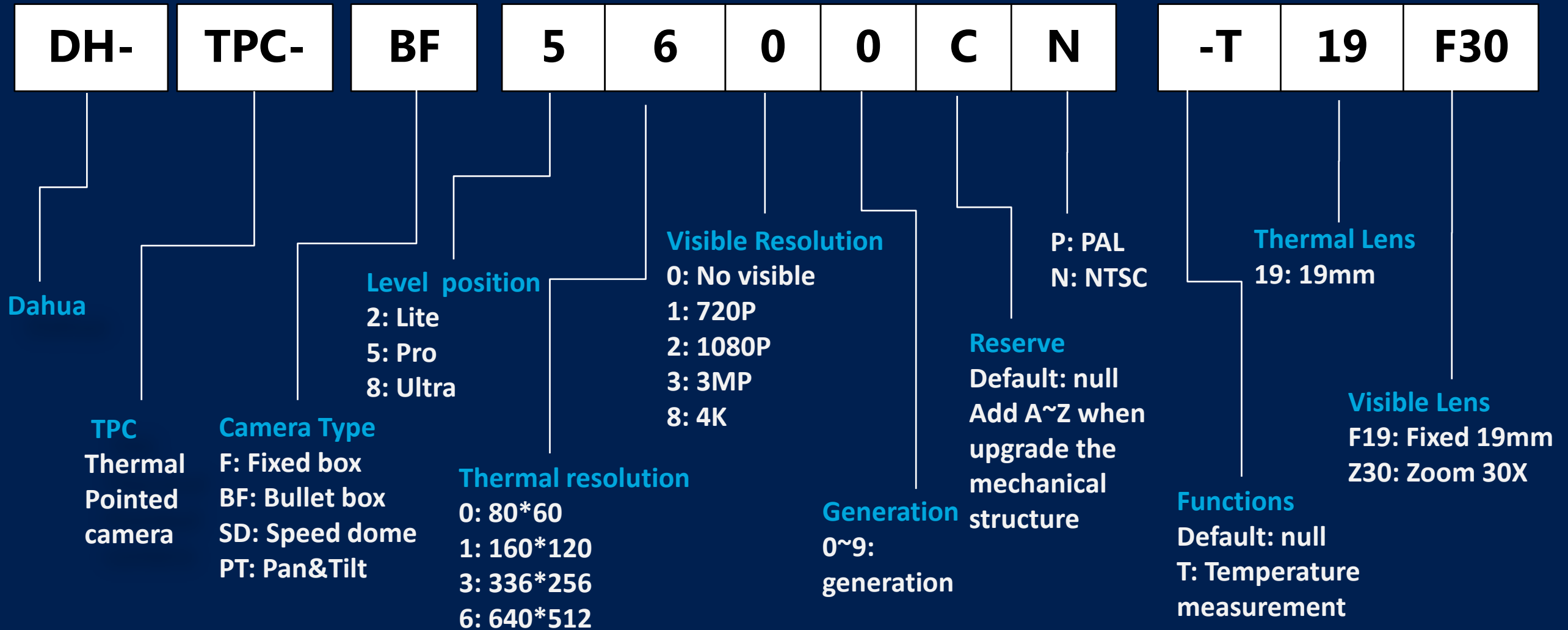


# Thermal Cameras

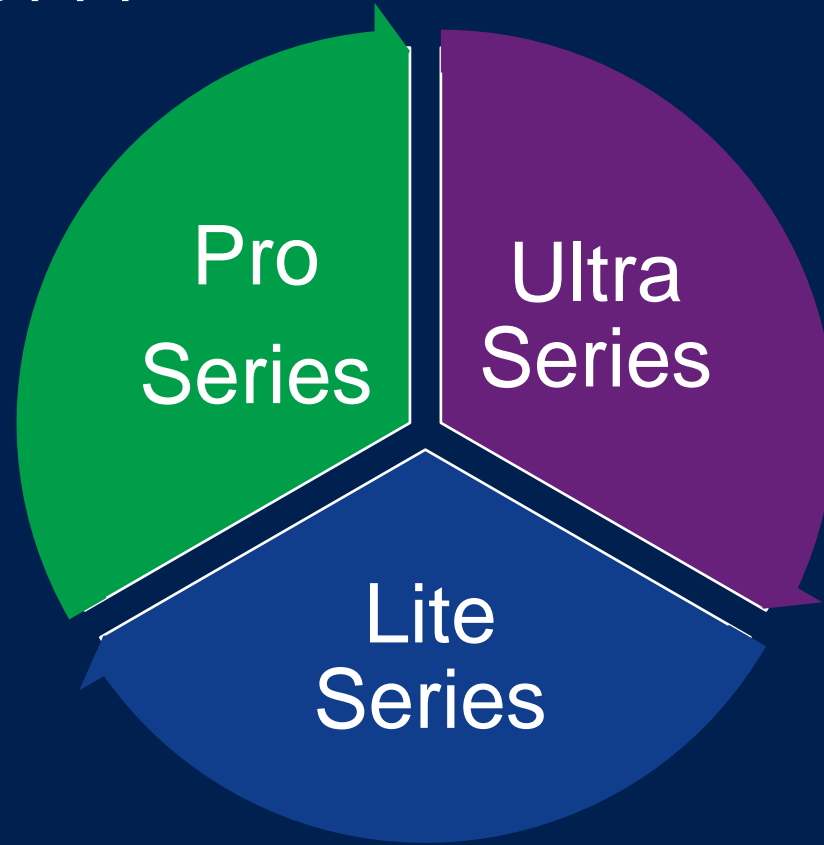
Overseas 2015.10



# Name Rule



# Product System



## Professional Series

- High competitive price-quality
- Basic intelligent feature
- High resolution(336\*256 /640\*512)

## Ultra Smart Series

- Competitive feature for project
- Hybrid product (visible and thermal)
- High light intelligent feature
- High resolution(336\*256 /640\*512)

## Lite Series

- Competitive price
- Low resolution(160\*120/80\*60)

# Ultra Smart Series

➔ *Hybrid PTZ*

➔ *Hybrid Speed Dome*



# Hybrid PTZ | Product Overview

## Hardware Highlights

- Long range detection up to 3km
- **Visible camera support 40X optical zoom**
- 360° continuous pan rotation

## Software Highlights

- **Two video output (side by side)**
- **IVS support :Auto-track /Hot resource detect & alarm**

## **/Intelligent track**

- **Support panoramic image**
- Temperature measurement functions(-T mode)

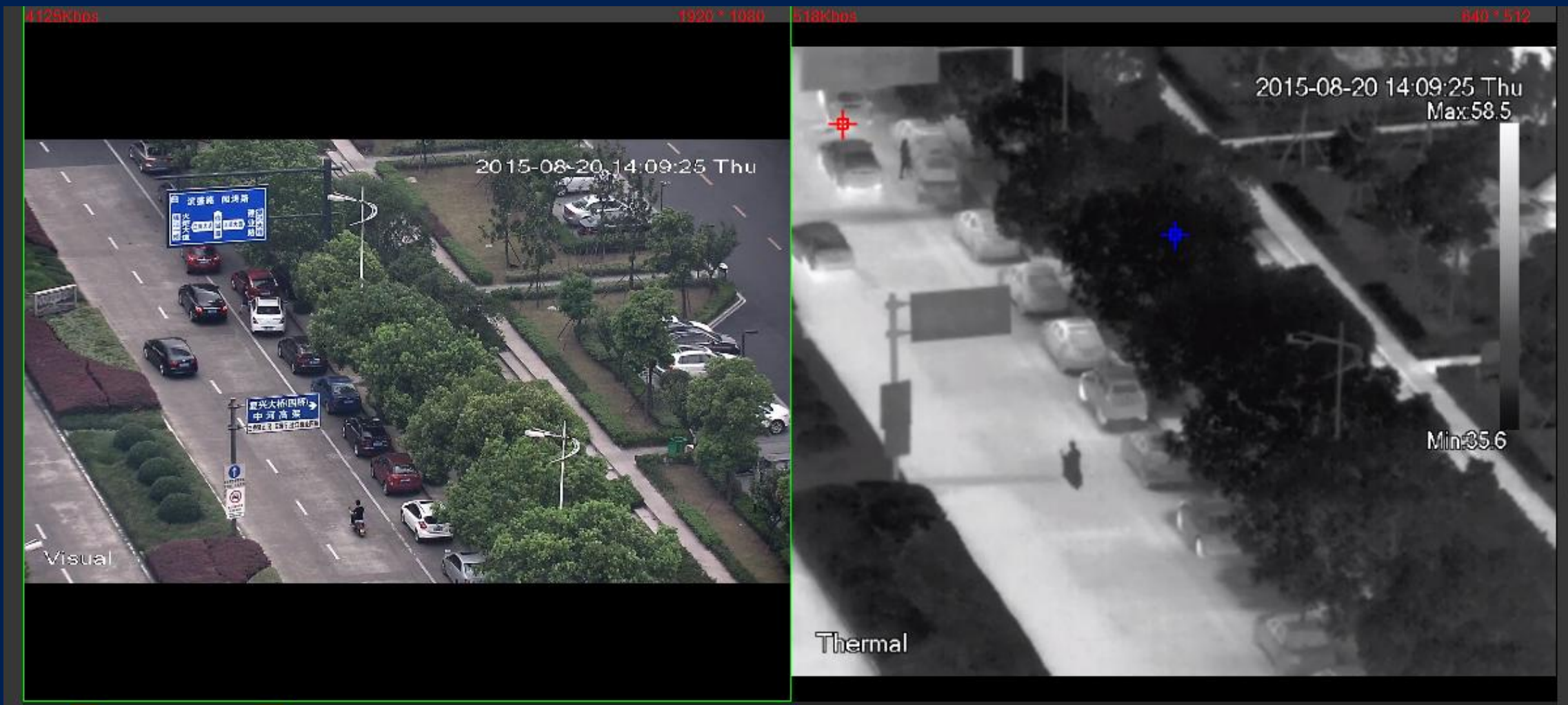


*TPC-PT8320(-T)*

*TPC-PT8620(-T)*

# Hybrid PTZ | Highlights

— *Side By Side*



*Output two stream video(thermal & visible) side by side*

# Hybrid PTZ | Highlights

## — *Panorama*



*Intuitive panoramic image, Convenient preset/tour operations*

# Hybrid PTZ | Highlights

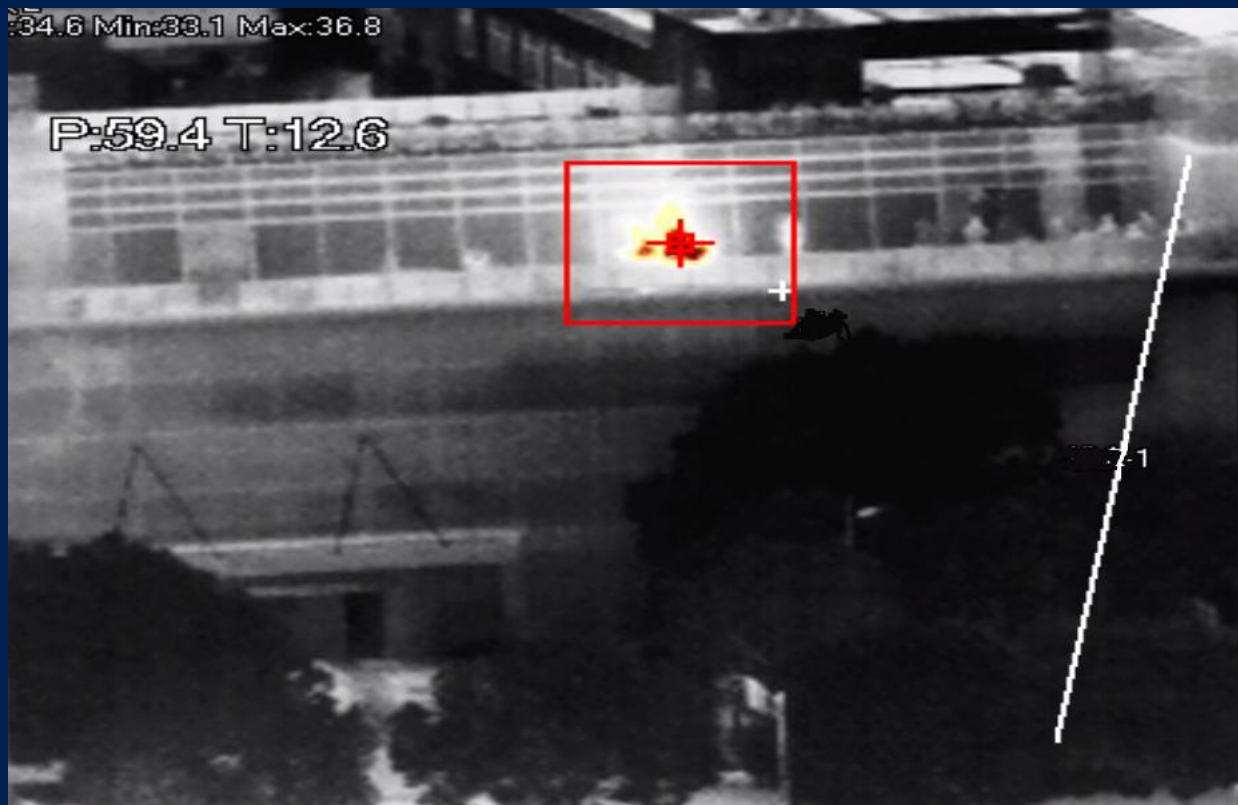
— *IVS and Auto-tracking*



*Intelligent monitoring, auto-tracking interested object*

# Hybrid PTZ | Highlights

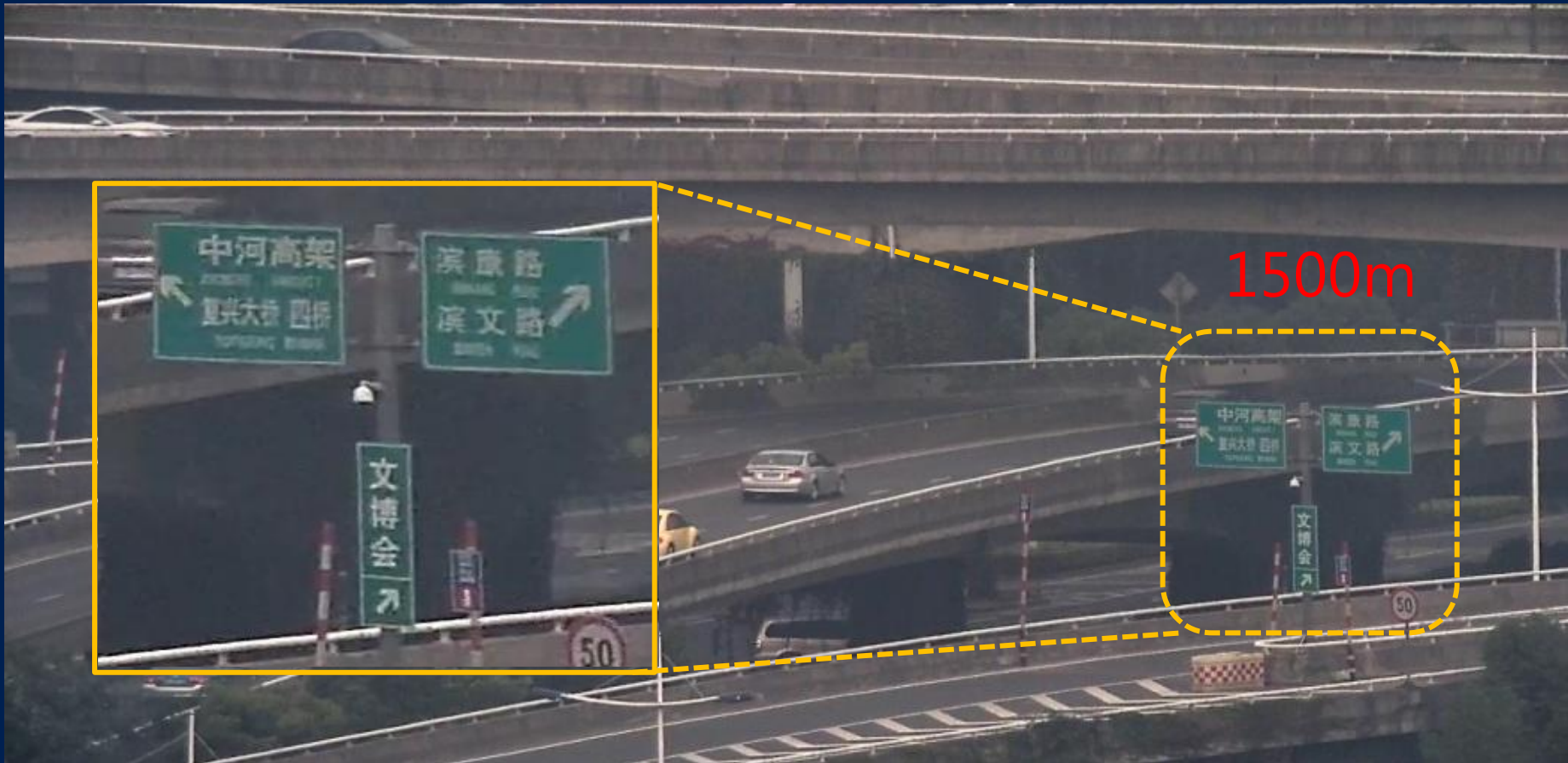
## — Hot Resource Detect & Alarm



*Auto detect hot resource(Fire) ,Trigger alarm if over threshold*

# Hybrid PTZ | Highlights

— *40X optical zoom*

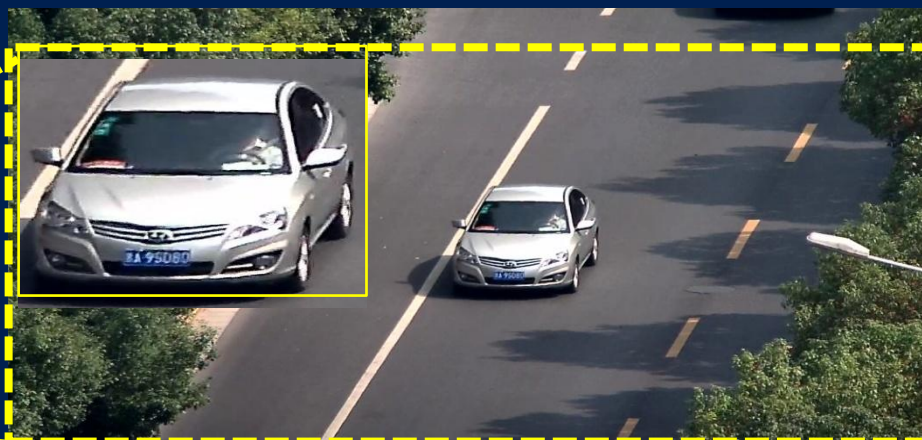


*40X optical zoom lens make sure you can get more details*

# Hybrid PTZ | Highlights

## — *Intelligent Track*

*Thermal camera detect interested object in a long distance then inform visible camera to confirm detail via optical zoom*



# Hybrid Speed Dome | Product Overview

## Hardware Highlights

- Long range detection up to 2km
- **1/1.8" Sony IMX185, excellent low-light performance**
- Visible camera support 30X optical zoom
- High pan&tilt speed

## Software Highlights

- Two videos output (side by side)
- IVS support :Tripwire /Intrusion /Auto-track /Hot track&alarm
- Temperature measurement functions(-T mode)



*TPC-SD8320(-T)*

*TPC-SD8620(-T)*

# Hybrid Speed Dome | Highlights

— *Ultra Low-light*



*Ordinary Camera*



*Starlight Camera*

# Ultra Smart Series | Product Value

- ③ Long range detection: Up to 3km
- ③ Powerful zoom lens: 40X(8mm~320mm)
- ③ Powerful intelligent function: Hot resource track&alarm /Auto-tracking



TPC-PT8320(-T)  
TPC-PT8620(-T)



TPC-SD8320(-T)  
TPC-SD8620(-T)

# Professional Series

➔ *Bullet*

➔ *Speed Dome*



# Professional Series | Product Overview

- High-quality detection
- IVS support: Tripwire /Intrusion /Object distinguish
- Tri-Mode for video output: IP /HD-CVI /Analog
- Multiple network monitoring: Web viewer, CMS(DSS/PSS)&DMS



*TPC-BF5300*  
*TPC-BF5600*



*TPC-SD5300*  
*TPC-SD5600*

# Professional Series | Product Overview

- Temperature measurement range:  $-40^{\circ}\text{C} \sim 550^{\circ}\text{C}$   
(accuracy:  $\pm 2^{\circ}\text{C}$ )
- Support spot /area /line radiometry
- Support temperature alarm
- IVS support :Tripwire /Intrusion /Perimeter protection /Object distinguish
- Tri-Mode for video output: IP /HD-CVI /Analog



*TPC-BF5300-T*  
*TPC-BF5600-T*



*TPC-SD5300-T*  
*TPC-SD5600-T*

# Professional Series | Highlights

## — *IVS and Auto-tracking*



1. *Trigger the rules*

2. *Track the target automatically*

# Professional Series | Highlights

## — *Object Distinguish*



*Detect interested object , distinguish between people and vehicle*

# Professional Series | Highlights

## — *Color Palettes*



*White Hot: High temperature shows the white color*  
*Black Hot: High temperature shows the black color*

# Professional Series | Highlights

## — *Color Palettes*



*Ironrow: High temperature shows the red color*

*Icefire: High temperature over threshold shows the red color*

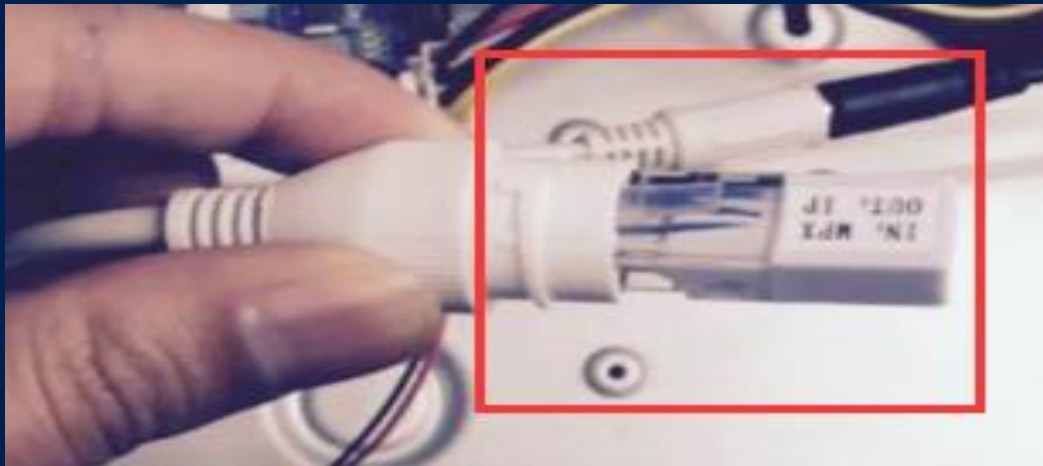
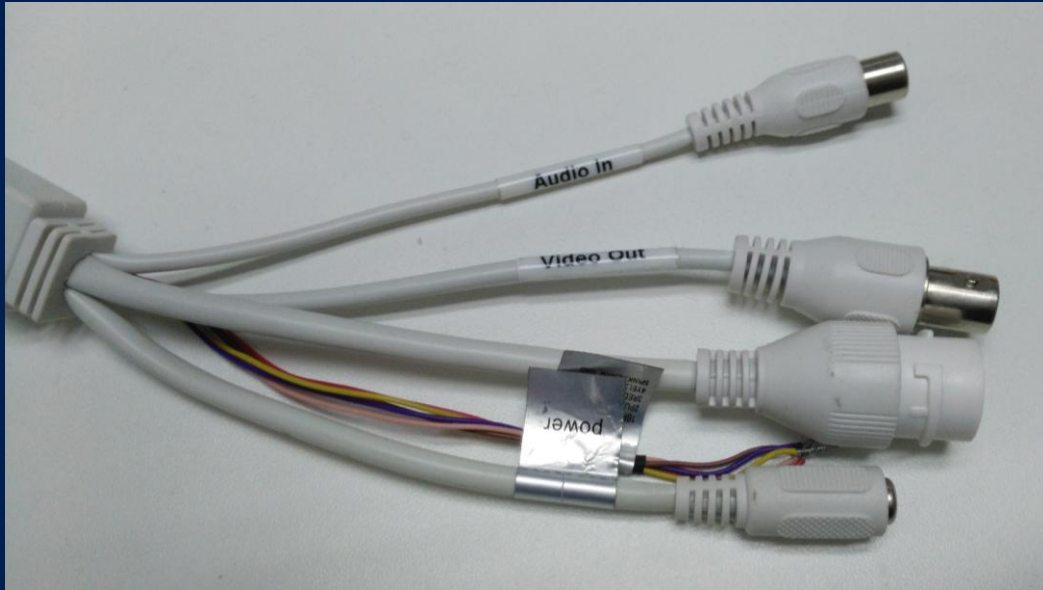
# Professional Series | Highlights

## — ROI Features

The screenshot displays a software interface for camera management. On the left is a navigation menu with categories: Camera, Conditions, Video, Audio, Network, Event, Storage, System, and Information. The 'Conditions' menu item is selected and highlighted in orange. The main area is titled 'Conditions' and features a central video feed showing a person wearing sunglasses and a headset. A yellow rectangular ROI (Region of Interest) is drawn over the person's face. The video feed includes a timestamp '2015-04-15 18:38:03' and the text 'TFC' in the bottom-left corner. Below the video feed are three buttons: 'Delete (Or Rightclick)', 'Indoor', 'Outdoor', and 'General'. To the right of the video feed is a control panel with several sliders and dropdown menus. The sliders are for Brightness (set to 50), Sharpness (set to 10), Gamma (set to 3), EZoom (set to 0), and Smart Scene (set to 15). The 'Colorization' dropdown is set to 'White Hot'. The 'ROI Type' dropdown is open, showing options: Center 25%, Center 50%, Center 75%, Custom (highlighted in blue), Full Screen, Ground, Horizon, and Sky. Below the ROI Type dropdown, there are labels for 'DEVICE INFORMATION', 'SERIAL NUMBER', 'SOFTWARE VERSION', and 'FIRMWARE VERSION', each followed by a blank space.

*Make the important region (customed) has better image quality*

# Professional Series | Highlights



## — *Tri-mode Output*

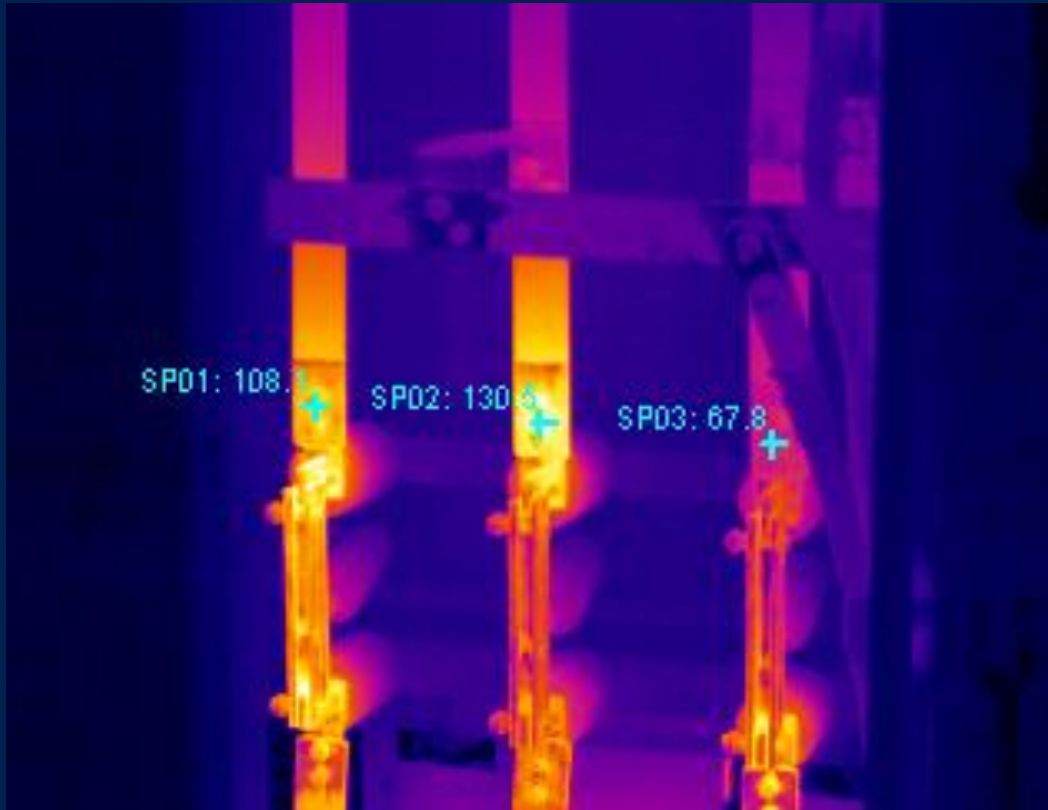
*Default video output:*

*IP+Analog*

*Insert a connector into RJ45 port when power up, video output will change to **HD-CVI** mode.*

# Professional Series | Highlights

— *Measurement Range*



*Temperature Measurement Range:*

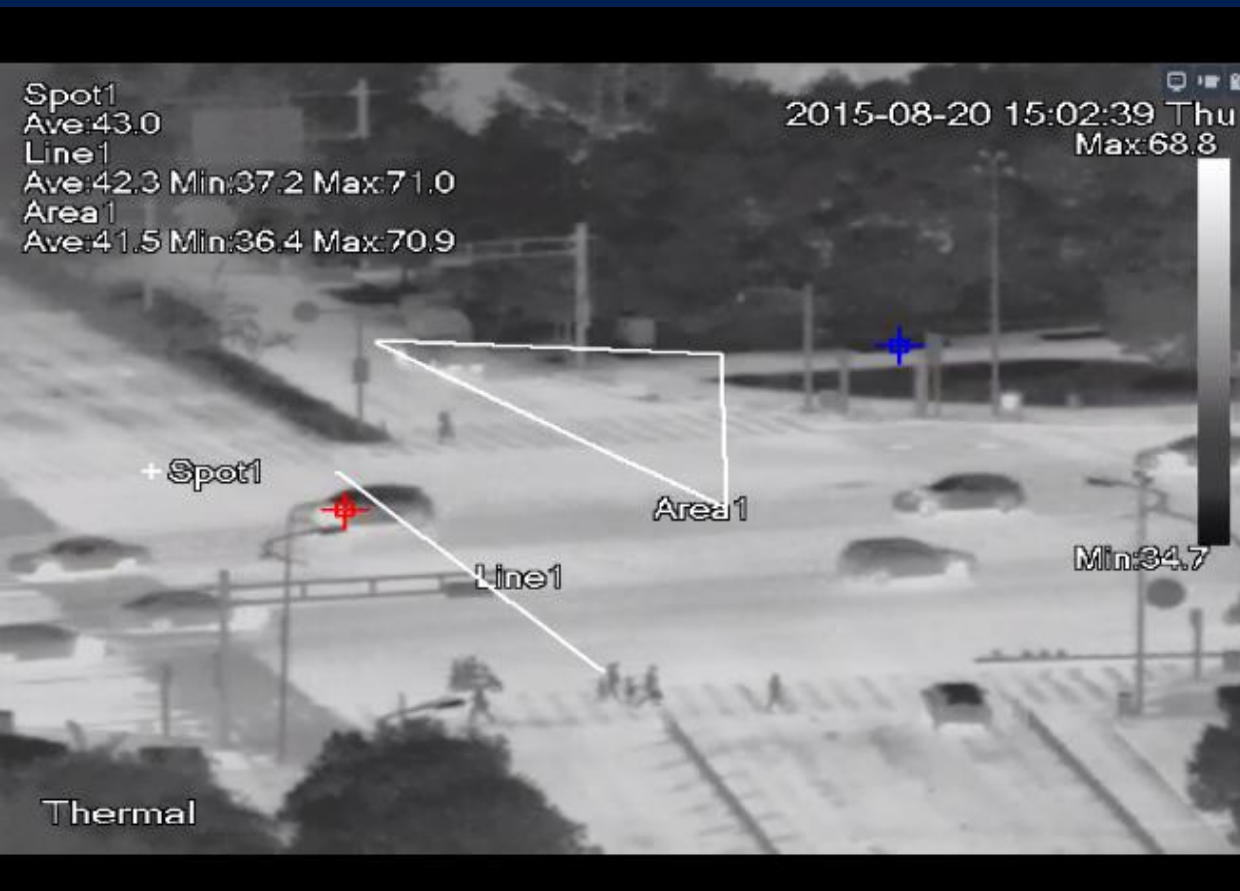
*Low Gain Mode:  $-40^{\circ}\text{C} \sim +550^{\circ}\text{C}$*

*High Gain Mode:  $-40^{\circ}\text{C} \sim +160^{\circ}\text{C}$*

*Accuracy: Max ( $\pm 2^{\circ}\text{C}$ ,  $\pm 2\%$ )*

# Professional Series | Highlights

## — *Measurement Mode*



*Temperature measurement mode:  
Spot /Line /Area  
Support 8 rules simultaneously  
Support Mouse-Click to show  
temperature*

# Professional Series | Highlights

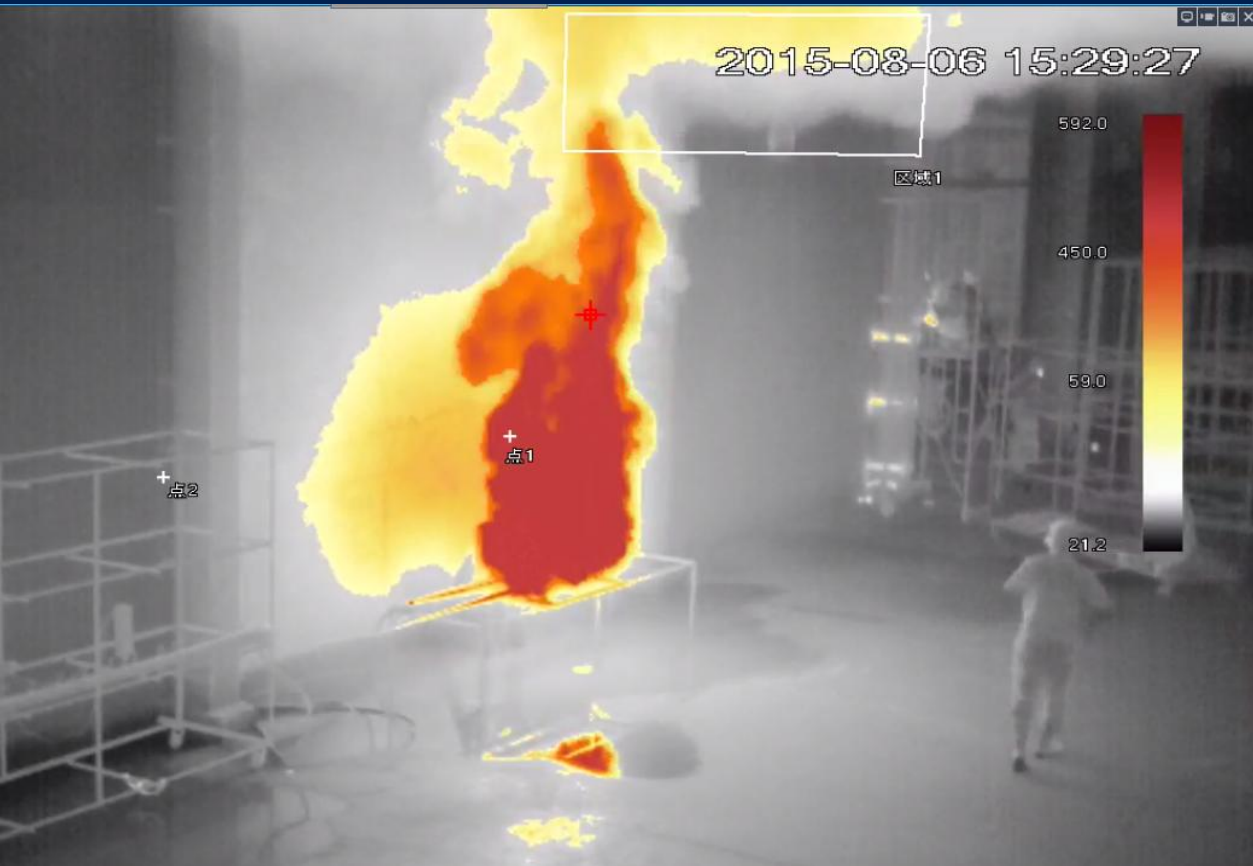
## — *Temperature Alarm*



- 1. Temperature over threshold will trigger alarm*
- 2. Auto-track the hot & cold points*

# Professional Series | Highlights

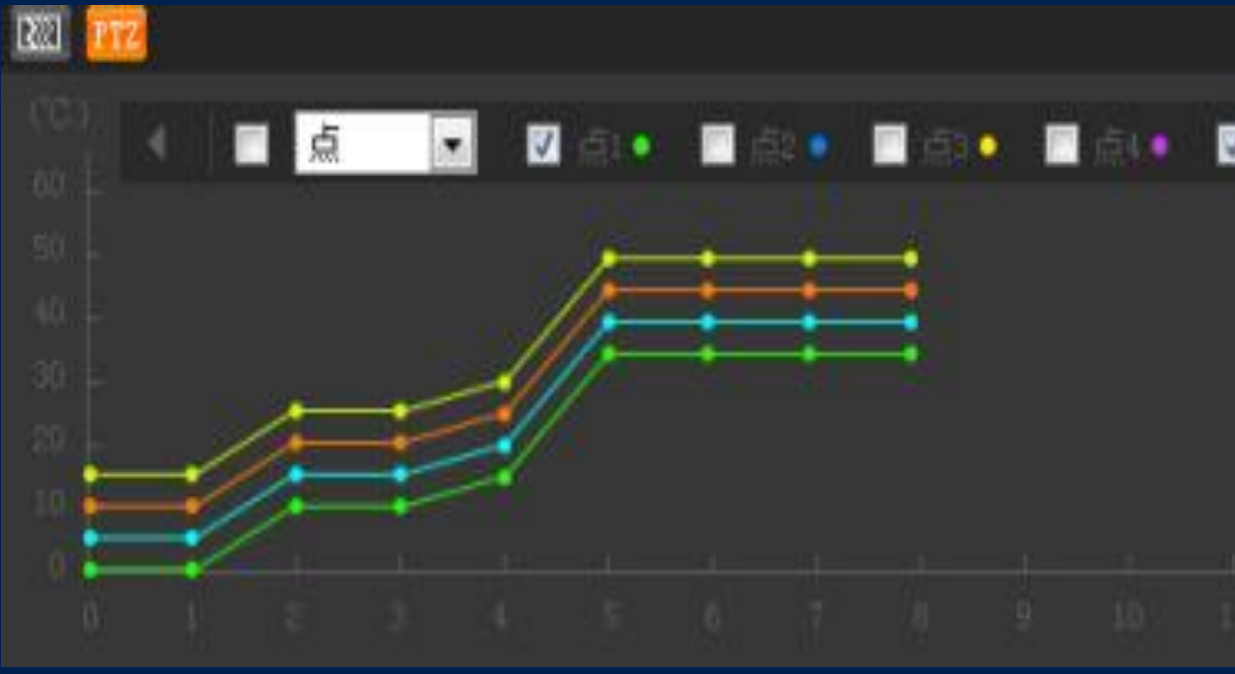
— *Isothermal line*



*Use isothermal to know the approximate temperature of object in the video*

# Professional Series | Highlights

## — *Temperature Report*



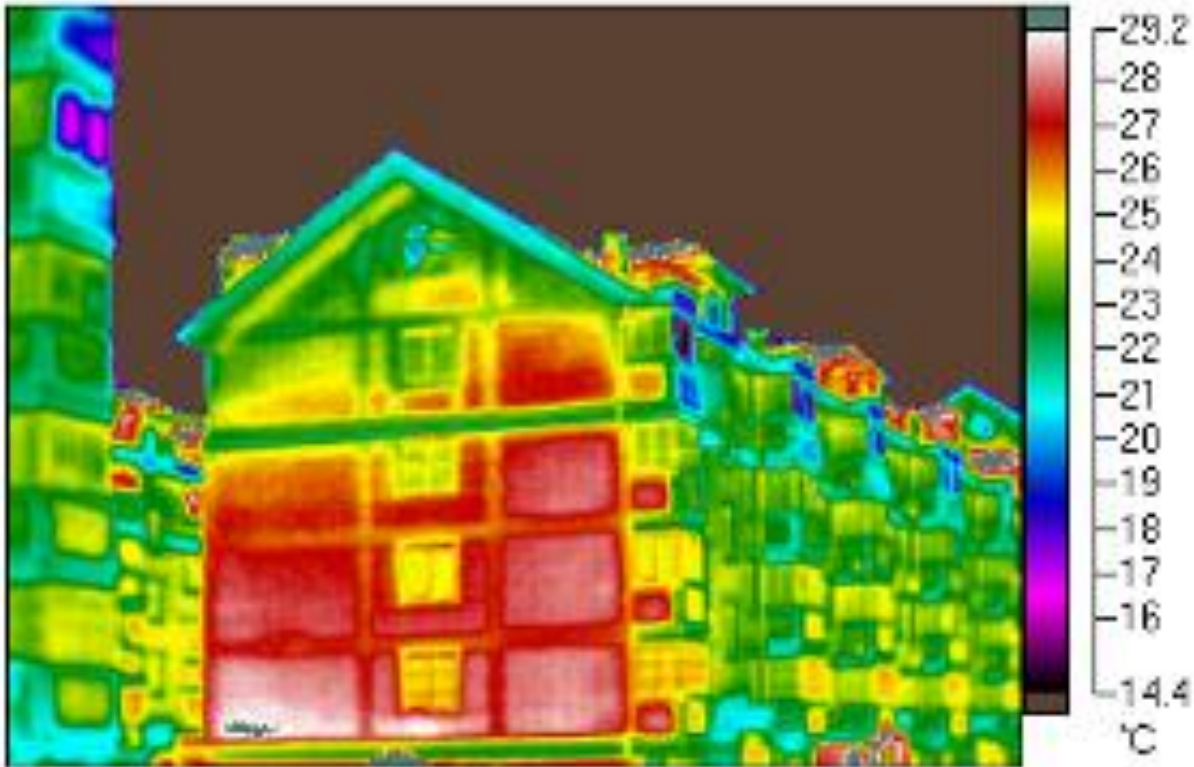
*Show the temperature lively,  
make people know the change  
trend*

*Output report of temperature  
change for certain period, help  
to analysis*



# Professional Series | Highlights

## — *Radiometric Picture*



*Output radiometric picture contain temperature information, help to do analysis in the picture directly*

# Professional Series | Product Value

- ➔ High quality detection
- ➔ Temperature measurement function(-T mode)
- ➔ Basic intelligent function: Tripwire /Intrusion /Object distinguish



*TPC-BF5300(-T)*  
*TPC-PT5600(-T)*



*TPC-SD5300(-T)*  
*TPC-SD5600(-T)*

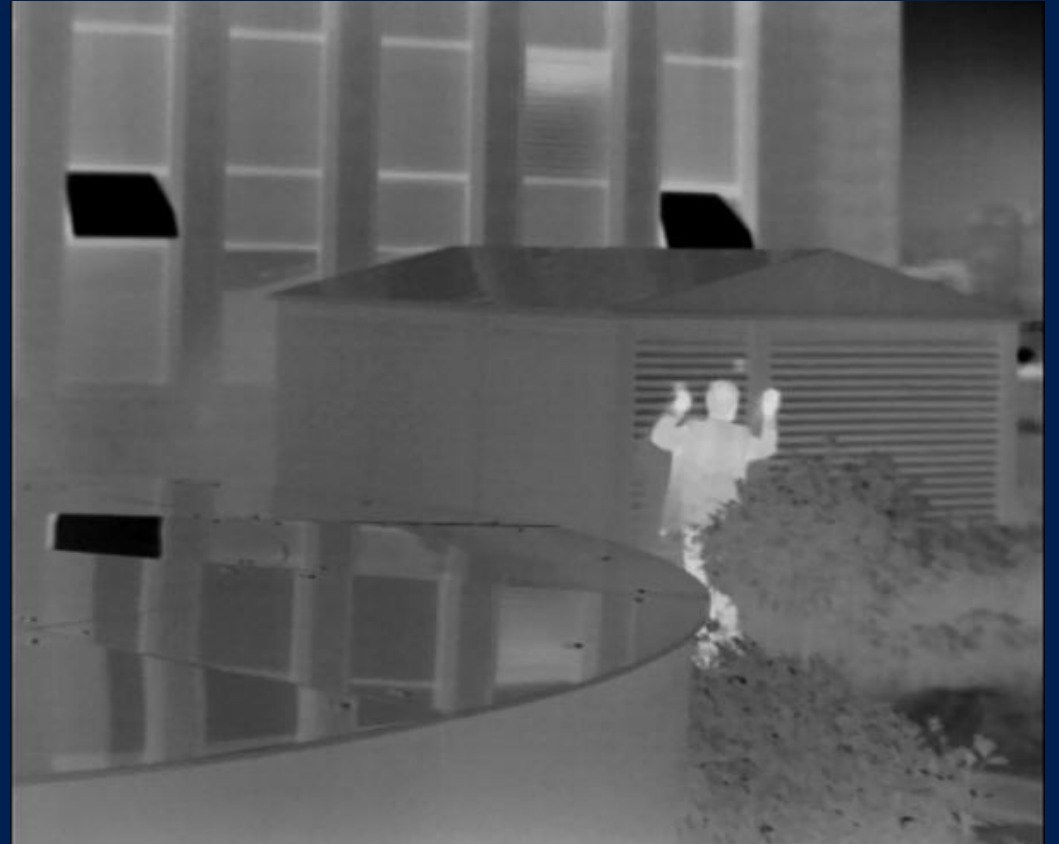
**Thermal Camera**

**VS**

**Visible Camera**

# Thermal camera | Highlights

— *Super Low-Light*



*See clearly in total darkness, do not need any additional light source*

# Thermal camera | Highlights

— *Strong light restrain*



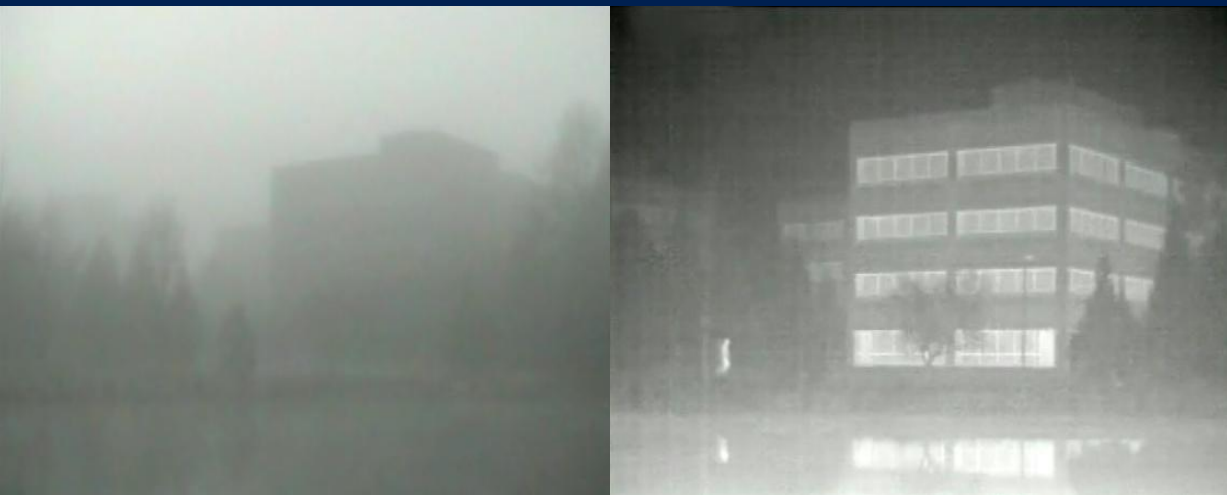
*Will not be blinded by strong light*

# Thermal camera | Highlights

— *Work in all conditions*



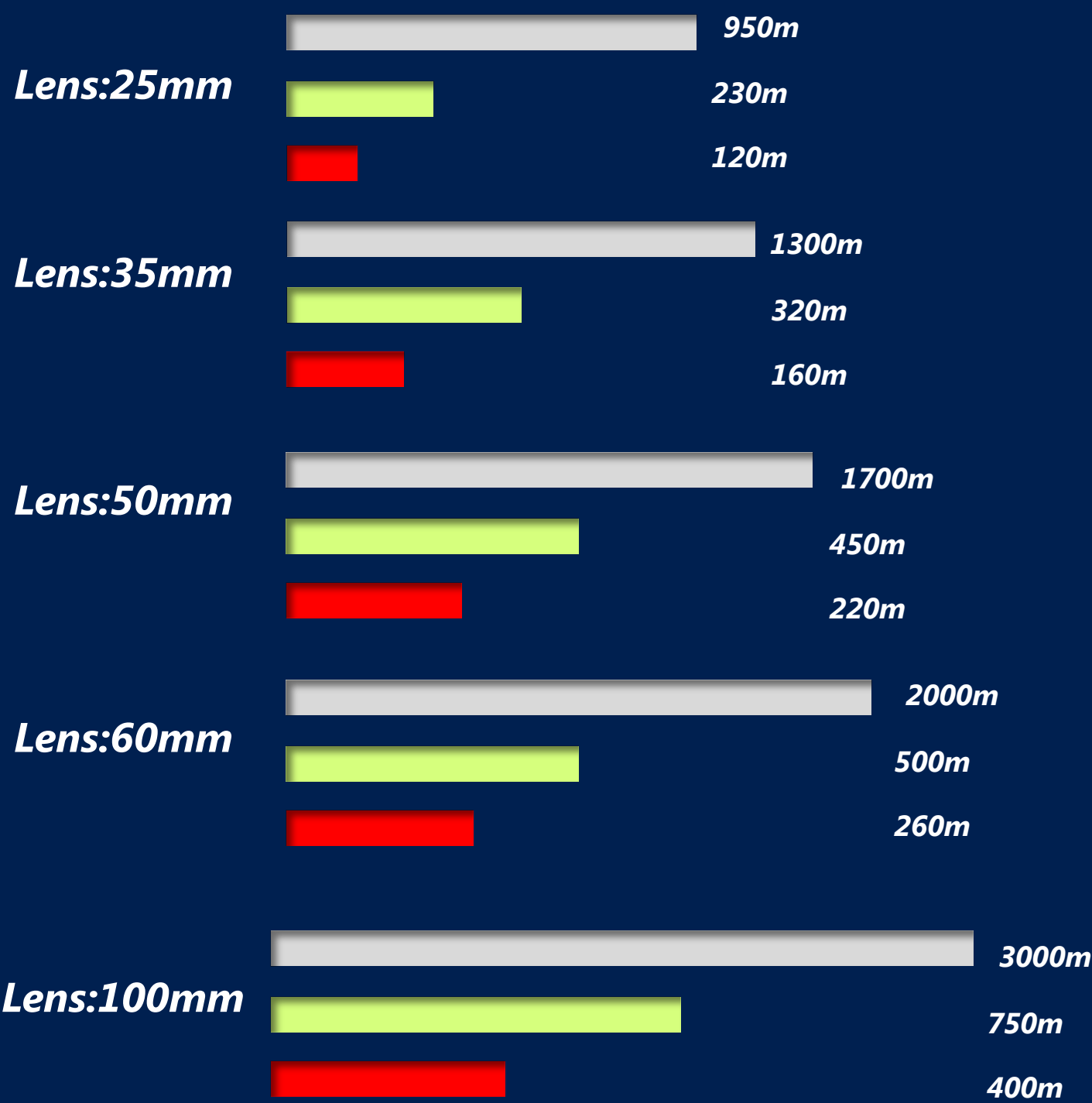
*Work under harsh environments  
Including Smoke /Fog /Dust*

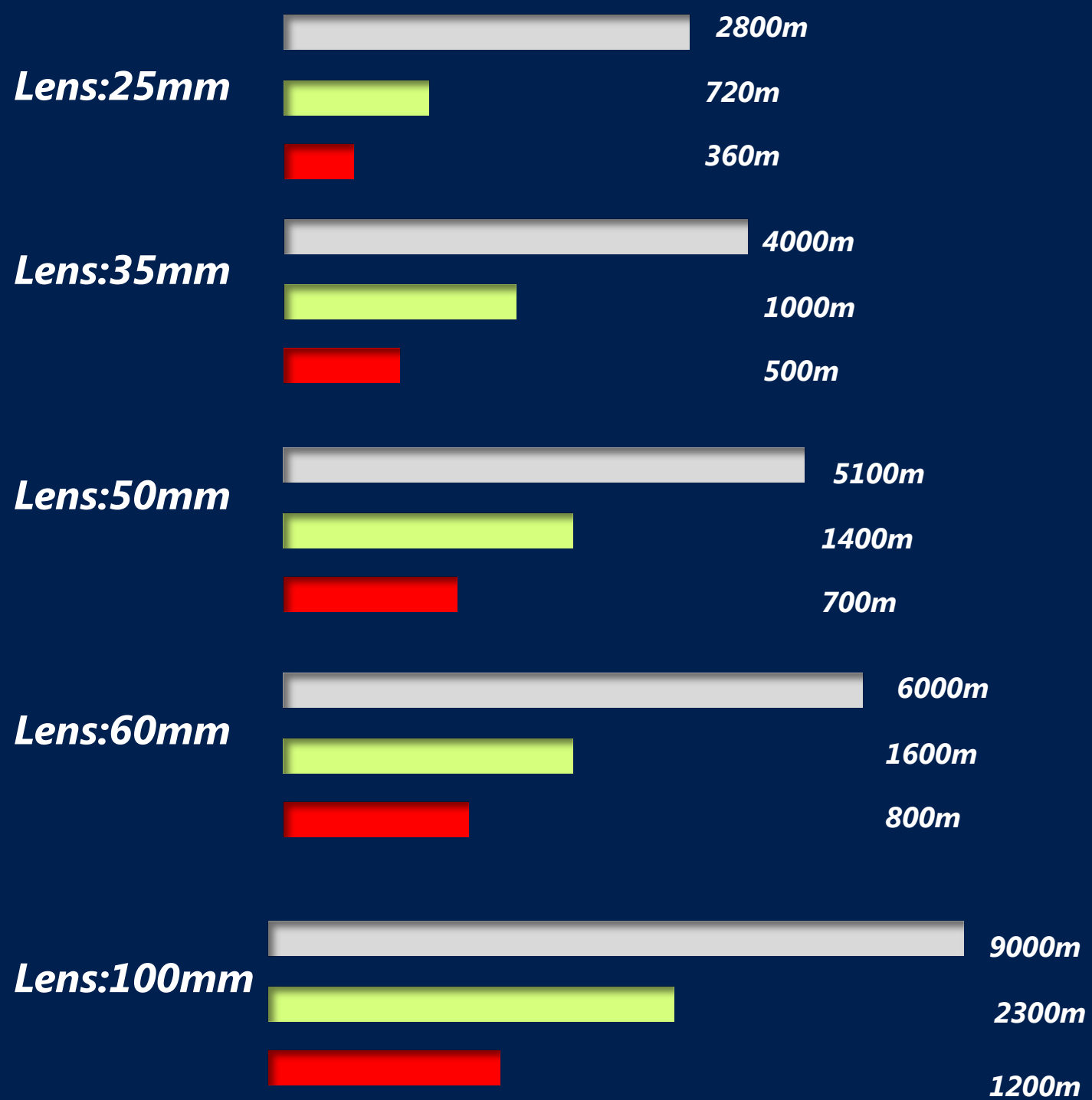
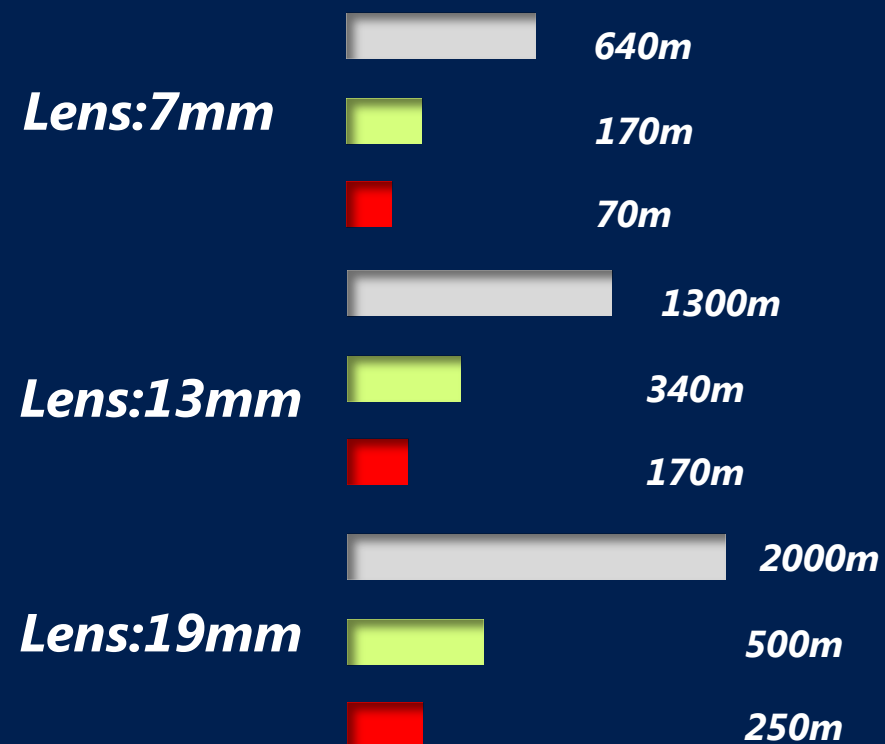


# Thermal camera | Highlights

— *Detect ability*

	Visible Camera	Thermal Camera
<b>Identification</b>	★ ★ ★ ★ ★	★
<b>Detection in daylight</b>	★ ★ ★ ★	★ ★ ★ ★ ★
<b>Detection at night</b>	★ ★	★ ★ ★ ★ ★
<b>Detection in harsh environments</b>	★ ★	★ ★ ★ ★





# Thermal camera | Highlights

— *Temperature*



*Non-touch temperature measurement ,output temperature alarm in time to prevent losses*

# Thermal camera | Highlights

— *Intelligent features*



*Ideal for IVS, offer higher accuracy in analytics than visible camera*

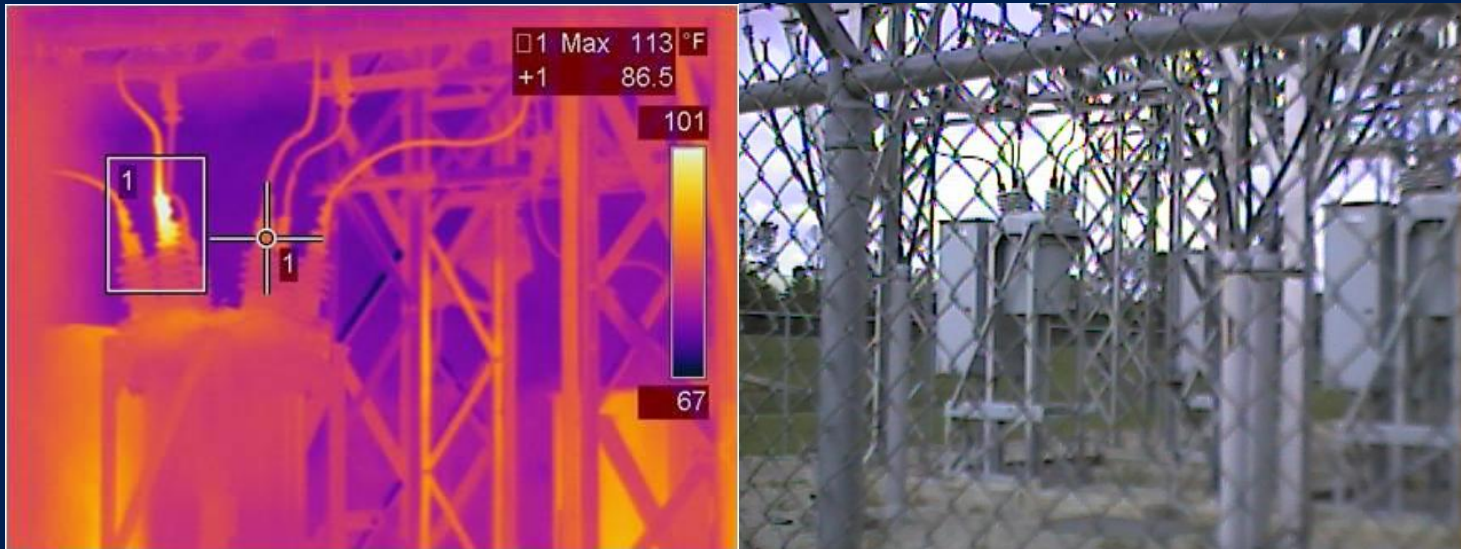
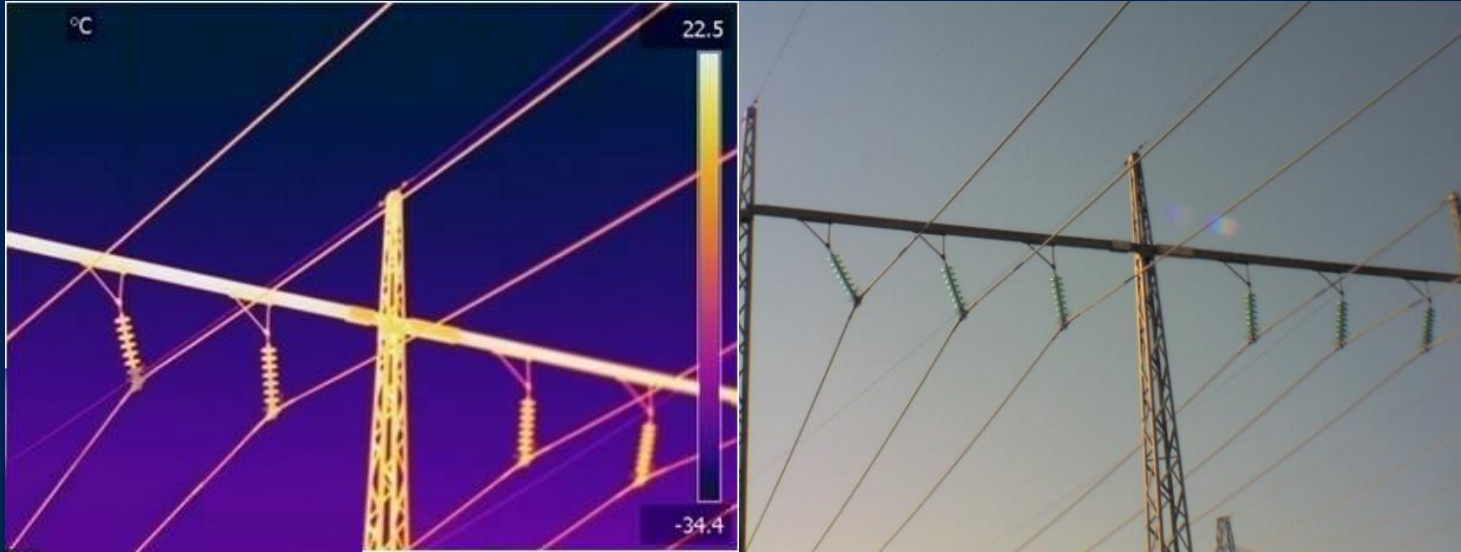
# Typical Application

# Perimeter Defense



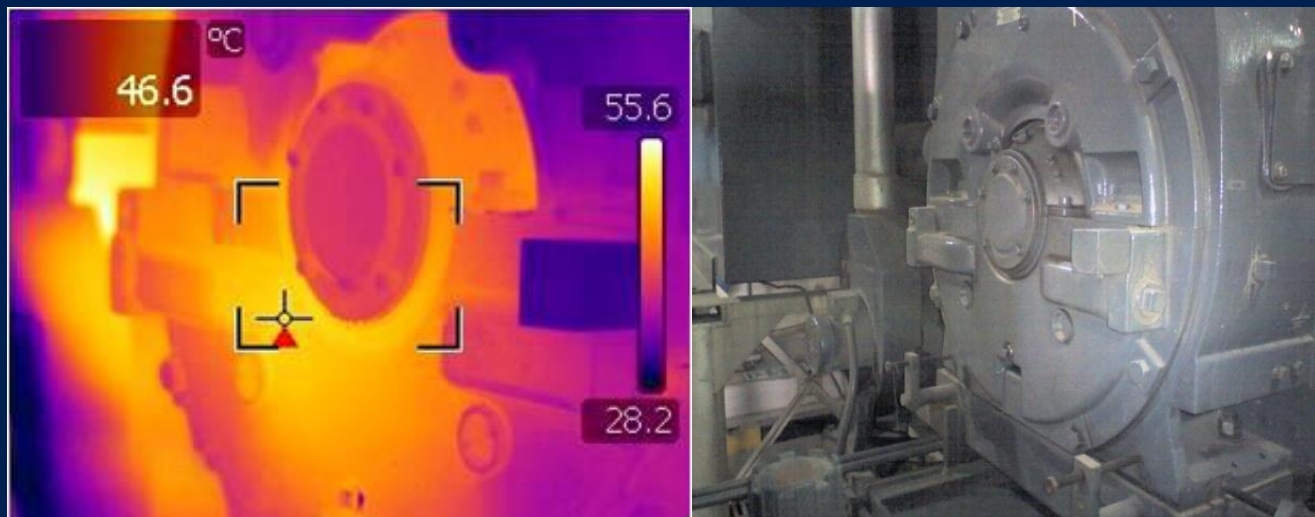
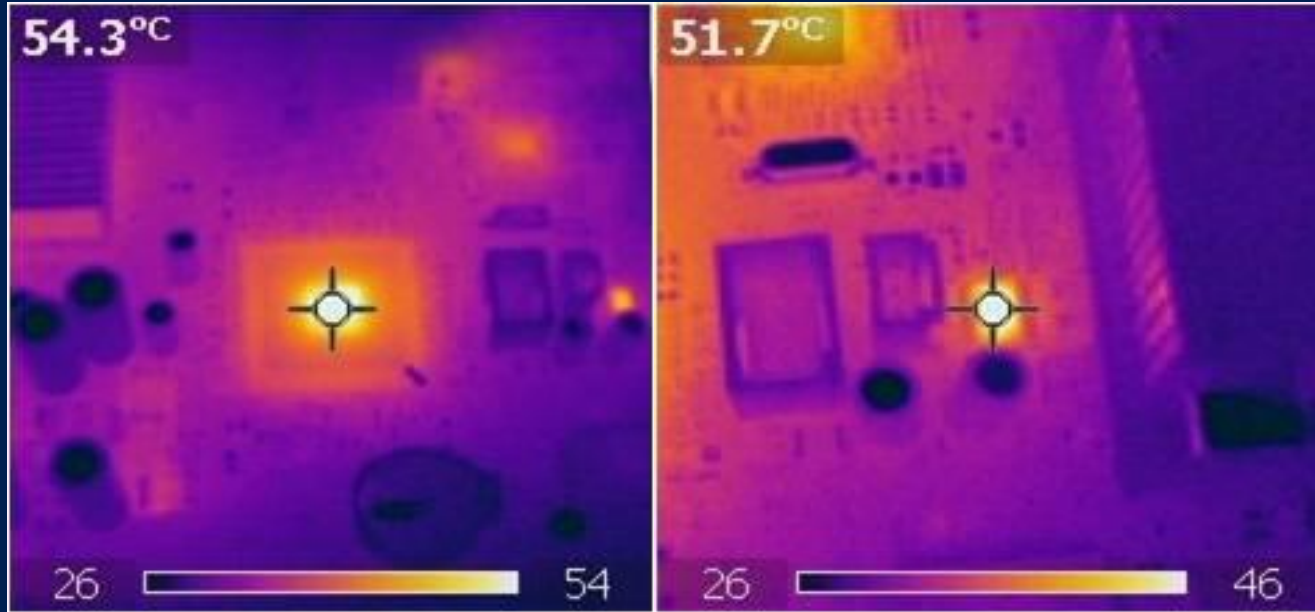
*Short, mid and long-range /Virtual perimeters /Video analytics*

# Electric Industry



*Isolated, often unmanned  
Remote monitor  
No lighting*

# Manufacture & Automation



*Power dissipation analysis  
Overheat problem*

# Forest-fire Prevention



*Detect fire with a long distance, Over temperature alarm in time*

# Residential Security



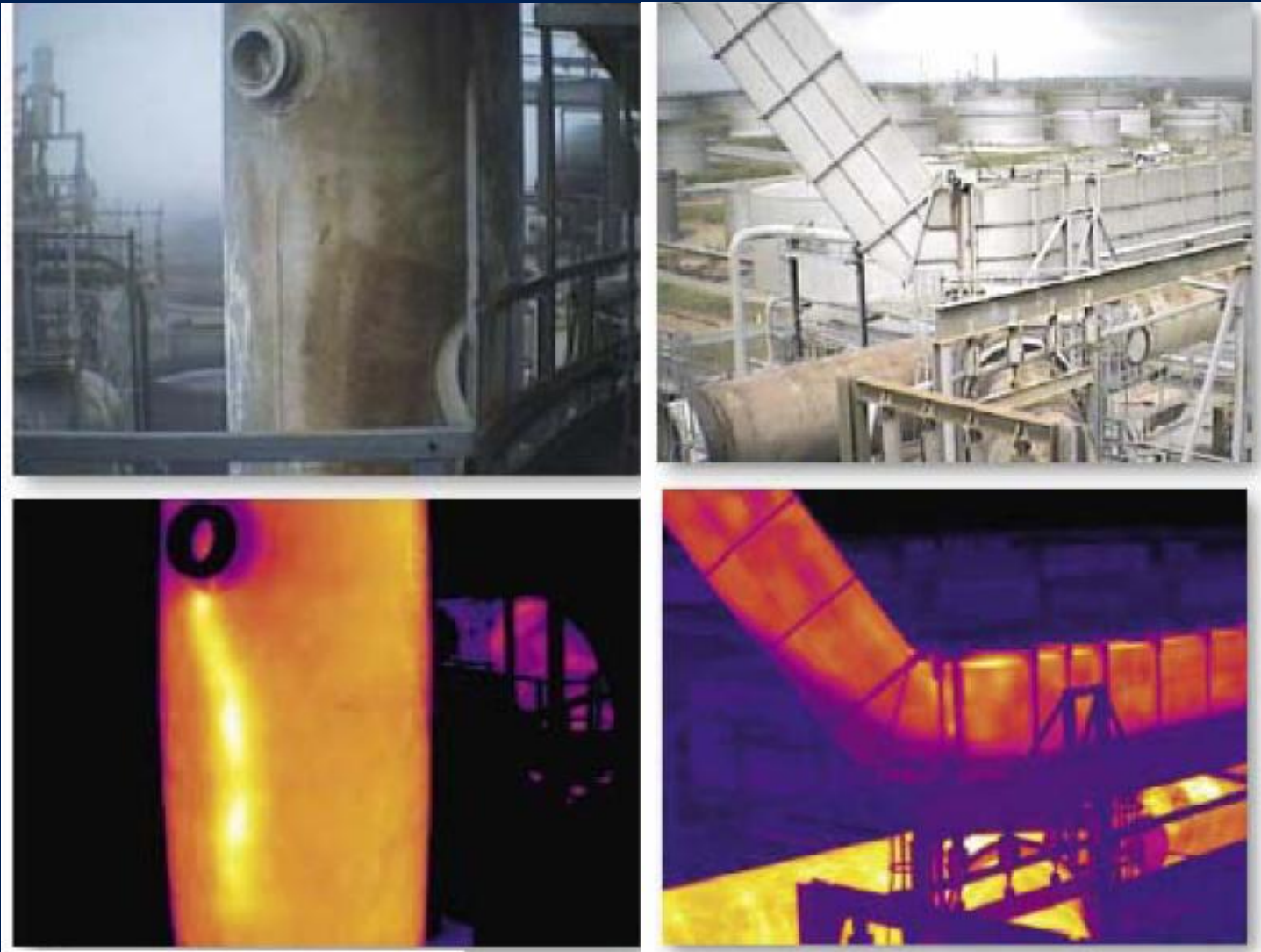
*Non-obtrusive solution  
Light pollution concerns  
Maintains privacy*

# Border & Coastal Surveillance



*Bays, Ports, Docks  
Lighting is impossible  
Long range monitor*

# Energy Industry



*Pipeline leak with gas /oil  
Pipeline plug detect*

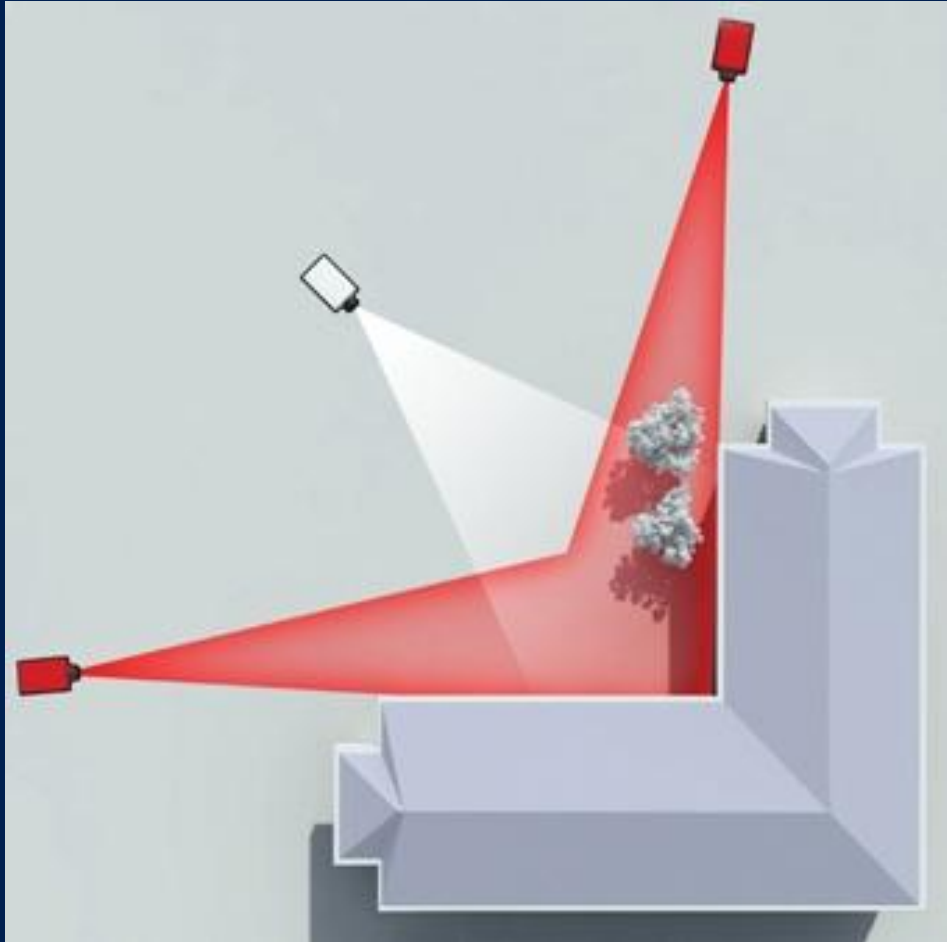
# Transportation Industry



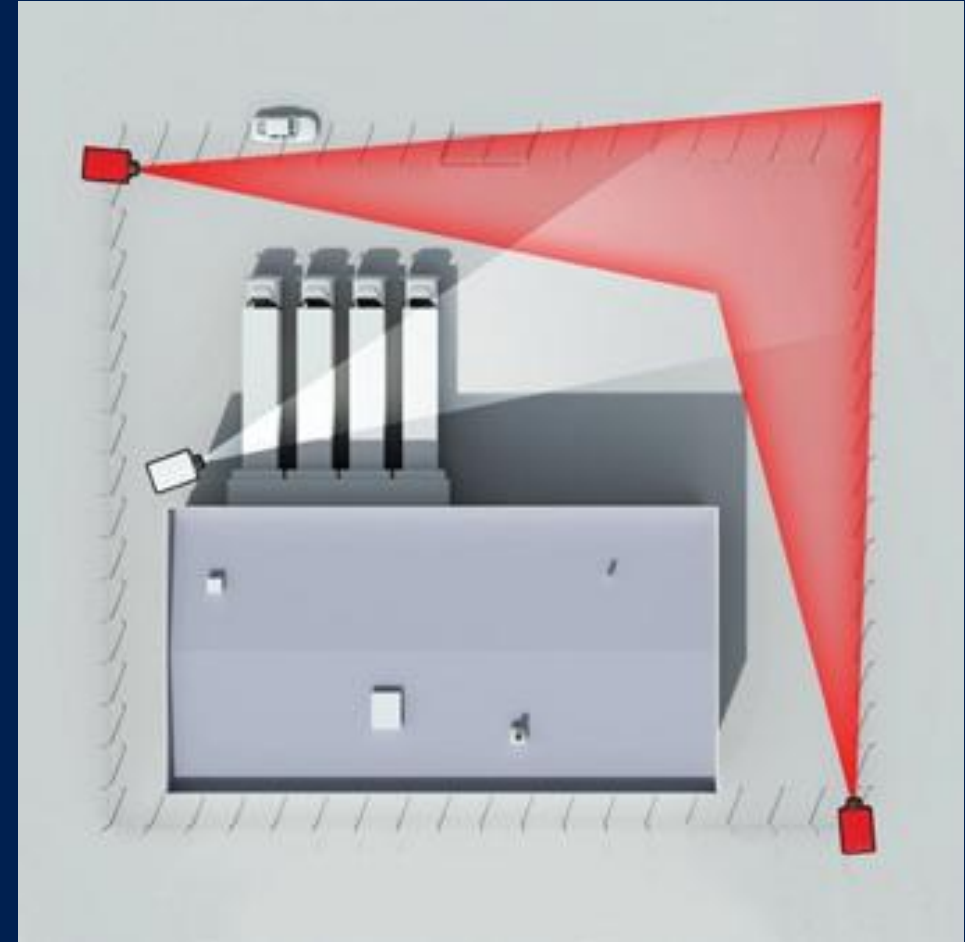
*Flow detect (vehicle/man)  
Monitor 24 hours in all  
conditions*

# Project Information

# User scenarios



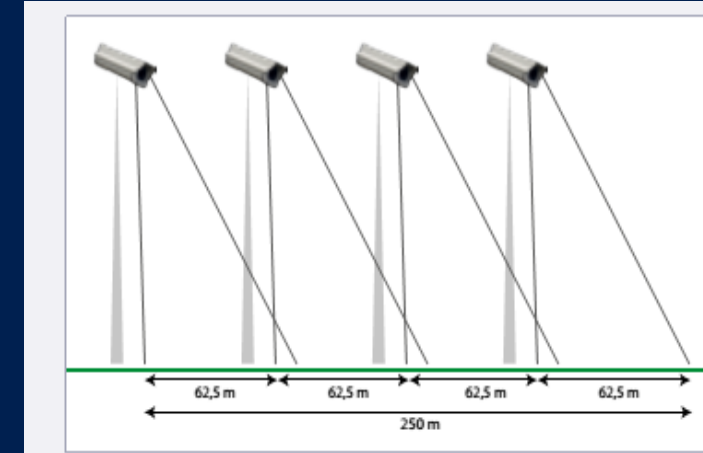
*Area Protection*



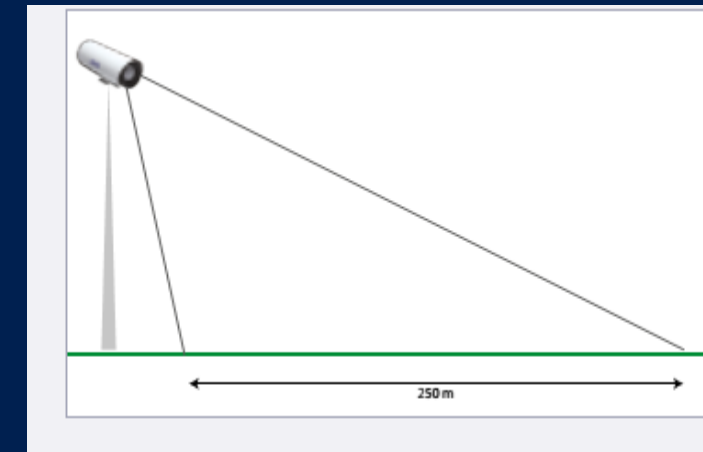
*Perimeter Protection*

# Cost of project (for reference only)

Visible Camera	Quantity	Unit Cost	Total Cost
IP Camera	4	200	800
Pole Mount	4	500	2000
NVR	1	700	700
Monitor	1	1000	1000
Manpower	1	400	400
		<b>Total</b>	<b>4900</b>



Thermal Camera	Quantity	Unit Cost	Total Cost
Thermal Camera	1	2000	2000
Pole Mount	1	500	500
NVR	1	700	700
Monitor	1	1000	1000
Manpower	1	100	100
		<b>Total</b>	<b>4300</b>



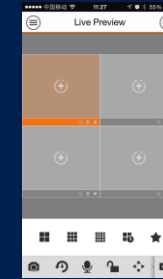
# Backend Support



NVR608-64-4K(2U)  
NVR616-128-4K(3U)



HCVR7816S

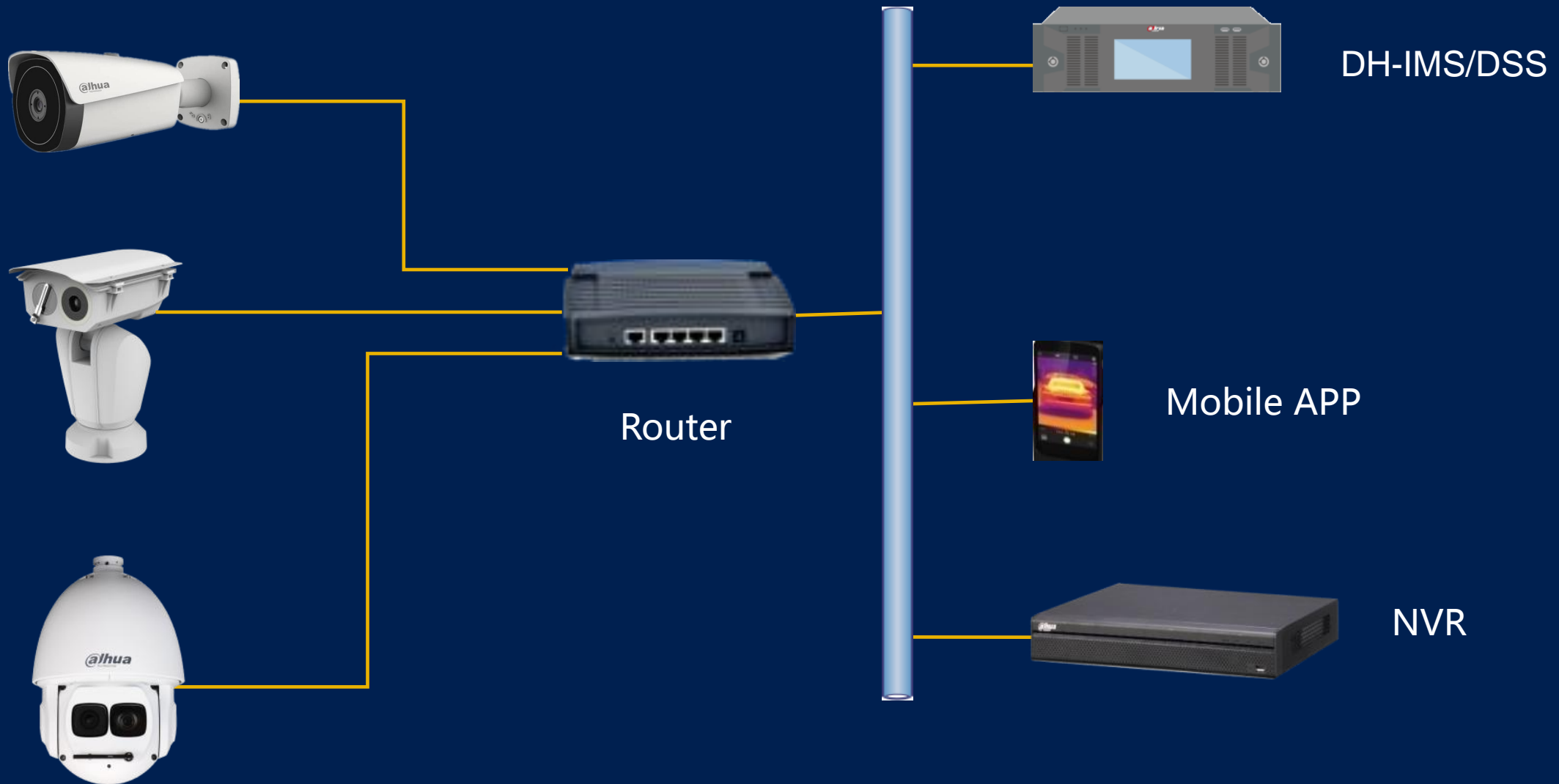


i/gDMSS  
(Version 3.40)



SmartPSS  
(Version 1.12.4)

# Industry Solution



Thank you!