

KX-FW3008ZITN2

3MP All-in-one Al Enforcement Camera

Design and specifications are subject to change without notice.

Pictures in the document are for reference only, and the actual product shall prevail.



- · GS-CMOS image sensor
- · 2048×1536@50fps
- · Video compression standards: H.265/H.264M/H.264H/H.264B/MJPEG
- · Integrated design, IP66

The camera impresses people with its high-performance AI processor, traffic-specific high frame rate GS-CMOS image sensor, and deep learning algorithms. It uses sophisticated image fusion technology to display high-quality full color images at night without using external flashing light or strobe, significantly reducing light pollution. The camera is ideal for intelligent traffic management and safe city businesses with its capacities of traffic violations capturing in both ANPR and E-Police modes, passing vehicle records, traffic data collection, event detection, and more.

Image Processing	
Image Sensor	1/1.8" GS-CMOS
Shutter Mode	Single shutter / holographic double shutters / three shutters
Electronic Shutter Speed	1/50 s-1/100000 s (auto/manual)
Exposure Mode	Full auto/customized range/customized
Iris Control	Fixed iris/manual iris/auto iris/P iris
Lens Optional	(12mm, 16mm, 25mm) (0.47", 0.63", 0.98")
Image Resolution	2048×1536 (OSD black strip excluded)
Video Resolution	3M (2048×1536)/UXGA (1600×1200)/1080P (1920×1080)/720P (1280×720)/D1 (704×576)/CIF (352×288)
Video Frame Rate	Maximum 50fps; main stream (1536×2048@25fps), sub stream (1600×1200@25fps)
Video Bit Rate	H.264: 32kbps–32767kbps H.265: 32kbps–32767kbps MJPEG: 512kbps–32767kbps
Video Compression	H.265/H.264M/H.264H/H.264B/MJPEG
Picture Encoding Format	JPEG
WDR	64dB
White Balance	Auto/outdoor/manual/local white balance/natural light/street light
Noise Reduction	2DNR/3DNR
Day/Night	ICR auto switch: IR cut-off filter (IRCF) with polarizing filter is used during daytime, and it changes to common IRCF during night time
HLC (Highlight Compensation)	Yes
Bad Pixel Correction	Yes
Edge Enhancement	Yes
Illuminator Number	3 illuminators (white light LED strobe, brightness adjustable)

Composite Image Trigger Mode Video detection/radar/coil OSD Overlay Time, location (video channel location), lane (number, direction), and plate number Storage FTP, TF, Card (maximum 256GB@Class10) Storage full, storage error, external alarm, no storage card, license plate blacklist, abnormal device attitude, illegal access, network disconnection, and IP conflict Automatic Network Replenishment (ANR) Image Tampering Prevention Platform, FTP Yes. Watermark and verification are available for videos and pictures Positioning Function GPS Time Synchronization NTP/GPS Attitude Detection Built-in electronic gyroscope to detect abnormal attitude and trigger alarm Security Authorized username and password, MAC address binding, HTTPS encryption, and network access control Auto Registration Yes Intelligence Target Detection Motor vehicle, non-motor vehicle Face Detection Detects driver and front-seat passenger of motor vehicle, and non-motor vehicle driver; extracts face image Vehicle Plate Recognition Recognizes license plates in Russian Vehicle Passenger of motor vehicle, car, van, light truck Vehicle tail mode: SUV, car, van, coach bus, pickup, cargo truck, mini truck, tank truck, mixer truck White, pink, black, red, yellow, gray, blue, green, amber, purple, brown, silver gray	Functions		
OSD Overlay Time, location (video channel location), lane (number, direction), and plate number Storage FTP, TF card (maximum 256GB@Class10) Storage full, storage error, external alarm, no storage card, license plate blacklist, abnormal device attitude, illegal access, network disconnection, and IP conflict Automatic Network Replenishment (ANR) Image Tampering Prevention Positioning Function GPS Time Synchronization NTP/GPS Attitude Detection Built-in electronic gyroscope to detect abnormal attitude and trigger alarm Security Authorized username and password, MAC address binding, HTTPS encryption, and network access control Auto Registration Yes Intelligence Target Detection Motor vehicle, non-motor vehicle Face Detection Detects driver and front-seat passenger of motor vehicle, and non-motor vehicle driver; extracts face image Vehicle Plate Recognition Vehicle Plate Recognition Vehicle head mode: Coach bus, minibus, SUV, MPV, pickup, heavy truck, medium truck, car, van, light truck Vehicle tail mode: SUV, car, van, coach bus, pickup, cargo truck, mini truck, tank truck, mixer truck Wehicle Color Recognition White, pink, black, red, yellow, gray, blue, green, amber,	Composite Image	Supports composing 1, 2, 3, or 4 pictures	
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Alarm Event Storage full, storage error, external alarm, no storage card, license plate blacklist, abnormal device attitude, illegal access, network disconnection, and IP conflict Automatic Network Replenishment (ANR) Platform, FTP Image Tampering Yes. Watermark and verification are available for videos and pictures Positioning Function GPS Time Synchronization NTP/GPS Attitude Detection Built-in electronic gyroscope to detect abnormal attitude and trigger alarm Security Authorized username and password, MAC address binding, HTTPS encryption, and network access control Auto Registration Yes Intelligence Target Detection Motor vehicle, non-motor vehicle Face Detection Detects driver and front-seat passenger of motor vehicle, and non-motor vehicle driver; extracts face image Vehicle Plate Recognition Recognizes license plates in Russian Vehicle Type Recognition Vehicle head mode: Coach bus, minibus, SUV, MPV, pickup, heavy truck, medium truck, car, van, light truck Vehicle tail mode: SUV, car, van, coach bus, pickup, cargo truck, mini truck, tank truck, mixer truck White, pink, black, red, yellow, gray, blue, green, amber,	OSD Overlay		
Alarm Event card, license plate blacklist, abnormal device attitude, illegal access, network disconnection, and IP conflict Automatic Network Replenishment (ANR) Platform, FTP Image Tampering Prevention GPS Time Synchronization NTP/GPS Attitude Detection Built-in electronic gyroscope to detect abnormal attitude and trigger alarm Security Authorized username and password, MAC address binding, HTTPS encryption, and network access control Auto Registration Yes Intelligence Target Detection Motor vehicle, non-motor vehicle Face Detection Detects driver and front-seat passenger of motor vehicle, and non-motor vehicle driver; extracts face image Vehicle Plate Recognition Recognizes license plates in Russian Vehicle Type Recognition Vehicle tail mode: SUV, car, van, coach bus, pickup, cargo truck, mini truck, tank truck, mixer truck White, pink, black, red, yellow, gray, blue, green, amber,	Storage	FTP, TF card (maximum 256GB@Class10)	
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Prevention and pictures Positioning Function GPS Time Synchronization NTP/GPS Attitude Detection Built-in electronic gyroscope to detect abnormal attitude and trigger alarm Security Authorized username and password, MAC address binding, HTTPS encryption, and network access control Auto Registration Yes Intelligence Target Detection Motor vehicle, non-motor vehicle Face Detection Detects driver and front-seat passenger of motor vehicle, and non-motor vehicle driver; extracts face image Vehicle Plate Recognition Recognizes license plates in Russian Vehicle Type Recognition Vehicle tail mode: Coach bus, minibus, SUV, MPV, pickup, heavy truck, medium truck, car, van, light truck Vehicle tail mode: SUV, car, van, coach bus, pickup, cargo truck, mini truck, tank truck, mixer truck White, pink, black, red, yellow, gray, blue, green, amber,		Platform, FTP	
Time Synchronization NTP/GPS Attitude Detection Built-in electronic gyroscope to detect abnormal attitude and trigger alarm Security Authorized username and password, MAC address binding, HTTPS encryption, and network access control Auto Registration Yes Intelligence Target Detection Motor vehicle, non-motor vehicle Face Detection Detects driver and front-seat passenger of motor vehicle, and non-motor vehicle driver; extracts face image Vehicle Plate Recognition Recognizes license plates in Russian Vehicle Type Recognition Vehicle tail mode: Coach bus, minibus, SUV, MPV, pickup, heavy truck, medium truck, car, van, light truck Vehicle tail mode: SUV, car, van, coach bus, pickup, cargo truck, mini truck, tank truck, mixer truck White, pink, black, red, yellow, gray, blue, green, amber,			
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Intelligence Target Detection Motor vehicle, non-motor vehicle Face Detection Detects driver and front-seat passenger of motor vehicle, and non-motor vehicle driver; extracts face image Vehicle Plate Recognition Recognizes license plates in Russian Vehicle Head mode: Coach bus, minibus, SUV, MPV, pickup, heavy truck, medium truck, car, van, light truck Vehicle tail mode: SUV, car, van, coach bus, pickup, cargo truck, mini truck, tank truck, mixer truck Wehicle Color Recognition White, pink, black, red, yellow, gray, blue, green, amber,	Security	·	
Target Detection Motor vehicle, non-motor vehicle Detects driver and front-seat passenger of motor vehicle, and non-motor vehicle driver; extracts face image Vehicle Plate Recognition Recognizes license plates in Russian Vehicle Head mode: Coach bus, minibus, SUV, MPV, pickup, heavy truck, medium truck, car, van, light truck Vehicle tail mode: SUV, car, van, coach bus, pickup, cargo truck, mini truck, tank truck, mixer truck Wehicle Color Recognition Wehicle Color Recognition White, pink, black, red, yellow, gray, blue, green, amber,	Auto Registration	Yes	
Pace Detection Detects driver and front-seat passenger of motor vehicle, and non-motor vehicle driver; extracts face image Vehicle Plate Recognition Vehicle Head mode: Coach bus, minibus, SUV, MPV, pickup, heavy truck, medium truck, car, van, light truck Vehicle tail mode: SUV, car, van, coach bus, pickup, cargo truck, mini truck, tank truck, mixer truck Wehicle Color Recognition Wehicle Color Recognition White, pink, black, red, yellow, gray, blue, green, amber,	Intelligence		
Vehicle Type Recognition Vehicle Type Recognition	Target Detection	Motor vehicle, non-motor vehicle	
Vehicle Type Recognition Vehicle head mode: Coach bus, minibus, SUV, MPV, pickup, heavy truck, medium truck, car, van, light truck Vehicle tail mode: SUV, car, van, coach bus, pickup, cargo truck, mini truck, tank truck, mixer truck White, pink, black, red, yellow, gray, blue, green, amber,	Face Detection	· ·	
Vehicle Type Recognition pickup, heavy truck, medium truck, car, van, light truck Vehicle tail mode: SUV, car, van, coach bus, pickup, cargo truck, mini truck, tank truck, mixer truck White, pink, black, red, yellow, gray, blue, green, amber,	Vehicle Plate Recognition	Recognizes license plates in Russian	
Vehicle Color Recognition	Vehicle Type Recognition	pickup, heavy truck, medium truck, car, van, light truck Vehicle tail mode: SUV, car, van, coach bus, pickup, cargo	
	Vehicle Color Recognition		



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Motor Vehicle Violation Snapshot	ANPR mode: Wrong-way driving, overspeed, underspeed, disobey lane direction sign, cross white solid line, cross yellow solid line, illegal lane change, video speed measurement E-Police: Run a red light, wrong-way driving, cross white solid line, cross yellow solid line, disobey lane direction sign, disobey direction arrow, illegal left turn, illegal right turn, illegal U-turn, cross stop line Mode of yielding to pedestrians: Supports capturing vehicles that do not yield to pedestrians	
Non-motor Vehicle Violation Snapshot	Captures traffic violations such as wrong-way driving, occupying motorway, overloading, and not wearing helmet	
Traffic Flow Detection	Statistics of vehicle flow, average speed, vehicle type, lane occupancy, average time headway, average queue length, road status, and more; statistics can be exported in Excel	
Traffic Event Detection	Detects illegal parking of motor vehicles and traffic congestion	
Video Metadata	Motor vehicle: License plate, vehicle type, vehicle color, license plate color, vehicle logo, and more Non-motor vehicle: Type (two-wheelers, threewheelers), color, wearing a helmet or not, passenger (1, 2, 3, or more)	
Ports		
Lens Mount	C mount	
Iris Control	1, connects to auto iris or P iris	
Focus Control	1, connects to motorized vari-focal lens	
Frequency Source Sync	1, supports synchronizing the camera with mains electricity	
Peripheral Light	7, optocoupler signal output (can be configured as flashing light or LED strobe sync output interface, frequency adjustable)	
Analog Output	1 BNC port	
Network	2 RJ-45 Ethernet ports, 10/100/1000M network transmission	
USB	2 USB 3.0 ports	

GPS	1 GPS/BeiDou port	
Storage	1, supports maximum 256GB TF card local storage	
RS-485	2, connects to signal detector, vehicle detector, flashing light, continuous light, and more	
RS-232	4 RS-232 ports. 3 for radar connection, and 1 for serial port debugging	
1/0	4, capture signal input of I/O trigger, sharing with alarm in port	
Alarm Input	4, share with I/O port	
Alarm Output	2, AO1 relay output and AO2 optocoupler output, can be configured as alarm output or wiper output as needed	
General		
Power Supply	100V AC-240V AC (50Hz/60Hz)	
Power Consumption	≤20W	
Operating Temperature	-40°C to +65°C (-40°F to +149°F)	
Operating Humidity	10%–90%	
Protection Grade	IP66	
Dimensions	540.00mm×207.79mm×198.14mm (21.26"×8.18"×7.80") (L×W×H)	
Net Weight	4.6kg (10.14lb)	
Gross Weight	6.6kg (14.55lb)	
Installation	Universal joint installation	
Power Adaptor	Standard	
Dimensions (mm/inch)		
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