Hikvision re-invests upwards of 7% of annual revenue into R&D. We hold over 600 copyrights (100+ increase from 2016) and 1,300 patents (400+ increase from 2016). Of our 20,000 employees, we employ over 8,000 engineers, of which over 2,000 are software engineers.

Hikvision’s Research Institute conducts innovative research and development to keep us at the forefront of technology.

- The largest R&D team in Artificial Intelligence in the security industry.
- Sophisticated experience of video target detection, image segmentation, video structuring and video retrieval.
- Ranked No.1 in Scene Classification at ImageNet 2016 challenge and ranked top in the MOT Challenge Evaluation.

Hikvision continues to build close partnerships with distributors, system integrators and installers, as well as third-party technology partners. Today, Hikvision has over 350 technology partners globally.

ECOSYSTEM PARTNER PROGRAM

WE SUPPORT YOU ALL THE WAY!

When joining this partner program, you will enjoy access to a wealth of technical and commercial resources, and we ensure that your solution enjoys strategic marketing through our communication channels. You will also get instant access to our entire sales organization. A vital part of our program is the streamlined online communication with our technical teams as well as the tools to plan the go-to-market activities.

BROAD PORTFOLIO

Hikvision’s success stories extend over a number of vertical markets. Each year, we add new successes to our list. Still a relatively young company, we continually conquer new applications, building excellence and intelligence into all we do.

Our successful vertical market applications around the world include:

- Smart buildings
- City surveillance
- Parking facilities
- Banking and finance
- Critical infrastructure
- Hotels, casinos, and resorts
- Retail centers and warehouses
- Police, military, and mobile law enforcement
- Education, transportation, healthcare – and more!
FUTURE INNOVATION

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STRONG NAME

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PROGRAM TOOLS AND BENEFITS

• ISAPI – Hikvision unifies the Application Programming Interface for all products
• HEOP – The Hikvision Embedded Open Platform enables you to download and run your applications directly in the cameras
• Device Simulator – Simulate communication protocols for testing and development
• Integration Checker Tool – Test your applications against the online integration checker tool
• H-Certification – Certify your integration/application as proof of compatibility

SUPPORT

• SDK Training
• Integration Support
• Access to Integration Resources

SALES & MARKETING

• Dedicated Business Development Planning
• Networking Opportunities with the Hikvision Salesforce
• Co-marketing and Event Opportunities
The Hikvision Safe City Solution provides sound, stable, and reliable municipal public security, and features a series of advanced technologies applied to various security subsystems in industries, central operations, and integrated security platforms. These integrated technologies enable rapid and effective responses to security needs and events. All devices, facilities, software, and services in the Safe City Solution reinforce municipal administration, improve people’s lives, and boost substantial, long-term development.

Implementing the Safe City Solution, you will
• Effectively protect citizens and valuable property
• Increase criminal investigation efficiency and response time
• Manage traffic and track vehicles
• Instantly deter vandals and unwelcome intrusions
SAFE CITY SOLUTION COMPONENTS

INTELLIGENT APPLICATION
The uppermost layer contains various results exported from the storage and structuring center.

THREE-DIMENSIONAL CONTROL SYSTEM
The ground layer shows the three-dimensional control system, which contains a series of front-end devices in different applicable scenes.

STORAGE & STRUCTURING CENTER
This middle layer shows the storage and structuring center, the storage can also be extended to the cloud if the physical storage cluster capacity is exceeded. After storing, the video analysis center can output valuable, structured data, and even produce big data storage and analysis reports.

THREE-DIMENSIONAL CONTROL

Air Support
- Positioning System
- UAVs (Drones)

Alarms and Enforcement
- Mobile Enforcement
- Emergency Alarm

Border and Road
- Checkpoint
- Vehicle Image Capture
- Speed Measurement
- Traffic Flow Detection

City Blocks and Key Areas
- DarkFighter
- PanoVu
- Facial Recognition
- Mobile Enforcement
SOLUTION ARCHITECTURE

WEAVING THE NETWORK TOGETHER

1. Checkpoints around the border
2. Checkpoints across the main roads
3. Video surveillance in key areas
4. Mobile surveillance fills in blind spots
TRAFFIC CONTROL

CHECKPOINTS

In Hikvision’s Intelligent Transportation Solution, checkpoints provide key data on traffic flow and violations. These flexible tools create an intelligent network that weaves the whole roadmap together for maximum insight and administration of motorways.

High resolution CCD Traffic cameras can accurately capture speeding vehicles.

Various LED or strobe lights ensure clear images in nighttime monitoring.

HD Video Surveillance

- View real-time HD video at a low bitrate to get traffic information
- Review video files to help Police track down persons of interest

Vehicle Capture

- Captures vehicle images and recognizes plate numbers
- Displays related info such as the date, time, plate number, etc.

Speed Measurement

- Each lane requires radar to detect vehicle speeds
- Testing data is accurate and can be used for law enforcement

MICRO-CHECKPOINT UNIT

The Micro-Checkpoint Unit (MCU) is a side-mounted camera with dedicated image processor and intelligent algorithm. This device integrates across the city and around suburbs to complement traditional checkpoint systems.

The MCU covers six lanes of traffic surveillance 200 meters deep with a well-developed intelligence program. Along with those six lanes, it captures license plates in three adjacent lanes for vehicles traveling both directions.
The Traffic Control system reports traffic flow, processes original data, and displays traffic status to the public – ultimately relieving traffic congestions.

Vehicle Counting

The following functions require adapting region-specific standards:

- Average speed of vehicle
- Length of queue
- Type of vehicle (2 types in baseline)
- Place and time
- Distance between two adjacent vehicles
- Interval between two adjacent vehicles
- Level of traffic jam (3 types) -- Clear, Slowed, or Jammed
- Real-time traffic data output

With industry-leading, ultra-low-light technology, the DarkFighter Camera Series offers a host of smart functions that make colored images possible in dim environments.

All DarkFighter Cameras feature Hikvision’s SMART technologies, which combine intelligence, efficiency, and ease-of-use in modern video surveillance equipment.
Hikvision’s Multi-Imager Camera Series comes equipped with four or eight fixed imagers to provide a 180-degree or 360-degree panoramic horizontal view. A single HD PTZ camera can provide highly detailed images. These ultra-low-light DarkFighter Cameras are able to capture high quality colored images, even in dim light. It’s a very effective tool for monitoring open and expansive areas like city surveillance, parking lots, airports, town square, stadiums, gymnasiums, and much more.

Thermal cameras cover long distances and wide ranges. When an event occurs, it can be configured to send instant alarms to call for quick action, which expands surveillance capabilities. Thermal cameras pierce foggy environments and need no light at night.
VEHICLE INSPECTION

QUICK
Non-stop drive-through inspection

COMPLETE
Showing every detail in one picture

SEARCHABLE
Post-event investigation

Ground Control was designed especially for:
• Entries and exits of key areas of anti-terrorism such as airports, prisons, warehouses, oil depots, etc.
• Entries and exits of official areas such as government, army, military industrial enterprises, embassy, etc.
• Entries and exits of customs inspections and border checkpoints
• Entries and exits of parking lots

AIR CONTROL

Watches over the critical areas of cities.

Hikvision has a full series of 2 MP Positioning System Cameras to be used in critical area monitoring for city surveillance. With IP66 standard and advanced lighting protection, these cameras can be deployed in all-weather, outdoor environments for high definition monitoring – even in dim environments.

• **Dual-lens Thermal Cameras**: One thermal imaging lens for long range detection, one DarkFighter visual imaging lens for detailed footage recording.
• **Laser PT Positioner**: Full HD video quality, 36x optical zooming and up to 1 km detection range with laser light.

Critical area security Positioning system cameras

Ground Control was designed especially for:
• Entries and exits of key areas of anti-terrorism such as airports, prisons, warehouses, oil depots, etc.
• Entries and exits of official areas such as government, army, military industrial enterprises, embassy, etc.
• Entries and exits of customs inspections and border checkpoints
• Entries and exits of parking lots
The Falcon Series Industrial Unmanned Aerial Vehicles (UAV) is able to perform multiple-angle comprehensive 3D surveillance from a global perspective, greatly expanding the current surveillance coverage range and leading the security industry into 3D surveillance age.

The Hikvision UAV Jammer can be used to protect against unexpected drone invasions, cutting off the communication between the drone and remote controller by jamming the data link and positioner. The jammer can make the unexpected drone hover, land, or leave to ensure the security of low-altitude airspace.

Public transportation and its surroundings are vulnerable to terrorism or other forms of crime. Hikvision has a full range of products to help transit authorities deter, prevent abnormal activities and enable post-event investigation.
MOBILE ENFORCEMENT

POLICE VEHICLES

Extreme weather can cause major traffic disasters. Peaceful public demonstrations can turn into unlawful events. Earthquakes, floods, and lightning storms can interrupt power and water supplies. The unpredictability of these incidents requires civic authority personnel to be mobile, nimble, and always ready to go. And the equipment has to be ready, too. Turn enforcement vehicles into temporary mobile monitoring stations and move gear to where it’s most needed with our on-board systems.

An All-in-One Surveillance System

Turn enforcement vehicles into temporary mobile monitoring stations.

TEMPORARY MONITORING

When permanent surveillance installations are not possible, mobile enforcement solutions have to fill in the gap. On the roads, at the public squares, in rural areas – wherever you need surveillance equipment to go, Hikvision’s products will go.

1080p Network Portable IR Speed Dome
DS-MH6171I
WEARABLE MONITORING

Rugged, wearable body cameras record activities of citizens and civil authorities as they happen. Their advanced technology, portability, and ease-of-use make them extremely effective companions for law enforcement. Equipped with GPS locators, you’ll know where the emergency exists as it happens. These cameras build forensic evidence with safely stored data, and play back video footage clearly and accurately. Protect people and peacekeepers with wearable video recording devices.

<table>
<thead>
<tr>
<th>Wearable devices</th>
<th>After receiving an alarm, security centers can auto-position an incident location and dispatch the nearest team for support.</th>
<th>Police personnel can take immediate action at the incident location. The on-board monitoring system ensures accountability regarding enforcement and abuse.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PORTABILITY</td>
<td>EXTENSIBILITY</td>
<td>OPERABILITY</td>
</tr>
</tbody>
</table>

EMERGENCY ALARM CONTROL

The Emergency Alarm Products can be deployed across the city, provide the society with faster and more effective emergency services, and effectively deter criminals, brings a safer community.

<table>
<thead>
<tr>
<th>SOS Button</th>
<th>When emergency happening, find a nearest Alarm Column and press SOS button.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video Record Audio Communicate</td>
<td>The PTZ camera provides live video and records, the Policeman in the monitoring center can communicate with the man confirms the situation.</td>
</tr>
<tr>
<td>Deterrent Dispatch Police</td>
<td>The Policeman in the monitoring center can broadcast warning via the Alarm Column to deter criminals, and meanwhile dispatch police to the location.</td>
</tr>
</tbody>
</table>

Body Camera
- DS-MH2111/32G/Wi-Fi
- DS-MH2111/32G/GLF (4G/Wi-Fi)*

Body Camera
- DS-MH2211/32G/64G/Wi-Fi

Body Camera Dock Station
- DS-MH4172I

*Device continues operates when Changing battery
DATA STORAGE

Cloud Storage

Cloud Storage Functions:

- Video Storage
- System Management
- Operation Management
- Record Management
- Image Storage

Central Storage SAN / NAS / CVR

Cloud Storage

Midsize to Large Projects
Performance, Redundancy, Scalability, Energy saving

Large to Very Large Projects
Big Data, Parallel IO, Virtualization

Cloud storage widely use in surveillance market
Hikvision has successfully applied its cloud storage in 1,000+ domestic projects

CLOUD STORAGE STRUCTURE

Storage Management Cluster

Management Node

Video Cloud Storage System

Device Node

Virtualization

Storage Device Cluster

Video Management Sub-System

Front-end Devices

Direct Store of Streaming

TCP/IP

Clusterization
HIKVISION CLOUD STORAGE HIGHLIGHT

General cloud storage: Cluster, virtualization and distributed storage;
Hikvision Cloud storage: Cluster, virtualization and distributed storage,
+ Streaming data, CCTV integrated applications

STREAMING STORAGE FOR HIGHER CCTV EFFICIENCY

Video data reads incessantly in the storage system based on the streaming character.

- Accurate playback by customer time
- Optimize storage model and improve storage efficiency
- No file fragments of streaming storage
- Data reading with quick response
INTELLIGENT VIDEO ANALYSIS

1 STRUCTURED DATA

FUNCTIONS

Video stream
- Standard H.264
- History Record
- Forwarded Stream

Human Structured
- Moving Direction
- Wear Color
- Moving Speed

Vehicle Structured
- Plate No.
- Vehicle Color, Brand & Model
- Moving Direction & Speed

Un-structured data to structured data

1. Unstructured
   Nothing

2. Semi-structured
   Moving target
   Semi-structured
   Vehicle

3. Structured
   Structural Description
   Structured
   Plate number: A12345
   Vehicle Model: Car
   Brand: Chevrolet
   Colour: red

[Video Structural] includes Target Detection, Feature Extraction, Object Recognition, Deep Learning and so on. It can be organized the text of recognition and understanding so that can be retrieved by computer and person.
HUMAN BODY DETECTION

- Ground Control – Perimeter Protection

![Fixed lens panoramic channel](image)

PanoVu PT Camera
iDS-2PT9122IX-D/S

- Deep Learning
- 2MP Fixed + 2MP PTZ
- HD human picture capture
- Work with DeepInMind NVR to realize accurate human comparison.

Intrusion Alarm

Alarm accuracy reaches to over 90%. The iDS-9632NXI-I8/16S performs a secondary analysis on images, improving the alarm accuracy. Moreover, users can search recorded footage and find targets more quickly than other NVRs can.

![Images and alarm messages from IP Cameras](image)

**Alarm accuracy at least 90%**
There are various ways to adopt Hikvision’s Deep Learning technology to realize high-accurate face recognition. In the Safe City Project, one of the security requirements is to identify specific personnel and trigger post-event alarms. This can be used for locating a fugitive at large, finding lost people, and so on.

IDS-2CD8426G0/F
Indoor Dual-Lens Face Recognition Camera series

IDS-9632NXI-18/4F
Face Recognition NVR

DS-IE6308/16/32/64+/E/FA
Face Recognition Server
- **Blacklist Alarm**

  Entrance/Exit of subway station
  **Character:** Fugitive
  **Application:** Blacklist Alarm

  **Real-time Alarm:** Pop up window, when the face in the blacklist (up to 30,000 Pics) shows up.

- **Search People by Face**

  **Scenario:** City block
  **Character:** Lost child
  **Application:** Face Retrieval, Human Body Search

  Human face modeling by the DeepInmind NVR(/4F), with Face retrieval function, it can find people(videos & images) with a certain degree of similarity to the face, and provide information such as location, time of appearance.

- **Identify People by face**

  **Scenario:** Identify suspect wearing a mask
  **Character:** suspect and a partial face evidence
  **Application:** Face Retrieval

  1V1 comparison function provide similarity for a list of face pictures with a target partial face picture (suspect face was partially blocked).
INTELLIGENT APPLICATION

Pre-event Prevention

Video surveillance
Suspcion Capture
Suspicion Record

Video
Event control

Intelligent

1

Image

2

Post-event Investigation

Video playback
Vehicle Control
Mobile Deployment

3

Valuable Data

E-map location
Video Analysis
Comparative analysis

Quick investigation
Quick Find Out
Case Management

Emergency Plan
Visible F0V

Surveillance Deployment Management
Visible Command
## PRE-EVENT PREVENTION

- Video surveillance
- Area resource control
- E-map pre-plan
- Vehicle data analysis

## EVENT CONTROL

- Clue collection
- Real-time video tracking
- Suspicion record
- Vehicle tracking
POST-EVENT INVESTIGATION

Face comparison
Face recognition
Structured analysis
Vehicle comparison
intelligent playback
Video record tracking

VIDEO-WALL DISPLAY UNIT

LCD/DLP/LED

**LCD:**
- DS-2046NL-B, DS-2046NH-B,
- DS-2046NL-C, DS-2046NH-C,
- DS-2055NL-B, DS-2055NH-B

**DLP:**
- DS-D1050EH, DS-D1060EH,
- DS-D1067EH, DS-D1080EH,
- DS-D1070EF

**LED:**
- DS-D4012FI-EL, DS-D4014FI-GL,
- DS-D4018FI

- Ultra-Long Life
- Ultra-Narrow Seam
- Intelligent Splicing
- Ultra-High Brightness
- Ultra-Wide Visual Angle
- 3D Noise Reduction
- Clear, Sharp Images
- Intelligent Fan
- Environmentally Friendly and Quiet
- Ultra-Low Power Consumption
- Ultra-Long Life
- Rich Color
- HD Display
Video Surveillance

DarkFighter Low-Light Cameras

- Ultra-low-light Performance
- Full HD 1080p, up to 60 fps
- 120 dB WDR
- Low-light HD Lens
- Full Smart feature set

6 MP Ultra HD Performance Cameras

- High, 2 MP resolution
- Full HD 1080p images, up to 60 fps
- 140 dB WDR
- Full Smart feature set
- Up to 8–32 mm Motorized Vari-focal Lens with Smart Focus
- Advanced low-light performance with up to 500 feet 1150 m IR Arrays

LightFighter WDR Cameras

- High, 4096 x 2160 resolution
- Full Smart feature set
- 2.8–12 mm Motorized VF lens
- Up to 230 feet (70 m) IR
- Audio / alarm IO

LightFighter Camera

- High, 2 MP resolution
- Full HD 1080p images, up to 60 fps
- 140 dB WDR
- Full Smart feature set
- Up to 8–32 mm Motorized Vari-focal Lens with Smart Focus
- Advanced low-light performance with up to 500 feet 1150 m IR Arrays

PanoVu

- DarkFighter imaging sensors
- On-board stitching for panoramic view
- 8MP or 16MP high resolution
- IP66
- True WDR

Large Outdoor Area Security Multi-Imager Panoramic

- 384 x 288 Resolution
- VOX detector
- Single or dual lens
- 9.5 / 25 / 40 / 75mm lenses
- Fire- and person-detection

Perimeter Protection Thermal Cameras

- 3072 x 2048 Maximum resolution
- Full Smart feature set
- HD Lens with consistent aperture
- Super DWDR

6 MP Ultra HD Performance Cameras

- 3072 x 2048 Maximum resolution
- Full Smart feature set
- HD Lens with consistent aperture
- Super DWDR

4K Ultra HD Performance Cameras

- 3072 x 2048 Maximum resolution
- Full Smart feature set
- HD Lens with consistent aperture
- Super DWDR

SAFE CITY 22
**PRODUCT SHOWCASE**

- **DS-2CD9866CM-(A)(H)**
- **DS-2DY9185-A12**
- **DS-2DY9187-A18**
- **DS-2DY9188-A12(AIA)**
- **DS-2DY5223W-AE(-DM)**

Critical Area Security Positioning System Cameras

- Ultra-low-light illumination
- Wide range of movement
- True day & night, WDR, 3D DNP, and Defogging
- 3D intelligent positioning
- Self-cleaning wipers

- **DS-2DP1636-D**
- **DS-2DP0818/1636Z-D**
- **DS-2CD9866CM-(A)(H)**

Large Outdoor Area Security Multi-Imager Panoramic

- DarkFighter imaging sensors
- On-board stitching for panoramic view
- 8 MP or 16 MP high resolution
- IP66
- True WDR

- **iDS-2CD842660/F**

Indoor Dual-Lens Face Recognition Camera series

- 1/2.8” Progressive Scan CMOS
- 1920 x 1080 @ 30fps
- 120dB WDR
- H.265+, H.265, H.264+, H.264
- 5 video streams
- Face recognition
- IR range up to 10 m

- **DS-96128/256NI-I16/I24/I44/(H)**

Embedded H.265+ 4K Super NVR

- 576/768Mbps Bit Rate input Max (up to 128/256 IP cameras input)
- Up to 12MP resolution recording
- Support H.265+/H.265/H.264+/H.264 video formats
- 20-ch/(H,68-ch) 1080P decoding capability
- HDMI output at up to 4K resolution
- Up to 16/24 SATA interfaces, up to 8 TB for each
- HDD, 4 Gigabit optical interfaces
- Redundant power supply to ensure system stability
- HDD hot swapping with RAID 0/1/5/6/10
- One LCD screen optional, mini SAS optional

- **DS-9616/32/64NI-I8/I16**

Embedded H.265+ 4K 2U/3U NVR

- 256/320 Mbps Bit Rate input Max (up to 16/32/64-ch IP cameras input)
- Third-party network cameras supported
- Up to 12MP resolution recording
- Support H.265+/H.265/H.264+/MPEG4 video formats
- 2-ch HDMI and 2-ch VGA outputs interfaces provided,
- 1 HDMI output at up to 4K resolution
- 8/16 SATA, HDD hot swapping, 1 eSATA, 2 USB2.0, 1 USB3.0
- Support RAID0,1,5,6,10
- Hot spare working mode

- **iDS-9632NXI-I8/BSI1851**

DeepinMind NVR

- Maximum 512/768 Mbps bitrate input
- Supports 3rd party network cameras
- Up to 12 MP resolution recording
- 4K HDMI output, 1080p VGA output
- Supports H.264/H.264+, H.265 video formats
- Supports RAID 0, 1, 5, 6, 10, 50, 60, and JBOD
- Supports redundant power supply
- 116: 16x SATA; 124: 24x SATA
**Product Showcase**

### Mobile Enforcement

- **Face Recognition Server**
  - DS-IE63 08/16/32/64-E/FA
  - Powerful GPU
  - Low-power dissipation
  - Deep Learning algorithm achieves higher accuracy
  - 8 / 16 / 32 / 64 channels
  - Up to 80 pic/sec. modeling ability
  - Up to 32 couples of 1V1 face comparison

- **Portable PTZ Dome**
  - DS-MH6171I
  - 2 MP Full HD1080p high resolution
  - 30X optical zoom, 12X digital zoom
  - H.264+ optimized codec to reduce storage
  - Dual SD card slots, up to 128 GB for each card
  - Supports Wi-Fi, 3G, 4G wireless connection
  - Interchangeable Lithium battery, up to 6-hour operating time
  - Alarm I/O, RS232, RS485 interfaces
  - Supports Bluetooth connection
  - IP66 weather-proof protection
  - Up to 195 feet (60m) IR range
  - Powerful magnetic base for vehicle-roof mounting
  - iVMS-4500 client for remote operation

- **Body Camera**
  - DS-MH2111
  - Wi-Fi/3G /4G/GPS/Integrate into iVMS
  - H.264
  - 1080P@60fps, 720P@120fps
  - 16MP image capture
  - 4400mAh fixed battery
  - 2-inch LCD screen/Intercom/Emergency linkage button/ IR
  - IP66

- **Body Camera Dock Station**
  - DS-MH2211
  - Wi-Fi/GPS
  - H.265(Customized)/H.264
  - 1080P@30fps, 720P@30fps
  - 5MP image capture
  - 1650mAh removable battery
  - Replace battery without shutdown
  - 2-inch LCD screen/G-sensor/IR
  - IP65

- **Quad-Rotor Uav Bundle**
  - UAV-MX4080BP-A1
  - 4-rotor UAV with 2 battery packs and 1 charger
  - Handheld ground station, 1 big casing, 1 small casing
  - 2MP, DarkFighter, 23x optical camera

- **UAV**
  - UAV-MX4080BP-A2
  - Transcend Your Vision Quad-Rotor Uav Bundle

**Safe City**
PRODUCT SHOWCASE

**UAV-D04JAI**
Air Space Defender
UAV Jammer

- Jammer with antenna, 1x battery and 1x charger
- GPS/GLONASS/BeiDou L1, B1, B2, 2.4G
- Maximum 6W transmission power (Adjustable, Full power, 1/2 and 1/4)
- Operation mode: abduction mode and deportation mode
- Endurance time: ≥ 1.5 h (Fully charged)
- Effective distance up to 1200m
- Operating Temperature: -20°C to 55°C (-4°F to 131°F)

**UASS**

- 2 x Photoelectric / Coil Trigger Module
- Speed Matching Module
- LED Module
- Vehicle Chassis Scans Module
- Control Cabinet
- Image Manager Software
- Special Cable

**MV-PD-03-0001-01**
MV-PD-03-0001-02
Under Vehicle Screen System Fixed Version

**ITS**

- No installation
- Compact design, easy transportation
- Chassis image displayed and stored with license plate
- IP66 protection level, 10t load-bearing
- FOV≥168°
- Suitable for meeting place, temporary checkpoint
- L56*W56*H9(CM), 25KG

**VCU-7012-ITIR**
3 MP Traffic Video Unit

- 3MP 1/1.8” Progressive Scan CCD
- Up to 2048 x 1536 @ 25fps for real-time output
- Satisfies the capture for one lane or two lanes and the forward or backward capture
- Support speed detection (with external speed measuring radar)
- Megapixels optical lens
- Support abundant ISP image processing techniques, such as 3D DNR, front light and backlight processing, smear suppression, etc.
- License plate recognition

**VCU-A014-ITIR**
7 MP Traffic Video Unit

- 7MP 1” Progressive Scan CCD
- Up to 3392 x 2008 @ 25fps for real-time output
- Satisfies the capture for three lanes and the backward capture
- Support speed detection (with external speed measuring radar)
- Megapixels optical lens
- Support abundant ISP image processing techniques, such as 3D DNR, front light and backlight processing, smear suppression, LTM (Local Tone Mapping) etc.
- License plate recognition

**MV-PD-03-0001-01**
MV-PD-03-0001-02
Under Vehicle Screen System Fixed Version

**VCU-A014-ITIR**
7 MP Traffic Video Unit

- 2MP 1/1.8”CMOS
- 2048*1536@25fps
- Hanging 3 LED light for fill-in light on license
- Low illumination: 0.0001 lux @F1.2, AGC ON
- Good image quality in spite of high light density
- 6 lanes monitoring and 3 lanes license plate capture
**PRODUCT SHOWCASE**

**ECU-7044-IT**
3 MP Traffic Video Unit

- 3MP 1/1.8” Progressive Scan CCD
- Up to 2048 x 1536 @ 25fps for real-time output
- Satisfies the capture for one lane or two lanes and the backward capture
- Support illegal behaviors including Running Red Light, Illegal Lane Change, Driving on Lane Line, Reverse Driving and Driving Against Guidance
- Megapixels optical lens
- Two detection ways of traffic light: IO signal or traffic light signal detector
- Support abundant ISP image processing techniques, such as 3D DNR, front light and backlight processing, smear suppression, etc.
- License plate recognition

---

**iDS-TCD215**
Traffic Flow Unit

- 2MP 1/1.8” Progressive Scan CMOS HD Camera
- Up to 1920 × 1080 @ 30 fps for real-time output
- ROI and SVC are adopted with high compression ratio, flexible disposal and low bitrate
- Network lightening protection and anti-surge
- 3D digital noise reduction
- Support detection of traffic flow, average vehicle speed, distance between cars of vertical and horizontal, time & space occupancy, lane queue length, vehicle type, lane running state

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**IDS-2VS225-F836**
Traffic PTZ Camera

- 2MP 1/1.9” progressive scan CMOS
- Up to 1920×1080 resolution
- 36× optical zoom; focal length 5.7 mm to 205 mm
- 16× digital zoom
- Min. illumination:
  - Color: 0.002Lux @F1.5, AGC ON
  - B/W: 0.0002Lux @F1.5, AGC ON
- 0Lux with IR
- IR cut filter with auto switch
- 3D DNR, EIS, HLC, BLC, low bitrate, 120 dB WDR
- IP66
- GPS/BDS positioning module

**ECU-A046-IT**
7 MP Traffic Video Unit

- 7MP 1” Progressive Scan CCD
- Up to 3392 x 2008 @ 25fps for real-time output
- Satisfies the capture for three lanes and the backward capture
- Support illegal behaviors including Running Red Light, Illegal Lane Change, Driving on Lane Line, Reverse Driving and Driving Against Guidance
- Megapixels optical lens
- Two detection ways of traffic light: IO signal or traffic light signal detector
- Support abundant ISP image processing techniques, such as 3D DNR, front light and backlight processing, smear suppression, etc.
- License plate recognition

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**IDS-TCD200-A/1140**
DeepInView Traffic Flow Unit

- Hikvision Deep Learning Technology based
- 2MP 1/1.8” Progressive Scan CMOS HD Camera
- Up to 1920 × 1080 @ 30 fps for real-time output
- ROI and SVC are adopted with high compression ratio, flexible disposal and low bitrate
- Network lightening protection and anti-surge
- Support detection of traffic flow, average vehicle speed, distance between cars of vertical and horizontal, time & space occupancy, lane queue length, vehicle type, lane running state and congestion status

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**DS-TL2000A(I)-L1**
Supplemental LED Light

- 16 LED lamp beads
- White LED or Infrared LED
- Effective distance: 16~25m
- Angle of light: 10˚
- Trigger Mode: TTL level (Switch trigger optional)
- Coverage: 1 road lane
PRODUCT SHOWCASE

**DS-TL2002A(I)**  
Supplemental LED Light  
- 28 LED lamp beads  
- White LED or Infrared LED  
- Effective distance: 16–25m  
- Angle of light: 10°  
- Trigger Mode: TTL level (Switch trigger optional)  
- Coverage: 1.5 road lane

**DS-TL2002C(I)**  
Supplemental LED Light  
- 28 LED lamp beads  
- White LED or 850nm LED (Infrared)  
- Effective distance: 16–25m  
- Angle of light: 40°  
- Trigger Mode: TTL level (Switch trigger optional)  
- Coverage: 1.5 road lane

**SL-1211-2(850nm)**  
Infrared Flash Supplemental Light  
- Single lane  
- Compensated Effective Distance: 18 – 25 m  
- Flash Frequency: Up to 6 times/second  
- Recycle Time: < 67 ms  
- Trigger Mode: TTL level and switch trigger  
- Wavelength: 850 nm

**SL-1211-2**  
White Flash Supplemental Light  
- Single lane  
- Compensated Effective Distance: 16 – 25 m  
- Flash Energy: 200J  
- Flash Frequency: Up to 6 times/second  
- Recycle Time: < 67 ms  
- Trigger Mode: TTL level and switch trigger  
- Optical Grating: Supported (Reducing light pollution effectively)  
- IP65

**CSR-IN(P)**  
High-precision Speed Inspection Radar  
- High-precision narrow band radar  
- Velocity range: 10–250 km/h  
- Measurement accuracy: -4~0 km/h  
- Support vehicle front & rear triggering  
- Support direction information and vehicle length information

**CSR-IM**  
Multi-lane Speed Inspection Radar  
- Support multi-object detection, covering 1–3 road lanes  
- Velocity range: 2–250 km/h  
- Measurement accuracy: -4~0km/H  
- Support vehicle front & rear triggering  
- Support direction information
**TLD-2016-6**  
Traffic Signal Light Detector

- 16-ch signal light AC signal interface
- 6 RS485 output
- 1 DC 5V output
- 5 pin switch to set band rate, address and upload method
- 16-ch lights to show status

**IDS-TP40-16B**  
DeepInMind Traffic Management Server

- Hikvision Deep Learning technology Based
- Support auto detecting 16-ch 3MP IP Camera Event Detection, Event Capture, Traffic Data Collection
- Event Detection Type: Traffic Jam, Parking, Over lane line, Turn Round, Reverse Driving, Pedestrian, Throw Object, Illegal Lane Change
- Traffic Data Collection Type: Traffic Flow, Speed, Spacing head way, Time headway, Lane-time occupied rate, Lane-space occupied rate, Queuing Length, Traffic Traveling Status

**DS-TP50-120T**  
Terminal Server

- Two BNC input interfaces, 2 BNC loop-out interfaces
- Four 3.5”/2.5” SATA HDD interfaces
- Eight 10/100M Ethernet interfaces
- Save recorded files on locked hard disk. The saved period is determined by stream bitrate and hard disk capacity.
- Text overlay and picture composition

**Network Storage**

**IDS-TP40-16B**  
DeepInMind Traffic Management Server

- IP-SAN and Central video recording support
- Up to 16/24 HDDs, with up to 6 TB capacity on each disk and cascading extension support
- RAID 0, 1, 3, 5, 10, 50 and HDD hot-swapping supported
- Modularization and redundant power design for high reliability

**DS-A908RE-B**  
CVR Network Storage

- Image and video mixed storage
- 3U (19-inch height)
- 8 HDD slots
- Recording Mode: Video [2 Mbps] + picture, 78-ch. recording + playback
PRODUCT SHOWCASE

Control Center

- Decoding capacity: 12MP at 20 fps: 2 channels
  8MP at 30 fps: 4 channels
  5MP at 30 fps: 6 channels
  3MP at 30 fps: 10 channels
  1080p at 30 fps: 16 channels
- Provides HDMI (adaptable to DVI-D) and BNC output interfaces
- Up to 4K (3840 x 2160 @ 30 Hz) via HDMI output interfaces (only for even interface)
- H.265+/H.265, H.264+/H.264, MPEG4 and MJPEG video compressions
- G.722, G711A, G726, G711U, MPEG2-L2, and AAC audio compressions

Ultra High Definition Decoder

- Up to 184-ch. analog, or 92-ch. TVI or 92-ch. HDMI / DVI / VGA input
- Up to 72-ch. HDMI / DVI / VGA output
- Up to 72-piece screen jointing
- Built-in Matrix
- Supports joint, division and display
- Base map
- Cross-window video roaming
- Supports hot plugging
- Redundant power supply

APPLICATION REFERENCE

Hangzhou, China, G20 Public Security Project

HIKVISION’s advanced products (like UAV/PanoVu/face recognition cameras, etc.) were deployed at related significant area to provide a real-time, integrated security system.

Independent 70000+ video surveillance sites and 4000+ checkpoints which were constructed by domestic police and 30000+ social video surveillance cameras were completely integrated on HIKVISION’s iVMS platform in 2016.

Hikvision upgraded six sets video security systems of police branches in Hangzhou.

A series of new technologies, such as deep learning and big data, have been successfully used in G20’s safety & security system.

Singapore SPF Safe City Project

The SPF project involves 100,000 monitoring points and 11,550 NVRs/DVRs.

Hikvision iVMS integrated with the existing third-party mobile surveillance VMS and devices.

The management efficiency is remarkably increased after our deep customization.

With the well-performing availability mechanism, the system can function 24x7 hours.
Philadelphia Recreation Center, USA

Solution Highlights:
Hikvision’s high-performance cameras, NVRs, and VMS technology were selected as a cost-effective solution at over 140 recreation centers to protect the city, to ensure a ‘fun, safe, Philly summer’.

City of Salford, UK

Solution Highlights:
Hikvision DarkFighter cameras were installed to offer a true 24 hour monitoring service, with clear colored images in the evening. It also helps the operators to detect fly-tipper, illegal dumping rubbish in the city.

Buenos Aires, Argentina

Solution Highlights:
Hikvision provided a high definition surveillance solution for the city of Buenos Aires to provide the citizens a greater level of security. A combination of long-range wireless links and fiber-optic cable was used to connect Hikvision cameras to the head office for centralized management.

Seoul Safe City Project, South Korea

Solution Highlights:
More than 750 units of Hikvision’s Network IR PTZ Dome Cameras are installed in Seoul and adjacent suburbs in South Korea, to provide a safer environment for both vehicles and commuters.