iDS-TCVK07-HIR
20MP Radar-video Fusion Checkpoint 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: 0.007Lux@(F1.4, AGC ON), 0 Lux with IR
- Support speed detection with built-in High frequency millimeter wave 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	6112×3488
Min. Illumination	Color: 0.007 Lux@(F1.4, AGC ON), 0.005 Lux @ (F1.4, AGC ON) , 0 Lux with IR
Shutter Time	25fps 10us-40000us;30fps 10us-33333us
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 62.4° to 24.3°, vertical FOV 36.2° to 14.1°, diagonal FOV 72.8° to 28.4°
Focus	Auto
Aperture	F1.6
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	iDS-TCVK07-HIR:60 to 61 GHz iDS-TCVK07-HIR/1140(AF)(海外标配):24.05 to 24.25 GHz iDS-TCVK07-HIR/150m/1140(AF)(海外标配):60 to 61 GHz
Modulation Waveform	FMCW
Detection Distance	iDS-TCVK07-HIR:150 m iDS-TCVK07-HIR/150m/1140(AF)(海外标配):150 m iDS-TCVK07-HIR/1140(AF)(海外标配):100 m
Speed Measuring Range	10 to 320 km/h
Max. Detectable Targets	iDS-TCVK07-HIR:Up to 32 iDS-TCVK07-HIR/1140(AF)(海外标配):Up to 32 iDS-TCVK07-HIR/150m/1140(AF)(海外标配):Up to 128
Speed Measuring Accuracy	± 2 km/h
Coverage Lanes	Up to 4 lane(s)
Capture Rate	≥ 95%
Trigger Mode	Approaching direction,Leaving direction,Bidirection
Antenna Beam Width	iDS-TCVK07-HIR:35° × 16° iDS-TCVK07-HIR/1140(AF)(海外标配):35° × 16° iDS-TCVK07-HIR/150m/1140(AF)(海外标配):50° × 18°

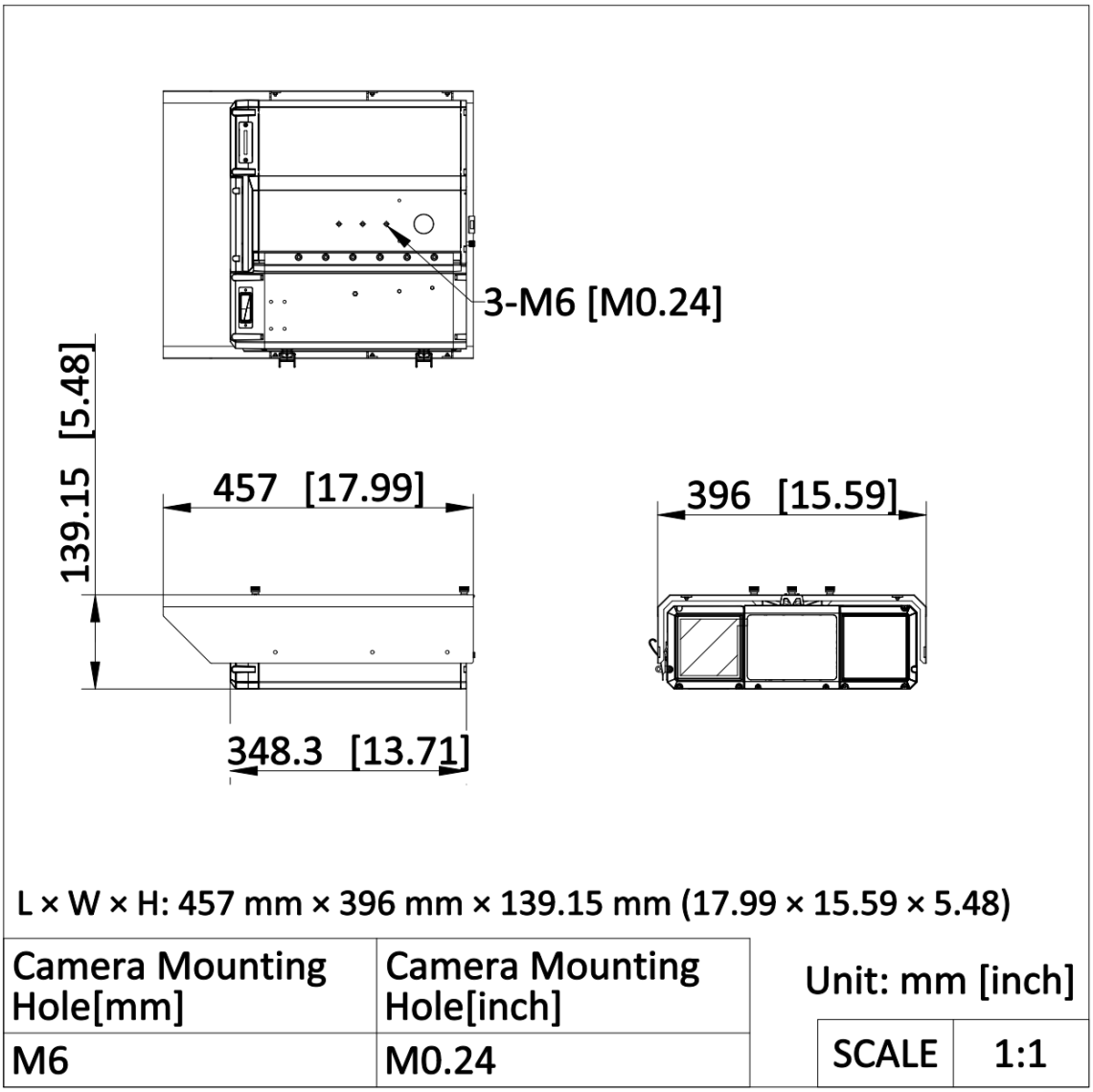
Video	
Main Stream	50Hz:25fps(6112 × 3488, 4096 × 2160,3296 × 2472,3392 × 2008, 2560 × 1920, 2048 × 1536, 1920 × 1080, 1280 × 720) 60Hz:30fps(6112 × 3488, 4096 × 2160,3296 × 2472,3392 × 2008, 2560 × 1920, 2048 × 1536, 1920 × 1080, 1280 × 720
Sub-Stream	50 Hz: 25 fps (3392 × 2008, 2688 × 1520, 1920 × 1080, 1280 × 720, 704 × 576) 60 Hz: 30 fps (3392 × 2008, 2688 × 1520, 1920 × 1080, 1280 × 720, 704 × 576)
Third Stream	50 Hz: 25 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 10 channels
API	ISAPI,SDK,ISUP,ONVIF (PROFILE S, PROFILE G, PROFILE T, PROFILE M),OTAP
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)
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
Trigger Mode	External I/O trigger/Radar trigger/Video trigger
Vehicle Type	Car/Van/Bus/Truck/Light Truck/SUV_MPV/Pickup/Pedestrian/Motorcycle/Tricycle
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 Color	Red, yellow, green, blue, pink, purple, cyan, brown, white, grey, black Recognizable at daytime only.

Vehicle Manufacturer	212 Manufacturers: AC SCHNITZER, AITO, APOLLO, Ashok Leyland, Audi, Aston Martin, Acura, Ankai, Ayvip, Alfa Romeo, Asiastar, Artega, ARCFOX, BAIC, Beiben Truck, BLUECAR, Bedford, Benz, BMW, BYD , Bufori, Buick, Bently, Brabus, Bugatti, Borgward, BONLUCK, Besturn, CADILLAC, Celis, Chevrolet, Citroen, Chery, Chrysler, Chang an, CNHTC, CHTC, Caterham, Conquest, C&C Trucks, CAMC, DAIHATSU, DMC, DS, Dacia, Dongnan, Dodge, Dongwo, Denza, Dongfeng, Daewoo, Dima, Denway, DORCEN, Eicher, Emgrand, Equss, EXEED, Ford, FORO, Fornasari, Ferrari, Fuqi, Fiat, Fisker, FQT Motor, Foton, FAW, FORLAND, FUSO, Force Motors, Fxauto, Faralli Mazzanti, GAC, Great Wall, GMC, Geely, Geometry, Hyundai, HENNESSEY, HINO, Honda, Haima, Haval, Hongqi, Isuzu, Infiniti, Iveco, IAT, IM, JAC, JBC, JEEP, Jaguar, JMC, JETOUR, JETTA, Joylong ,Koenigsegg, KIA , Kia-Borrego, King Long, Kama, KTM, LEVC, Lexus, Land Rover, Lincoln, Lamborghini, Lotus, Luxgen, Levdeo, Leopaard, Lynk & Co , Lada, Leading Ideal, LEAPMOTOR, LUMMA, Lorinser, Land Wind, MAN Trucks , MAXUS, MG, MINI, Mahindra, Mitsuoka, Maserati, Meiya , McLaren, Maybach, Mazda, Morgan, Mitsubishi, Mustang, Marvel R, Maple, MANSORY, Modern, NOMA, Nissan, Norinco, Neoplan, NIO, NETA, Opel, Ora, Oushang, Perodua, Porsche, Peugeot, PGO, Proton, Pagani, Polestar, POCCO, Qoros, RAM, Rolls-Royce, Renault, Roewe, Rohens, Ranz, Ruilan, Radar, Renault Samsung, SAAB, SCANIA , SCION, SMART, SML ISUZU, Suzuki, SAIC Datong, Subaru, Skoda, Startek, Soyat, Seat , SWM, Sany, SsangYong, Sojen, Silver, SATE, SOL, Skyworth, SGMW, SITECH DEV, TATA, Tankar, Tesla, Trumpchi, Techart, Toyota, UD, UAES, Volkswagen, VINFAST, Venucia, Volvo, VOYAH, VeiculoLongo, Weltmeister , XCMG, Xinyuan, XPENG, Yutong, YAMAHA, Zhonghua, Zotye, Zhinuo, ZEEKR, Zenvo
License Plate Color Recognition	Customized to support
U-Turn	Support (Only E-Police mode)
Red Light Running	Support (Only E-Police mode)
Failing to Yield for Pedestrians	Support (Only E-Police mode)
Stop Vehicle on Intersection	Support (Only E-Police mode)
Not Following Directional Sign	Support (Only E-Police mode)
Yellow Box Junction Violation	Supported (only E-Police mode)
Driving on Lane Line Detection	Supported
Lane Change Detection	Supported
Seatbelt Detection	Supported (with flash supplement light)
Phone Call Detection	Supported (with flash supplement light)
Vehicle Window Film	Supported (with flash supplement light)
Wrong-Way Driving Detection	Supported
Emergency Lane Occupation	Supported (truck forbidden lane, emergency lane, urban bus lane)
Prohibition Mark Violation	Supported
Speeding	Supported (with Radar)
Low-Speed	Supported (with Radar)
Without Helmet	Supported
Manned Non-Motor Vehicle	Supported
Capture Speed Range	10 to 320 km/h
General	
Operating System	Linux

Power	DC 36 V ±20%, 2 A, max. 70 W, two-core terminal block
Material	Aluminum alloy
Dimension	457 mm × 396 mm × 139.15 mm (17.99" × 15.59" × 5.48") (L × W × H)
Package Dimension	535 mm × 500 mm × 360 mm (21.06" × 19.68" × 14.17") (L × W × H)
Weight	Approx. 8.13 kg (17.9 lb.)
With Package Weight	Approx. 13.72 kg (30.2 lb.)
Operating Condition	-30 °C to 70 °C (-22 °F to 158 °F). Humidity: 5% to 95% (non-condensing)
Storage Condition	-30 °C to 70 °C (-22 °F to 158 °F). Humidity: 5% to 95% (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 61000-3-3: 2013+ A1:2019+A2:2021, EN IEC 61000-3-2: 2019+A1:2021, EN 301 489-1 V2.2.3, EN 301 489-3 V2.3.2, EN 300 440 V2.1.1, EN 305 550-2 V2.1.0
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

▪ Dimension



L × W × H: 457 mm × 396 mm × 139.15 mm (17.99 × 15.59 × 5.48)

Camera Mounting Hole[mm]	Camera Mounting Hole[inch]
M6	M0.24

Unit: mm [inch]

SCALE	1:1

- **Accessory**
  - **Included**

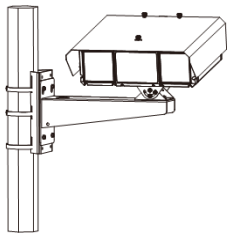
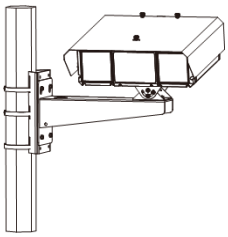
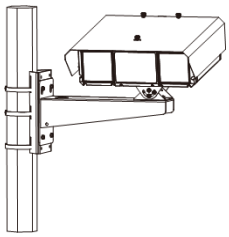
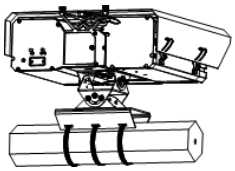
DS-1232ZJ-T/BJH


  - **Optional**

DS-1701ZJ/BJH	DS-1275ZJ-BJH/12 7mm	DS-1275ZJ-BJH/60 0mm	DS-1278ZJ-BJH

▪ Installation Methods

Vertical Pole Mounting DS-1701ZJ/BJH	Vertical Pole Mounting DS-1275ZJ-BJH/127mm	Vertical Pole Mounting DS-1275ZJ-BJH/600mm	Horizontal Pole Mounting DS-1278ZJ-BJH
			

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