 mm (3.9" × 52.8" × 8.9") | |

# Products Introduction – Module for Barriers

| Device Model | SAP Code | Description | Picture |
|---|---|---|---|
| DS-K5671-3XF/ZU | 302917213 | • 7-inch LCD touch screen,2 Mega pixel wide-anglelens<br>• Max.50,000 faces capacity;<br>• Temperature range: 30-45℃, accuracy：±0.5℃;<br>• Supports 6 attendance status, including check in, check out, break in, break out, overtime in, overtime out<br>• Face Recognition Duration(1:N) ≤0.2s<br>• Authentication Distance: 0.3m ~ 2m | |
| DS-K3B601 series<br>DS-K3B801 series<br>DS-K3Y501 series | Please refer to price list | Hikvision baseline barriers. | |

*(\*The actual throughput is affected by the person passing rate and passing method).*

# Application Scenarios

# Application Scenarios

**Entrance of factories**

**Entrance of schools**

**Entrance of offices**

**Entrance of retails**

*Note:* *Indoor installation is recommended for accuracy of temperature measurement (without wind).*

# Fever Screening
# Metal Detector Door Solution

# Solution Introduction

## Hikvision fever screening metal detector door solution

Thermal module

Metal detector door

UTP cable

NVR

Switch

Surveillance center

Fever screening metal detector door solution
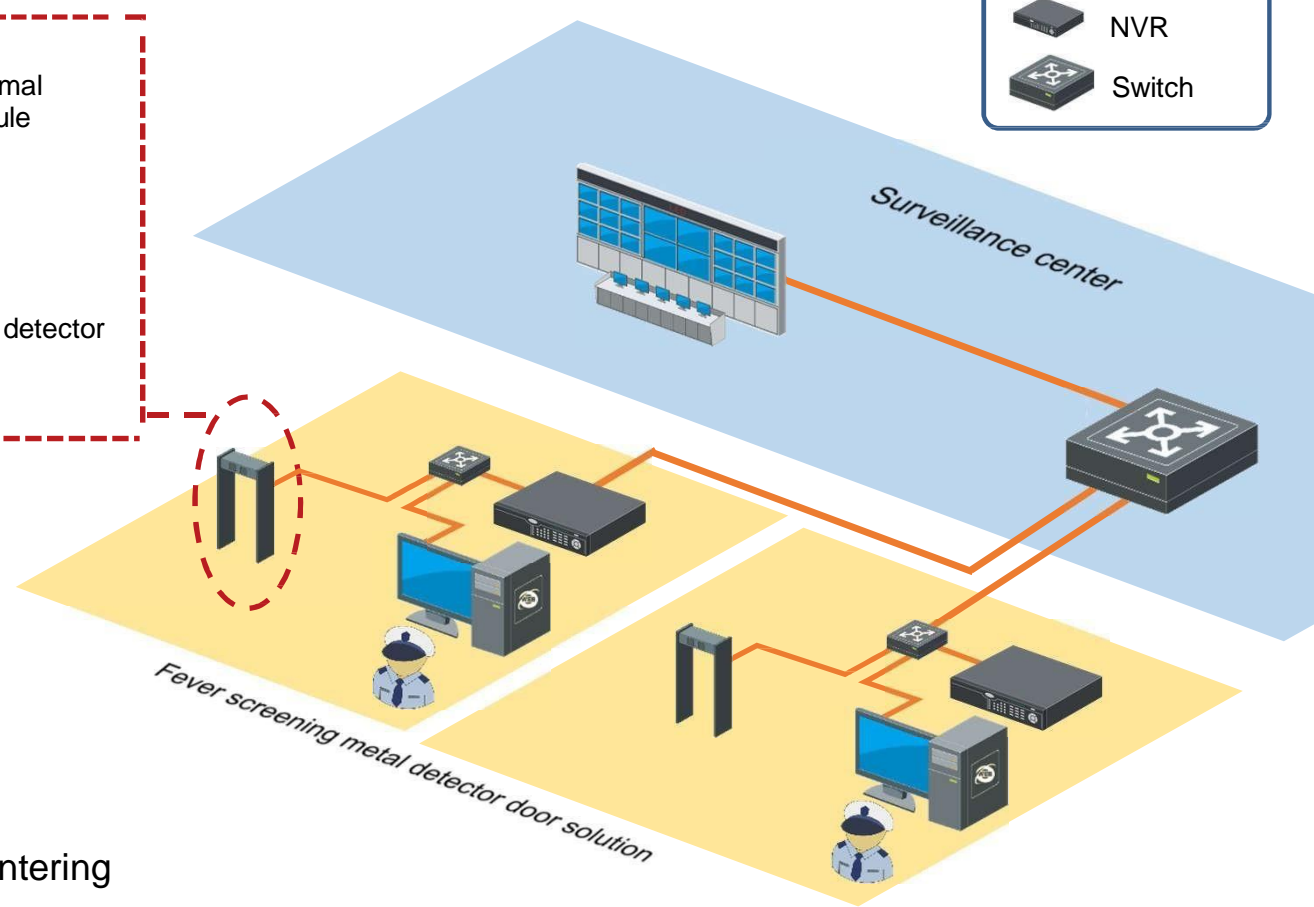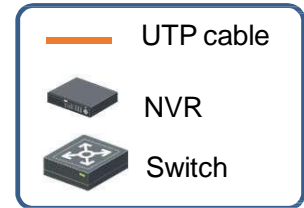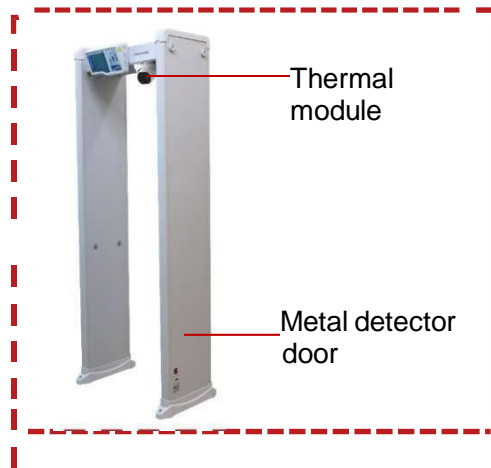
### Advantages

Touch-free fast accessing

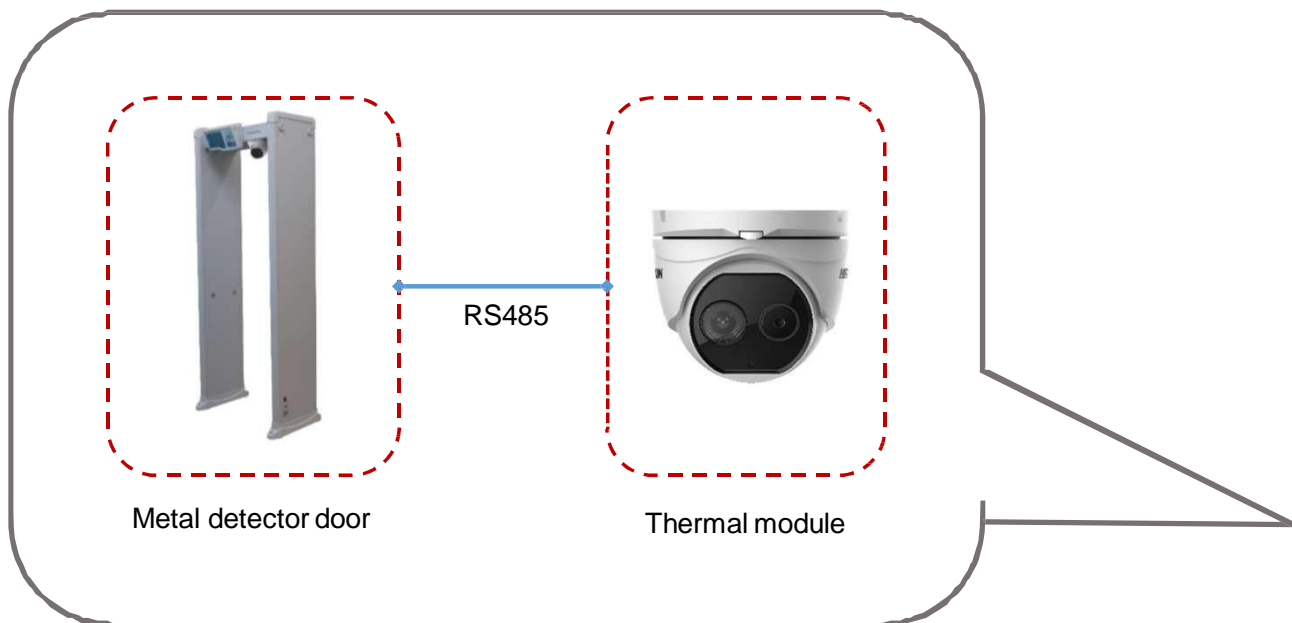Suitable for various scenarios

Reducing human resources cost

Avoiding people with abnormal temperature entering

## Solution topology diagram

Management Center

NVR

UTP

UTP

**Local Area Network(TCP/IP)**

RS485

Metal detector door
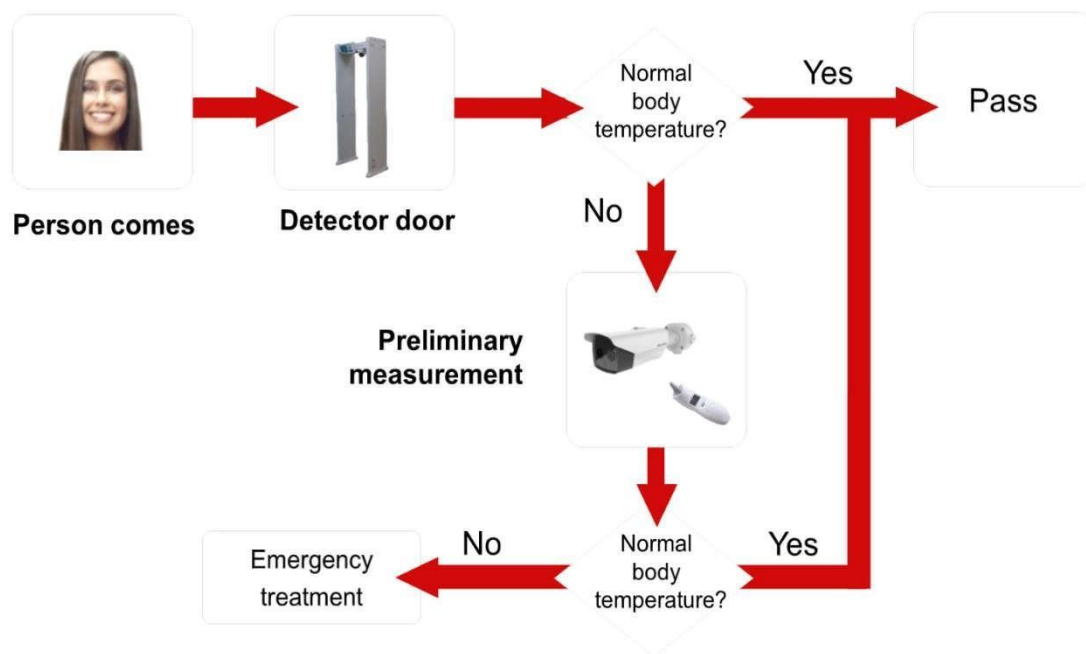
Thermal module

Fever screening metal detector door solution

# Solution Introduction

## Working flow & results display



Person comes → Detector door → Normal body temperature?

Yes → Pass

No → Preliminary measurement → Normal body temperature?

Yes → Pass

No → Emergency treatment

Visible light channel    Thermal imaging channel

*(*Above display images are only for reference)*
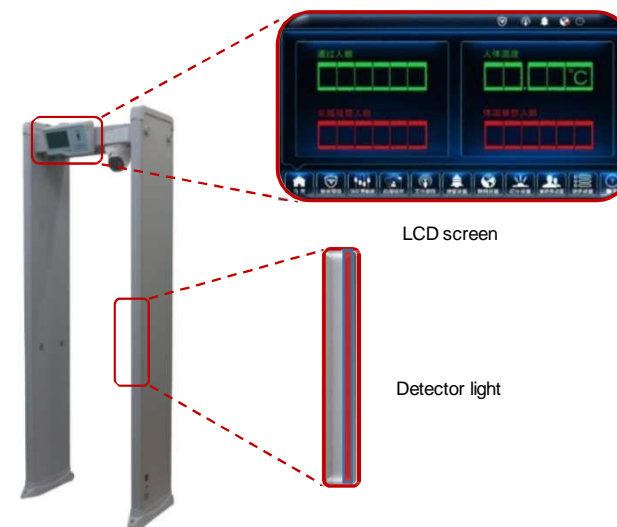
LCD screen

Detector light

# Solution Introduction

## Solution advantages

### Touch-free, fast fever screening
- ➢ Hygiene – touchless fever screen
- ➢ Convenient – information displayed on LCD
- ➢ Long distance verification & measurement

### High security
- ➢ Fever screening - avoiding people with abnormal temperature entering
- ➢ Metal detecting – indicating location of metal

### High adaptability
- ➢ Suitable for various indoor scenarios
- ➢ Easy installation & configuration

### Centralized management
- ➢ Combining temperature data and people counting statistics for easy management and query

## Solution ordering notes

### Fever screening metal detector door



> - Model name: ISD-SMG318LT-F
> - Metal detector door and thermal camera all-in-one

### Thermal camera



> - Model name: DS-2TD1217B-3/PA(B)

*(SAP code can be checked in 'Product Introduction – Brief Datasheet Part or price list)*

# Products Introduction

# Products Introduction - Highlights

**HIKVISION**

Fever screening metal detector door

**Statistics**
*People counting, metal alarms counting, people with abnormal temperature, etc.*

**Metal detector**
Detecting metals *small to  clips.*

**Multi-zone alarm**
*18 independent detection zones.*

**ISD-SMG318LT-F**

**High reliability & good quality**
*Modular design* of door body.

**Dedicated for fever screening**
Temperature range: *30°C to 45°C*.

**High accuracy**
Temperature accuracy: *: ±0.5°C*.

**LCD display**
*Real-time display* of statistics and *body temperature*.

# Products Introduction - Highlights

**HIK**VISION

**Body temperature measurement camera**

**High sensitivity sensor**

*160 × 120 resolution* in thermal channel.

**Enhanced image quality**

Provide *3D Digital Noise Reduction* to guarantee enhanced details of image.

**Comprehensive alarm function**

*Strobe light* and *audio alarm* supported.

**DS-2TD1217B-3/PA(B)**

**Dedicated for fever screening**

Temperature range: *30°C to 45°C*.

**High accuracy**

Temperature accuracy: *: ±0.5 °C*.

# Products Introduction

Comparison between metal detection alarm and temperature alarm

**Metal Detection Alarm**

**Temperature Detection Alarm**

# Products Introduction – Thermal Technology

**Thermopile technology**



**Summary：**

Measuring the maximum temperature value in a fixed small area. After face authentication, the maximum temperature value of the fixed area is obtained for display.

Since the thermopile itself cannot detect faces, it cannot ensure that face temperature is measured, or whether it was the authenticated person.



★ **Thermal imaging technology**

**Summary：**

Generating hot try by measuring the temperature of all the objects in the measuring scale, detecting faces by AI algorithm, and extracting the temperature of forehead.

The thermal module matches the forehead temperature and face to ensure the authenticity and validity of temperature measurement.

# Products Introduction – Thermal Technology

## Comparison between thermal imaging and thermopile technology

| Type | Thermopile | Thermal imaging | Comments |
|---|---|---|---|
| Resolution | 32X32 | 120X160 | —— |
| Measurement distance | 0.3m~0.5m | 0.3m~2m(depends on focus of device) | —— |
| Measurement scale | Small, fixed area of the screen | Large scale, any area within the screen | |
| Adaptability | Asking for high adaptability of personnel | No need deliberate cooperating, except for entering the screen | **Thermopile:**<br>• Limited measurement scale,<br>• Low accuracy and efficiency of fever screen.<br><br>**Thermal imaging：** ⭐<br>• Bigger measurement scale,<br>• AI algorithm for face detection,<br>• High accuracy and efficiency of fever screen. |
| Efficiency | 5 s/person | 1 s/person | |
| Measurement and face matching | Temperature measurement can not be matched accurately, authenticity and validity of temperature measurement are limited. | Face detection and face forehead temperature accurately match, "one face, one temperature", temperature measurement data is true and effective. | |
| Measurement error | Temperature measurement area is limited, the measurement subject can not be guaranteed, the temperature will be any part of the person or other objects within the screen. | Face detection tracking, guaranteed that the measurement is the temperature of the person's forehead, and the true body temperature is similar. | |
| Labor cost | The temperature measurement process requires the management personnel to participate in the whole guide, the labor cost is high. | Temperature measurement process requires little involvement of managers, and labor cost is low. | |

# Products Introduction – Bidding Feature

**HIKVISION**

| Items | ISD-SMG318LT-F |
|---|---|
| Thermal imaging max. resolution | 160 x 120 |
| Thermal imaging Lens(Focal Length) | 3mm |
| Visible Light Sensor | 4MP 1/2.7" Progressive Scan CMOS |
| Visible Light Focal Length | 4mm |
| Visible Light WDR | 120dB |
| Measurement range | 30°C to 45°C |
| Measurement accuracy | No black body:±0.5℃<br>With black body: ±0.3℃ |
| Measurement distance | 0.3 m to 3 m |
| Multi-area alarm | Indicates the metal position on the body. Max. 18 areas |
| LCD screen | 7-inch touch screen |
| Protective level | Dome camera: IP66<br>Walk-through detector: IP53 |

*Note: Indoor installation is recommended for accuracy of temperature measurement(without wind).*

# Products Introduction - Brief Datasheet

**HIKVISION**

| Device Model | SAP Code | Description | Picture |
|---|---|---|---|
| ISD-SMG318LT-F | Standard：322100028 | • 18 independent detection zones;<br>• LCD screen;<br>• Thermal imaging resolution：160*120<br>• Temperature measurement accuracy：±0.5℃<br>• Temperature measurement range：30-45℃<br>• Video mode: Bi-spectrum image fusion;<br>• In accordance with the international safety standard, friendly to pregnant woman, people with cardiac pacemaker, etc. |  |
| DS-2TD1217B-3/PA(B) | Standard：305401146<br>Neutral：305401150 | • Thermal: 160 ×120; Lens: 3mm;<br>• Optical: 2688 ×1520; Optical lens: 4mm;<br>• Video mode: Bi-spectrum image fusion;<br>• Accuracy: ±0.5℃;<br>• Range: 30-45℃;<br>• Audio alarm support. |  |

*(*The actual throughput is affected by the person passing rate and passing method)*

# Application Scenarios

# Application Scenarios

**Entrance of airports**



**Entrance of schools**



**Entrance of hospitals**



**Entrance of shopping malls**



*Note:* *Indoor installation is recommended for accuracy of temperature measurement(without wind).*
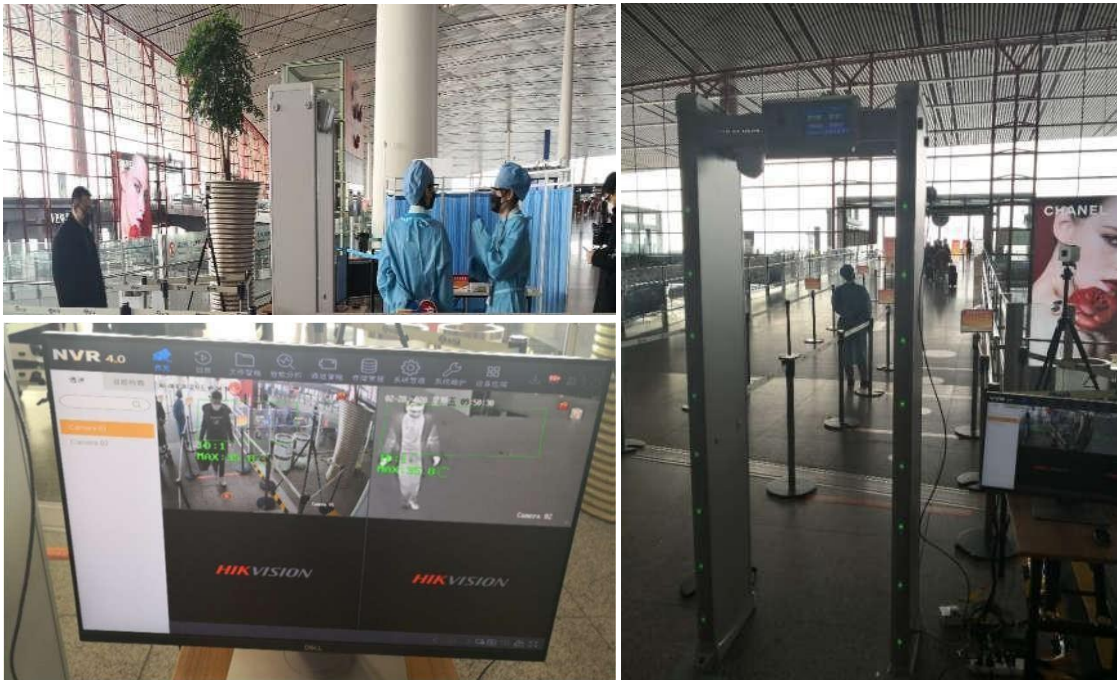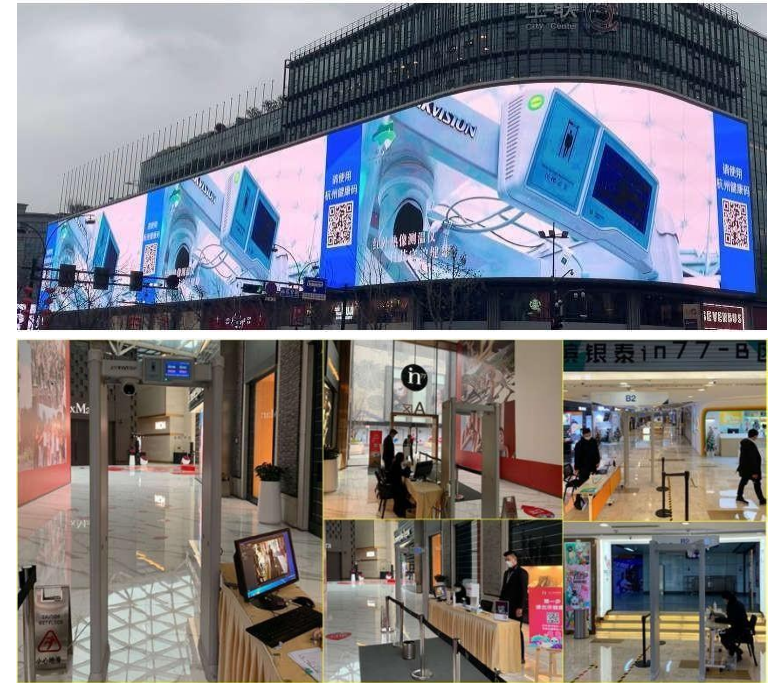
# Case Study

# Case Study

**Projects in airports and shopping malls**
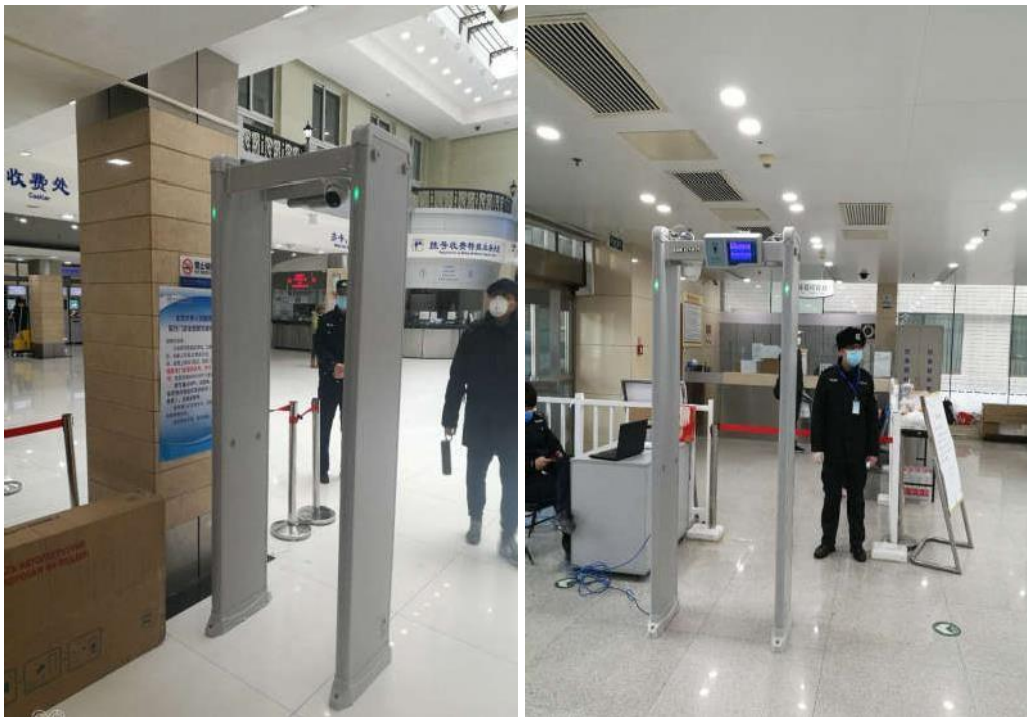


Beijing capital international airport project, Beijing

West lake Yintai shopping mall project, Hangzhou

# Case Study

**Projects in hospitals and universities**



Peking university people's hospital project, Beijing



Fudan University project, Shanghai

# APAQ had the honor of being awarded the title

## HIKVISION MALAYSIA AUTHORIZED PROJECT PARTNER 2019-2020



HIKVISION

Hereby proudly presents this certificate to

APAQ TECHNOLOGY SDN BHD

as

HIKVISION MALAYSIA
AUTHORIZED PROJECT PARTNER

2019-2020

Huckel Zheng
GM of Malaysia

HIKVISION(MALAYSIA) SDN. BHD. (1239507-A)



APAQ
吉 隆 集 团

PARTNER OF APAQ

HIKVISION
海 康 威 视

See Far, Go Further

www.hikvision.com

# Hikvision products on show

# In stock, fast delivery

**Apaq Technology Sdn Bhd is one of Hikvision's major  project partners in Malaysia**

- One-stop service, equipment sales, installation and maintenance services

- Involving Hikvision's full range of products, From thermal imaging temperature screening, Security inspection equipment (Security gates, X-RAY luggage detectors, Vehicle inspection scanning,  Access control systems), Drones (aircraft, UAV defense systems), Robots, Video surveillance security  equipment, Indoor and outdoor large LED screens, conference screens, etc.

**For more detail please contact:**

Email: apaqsolutions@gmail.com

WhatsApp: +6012 665 5139

# Thanks

*HIKVISION*®