

## iDS-TCVKKP-FIR

### Floorstanding All-Rounder Traffic Camera

## DeepinView



#### Compact design and economic solution

The Floorstanding All-Rounder Traffic Camera is engineered with an all-in-one structure, embedding video, radar, supplemental light, and terminal server in one module, helping traffic authorities ramp up the detection of stationary speed, red light enforcement, and vehicle violations with easier installation and system operation.

The pillar design camera can realize effective 24-hour enforcement with assembled internal cabling allows faster start-up and slim body for limited space, like roadside.

#### Improving road safety and optimizing traffic flow

The product works with a multi-tracking radar that continuously monitors multiple traffic lanes, and identifies the speed and position of objects in the monitored area. If a vehicle violates the speed limit, the embedded radar triggers the connected camera and a picture is taken of the vehicle and its license plate. The vehicle information can be transferred to back-end platform through network for immediate processing.

Also, vehicle violation detection helps improve overall driving standards, which ultimately reduces the number of accidents, improves road safety and further evens traffic flow.

- 20 MP (1.1" GMOS) × 2, 5328 × 4000 @ 25 fps
- Color: 0.001 Lux @ (F1.4, AGC ON)
- H.265, H.264, MJPEG
- 60 dB SNR
- 3D DNR
- Alarm I/O
- Two defined streams
- Built-in terminal server, with 4 T HDD
- Built-in micro SD/SDHC/SDXC card slot, up to 512GB
- 4G, GPS(optional)
- Supports 8 lanes monitoring
- Speed measurement, license plate recognition and vehicle type, vehicle color, vehicle manufacturer recognition
- Seatbelt detection, phone call detection
- Intersection violation detection, red light enforcement, wrong way driving, illegal turn, etc.
- Supports speed detection with built-in 60 GHz radar
- Built-in 3 IR flash light (strobe light optional)
- Space for 3<sup>rd</sup> UPS
- IP65
- Supports side mounting with convenient installation and debug

## Superiority

- Dedicated camera for ANPR
  - HD resolution
  - Integrated IR
  - Professional shutter speed control
- Built-in ANPR engine, equipped with deep-learning algorithm
- Built-in radar, supporting speed detection
- Supports detecting the following violation behaviors:
  - Speeding
  - Running the red light
  - Wrong-way driving
  - Illegal lane change
  - Solid line driving
  - Driving in wrong lane at intersection
  - Illegal U-turn detection
  - Seatbelt status detection
  - Phone call detection
- Multiple vehicle feature detection and recognition
  - Vehicle type recognition
  - Vehicle color recognition
  - Vehicle manufacturer recognition



## Scenarios

- Intersection
- T junction
- Highway
- Tunnel
- Toll station
- Urban road

## Specification

Camera	
Quantity	2 cameras
Image Sensor	20 MP (1.1" GMOS)
Min. Illumination	Color: 0.001 Lux @ (F1.4, AGC ON), 0.0005 Lux with IR
Shutter Speed	50 to 20,000 $\mu$ s
Day & Night	IR cut filter
Digital Noise Reduction	2D/3D DNR
SNR	60 dB
Lens	
Quantity	2 Lens
Focal Length	Both 50mm
Aperture	F1.4
Focus	Manual
Built-in Supplement Light	
Quantity	3 IR flash light(strobe light optional)
Wave Length	$\geq$ 850 nm(Infrared)
Response Time	Max. 67ms
Light Range	Up to 40 m
Peak flash duration	1 / 30 ms
Radar	
Central Frequency	60 to 61 GHz
Angle Resolution (0°)	1.86°@Narrow Beam 6.23°@Wide Beam
Measurement Accuracy	-4 to 0 km/h
Trigger Consistency	$\leq \pm 1$ m
Velocity Range	5 to 320 km/h
Double Trigger	Approaching direction, leaving direction, and both
Multiple Lanes	Up to 8 lanes
Tracking Target	Up to 256
Terminal Server	
Processor	High-performance ARM A17 processor
Operation system	Embedded Linux operation system
Operation medium	Web
Storage	Up to 4 TB
Network interface	4 100M Ethernet interfaces; 1 internal 10M/100M/1000M self-adaptive Ethernet interface which is photoelectric transferable when combined with optional optical module; 1 external 10M/100M/1000M self-adaptive Ethernet interface
Data storage	Stores passing vehicle information
Video	Stores videos. Storage duration depends on stream bitrate and HDD capacity.
Uploading	ANR (Automatic Network Replenishment) and manual uploading
Interface	2 RS232, 1 RS485, 1 USB2.0, 1 relay alarm input, 1 relay alarm output, 1 audio output

Compression Standard	
Video Compression	Main stream: H.265/H.264/MJPEG Sub-stream: H.265/H.264/MJPEG
H.264 Type	Baseline profile/Main profile/High profile
H.265 Type	Baseline profile/Main profile/High profile
Video Bit Rate	32 Kbps to 16 Mbps
Smart Feature	
Recognition	License plate recognition
Coverage	Up to 8 lanes
Trigger Mode	External I/O trigger/Radar trigger/Video trigger
Supplement Light Type	External strobe/flash/continuous light
Smart Function	License plate recognition; Running the red light, wrong-way driving, illegal lane change, solid line driving, driving in wrong lane at intersection, illegal U-turn detection, seatbelt status detection, phone call detection; Vehicle type classification, color identification, no-plate vehicle capture, vehicle driving direction detection;
Road Traffic and Vehicle Detection	
Country/Region	<b>Middle East:</b> The United Arab Emirates (Abu Dhabi, Ajman, Dubai, Fujairah, Ras Al Khaimah, Sharjah and Umm Al Quwain), Qatar, Iraq, Egypt, Jordan, Kuwait, Saudi Arabia, Pakistan, Oman, Lebanon, Bahrain <b>Africa:</b> Nigeria, Kenya, Ivory Coast, South Africa, Tanzania, Mauritius, Morocco, Tunisia, Sierra Leone, Zambia, Ghana, Zimbabwe, Uganda, Angola, Ethiopia, Senegal, Algeria <b>Asia-Pacific:</b> Australia, New Zealand, Indonesia, Malaysia, Singapore, South Korea, Thailand, Vietnam, the Philippines, Hong Kong, Macao, Taiwan, Burma, India, Mongolia, Cambodia, Laos, Bangladesh <b>America:</b> The United States of America, Canada, Argentina, Chile, Paraguay, Uruguay, El Salvador, Bolivia, Colombia, Brazil, Ecuador, Peru, Mexico, Panama, Costa Rica, Trinidad and Tobago, the Dominican Republic, Guatemala <b>Europe:</b> Turkey, Croatia, Slovakia, Czech Republic, Bulgaria, the Republic of North Macedonia, Hungary, Greece, Poland, France, Netherlands, Switzerland, Spain, the UK, Ireland, Germany, Italy, Austria, Israel, Palestinian State, Belgium, Luxembourg, Albania <b>Russian-Speaking Regions:</b> Azerbaijan, Belarus, Kazakhstan, Lithuania, Georgia, Estonia, Latvia, Russia, Ukraine, Moldova, Uzbekistan, Kyrgyzstan, Armenia
Running the red light	Supported
No License Plate Detection	Supported
Motorcycle LPR	Supported
Vehicle Type	Car/Van/Bus/Truck/Light Truck/SUV/MPV/Pickup/Pedestrian/Motorcycle/Tricycle
Vehicle Color	Red, yellow, green, blue, pink, purple, cyan, brown, white, grey, silver, dark grey, black(day time)
Vehicle Manufacturer	84 manufacturers: Hyundai, Toyota, KIA, Honda, Volkswagen, Benz, Nissan, Ford, Isuzu, BMW, Chevrolet, Mitsubishi, Renault, Opel, Suzuki, Skoda, Daewoo, Audi, Mazda, GAC HINO, Peugeot, SsangYong, Citroen, Fiat, Scania, MAN, Volvo, Lexus, Seat, Land Rover, Daihatsu, Dongwo, Subaru, Iveco, MINI, JEEP, Porsche, Chery, Dodge, Chrysler, Acura, Alfa Romeo, Great Wall, Infiniti, Smart, Saic Maxus, JAC, Jaguar, GMC, Lincoln, JMC, SAAB, FAW, Yutong, Guangzhou Yunbao, Joylong, Geely, Cadillac, JBC, An'kai, Haima, Foton, King Long, Dongfeng, Geely-Emgrand, Perodua, UD, Renault Samsung, Proton, HICOM, Malaysia_Unknown 1, Hyundai-Rohens, SsangYong-Old Version, Equus-Old Version, CNHTC, Rolls-Royce, Beiben Truck, Haval, Hino, Kia-Borrego, Chang'an, Alfa, FORO

License Plate Color Recognition	Customized to support
Driving on Lane Line Detection	Supported (Only for strobe light mode)
Illegal Lane Change Detection	Supported (Only for strobe light mode)
Wrong-Way Driving Detection	Supported
Emergency Lane Occupation	Supported (truck forbidden lane, emergency lane, urban bus lane)
Seatbelt Detection	Supported
Phone Call Detection	Supported
Capture Speed Range	5 to 320 km/h
<b>Image</b>	
Max. Resolution	5328 × 4000
Main Stream	50Hz:25fps(5328 × 4000, 4096 × 2160, 3296 × 2472, 3392 × 2008, 2560 × 1920, 2048 × 1536, 1920 × 1080, 1280 × 720) 60Hz:24fps(5328 × 4000, 4096 × 2160, 3296 × 2472, 3392 × 2008, 2560 × 1920, 2048 × 1536, 1920 × 1080, 1280 × 720)
Sub-Stream	50Hz:25fps(3392 × 2008, 2688 × 1520, 1920 × 1080, 1280 × 720, 704 × 576) 60Hz:24fps(3392 × 2008, 2688 × 1520, 1920 × 1080, 1280 × 720, 704 × 576)
Third Stream	50Hz:25fps(1280 × 720, 704 × 576, 352 × 288) 60Hz:24fps( 1280 × 720, 704 × 576, 352 × 288 )
Image Enhancement	BLC, HLC, 3D DNR
Image Settings	Saturation, brightness, contrast, sharpness, AGC, and white balance are adjustable by client software or web browser.
SVC	H.264 and H.265 encoding
Day/Night Switch	Auto/Scheduled/Triggered by alarm in
Picture Overlay	Logo picture can be overlaid on video with 128 × 128 24-bit bmp format.
<b>Network</b>	
Network Storage	Micro SD/TF card (512 GB) ;Local storage;CVR;NVR;ANR
Alarm Trigger	HDD error, network disconnected, IP address conflicted, vehicle detector exception, traffic light detector exception
Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, DNS, RTP, RTSP, RTCP, NTP, IPv6, UDP, IGMP
Security Measures	Password protection, HTTPS encryption, digest authentication for HTTP/HTTPS
General Function	One-key reset, three streams, heartbeat, password protection, watermark
API	ISAPI, SDK
Simultaneous Live View	Up to 6 channels
User/Host	Up to 32 users 3 user levels: administrator, operator, and user
Client	iVMS-4200 (Only for live view and LPR information search), HikCentral Master, HikCentral Pro
Web Browser	Chrome V61+, IE9 to IE11, Firefox V41+, Edge
<b>Interface</b>	
Communication Interface	2 RJ45 10 M/100 M/1000 M self-adaptive Ethernet interfaces 3 RS-485 interfaces (half duplex, HIKVISION) 1 RS-232 interface
Alarm	2 input interfaces (T1, SYNC), 7 output interfaces
On-Board storage	Built-in memory card slot, support microSD/SDHC/SDXC card, up to 512GB
GPS	Optional

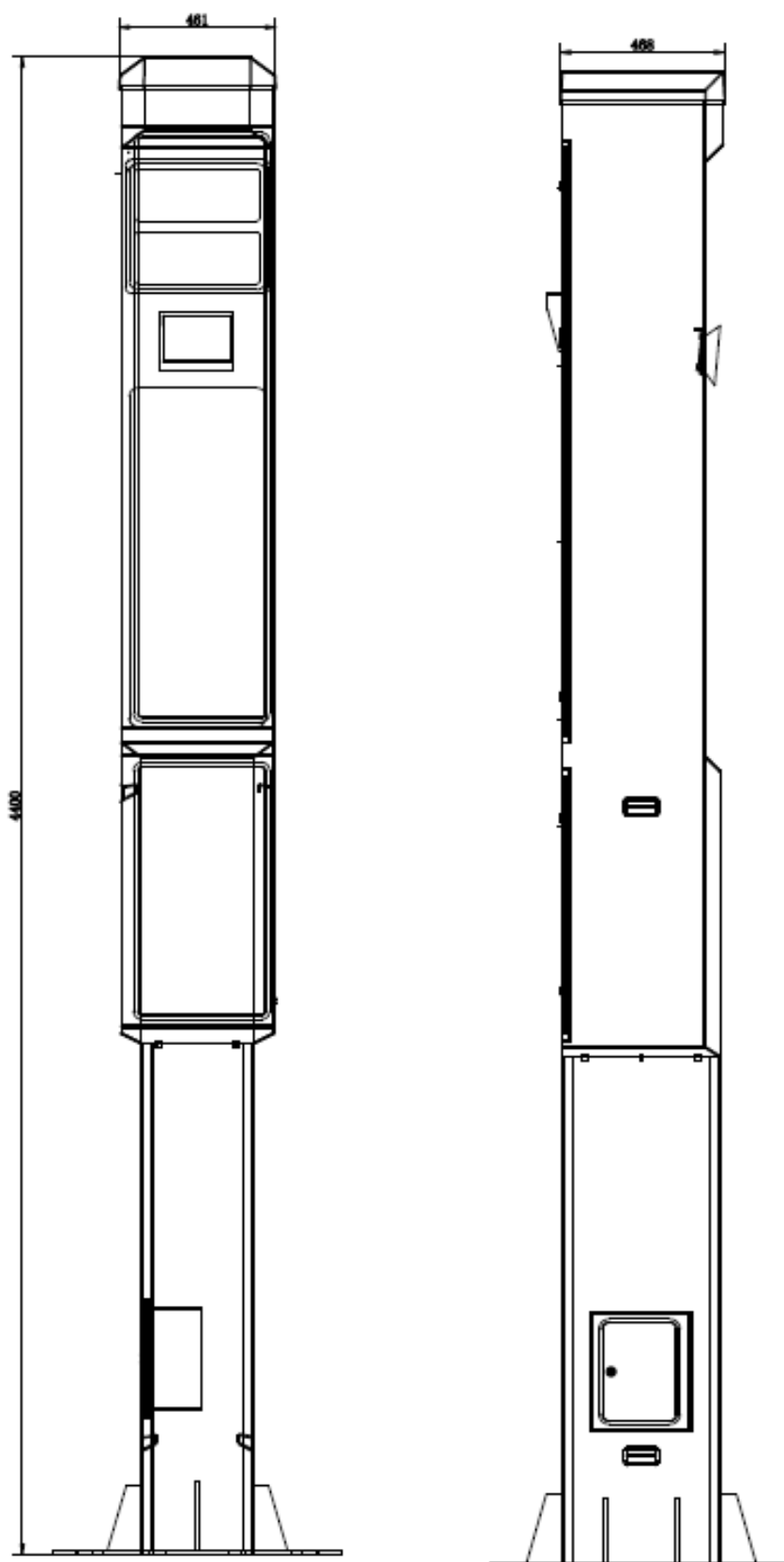
4G	Support
<b>General</b>	
Firmware Version	V5.1.4
Operating System	Linux
Working Temperature	-30 °C to 70 °C (-22 °F to 158 °F)
Working Humidity	95% or less (non-condensing)
Power Supply	100 to 240 VAC
Protection Level	IP65
Heater	Supported
Material	Aluminum alloy
Dimension	461 × 468 × 4400 mm ( 20.04 × 20.34 × 188.98 inch)
Package Dimension	518 × 527 × 4833 mm ( 22.52 × 22.91 × 193.32 inch)
Weight	Approx. 150 kg (330.69 lb.)
Power Consumption	< 150 W

\* Listed resolutions are only selectable options. It does not mean that all streams can work at their maximum resolution at the same time.

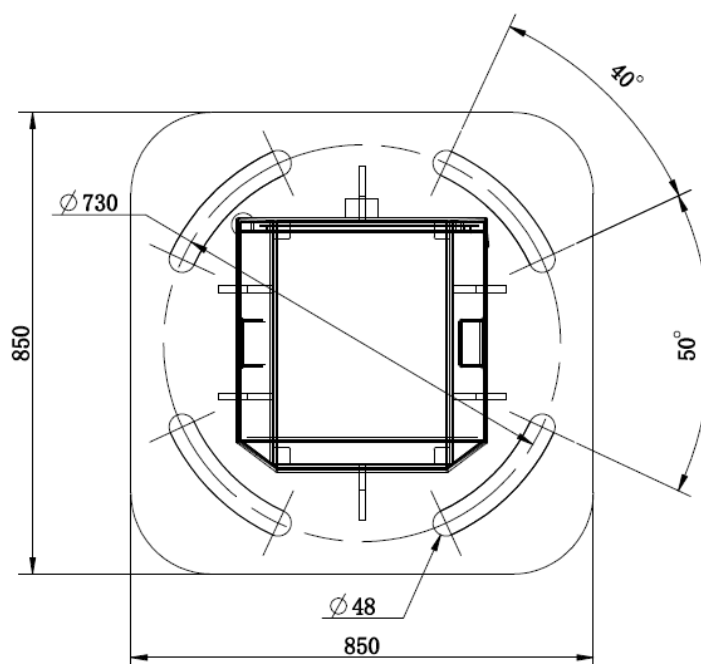
## Available Model

iDS-TCVKKP-FIR/50/50

## Dimension



Unit: mm



Unit: mm

#### Headquarters

No.555 Qianmo Road, Binjiang District,  
Hangzhou 310051, China  
T +86-571-8807-5998  
www.hikvision.com



Follow us on social media to get the latest product and solution information.

