

# Hikvision's Line Haul Management Solution

Boost productivity and minimize transportation risks



**HIKVISION®**

# Background

Logistics operators and drivers face numerous hassles for the goods they transport and the unpredictable transportation process. This makes transportation security paramount to their business.

For logistics operators, the primary concerns center on getting timely, accurate, and comprehensive status updates of their freight trucks. They are seeking answers to dispatch monitor and schedule the trucks precisely, to ensure the trucks arrive safely, to examine the containers in real-time.

Now, Hikvision figures out the real challenges and offers the optimal solution. Read on to find out more.

## Common Challenges



### Absent of Data or Evidence of Accidents

- ⌚ Difficult to determine accident causes and trace back the evidence of traffic accidents

## Hikvision's Solutions



### Vehicle Tracking & Monitoring



- ⌚ Support real-time GPS tracking and post-event video evidence trace back with HD video security



## Driver Protection & Assistance

### Costly Operation with At-Risk Driving

-  Carry more driving risks due to long working hours, physical burdens, harsh weather, etc.

 Achieve comprehensive protection with the intelligent driving assistance

- Forward Collision Warning (FCW)
- Lane Departure Warning (LDW)
- Pedestrian Collision Warning (PCW)
- Blind Spot Detection (BSD)
- Headway Monitoring Warning (HMW)
- Driver Safety Management (DSM)

 Provide audio communication and alarm for in-time respond

### High Operation Costs Due to Loss and Theft

-  Fuel loss
-  Goods loss due to spoilage, rejected loads, etc.

## Property Management & Protection

 Establish extensive IoT applications with assorted sensors, including door status sensors, temperature sensors, fuel level sensor, and mobile recorders.

### Inefficient Operations Management

-  Difficult to optimize operation
-  Isolated data cannot accurately reflect the state of operations

## Performance & Operation Analysis

 Support holistic management to improve decision making efficiency with assorted reports from HikCentral Professional

A photograph showing three white semi-trucks parked in a row in front of a large, modern industrial building with a light blue-grey facade. The trucks are white cab-over-engine models. The truck on the left has its hood open, revealing the engine compartment. The middle truck's side door has the number '8t' printed on it. The truck on the right is partially cut off by the frame. The sky is overcast.

# Solution Functions

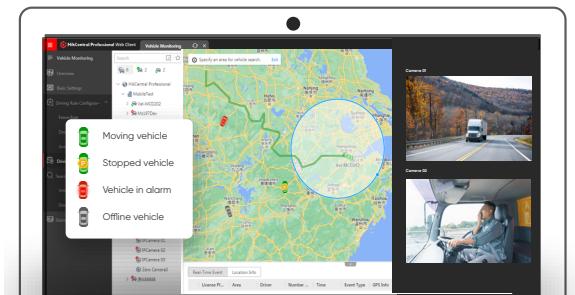
# Video Security

Safe and stable transportation are always the priority for logistic operators. However, the driving process can be tough to manage, especially when determining the cause of an accident and exonerate innocent drivers. The lack of data or evidence can be a serious impediment. What can be done?

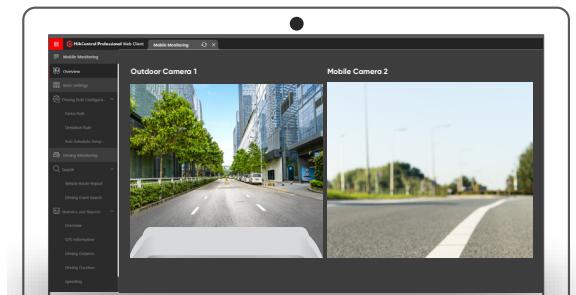
Hikvision's Line Haul Management Solution provides **real-time monitoring** to support drivers and continually **records video** to provide evidence of incidents. Operators can browse alarm records or timestamps.

A **360° panoramic camera with all-around views** supports safe driving. Drivers can improve awareness of surroundings and operate vehicles more safely with the all-around views when turning or moving in reverse. In emergencies, they can notify the platform using a convenient **alarm button** or by speaking directly through a **two-way intercom**. Additionally, driving alarms for events such as deviations and speeding go straight to the platform with real-time video and vehicle location to maintain safe operations.

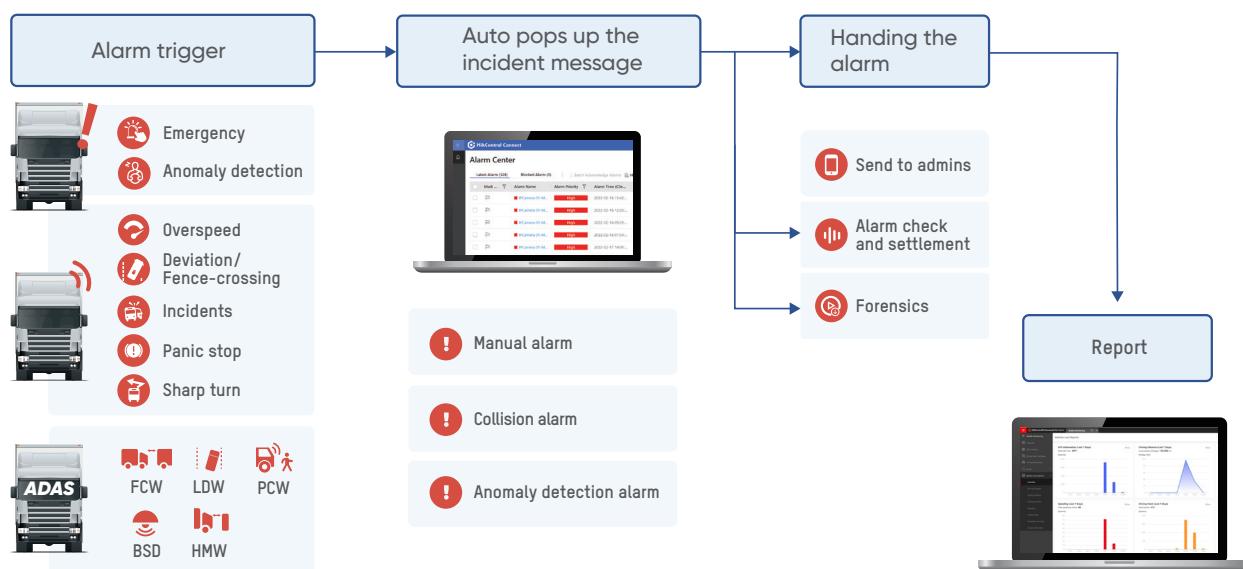
## Real-time Tracking



## HD Monitoring



## Alarm Management



## Intelligent Driving Assistance

Difficulties like long hours, physical burdens, harsh weather, and more, make driving safely a challenge. And at-risk driving is very dangerous for merchandise, drivers, and general road safety. Our intelligent driving assistance system offers intelligent driver protection and assistance. It features **Forward Collision Warning** (FCW), **Lane Departure Warning** (LDW), **Pedestrian Collision Warning** (PCW), **Blind Spot Detection** (BSD), **Headway Monitoring Warning** (HMW) and **Driver Safety Management** (DSM). Drivers can enjoy a safe driving with intelligent analysis server to help identify potential dangers and trigger audio warnings.

Moreover, drivers can navigate prudently with optimal awareness with the abnormal driving behavior detection from **DSM camera**.

## Goods Management

Damage, vandalism, and theft of goods and merchandise are always the uncontrollable threats for operators, because they cannot examine those goods during the transportation process. Here, Hikvision's IoT Module can help to enhance goods management with extensive **IoT applications** and **assorted sensors**, consisting of **door status sensors**, **temperature sensors**, **fuel level sensor**, and **mobile recorders**.

This advanced module provides temperature and fuel consumption monitoring and integrity assurance of merchandise. An operator can inspect the rear door status throughout the journey to make sure that all goods are intact during transit. For cold chain services, temperature sensors can help shipping professionals check container temperatures to maintain product quality, with temperature history and real-time alarms for abnormalities. Also, the IOT module can identify a sudden drop in fuel level, and analyze usage for maximum efficiency.



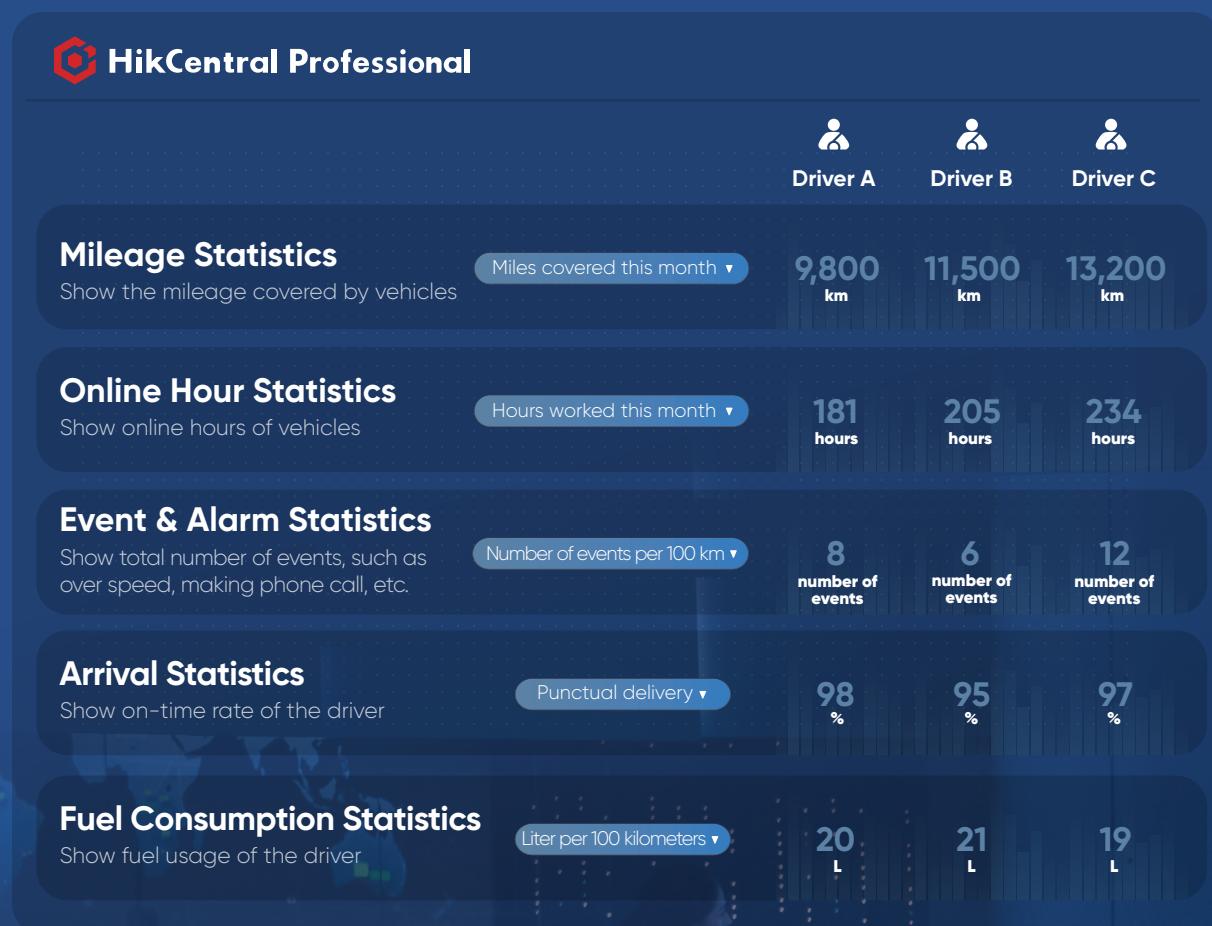
\*Door Status Sensors and Temperature Sensors support third-party sensors and are ready for project deployment. Door Status Sensor needs no integration. For Temperature Sensor, DVR customization is needed.

# Command Center - HikCentral Professional

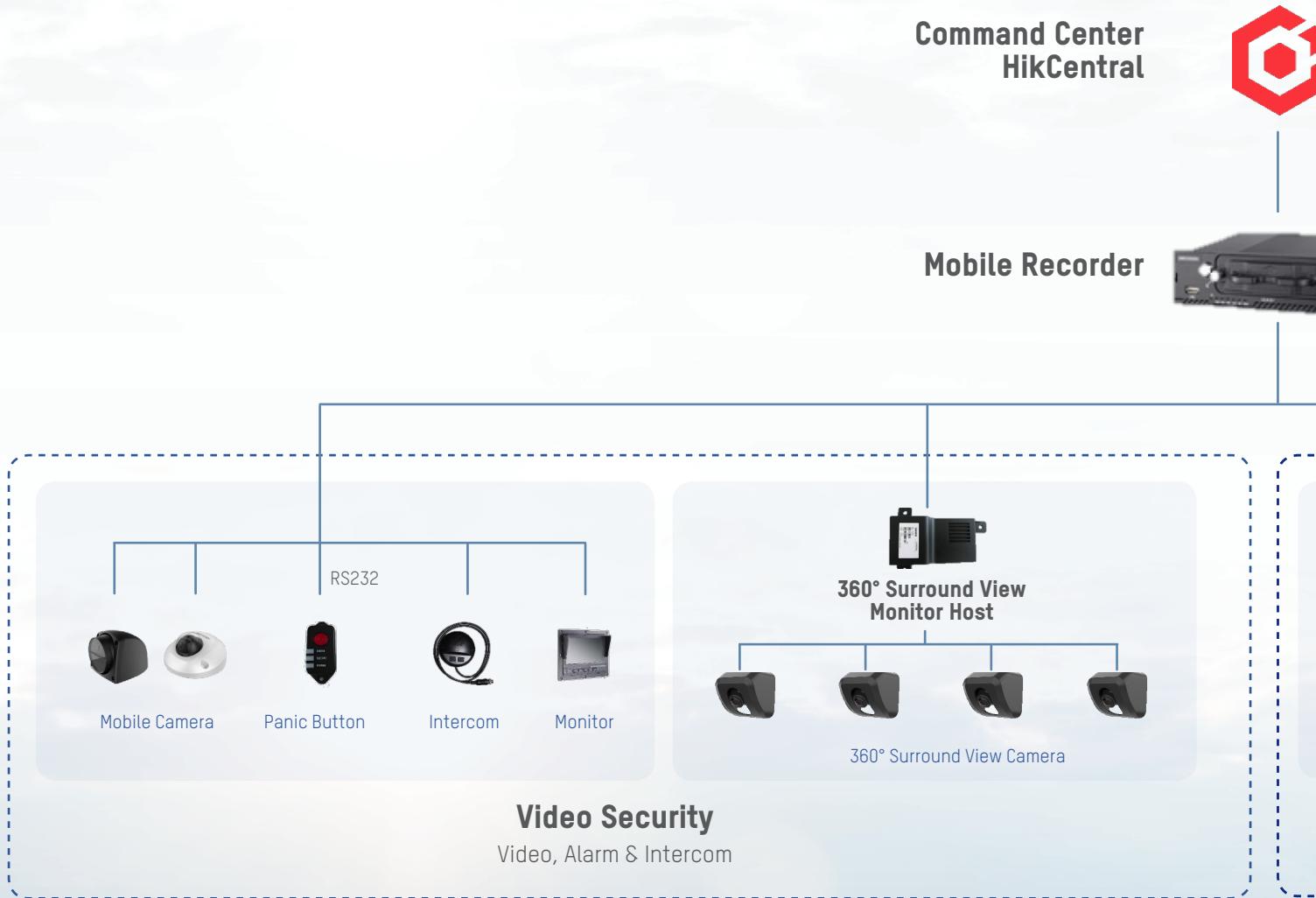
Operators have difficulty evaluating their drivers' performance, because isolated data cannot accurately reflect the real state of operations. However, HikCentral Professional can centralize management with helpful functions like video monitoring, recording, playing back footage, real-time positioning, data & statistics, and more. A variety of reports present operators with great visibility across every aspect, helping operators handle emergencies instantly and make smarter decision.

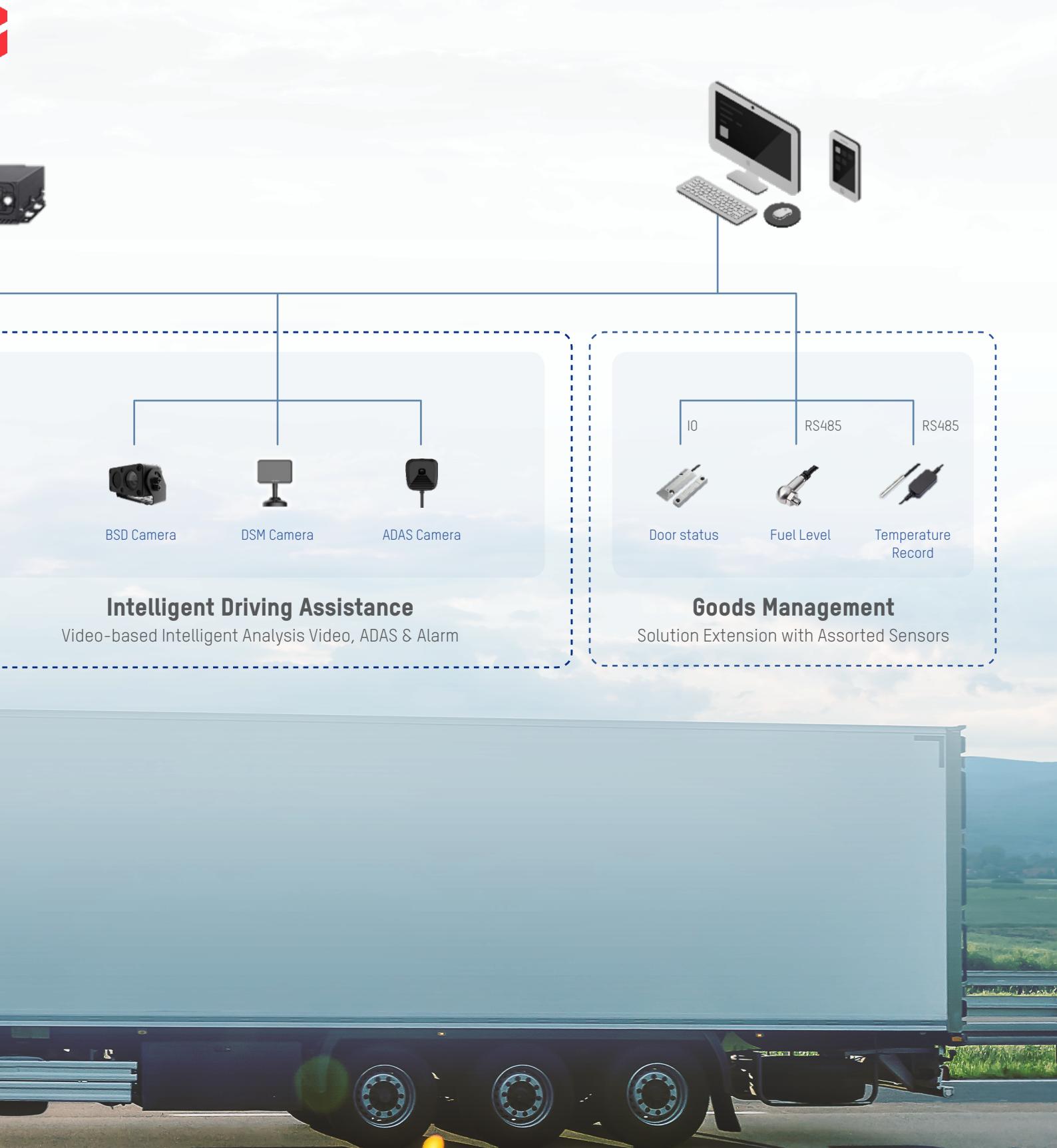


\*Note: Units of measure vary across regions. Hikvision applies the appropriate units in any given application/installation.



# Solution Structure



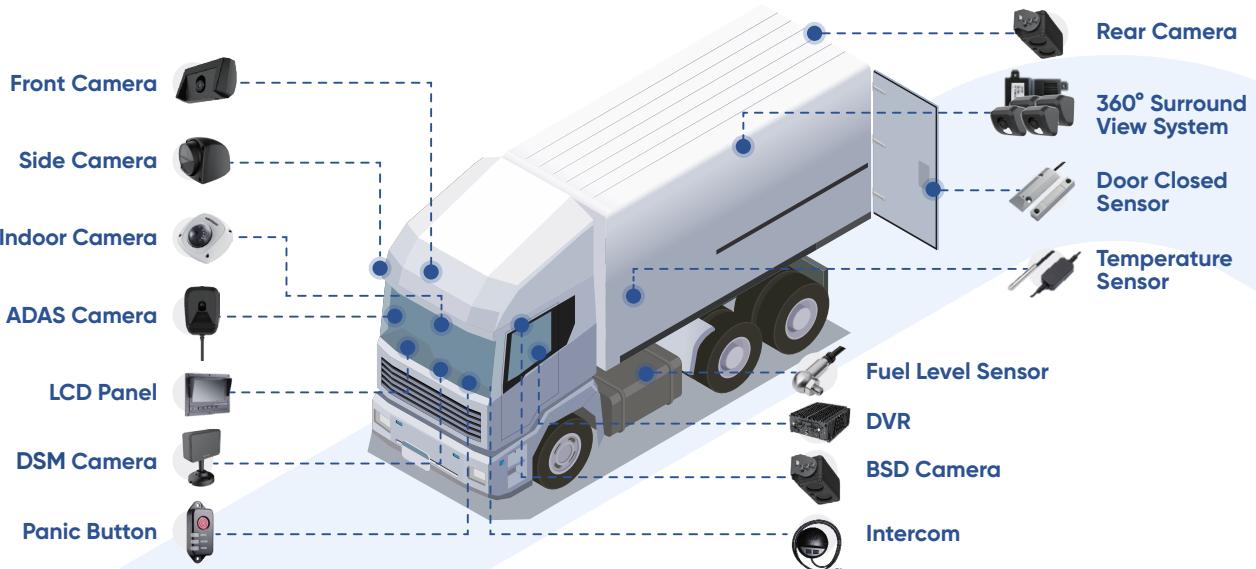


# Common Applications

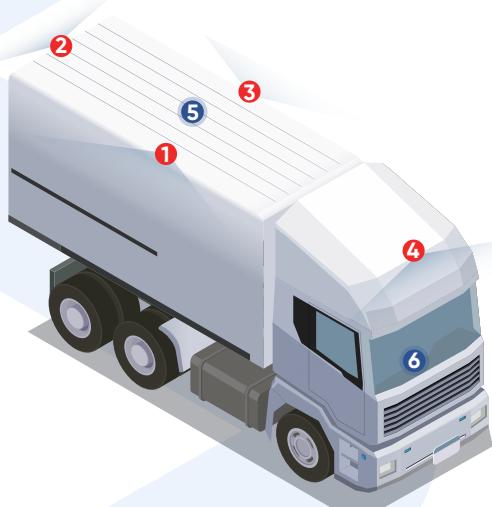
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## Box trucks or lorries and single-chassis vehicles

For large-scale trucks, they carry more risks due to the great inertia and more blind zones. Hikvision provides comprehensive solution to guarantee the safe transportation, including video security, intelligent driving assistance, and goods management, etc.

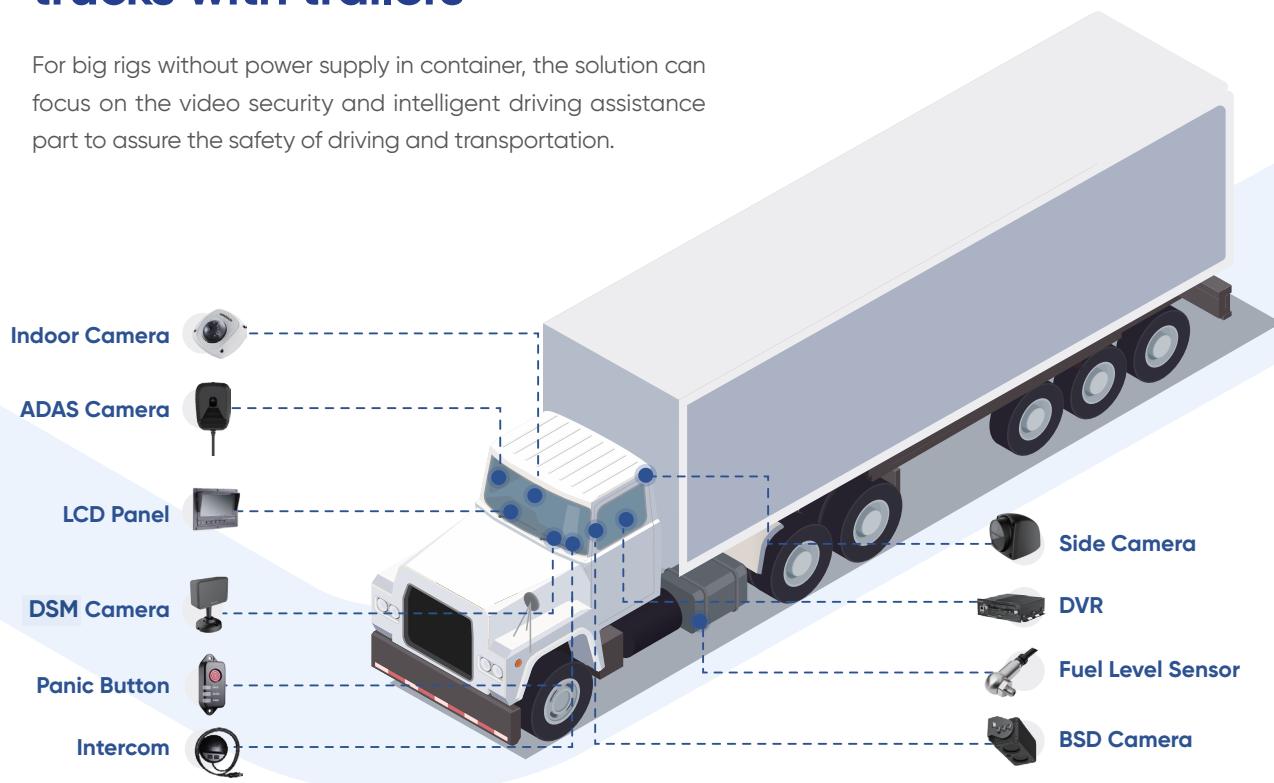


### 360° Surround View System

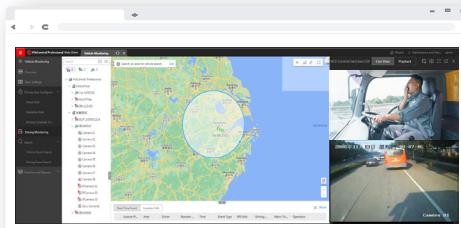


## 2 Big rigs and various trucks with trailers

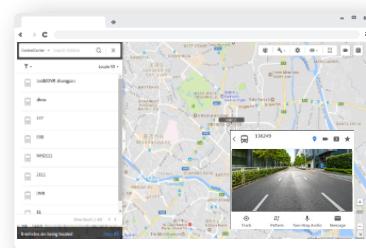
For big rigs without power supply in container, the solution can focus on the video security and intelligent driving assistance part to assure the safety of driving and transportation.



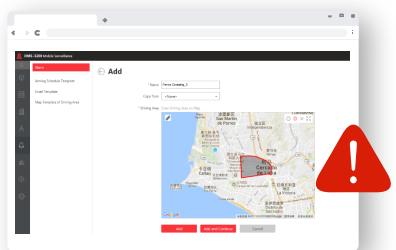
Video Recording & Retrieval



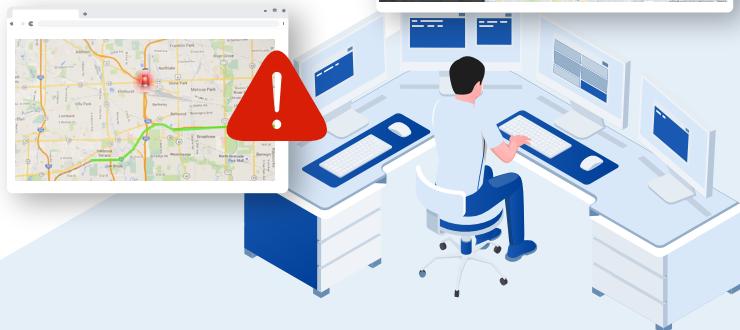
Real-time Monitoring



Fence Crossing Alarm



Route & Speed Control



# Product Features

## Mobile DVRs

### Reliable Supply, Modular Design



- Power supply supports 8-36 VDC
- Electromagnetic immunity design conforms to the automobile ISO-7637 electromagnetic standard
- Suitable for all types of vehicles

### Anti-Seismic Design



- Top-rated shockproof hard drives installed
- Patented metal air bag damping technology

### Uninterrupted Power Design



- First to be utilized in the industry
- Ensures video is written to the hard drive at the moment of power failure

### Perfect Video Recording



- Supports a variety of storage media
- Supports SD card redundancy recording when if hard drive is damaged
- Supports fire box storage / redundancy recording

### GPS Filtering



- Equipped with high-sensitivity antenna and GPS filtering algorithms, GPS Filtering resolves problems with fixed-point drift, velocity drift, and other abnormal data. Moreover, regarding data transmission, information will be maintained when offline or Internet disconnection; transmission will be restored when back online.

### Aviation Gyroscope



- Built-in G-sensor & gyroscope sensor provide emergency response to collision and rollover accidents to restrict or eliminate dangerous driving habits such as rapid acceleration, deceleration or braking, and turning too sharply

### Dual System Backup



- Dual system firmware is built in the vehicle host to ensure normal operation of the device after restarting

## Mobile Camera

### HD Video Security



- All-round cameras with high definition, including 720p and 1080p, can provide better recording, tracking, and deterrence

### IP68 Waterproof Rating



- Water pressure: 400 KPa
- Water flow: 100L/min
- Depth: 2.5 – 4 m
- Test duration: >3 mins

# Product Showcase



**4-Channel MVR**

- 4-ch 1080p @ 25 fps analog cameras + 4-ch 1080p IPC (via PoE switch)
- 2 x HDD / SSD (2 TB) + 2 x SD (256 GB)
- Pluggable 3G/4G module
- Built-in Wi-Fi module, G-sensor and GPS module
- Standby Consumption: ≤ 0.5 W
- Full load Consumption: ≤ 45 W
- Wide-range Power Input (+9 VDC to +32 VDC)
- CE / FCC / EN50155 / EN45545 / EN50121 / E-mark, CB / BIS / RCM / RoHS / ISO 7637-2 / MIL-STD-810G
- Front collision warning (FCW)
- Lane departure warning (LDW)
- Pedestrian collision warning (PCW)
- Blind Spot Detection (BSD)
- DMS: Driving Monitoring System, supports fatigued / distracted / smoking / phone call detections



**8-Channel MVR**

- 8-ch 1080p @ 25 fps analog cameras + 8-ch 1080p IPC (via PoE switch)
- 2 x HDD / SSD (2 TB) + 2 x SD (256 GB)
- Pluggable 3G/4G/5G module
- Built-in Wi-Fi module, G-sensor and GPS module
- Standby Consumption: ≤ 0.5 W
- Full load Consumption: ≤ 45 W
- Wide-range Power Input (+9 VDC to +32 VDC)
- CE / EN50155 / EN45545 / EN50121 / E-mark / CB / BIS / RCM / RoHS / ISO 7637-2 / MIL-STD-810G
- Front collision warning (FCW)
- Lane departure warning (LDW)
- Pedestrian collision warning (PCW)
- Blind Spot Detection (BSD)
- DMS: Driving Monitoring System, supports fatigued / distracted / smoking / phone call detections



**DS-MP1431-64G**

Fireproof Box

- Video mirror backup for data protection
- Fire resistance time: 15 min @ 1100 °C, 20 min @ 950 °C, 120 min @ 260 °C
- Waterproof: 24 hour @ 100 m (10 ATM)
- High Speed Impact: 100 Gs @ 50 ms
- Static Squeeze: 100 KN @ 5 min
- Consumption: ≤ 0.5 W
- 122 x 88 x 57 mm (4.8 x 3.5 x 2.2 inch)
- Approx. 0.97 kg (2.1 lb)



**AE-VC211T-IRS**

- 2 MP Progressive CMOS sensor
- Fixed focal lens, 2.8, 3.6, 6 mm optional
- Up to 1080p resolution
- 0.1 Lux @ (F1.2, AGC ON), 0 Lux with IR
- WDR: 120 dB
- SNR: 42 dB
- Built-in microphone
- Consumption: ≤ 4 W
- Metal Case



**AE-VC224T-IT**

- 2 MP Progressive Scan CMOS
- Fixed focal lens, 2.1 / 2.8 / 3.6 mm optional
- Up to 1080p resolution
- 0.1 Lux @ (F1.2, AGC ON), 0 Lux with IR
- SNR: 42 dB
- Operating temperature: -40 - 75° C
- Ingress protection: IP68
- Consumption: ≤ 2.5 W
- Metal Case



**AE-VC222T-ITS**

- 2 MP Progressive Scan CMOS
- Up to 1080p resolution
- Fixed focal lens, 2.1, 2.8, 3.6 mm optional
- 0.1 Lux @ (F1.2, AGC ON), 0 Lux with IR
- SNR: 42 dB
- Consumption: ≤ 2.2 W



**AE-VC153T-IT**

**AE-VC253T-IT**

Works with AI DVR to achieve BSD

- 720p / 1080p @ 30 fps
- Metal Case
- 0.1 Lux @ (F1.2, AGC ON)
- Operating temperature: -40 - 75° C
- Ingress protection: IP68
- Adjustment Angle: Tilt: 0° to 90°
- Supports auto day & night switch
- Supports right & left monitor mode
- SNR: 62 dB



**AE-VC163T-ITS**

**AE-VC263T-ITS**

- Front and Rear Dual-Channel Vehicle-Mounted Camera
- 720p / 1080p @ 30 fps
- Min. illumination: 0.1 Lux @ (F1.2, AGC ON), 0 Lux with IR
- ICR for rear camera and full color for front camera
- Built-in microphone
- Rear Camera: 2.1 mm; Field of View: H: 125°, V: 80°, Diag: 148°
- Front Camera: 2.1 mm; Field of View: H: 125°, V: 66°, Diag: 154°
- Adjustment Angle: Tilt: 0 - 360°
- CE / FCC / E-mark



**AE-VC159T-S**

**AE-VC259T-S**



**AE-VA136T**

- Front Vehicle-Mounted Camera
- 720p / 1080p @ 30 fps
- Min. illumination: 0.01 Lux @ (F1.2, AGC ON)
- Supports full color
- Wide-angle lens, 2.1 mm, Field of View: H: 127°, V: 73°
- SNR: 42 dB
- Consumption: ≤ 2.2 W
- CE / FCC / E-mark

- Front Vehicle-Mounted Camera
- 720p @ 30 fps
- Min. illumination: 0.01 Lux @ (F1.2, AGC ON)
- Supports full color
- Wide-angle lens, 2.1 mm, H FOV 127°, V FOV 73°
- SNR: 42 dB
- Consumption: ≤ 1 W
- CE / FCC / E-mark



**AE-VC154T-IT**

Works with AI DVR to achieve DSM



**AE-VC155T**

Works with AI DVR to achieve ADAS

- 6 mm lens
- 720p @ 30 fps
- Min. illumination: 0.1 Lux @ (F1.2, AGC ON), 0 Lux with IR
- Tilt: 0 - 50°, Pan: 0 - 5°, Rotate: 0 - 360°
- 2 x 940 nm IR
- 3 m IR distance
- SNR: 42 dB
- Consumption: ≤ 2.5 W

- Windshield camera
- 6 mm lens
- 720p @ 30 fps
- Min. illumination: 0.1 Lux @ (F1.2, AGC ON)
- Tilt: 0 - 65°
- WDR: 120 dB
- SNR: 42 dB
- Consumption: ≤ 2 W



**DS-MP1301**  
**DS-MP1302 (Touch Screen)**



**DS-1350HM**

- 7-inch TFT-LCD, 800 x 480 RGB
- 130° visual angle
- Manual switch or Auto switch
- 1-ch connect to the DVR, 1-ch connect to the rear camera
- 2-ch alarm input
- IP 54

- 1-ch build-in speaker and 1-ch build-in Mic
- 12 VDC / 30 mA
- 85 x 85 x 26 mm
- Operating Temperature: -10 to 55° C
- Wiring length: 6,000 mm



**DS-1530HMI**

- Built-in Gyroscope and Sensor
- 5 VDC / 30 mA
- 80 x 30 x 19 mm
- Operating Temperature: -20 to 60° C
- 100 ms sampling interval

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