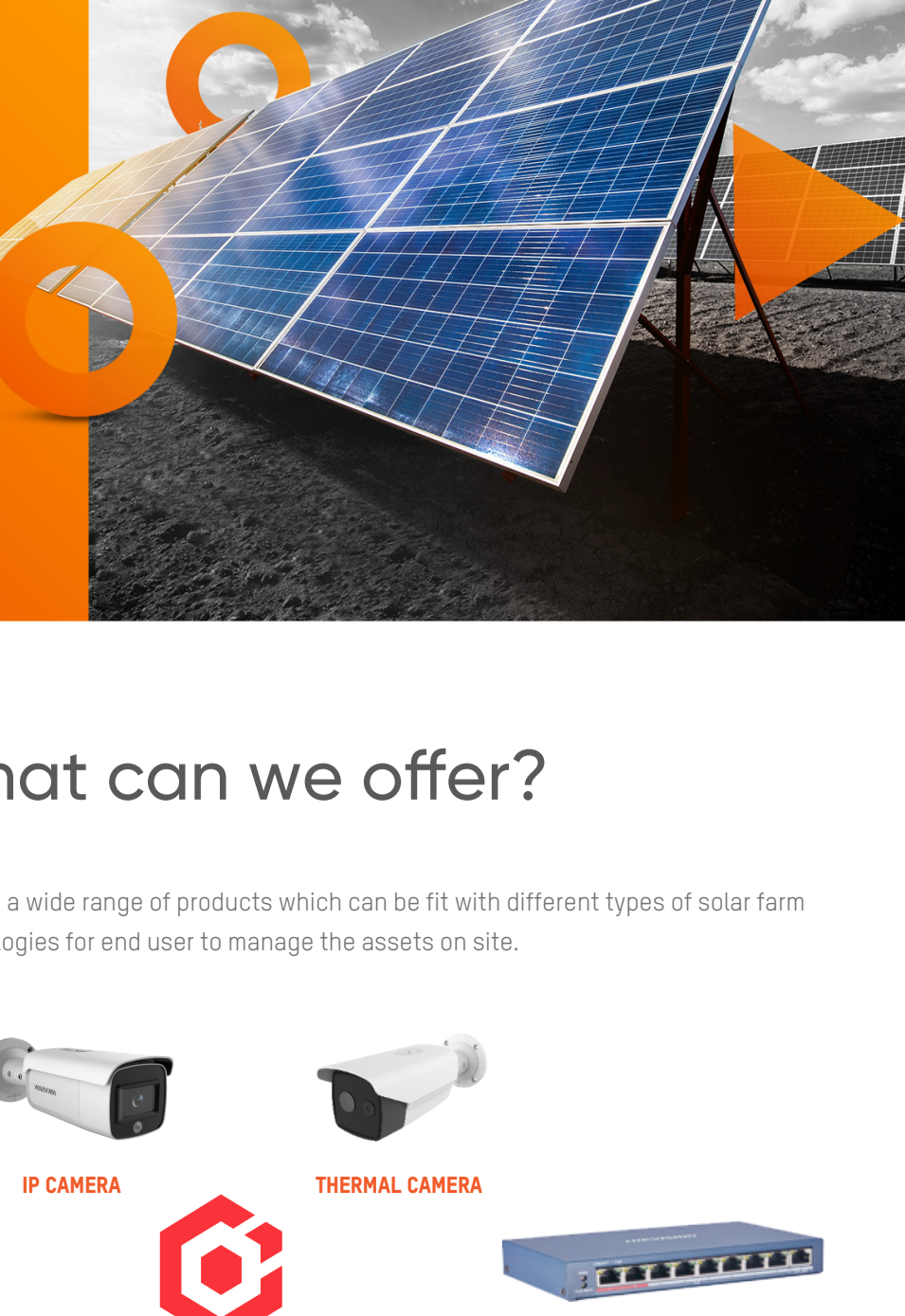
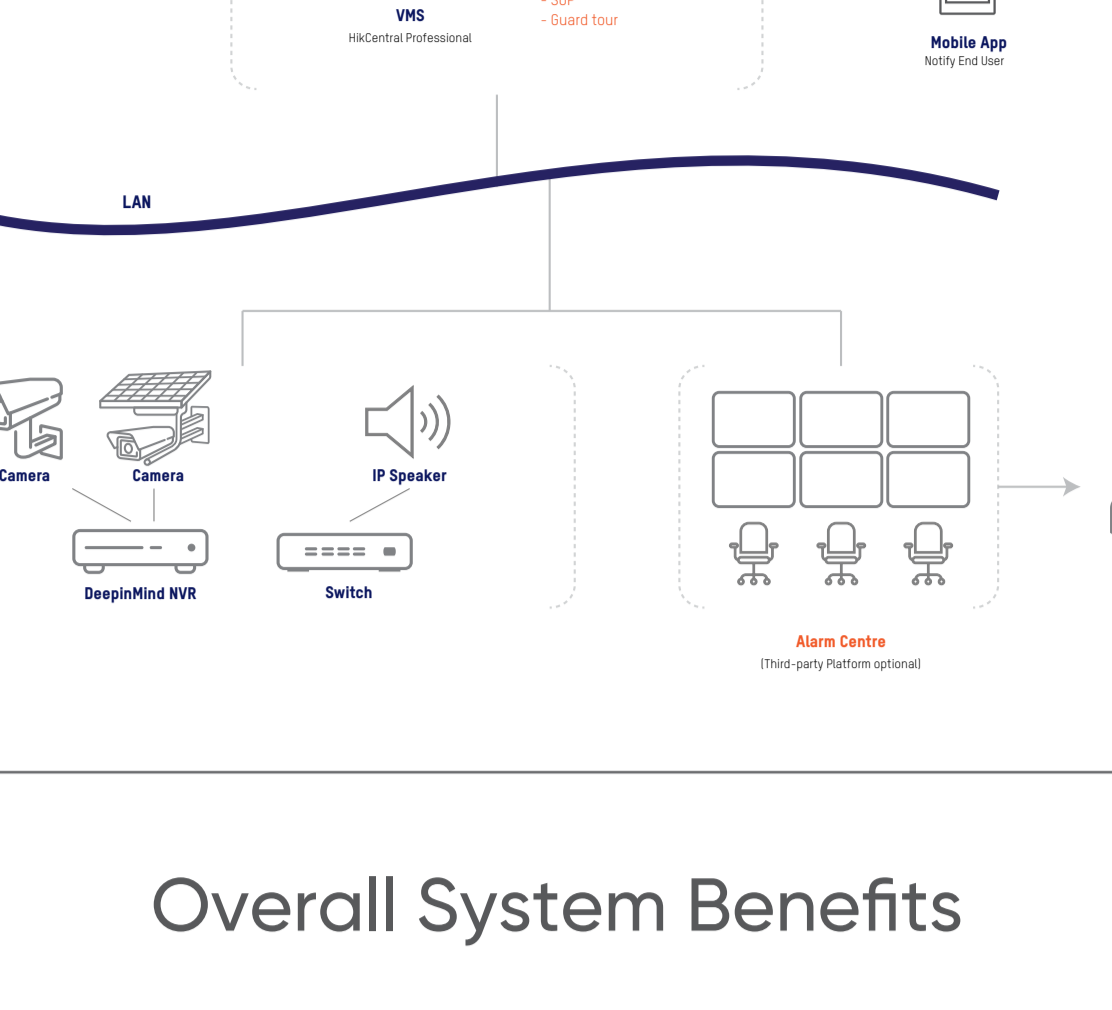


# Solar Farm Solution



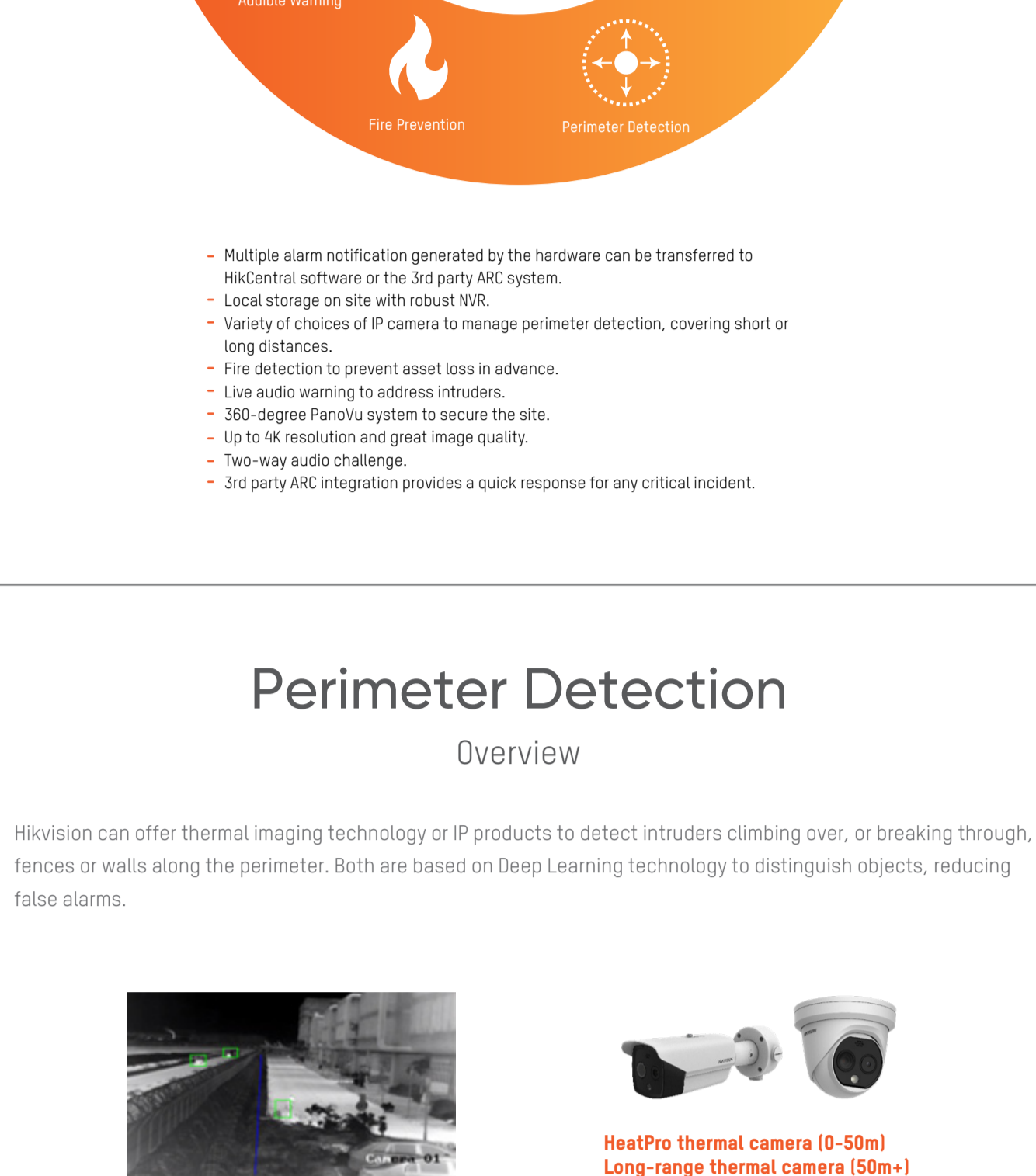
## What can we offer?

Hikvision's Solar Farm Solution provides a wide range of products which can be fit with different types of solar farm applications, to offer advanced technologies for end user to manage the assets on site.

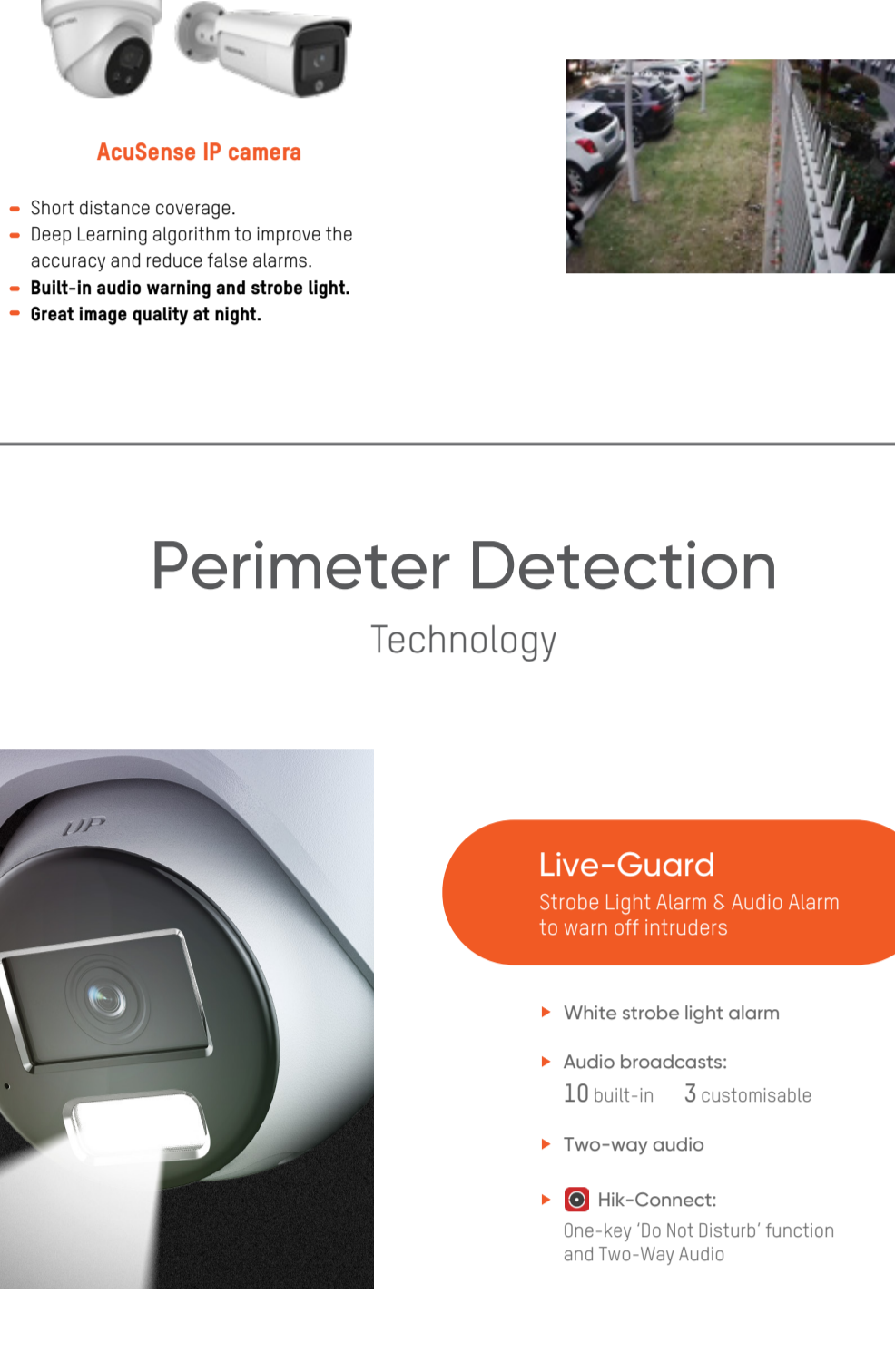


## Solution Introduction

### Solution Architecture



## Overall System Benefits



- Multiple alarm notification generated by the hardware can be transferred to HiCentral software or the 3rd party ARC system.
- Local storage on site with robust NVR
- Variety of choices of IP camera to manage perimeter detection, covering short or long distances
- Fire detection to prevent asset loss in advance.
- Live audio warning to address intruders.
- 360-degree Panofu system to secure the site.
- Up to 4K resolution and great image quality.
- Two-way audio challenge.
- 3rd party ARC integration provides a quick response for any critical incident.

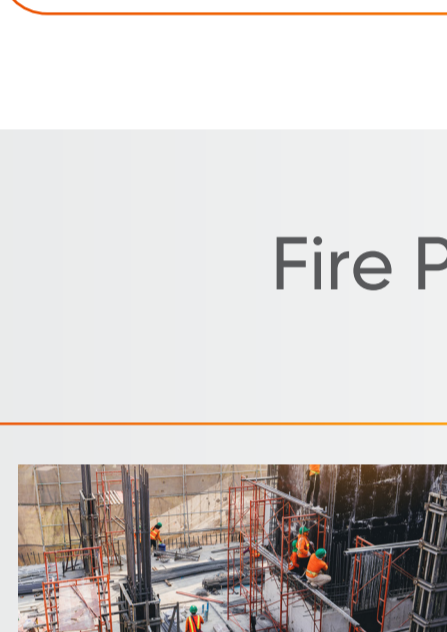
## Perimeter Detection Overview

Hikvision can offer thermal imaging technology or IP products to detect intruders climbing over, or breaking through, fences or walls along the perimeter. Both are based on Deep Learning technology to distinguish objects, reducing false alarms.



**HeatPro thermal camera (0-50m)**  
**Long-range thermal camera (50m+)**

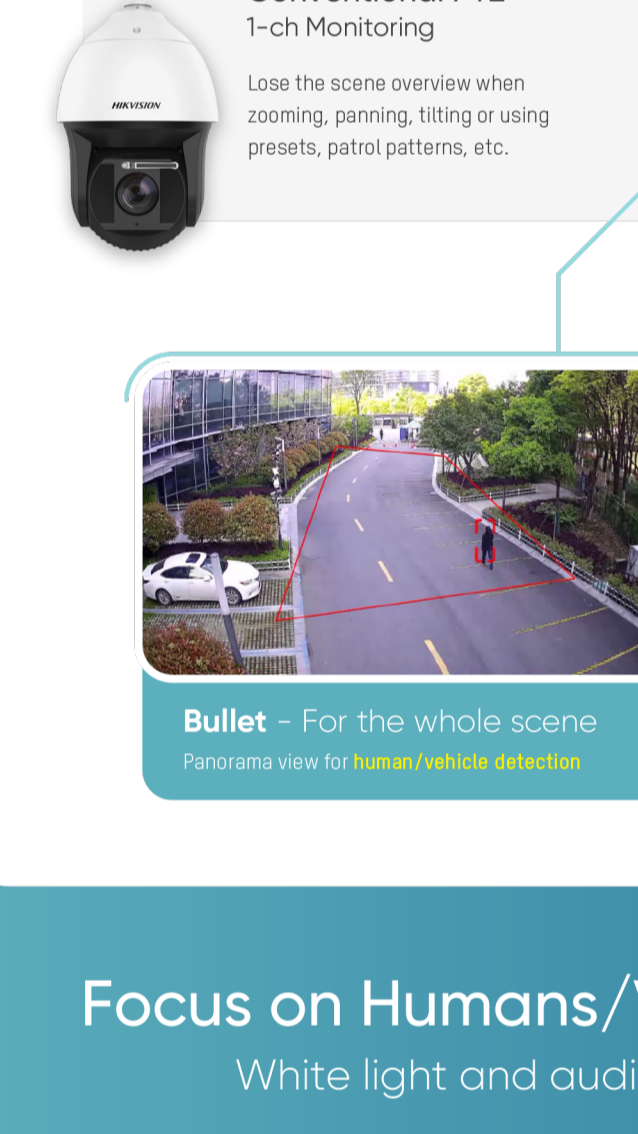
- Short / Long distance coverage
- Deep Learning algorithm to improve the accuracy and reduce false alarms from animals.
- All weather conditions.
- Built-in strobe light and audio warning (HeatPro).



**AcuSense IP camera**

- Short distance coverage.
- Deep Learning algorithm to improve the accuracy and reduce false alarms.
- Built-in audio warning and strobe light.
- Great image quality at night.

## Perimeter Detection Technology



**Live-Guard**  
**Strobe Light Alarm & Audio Alarm**  
 to warn off intruders

- White strobe light alarm
- Audio broadcast: 10 built-in / 3 customizable
- Two-way audio
- Hi-Connect: One-key 'Do Not Disturb' function and Two-Way Audio

## 24/7 Colourful Imaging with ColorVu

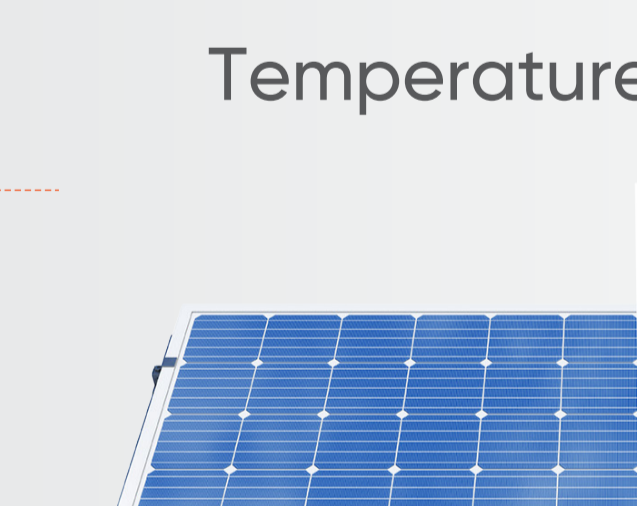


## AcuSense Technology

AcuSense technology can capture human or vehicle targets with vivid details, providing increased security no matter the time of day or night.



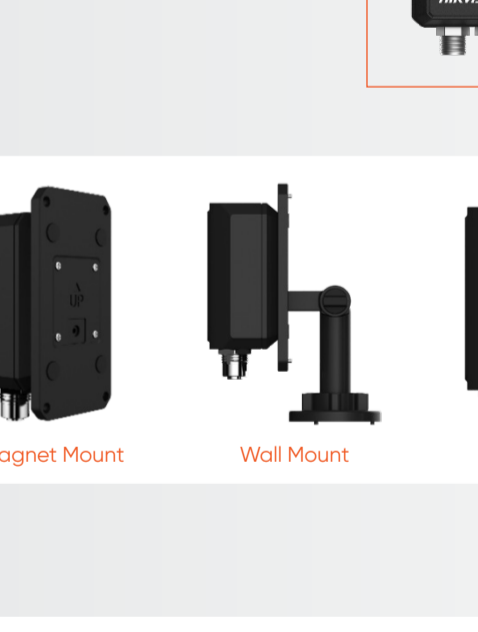
## Perimeter Detection DeepinMind NVR



- Receives intrusion and line crossing detection information from cameras and identifies humans and vehicles in the video to reduce false alarms.
- Saves on costs and time compared with conventional CCTV systems.

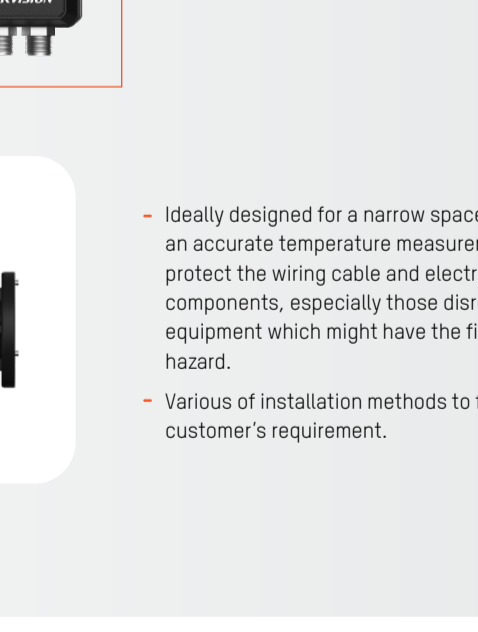


## Fire Prevention



**PAIN POINTS**

- High risk for wooden buildings and lumber when a fire ignites.
- Electrical equipment not turned off when employees finish a shift can cause a fire.



**ADVANTAGES OF THERMAL CAMERAS**

- 24/7 temperature monitoring of objects or areas.
- Real-time alarm notification can be sent to the VMS or ARC system.
- Configurable temperature threshold for early warning of a fire.

## Object Tracking Smart Linkage PTZ

### Linkage Tracking

View the whole scene with high detail



## Focus on Humans/Vehicles, Act in Realtime

White light and audio alarm to warn intruders off



- Human/Vehicle Classification
- Act in Realtime: Warns off intruders with white light alarm and audio alarm (up to 30m)
- Accurate Alert: Focus on humans or vehicles alarms, other false alarms are reduced
- Audio customisation is supported (3 files)

Monitor parking spaces to provide evidence in the event of incidents such as vehicle accidents and theft.

PTZ cameras can provide a flexible people tracking function to keep a watchful eye over any suspicious individuals.

## Audio Warning



- Network broadcast: playing audio file or real-time audio stream.
- Supports remote intruder warning through IP speaker.
- Supports Session Initiation Protocol (SIP) for integration.



- Linkage between Event and Audio: When alarm is triggered by camera/NVR, the IP speaker automatically generates warning audio to deter intruders.
- One-way broadcast: Operators can talk via IP speaker, giving audio warnings.
- Audio plan: Operators can set specific audio plans for IP speakers to play audio on schedule.

## Temperature Monitoring



Ideally designed for a narrow space to offer an accurate temperature measurement to protect the wiring cable and electrical components, especially those disrepair equipment which might have the fire hazard.

- Various of installation methods to fit the customer's requirement.

## Central Management

Multi-system fusion, faster operation and evidencing

- Seamless operation
- Prompt incident handling
- Complete evidencing
- Enhanced automation



- Various alarm input sources:** CCTV, External alarm I/O, etc.
- Instant notification:** PC Client / Mobile APP, Instant response, On-site light & sound deterring, Remote: video popup, E-mail, PTZ.
- Acknowledge and handling:** Quick remote control, Voice talk, door status, PTZ, Overtime escalation.
- Log query and export:** Incident record retrieval, Prompt search by various event filters, Convenient playback and records export.

## Application Summary

Reliable Solution Vendor for your Business Development



- Real-time alarm notification from multiple devices on site remotely.
- A dedicated SOP process to manage the alarms with an efficient way.
- Embedded AI technology to reduce the false alarms.
- Integrated with 3rd party ARC service provider to introduce more benefits.

- Proactive alarm response deters
- Accurate event detection with 24/7 clear video.
- Variety of product selections to protect the assets on site.

## Product Showcase

**Thermal & Optical BI-spectrum Bullet camera**  
 DS-2TD2817-3/PA, DS-2TD2817-4/PA, DS-2TD1217-10/PA

- Thermal resolution: 160 x 120@25 fps.
- Optical resolution: 2888 x 1080@25/30 fps.
- Thermal focal length: 3.1/6.2/9.7 mm.
- Thermal FOV: 14.9° x 11.2°.
- Optical focal length: 4/6/8 mm.
- Line crossing, intrusion, region entrance/exiting with human and vehicle filtering.
- Power: PoE 1802.34W/12VDC.
- Alarm I/O: 2 inputs and 2 outputs.
- Built-in strobe light and audio warning.
- Ingress protection: IP67.

**Thermal & Optical BI-spectrum Turret camera**  
 DS-2TD1217-2/PA, DS-2TD1217-3/PA, DS-2TD1217-6/PA

- Thermal resolution: 160 x 120@25 fps.
- Optical resolution: 2888 x 1080@25/30 fps.
- Thermal focal length: 3.1/6.2/9.7 mm.
- Thermal FOV: 14.9° x 11.2°.
- Optical focal length: 4/6/8 mm.
- Line crossing, intrusion, region entrance/exiting with human and vehicle filtering.
- Power: PoE 1802.34W/12VDC.
- Alarm I/O: 2 inputs and 2 outputs.
- Built-in strobe light and audio warning.
- Ingress protection: IP67.

**Thermal Cube Camera**  
 DS-TD3017 series

- Thermal resolution: 160 x 120
- Thermal lens: 2/3 mm
- Optical lens: 2mm
- Temperature range: -20°C to 55°C
- Temperature accuracy: Max(±2°C, ±2%)
- Temperature measurement: 21 rules
- Protection: IP67
- Suitable for narrow spaces like cabinet

**Bullet Camera**  
 DS-2TD21377 series, DS-2TD21677 series

- Thermal resolution: 384 x 288, 640 x 512
- Optical resolution: 1920 x 1080
- Thermal: 9mm/25mm
- Temperature measurement: 21 rules
- Temperature accuracy: Max(±2°C, ±2%)
- Temperature measuring range: -20-55°C
- Pre-set patrolling supported
- Protection: IP68

**PTZ Camera**  
 DS-2TD41377 series, DS-2TD41677 series

- Thermal resolution: 384 x 288, 640 x 512
- Optical resolution: 1920 x 1080
- Thermal: 9mm/25mm
- Temperature measurement: 21 rules
- Temperature accuracy: Max(±2°C, ±2%)
- Temperature measuring range: -20-55°C
- Pre-set patrolling supported
- Protection: IP68

**Positioning PTZ**  
 DS-2SE7C144W-AE132X4(AI)SS

- Bullet for whole scene overview
- PTZ: to pan, tilt and zoom for details.
- Human and vehicle classification.
- False alarm reduction.

**IP Speaker [DS-PA0103-B]**

- Audio warning and Network broadcast.

**DeepinMind NVR [DS-7732NXI-H(X)C]**

- Up to 16 channel Deep Learning video analysis for human and vehicle recognition to reduce false alarms.
- Supports multiple VCA Video Content Analytical events.

**PDE Switch [DS-3E0109P-E(B)]**

- L2, Unmanaged, 10/100M RJ45 PoE ports, 110/100M RJ45 uplink port, 802.3af/at, PoE power budget, 300m long distance transmission, 8KV surge protection.

**PDE Switch [DS-3E0109P-E(C)]**

- L2, Unmanaged, 10/100M RJ45 PoE ports, 110/100M RJ45 uplink port, 802.3af/at, PoE power budget, 300m long distance transmission, 8KV surge protection.

**Software**  
**HiCentral Professional (based on v2.0.1.1)**

- Flexible, scalable, reliable, and powerful central security system.
- Supports live view, playback, access control, video intercom, visitor management, vehicle entrance and exit management, alarm management, personnel identification, BI dashboard, people counting report.
- Third-party system integration via OpenAPI or Optimize, a Hikvision middleware product.
- VSAas plugin dedicated for alarm receiving and handling.
- Remote video patrol plugin dedicated for virtual guard tour.

**License 1**  
**HiCentral-P-ARC-VSaaS-Module**

- For alarm receiving and handling scenarios.
- Enhanced alarm centre with SOP, alarm reports, alarm escalation, diverse alarm distribution modes to multiple operators, dedicated alarm view window to display alarm video.

**License 2**  
**HiCentral-P-Remote Video Patrols-Module**

- For remote video patrol scenarios.
- Scheduled remote security patrol via cameras, with patrol SOP, records, etc.