

iDS-TCV991-FIR All-Round Traffic Camera



- High quality low illumination imaging with 9 MP resolution (1" GMOS × 2)
- Built-in millimeter-wave radar in the high-frequency range
- Excellent low-light performance, Color: 0.001 Lux @ (F1.4, AGC ON), 0.0005 Lux with IR
- All-in-one design, integrating camera, radar and supplement light
- Support vehicle feature recognition: vehicle type / color / manufacturer / license plate color recognition, no-plate vehicle capture
- Violation behaviors detection: driving on lane line, lane change, wrong-way driving detection, seatbelt and phone call detection.
- All weather workable
- Built-in deep learning algorithm, support intelligent recognition function, support license plate recognition (LPR) and target full structure.

▪ Specification

Camera	
Image Sensor	1" GMOS *2
Max. Resolution	4096 × 2160
Min. Illumination	Color: 0.001 Lux @ (F1.4, AGC ON), B/W: 0.0005 Lux with IR
Shutter Time	7 us-20000 us
Day & Night	IR cut filter
Lens	
Lens Type	Channel 1: Fixed focal lens, 25 mm, Channel 2: Fixed focal lens, 70 mm
Focal Length & FOV	Channel 1: horizontal FOV 32°, vertical FOV 16.8°, diagonal FOV 36.3°, Channel 2: horizontal FOV 11.52°, vertical FOV 6.09°, diagonal FOV 13.02°
Focus	Auto
Iris Type	Fixed iris
Aperture	Channel 1: F1.6, Channel 2: F1.4
Illuminator	
Built-in Supplement Light Type	IR light
Light Bead	8
IR Wavelength	850 nm
Built-in Supplement Light Range for LPR	Up to 50 m
External Supplement Light	Strobe and flash light
Radar	
Working Frequency	79 to 81 GHz
Speed Measuring Range	-300 to +300 km/h
Horizontal Detection Angle	± 14° @ Narrow Beam, ± 60° @ Wide Beam
Vertical Detection Angle	± 4.5° @ Narrow Beam, ± 12.6° @ Wide Beam
Max. Detectable Targets	Up to 256
Speed Measuring Accuracy	± 2 km/h
Detection Distance	20 to 350 m
Distance Measurement Accuracy	≤ ± 1 m
Trigger Mode	Approaching direction, Leaving direction
Antenna Beam Width	35° × 16°
Coverage Lanes	Up to 8 lane(s)
Modulation Waveform	FMCW
Sweep Bandwidth	169M Hz @ Narrow Beam, 500M Hz @ Wide Beam
Distance Resolution	± 0.3 m @ Narrow Beam, ± 0.1 m @ Wide Beam
Angle Resolution	1.8° @ Narrow Beam, 6.2° @ Wide Beam
Video	
Main Stream	50 Hz: 50 fps (4096 × 2160, 3840 × 2160, 3392 × 2008, 3072 × 1728, 2688 × 1520, 1920 × 1080, 1280 × 720) 60 Hz: 30 fps (4096 × 2160, 3840 × 2160, 3392 × 2008, 3072 × 1728, 2688 × 1520, 1920 × 1080, 1270 × 720)

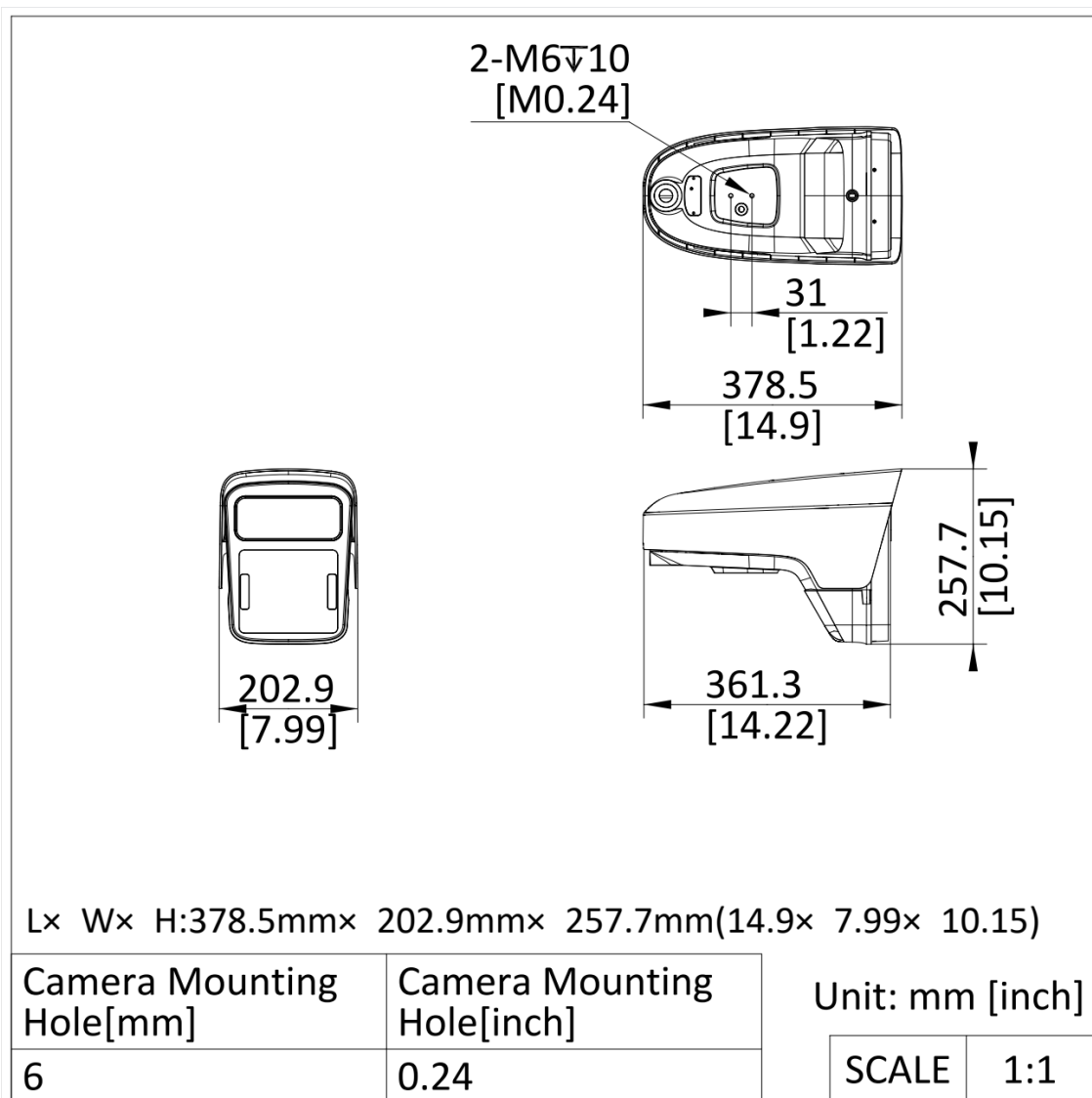
Sub-Stream	50 Hz: 50 fps (3392 × 2008, 2688 × 1520, 1920 × 1080, 1280 × 720) 60 Hz: 30 fps (3392 × 2008, 2688 × 1520, 1920 × 1080, 1280 × 720)
Third Stream	50 Hz: 50 fps (1920 × 1080, 1280 × 720, 704 × 576) 60 Hz: 30 fps (1920 × 1080, 1280 × 720, 704 × 576)
Video Compression	Main stream: H.265/H.264/MJPEG, 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
Scalable Video Coding (SVC)	H.264 and H.265 encoding
PTZ	
Pan	Channel 2: ± 6°
Tilt	Channel 2: ± 5°
Network	
Protocols	TCP/IP,HTTP,HTTPS,DDNS,RTSP,NTP,FTP,SFTP,DHCP,DNS,RTP,IPv4/IPv6,UDP,SSL/TLS,ICMP,RTCP,SNMP,IGMP,802.1X,QoS,ISUP,ARP
Simultaneous Live View	Up to 12 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,Watermark,Basic and digest authentication for HTTP/HTTPS,RTP/RTSP over HTTPS,Control timeout settings,Security audit log,IP address filter,WSSE and digest authentication for ONVIF,Host authentication (MAC address)
Network Storage	Micro SD/TF card (512 GB),Local storage,CVR,NVR,ANR
Client	Hik-Central Master,Hik-Central Pro,Hik-Central Enterprise,HikCentral Master Lite
Web Browser	IE9 to IE11,Chrome V61+, IE9 to IE11, Firefox V41+, Edge
Image	
Image Settings	Saturation,Brightness,Contrast,Sharpness,AGC
Day/Night Switch	Auto,Schedule,Manual
Image Enhancement	BLC,3D DNR
Interface	
Ethernet Interface	1 RJ45 10M/100M/1000M self-adaptive Ethernet port(s)
On-Board Storage	Built-in memory card slot, supporting microSD/SDHC/SDXC card, up to 512 GB
Alarm	1 input(s),7 output(s)
RS-485	3 RS-485
RS-232	1 RS-232
Event	
Basic Event	HDD Error, network disconnected, IP address conflicted
Road Traffic and Vehicle Detection	
Coverage	Up to 8 lane(s)
Trigger Mode	Video trigger
Smart Function	Stopped Vehicle, Driving on the Lane Line, Lane Change, Continuous Lane Change, Wrong-Way Driving, Speeding, Low-Speed Driving, Congestion, Construction, Roadblock, Pedestrian, Fallen Object, Emergency Lane Occupation, Rapid Deceleration, Smoke, Fire, Occupied by Animal
Capture Speed Range	10 to 320 km/h

General	
Operating System	Linux
Power	DC 36 V $\pm$ 20%, 1.67 A, max. 60 W, 2-core terminal block
Material	Aluminum alloy
Package Dimension	505 mm $\times$ 422 mm $\times$ 360 mm (19.9" $\times$ 16.6" $\times$ 14.17") (L $\times$ W $\times$ H)
Dimension	378.5 mm $\times$ 202.9 mm $\times$ 257.7 mm (14.90" $\times$ 7.99" $\times$ 10.15") (L $\times$ W $\times$ H)
Weight	Approx. 6.840 kg (15.080 lb.)
With Package Weight	Approx. 10.400 kg (22.928 lb.)
Operating Condition	-30 °C to 70 °C (22 °F to 158 °F). Humidity 95% or less (non-condensing)
Storage Condition	-30 °C to 70 °C (22 °F to 158 °F). Humidity 95% or less (Non-condensing)
General Function	Heartbeat, Password protection, NTP time adjustment, One-key reset
Language	7 languages: English, Korean, Ukrainian, Russian, Traditional Chinese, Croatian, Thai
Approval	
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 302264-1 V1.1.1, EN 302 264-2 V1.1.1, EN IEC 62311:2020
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
Safety	CB: IEC 61010-1:2010;IEC 61010-1:2010/AMD1:2016
Environment	CE-RoHS: 2011/65/EU,WEEE: 2012/19/EU,Reach: Regulation (EC) No 1907/2006

▪ Available Model

iDS-TCV991-FIR/25/PT70

▪ Dimension



▪ **Accessory**

▪ **Included**

DS-1232ZJ-T/BJH
Cardan Joint



▪ **Optional**

DS-1701ZJ/HWB Hoop & Bracket	DS-1275ZJ-HWB/600mm Hoop & Bracket	DS-1278ZJ-HWB Hoop & Bracket	DS-1278ZJ-BJH Hoop & Bracket
			

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