

TDOEIS450MS

4MP WDR IR Eyeball Network Camera



- 4MP, 1/3" CMOS image sensor, low illuminance, high image definition
- Outputs 4MP (2560 × 1440)@25/30 fps, max. supports 4MP (2688 × 1520)@20 fps
- H.265 codec, high compression rate, ultra-low bit rate
- Built-in IR LED, max IR distance: 131 ft
- ROI, SMART H.264/H.265, flexible coding, applicable to various bandwidth and storage environments
- Rotation mode, WDR, 3D DNR, HLC, BLC, digital watermarking, applicable to various monitoring scenes
- Intelligent detection: Intrusion, tripwire
- Abnormality detection: Motion detection, video tampering, no SD card, SD card full, SD card error, network disconnected, IP conflict, illegal access, voltage detection
- Supports max. 256 GB Micro SD card
- 12V DC/PoE power support
- IP67 protection



System Overview

With upgraded H.265 encoding technology, TOUGHDOG series camera has efficient video encoding capacity, which saves bandwidth and storage space. This camera adopts the latest starlight technology and displays better colorful image in the environment of low illumination. It supports SD card storage, waterproof function, dust-proof function, complying to the standards of IP67.

Functions

Smart(H.265+ & H.264+)

Adopting advanced algorithm of auto stream control according to the environment, TOUGHDOG smart encoding technology realizes the higher efficiency than (H.265 & H.264), providing high-quality video, and reducing the cost of storage and transmission.

Wide dynamic range (WDR)

TOUGHDOG adopts advanced Wide Dynamic Range (WDR) technology. You can get clear details in the environment of strong brightness contrast. In high brightness and back-light environment, bright region and dark region with strong light source, you can also get clear images.

Starlight

TOUGHDOG Starlight technology mainly applies to the environment of low illumination, and it can provide clear colorful video. Even in the environment of min. illumination, the technology can guarantee the good image effect.

Intelligent Video Analysis (IVS)

With advanced video algorithm, TOUGHDOG camera supports intelligent detection, such as tripwire and intrusion and so on.

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 normal after soaking in 1 m deep water for 30 minutes.

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

Technical Specification	
Camera	
Image Sensor	1/3" 4Megapixel progressive CMOS
Effective Pixels	2688 (H) × 1520 (V)
ROM	128 MB
RAM	128 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s~1/100000 s
Min. Illumination	0.008 Lux@F1.5
IR Distance	40 m (131.23 ft)
IR On/Off Control	Auto/Manual
IR LEDs Number	2
Pan/Tilt/Rotation Range	Pan 0°~360° Tilt: 0°~78° Rotation: 0°~360°

Lens					
Lens Type		Motorized vari-focal			
Mount Type		φ14			
Focal Length		2.7 mm~13.5 mm			
Max. Aperture		F1.5			
Field of View		Pan: 104°~27° Tilt: 55°~15° Diagonal: 124°~31°			
Iris Type		Fixed aperture			
Close Focus Distance		0.8 m~0.8 m (2.62 ft~2.62 ft)			
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	64 m (209.97 ft)	25.6 m (83.99 ft)	12.8 m (41.99 ft)	6.4 m (21.00 ft)
	T	220 m (721.78 ft)	88 m (288.71 ft)	44 m (144.36 ft)	22 m (72.18 ft)

Smart Event	
General IVS Analytics	Tripwire; intrusion

Video	
Video Compression	H.265; H.264; H.264B; MJPEG
Smart Codec	Yes
Video Frame Rate	Main stream: 2688 × 1520 (1 fps-20 fps) 2560 × 1440 (1 fps-25/30 fps) Sub stream: 704 × 576 (1 fps-25 fps) 704 × 480 (1 fps-30 fps)
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	Auto/Manual
Noise Reduction	3D DNR
Motion Detection	OFF/ON (4 areas, rectangular)
Region of Interest(Roi)	Yes (4 areas)
Smart IR	Yes
Image Rotation	0°/90°/180°/270° (Supports 90°/270° with 2688 × 1520 resolution and lower.)
Mirror	Yes
Privacy Masking	4 areas

Network	
Network	RJ-45 (10/100 Base-T)
Protocol	IPv4; IPv6; HTTP; HTTPS; TCP; UDP; ARP; RTP ; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; PPPoE; 802.1x; Bonjour
Interoperability	ONVIF(Profile S/Profile G/Profile T);CGI; P2P; Milestone; Genetec
User/Host	20
Edge Storage	Cloud; FTP; SFTP; Micro SD Card (support max. 256 GB); NAS
Browser	IE Chrome Firefox
Management Software	Smart PSS; DSS; DMSS
Mobile Phone	IOS; Android

Certification	
Certifications	CE-LVD: EN60950-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07

Power	
Power Supply	12V DC/PoE (802.3af)
Power Consumption	< 6.4W

Environment	
Operating Conditions	-30°C to +60°C (-22°F to +140°F)/less than ≤ 95% RH
Storage Temperature	-40°C to +60°C (-40°F to +140°F)
Protection	IP67

Structure

Casing	Metal
Dimensions	108.3 mm × Φ122 mm (4.26" × Φ1.80")
Net Weight	0.69 kg (1.52 lb)
Gross Weight	0.88 kg (1.94 lb)

Ordering Information		
Type		Description
4MP Camera		4MP WDR IR Eyeball Network Camera,PAL
		4MP WDR IR Eyeball Network Camera,NTSC
Accessories (optional)		Junction Box
		Wall Mount
		Mount Adapter
		Ceiling Mount
		Pole Mount
		DC12V1A Power Adapter
		Single-port Long Reach Ethernet over Coax Extender
		Integrated Mount Tester
		TLC SD Card

Accessories

Optional:



Junction Box



Wall Mount



Mount Adapter



Ceiling Mount



Pole Mount



DC12V1A Power Adapter



Single-port Long Reach Ethernet over Coax Extender



Integrated Mount Tester



TLC SD Card

Junction Mount	Wall Mount	Ceiling Mount	Pole Mount
PFA130-E	PFB203W	N/A	PFB203W + PFA152-E

Dimensions (mm[inch])

