

TDOBIS460MS-AI

4MP IR Vari-focal Bullet Network Camera



Functions

SMD Plus

With intelligent algorithm, Smart Motion Detection technology can categorize the targets that trigger motion detection and filter the motion detection alarm triggered by non-concerned targets to realize effective and accurate alarm.

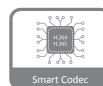
Smart H.265+ & Smart H.264+

With advanced scene-adaptive rate control algorithm, smart encoding technology realizes the higher encoding efficiency than H.265 and H.264, provides high-quality video, and reduces the cost of storage and transmission.

Perimeter Protection

With deep learning algorithm, Perimeter Protection technology can recognize human and vehicle accurately. In restricted area (such as pedestrian area and vehicle area), the false alarms of intelligent detection based on target type (such as tripwire, intrusion) are largely reduced.

- 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: 1 in, 1 out (Only - ZAS supports); audio: 1 in, 1 out (Only - ZAS supports); supports max. 256 G Micro SD card; built in MIC.
- 12 VDC/PoE power supply, easy for installation.
- IP67, IK10 (optional) protection.
- SMD Plus.



WDR

With advanced Wide Dynamic Range (WDR) technology, network camera provides clear details in the environment of strong brightness contrast. The bright and dark area can get clear video even in high brightness environment or with backlight shadow.

Cyber Security

Toughdog network cameras employ a series of security technologies, including security authentication and authorization, access control protocols, trusted protection, encrypted transmission and encrypted storage. These technologies improve the camera's defense against external cyber threats and prevent malicious programs from compromising the device.

Protection (IP67, Wide Voltage)

IP67: The camera passes a series of strict test on dust and soak. It has dust-proof function, and the enclosure can work normally after soaking in 1 m deep water for 30 minutes.

Wide voltage: The camera allows $\pm 30\%$ (for some power supplies) input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

Technical Specification					
Camera					
Image Sensor	1/2.9" CMOS				
Max. Resolution	2688 (H) × 1520 (V)				
ROM	128 MB				
RAM	128 MB				
Scanning System	Progressive				
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s				
Min. Illumination	0.008 lux@F1.5 (Color, 30 IRE) 0.0008 lux@F1.5 (B/W, 30 IRE) 0 lux (Illuminator on)				
S/N Ratio	>56 dB				
Illumination Distance	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	Detect	Observe	Recognize	Identify
	2.7mm - 13.5mm	64.0 m (209.97 ft)	25.6 m (83.99 ft)	12.8 m (41.99 ft)	6.4 m (20.99 ft)

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; MJPEG (Only supported by the sub stream)
Smart Codec	Smart H.265+; Smart H.264+
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
Audio Compression	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; external alarm (Only- ZAS supports); SMD; security exception

Network	
Network Port	RJ-45 (10/100 Base-T)
SDK and API	Yes
Network Protocol	IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; NTP; Multicast; ICMP; IGMP
Interoperability	ONVIF (Profile S/Profile T); CGI; P2P; Milestone
User/Host	6 (Total bandwidth: 36 M)
Storage	FTP; SFTP; Micro SD card (support max. 256 GB)
Browser	IE Chrome Firefox
Management Software	TD-SMS; DSS; ToughDogViewer Pro
Mobile Client	iOS; Android

TDOBIS460MS-AI

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
Certification	
Certifications	CE-LVD:EN62368-1; CE-EMC:Electromagnetic Compatibility Directive 2014/30/EU; FCC:47 CFR FCC Part 15, Subpart B
Port	
Audio Input	1 channel (RCA port) (Only- ZAS supports)
Audio Output	1 channel (RCA port) (Only- ZAS supports)
Alarm Input	1 channel in: 5mA 3V–5V DC (Only- ZAS supports)
Alarm Output	1 channel out: 300mA 12V DC (Only- ZAS supports)
Power	
Power Supply	12 VDC/PoE (802.3af)
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) -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)
Environment	
Operating Temperature	−30 °C to +60 °C (−22 °F to +140 °F)
Operating Humidity	≤95%
Storage Temperature	−40 °C to +60 °C (−40°F to +140°F)
Protection	IP67, IK10 (optional)
Structure	
Casing Material	Metal
Product Dimensions	238.5 mm × 90.7 mm × 90.7 mm (9.39" × 3.57" × 3.57") (L × W × H)
Net Weight	-ZS: 0.73 kg (1.6 lb) -ZAS: 0.76 kg (1.7 lb)
Gross Weight	-ZS: 0.99 kg (2.2 lb) -ZAS: 1.02 kg (2.2 lb)

Ordering Information		
Type	Model	Description
4MP Camera	TDOBIS460MS-AI	4MP IR Vari-focal Bullet Network Camera
Accessories (Optional)	PFA130-E	Junction Box
	PFA152-E	Pole Mount Bracket
	PFA135	Water-proof Junction Box

Accessories

Optional:



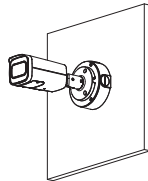
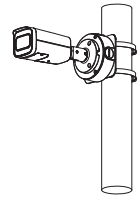
PFA130-E
Junction
Box



PFA152-E
Pole Mount
Bracket



PFA135
Water-proof
Junction Box

	Junction Mount	Pole Mount(Vertical)
		

Dimensions (mm[inch])

