



DAHUA TECHNOLOGY
MAKE YOUR LIFE SAFER

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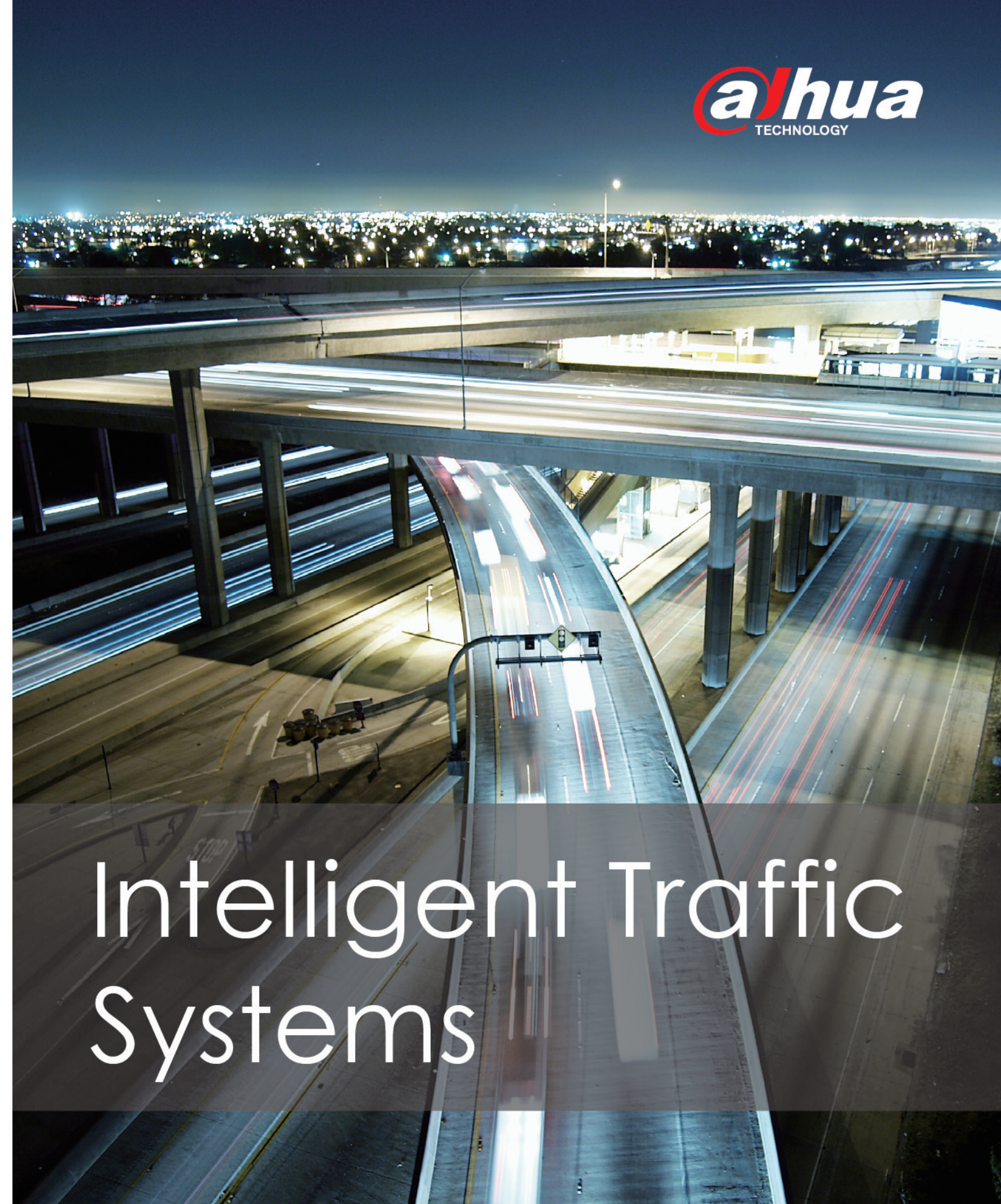
Intelligent traffic system-01, September 2015



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Intelligent Traffic Systems

2015
September

ANPR Solution

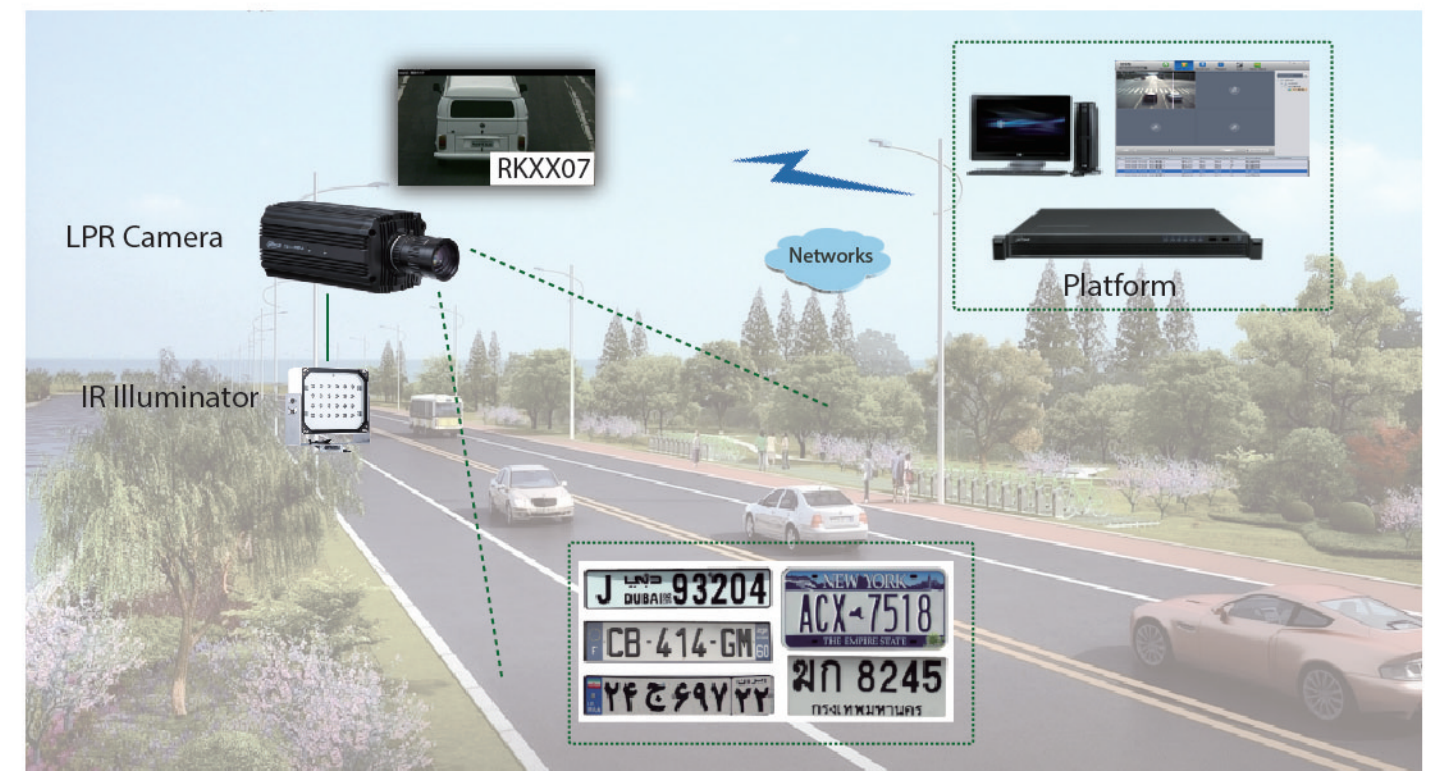
The New Generation of ANPR System



Values:

- To monitor vehicles in the city with embedded OCR and black & white list technology.
- To detect multiple violations such as bus lane and wrong way driving with vehicle tracking technology.
- To satisfy the demands of government by recognizing abundant data such as vehicle brand, vehicle color and traffic flow.

Solution



Features:



No Algorithm Server
Low Consumption





ITC302-RF1A-IR
3MP Intelligent Traffic Camera

- TI DaVinci high-performance DSP
- 1/1.8" high performance CCD sensor, monitor 2 lanes
- Embed intelligent algorithms including license plate recognition, color Recognition, velocity measurement, etc.
- Various signals, data and communication interface



ITC602-RF1A-IR
6MP Intelligent Traffic Camera

- TI DaVinci high-performance DSP
- 1" high performance CCD sensor, monitor 3 lanes
- Embed intelligent algorithms including license plate recognition, color recognition, velocity measurement, etc.
- Various signals, data and communication interface



ITACD-006B
Vehicle Detector

- Support up to 6 channel simultaneous loop detection
- 99.9% capture rate
- I/O and RS485 output mode
- Support AB logic for retrograde detection



ITACD-024SA
Narrow Wave Radar

- Support two-way speed measuring, high measure accuracy
- Support high /low speed detection, with wide speed range
- Narrow wave plate antenna design
- No detection interference between multiple lanes



ITALE-080BA-IR7-P
LED Strobe Lamp

- ATMEL AVR high capability MCU
- Adopt advanced steady flowing technique, precise and stable current control
- 24 Cree high bright IR LED lamp beads ,730nm, energy saving and environmental protection
- Support adjusting frequency and brightness of stroboflash



ITSE0804-GN5B-D
Front-end Storage

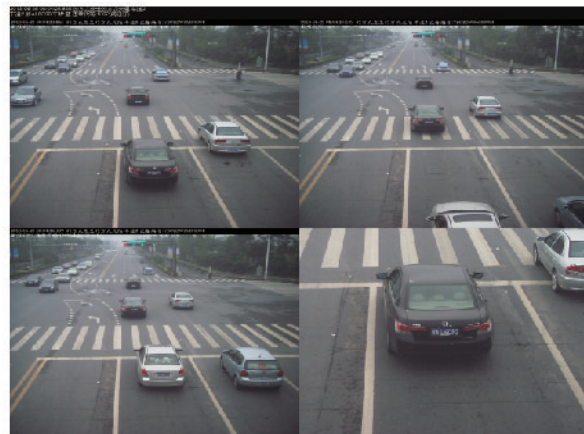
- Embedded integration component design
- 12 channel HD IP camera input, 4 channel for analog camera input
- 4 SATA ports for 3.5/2.5 inch HDD
- Heat dissipation without mechanical fan
- Support LCD screen, VGA & HDMI port



Red Light Enforcement Solution



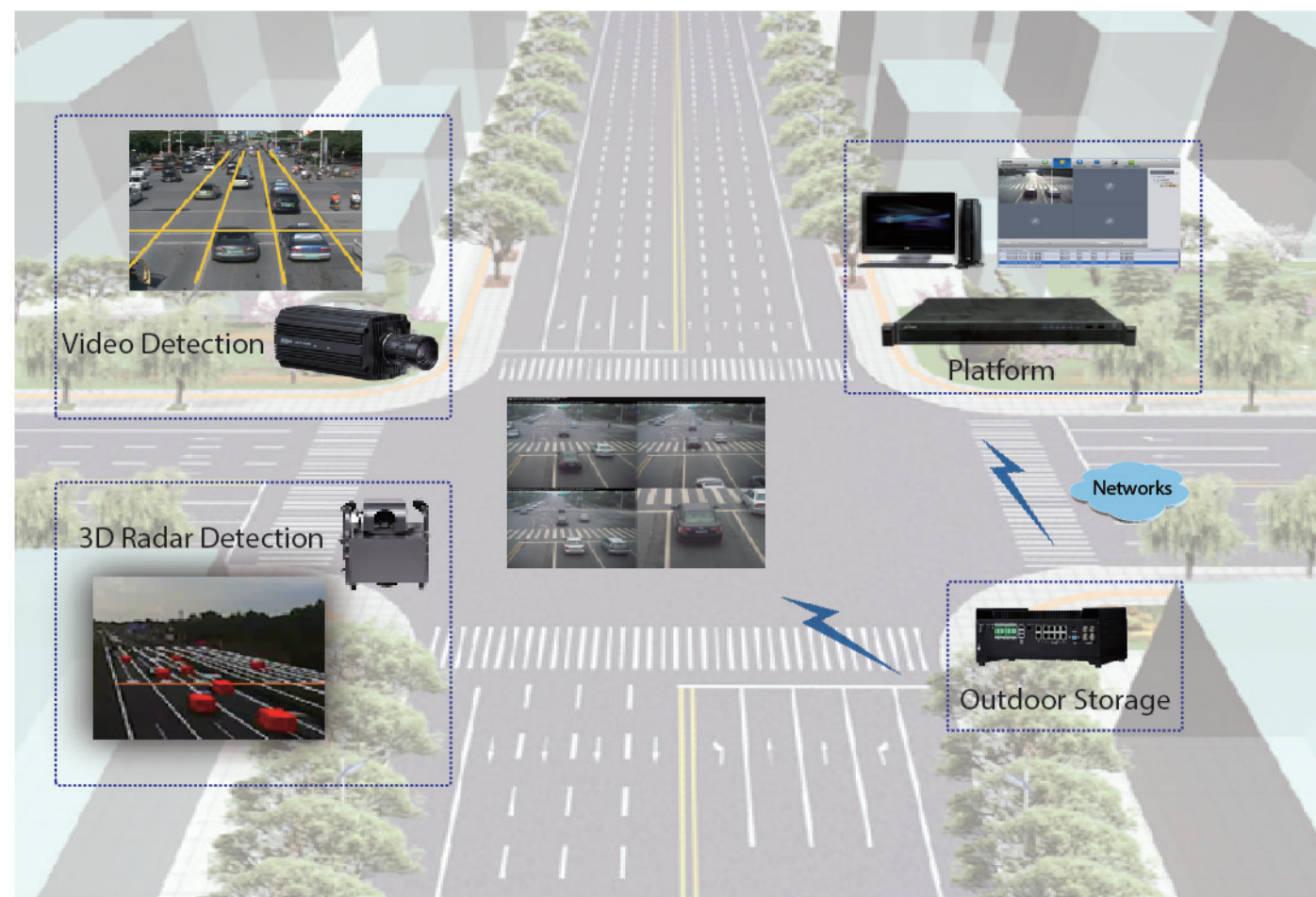
Red Light Enforcement System



E-Police: improve the safety of the road

- Detect multiple violations such as run the red light, over speed, retrogradation and wrong way driving.
- Multiple detections such as video, 3D radar and loop trigger are suitable for different demands of installation and system function.
- Embedded algorithms like OCR, vehicle tracking and red light detection are low consumption which make the system more stable.
- The dual-stream of camera provides video and picture related with the violation, reduce the dispute for the punish.
- Compact platform to manage the total system, issuing the ticket according to the police operation.

Solution



Features:

- 3D radar non-invasive detection easy to install
- Video tracking detect multiple violations
- Traffic flow statistics for easy integration



ITC302-RF1A
3MP Intelligent Traffic Camera

- TI DaVinci high-performance DSP
- 1/1.8" high performance CCD sensor, monitor 2 lanes
- Embed intelligent algorithms including license plate recognition, color Recognition, velocity measurement, etc.
- Various signals, data and communication interface



ITC602-RF1A
6MP Intelligent Traffic Camera

- TI DaVinci high-performance DSP
- 1" high performance CCD sensor, monitor 3-4 lanes
- Embed intelligent algorithms including license plate recognition, color recognition, velocity measurement, etc.
- Various signals, data and communication interface



ITALE-060AA-P
LED Strobe Lamp

- Adopt ATMEL AVR high capability MCU
- Adopt advanced steady flowing technique, precise and stable current control
- 16 Cree high bright LED lamp beads
- Support illuming automatically according to environment brightness
- Support video and snapshot synchronization
- Low recycle time



ITACD-012B
Vehicle Detector

- The simple communication between the RS485 and the snap host. System can send out a snap command to the snap host when it detects there is red light offence event.
- Max support three 4-channel vehicle detector.
- Max supports 12 vehicle detect signal from 12 loops.
- Supports 3-channel red & green light detection.



ITASD-016RA
Signal Detector

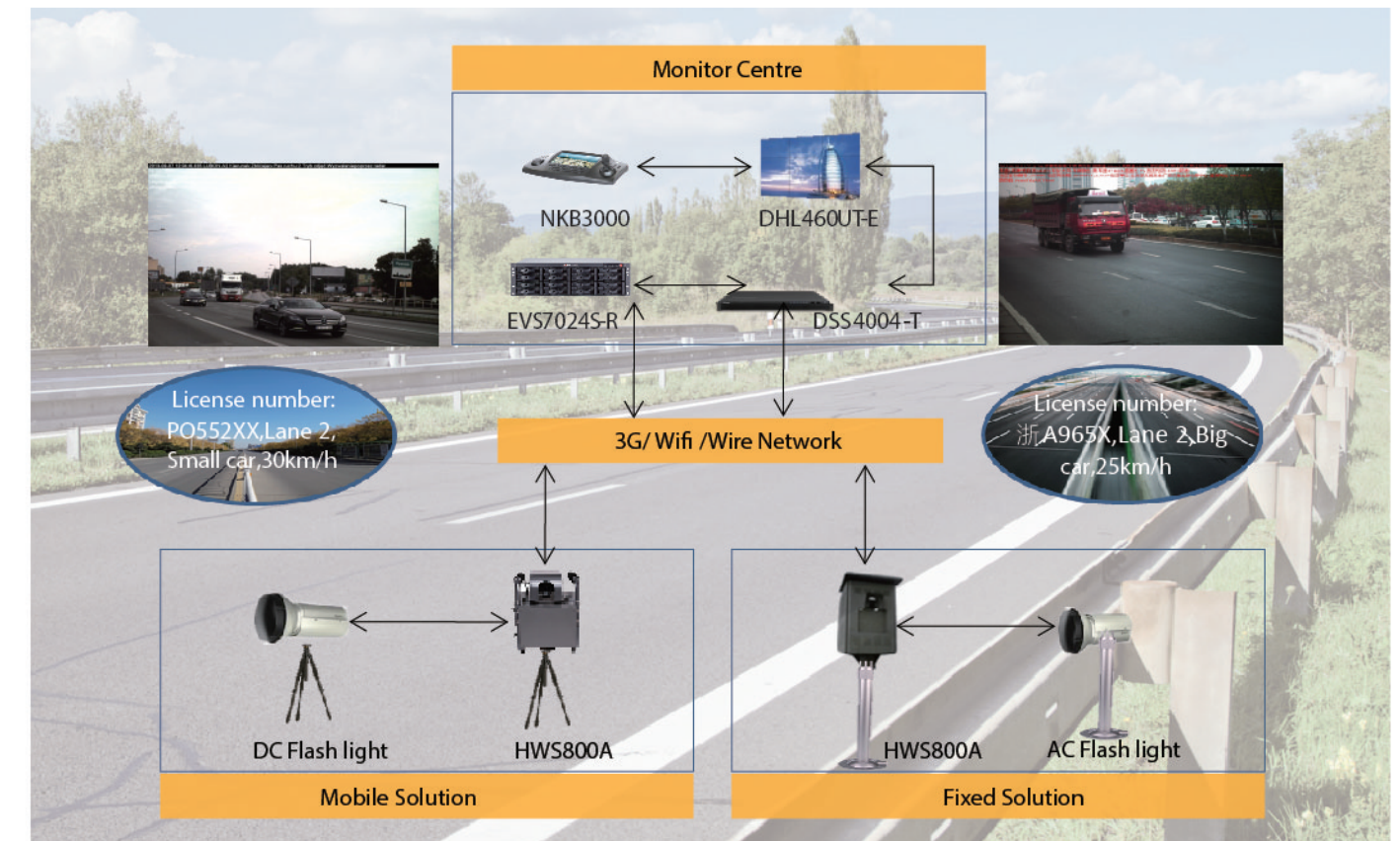
- Connect to max 16-ch 110~220V/AC traffic light
- Traffic light signal detection
- 4 RS485 interfaces for camera communication
- AC85~265V 50+2% Hz wide voltage range
- Less than 3W low power consumption



HWS800A-3D
8MP 3D Speed Measurement

- Detect multiple objection's speed and distance
- Track multiple vehicles
- Built-in special image storage device
- Adopt wide beam radar
- High definition image snapshot
- Multiple connection ways, support wireless via CDMA/GPRS/3G

The Radar Speed Enforcement System



Radar Speed Enforcement Solution



System Key Features

- Range radar 8Mp camera, monitor 3-4 lanes, vehicle size and specific models
- 3D radar detects the multiple objects' speed and distance, tracking the multiple vehicles
- License plate recognition
- Speed measure: 10-250km/h
- Fixed installation and mobile installation

Value of System

- Over speed/ less speed snapping
- Punish traffic violation
- Reduce traffic accident
- Standardize behavior
- Elimination of light pollution

Dahua combines these valuable radar speed technologies with its unmatched experience in radar speed enforcement system to benefit customers all over the world.



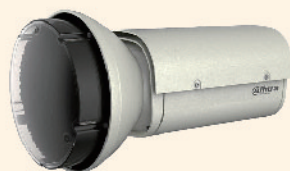
HWS800A
8MP Speed Measurement

- Fully embedded design without PHD
- Integrated design, compact construction
- Built-in special image storage device
- Adopt narrow beam radar
- High definition image snapshot
- Multiple connection ways, support wireless via CDMA/GPRS/3G



HWS800A-3D
8MP 3D Speed Measurement

- Detect multiple objection's speed and distance
- Track multiple vehicles
- Built-in special image storage device
- Adopt wide beam radar
- High definition image snapshot
- Multiple connection ways, support wireless via CDMA/GPRS/3G



ITALF-300AC-IR
Fixed IR flash lamp

- Support snapshot and flash synchronization
- Support continuous snapshot
- Adopt advanced steady flowing technique
- Optical grating optional, largely reduce the light pollution
- Low recycle time



SD 200
Mobile IR flash lamp

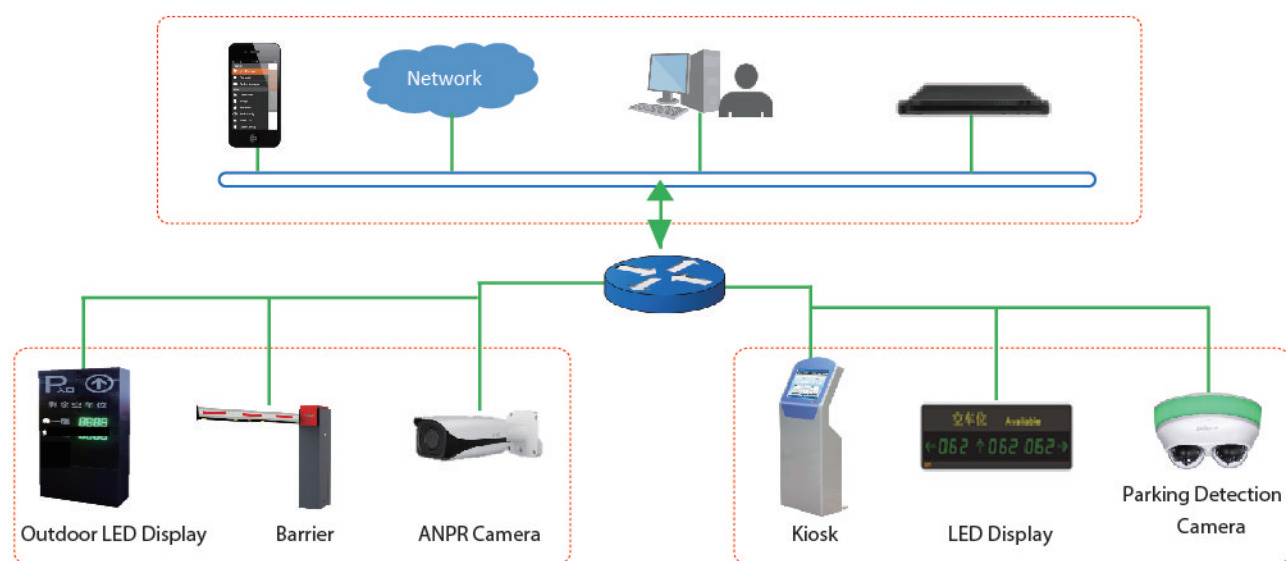
- Support strobe flash, 3 times per second
- Support TTL, RS485 trigger
- Support tripod, PTZ, cardan installation
- Optical grating optional, largely reduce the light pollution
- Low recycle time
- DC 12V



Parking Lot Solution



The intelligent parking management system increases the efficiency and safety of the parking lot.



Parking Entry Promote the Efficiency

With Dahua advanced LPR algorithm, the access can be controlled automatically, allowing customers to drive directly into the parking lot.



Parking Guidance Easy to Find a Free Space

With the indicator of Dahua LED display and detection camera, car owner can locate a free space in a few minutes. Meantime, video signal is transmitting from the detection camera.



ITC237-PW1A-IRZ 2MP Intelligent Camera

- High-performance 2 Mega CMOS Sensor
- 2 built-in LED Light, brightness adjustable
- Day/night switch to enhance sensitivity in low illumination
- Support plate number and vehicle color recognition
- Support two vehicle detection method including loop and video



DH-IPMECD-104CBL Entrance Barrier

- Straight rod
- Length 4m (6M option)
- Protection Level IP44
- RS485 Protocol support



ITC314-PH1A 3MP Parking Space Detection Camera

- 3Mega 1/3"inch CMOS sensor, 0.01Lux min illumination
- Interactive design with parking space indicator, in-ceiling installation
- Indicator support at least 7 colors
- 1 detector can simultaneously detects 3 spaces
- Support network cascading



ITC314-PH1A-TF2 Dual 3MP Parking Space Detection Camera

- Dual 3Mega 1/3"inch CMOS sensor, 0.01lux min illumination
- Interactive design with parking space indicator, in-ceiling installation
- Indicator support at least 7 colors
- 1 detector can simultaneously detects 6 spaces
- Support network cascading



IPMECK-200EB Parking Lot Controller

- Embed LED screen with high brightness
- Support displaying various combinations of characters and numbers
- Embed Hi-fi audio reminder module, support audio talk
- Support various communication interfaces including RS232, RS485 and TCP/IP
- Embed vehicle detector

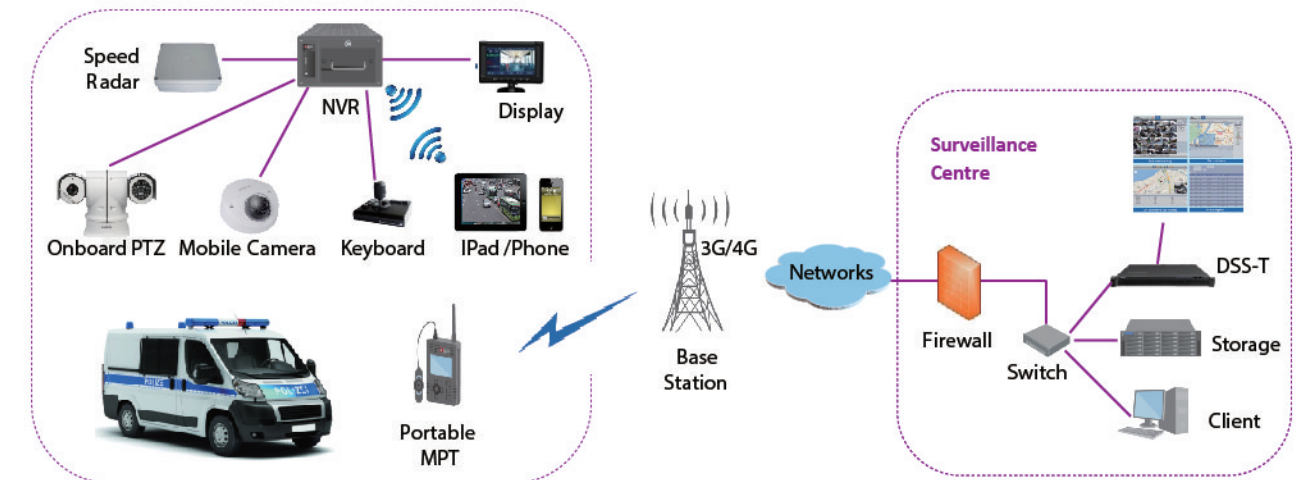


DH-IPMPGI-110AA Parking Lot LED Display

- Distance between pixel 5mm
- Temperature 10℃~70℃
- Protocol RS485
- Size 480*380*102 mm



The Simple Solution Mobile Enforcement regulates the traffic regulation and handles with the emergency events.



Mobile Enforcement for Traffic



Function

Detect the vehicles which are over speed, change lane, press solid line or retrograde motion. Meanwhile, capture the pictures and corresponding videos automatically to serve as the evidence.

Quick Response & Accurate Judgment



Function

The PTZ camera can help to capture the evidence on the mobile freely. The portable MPT is really convenient for the police to take and upload photos to the police centre. In addition, the control center can make a decision in a short time by the remote monitoring on MPT device.

Mobile Enforcement Solution



ITACD-024SA
Narrow Wave Radar

- Support two-way speed measuring, high measure accuracy
- Support high /low speed detection, with wide speed range
- Narrow wave plate antenna design
- No detection interference between multiple lanes



IPC-HDBW4421F-M
4MP Full HD WDR Network Vandal-proof Wedge Dome Camera

- 1/3" 4Mp CMOS
- H.264 & MJPEG dual-stream encoding
- Max 20fps@4M, 25/30fps@3M
- Lens: 3.6mm (2.8mm, 6mm optional)
- D&N(ICR), 3D-DNR, IR LEDs: 20m
- Built-in Mic, WDR(up to 120dB)
- IP67, IK10, DC12V, PoE
- Material: Metal



NVR0404/0804MF-I
4/8CH PoE Mobile NVR

- 4/8ch video inputs
- All channels 1080p realtime recording
- 1 VGA output up to SXGA, 2TV
- 8ch alarm in&3ch relay out, RS485
- Video overlay of Car No., GPS, Speed
- GPS/Wi-Fi/3G/4G optional, 1 RJ45(100M)
- 2 SATA(Vibration-proof), 1 eSATA, 3 USB
- 4/8 PoE ports, aviation connectors adopted
- Smart function: plate number recognition



DH-PTZ35220S-IRA-N
2Mp Full HD Network Mobile Positioning System

- 2Mp excellent image quality
- Powerful 20x optical zoom
- Pan range: 360° endless, speed up to 60°/s
- Up to 256 Presets, 4Tour, 4Pattern, 4Auto scan
- IR Distance up to 150m
- Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
- DC8V~36V Power Supply
- IP66

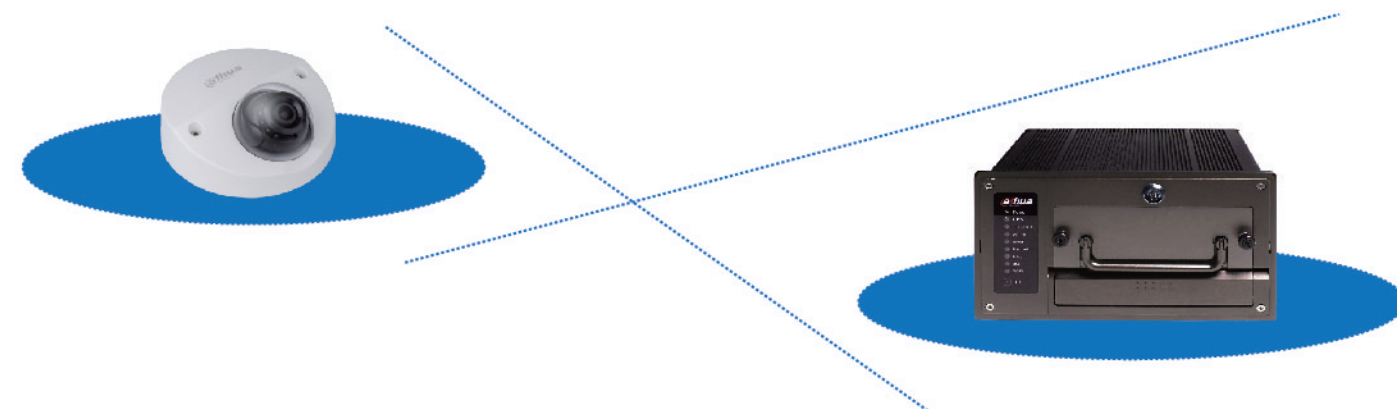


Portable DVR MPT300
HD Mobile Portable Terminal

- 8Mp built-in camera, Max 25fps@1080P
- Support TF card up to 64G
- One button to start record, snapshot, alarm, support PTT
- 4 inch LCD, resolution 854x480
- 4000mAh battery, support flashlight
- IP67, back splint; Support fingerprint login, Support earphone, mini USB, HDMI
- Support GPS, Bluetooth, Wi-Fi
- Support WCDMA, 4G (optional)
- Accessory: Infrared Camera, Multi-functional base(optional)



MOBILE Surveillance Solutions

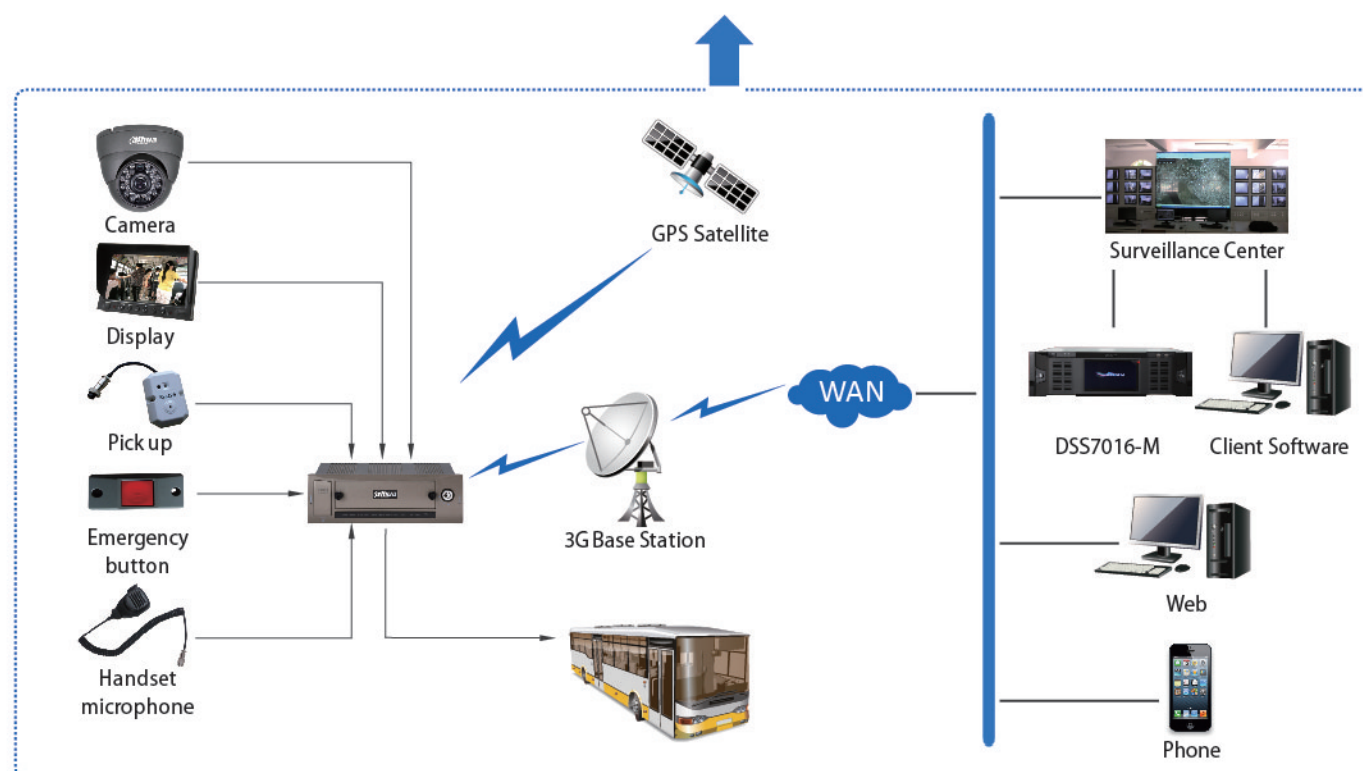
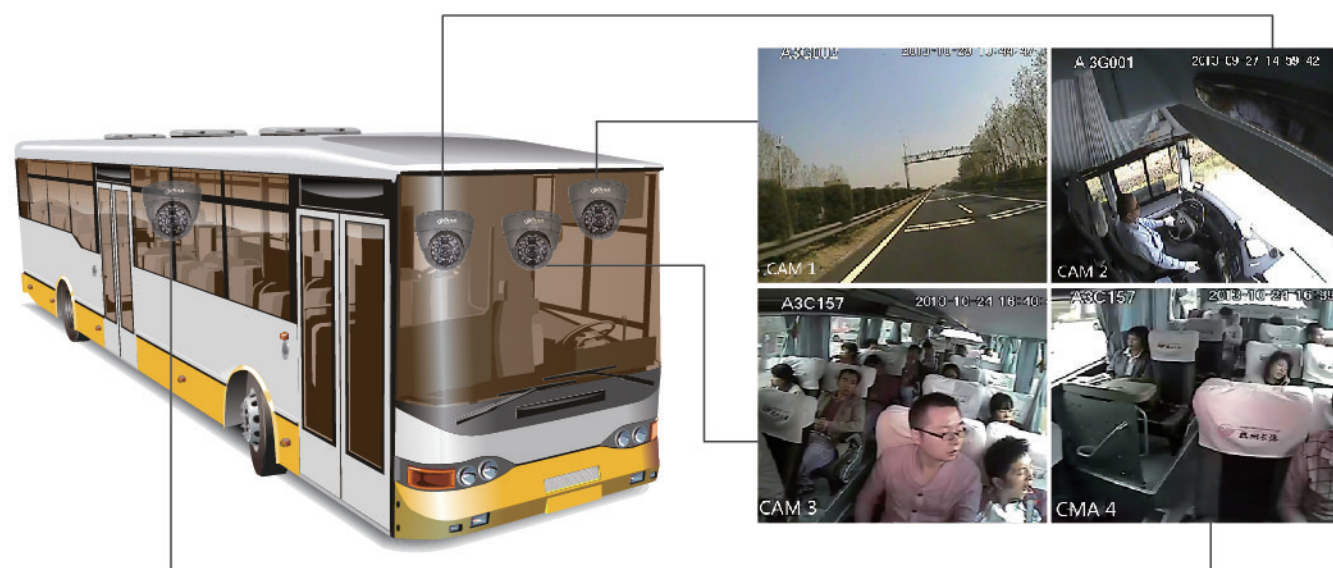


Dahua vehicle surveillance solution includes full product portfolios ranging from the front-end cameras to back-end storage devices, along with in-house CMS and necessary accessories. The solution ensures the driving safety and simplify work on fleet dispatch and management. In addition, its footage could also be served as an evidence for some special occasions.

What a complete mobile surveillance system looks like?

A complete mobile surveillance system consists of dispatching host, camera, pickup, GPS system, emergency button, wireless transmission modules and etc., along with an easy-to-use software.

A Typical Application on Public Bus



- IPC-HDBW4221F-M**
2MP Full HD WDR Network
Vandal-proof Wedge Dome Camera
- 1/2.7" 2Mp CMOS
 - H.264 & MJPEG dual-stream encoding
 - Max 25/30fps@1080P
 - Lens: 3.6mm (2.8mm, 6mm optional)
 - D&N(ICR), 3D-DNR, IR LEDs: 20m
 - Built-in Mic, WDR(up to 120dB)
 - IP67, IK10, DC12V, PoE
 - Material: Metal



NVR0404MF 4CH PoEMobile NVR

- 4ch video inputs
- All channels 1080p realtime recording
- 1 VGA output up to SXGA, 2TV
- 8ch alarm in&3ch relay out, RS485
- Video overlay of Car No., GPS, Speed
- GPS/Wi-Fi/3G/4G optional, 1 RJ45(100M)
- 2 SATA(Vibration-proof), 1 eSATA, 3 USB
- 4 PoE ports, aviation connectors adopted
- Support extend storage port



NVR00804MF 8CH PoEMobile NVR

- 8ch video inputs
- All channels 1080p realtime recording
- 1 VGA output up to SXGA, 2TV
- 8ch alarm in&3ch relay out, RS485
- Video overlay of Car No., GPS, Speed
- GPS/Wi-Fi/3G/4G optional, 1 RJ45(100M)
- 2 SATA(Vibration-proof), 1 eSATA, 3 USB
- 8 PoE ports, aviation connectors adopted
- Support extend storage port



HAC-HDBW2220F-M 2.4MP 1080P IR HDCVI Mobile Camera

- 1/2.8" 2.4Mp CMOS, ICR, 3D-DNR
- 25/30fps@1080P, 25/30/50/60fps@720P
- HD/SD switch, OSD, DWDR
- 3.6mm fixed lens (6mm optional)
- Max. IR LEDs length 20m, Smart IR
- Aviation connector, Shock-proof
- Default: with pickup
- IP66, IK10, DC12V
- Material: Metal



HAC-HDBW2120F-M 1.4MP 720P IR HDCVI Mobile Camera

- 1/3" 1.4Mp CMOS, ICR, 3D-DNR
- 25/30/50/60fps@720P
- HD/SD switch, OSD, DWDR
- 3.6mm fixed lens (6mm optional)
- Max. IR LEDs length 20m, Smart IR
- Aviation connector, Shock-proof
- Default: with pickup
- IP66, IK10, DC12V
- Material: Metal



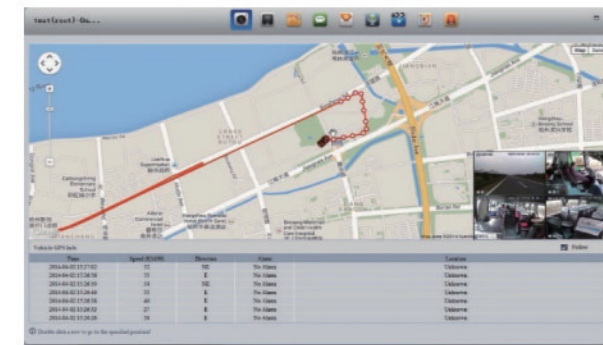
MCVR5104 4CH Mobile HDCVI DVR

- Support 4ch HDCVI/Analog Video input
- 2 ch 1080P+2 ch 720P realtime recording
- VGA/TV simultaneous video output
- 7ch alarm in&2ch relay out, RS485
- Video overlay of Car No., GPS, Speed
- GPS/Wi-Fi/3G/4G optional, 1 RJ45(100M)
- 1 SATA(Vibration-proof), 2 USB

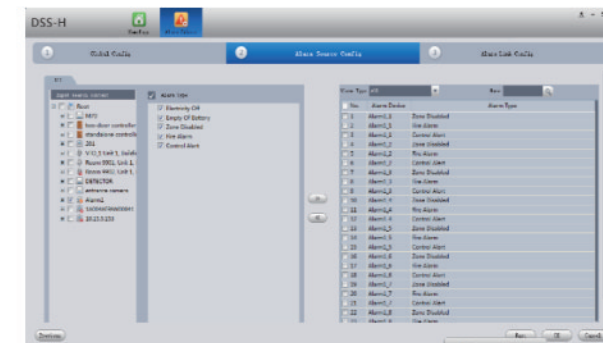


Control Centre

Integrated Management Platform>>



GPS Information for Mobile Vehicle and ANPR Device



Alarm Scheme Efficient for Incident Handling



Search the Picture of ANPR



Parking System Visualized Management



DSS4004 -T/PSM/M/H

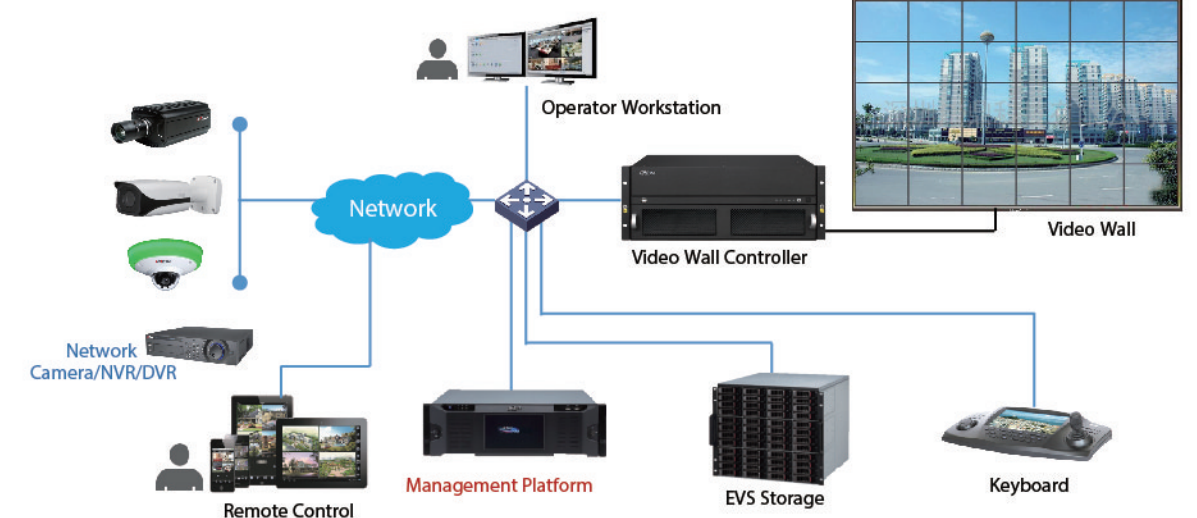


DSS7016 -T/PSM/M/H

- Support google E-map for traffic system and mobile system to see the location of vehicle by GPS information and to know the exactly position of traffic system device in E-Map.

- Manage the enforcement system by searching the picture and plate of the violated vehicle.

- Easy to indicate and monitor the parking lots in local E-Map





46" Full-HD LCD Display Unit Product Features

- 1920×1080 resolution
- 5.3mm delicate splicing
- Built-in 3D COMB filter and 3D noise reduction
- Intelligent light & temperature controlling
- Infrared, RS232 double mode
- supporting remote PC control
- Fan smart detection, OSD prompt
- Interfaces: CVBS(BNC)×2, VGA (D-Sub) ×1, DVI×1, HDMI×1



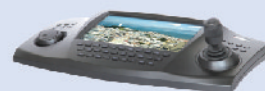
55" Full-HD LCD Display Unit Product Features

- 1920×1080 resolution
- 5.3mm delicate splicing
- Built-in 3D COMB filter and 3D noise reduction
- Intelligent light & temperature controlling
- Infrared, RS232 double mode, supporting remote PC control
- Fan smart detection, OSD prompt



M70-4U Product Features

- 19" standard 4U ATCA industry box
- 640ch@D1 or 160ch@1080P signal decoding
- Support analog/digital video signals input
- Support SD/HD video signal matrix switch
- Support non-compressed digital signal encoding output
- 2 gigabit ports for matrix control
- preview and online central storage
- Remote cast analog/digital video onto the video-wall



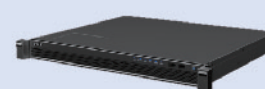
NKB3000 Keyboard to Control

- DAHUA Standalone DVR
- DAHUA High Speed Dome
- Central Management Platform
- RS232, RS485 & Network Connections
- Four Dimensional Joystick Control of PTZ
- Support full HD 1080p live view;
- Support HDMI & VGA sync output
- Support snapshot and recording to U-disk



DSS7016-T Intelligent Traffic Management Centre

- Max support 2000-ch input / 200-device input for LPR camera
- 700Mbps for local storage & transfer capability
- Realtime video and playback
- ANPR monitor
- black&white list
- Support platform SDK



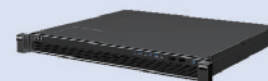
DSS4004-T Intelligent Traffic Management Centre

- Max support 500-ch input / 50-device input for LPR camera
- 100Mbps for local storage & 300Mbps for transfer capability
- Realtime video and playback
- ANPR monitor
- black&white list
- Support platform SDK



DSS7016-M Intelligent Traffic Management Centre

- Max support 2000-ch input / 500-device input
- 700Mbps for local storage & transfer capability
- Realtime video and playback
- Support Google E-map and E-fence
- Support GPS and address information
- Support various reports for vehicle



DSS4004-M Mobile Surveillance Management Centre

- Max support 1000-ch input / 200-device input
- 100Mbps for local storage & 300Mbps for transfer capability
- Realtime video and playback
- Support Google E-map and E-fence
- Support GPS and address information
- Support various reports for vehicle



DSS4004-PSM Parking System Management Center

- Embedded device, 30*24 stable operation
- Local storage of vehicle image and record
- Real-time video and playback
- Parking fee charges and statistics
- White list for vehicle
- Daily parking vehicle report
- Intelligent fuzzy match of vehicle plate
- Remote gate control



Successful Cases >>

The ITS system and mobile enforcement system were applied in Brazil and Poland.



Dahua mobile surveillance solutions are applicable for various projects, including student transit, mass transit, logistics, police patrol and etc. Those solutions have proven to their usavility in various application around the world.



Public Bus / Mexcio

Army / Russia

Long Distance Transportation
/ Hangzhou, China

Bus / Russia