

3-in-1 Camera

TiOC

Your Effective Deterrent Against Intruders



TiOC

TiOC, short for Three-in-One Camera, offers full-time protection before, during, and after an event with our smart, innovative integration of Smart Dual Light technology, Active Deterrence, and AI.



Smart
Dual Light



Active
Deterrence

Wiz Sense

Artificial
Intelligence



IPC-PFW3y49S-A180-AS-PV-ANZ

IPC-PDW3y49-A180-AS-PV-ANZ



180° Panoramic Splicing Image



EPTZ realizes zoom-in and target tracking



Active red & blue light and audio alarm



Built-in IR and LED light actualizes **Smart Dual Light**



AI focuses on humans and vehicles



Current Monitoring Pain Points



Traditional One Camera



Limited Coverage



Traditional Two Cameras



Blind Spots



Increased Devices & Installation Cost

TiOC : 180° Panoramic Image

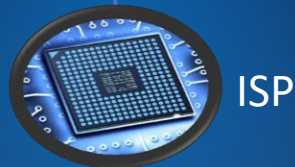


Dual lens, Natural fusion



① Left lens image

① Right lens image

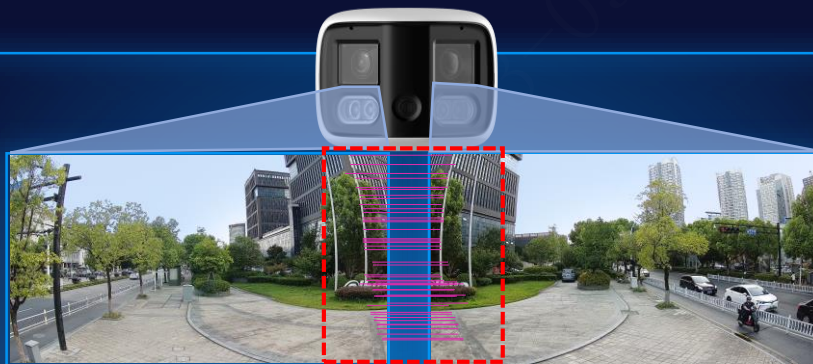


ISP

② Standardized image correction technology

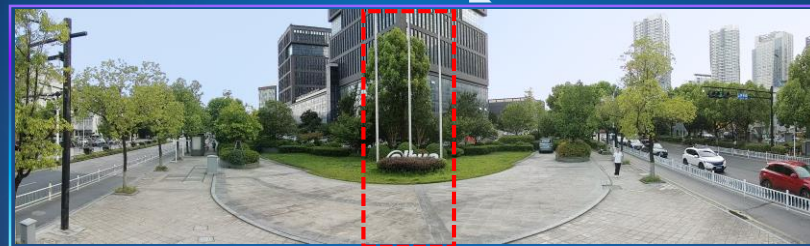
③ Dahua advanced pixel-level metadata fusion algorithm

180° Panoramic Image



Left lens image

Right lens image



Seamless panoramic image: No missing details, natural fusion



TiOC : 20:9 Panoramic Image



Traditional Dual-lens Panoramic Camera



Ratio 32:9



Smaller Black Edges

TiOC



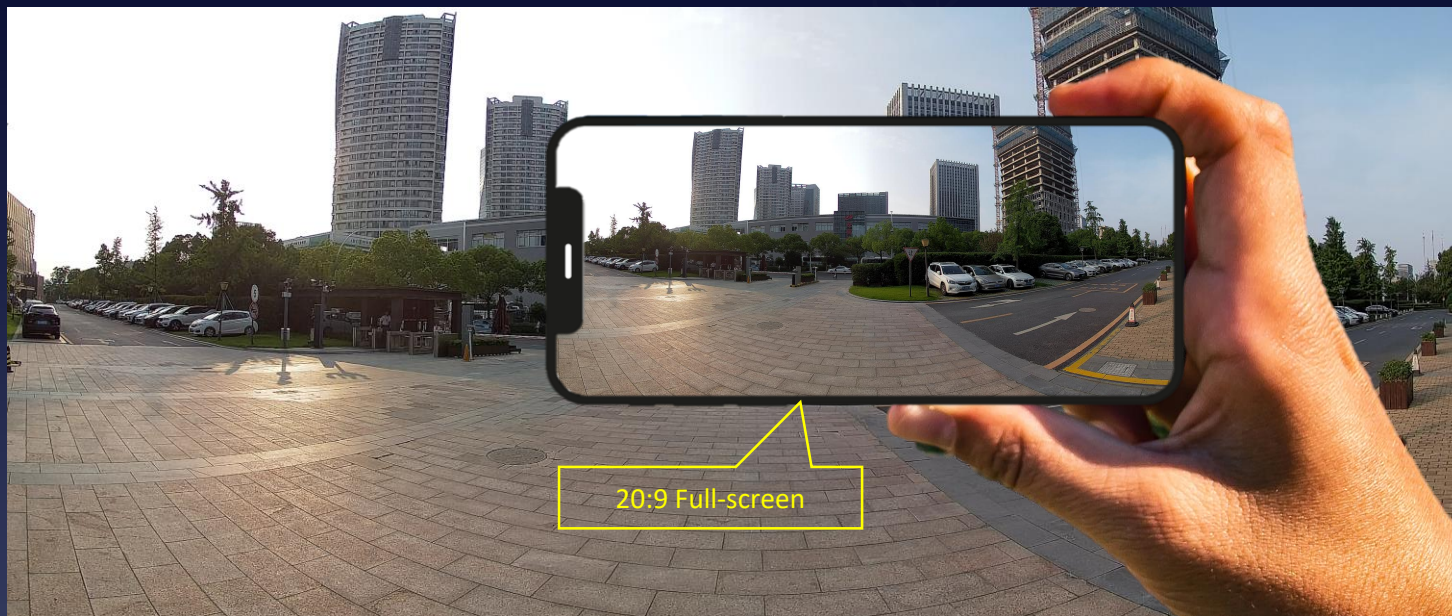
Ratio 20:9

- Larger vertical FOV, covers more areas
- Better fit normal 16:9 screen, smaller black edges

TiOC DUO : 20:9 Panoramic Image



The smart phone screen usually is 20:9, TiOC DUO 4K 20:9 panoramic image can provide a better view experience on the phone. The wider aspect ratio allows a full-screen display with no black edges, making it more enjoyable and providing more details.



Note: The phone with 20:9 screen takes iPhone 14 for example.

TiOC DUO 20:9 4K Panoramic Image



32:9 4K Panoramic Image



Traditional Single Lens 16:9 4K Image

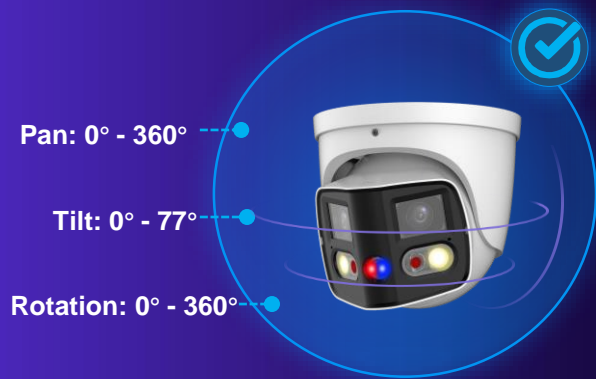
- Larger View with less blind zone
- 20:9 Ratio better fit the screen
- Save costs on the camera

TiOC : EPTZ, Panorama with multiple targets details



TiOC **DUO** : 3-Axis Adjustment

Three directional adjustments



Scenario



VS

Two directional adjustments



Scenario



Smart Dual Light

Advanced Deep Learning Algorithm

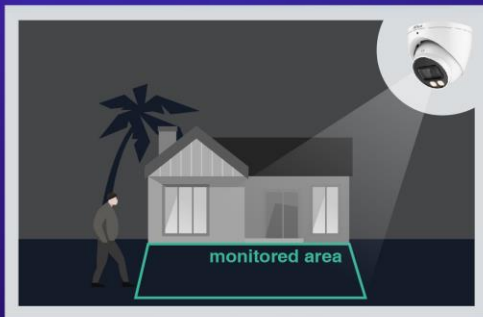
Accurate illumination switch when human is detected. Less false triggering.

Smart Illumination

Automatically switched from Warm Light Mode back to IR Mode when no human is detected in the monitoring area.

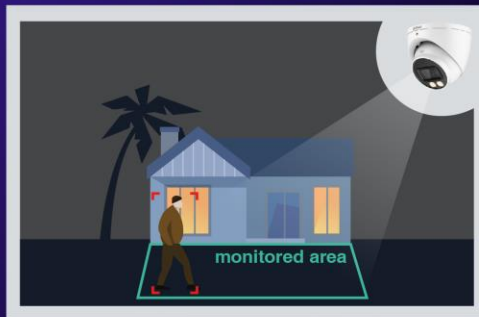
Thereby, less light pollution.

Human is out of Monitoring Area



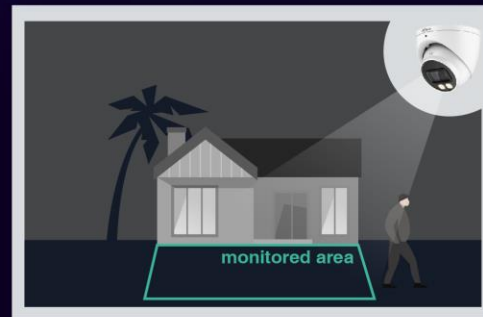
- Infrared Light Turns on
- Black & White

Human is Detected by Camera



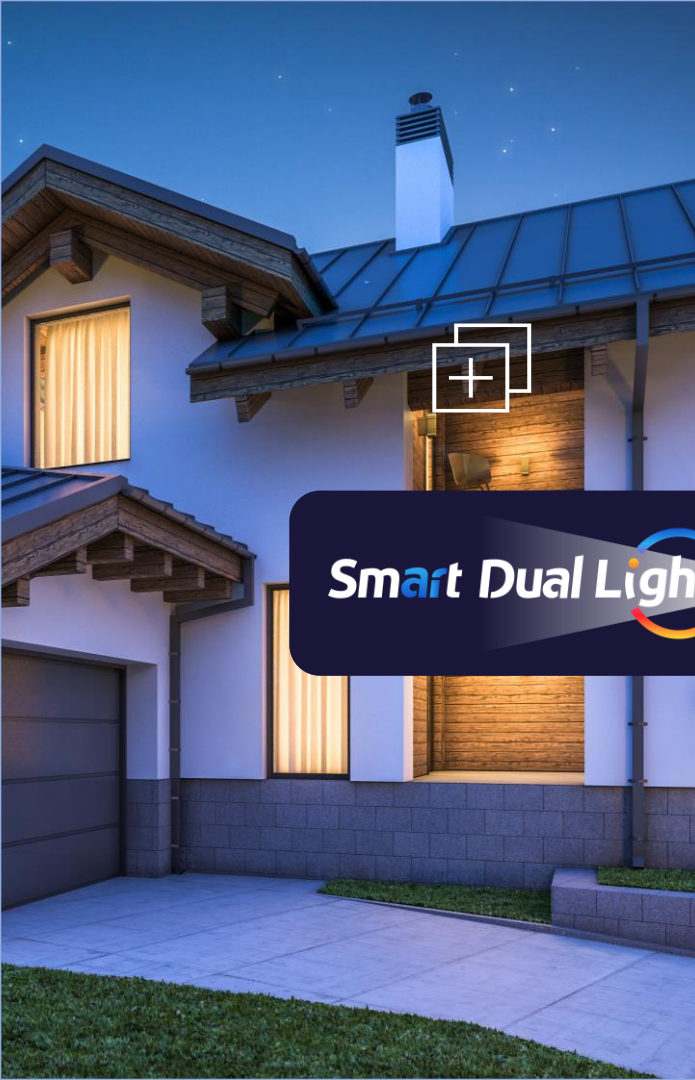
- Warm LED Turns on
- Full-color Monitoring

Human Leaves Monitoring Area



- Infrared Light Turns on
- Back & White

Application Scenario: Villa (Outdoor)



Color details unavailable



Serious light pollution



- Record color details of key events
- Significantly reduces light pollution (Warm light activates at critical moments only)

Application Scenario: Shop (Indoor)



Hard to find key targets



Constant light interference

Smart Dual Light



- Record color information of key events
- Warm-light active deterrence (Warm light activates at critical moments only)



Application Scenario: Bar

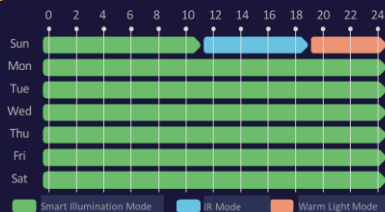
(Illumination by Schedule)

Color details not captured with IR light

Constant white light ruins ambiance and experience

Illumination modes require manual switching

Smart Dual Light



Illumination by schedule

Record color information of key events



Maintain IR mode during business hours to reduce light pollution

Automatic Illumination by Schedule

TiOC : Protect People and Property Full-time



Before An Event



SMD 4.0



Perimeter Protection

False Alarm Rate < 1%

Filter out False Alarms
Focus on Humans & Vehicles

During An Event



Smart Dual Light



Active Deterrence



EPTZ

IR & LED Light

Voice Alarm
Red & Blue Lights

Zoom-in &
Tracking

Record Colorful Events
Drive Away Intruders
Zoom-in and Target Tracking

After An Event



Smart Search

Human & Vehicle
Target Search

Perform Refined,
Intelligent Search
and Event Extraction

Accurate Detection Before an Event



- **SMD**, short for Smart Motion Detection, analyzes person and vehicle shapes based on motion detection and sends alarms only when a person or vehicle has been detected for intrusion.

- **Perimeter Protection**, based on tripwire and area intrusion rules, sends an alarm when unwanted movements triggered by humans or vehicles occur, avoiding unnecessary false alarms.

- One key to enable
Alarm triggered

- False alarm rate < 1%
Alarm filtered

- Perimeter Protection
Alarm will trigger only when a human or vehicle violates a rule

- Traditional IVS
Causes of false or missed alarms



Reduce false alarms caused by animals



Active Deterrence During an Event



- The **red & blue light flashes** while the siren makes a warning sound to deter the intruder.



- Two-way Talk & Customizable Alert Voice Audio

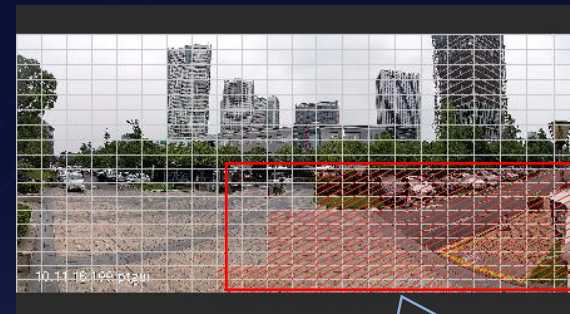


Warm Light & Warning Light Detection Area



Warm Light & Warning Light Detection Area

In order to avoid the interference of the sound and light in the non-interested area at night, the TiOC support to set Warm light & Warning light detection area, when the target enter the detection area, the camera will trigger the warm light and sound & light active deterrence to warn the intruders, effectively reduce the alarms, and focus on the alarms in the interested area.



Detection Area

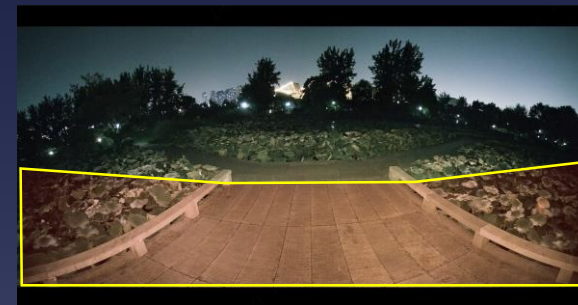
Smart Illumination Mode



IR Mode



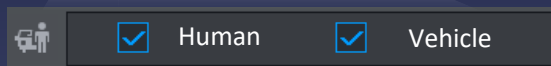
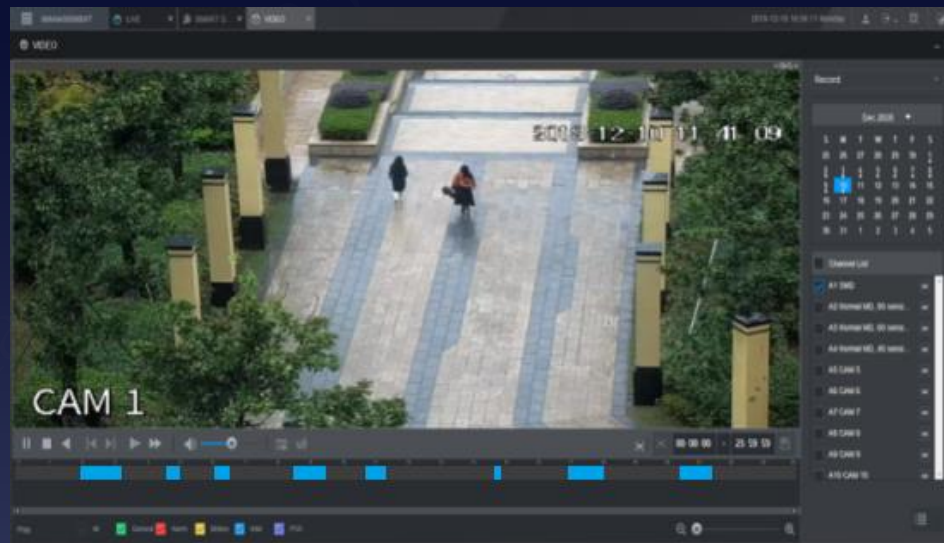
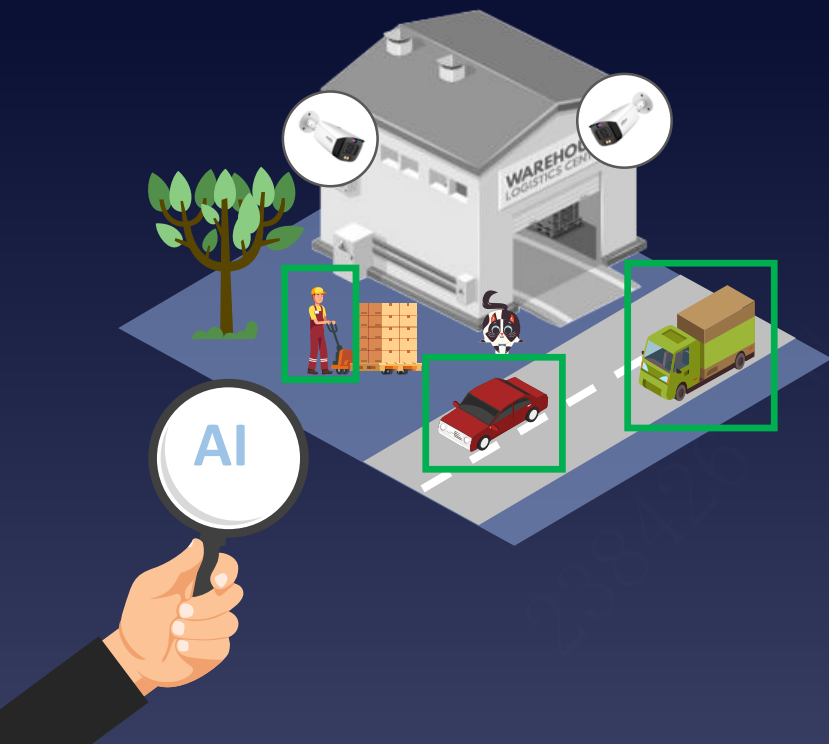
Warm Light Mode



Quick Target Search After an Event



Smart Search is another way to filter human and vehicle targets on the playback page. Selecting the Human/Vehicle checkbox in the menu shows marked fragments on the video scrubber that help users quickly locate when the human or vehicle appeared.





Private Places

- Villas, shops, warehouses, etc.
 - Accurately identify real targets, focus on humans and vehicles
 - Effectively warn off intruders with siren & light alarm
 - Notify user in real-time via app
 - Record colorful event videos

Public Areas

- Fire lanes or emergency lanes
 - Effectively maintain unobstructed emergency lanes to enhance public safety
 - 180° FOV covers all scenes, save cost on cameras
 - EPTZ function realize zoom-in and 5 targets tracking at the same time



Product	Model	Features
NVR	NVR4XXX-4KS2/L	1.Soud and light alarm 2.One-tap disarming 3.Smart Dual Light: Smart Illumination Mode, IR Mode, Warm Light Mode setting
	NVR4XXX-AI/ANZ	1.Soud and light alarm 2.One-tap disarming 3.Smart Dual Light: Smart Illumination Mode, IR Mode, Warm Light Mode setting 4.Quick Pick 5.EPTZ
	NVR5XXX-AI/ANZ	1.Soud and light alarm 2.One-tap disarming 3.Smart Dual Light: Smart Illumination Mode, IR Mode, Warm Light Mode setting 4.Quick Pick 5.EPTZ
Software	DSS PRO	1.Soud and light alarm 2.One-tap disarming
	DSS Express	3.Smart Dual Light: Smart Illumination Mode, IR Mode, Warm Light Mode setting 5.EPTZ
	DMSS	1.Soud and light alarm settings 2.One-tap disarming 3.Smart Dual Light: Smart Illumination Mode, IR Mode, Warm Light Mode setting
Tool	Smart Player	1.Video playback
	SmartPSS Lite	1.Configure and manage devices

ENABLING A SAFER SOCIETY AND SMARTER LIVING