



FEATURES

- 4-MP 1/2.9" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 4 MP (2688×1520)@20 fps, and supports 2560×1440 (2560×1440)@25/30 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in IR LED, and the max. illumination distance is 60 m.
- ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments.
- Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.
- Intelligent monitoring: Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human).
- Abnormality detection: Motion detection, video tampering, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection.
- Alarm: supports max. 256 G Micro SD card; built in MIC.
- 12 VDC/PoE power supply, easy for installation.
- IP67, IK10 (optional) protection.
- SMD Plus.

TECHNICAL SPECIFICATIONS

Camera	Image Sensor	1/2.9" CMOS		
	Image Resolution	2688 (H) × 1520 (V)		
	ROM	128 GB		
	RAM	128 GB		
	S/N Ratio	>56 dB		
	Scanning System	progressive		
	Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s		
	Min. Illumination	0.006 lux@F1.5 (Color, 30 IRE) 0.0006 lux@F1.5 (B/W, 30 IRE) 0 lux (Illuminator on)		
	Illumination Distance	Up to 60 m (196.85 ft) (IR LED)		
	Illuminator On/Off Control	Auto; Manual		
Illuminator Number	4 (IR LED)			
Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: 0°–90° Rotation: 0°–360°			
Lens	Lens Type	Motorized vari-focal		
	Lens Mount	φ14		
	Focal Length	2.7 mm–13.5 mm		
	Max. Aperture	F1.5		
	Field of View	H: 104°–29°; V: 54°–16°; D: 125°–34°		
	Iris Control	Fixed		
	Close Focus Distance	0.8 m (2.62 ft)		
	DORI Distance	Lens	W	T
		Detect	64.0 m (209.97 ft)	210.0 m (688.97 ft)
		Observe	25.6 m (83.99 ft)	84.0 m (275.59 ft)
Recognize		12.8 m (41.99 ft)	42.0 m (137.80 ft)	
Identify	6.4 m (20.99 ft)	21.0 m (68.90 ft)		
DORI (Detect, Observe, Recognize, Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the video to distinguish persons or objects within a covered area. The numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/project design tool.				
Intelligence	IVS (Perimeter Protection)	Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human)		
	Smart Search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos		
Video	Video Compression	H.265; H.264; H.264H; H.264B		
	Smart Codec	Smart H.265+; Smart H.264+		
	Video Compression	H.264H; H.264B; H.264M by default; H.265; MJPEG; H.264M		
	Video Frame Rate	Main stream: 2688 × 1520@ (1–20 fps)/2560 × 1440@ (1–25/30 fps) Sub stream: 704 × 576@(1–25 fps)/704 × 480@(1–30 fps) *The values above are the max. frame rates of each stream; for multiple streams, the values will be subjected to the total encoding capacity.		
	Stream Capability	2 streams		
	Resolution	2688 × 1520 (2688 × 1520); 2560 × 1440 (2560 × 1440); 2304 × 1296 (2304 × 1296); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)		
	Bit Rate Control	CBR/VBR		
	Video Bit Rate	H.264: 32 kbps–6144 kbps; H.265: 12 kbps–6144 kbps		
	Day/Night	Auto(ICR)/Color/B/W		
	BLC	Yes		
	HLC	Yes		
	WDR	120 dB		
	White Balance	Auto; natural; street lamp; outdoor; manual; regional custom		
	Gain Control	Manual; Auto		
	Noise Reduction	3D NR		
	Motion Detection	OFF/ON (4 areas, rectangular)		
	Region of Interest (RoI)	Yes (4 areas)		
Smart Illumination	Yes			
Image Rotation	0°/90°/180°/270° (Support 90°/270° with 2688 × 1520 resolution and lower)			
Mirror	Yes			
Privacy Masking	4 areas			
Audio	Built-in MIC	Yes		
	Built	G.711a; G.711Mu; G.726; PCM		
Alarm	Alarm Event	No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; audio detection; voltage detection; defocus detection; SMD; security exception		

TECHNICAL SPECIFICATIONS

Network	Network Port	RJ-45 (10/100 Base-T)	Power	Power Supply	12 VDC/PoE (802.3af)		
	SDK and API	Yes		Power Consumption	-ZS: Basic: 2.4 W (12 VDC); 3.1 W (PoE) Max. (H.265+intelligence on +WDR +IR on): 8.7 W (12 VDC); 10.1 W (PoE)		
	Network Protocol	IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; NTP; Multicast; ICMP; IGMP; P2P			-ZAS: Basic: 2.4 W (12 VDC); 3.1 W (PoE) Max. (H.265+intelligence on +WDR +IR on): 8.8 W (12 VDC); 10.2 W (PoE)		
	Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI			Environment	Operating Temperature	-30 °C to +60 °C (-22 °F to +140 °F)
	User/Host	6 (Total bandwidth: 36 M)				Operating Humidity	≤95%
	Storage	FTP; SFTP; Micro SD card (support max. 256 GB)				Storage Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
	Browser	IE Chrome Firefox				Protection	IP67, IK10 (optional)
	Management Software	SmartPSS Lite; DSS; DMSS			General	Casing Material	Metal
	Mobile Client	iOS; Android				Product Dimensions	238.5 mm×90.7 mm×90.7 mm (9.39" × 3.57" × 3.57") (L × W × H)
	Cyber Security	Video encryption; Configuration encryption; Digest; WSSE; Account lockout; Security logs; IP/MAC filtering; Generation and importing of X.509 certification; syslog; HTTPS; 802.1x; Trusted boot; Trusted execution; Trusted upgrade				Net Weight	-ZS: 0.73 kg (1.6 lb) -ZAS: 0.76 kg (1.7 lb)
Certifications	CE-LVD: EN62368-1; CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU; FCC: 47 CFR FCC Part 15, Subpart B; UL/CUL: UL62368-1 & CAN/CSA C22.2 No. 62368-1-14	Gross Weight	-ZS: 0.99 kg (2.2 lb) -ZAS: 1.02 kg (2.2 lb)				

