



MORE INTELLIGENT MORE SECURE FOR HARBOR

-Secure
-Reliable
-Intelligent



More Details

- Panoramic View
- Thermal View
- 4K



Better Reliability

- Anti-Corrosion
- Explosion-Proof
- Dustproof



Video Analysis

- Container No. Recognition
- License Plate Recognition
- Personnel Identity Verification

HARBOR THREATS AND REQUIREMENTS

Environmental Challenges of Harbor Surveillance



Common Harbor Surveillance Management Requirements

Container Management



Container No. Recognition

- OCR technology recognizes container numbers, avoiding human error and interference.
- It facilitates and enhances harbor management efficiency at the gate.

Vehicle Management



License Plate Recognition

- All-in-one camera captures and recognizes the license plate of vehicles accessing harbor (country-specific).
- Drivers can communicate with command center through video intercom in emergencies or to verify identity.

Personnel Management



Staff identity verification & Access Control

- Staff identity verification at the gate records a subject's facial characteristics, entrance time, and place of entrance.
- The system will generate an alarm if recognized result is on the block list.

HARBOR LAYOUT



Perimeter

- Monitor the Harbor perimeter
- Thermal detection



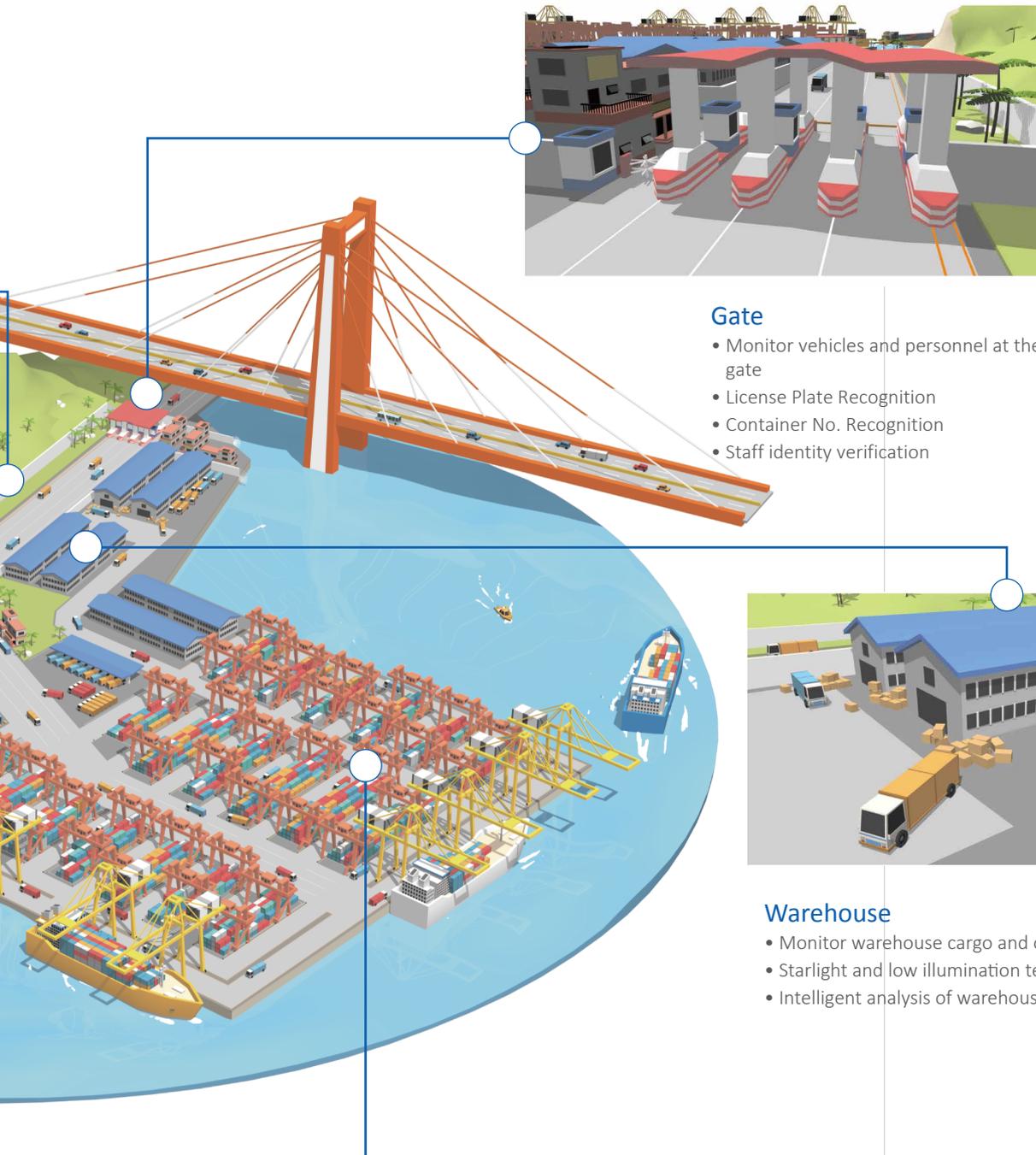
Berth

- Monitor berth operations
- Anti-corrosion



Shipping Lane

- Monitor ships in shipping lanes
- Thermal detection, long-range zoom, panoramic mode



Gate

- Monitor vehicles and personnel at the gate
- License Plate Recognition
- Container No. Recognition
- Staff identity verification



Warehouse

- Monitor warehouse cargo and operations in warehouse
- Starlight and low illumination technology
- Intelligent analysis of warehouse stock and movement



Yard

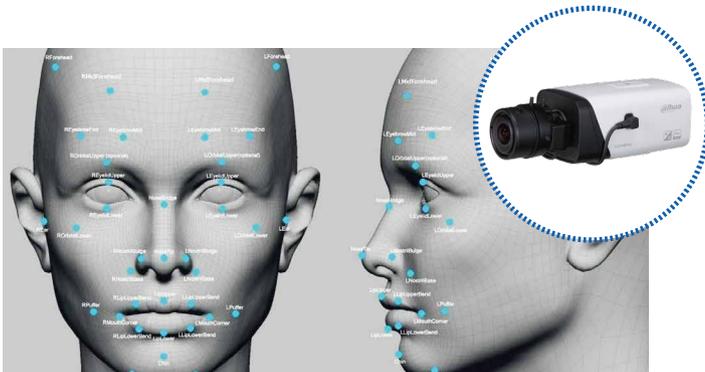
- Monitor yard operations in detail with 4K HD
- Explosion-proof design
- Anti-corrosion design

BUSINESS UNIT

Gate



- Uses image recognition algorithms to automatically recognize the license plate number
- Capture and recognize container numbers
- Container damage inspection



Staff identity verification

- Recognizes distinct facial characteristics with intelligent algorithms
- Set block list entries and alarms for certain facial characteristics and information (such as name, gender, date of birth, ID number, etc.)
- Track when and where the target people shows up.
- Generate an alarm when system detect people are not staff.

Shipping Lane



- Multi-lens camera with 180 degree panoramic video displays wide-angle video in real-time
- Harbor shipping lane can be viewed more clearly
- Effectively improve the performance of emergency response command
- Thermal camera can work around-the-clock and in all weather conditions

Berth



- PTZ with corrosion-resistant shell reliably monitors the handling of cargo

Yard



- PTZ camera with explosion-proof technology monitors the yard in real time
- Record container operation and provide images and video as evidence

Perimeter



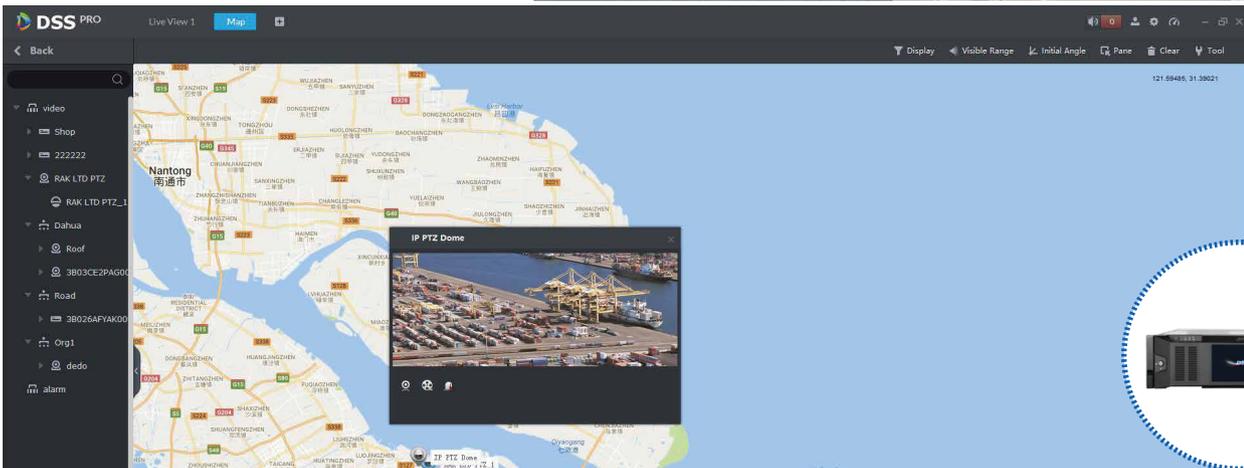
- Configure intelligent intrusion analysis system to automatically detect trespassers and foreign objects
- Alarm is linked to video surveillance and pops up on VMS client
- System displays intruding object and trajectory on video image
- Thermal camera can work around-the-clock and in all weather conditions

Warehouse



- Configure cameras to monitor warehouse operations 24/7
- Cameras equipped with Starlight can record color images in dark environments with brightness as low as 0.006 Lux
- Thermal camera can detect abnormal heat sources to prevent fires

Control Center



- Display map with satellite cloud images, hydrology and meteorology, weather, wave, tidal, and other image information and port operation information
- Manage all devices including viewing real-time video feed and playback
- Intelligent operation and management system allows centralized management of video surveillance, storage, display, and alarm systems
- Video synopsis displays summary of useful information for records sorted by subject and time

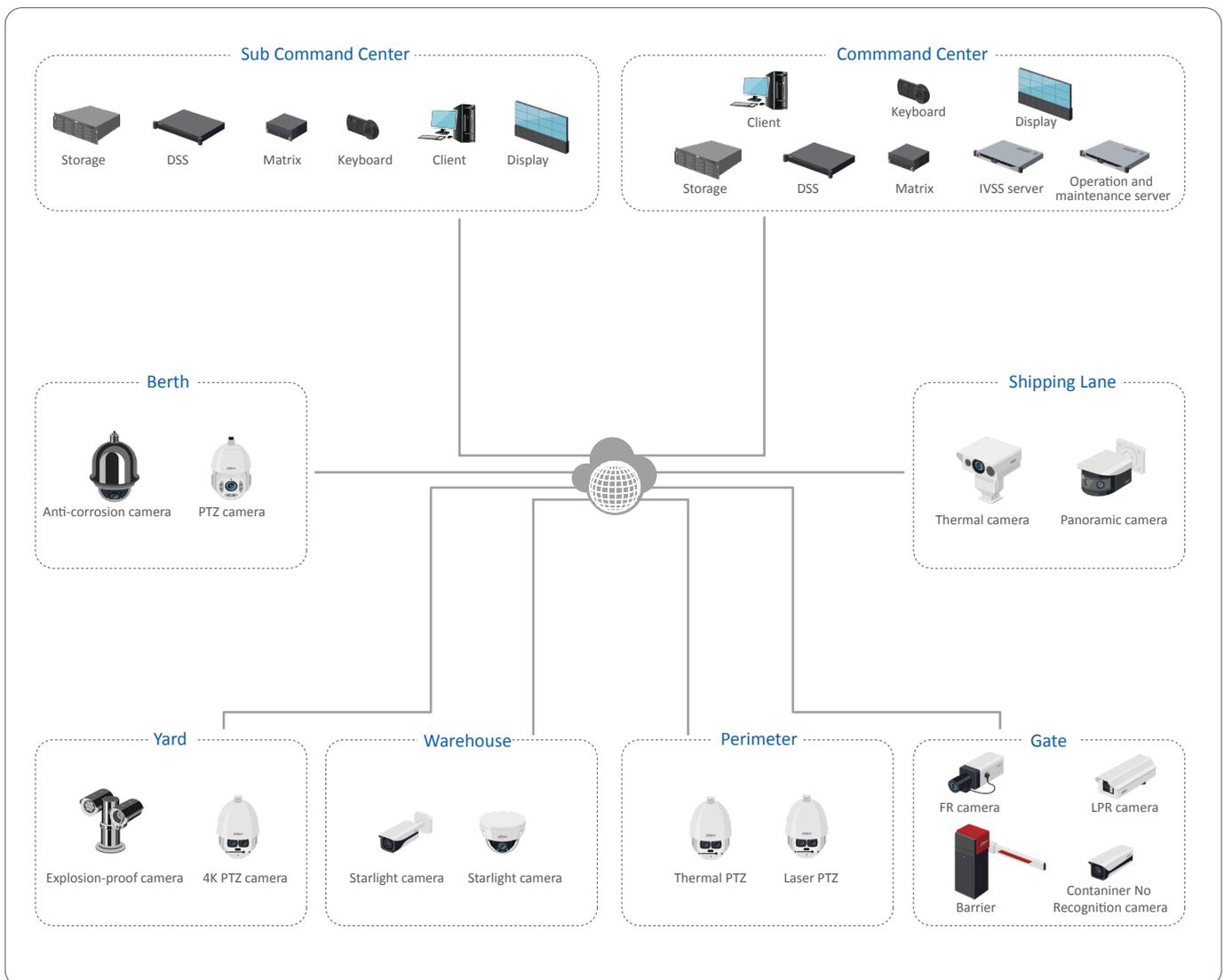


SYSTEM STRUCTURE AND OVERVIEW

System Overview

Highlights :

- Unified management: Centralized management of vehicles, containers, and personnel
- High definition: 4K
- Adaptive camera: Anti-corrosion, explosion-proof, panorama, thermal camera
- High integration: All-in-one, M series for display
- Intelligent functions: License Plate Recognition, Face Recognition, Container Number Recognition, perimeter intrusion alarm, intelligent behavior analysis, etc.
- Easy to upgrade: HDCVI technology is cost-effective and easy to install
- High storage reliability: Local SD card storage, RAID technology, N+M solution, and hot spare
- High system efficiency: E-map, self-diagnosis



Highlighted Technology

- 4K Resolution: Provides 4 times the details of 1080p in the same scenario



4K Ultra HD Resolution (3840x2160P)

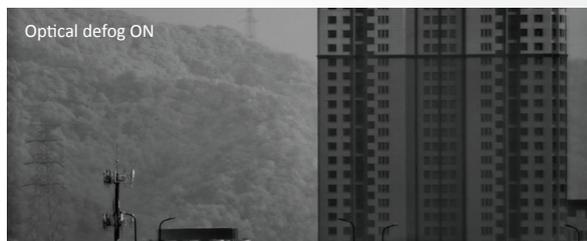


HD Resolution (1920x1080P)

- Panorama Mode: One camera with a 180 degree field of view seamlessly covers shipping lanes like never before



- Optical Defog: Advanced optical defog with IR filter can remove 98% of fog, allowing you to see clearly



- Thermal Detection: Better night effect and contrast effect for shipping line cargo area and perimeter



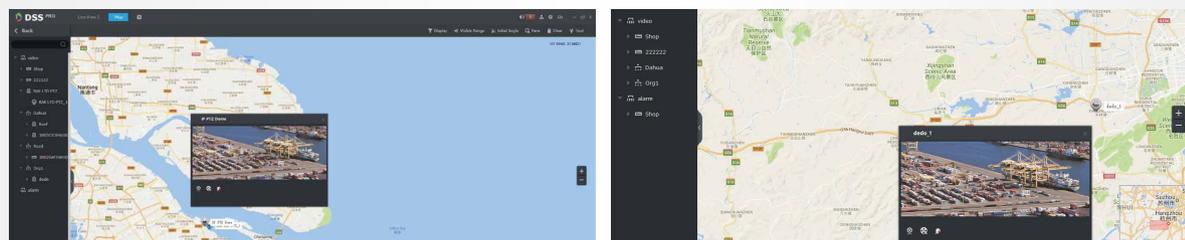
- License Plate Recognition: Recognize and record license plates and unauthorized actions. Block list alarm notifies command center if plate (on the block lists) is detected



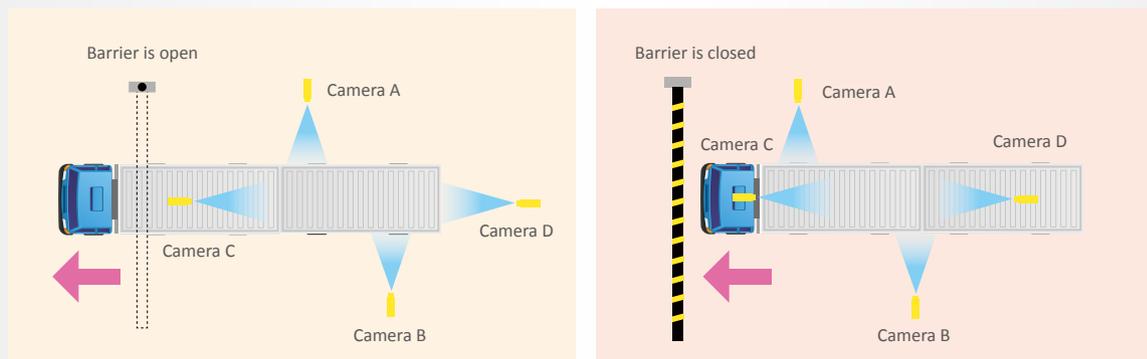
- Staff identity verification: Staff images recording, block list alarm, and search by images make it easy to keep track of personnel



- E-Map Display: Smart tools provide an easy to use and intuitive visual experience



- Container Recognition: Recognize and record container numbers automatically and easily manage container data



- HDCVI: High definition, low latency image paired with high scalability presents cost-effective system



- Intelligent Operation and Maintenance: Find malfunctioning devices instantly



Video quality diagnosis

Score of the check-99 Score: Immediate repair is recommended!

Device Name Device Group Video Quality Video Set Consistency Real-time Alarm Data Backup

Detected offline channel total: 1887 unit

Video quality is good, no abnormality found

Video consistency is good, no abnormality found

Device Name	Device Group	Video Quality	Video Set Consistency	Real-time Alarm	Data Backup
通道一	57 162	100	100	100	100
通道二	57 162	100	100	100	100
通道三	57 162	100	100	100	100
通道四	57 162	100	100	100	100
通道五	57 162	100	100	100	100
通道六	57 162	100	100	100	100
通道七	57 162	100	100	100	100
通道八	57 162	100	100	100	100
通道九	57 162	100	100	100	100
通道十	57 162	100	100	100	100

Device information diagnosis

Intelligent Network Management

Homepage Status Alarm Statistics Setup

Camera Record Encoder Storage Device Network Device Main Device Intelligent Device Platform Hardware Server

Device Group Device Group

Search Date: 2017-03-29 Storage Days: 24

Channel Name	Device Name	Earliest Record Time	Record Storage Day	Today's Record	Operation	Record Detail
通道一	通道一	2017-03-15	15 day	No	▶	0:1:2:3:4
通道二	通道二	2017-03-06	24 day	No	▶	0:1:2:3:4
通道三	通道三	2017-03-06	24 day	No	▶	0:1:2:3:4
通道四	通道四	2017-03-06	24 day	No	▶	0:1:2:3:4
通道五	通道五	2017-03-06	24 day	No	▶	0:1:2:3:4
通道六	通道六	2017-03-06	24 day	No	▶	0:1:2:3:4
通道七	通道七	2017-03-06	24 day	No	▶	0:1:2:3:4
通道八	通道八	2017-03-06	24 day	No	▶	0:1:2:3:4
通道九	通道九	2017-03-06	24 day	No	▶	0:1:2:3:4
通道十	通道十	2017-03-06	24 day	No	▶	0:1:2:3:4

Storage status diagnosis

PRODUCT SHOWCASE

VTO2000A



- 1/3" 1.3Mp CMOS, 2.8mm lens
- Audio compression: G.711, Audio Input: omnidirectional mic
- Audio output : built-in speaker, keypad: single mechanical button
- Ethernet: 10M/100Mbps self-adaptive
- Ingress protection: IP54, IK07

DHI-ITC352-AU3F



- All-in-One camera
- GS-CMOS 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 harsh environments

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-PSDW8842ML-A180-D237



- 4x2MP Multi-Sensor Panoramic + PTZ WizMind Network Camera
- Panoramic: Four 1/1.8" 2 Megapixel progressive scan CMOS
- PTZ: One 1/1.8" 2 Megapixel progressive scan CMOS
- Support 180-degree panoramic view
- Starlight+ technology
- IR distance up to 220 m

TPC-ACPT8620C-B



- 640x512 VOx uncooled thermal sensor technology
- Athermalized Lens(thermal), autofocus
- 1/1.9" 2Mp progressive scan Sony CMOS
- Powerful optical zoom lens(Thermal&Visible)
- Laser range finder or laser illuminator optional
- Supports fire detection & alarm
- Anti-corrosion/NEMA 4X, IP66

DH-SD6AL445XA-HNR-IR



- 4MP 45x Starlight IR WizMind Network PTZ Camera
- 1/2.8" 4Megapixel CMOS
- Powerful 45x optical zoom
- Starlight technology
- Deep-learning-based auto tracking and perimeter protection
- Support Hi-PoE
- IP67

PRODUCT SHOWCASE

DH-SD60230U-HNI-SL



- 1/2.8" 2Mp STARVIS™ CMOS
- Powerful 30x optical zoom ,Starlight
- Max. 50/60fps@1080P, H.265
- PoE+, IP68, IK10, NEMA 4X report
- Material: 316L Stainless steel
- Anti-corrosion

DH-SD8A840-HNF-PA



- 1/1.8" 8Megapixel STARVIS™ CMOS
- Powerful 40x optical zoom , Starlight technology
- Perimeter protection · Metadata · Face detection(selecting of face in motion, and output the best face picture of the face) · Auto-tracking
- Smart wiper , IP67 IP67, IK10, Hi-PoE

DH-EPC230U-PTZ-IR



- 1/2.8" 2Mp STARVIS™ CMOS
- Powerful 30x optical zoom
- 316L stainless steel housing
- H.265/H.264 Triple-stream Encoding
- Max. 50/60fps@1080P
- Explosion Proof

DH-TPC-SD8421-T



- 400 × 300 uncooled VOx thermal sensor technology
- Athermalized lens (thermal), focus-free
- 1/2.8" 2 megapixel progressive scan CMOS
- Support detection and alarm of fire
- Micro SD memory, IP66

TPC-BF5601



- 640x512 vox uncooled thermal sensor technology
- Athermalized Lens(thermal),Focus-free
- Supports Fire detect&alarm
- Various lens optional(9/13/19/25/35mm)
- Micro SD memory, IP67,POE

IPC-HFW5241E-ZHE



- 2MP IR Vari-focal Bullet WizMind Network Camera
- 1/2.8" 2Megapixel progressive scan STARVIS™ CMOS
- 25/30 fps@1080P (1920 × 1080)
- WDR (120 dB), Day/Night (ICR), 3D DNR, AWB, AGC, BLC
- Multiple network monitoring: Web viewer, CMS (DSS/PSS) & DMSS
- 2.7 mm–13.5 mm motorized lens
- Max. IR LEDs Length 50 m
- Micro SD memory, IP67, IK10, PoE+, Heater

PRODUCT SHOWCASE

DSS Pro V8



- High performance stream media transfer and storage capability
- Supports distributed and cascade deployment, hot standby.
- Supports local storage and IP-SAN storage
- Supports 2,000 channels video, 500 doors, 2,000 VDP
- Powerful application : Basic video management function , Access control, Vehicle management, Face application, alarm center and other AI application.

DH-EVS7124S



- 24-bay Embedded Video Storage
- 64-bit High-performance multi-core processor
- Max 512-ch IP camera inputs
- Max 1024 Mbps incoming/recording/forwarding bandwidth
- 24 HDDs, SAS/SATA, Hot-Swap
- Supports RAID 0/1/5/6/10/50/60, JBOD, Hot spare
- Supports video stream/ Picture direct storage mode and IPSAN storage mode
- Supports N+M cluster
- Supports Automatic Network Replenishment (ANR)

DHL550UDM-EG



- 55" FHD Video Wall Display Unit (Ultra Narrow Bezel 1.8mm)
- Industrial level IPS LCD panel, suitable for extensive 24/7 continuous works
- Ultra-narrow 1.8mm bezel-to bezel design(0.9mm even panel bezel)
- High contrast ratio and high brightness greatly enhance the video layering, and present the details of the video
- > High fidelity digital processing, brilliant and vivid video
- > Built-in 3D COMB filter and 3D Noise Reduction
- > Abundant interfaces HDMI, DVI, VGA, BNC, USB, 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
- Supports max 60 screens splicing
- 6 RJ-45 gigabit network ports for matrix control, preview and online central storage

DHI-IVSS7016DR



- 3U 16HDDs Intelligent Video Surveillance Server
- Industry embedded micro-controller
- Max 768Mbps incoming bandwidth
- 256-channel IP video access
- Face detection, video metadata, staff identity verification
- IVS (tripwire, intrusion, abandoned object, missing object, fast moving, parking detection, crowd gathering, loitering, parking, and fence-crossing),
- people counting, smoking detection, call detection

PRODUCT OVERVIEW

Product	Description	Gate	Shipping line	Berth	Yard	Warehouse	Perimeter	Control center
 VTO2000A	Emergency Video Intercom	●						
 DHI-ITC352-AU3F	3M Traffic Picture Capture Camera	●						
 DH-IPC-HF8231F	2MP WDR Box Network Camera	●						
 DH-PSDW8842ML-A180	Multi-Lens Panoramic Network IR Camera		●					
 DH-TPC-ACPT8620C-B	Thermal Network Tribrid PTZ		●					
 DH-SD6AL445XA-HNR-IR	4MP 40x IR PTZ Network Camera				●			
 DH-SD60230U-HNI-SL	2MP 30x Anti-Corrosion PTZ Network Camera			●				
 DH-SD8A840-HNF-PA	4K 40x Starlight IR PTZ Network Camera				●			

PRODUCT OVERVIEW

Product	Description	Gate	Shipping line	Berth	Yard	Warehouse	Perimeter	Control center
 DH-EPC230U-PTZ-IR	2MP 30x Explosion-Proof IR PTZ Network Camera				●			
 DH-TPC-SD8421-T	Thermal Network Anti-corrosion Hybrid Speed Dome Camera						●	
 TPC-BF5601	Thermal Network Bullet Camera					●		
 IPC-HFW5241E-ZHE	2MP IR AI Bullet Network Camera					●		
 DHI-DSS Pro V8	General Surveillance Management Center							●
 DH-EVS7024S-R	24-HDD Enterprise Video Storage							●
 DHL550UDM-EG	55" Full-HD Video Wall Display Unit (Ultra Narrow Bezel 1.8mm)							●
 DHI-M70-4U-E	Multi-Service Video Management Platform							●
 DHI-IVSS7016DR	Staff identity verification Server							●

SUCCESS STORIES



Pescara Harbor in Italy

Dahua Technology and its megapixel solution successfully secured the Pescara Port. Dahua solutions overcame unpleasant weather conditions which threatened to corrode devices, shorten their lifespan, and affect network transmissions.

- Dahua cameras provided a comprehensive solution for all types of surveillance scenarios including superb night surveillance.
- Dahua NVR devices satisfied storage requirements, and their RAID functionality enhanced system reliability and stability.
- The system adopts a ring networking structure with optical fiber, and guaranteed an adequate bandwidth at 108Mbps. The radio transmission system was configured at an access point of dual band 2.4/5.8GHz.



Suva Harbor in Fiji

Dahua completed video surveillance for Suva Harbor in Fiji to guarantee the security of daily operation work.

- Multiple types of IP cameras met the various requirements of different scenes, including the outdoor working area, office hall, etc.
- 5.8G wireless transmission overcame need for wiring and ensured reliable transmission speeds.



Manila North Harbor in the Philippines

Dahua provided a video surveillance solution for Manila North Harbor (PHMNN). Dahua installed dozens of PTZ cameras to guarantee the security of daily operations.



Hainan Yangpu Harbor in China

Dahua Technology and its megapixel solution successfully secured Hainan Yangpu Harbor through an HD surveillance solution, including HD IP cameras, encoders, IP storage and VMS platform.

- Hundreds of network cameras and speed domes
- Back end eco-savvy NVR and super NVR at monitoring center for back up storage.

ENABLING A SAFER SOCIETY AND SMARTER LIVING

Dahua USA

Tel: +1 (949) 679-7777
Email: sales.usa@dahuatech.com
support.usa@dahuatech.com

Dahua Mexico

Tel: +52 55 67231936
Email: sales.mx@dahuatech.com
support.mx@dahuatech.com

Dahua Colombia

Tel: +571 7446110
Email: sales.co@dahuatech.com
support.co@dahuatech.com

Dahua Brazil

Tel: +55 11 32511871
Vendas: comercial.br@dahuatech.com
Suporte Técnico: suporte.br@dahuatech.com

Dahua Perú

Tel: +511 500-8555
Email: sales.pe@dahuatech.com
support.pe@dahuatech.com

Dahua Chile

Tel: +56 232705421
Email: sales.cl@dahuatech.com
support.chile@dahuatech.com

Dahua Argentina

Email: project.ar@dahuatech.com

Dahua Panama

Email: sales.pa@dahuatech.com
Support: support.pa@dahuatech.com

Dahua Thailand

Tel: +66 2541 5188
Email: info.th@dahuatech.com
hr.th@dahuatech.com

Dahua Singapore

Tel: +65 65380952
Email: sales.sg@dahuatech.com

Dahua Turkey

Email: sales.tr@dahuatech.com
support.tr@dahuatech.com

Dahua Malaysia

Tel: +60376620731
Email: sales.my@dahuatech.com

Dahua Indonesia

Email: sales.id@dahuatech.com
support.id@dahuatech.com

Dahua S.Korea

Tel: +82 7081618889
Email: sales.kr@dahuatech.com
support.kr@dahuatech.com

Dahua India

Tel: +91 1244569100
Email: sales.india@dahuatech.com

Dahua Russia

Tel: 8 (499) 682-60-00
Email: info@dahuatech.com

Dahua Kazakhstan

Tel: +7 727 3110838
Email: sales.kz@dahuatech.com

Dahua UK

Tel: +44(0)1628 613 500
Email: sales.uk@dahuatech.com

Dahua the Netherlands

Tel: +31 (0) 79 799 96 96
Email: sales.benelux@dahuatech.com

Dahua Iberia

Tel: +34 917649862
Email: sales.iberia@dahuatech.com

Dahua Italy

Tel: +39 362182681
Email: sales.italy@dahuatech.com

Dahua Germany

Tel: +49 211 20544121
Email: sales.de@dahuatech.com

Dahua France

+33 1 48 53 70 53
Email: sales.france@dahuatech.com

Dahua CEE & Nordic

Tel: +48 223957400
Email: dh.cen@dahuatech.com

Dahua Poland

Tel: +48 223957400
Email: biuro.pl@dahuatech.com

Dahua SRB

+38 1 (11) 4429999
Email: dh.srb@dahuatech.com

Dahua Denmark

Email: Nordic.ne@dahuatech.com

Dahua Hungary

Tel: +36 17899852
Email: sales.hu@dahuatech.com

Dahua Bulgaria

Tel: +35929950013
Email: support.bg@dahuatech.com

Dahua SRL

Email: marketing.ro@dahuatech.com

Dahua Czech

Tel: +420 225 986 001
Email: admin.cz@dahuatech.com

Dahua S. Africa

Email: sales.za@dahuatech.com

Dahua Australia

Tel: +61 299285200
Email: sales.oc@dahuatech.com

Dahua Middle East

Tel: +971 48815300
Email: sales.me@dahuatech.com
info.me@dahuatech.com

* Design and specifications are subject to change without notice.

More Intelligent More Secure for Harbor - 01, Mar. 2019



DAHUA TECHNOLOGY

No.1199 Bin'an Road, Binjiang District, Hangzhou, China. 310053

Tel: +86-571-87688883 Fax: +86-571-87688815

Email: overseas@dahuatech.com

www.dahuasecurity.com

