Intelligent Traffic System

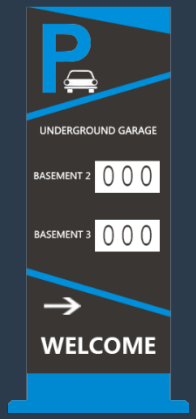
H2 2021

HIKVISION®

Intelligent Traffic System

Intelligent Traffic System

As city populations grow, so do car ownership and the burdens on urban traffic systems. The key objective remains keeping everyone moving safely and responsibly on the road, optimizing the use of available transportation and parking resources, and responding to traffic and security events as swiftly as possible. Hikvision's Intelligent Traffic System helps alleviate these concerns altogether. It effectively regulates traffic order by detecting and managing various road violations, such as running the red light, speeding, improper lane usage, illegal parking, etc. It also helps optimize traffic flow and ease gridlock by adjusting red and green light durations according to actual road conditions. An ITS guidance screen can be placed near congested areas to display alternate route information to keep traffic under control, reduce driver frustration, and relieve officers from having to manually directing traffic in dangerous conditions.



At entrances and exits, Hikvision's ANPR Cameras automatically recognize a vehicle's plate number and display it on the control center screen. The Authorized List function with barrier integration enables quick and fluid passing of registered vehicles, preventing congestion at entrances and exits and improving traffic efficiency. The Parking Guidance System combines deep learning algorithms, video monitoring, and information dissemination technologies to give drivers dynamic, real-time information about parking availability within controlled bays. The system helps drivers find the closest parking spaces available. Then, by simply entering their plate number in full or in part, the vehicle can be easily located on the floor map as well as the best route to it.

Intelligent Traffic System

Checkpoint System

The checkpoint capture system is designed for applications in urban roads and expressways. When a vehicle passes by, information such as the license plate, type, color, and radar-detected speed will be collected and utilized by our professional video management platform for further applications, such as intelligent vehicle searches, for example.

Hikvision launched innovative ITS cameras for traffic speed enforcement and violation detection. The new All-Rounder Traffic Camera is engineered with an all-in-one structure, embedding video, radar and supplemental light in one module, helping traffic authorities ramp up the detection of violations with easier installation and system operation.

- High quality imaging with up to 9 MP resolution (1'' GMOS)
- Excellent low-light performance
- Efficient H.265 compression technology
- 3D DNR technology delivers clean and sharp images
- Supports automatic number plate recognition (ANPR)

  Vehicle feature recognition: Vehicle type / color / manufacturer / number plate color recognition / no-plate vehicle capture

  Violation detection: Driving on lane line, Illegal lane change, wrong-way driving, seatbelt and phone use violations

  Application scenarios: Highways, tunnels, toll stations, urban roads, etc.

Checkpoint

Model	iDS-TCV500-BI/1550/H1	iDS-TCV900-BI/1140/H1
Image	HOT  Deep Learning	HOT  Deep Learning
Image Sensor	2/3" CMOS	1" CMOS
Resolution	2464 × 2056	4096 × 2160
Video Compression	H.265/H.264/MJPEG	H.265/H.264/MJPEG
Lens	15-50 mm	11-40mm
Light Range	Up to 30 m	Up to 27 m
Coverage	1-2 lanes	2-3 lanes
LPR Accuracy	> 98%	> 98%
Supplement Light	External strobe/flash/continuous light	External strobe/flash/continuous light
Smart Function	Vehicle type classification, vehicle color recognition, no-plate vehicle capture, moving direction detection	Vehicle type classification, vehicle color recognition, no-plate vehicle capture, moving direction detection
Vehicle Type	Car/Van/Bus/Truck/Light Truck/SUV_MPV/ Pickup/Pedestrian/Motorcycle/Tricycle	Car/Van/Bus/Truck/Light Truck/SUV_MPV/ Pickup/Pedestrian/Motorcycle/Tricycle
Vehicle Color	Recognizable at daytime only	Recognizable at daytime only
Vehicle Manufacturer	Support	Support
Standard Protocols	TCP/IP, HTTP, HTTPS, FTP, DNS, RTP, RTSP, RTCP, NTP, IPv6, UDP	TCP/IP, HTTP, HTTPS, FTP, DNS, RTP, RTSP, RTCP, NTP, IPv6, UDP
Driving on Lane Line Detection	Support (only strobe light mode)	Support (only strobe light mode)
Illegal Lane Change Detection	Support (only strobe light mode)	Support (only strobe light mode)
Wrong-Way Driving Detection	Support	Support
Emergency Lane Occupation	Support (truck forbidden lane, emergency lane, urban bus lane)	Support (truck forbidden lane, emergency lane, urban bus lane)
Seatbelt Detection	Support (with flash light)	Support (with flash light)
Phone Call Detection	Support (with flash light)	Support (with flash light)
Capture Speed Range	5 to 250 km/h	5 to 250 km/h
Frame Rate	50 Hz: 50 fps 60 Hz: 30 fps	50 Hz: 25 fps 60 Hz: 30 fps
Protection Level	IP66	IP66
Local Storage	TF card, up to 128 GB	TF card, up to 128 GB
Weight	6.5 ± 0.5 kg (14.3 ± 1.1 lb)	6.5 ± 0.5 kg (14.3 ± 1.1 lb)
Dimensions (W × H × D)	With package: 175.68 × 137.5 × 443.99 mm (6.92 × 5.41 × 17.48 inch)	Whith package: 175.68 × 137.5 × 443.99 mm (6.92 × 5.41 × 17.48 inch)
Operating Temperature	-40 °C to +60 °C (-40 °F to +140 °F)	-40 °C to +60 °C (-40 °F to +140 °F)
Humidity	95% or less, non-condensing	95% or less, non-condensing
Power	24 VDC ± 20% / 100 to 240 VAC	24 VDC ± 20% / 100 to 240 VAC

Traffic Server

Model	DS-TP50-16E
Image	HOT 
Processor	High-performance ARM A17 processor
Operation System	Embedded Linux operation system
Operation Medium	WEB
Storage	4 SATA interfaces for 4 HDDs
Capacity	Up to 6 TB capacity for each HDD
External Storage	1 eSATA interface for 1 external HDD
Reset Button	1
Indicator	4 x indicator (1 x Power Indicator, 1 x Alarm Indicator, 1 x HDD Indicator, 1 x Ready Indicator)
Network Interface	16 x 1000 M Ethernet interface, 1 x internal 10/100/1000 M self-adaptive Ethernet interface, 1 x external 10/100/1000 M self-adaptive Ethernet interface, 1 x internal 1000 M fiber interface, 1 x external 1000 M fiber interface
Alarm Input	2 relay alarm inputs
Alarm Output	2 relay alarm outputs
Power Output	One 12 VDC power output
Video	Stores videos. Storage duration depends on stream bitrate and HDD capacity.
Uploading	Automatic Network Replenishment (ANR) and manual uploading
Network	2 IP addresses of different network segment are configurable
Power Supply	Adaptor of 12 VDC/12.5 A
Dimension (W × D × H)	370 × 273 × 102.5 mm (14.6 × 10.7 × 4.0 inch)
Operating Temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Operating Humidity	10% to 90%

Model	iDS-TSV300-C
Image	HOT 
Operating Interface	WEB
HDD Storage	1 × 4 TB 3.5-inch SATA HDD (Default); 4 × 6 TB (Scalable)
Network Interface	Dual NIC design NIC 1: 9 × Gigabit Ethernet interface, 1 ×combo SFP Gigabit fiber optic interface NIC 2: 1 × Gigabit Ethernet interface, 1 ×SFP Gigabit fiber optic interface
Video Input	12-ch
USB Port	1
RS232	2
RS485	2
Display Lamp	Power indicator, alarm status indicator, HDD indicator, running status indicator
Operating System	Embedded Linux Operating System
Upload Function	Supports transportation data ANR and manual re-uploading.
Key	Power on/off, Reset
Power	12 VDC/12.5 A, 150 W
Dimension (W × D × H)	370 mm × 273 mm × 102.5 mm (14.57 inch × 10.75 inch × 4.04 inch)
Operating Temperature	-30 °C to 70 °C (-86 °F to 158 °F)
Operating Humidity	10% to 90%

Radar

Model	DS-TD10N-1	DS-TD10M-1
Image		
Power Supply	9 -12 VDC	9 -12 VDC
Central Frequency	24.15 GHz	24.15 GHz
Center Frequency Deviation	≤ ±45 MHz	≤ ±45 MHz
Antenna Beam Width	6° × 6°	35° × 16°
Working Temperature Range	-40 °C to +70 °C	-40 °C to +70 °C
Working Humidity Range	5%RH-95%RH	5%RH-95%RH
Measurement Accuracy	-4-0 km/h	-4-0 km/h
Trigger Consistency	≤ ±1 m	≤ ±1 m
Velocity Range	10-250 km/h	10-250 km/h
Direction Information	Support	Support
Double Trigger	Support vehicle front & rear triggering	Support vehicle front & rear triggering
Multiple Lanes	Support up to 1 lane	Support up to 3 lanes
Wi-Fi Setting	Support	Support
Capture Distance	Single lane 18-28 m	18-28 m
Communication Interface	RS485 (RS232 optional)	RS485, Wi-Fi
Dimension	190 × 190 × 53 mm (7.48 × 7.48 × 2.09 inch)	166 × 139 × 40 mm (6.54 × 5.47 × 1.57 inch)

Supplement Light

Model	DS-TL2000AI-L1	DS-TL2002AI
Image		
Light Type	IR strobe supplement light	IR strobe supplement light
LED Lamp Beads	16	28
Color Temperature	-	-
Angle of Light	10°	Support 10°, 40°optional
Coverage	single lane	1-3 lanes
Effective Distance	16-25 m	16-25 m
Trigger Manner	TTL level (switch trigger optional)	TTL level (switch trigger optional)
Trigger Level	4V - 6V (High level trigger)	4V - 6V (High level trigger)
Trigger Frequency	-	-
Trigger Duty Ratio	1% -39% (Enter the protection state at Duty Radio ≥ 40%)	1% -39% (Enter the protection state at Duty Radio ≥ 40%)
Response Time	≤ 20 us	≤ 20 us
Day and Night Function	Support ambient brightness detection, automatic start-up at low illumination (optional)	Support ambient brightness detection, automatic start-up at low illumination (optional)
Configuration	Ultra-high frequency flash delay setting	Ultra-high frequency flash delay setting
Service Life	≥ 50000 H	≥ 50000 H
Power Supply	220 VAC ±20%, 47Hz-63Hz 110 VAC ±20%, 47Hz-63Hz	220 VAC ±20%, 47Hz-63Hz 110 VAC ±20%, 47Hz-63Hz
Consumption	Max.36W (Determined by control model)	Max.60W (Determined by control model)
Operating Temperature	-40 °C to +70 °C	-40 °C to +70 °C
Operating Humidity	10%-90%, no condensation	10%-90%, no condensation
Weatherproof Rating	IP65	IP65
Dimension	128 mm (W) × 216 mm (H) × 159 mm (D)	322 mm (W) × 270.5 mm (H) × 118 mm (D)
Mounting Model	Support front-mounted and side-mounted installation (bracket rotation angle -90 ° to +90 °)	Support front-mounted and side-mounted installation (bracket rotation angle -90 ° to +90 °)
Weight	2.72 kg	2.72 kg

Model	DS-TL2002CI	DS-TL2000CI
Image		
Light Type	IR continuous light	IR continuous light
LED Lamp Beads	28	16
Color Temperature	-	-
Angle of Light	40°	40°
Effective Distance	16-25 m	16-25 m
Response Time	≤ 20 us	≤ 20 us
Day and Night Function	Support ambient brightness detection, automatic start-up at low illumination	Support ambient brightness detection, automatic start-up at low illumination
Brightness Control	Two grades of brightness control	-
Remote Control	Adopt remote start-up the supplement light via a control line	-
Supplement Light	the fault output port output high voltage (typically 5V) (optional), when the light is turned on and the	-
Exception Detection	supplement light output current is too large or too small	-
Service Life	≥ 50000 H	≥ 50000 H
Housing Material	Die-cast aluminum	Die-cast aluminum
Power Supply	220 VAC±20%, 47Hz-63Hz	220 VAC±20%, 47Hz-63Hz
Consumption	Max.60W, Lower Grade 30W (Determined by control model)	Max.36W (Determined by control model)
Operating Temperature	-40 °C to +70 °C	-40 °C to +70 °C
Operating Humidity	10%-90%, no condensation	10%-90%, no condensation
Weatherproof Rating	IP65	IP66
Dimension	322 mm (W) × 270.5 mm (H) × 118 mm (D)	128 mm (D) × 216 mm (H) × 159 mm (W)
Mounting Model	Support front-mounted (bracket rotation angle -90 ° to +90 °)	Support front-mounted (bracket rotation angle -90 ° to +90 °)
Weight	6.28 kg	2.72 kg
Wave Length	≥ 850 nm (Infrared)	≥ 850 nm (Infrared)

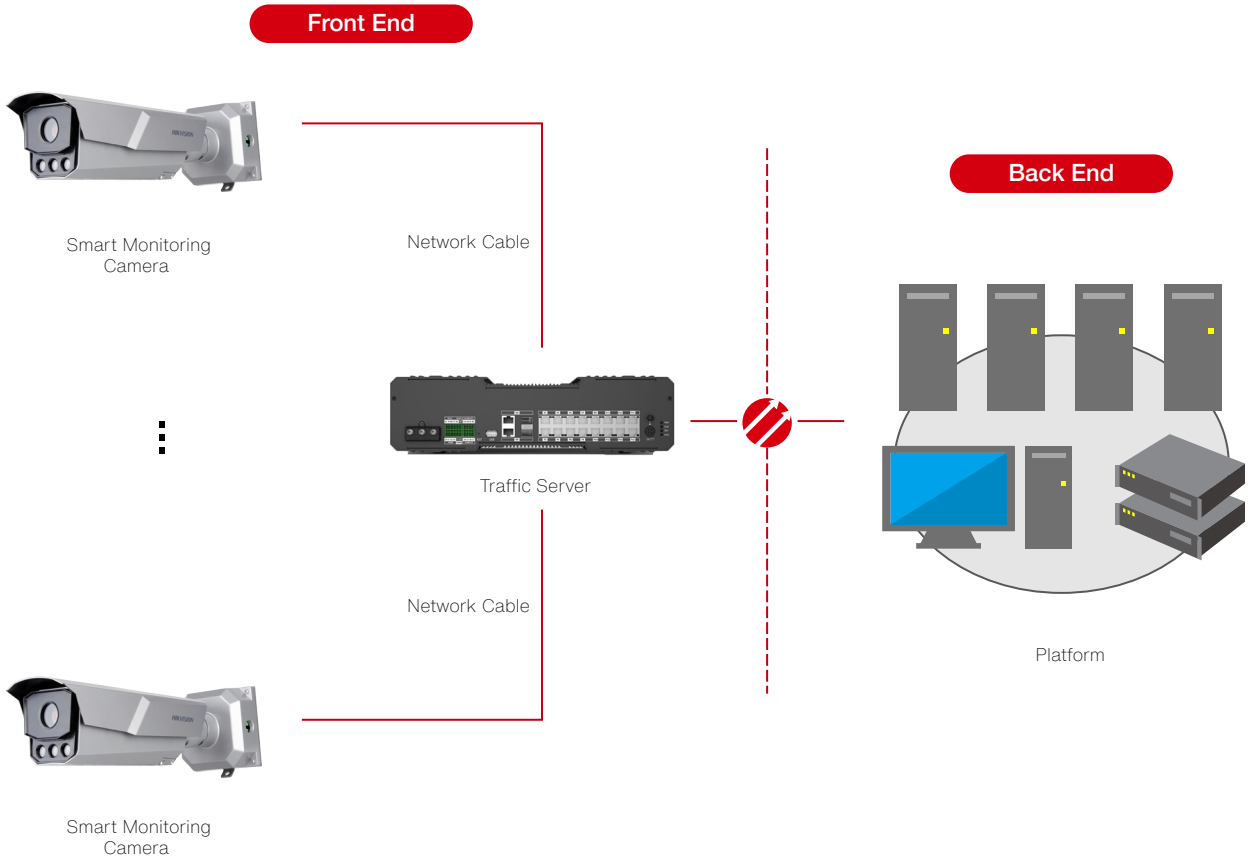
Model	SL-1211-1I
Image	NEW 
Power Supply	AC220V±10% / 48Hz-52Hz
Wave Length	≥ 850 nm (Infrared)
Color Temperature	5500 K ± 500 K
Flash energy	200 J
Power Consumption	Average < 100 W (@ 1 flash / s), max < 300 W
Peak flash duration	1 / 30 ms
Response Time	Max. 67ms
Effective distance	16 m to 25 m
Trigger Manner	TTL level
Photosensitivity	Through photosensitivity to achieve different brightness during the day and night
Grating	Built-in grating (external grating optional); Effectively reducing light pollution
Coverage	Single lane
Operating Temperature	-25 ~ + 70 °C
Operating Humidity	5%-90% (40 °C), no condensation
Service Life	≥20 Million times
Other Functions	Strobe Interval Protect
Protection Level	IP65
Weight	3.5 Kg

IIntelligent Traffic System

Smart Monitoring System

This system is easy to install and improves efficiency. It monitors large areas and supports vehicle capture and ANPR.
DarkFighter technology gives this system excellent image performance at all light levels.

- High quality imaging with up to 4 MP resolution (1/1.8" CMOS)
- Clear imaging against strong back light with 140 dB WDR technology
- Excellent low-light performance with DarkFighter technology
- Motorized vari-focal lens for easy installation and monitoring
- Efficient H.265 compression technology
- Smart functions: ANPR, vehicle type, vehicle color, and manufacturer recognition, no-plate vehicle capture, driving direction detection, and motorcycle capture
- Application scenarios: tunnels, toll stations, urban roads, parking entrances


Front End
Back End
Smart Monitoring Camera
Network Cable
Traffic Server
Network Cable
Smart Monitoring Camera
Platform

Smart Monitoring Unit

Model	iDS-TCM403-AI
Image	HOT  Deep Learning
Focal Length	IDS-TCM403-AI/0411: 4-11 mm IDS-TCM403-AI/0832: 8-32 mm
Light Range	4-11 mm: Up to 50 m / 8-32 mm: Up to 100 m
Coverage	1-3 lanes
Capture Speed Range	5 to 120 km/h
Capture Accuracy	98%
LPR Accuracy	98%
Frame Rate	50 HZ: 2688 × 1520 @ 25 fps 60 HZ: 2688 × 1520 @ 30 fps
Vehicle Type	Car/Van/Bus/Truck/Others (08-32 mm)
Vehicle Color	Recognizable at daytime only (08-32 mm)
Video Compression	H.265/H.264/MJPEG
Standard Protocols	TCP/IP, HTTP, HTTPS, FTP, DNS, RTP, RTSP, RTCP, NTP, IPv6, UDP
Serial Port	2 RS-485 ports, 1 RS-232 port
By Video	Continuous video analysis with automatic vehicle detection, even without plate.
ANPR Camera	4 MP (1/1.8" CMOS), max.2688 × 1520
Supplement Light	3 LED IR lights
Protection Level	IP67, IK10
Storage	TF card, up to 128 GB
Operating & Storage Temperature	-30 °C to +70 °C (-22 °F to +158 °F)
Operating & Storage Humidity	Humidity: 95% or less (non-condensing)
Dimensions (W × H × D)	428.5 × 120 × 132.8 mm (16.87 × 4.72 × 5.23 inch)
Weight	3.12 ± 0.5 kg (6.88 ± 1.1 lb)
Power Supply	12 VDC to 24 VDC ± 20%, PoE (802.3at, class 4)

Traffic Server

Model	DS-TP50-16E
Image	HOT 
Processor	High-performance ARM A17 processor
Operation System	Embedded Linux operation system
Storage	4 SATA interfaces for 4 HDDs
Capacity	Up to 6 TB capacity for each HDD
Reset button	1
Indicator	4 x indicator (1 x Power Indicator, 1 x Alarm Indicator, 1 x HDD Indicator, 1 x Ready Indicator)
Network Interface	16 x 1000 M Ethernet interface, 1 x internal 10/100/1000 M self-adaptive Ethernet interface, 1 x external 10/100/1000 M self-adaptive Ethernet interface, 1 x internal 1000 M fiber interface, 1 x external 1000 M fiber interface
Alarm Input	2 relay alarm inputs
Alarm Output	2 relay alarm outputs
Video	Stores videos. Storage duration depends on stream bitrate and HDD capacity.
Uploading	Automatic Network Replenishment (ANR) and manual uploading
Network	2 IP addresses of different network segment are configurable
Power Supply	Adaptor of 12 VDC /12.5 A
Dimension (W × D × H)	370 × 273 × 102.5 mm (14.6 × 10.7 × 4.0 inch)
Working Temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Working Humidity	10% to 90%

Continuous Supplement Light

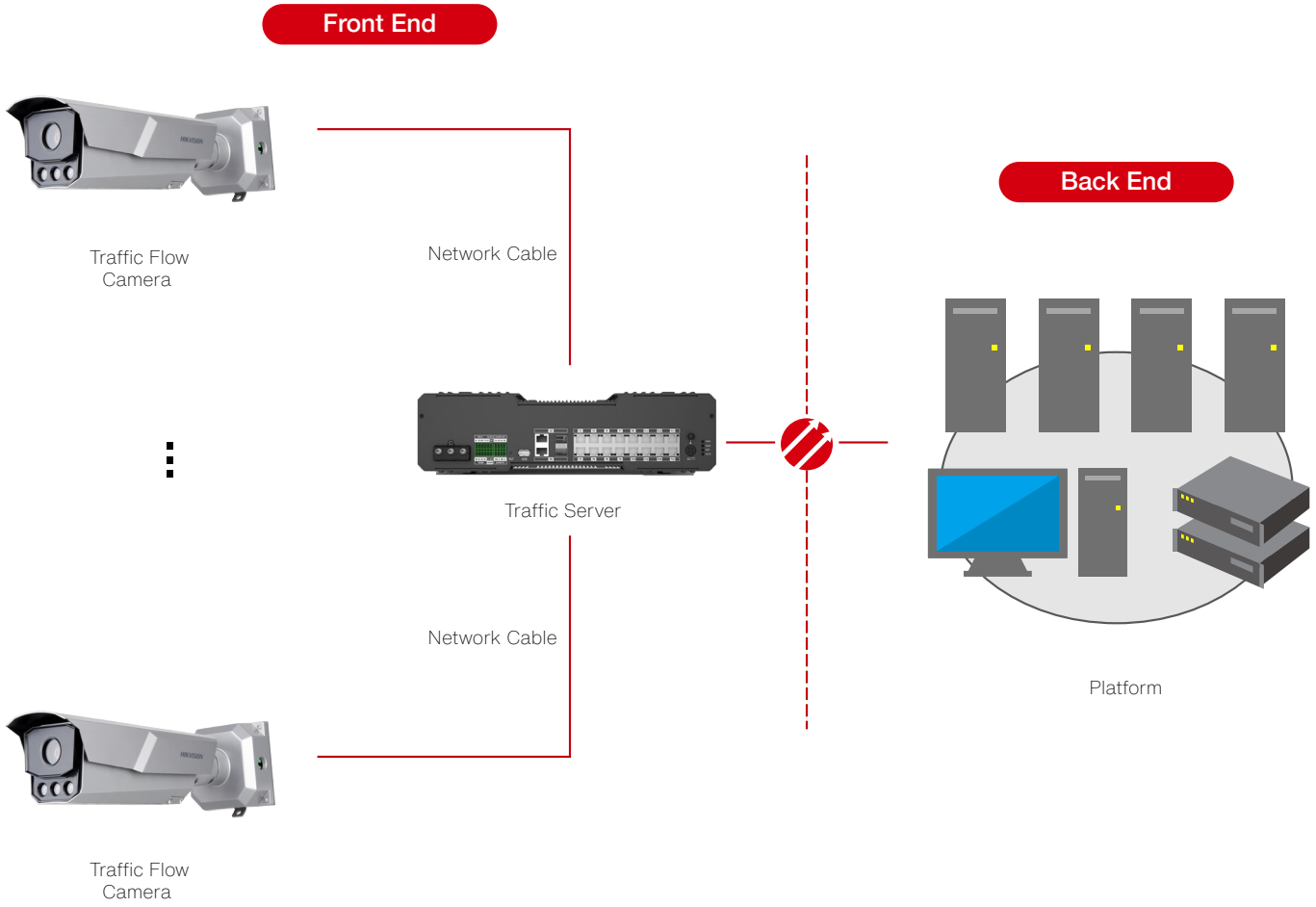
Model	DS-TL2002CI	DS-TL2000CI
Image		
Light Type	IR continuous light	IR continuous light
LED Lamp Beads	28	16
Color Temperature	-	-
Angle of Light	40°	40°
Effective Distance	16-25 m	16-25 m
Response Time	≤ 20 us	≤ 20 us
Day and Night Function	Support ambient brightness detection, automatic start-up at low illumination	Support ambient brightness detection, automatic start-up at low illumination
Brightness Control	Two grades of brightness control	-
Remote Control	Adopt remote start-up the supplement light via a control line	-
Supplement Light	The default output port outputs high voltage (typically 5V) (optional), when the light is turned on and the supplement light output current is too large or too small	-
Exception Detection	Supplement light output current is too large or too small	-
Service Life	≥ 50000 H	≥ 50000 H
Housing Material	Die-cast aluminum	Die-cast aluminum
Power Supply	220 VAC ±20%, 47Hz-63Hz	220 VAC ±20%, 47Hz-63Hz
Consumption	Max. 60 W, Lower Grade 30 W (Determined by control model)	Max. 36 W (Determined by control model)
Operating Temperature	-40°C to +70°C	-40°C to +70°C
Operating Humidity	10%-90%, no condensation	10%-90%, no condensation
Water Proof Rating	IP65	IP66
Dimension	322 mm × 270.5 mm × 118 mm (12.68 × 10.65 × 4.65 inch)	128 mm × 216 mm × 159 mm (5.04 × 8.50 × 6.26 inch)
Mounting Model	Support front-mounted (bracket rotation angle -90 ° to +90 °)	Support front-mounted (bracket rotation angle -90 ° to +90 °)
Weight	6.28 kg	2.72 kg
Wave Length	≥ 850 nm (Infrared)	≥ 850 nm (Infrared)

IIntelligent Traffic System

Traffic Flow Detection System

The Traffic Flow Detection System counts vehicles and provides other traffic-related data. Captured data can be displayed to drivers via traffic guidance screens, as well as for signal control, in order to best guide the traffic and alleviate congestion.

- One camera covers 3-4 lanes of traffic flow detection and monitoring
- Great performance at night
- Easy to install
- Cost-effective
- Maximized storage space
- Built-in 77 GHz high-frequency radar combined with 4 MP camera, covering 200 meters and supporting 2-lane ANPR with a speed deviation of -4 km/h (iDS-TCD402-CR/12)
- System features Lane Flow, Average Vehicle Speed, Lane Traffic Status (Smooth, Slow, Congested), Lane Queue Length, Congestion Level, Time Headway, Space Headway, Time Occupancy, Space Occupancy, Vehicle Type (Large, Small, Motorcycle)


Front End
Back End
Traffic Flow Camera
Network Cable
Traffic Server
Network Cable
Platform
Traffic Flow Camera

Traffic Flow Detection Unit

Model	iDS-TCD203-A
Image	HOT  Deep Learning
Working Distance Up	Up to 50 m
Coverage	Up to 4 lanes (3 lanes recommended for best performance)
Installation Height	6 m - 15 m
Detection (Traffic Flow)	>95%
Real-time Output	Lane Flow, Average Vehicle Speed, Lane Traffic Status (Smooth, Slow, Congested), Lane Queue Length, Congestion Level
Periodic Output	Time Headway, Space Headway, Time Occupancy, Space Occupancy, Vehicle Type (Large, Small, Motorcycle)
LED Supplement Lights	Build-in 3 LED supplement lights
Camera	2 MP (1/1.8" CMOS), max. 1920 × 1080
Frame Rate	50Hz: 1920 × 1080 @ 50 fps 60Hz: 1920 × 1080 @ 60 fps
Video Compression	H.265/H.264
Standard Protocols	TCP/IP, HTTP, HTTPS, FTP, DNS, RTP, RTSP, RTCP, NTP, IPv6, UDP
Serial Port	2 RS - 485 ports, 1 RS - 232 port
By Video	Continuous video analysis with automatic vehicle detection, even without plate.
Lens	8-32 mm @ F1.4, angle of view: 42.5°-13.4°
Protection Level	IP67, IK10
Storage	TF card, up to 128 GB
Operating & Storage Temperature	-30 °C to +70 °C (-22 °F to +158 °F)
Operating & Storage Humidity	5% to 95% @ +40 °C (+104 °F), non-condensing
Dimensions (W × H × D)	120 × 132.8 × 428.5 mm (4.72 × 5.23 × 16.87 inch)
Weight	3.12 ± 0.5 kg (6.88 ± 1.1 lb)
Power Supply	24 VDC

Radar-Assisted Traffic Camera

Model	iDS-TCD402-BR
Image	HOT  Deep Learning
Frequency Band	77 GHz
Wave Length	4 mm
Speed Detection Range	1 to 200 km/h
Min. Illumination	Color: 0.01 Lux @ (F1.2, AGC ON) B/W: 0.001 Lux @ (F1.2, AGC ON)
Day/Night Switch	ICR
Focal Length	12mm
Video Compression	H.265/H.264
Max. Resolution	2688 × 1520
Video Frame Rate	25fps
Traffic Data Collection	Multiple traffic data output, including lane line, traffic flow, speed, status, queue, time headway, space headway, number of parking vehicle in area, average delay, space occupancy, time occupancy, etc. Supports real-time display of smart dynamic information.
Detection Range	200 m coverage in range of the scene
Multi-Target Detection	Able to track and detect max. 128 targets.
Virtual Coil	Two virtual coils for each lane. Signal output of vehicle entering and exiting virtual coils. Positions of virtual coils are adjustable.
Road Status	Smooth, slow, congested status detection
Network Interface	2, RJ45 100M/1000M self-adaptive Ethernet interface
Serial Port	1, RS-485 interface 1, RS-232 interface
Output Interface	1-ch level output
Protection Level	IP66
Operating &Storage Temperature	-30 °C to +70 °C(-22 °F to +158 °F)
Operating & Storage Humidity	<95% (non-condensing)
Dimensions	226 × 206.4 × 375.3 mm (8.9 × 8.1 × 14.8inch)
Power Supply	24 VAC ± 10%
Power Consumption	< 15 W
Weight	3 kg (6.6 lb)

Traffic Server

Model	DS-TP50-16E
Image	HOT 
Processor	High-performance ARM A17 processor
Operation System	Embedded Linux operation system
Storage	4 SATA interfaces for 4 HDDs
Capacity	Up to 6 TB capacity for each HDD
Reset button	1
Indicator	4 x indicator (1 x Power Indicator, 1 x Alarm Indicator, 1 x HDD Indicator, 1 x Ready Indicator)
Network Interface	16 x 1000 M Ethernet interface, 1 x internal 10/100/1000 M self-adaptive Ethernet interface, 1 x external 10/100/1000 M self-adaptive Ethernet interface, 1 x internal 1000 M fiber interface, 1 x external 1000 M fiber interface
Alarm Input	2 relay alarm inputs
Alarm Output	2 relay alarm outputs
Video	Stores videos. Storage duration depends on stream bitrate and HDD capacity
Uploading	Automatic Network Replenishment (ANR) and manual uploading
Network	2 IP addresses of different network segment are configurable
Power Supply	Adaptor of 12 VDC/12.5 A
Dimension (W × D × H)	370 × 273 × 102.5 mm (14.6 × 10.7 × 4.0 inch)
Working Temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Working Humidity	10% to 90%

IIntelligent Traffic System

ITS Accessories

Cabinet

- Structure: Welded, strong, firm and reliable

Hoop & bracket support

- Material: Q235

Cabinet

Model	ODH-2111	CCU-2000
Image		
Structure	Welding structure, strong, firm and reliable	Welding structure, strong, firm and reliable
Protection Level	IP55	IP55
Working Environment Temperature	-20 °C to +45 °C	-30 °C to +60 °C
Working Environment Humidity	≤ 85% (+30 °C)	5%-95% @ 40 °C, no condensation
Dimensions	700 × 800 × 410 mm (27.56 × 31.50 × 16.14 inch)	480 × 579 × 230 mm (18.90 × 22.80 × 9.06 inch)

Steel Hoop & Bracket

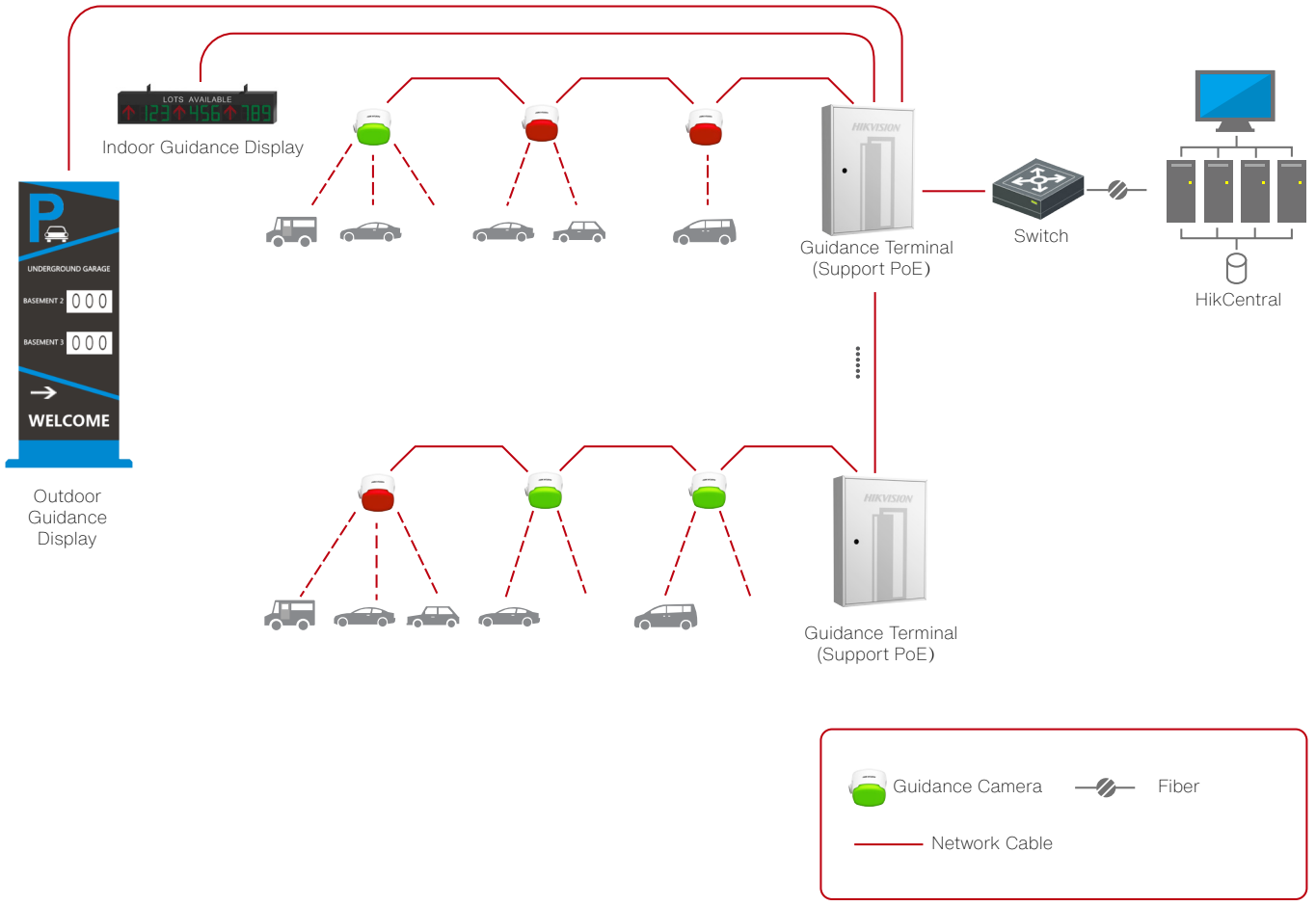
Model	Pole Mount-1275/Outdoor White	DS-1278ZJ-HWB/HG/60-300	DS-1701ZJ/HWB
Image			
Color	Hikvision White	Hikvision White	Hikvision White
Material	SUS304	SUS304	SUS304
Weight	1500 g	1150g	2660 g
Dimensions	Main Body: 250 x 127 x 46 mm (9.84 × 5 × 1.81 inch) Steel Hoops Diameter: 67 - 127 mm (2.64 - 5 inch)	Diameter: 60-300 mm	Main Body: 403 x 200 x 130 mm (15.87 × 7.87 × 5.12 inch)

IIntelligent Traffic System

Video Parking Guidance System

The Video Parking Guidance Solution combines deep learning algorithms, video monitoring, and information dissemination technologies to give drivers dynamic, real-time information about parking availability within controlled bays. The system helps drivers find the closest parking spaces available. Then, by simply entering their plate number in full or in part, the vehicle can be easily located on the floor map as well as the shortest and best route to it. Safety and security are enhanced in large parking garages.

- Embedded ANPR with AI
- The indicator light inside the parking guidance camera has seven configurable colors, allowing for dynamic indication of the purpose or status of the parking bay
- Up to 6 single-lens parking guidance cameras or 4 dual-lens parking guidance cameras in cascaded connection for both power and network
- Up to 24-TB edge storage for video and images from 32 single-lens parking guidance cameras or 16 dual-lens parking guidance cameras
- Video, images and data can be stored locally offline if disconnected from central management software, preventing loss of critical information, then automatically forwarded to the CMS upon reconnection.
- By integrating an LED display panel at the entrance, all available parking resources and information can be easily displayed for customers.


LOTS AVAILABLE
Indoor Guidance Display
UNDERGROUND GARAGE
BASEMENT 2
BASEMENT 3
WELCOME
Outdoor Guidance Display
Guidance Terminal (Support PoE)
Switch
HikCentral
Guidance Terminal (Support PoE)
Guidance Camera
Fiber
Network Cable

Parking Camera

Model	DS-TCP140-B	DS-TCP440-B	DS-TCP440-DB	DS-TCP440-BH	DS-TCP440-DBH
Image	HOT 	HOT 	HOT 	HOT 	HOT 
Indicator LED	In integrated mode, red, green, yellow, blue, cyan and magenta colors can be indicated; In separation mode, up to 3 external indicators which can indicate red, green, yellow, blue, cyan and magenta colors can be connected; Support indicator flickering.				
Sensor	1/2.7" CMOS	1/3" CMOS	1/3" CMOS	1/1.8" CMOS	1/1.8" CMOS
Min. Illumination	Color: 0.0165 Lux @ (F2.0, AGC ON) B/W: 0.0092 Lux @ (F2.0, AGC ON)	Color: 0.012 Lux @ (F2.0, AGC ON) B/W: 0.00062 Lux @ (F2.0, AGC ON)	Color: 0.012 Lux @ (F2.0, AGC ON) B/W: 0.00062 Lux @ (F2.0, AGC ON)	Color: 0.000048 Lux @ (F1.6, AGC ON) B/W: 0.000022 Lux @ (F1.6, AGC ON)	Color: 0.000048 Lux @ (F1.6, AGC ON) B/W: 0.000022 Lux @ (F1.6, AGC ON)
Shutter	1 to 1/100,000 second	1 to 1/100,000 second	1 to 1/100,000 second	1 to 1/100,000 second	1 to 1/100,000 second
Lens	2.8 mm/ 4 mm	2.8 mm / 4 mm	2.8 mm	2.8 mm/ 4 mm	2.8 mm
Angle Adjustment	Vertical: 0° to 30° Horizontal: -30° to 30°	Vertical: 0° to 30° Horizontal: -30° to 30°	Vertical: 0° to 30° Horizontal: -30° to 30°	Vertical: 0° to 30° Horizontal: -30° to 30°	Vertical: 0° to 30° Horizontal: -30° to 30°
Video Compression	H.264/H.265/MJPEG	H.264/H.265/MJPEG	H.264/H.265/MJPEG	H.264/H.265/MJPEG	H.264/H.265/MJPEG
Output Bit Rate	32 Kbps to 16 Mbps	32 Kbps to 16 Mbps	32 Kbps to 16 Mbps	32 Kbps to 16 Mbps	32 Kbps to 16 Mbps
Max. Resolution	1280 × 1024	2560 × 1440	2560 × 1440 × 2	2688 × 1520	2688 × 1520 × 2
Frame Rate	30 fps (1280 × 1024)	30 fps (N)/25 fps (P)	15 fps (N)/15 fps (P)	30 fps (N)/25 fps (P)	15 fps (N)/15 fps (P)
Image Settings	Brightness, contrast, saturation, etc. can be adjusted via client or IE browser.	Brightness, contrast, saturation, etc. can be adjusted via client or IE browser.	Brightness, contrast, saturation, etc. can be adjusted via client or IE browser.	Brightness, contrast, saturation, etc. can be adjusted via client or IE browser.	Brightness, contrast, saturation, etc. can be adjusted via client or IE browser.
Backlight Compensation	Support; Areas can be selected.	Support; Areas can be selected.	Support; Areas can be selected.	Support; Areas can be selected.	Support; Areas can be selected.
Storage	NAS (iSCSI optional) Local storage: guidance terminal HDD	NAS (iSCSI optional) Local storage: guidance terminal HDD	NAS (iSCSI optional) Local storage: guidance terminal HDD	NAS (iSCSI optional) Local storage: guidance terminal HDD	NAS (iSCSI optional) Local storage: guidance terminal HDD
Protocol	TCP/IP, HTTP, DHCP, DNS, DDNS, RTP, RTSP, PPPoE, SMTP, NTP, UPnP, SNMP, FTP, 802.1x, QoS, HTTPS (SIP, SRTP and IPv6 optional)	TCP/IP, HTTP, DHCP, DNS, DDNS, RTP, RTSP, PPPoE, SMTP, NTP, UPnP, SNMP, FTP, 802.1x, QoS, HTTPS (SIP, SRTP and IPv6 optional)	TCP/IP, HTTP, DHCP, DNS, DDNS, RTP, RTSP, PPPoE, SMTP, NTP, UPnP, SNMP, FTP, 802.1x, QoS, HTTPS (SIP, SRTP and IPv6 optional)	TCP/IP, HTTP, DHCP, DNS, DDNS, RTP, RTSP, PPPoE, SMTP, NTP, UPnP, SNMP, FTP, 802.1x, QoS, HTTPS (SIP, SRTP and IPv6 optional)	TCP/IP, HTTP, DHCP, DNS, DDNS, RTP, RTSP, PPPoE, SMTP, NTP, UPnP, SNMP, FTP, 802.1x, QoS, HTTPS (SIP, SRTP and IPv6 optional)
General Functions	Flashing filter, dual-stream, heartbeat, mirror, password protection, privacy mask, watermark, NTP time synchronization	Flashing filter, dual-stream, heartbeat, mirror, password protection, privacy mask, watermark, NTP time synchronization	Flashing filter, dual-stream, heartbeat, mirror, password protection, privacy mask, watermark, NTP time synchronization	Flashing filter, dual-stream, heartbeat, mirror, password protection, privacy mask, watermark, NTP time synchronization	Flashing filter, dual-stream, heartbeat, mirror, password protection, privacy mask, watermark, NTP time synchronization
Communication Interface	2, RJ45 10 M/100 M self-adaptive Ethernet interface; 1, power interface; 3, external indicator interface (for -K model)	2, RJ45 10 M/100 M self-adaptive Ethernet interface; 1, power interface	2, RJ45 10 M/100 M self-adaptive Ethernet interface; 1, power interface; 3 × external indicator interface	2, RJ45 10 M/100 M self-adaptive Ethernet interface; 1, power interface; 3, external indicator interface	2, RJ45 10 M/100 M self-adaptive Ethernet interface; 1, power interface; 3, external indicator interface
iBeacon	Standard iBeacon protocol	Standard iBeacon protocol	Standard iBeacon protocol	Standard iBeacon protocol	Standard iBeacon protocol
Working Temperature	-20 °C to +50 °C (-4 °F to 122 °F)	-20 °C to +50 °C (-4 °F to 122 °F)	-20 °C to +50 °C (-4 °F to 122 °F)	-20 °C to +50 °C (-4 °F to 122 °F)	-20 °C to +50 °C (-4 °F to 122 °F)
Working Humidity	< 95% (no condensation)	< 95% (no condensation)	< 95% (no condensation)	< 95% (no condensation)	< 95% (no condensation)
Power Supply	Hikvision PoE, or 12 to 24 VDC wide-range voltage	Hikvision PoE, or 12 to 24 VDC wide-range voltage	Hikvision PoE, or 12 to 24 VDC wide-range voltage	Hikvision PoE, or 12 to 24 VDC wide-range voltage	Hikvision PoE, or 12 to 24 VDC wide-range voltage
Consumption	6.5 W MAX	6.5 W MAX	10 W MAX	6.5 W MAX	10 W MAX
Dimensions	170 × 120 × 104 mm (6.7 × 4.7 × 4.1 inch)	170 × 120 × 104 mm (6.7 × 4.7 × 4.1 inch)	184 × 120 × 104 mm (7.2 × 4.7 × 4.1 inch)	170 × 120 × 104 mm (6.7 × 4.7 × 4.1 inch)	184 × 120 × 104 mm (7.2 × 4.7 × 4.1 inch)
Weight	500 g (1.1 lb)	500 g (1.1 lb)	500 g (1.1 lb)	500 g (1.1 lb)	500 g (1.1 lb)

Guidance Terminal

Model	DS-TPM400-P
Image	
CPU	High Performance ARM A17 digital media processor
Operating System	Embedded Linux operating system
Operation Interface	WEB
Network Video Input	Access of 16 dual cameras 32 parking cameras
Audio Input	1-ch Audio Input
Audio Output	1-ch Audio Output
Alarm Input	3-ch Alarm Input
Alarm Output	3-ch Alarm Output
RS485 Interface	2 RS485 Interfaces
USB Interface	1 USB2.0 Interfaces, 1 USB3.0 Interface
HDMI Interface	1 HDMI Interface
Network Interface	16 100M Internal Ethernet Interfaces, including 8 HIKVISION POE Ethernet Interfaces; 4 1000M External Ethernet Interfaces
Optical Interface	1 Optical Interface
Data Storage	Parking camera capture picture and video storage, support up to 6 HDDs(6 TB for each HDD)
Data Upload	Support data upload and video stream transfer
Power Supply	220 VAC/110 VAC , Standard
Power	<500 w
Mechanical Characteristics	Dimension: 410 mm (Width) × 130mm (Depth) × 540 mm (Height)
Working Environment	Working Temperature -10 °C~50 °C, Working Humidity 10%~90%

LED Display

Model	DS-TVL121-3-5D	DS-TVL121-6-5D	DS-TVL121-9-5D	DS-TVL121-3-5	DS-TVL221-3-5
Image	NEW 	NEW 	NEW 	NEW 	NEW 
Application	Indoor Parking Area	Indoor Parking Area	Indoor Parking Area	Indoor parking lot (module)	Outdoor parking lot (module)
Power Supply	110 VAC – 220 VAC	110 VAC – 220 VAC	110 VAC – 220 VAC	110 VAC – 220 VAC	110 VAC – 220 VAC
Power Consumption	Max. 14W	Max. 28W	Max. 50W	14 W in maximum	12W in maximum
Display Mode	Shift left, Shift up, Upward expanding, Downward expanding	Shift left, Shift up, Upward expanding, Downward expanding	Shift left, Shift up, Upward expanding, Downward expanding	Real-time display	Real-time display
Dimension	584×224×66 mm	1133×224×66 mm	1682×224×66 mm	579 × 298 × 65 mm	550mm×255mm×65mm
Display Screen Border	Black Aluminum Alloy Border	Black Aluminum Alloy Border	Black Aluminum Alloy Border	Black aluminum alloy frame	Black aluminium alloy frame
Display ICON	Optional	Optional	Optional	Support number and arrows, variable	Support 4 numbers
Display Color	Red/Green/Yellow/Blue/Cyan/ Magenta/White	Red/Green/Yellow/Blue/Cyan/ Magenta/White	Red/Green/Yellow/Blue/Cyan/ Magenta/White	Red/Green/Yellow/Blue/Cyan/ Magenta/White	Red/Green/Yellow/Blue/Cyan/ Magenta/White
Communication Mode	RS485/RJ45	RS485/RJ45	RS485/RJ45	RS485/RJ45	RS485/RJ45
Number Display	Support 3 numbers 1 arrow display	Support 6 numbers 2 arrows display	Support 9 numbers 3 arrows display	Display 1 arrow and 3 numbers	Display 4 numbers

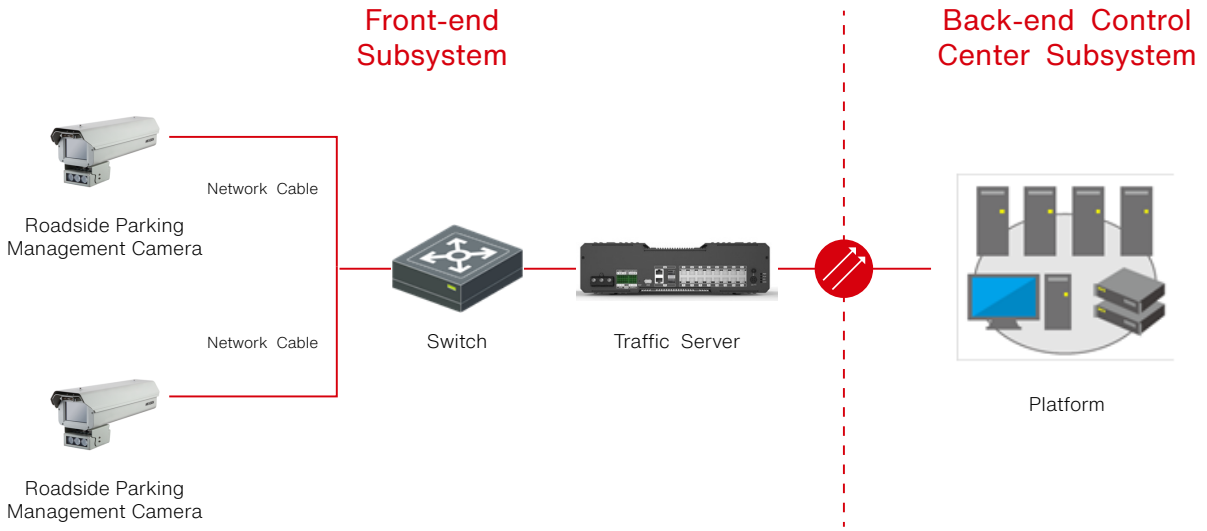
Model	DS-TVB200
Image	
Module Number	1-8
Communication Mode	RS485, RJ45
Pixel Composition of Module	1R1G Dual-color
Module Size	320 × 160 (mm)
Power Supply	220 VAC/110 VAC
Weight	75 kg
Dimension	700 × 3000 × 150mm (27.6 × 118.1 × 5.9 inch)

IIntelligent Traffic System

Roadside Parking Management System

The Roadside Parking Management System detects parking space status, recognizes vehicles, and records the complete process of vehicles parking in the form of images and video. It supports ANPR and H.265 compression. Moreover, it enables intelligent event detection and data collection for 4 consecutive parking spaces and is used widely in urban roadside parking space detection.

- Intelligent 4.2 MP CMOS camera
- Captures and recognizes parking vehicles via ANPR
- Supports max. 64 GB TF card
- Supports Automatic Network Replenishment (ANR)
- Covers four parking spaces with one camera and eight parking spaces with two cameras



Roadside Parking System

Model	iDS-TCR400-B
Image	
Image Sensor	1/1.8"Progressive Scan CMOS
Min. Illumination	"Color: 0.001Lux @(F1.2,AGC ON) B/W: 0.0001 Lux @(F1.2,AGC ON)"
Shutter Speed	1s to 1/100,000s
Lens interface	C/CS interface
Auto Iris	DC drive
Day/Night Switch	ICR
Video Compression	H.264 / H.265 / MJPEG
Video Bit Rate	32Kbps-16Mbps
Max. Resolution	2688 × 1520
Frame Rate	25 fps
Picture Format	JPEG
Smart Recognition	ANPR parking space status detection.
Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, NTP
Communication	1 RJ45 10M /100M/ 1000M Ethernet interface,1 RS-485 interface,1 RS-232 interface
Memory Card Slot	Support TF card
Working Temperature	-30°C to 70°C
Working Humidity	95% or less (non-condensing)
Power Supply	100VAC-240VAC
IP	IP54
Power Consumption	< 20W

Intelligent Traffic System

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