

iDS-TCM441-FIR 4 MP Radar-Video Fusion Multi-Sensor Bullet Camera



- Dual-lens 4 MP resolution (1/1.8" CMOS).
- Adopt dual-channel design so you can get details in channel 1 and panorama view in channel 2.
- Supports the adjustment of lens angle. Channel 1: 10 to 50 mm, PT: $\pm 10^\circ$; channel 2: 8 mm, T: $\pm 15^\circ$.
- Clear imaging against strong back light due to 140 dB WDR technology.
- Supports H.265 and H. 264 output stream and MJPEG encoding.
- Embedded high-frequency millimeter wave radar for working in all weather.

▪ Specification

Camera	
Image Sensor	2 sensors, 1/1.8" Progressive Scan CMOS
Max. Resolution	2688 × 1520
Min. Illumination	Color: 0.0005 Lux @ (F1.2, AGC ON),B/W: 0.0001 Lux @ (F1.2, AGC ON), 0 Lux with IR
Shutter Time	1/25 s to 1/100000 s
Lens	
Focal Length & FOV	Channel 1: 10 to 50 mm, horizontal FOV 32.2° to 7.8°, vertical FOV 18.1° to 4.4°, diagonal FOV 37.1° to 8.95°, Channel 2: 8 mm, horizontal FOV 51.7°, vertical FOV 28.1°, diagonal FOV 60.2°
Focus	10-50mm:Auto; 8mm:fixed
Iris Type	10-50mm: Auto-iris; 8mm: fixed Iris
Aperture	10-50mm: F1.7; 8mm: F1.6
Illuminator	
Built-in Supplement Light Type	IR light
Supplement Light Number	8
Built-in Supplement Light Range	Up to 50 m
IR Wavelength	850 nm
Radar	
Working Frequency	79 to 81 GHz
Modulation Waveform	FMCW
Detection Distance	Up to 50 m
Speed Measuring Range	Up to 120 km/h
Horizontal Detection Angle	± 35°
Vertical Detection Angle	± 10°
Speed Measuring Accuracy	± 2 km/h
Coverage Lanes	Up to 3 lane(s)
Video	
Main Stream	50 Hz: 25 fps (2688 × 1520, 1920 × 1080, 1280 × 720, 704 × 576, 352 × 288) 60 Hz: 30 fps (2688 × 1520, 1920 × 1080, 1280 × 720, 704 × 576, 352 × 288)
Sub-Stream	50 Hz: 25 fps (1920 × 1080, 1280 × 720, 704 × 576, 352 × 288) 60 Hz: 30 fps (1920 × 1080, 1280 × 720, 704 × 576, 352 × 288)
Third Stream	50 Hz: 25 fps (1280 × 720, 704 × 576, 352 × 288) 60 Hz: 30 fps (1280 × 720, 704 × 576, 352 × 288)
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,SFTP,DHCP,DNS,DDNS,RTP,RTSP,RTCP,NTP,SMTP,SNMP,I GMP,QoS,IPv4/IPv6,UDP,SSL/TLS,ISUP,ARP
API	ISAPI,SDK,ISUP,ONVIF (PROFILE S, PROFILE G, PROFILE T, PROFILE M)

Security	Password protection, Complicated password, HTTPS encryption, Watermark, IP address filter, Basic and digest authentication for HTTP/HTTPS, WSSE and digest authentication for ONVIF, RTP/RTSP over HTTPS, Control timeout settings, Security audit log, TLS 1.2, 1.3, Host authentication (MAC address)
Web Browser	Chrome V61+, IE9 to IE11, Firefox V41+, Edge
Image	
Image Settings	Saturation, Brightness, Contrast, Sharpness, Gain, White balance, AGC, Adjustable by client software or web browser.
Day/Night Switch	Schedule, Auto, Manual
Wide Dynamic Range (WDR)	140 dB
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 512GB
Alarm	1 input(s), 1 output(s)
RS-485	1 RS-485
Road Traffic and Vehicle Detection	
Coverage	Up to 3 lane(s)
LPR Countries/Regions	<p>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,</p> <p>Africa: Nigeria, Kenya, Ivory Coast, South Africa, Tanzania, Mauritius, Morocco, Tunisia, Sierra Leone, Zambia, Ghana, Zimbabwe, Uganda, Angola, Ethiopia, Senegal, Algeria,</p> <p>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,</p> <p>America: Canada, Argentina, Chile, Paraguay, Uruguay, El Salvador, Bolivia, Colombia, Brazil, Ecuador, Peru, Mexico, Panama, Costa Rica, Trinidad and Tobago, the Dominican Republic, Guatemala,</p> <p>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,</p> <p>Russian-Speaking Regions: Azerbaijan, Belarus, Kazakhstan, Lithuania, Georgia, Estonia, Latvia, Russia, Ukraine, Moldova, Uzbekistan, Kyrgyzstan, Armenia, Turkmenistan, Tajikistan</p>
Accuracy (Under recommended installation and lighting conditions)	<p>Capture rate > 99%,</p> <p>Vehicle moving direction recognition accuracy > 98.5%,</p> <p>LPR accuracy > 98%,</p> <p>Mistaken capture rate < 2%</p>
No License Plate Detection	Supported
Vehicle Type	Car, Van, Bus, Truck, Light Truck, SUV(MPV), Pickup, 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, Malaysia_Unknown 1, Hyundai-Rohens, SsangYong-Old Version, Equus-Old Version, CNHTC, Rolls-Royce, Beiben Truck, Haval, Hino, Kia-Borrego, Chang'an, Alfa, FORO
Capture Speed Range	5 to 120 km/h
Face Detection	
Face Capture	Channel 1 supported
General	
Power	DC 36 V \pm 20%, 1.2 A, max. 42 W, two-core terminal block
Material	Aluminum alloy
Dimension	379.9 mm \times 203.2 mm \times 209.1 mm (15" \times 8" \times 8.2") (L \times W \times H)
Package Dimension	516 mm \times 378 mm \times 328 mm (20.3" \times 14.9" \times 12.9") (L \times W \times H)
Weight	Approx. 5 kg (11.02 lb.)
With Package Weight	Approx. 7.2 kg (15.87 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 95% or less (non-condensing)
General Function	One-key reset, Three streams, Privacy mask, Heartbeat, Password protection
Language	8 languages: English, Thai, Croatian, Korean, Russian, Traditional Chinese, Ukrainian, Spanish
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 62368-1: 2018, CE-LVD: EN 62368-1: 2014+A11: 2017
Environment	CE-RoHS: 2011/65/EU, WEEE: 2012/19/EU, Reach: Regulation (EC) No 1907/2006
Protection	IP66: IEC 60529-2013

▪ Typical Application

Hikvision products are classified into three levels according to their anti-corrosion performance. Refer to the following description to choose for your using environment.

-Y model: This model has MODERATE PROTECTION.

Without -Y model: This model has NO SPECIFIC PROTECTION.

Level	Description
Top-level protection	Hikvision products at this level are equipped for use in areas where professional anti-corrosion protection is a must. Typical application scenarios include coastlines, docks, chemical plants, and more.
Moderate protection	Hikvision products at this level are equipped for use in areas with moderate anti-corrosion

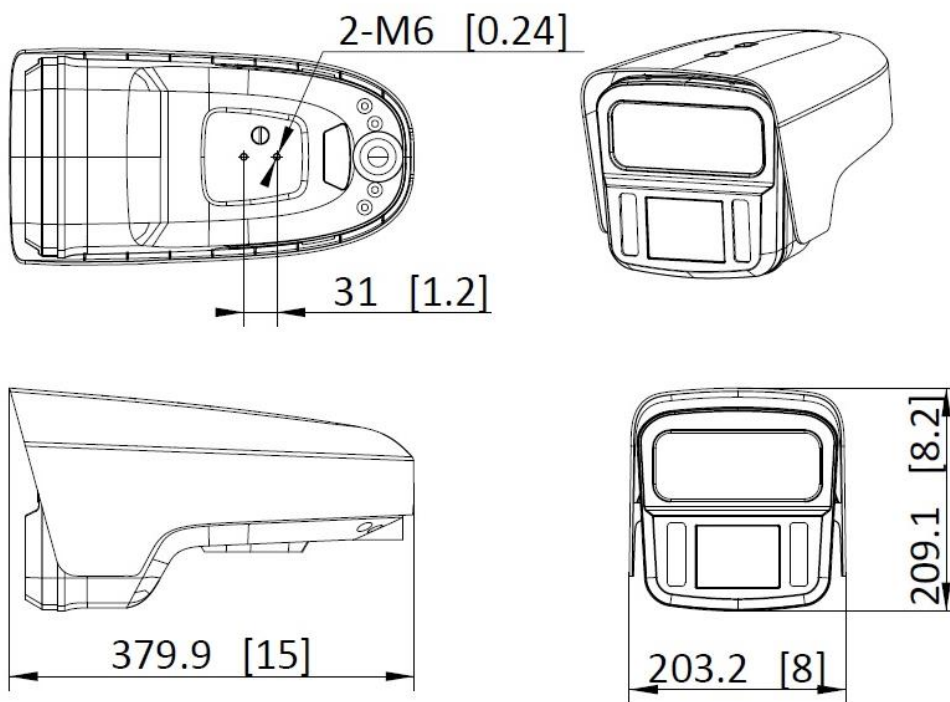
	demands. Typical application scenarios include coastal areas about 2 kilometers (1.24 miles) away from coastlines, as well as areas affected by acid rain.
No specific protection	Hikvision products at this level are equipped for use in areas where no specific anti-corrosion protection is needed.

▪ **Available Model**

iDS-TCM441-FIR/PT1050/T8

iDS-TCM441-FIR/Y/PT1050/T8

▪ **Dimension**



L × W × H: 379.9mm × 203.2mm × 209.1mm (15 × 8 × 8.2)

Camera Mounting Hole[mm]	Camera Mounting Hole[inch]	Unit:mm [inch]	
2-M6	2-M0.24	SCALE	1.5:1

▪ **Accessory**

▪ **Included**



▪ **Optional**

DS-1275ZJ-BJH/600mm Hoop & Bracket	DS-1275ZJ-BJH/127mm Hoop & Bracket	DS-1701ZJ/BJH Hoop & Bracket	DS-1278ZJ-BJH Hoop & Bracket
			

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