

iDS-TCVK07-FIR 20 MP ANPR All-Rounder Traffic Camera



- All-in-one design, integrating camera, radar and supplement light
- High quality imaging with 20 MP resolution (1.1" GMOS)
- Excellent low-light performance, Color: 0.001 Lux@(F1.4, AGC ON), 0.0005 Lux with IR
- Support speed detection with built-in 60 GHz radar
- Support license plate recognition (LPR)
- Support vehicle feature recognition: vehicle type / color / manufacturer / license plate color recognition, no-plate vehicle capture
- Violation behaviors detection: driving on lane line, illegal lane change, wrong-way driving detection, seatbelt and phone call detection.
- Supports side mounting with convenient installation and debug

▪ Specification

Camera	
Image Sensor	20 MP (1.1" GMOS)
Max. Resolution	5328 × 4000
Min. Illumination	Color: 0.001 Lux@(F1.4, AGC ON), 0.0005 Lux with IR
Shutter Time	50 us-20000 us
Day & Night	IR cut filter
Lens	
Lens Type	Varifocal lens, motorized lens, 11 to 40 mm
Focal Length & FOV	11 to 40 mm, horizontal FOV 55.9° to 21.2°, vertical FOV 43.6° to 16.5°, diagonal FOV 71.2° to 27.2°
Focus	Manual, (AF) Model: Auto
Aperture	F1.6-25
Illuminator	
Built-in Supplement Light Type	IR light
Light Bead	16
Built-in Supplement Light Range	Up to 40 m
IR Wavelength	850 nm
External Supplement Light	Strobe and flash light
Radar	
Working Frequency	60 to 61 GHz
Modulation Waveform	FMCW
Detection Distance	150 m
Speed Measuring Range	10 to 320 km/h
Horizontal Detection Angle	± 60°
Max. Detectable Targets	Up to 128
Vertical Detection Angle	± 12.6°
Speed Measuring Accuracy	± 2 km/h
Coverage Lanes	Up to 8 lane(s)
Distance Measurement Accuracy	≤ ± 1 m
Capture Rate	≥ 95%
Trigger Mode	Approaching direction, Leaving direction, Bidirection
Sweep Bandwidth	200M Hz
Distance Resolution	0.75 m
Angle Resolution	3.8°
Video	
Main Stream	50 Hz: 25 fps (5328 × 4000, 4096 × 2160, 3296 × 2472, 3392 × 2008, 2560 × 1920, 2048 × 1536, 1920 × 1080, 1280 × 720) 60 Hz: 24 fps (5328 × 4000, 4096 × 2160, 3296 × 2472, 3392 × 2008, 2560 × 1920, 2048 × 1536, 1920 × 1080, 1280 × 720)
Sub-Stream	50 Hz: 50 fps (3392 × 2008, 2688 × 1520, 1920 × 1080, 1280 × 720, 704 × 576) 60 Hz: 30 fps (3392 × 2008, 2688 × 1520, 1920 × 1080, 1280 × 720, 704 × 576)
Third Stream	50 Hz: 50 fps (1920 × 1080, 1280 × 720, 704 × 576) 60 Hz: 30 fps (1920 × 1080, 1280 × 720, 704 × 576)

Video Compression	Main stream: H.265/H.264/MJPEG, Sub-stream: H.265/H.264/MJPEG, Third stream: H.265/H.264/MJPEG
Video Bit Rate	32 Kbps to 16 Mbps
H.264 Type	Baseline profile/Main profile/High profile
H.265 Type	Main profile
Network	
Protocols	TCP/IP,ICMP,HTTP,HTTPS,FTP,DNS,RTP,RTSP,RTCP,NTP,SNMP,IGMP,UDP,IPv4/IPv6,ISUP,ARP,DHCP,802.1X
Simultaneous Live View	Up to 6 channels
API	ONVIF (PROFILE S, PROFILE G, PROFILE T),ISAPI,SDK,ISUP
User/Host	Up to 32 users 3 user levels: administrator, operator and user
Security	Password protection,Complicated password,HTTPS encryption,802.1X authentication (EAP-PEAP, EAP-LEAP, EAP-MD5),Basic and digest authentication for HTTP/HTTPS,WSSE and digest authentication for ONVIF,Control timeout settings
Network Storage	Micro SD/TF card (512 GB),Local storage,CVR,NVR,ANR
Client	Hik-Central Master,Hik-Central Pro,HikCentral Master Lite
Web Browser	Chrome V61+, IE9 to IE11, Firefox V41+, Edge
Image	
Image Settings	Saturation, brightness, contrast, sharpness, AGC, and white balance are adjustable by client software or web browser.
Day/Night Switch	Auto/Scheduled/Triggered by alarm in
SNR	60 dB
Image Enhancement	BLC, HLC, 3D DNR
Supplement Detection (Satellite Positioning)	
Satellite Positioning	Optional
Interface	
Ethernet Interface	1 RJ45 10M/100M/1000M self-adaptive Ethernet interface
On-Board Storage	Built-in memory card slot, supporting microSD/SDHC/SDXC card card, up to 512 GB
Alarm	6 output interfaces
RS-485	1 RS-485 interface
Event	
Basic Event	HDD Error, network disconnected, IP address conflicted, vehicle detector exception, traffic light detector exception
Road Traffic and Vehicle Detection	
Coverage	Up to 4 lane(s)
Trigger Mode	External I/O trigger/Radar trigger/Video trigger
Smart Function	License plate recognition Vehicle type classification, vehicle color recognition, no-plate vehicle capture, moving direction detection

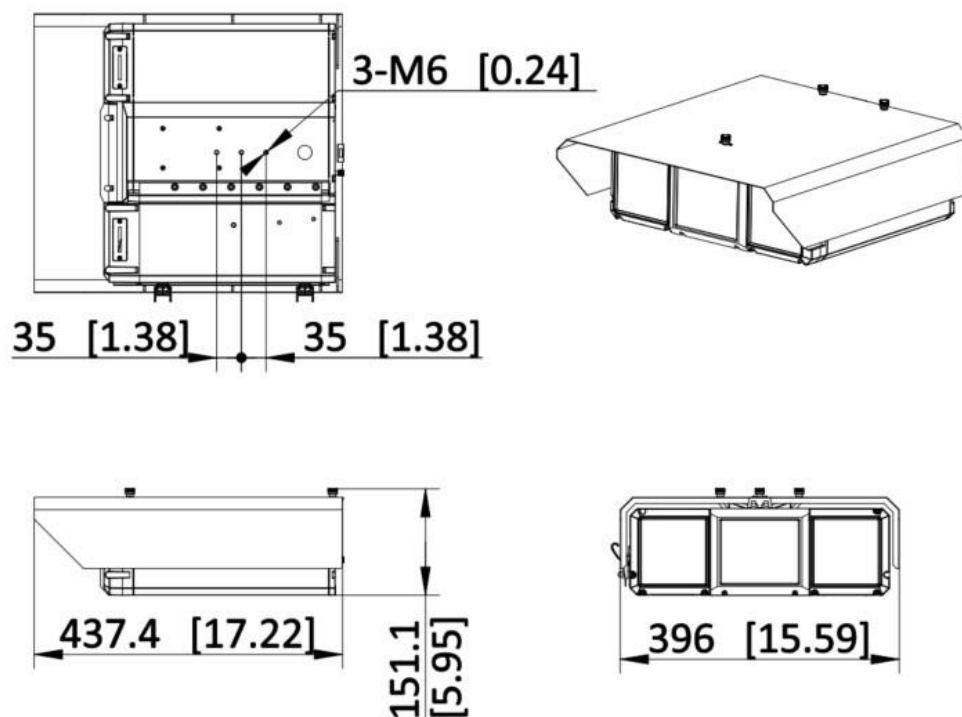
LPR Countries/Regions	Middle East: The United Arab Emirates (Abu Dhabi, Ajman, Dubai, Fujairah, Ras Al Khaimah, Sharjah and Umm Al Quwain), Qatar, Iraq, Egypt, Jordan, Kuwait, Saudi Arabia, Pakistan, Oman, Lebanon, Bahrain, Africa: Nigeria, Kenya, Ivory Coast, South Africa, Tanzania, Mauritius, Morocco, Tunisia, Sierra Leone, Zambia, Ghana, Zimbabwe, Uganda, Angola, Ethiopia, Senegal, Algeria, Asia-Pacific: Australia, New Zealand, Indonesia, Malaysia, Singapore, South Korea, Thailand, Vietnam, the Philippines, Hong Kong, Macao, Taiwan, Myanmar, India, Mongolia, Cambodia, Laos, Bangladesh, Nepal, Sri Lanka, America: Canada, Argentina, Chile, Paraguay, Uruguay, El Salvador, Bolivia, Colombia, Brazil, Ecuador, Peru, Mexico, Panama, Costa Rica, Trinidad and Tobago, the Dominican Republic, Guatemala, Europe: 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, Belgium, Luxembourg, Albania, Kosovo, Serbia, Romania, Montenegro, Denmark, Finland, Sweden, Slovenia, Portugal, Malta, Cyprus, Iceland, Liechtenstein, Bosnia and Herzegovina, Russian-Speaking Regions: Azerbaijan, Belarus, Kazakhstan, Lithuania, Georgia, Estonia, Latvia, Russia, Ukraine, Moldova, Uzbekistan, Kyrgyzstan, Armenia, Turkmenistan, Tajikistan
Accuracy (Under recommended installation and lighting conditions)	Capture rate > 99%, Vehicle moving direction recognition accuracy >98.5%, LPR accuracy >98%, Mistaken capture rate < 2%
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, black Recognizable at daytime only.
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, BYD, Renault Samsung, Proton, HICOM, 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 strobe light mode)
Illegal Lane Change Detection	Supported (only strobe light mode)
Wrong-way Driving Detection	Supported
Emergency Lane Occupation	Supported (truck forbidden lane, emergency lane, urban bus lane)
Seatbelt Detection	Supported (with flash supplement light)
Phone Call Detection	Supported (with flash supplement light)
Capture Speed Range	10 to 320 km/h

General	
Operating System	Linux
Power	DC 36 V $\pm$ 20%, 2 A, max. 70 W, two-core terminal block
Material	Aluminum alloy
Dimension	369.0 mm $\times$ 437.4 mm $\times$ 151.1 mm (15.59" $\times$ 17.22" $\times$ 5.95") (L $\times$ W $\times$ H)
Package Dimension	535 mm $\times$ 500 mm $\times$ 390 mm (21.06" $\times$ 19.68" $\times$ 15.35") (L $\times$ W $\times$ H)
Weight	Approx. 8.00 kg (17.6 lb.)
With Package Weight	Approx. 13.7 kg (30.2 lb.)
Operating Condition	-30 $^{\circ}$ C to 70 $^{\circ}$ C (-22 $^{\circ}$ F to 158 $^{\circ}$ F). Humidity 95% or less (non-condensing)
Storage Condition	-30 $^{\circ}$ C to 60 $^{\circ}$ C (-22 $^{\circ}$ F to 140 $^{\circ}$ F). Humidity 95% or less (Non-condensing)
General Function	One-key reset, three streams, heartbeat, password protection, watermark
Language	8 languages: English, Russian, Croatian, Korean, Russian, Traditional Chinese, Ukrainian, Spanish
Approval	
EMC	CE-EMC: EN 55032: 2015/A11:2020+A1:2020, EN IEC61000-3-2: 2019/A1:2021, EN 61000-3-3: 2013+A1:2019/A2:2021, EN 50130-4: 2011 +A1: 2014
RF	CE-RED:EN 301489-1 V2.2.3, EN 301489-3 V2.1.1, EN 301489-17 V3.2.4 , EN 301489-52 V1.2.1 , EN 300440 V2.1.1, EN 302288-2 V1.6.1
Safety	CB: IEC 62368-1: 2014+A11,CE-LVD: EN 62368-1: 2014/A11: 2017,CB: IEC 62368-1: 2018+A11
Environment	CE-RoHS: 2011/65/EU,WEEE: 2012/19/EU,Reach: Regulation (EC) No 1907/2006

▪ Available Model

iDS-TCVK07-FIR/150m/1140(AF)

▪ Dimension



L×W×H:396mm×437.4mm×151.1mm(15.59×17.22×5.95)

Camera Mounting Hole[mm]	Camera Mounting Hole[inch]	Unit: mm [inch]	
3-M6	3-M0.24	SCALE	1:1

▪ **Accessory**

▪ **Included**

DS-1232ZJ-T/BJH



▪ **Optional**

DS-1278ZJ-BJH	DS-1701ZJ/HWB	DS-1275ZJ-HWB/600mm	DS-1278ZJ-HWB
A black metal bracket with a rectangular top plate and three curved, spring-like mounting arms extending downwards.	A white, L-shaped metal bracket with a flat top plate and a vertical mounting arm.	A black metal bracket with a rectangular top plate and three curved, spring-like mounting arms, similar to the DS-1278ZJ-BJH but with a different top plate design.	A white metal bracket with a rectangular top plate and three curved, spring-like mounting arms.

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