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## PT Cameras

# 3 Series Network Cameras

## Professional Performance & Features

- Features in blue color only available on 3xx6G2 (H) and 3xx6G2H series

### Powerful Video Perception & Analysis

- Built in with 4 types of AI algorithms
- Self-Learning Analytics (Learn-by-Examples Mode)
- HEOP third-party integration
- Support AcuSearch when working with NVR



### Excellent Low Light Performance

- DarkFighterS F1.0 lens, 1/1.8" sensor and smart hybrid light on selected models



### Professional Video Security Performance

- Rich product offerings and form factors
- 4K, 60fps, long-focal range models available
- Reliable network security protection
- Excellent video performance



### Energy Saving and Eco-friendly

- Eco-friendly packaging
- Low power mode

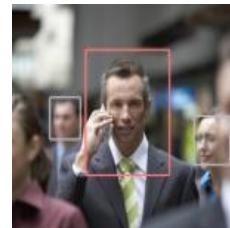


# 4 Types of Switchable AI

## Powerful Video Perception & Analysis

### Accurate Detection and Fast Face Capture

- Maximum detection number: 30 persons/ frame
- Capture speed: 16 pictures / frame



### Perimeter Protection Focus on Person and Vehicle

- Improved efficiency and reduced cost based on precise person and vehicle alarms



### Counts People Crossing the Line



- Counting people entering and leaving
- Suitable for Entrance & Exits in malls, stores and hotels

### Counts People Remaining in a Region



- Support detecting up to 128 persons
- Get early warning of potential safety risk

# Learn-by-Examples Mode

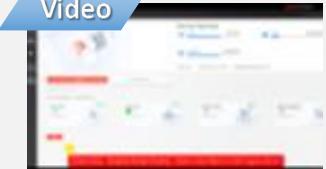
## Improve Accuracy with User Feedbacks

### Learn-by-Examples Mode

Only available on DS-2CD3xx6G2H  
and DS-2CD3xx6G2 (H)

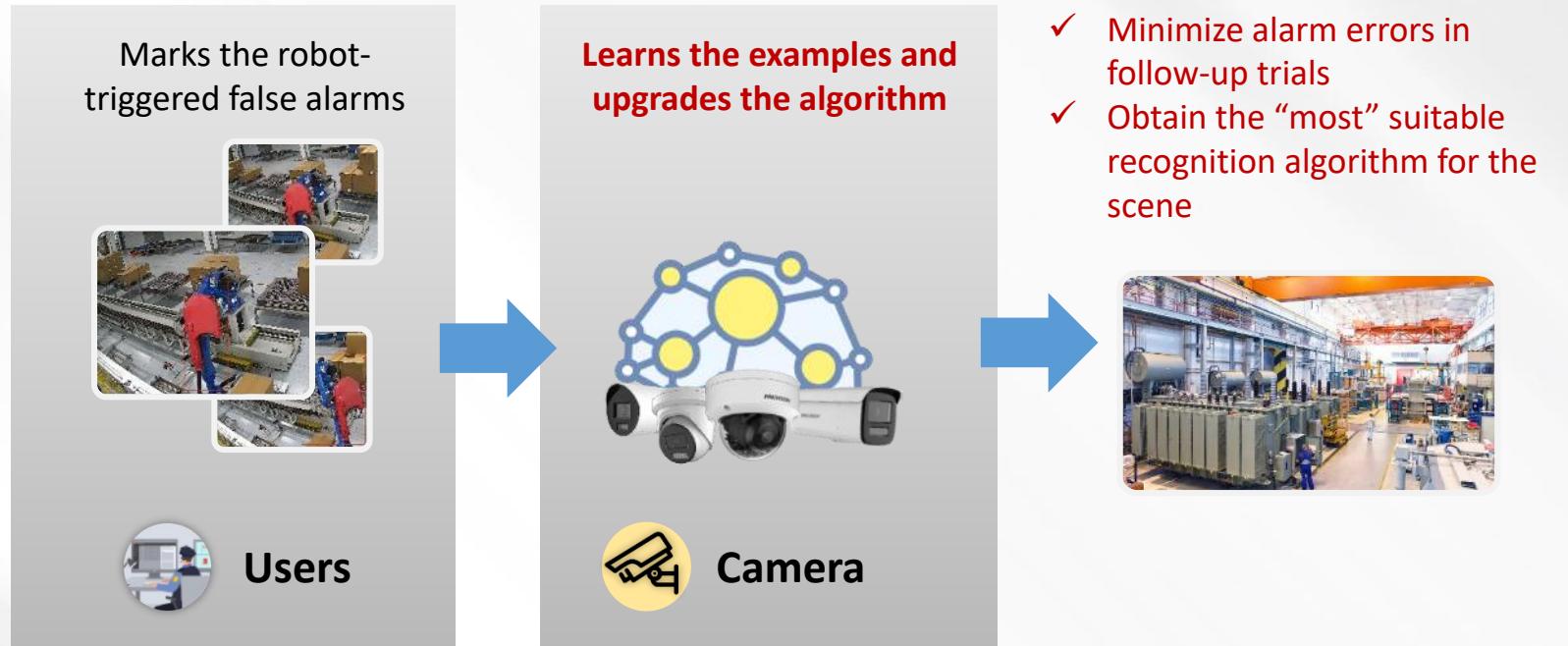
- Learning with feedback from users on alarm triggers
- Reducing false alarms from confusing objects in the field

Video



#### Work flow example

- **Scenario:** Smart Manufacturing
- **Application:** Perimeter Protection
- **Requirements:** When a robot and a person appear at the same time, the robot arm will stop working to protect human safety
- **Pain point:** The robot itself is repeatedly misrecognized by the camera's algorithm as a person and thus stops working.



# Explore More Features from HEOP Platform



## Fewer Costs

No need to purchase a new camera



## Higher Stability

Supported by high-performance hardware  
(1.5 Tops computing power, 2 GB embedded MultiMediaCard, etc.)



## Higher Adaptability

Meet end users' expectations in varied business scenarios

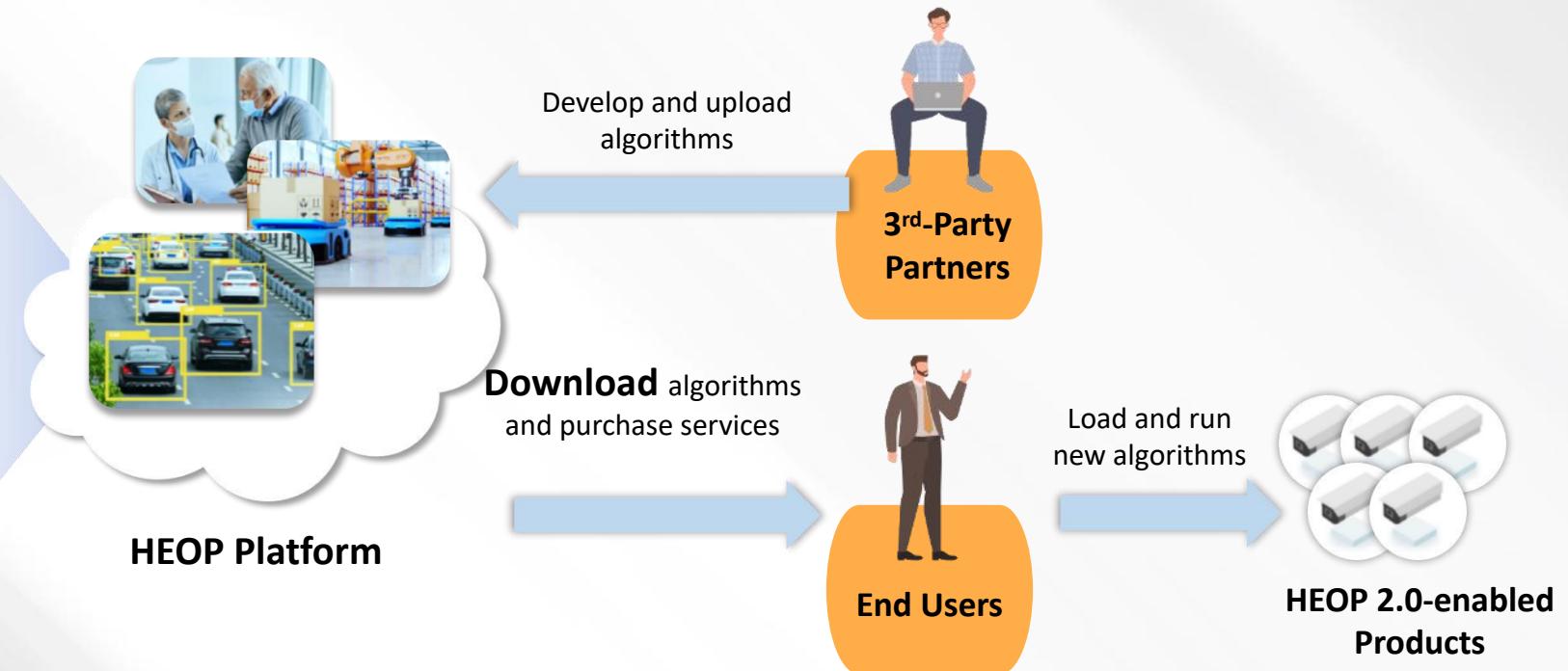
## What is HEOP?

HEOP enables technology partners to develop and run their own applications on Hikvision's hardware to suit the specific needs and unique installation scenarios of customers.

HEOP facilitates partners to deploy proprietary deep-learning algorithms on Hikvision's edge devices, providing more intelligent and tailored applications for end users.

Partners can easily join the HEOP ecosystem through Hikvision's Technology Partner Portal (TPP)

## How to Implement unique business functions from HEOP Platform?



# New: IPC connect with NVR for AcuSearch

Powerful Post-event Evidencing, Quick to Find Person of Interest / Vehicle of Interest

**AcuSense**  
Technology



Camera with AcuSense and selected NVR models working together for more efficient and intelligent record search. Refer to the table below for details.

NVR	Firmware	Features
DeepinMind M Series	V5.0.1	1+2
M Series	V5.0.1	1
I Series with AcuSense	V5.0.1	1+2
K Series with AcuSense	V4.76.000 V4.77.000	1 1+2

Camera	Firmware	Status
3xx3 series	V5.8.0	Released
3xx6G2 (H) version	V5.7.52	Released
3xx6G2H series	V5.7.52	Released
3xx7 series	V5.8.0	Released

## Feature 1: Smart Search

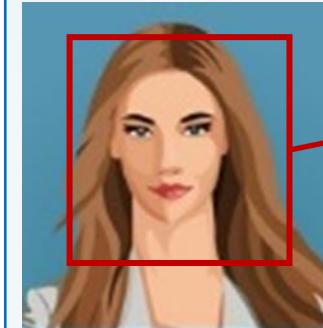
Draw a rule during video playback, can be either cross-line rule or region rule



Human/vehicle records of interest display with highlight color on the video timeline



## Feature 2: AcuSearch



Select a human target of interest, and automatically find all related video clips.



Users can search by local captured or external-imported picture

# Smart Hybrid Light

Flexible Lighting based on Actual Needs

3xx6G2H Only!



White and IR Lights

## 3 Flexible Lighting Modes

- White Light Mode
- IR Mode
- Smart Mode



## Smart Mode

*Application: Perimeter Protection*



No activity detected, IR on



Target detected, white  
light on



Return to default, IR  
on

- Colorful and clear **smart event details**
- Enhanced **visual deterrence**
- Discreet and unobtrusive in normal conditions

# 3 Series Network Cameras

## Network Security

### 802.1x EAP-TLS 1.2

To prevent unauthorized devices to access the proprietary security network through a physical connection.

### SRTP

To protect videos in live view. Illegal devices is unable to stream videos without this security method.

### SFTP

To support safe image transmission between cameras and FTP servers.

### SD Card Encryption

Supports locking up SD card to prevent videos losses. All SD cards are available.

### Security Audit Log

To record all data activities to ensure that all security operations can be queried.



# Spotlight - 3xx6G2H Series



Fixed Lens  
(2.8/4 mm)  
**DS-2CD3x46G2H**  
**DS-2CD3x66G2H**  
**DS-2CD3x86G2H**

Varifocal Lens  
(2.7~13.5 mm)  
**DS-2CD3x46G2H**  
**DS-2CD3x86G2H**

## Extensive Adaptability

Satisfy diverse application with **smart hybrid light** technology



- Smart mode
- White light mode
- IR mode

## Powerful Video Perception & Analysis

- **Built-in 4 switchable AI algorithms**, adapt to various scenarios
- Provide more intelligent and tailored applications for end users through **HEOP** ecosystem

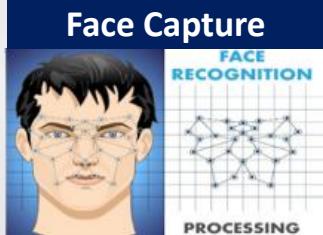
## Professional Video Security Performance

- **F1.0** aperture lens collects more light to make brighter night imaging

# DeepinView Multi-intelligence Models

Switchable AI Applications in One Device

HIKVISION®



## Smart Event

New 5.8.40:  
Combined event



## Face Capture

New 5.8.40:  
Face / Body Mosaic

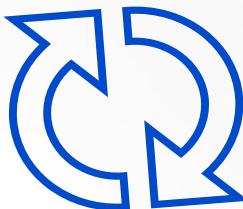


## Face Picture Comparison

New 5.8.40:  
Face / Body Mosaic



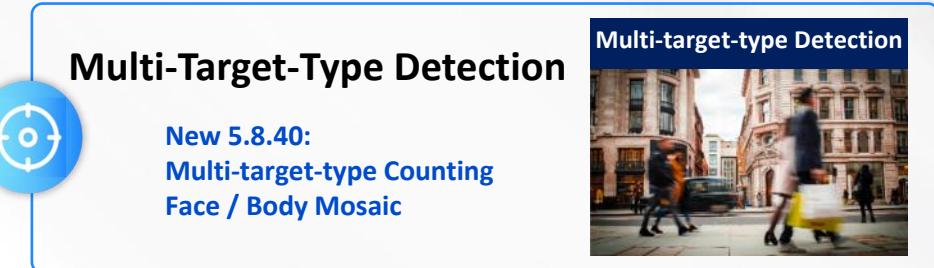
**Switchable AI**  
by manual or on schedule



**(H8 Platform)**

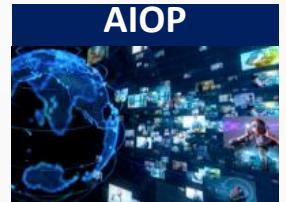


## Multi-dimensional People Counting



## Multi-Target-Type Detection

New 5.8.40:  
Multi-target-type Counting  
Face / Body Mosaic



# DeepinView ANPR Models

7xxxG0/P series: Switchable AI Applications Dedicated for Vehicle Intelligence



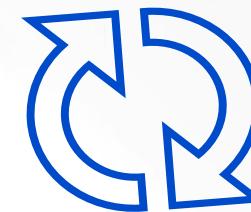
Perimeter Protection

## Smart Event

New 5.8.40:  
Combined event



Switchable AI  
by manual or on schedule



*(H8 Platform,  
G0/P ANPR models)*



## ANPR & Vehicle Features

Vehicle Features include vehicle type,  
manufacturer and color



## New 5.8.30 Parking Space Management



OR



## Mode 1: Close View

Up to **4 spaces** per camera  
with **ANPR**

## Mode 2: Distant View

Up to **40 spaces** per camera  
without **ANPR**

# Feature Upgrade – Combined Event

V5.8.40 for H8 Platform

Smart Event >

## Combined Event

Alarm only triggers by multiple perimeter events happened in sequence within the preset alarm interval(s).

### Multiple event combination

Up to **4** events can be added for each combined event rules.

### Multiple event types

Free combination of **4** event types:

- Intrusion
- Line crossing
- Region entrance
- Region exit



**Smart Event**

Enable one of the smart events first before enabling the combined event. Individual event alarms cannot be triggered when the combined event is enabled.

Rule List: Rule1, Rule2

Sub Event List: Event1, Alarm Event

Event Type: Intrusion Detection, Line Crossing Detection

Rule: Line Crossing Detection

\*Alarm Interval: 30

**Combined Event**

The detection rule of the current sub event is shared by all combined events. Please edit it carefully.

09-05-2023 Tue 21:19:01

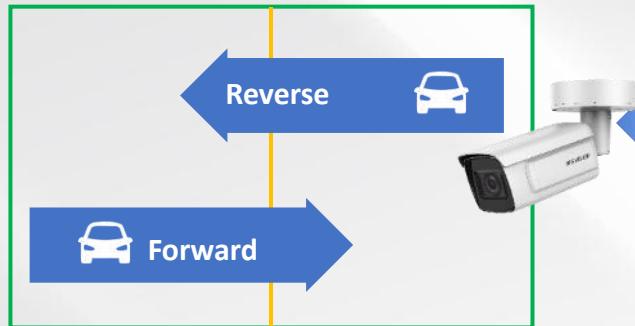
Camera 01

**Remark:** when the combined event rule is configured, each single event will not trigger alarm.

# Feature Upgrade - Multi-intelligence Models

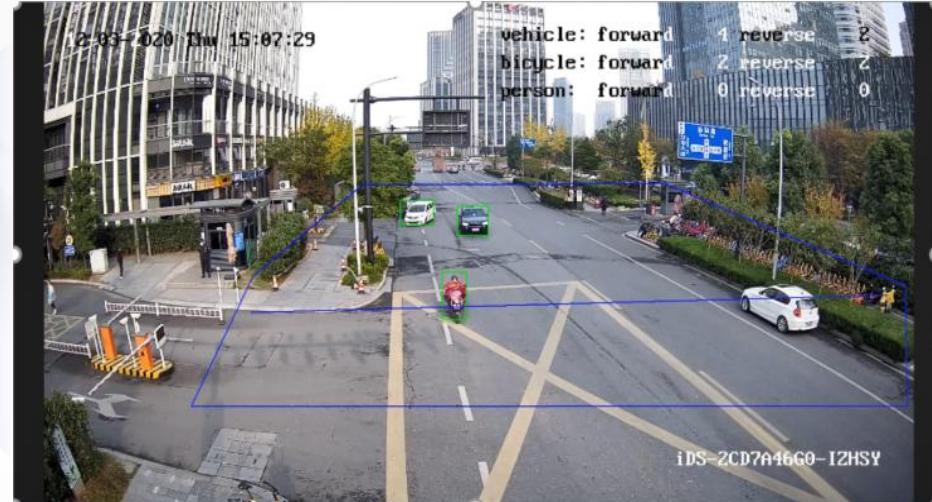
V5.8.40 for H8 Platform

## Multi-target Counting

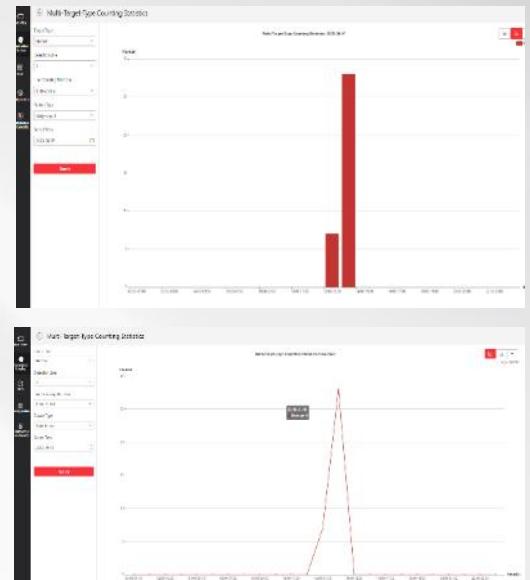


- Bidirectional Road Traffic Counting

## OSD display on video



## Graphical Statistics Diagram



## Multi-Target Counting

Count vehicles, person , bicycles respectively

Note: Vehicle= Car + Van + Truck + Bus



## Attributes Extraction

- Human:

Gender/Age/Age group/Wearing glass/Face Mask/Expression  
Wearing Hat/ Hairstyle/Riding Bicycle/Carrying Backpack

- Vehicle:

Vehicle Type/Vehicle Color



## Smart search

Quickly locate the target and video by target searching

# Feature Upgrade - Multi-intelligence Models

V5.8.40 for H8 Platform

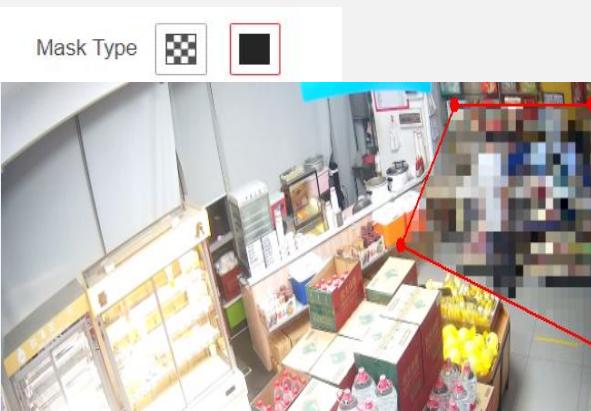
HIKVISION®



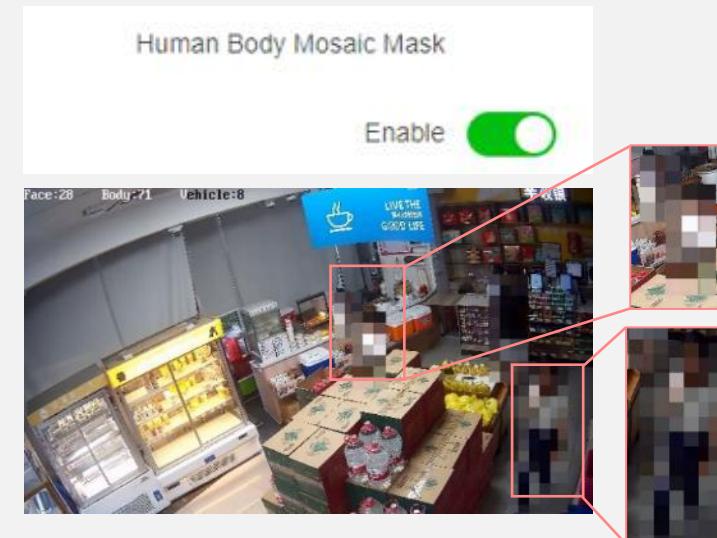
## Privacy protection based-on AI technology

- ✓ Real-time Mosaic
- ✓ Full Process Protection
- ✓ Block Anywhere You Want

**Privacy mask**  
up to 8 regions,  
support polygon area drawing



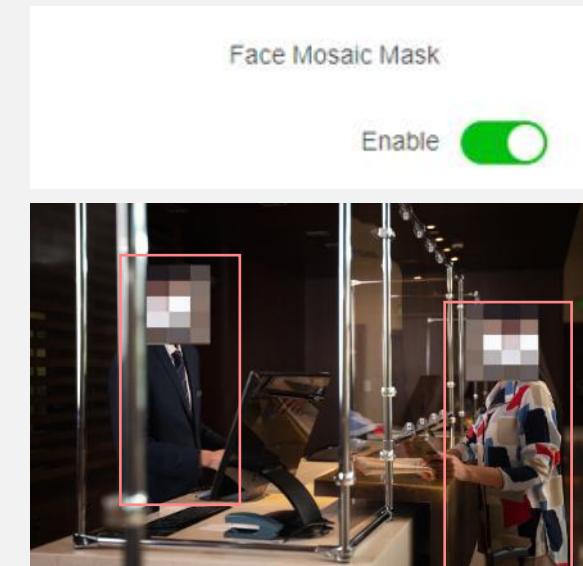
## Human body mosaic



Available ONLY in these AI application modes: Face Capture,  
Face Picture Comparison or Multi-target-type Detection.

New

## Face mosaic



New

Available ONLY in these AI application modes: Face Capture,  
Face Picture Comparison or Multi-target-type Detection.

# Feature Upgrade - Parking Management on ANPR Cameras

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V5.8.30 for H8 Platform, G0/P models

## Parking Management Solution



Video Analysis

Parking space management

Display Guidance Info

- Strong scalability, suitable for large-scale parking business

ANPR  
models

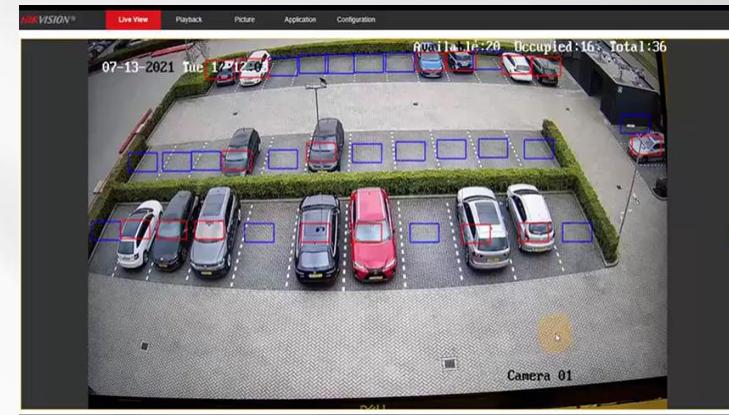


**Baseline ANPR Models**

Firmware: V5.8.30 or above

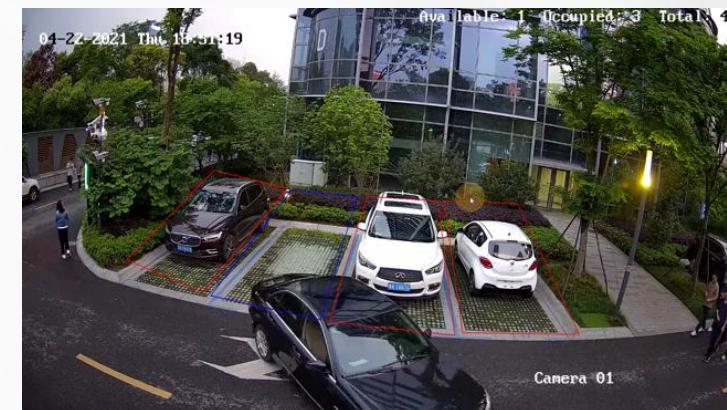
- High quality imaging with 4 MP resolution
- ANPR function**
- Up to 40 parking spaces management**
- Supports 2 management modes (switchable)

## 2 Modes for Parking Management



### 1 - Distant View Mode

- One Camera supports analysis **40 parking spaces**
- Not support ANPR



### 2 - Close View Mode

- One Camera supports analysis **4 parking spaces**
- Supports **ANPR**

# Internationally Recognized Cyber Security Solution

## TPM Module

HIKVISION®



## TPM Security Module



-  Security protection can be continuously upgraded based on TPM structure
-  A big advantage in project competition

A **TPM** (**Trusted Platform Module**) is used to improve the security of network device. It is used to securely create and store cryptographic keys, and to confirm that the operating system and firmware device are what they're supposed to be, and haven't been tampered with.



# Spotlight – New 6 Series Fisheye Cameras

## More intelligent Functions

### Heat Map



- Heat Map Image shows popular areas
- Dwell Rate

### Intersection Analysis



- Customer traffic at intersections

\* This image is for internal use only

### People Counting

**NEW**



- People Counting (Enter/Leave)
- Walk-in Rate

### Queue Management

**NEW**



- Dynamic regional people counting
- Queuing-up status (waiting time, people number)

**Note:** New fisheye camera also supports **HEOP**, to tailor more intelligent features

# Core Features of TandemVu PTZ

## 1 Device (All-in-One)

camera purchase for multiple-camera benefits

1 time Installation  
IP to manage



## 2 Video Channels



Detailed Features with PTZ



180° Panorama

## 3 Linkage Modes



**Manual Tracking**

Manually select a target and the PTZ lens will track it. This mode has the highest priority.



**Linkage Tracking**



**Tracking Takeover**

When human and vehicle targets trigger VCA rules in panoramic channel, PTZ channel is linked to track the targets in the region of VCA rule of panoramic channel one by one, until the targets leave the view of panoramic channel or the tracking duration expires.

## 4 Intelligence types



**Perimeter Protection**



**Face Recognition**



**ANPR**



**Traffic Violation Detection**

# TandemVu PTZ Camera Product Family

						
Panoramic	4-inch	4-inch Panoramic	7-inch	7-inch Panoramic	8-inch	8-inch Panoramic
	96.1° /106.1° HFOV 2/4 MP 16:9 ColorVu AcuSense Lens angle: 18°	180° ±5° HFOV 6 MP 20:9 ColorVu AcuSense Lens angle: 18°	88.7° HFOV 4 MP 16:9 ColorVu AcuSense Lens angle: 15°	180° ±5° HFOV 6 MP 20:9 ColorVu AcuSense Lens angle: 15°	89° ± 5° HFOV 4 MP 16:9 ColorVu Deep learning Lens angle: 7-17° Motorized adjustable	190° ± 5° HFOV 6 MP 20:9 ColorVu Deep learning Lens angle: 12-24° Motorized adjustable
PTZ	15x/25x 2/4 MP Powered by DarkFighter AcuSense	15x/25x 2/4 MP Powered by DarkFighter AcuSense	25x/32x 4 MP Powered by DarkFighter AcuSense Auto Tracking 2.0	25x/32x 4 MP Powered by DarkFighter AcuSense Auto Tracking 2.0	25x/42x 4 MP DarkFighter Deep learning Auto Tracking 3.0	25x/42x 4 MP DarkFighter Deep learning Auto Tracking 3.0
3D Position Manual Tracking	✓	✓	✓	✓	✓	✓
Smart Linkage	✓	X(2024Q1)	✓	✓	✓	✓
AR Live	X	X	X	X	AR Live Interaction	AR Live Interaction
Power	12VDC, PoE+	DC12V, PoE+	24 VAC, Hi-PoE	24 VAC, Hi-PoE	36 VDC	36 VDC, Hi-PoE

# Upgrade - SE4C TandemVu PTZ Camera with Smart Linkage

2024.1

## Firmware Upgrade – V5.8.0

SE4 TandemVu PTZ is upgrade with Linkage Tracking – PTZ can track the target in the view of panoramic channel.

SE4 TandemVu PTZ do not support tracking takeover – PTZ cannot track target outside the view of panoramic channel.



Panoramic+PTZ channel covers more than 150° FOV



PTZ channel pans, tilts and zooms to track human/vehicle details in panoramic channel

2024.3

# Upgrade – SF8C TandemVu PTZ Camera

## Firmware Upgrade – V5.8.20

1. All SF8C TandemVu PTZs support **ONVIF Profile M**
2. Intelligence Features added to **stitching** SF8C models:
  - Vehicle Management – including Traffic violation detection(illegal parking etc.), ANPR, tracking of specific vehicles on allowlist/blocklist
  - Person arming – face comparison, tracking of specific persons on allowlist/blocklist

*In V5.8.23, non-stitching and stitching SF8C models support the same intelligent functions.*



DS-2SF8C425MXS-DL(**14F1**)(P3)

DS-2SF8C425MXS-DLW(**14F1**)(P3)

DS-2SF8C442MXS-DL(**14F1**)(P3)

DS-2SF8C442MXS-DLW(**14F1**)(P3)



DS-2SF8C425MXG-ELW/**26(F0)**

DS-2SF8C442MXG-ELW/**26(F0)**

TandemVu Cameras	Panoramic Channel	PTZ Channel	Smart Linkage
	<b>Smart Event (Perimeter Protection)</b>	<b>4 Modes Selectable:</b> 1. Smart Event (Perimeter Protection) 2. Face+Human 3. <b>Vehicle Management</b> * 4. Auto Tracking 3.0 *	PTZ channel in Perimeter Protection mode: Linkage tracking Tracking takeover PTZ channel in face+human mode: Linkage capture ()

\* New Functions of panoramic stitching SF8C in V5.8.23, they are supported by non-stitching SF8C in V5.8.1 and later versions

# V5.8.23 Upgrade for Panoramic SF8C TandemVu PTZ

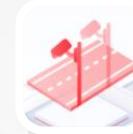
## 4 Selectable Intelligent Modes in PTZ Channel



### Smart Event

#### Perimeter Protection Events:

Intrusion/Line Crossing/Region Entrance/Region Exiting  
Detection based on deep learning algorithm  
Auto Tracking 2.0: Triggered by human and vehicle targets



### Vehicle Management

2024.3

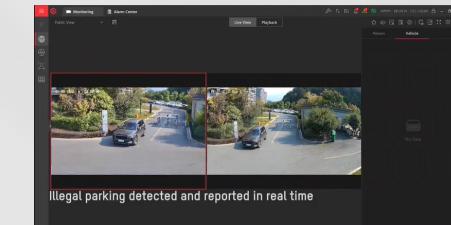
#### Enforcement:

Illegal Parking

#### Vehicle Arming

ANPR

Vehicle Attributes Recognition



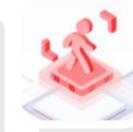
Auto Tracking 3.0: Triggered by specific targets by vehicle plate number



### Face + Human

#### Capture Target with Features

Face Capture  
Human Target Capture, features include:  
Moving Detection, Top Color, Bottoms Color, Tops Type,  
Bottoms Type, Carrying Backpack, Carrying Thing, Wearing Hat



### Auto Tracking 3.0

2024.3

#### Auto Tracking 3.0

Triggered by specific targets by face image

#### Capture Target with Features

Same as it is in Face + Human

# Spotlight - DE4A Indoor PTZ Cameras with High Frame Rate

## Each preset with various intelligence functions

In service centers, bank offices, chained stores, pharmacies, libraries, various intelligence functions are needed in various scenes. Conventional CCTV solutions install multiple devices to meet the demands.

One indoor PTZ with **Anti-Reflection IR**,  
**multiple intelligence modes for each scenarios**



DS-2DE4A425IWG-E  
DS-2DE4A225IWG-E



### Anti-reflection IR

Isolated IR lights and lens with rotatable barriers



### AcuSense

Human/vehicle classification in various scenes (presets)



### People counting (customization)

People counting, On/off duty detection, region of interest detection etc.



### Auto Tracking 2.0

Based on human/vehicle classification



### High Frame Rate

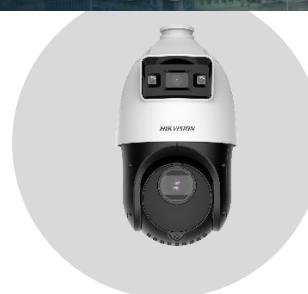
2 MP models support 50/60 fps, capturing fast moving targets

# Spotlight - Live Guard Bracket

Upgrade conventional PTZ Perimeter Application with Live Guard

**Connect via alarm I/O, strong deterrence**

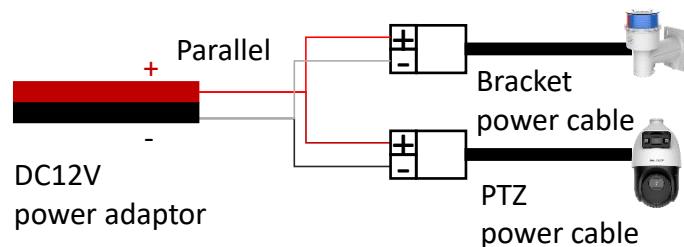
**TandemVu**



**DE4**      **DE5**

**DS-2DE/SExxx PTZ**  
AcuSense perimeter protection /  
face detection

## Cabling



Ceiling mount



Wall mount



## Bracket and Live Guard in One Unit

- Strobe light+Audio beep alarm+bracket
- DC12V power supply, same as DE4/DE5/SE4 PTZ

**100 m** red and blue light  
**30m 50dB** beeps



# Spotlight - DE3C Indoor PTZ Cameras for Retail



## Staff Management

**Scene:** Counter

**Time:** Business hour

### Functions:

- On/off duty detection
- Play with cellphone detection
- Video security monitoring
- Smoking detection



**DS-2DE3C210IX-DE(C1)(T5)**



## Shelves Management

**Scene:** Shelves

**Time:** Business hour

### Functions:

- Remote checking shelf status
- Zooming in for goods details



## Intrusion Detection

**Scene:** Gate, restricted area

**Time:** Out of business hour

### Functions:

- Intrusion detection
- Line crossing detection
- Strobe light and audio alarms triggered by trespassers
- Face capture

# Spotlight - DE3C Indoor PTZ Cameras for Retails



Pharmacies



Convenience Stores



Living Stores



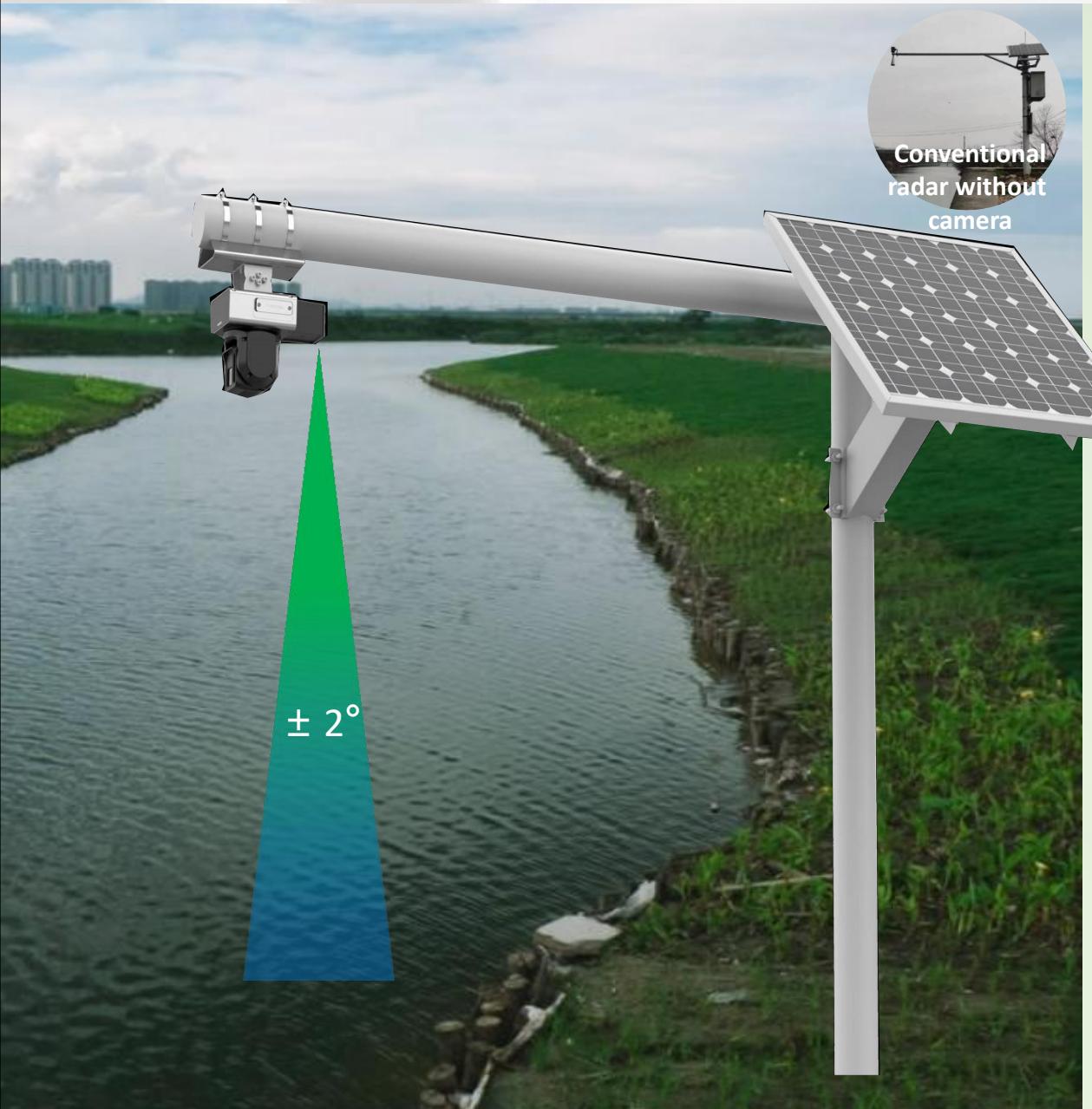
Hardware Stores



- 2 MP @ 25/30 fps, 1/2.8" CMOS
- 0.005 lux @ F1.3
- Pan: 0° to 355°, tilt: 0° to 90°
- 2.8 -28 mm, 10x optical zoom
- Two-way audio
- Built-in **microphone and speaker**
- Strobe light and audio alarm
- 50 m IR distance
- Easy control on Hik-Connect app
- IP66

# Application Scenarios

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# Application Cases

HIKVISION®

Waterlogged city road



River



# Differences between Water Level Detection Cameras



## Typical installation scenario

<b>Installation requirements</b>	Camera is installed above water. The leaning angle of camera should be less than 15°	Water gauge is necessary. It is installed vertical to water surface Camera distance to water gauge: 5 – 50m
<b>Water level detection range</b>	Within 15 m or 40 m distance	Within 40 m
<b>Accuracy</b>	<b>±1 mm</b>	<b>±2 cm</b>
<b>Power saving mode</b>	Camera(5W) stop working to save power, Radar(1W) works continuously for water level detection	The PTZ works in Schedule to detect water level, during sleep mode, dual camera channels stop working to save power.
<b>Obstacles</b>	Avoid obstacles below PTZ	Avoid obstacles on all water gauges and shading between PTZ and water gauges