

MORE INTELLIGENT MORE SECURE FOR AIRPORT

-Safe
-Intelligent
-Linkage



Prediction

- License Plate Recognition
- Face Recognition
- Intelligent Analytics



View more

- Panoramic View
- Thermal View
- 4K



Management

- Intelligent Operation and Maintenance
- E-map Application
- Alarm Management

AIRPORT THREATS AND REQUIREMENT

Common Threats in Airport



Solution of Airport Security

Vehicle management



- Adopt all-in-One camera to capture and recognize license plate of vehicle accessing to airport
- Push alarm when detect illegal, stolen, blacklist, hit-and-run, commit crime and other suspect vehicles

Passenger management



- Combine HD video surveillance with other intelligent analytics like face recognition, E-passport and face verification
- Monitor each area and identify each passenger timely
- Push alarm once the suspects appear or other emergency happens

Luggage management



- For security check, security personnel at check-in counter and control center can inspect the luggage at simultaneously with the signal conversion of HDMI to HDCVI
- For cargo area, HD camera together with thermal camera ensures the luggage safety

AIRPORT LAYOUT

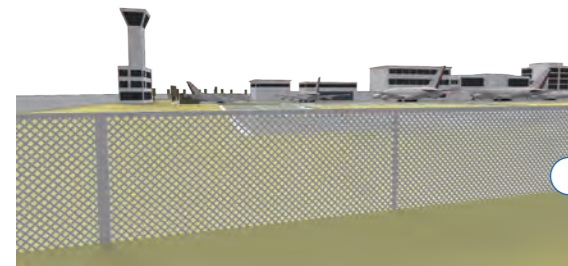
Runway

- Include monitoring the landing and taking off flight
- Video surveillance, thermal detection, long range viewing, panoramic mode



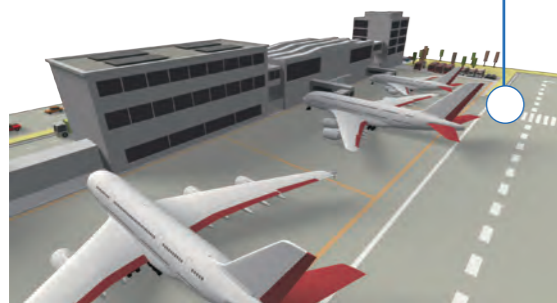
Duty-free Shop

- Include inspecting the safety of passenger and luggage
- Video surveillance, fisheye mode, people counting, heat map



Perimeter

- Include the surveillance of perimeter and alarm system
- Video surveillance, thermal detection, alarm system, system linkage

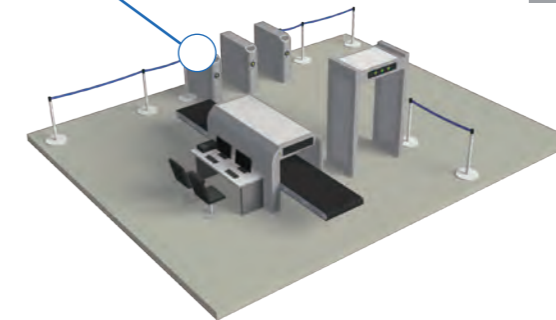
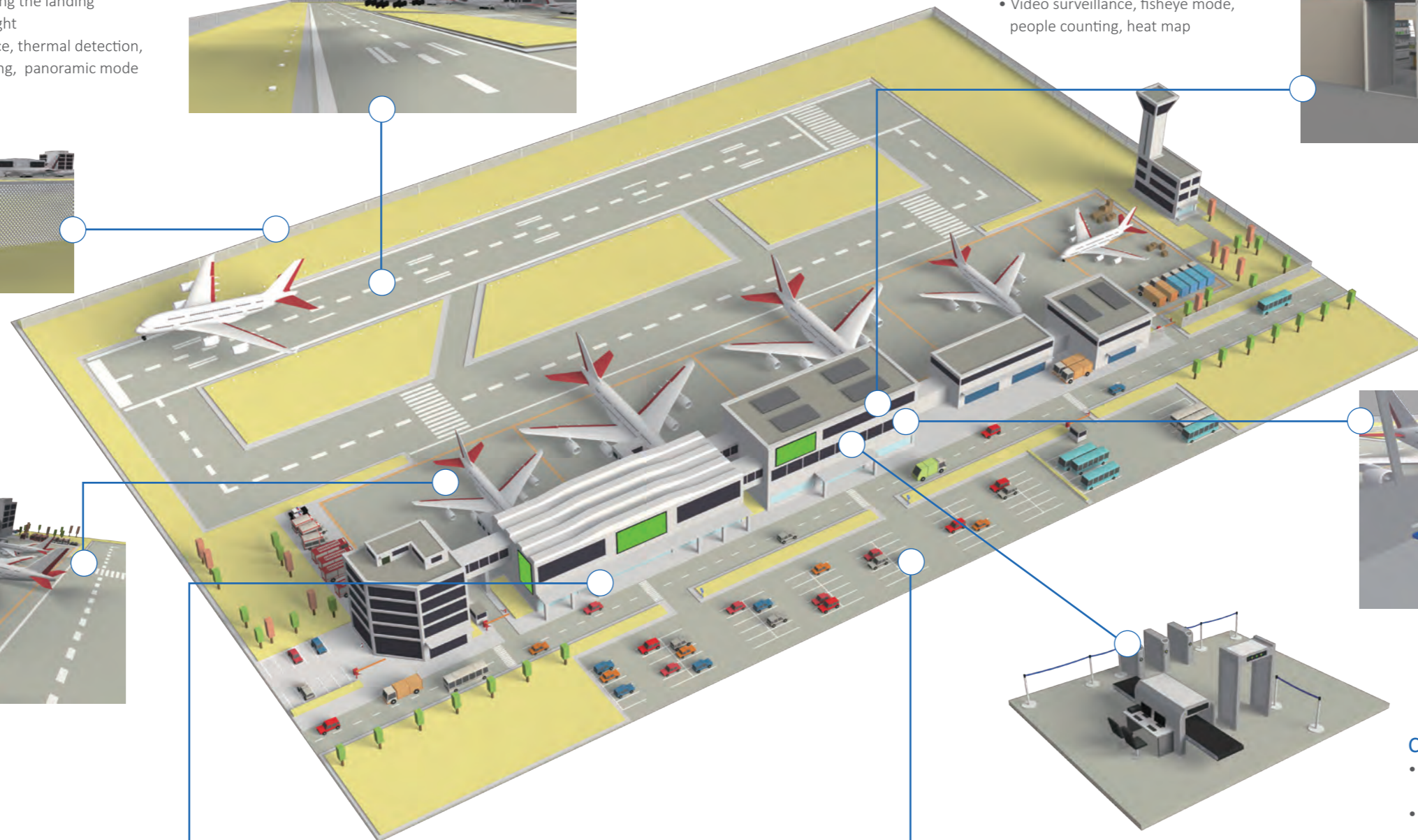
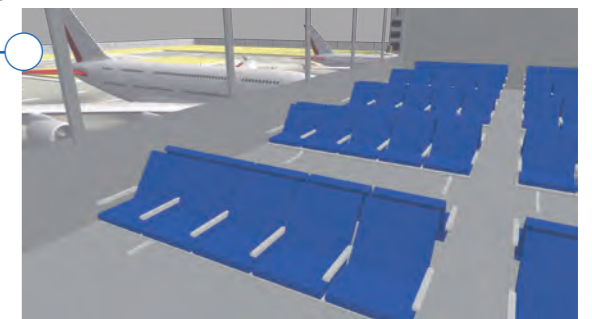


Apron

- Include monitoring the flights and boarding scenes of passengers
- Video surveillance, PTZ camera, panoramic mode

Lounge

- Include departure and arrival area and other sensitive area
- Video surveillance, ultra high definition, intelligent analysis, wireless transmission



Check-in Counters

- Include inspection of passenger and luggage
- Video surveillance, face recognition, E-passport and face verification



Roads to Airport

- Include traffic control and vehicle check
- Video surveillance, license plate recognition, suspect car alarm, information issuing



Parking Lots

- Include parking lots and entrance control
- license plate recognition, video surveillance, parking guidance, find car

APPLICATION DETAILS

Road to Airport



- Adopt image recognition algorithm to auto recognize the license plate
- Compare the plate with black list in database and find the suspect vehicle in time
- Push the alarm and help police catch the criminals

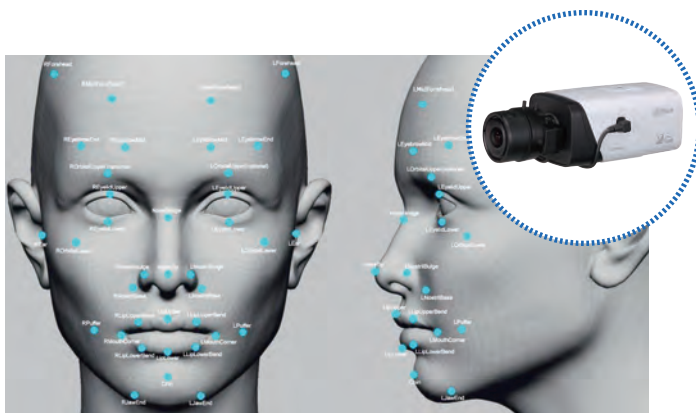
Terminal

Terminal is the most significant surveillance area due to its heaviest foot traffic among all airport areas with retail stores, check-in counters, duty-free shops, airport lounges, departure and arrival area, etc.



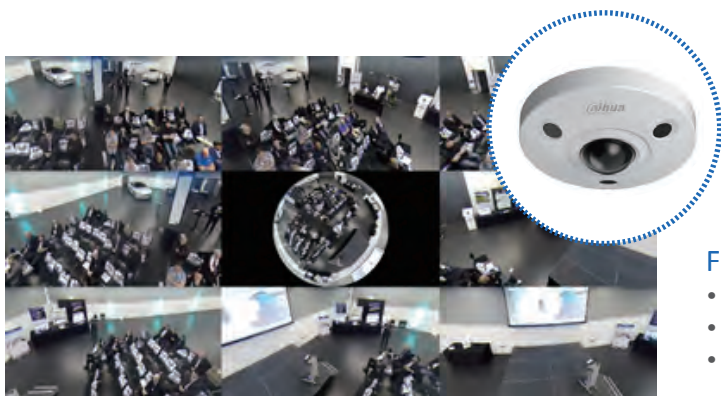
Intelligent behavior analysis

- Combine video analysis, image processing, pattern recognition and artificial intelligence technology to achieve a high degree of protection of the surveillance scene
- Achieve many intelligent applications like the intrusion, abandoned object, missing object, fast moving, loitering detection and so on



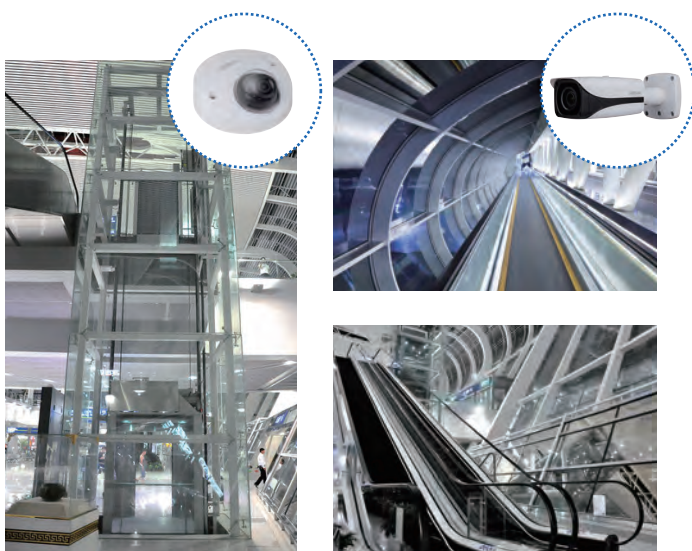
Face recognition

- Recognize the face by intelligent arithmetic
- Input personnel information and establish the blacklist for the system
- Generate the alarm when recognized face match in the blacklist and help police find the criminal



Fisheye

- One camera catch 360° scene with no blank area
- Show real video with calibration for any area
- Multiple dewarping modes: original, panoramic, double panoramic, 1+3, E-PTZ



Elevator Monitoring

- Video surveillance for all kinds of elevators
- Long wireless transmission distance up to 500m



Security Check

- Convert HDMI signal to HDCVI and record at HCVR as video format
- Security personnel at check-in counter and control center can inspect the luggage at the same time
- Easy to find the evidence once the emergency happens

Airside



Multi-lens Monitor

- Multi-Lens with 180 degree panoramic view to achieve real-time video
- See the airport surrounding environment more intuitive and clearer
- Effectively improve the performance of emergency command



Thermal Detection

- Have one thermal camera for monitoring in total darkness and one visible camera with starlight feature and motorized lens for confirming details
- Have high thermal sensitivity to capture more image details and temperature information
- Detect illegal intrusion personnel and other objects with thermal technology

Perimeter



- Set intelligent intrusion analysis to discover and detect illegal intrusion personnel and foreign objects
- Provide visual image and confirm alarm recheck when sending alarm information to monitoring center
- Mark the intrusion object and its moving track in the video image

Cargo Area



- Set video surveillance to monitor the cargo area all the time
- Starlight camera displays the picture of place in low light clearly
- Thermal camera can detect abnormal heat source to prevent fire

Control Center



- Intelligent operation and maintenance system uses the unified management system including video surveillance, storage system, display system, access control system, alarm system, etc.
- Manage all devices including views and play back of video and all the other daily operations
- Operate and maintain system, according to the information collected by the system, to provide business processes, and to maximize of system function usage

Parking Lot



- Base on plate recognition technology to identify vehicle and control the entrance of vehicle
- Set different level of user rights to improve the security level and management effectiveness



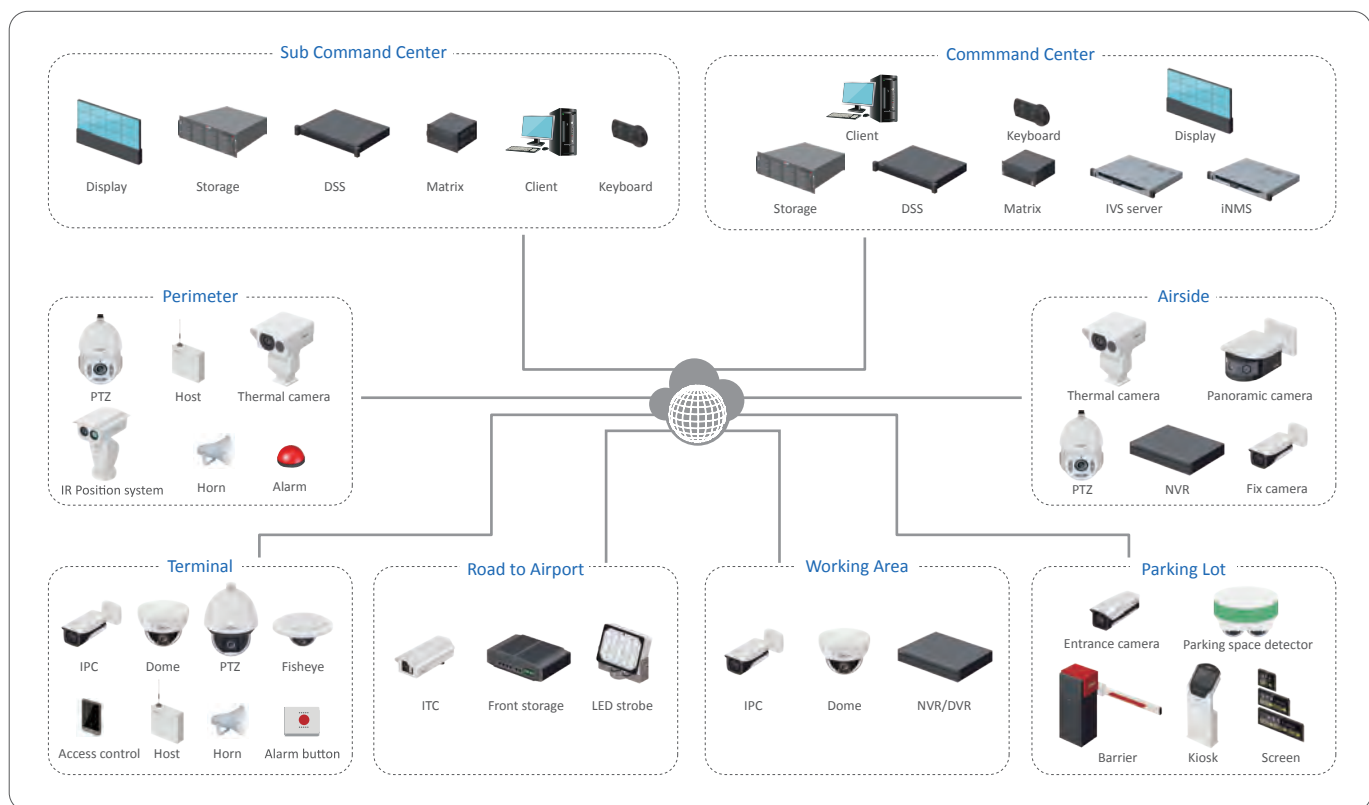
- Detect up to six parking spaces and monitor in real time
- Display different color for different statuses of parking spaces
- Recognize license plate and upload vehicle information to platform

SYSTEM STRUCTURE AND TOPOLOGY

System Topology

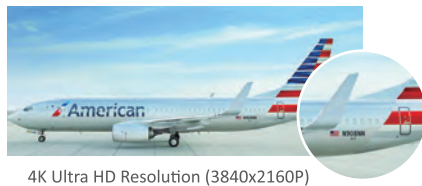
Highlights:

- Unified management: management of vehicle, passenger and luggage at the same time
- High definition: 4k, panorama, fish eye, thermal, top spot
- High integration: all-in-One platform, M series for display
- Intelligent function: license plate recognition, face recognition, perimeter intrusion alarm and intelligent behavior analysis, etc.
- Easy to upgrade: HDCVI technology, cost effective and easy to install
- High reliability of storage: SD card record, RAID technology and N+M hot standby
- High efficient of system: E-map, self-diagnosis and record intelligent analysis



Highlighted Technology

- 4K: Resolution makes revolution, perfect application in terminal or outside to have clear details of target



HD Resolution (1920x1080P)



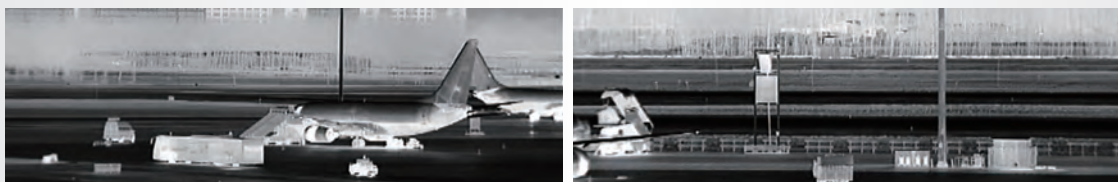
- Panorama mode: Wider angle for apron and runway



- Long range viewing: Long distance coverage



- Thermal detection: Better night and contrast effect, for apron, cargo area and perimeter



- Fisheye mode: 360° and calibration, less cameras installed for store and hall



- Vehicle management: Record license plate, alarm suspect in advance and easy to find vehicle



- Face recognition: Alarm in advance and easy to find target



- Platform: Powerful and stabilized system integrated with multi-system, including camera, storage, access control, alarm, etc.



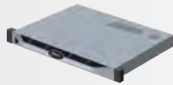
ITC



IPC/PTZ



NVR



Intelligent video server



Alarm controller



Display controller& keyboard



VDP



Access controller

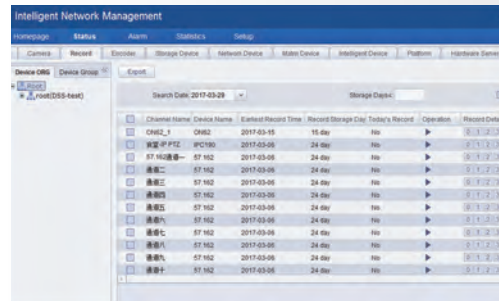
- Intelligent operation and maintenance: Find the failure devices timely and get them fixed in time



Video quality diagnosis



Device information diagnosis



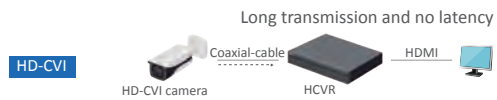
Storage status diagnosis

- HDCVI: High definition, low latency, high integration

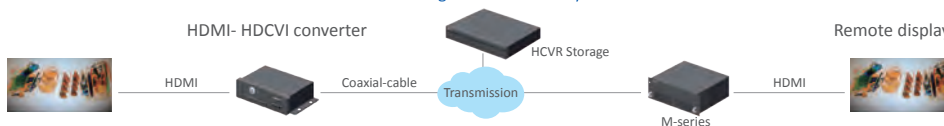
Easy upgrade for existing analog system



Low latency for runway surveillance



Video integration for security check



PRODUCT SHOWCASE

DHI-ITC302-RU1A



- All-in-One camera
- High performance CCD image sensor, high color reduction degree
- Embedded design, built-in a variety of algorithms
- Built-in thunder-proof module to prevent being struck by lightning
- Temperature -40°C~+80°C, humidity 10%~90%, suitable for the rough work scene

DH-IPC-EBW81230



- 1/1.7" 12M STARVIS™ CMOS
- Max 15fps@12M, 30fps@3M, H.265
- Multiple dewarping mode: original, panoramic
- Max.IR LEDs length 10m
- 1/1 Audio in/out (Built in Mic)
- Micro SD memory, IP67, IK10, PoE

DH-SD6AE830V-HNI



- 1/1.7" 12Mp STARVIS™ CMOS
- Powerful 30x optical zoom
- Max. 30fps@4K, 50/60fps@1080P
- IR distance up to 200m
- IP67, IK10, Hi-PoE

DH-IPC-HF8231F



- 1/2.8" 2Mp STARVIS™ CMOS
- H.265&H.264 triple-stream encoding
- 50/60fps@1080P
- WDR(140dB), auto back focus(ABF)
- Micro SD memory, PoE

DH-HAC-HFW3231E-ZH



- Starlight, 120dB true WDR, 3DNR
- Max 30fps@1080P
- 2.7-12mm motorized lens
- Max. IR length 100m, smart IR
- IP67, IK10, AC24V/DC12V, heater

DH-IPC-PFW8601-A180



- Three 1/2.8" 2Mp STARVIS™ CMOS
- Smart triple streams supported
- Max 25/30fps@4096x832
- Support not less than 180-degree panoramic view
- Max. IR LEDs length 30m
- IP67, IK10, PoE

PRODUCT SHOWCASE

DH-IPC-HDBW8331E-Z



- 1/2.8" 3Mp STARVIS™ CMOS
- 50/60fps@3M, H.265
- WDR(140dB), ICR, starlight
- Max. IR LEDs length 100m
- Micro SD memory, IP67, IK10, PoE

DH-IPC-HDBW4231F-AS



- 1/2.8" 2Mp STARVIS™ CMOS
- 50/60fps@2M(1920×1080)
- WDR(120dB)
- Max. IR LEDs length 20m
- Micro SD memory, IP67, IK10, PoE

DH-TPC-PT8320B



- 336*256 VOx uncooled thermal sensor technology
- Athermalized lens (thermal), focus-free
- 1/1.9" 2Mp STARVIS™ CMOS
- Powerful optical zoom lens (Thermal & Visible)
- Support fire detects & alarm

DHI-DSS7016D



- High performance stream media transfer and storage capability
- Support distribute and cascade deployment
- Support local storage and IP-SAN storage
- Max support 2000 channels
- Support 10000 accounts management and 700M transfer capability

DH-PFT2100



- Input HDMI video signal, self-adaptive output HDCVI signal
- HDMI support mode: 1024*768@60Hz, 1280*720@50/60Hz, 1280*1024@60Hz, 1600*1200@60Hz, 1920*1080@50/60Hz
- HDCVI output format: 720P/50, 720P/60, 1080P/25, 1080P/30

DHI-HCVR8816S-URH-S3



- Embedded processor
- H.264 dual-stream video compression
- Support HDCVI/AHD/CVBS/IP video inputs
- Max 64 channels IP camera inputs, each channel up to 12MP
- Max 200Mbps incoming bandwidth, 384Mbps forwarding bandwidth

PRODUCT SHOWCASE

DH-EVS7024S-R



- Intel processor
- Max 768 IP camera inputs
- Max 1536Mbps incoming/recording bandwidth
- 24 HDDs, SAS/SATA, hot-swap, RAIDS, hot-spare
- iSCSI and Mini SAS for expanded storage space
- Redundant power

DHL550UCM-ES



- 55" Full-HD video wall display
- Industrial level DID LCD panel, suitable for extensive 7×24 continuous works
- Ultra-narrow 3.5mm side LCD patchwork
- High contrast and high brightness
- Built-in picture splicing function
- Abundant interfaces HDMI, DVI, VGA, BNC, support video loop

DHI-M70-4U-E



- Easy and flexible configuration with pluggable card module design
- 80ch@1080P or 320ch@D1 signal encoding
- 80ch@4K or 320ch@1080P or 720ch@720P or 1500ch@D1 signal decoding
- Support max 60 screens splicing
- 6 RJ-45 gigabit network ports for matrix control, preview and online central storage

DHI-IVS-F7200



- Combine the face detection, face image comparison, face image search and database functions together
- Dynamic comparison register library support up to 100,000 images
- Up to 4 channels detection and comparison at the same time
- Search the capture image according to time or location
- Detect the face in designated region, tracking the move track

DHI-ITC237-PW1B-IRZ



- Embedded with LPR algorithm inside the camera
- Support plate cutout, overview picture snapshot and video recording
- Embedded with white list database, control the barrier
- Powerful 2.7-12mm motorized lens and IR light ideal for monitor ANPR distance as 3~8m
- IP67, IK10 and true WDR

DHI-ITC314-PH1A-TF2












- 3M 1/3inch CMOS, 0.01lux min illumination
- Dual-Lens design, simultaneously detect 6 spaces
- Indicator supports at least 7 colors
- Interactive design with parking space indicator

PRODUCT OVERVIEW

Product	Description	Road to airport	Terminal	Airside	Cargo area	Perimeter	Control center	Parking lot
 DHI-ITC302-RU1A	3M Traffic Picture Capture Camera	●						
 DH-IPC-EBW81230	12M Ultra HD IR Fisheye Camera		●					
 DH-IPC-HF8231F	2MP WDR Box Network Camera		●					
 DH-SD6AE830V-HNI	4K 30x IR PTZ Network Camera		●	●	●	●		
 DH-IPC-HDBW4231F-AS	2MP IR Mini Dome Network Camera		●					
 DH-HAC-HFW3231E-Z(H)	2M Starlight HDCVI IR Camera		●	●	●			
 DH-PFW8601-A180	Multi-Lens Panoramic Network IR Camera			●				
 DH-TPC-PT8320BP	Thermal Network Hybrid PTZ Camera			●	●	●		
 DH-PFT2100	HDMI-HDCVI Converter		●					

PRODUCT OVERVIEW

Product	Description	Road to airport	Terminal	Airside	Cargo area	Perimeter	Control center	Parking lot
 DH-IPC-HDBW8331E-Z	3Mp WDR IR Dome Network Camera		●			●		
 DHI-IVS-F7200	Face Recognition Server						●	
 DH-EVS7024S-R	24-HDD Enterprise Video Storage						●	
 DHL550UCM-ES	55" Full-HD Video Wall Display Unit (Ultra Narrow Bezel 3.5mm)						●	
 DHI-M70-4U-E	Multi-service Video Management Platform						●	
 DHI-DSS7016D	General Surveillance Management Center						●	
 DHI-ITC237-PW1B-IRZ	2M Full HD WDR Access ANPR Camera							●
 DHI-ITC314-PH1A-TF2	3Mega Parking Space Detector							●
 DHI-HCVR8816S-URH-S3	16 Channel Quadri-brid 1080P 2U Digital Video Recorder						●	

SUCCESS CASES



Dahua Secures Peruvian LAN Airline Premises

Dahua provided a hybrid solution — a combination of AP (access points) and wire transmission for Peruvian LAN Airline. The system supported wirelessly transmit the camera data to inter-connected sub-centers, and then cable-transmit to the control room.

- Total hundreds of network cameras and speed domes
- Over 15 16-channel PoE NVRs were applied for storage, accommodating up to 16TB with 4 SATAs supported, ensuring a large volume 7/24 storage



Santiago Pudahuel Airport in Chile

Dahua provided video surveillance solution for Santiago Pudahuel Airport. The whole system included front-end camera and storage and control center.

- More than 100pcs IP cameras and 50pcs IP PTZ cameras
- 2pcs NVR6000
- Control center



Nadi International Airport in Fiji

Dahua completed video surveillance for more than 60 duty-free shops in Nadi International Airport, the rest of the complex and shops were under updating gradually.

- Fish-eye camera combined with heat map function to have 360 degree monitoring and business analysis for duty free shops
- Back end ultra and pro NVR at monitoring center for back up storage
- Use SmartPSS and P2P technology to make full management



Liverpool Airport Surveillance Project

Dahua provided TV wall for Liverpool Airport to display daily work, including front-end cameras, PC desktop signal and wall-mounting.

- 6 46" video wall
- 1 video matrix

ENABLING A SAFER SOCIETY AND SMARTER LIVING

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* Design and specifications are subject to change without notice.

More intelligent, more secure for airport - 01, Mar 2017

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