TOUGHDOG

TDOEIY4N3A
4MP Full-color Fixed-focal Eyeball Network Camera

- 4MP, 1/2.7" CMOS image sensor, low illuminance, high image definition
- Outputs max. 4MP (2688 × 1520) @ 30 fps
- H.265 codec, high compression rate, low bit rate
- 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 (support the classification and accurate detection of vehicle and human)
- Abnormality detection: Motion detection, video tampering, scene changing, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, voltage detection
- Supports max. 256 G Micro SD card, built-in Mic
- 12V DC/POE power supply
- IP67 protection
- SMD Plus

| 4Mp | SMD Plus | Smart Codec | Starlight | Perimeter Protection | IP67 |

Series Overview

With advanced deep learning algorithm, TOUGHDOG network camera supports intelligent functions, such as perimeter protection and smart motion detection. With starlight technology, this series camera provides a better image effect in the condition of low luminescence.

Functions

Full-color

With intelligent algorithm, TOUGHDOG 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.

SMD Plus

With intelligent algorithm, TOUGHDOG 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, TOUGHDOG 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, TOUGHDOG 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, fast moving, parking detection, loitering detection and gathering detection) are largely reduced.

WDR

With advanced Wide Dynamic Range (WDR) technology, TOUGHDOG 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.

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 works normal after soaking in 1 m deep water for 30 minutes.
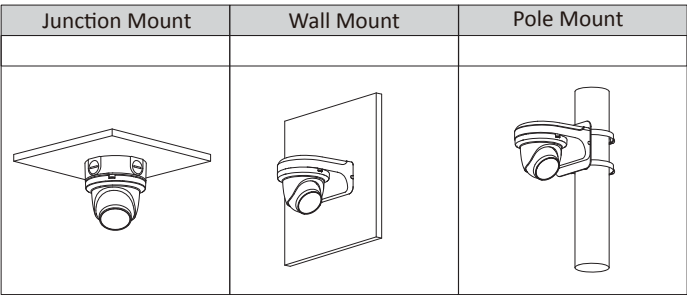Wide voltage: The camera allows ±30% input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

Onvif

TDOEIY4N3A

Technical Specification

Camera

Image Sensor	1/2.7"4Megapixel progressive CMOS
Max. Resolution	2688 (H) × 1520 (V)
ROM	128 MB
RAM	512 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100, 000 s
Min. Illumination	0.003 Lux @ F1.0
S/N Ratio	> 56 dB
Pan/Tilt/Rotation Range	Horizontal: 0°–360°; vertical: 0°–78°; rotation: 0°–360°

Lens

Lens Type	Fixed-focal
Mount Type	M12
Focal Length	2.8 mm; 3.6 mm
Max. Aperture	F1.0
Field of View	2.8 mm: Horizontal 103° × vertical 53° × diagonal 122° 3.6 mm: Horizontal 80° × vertical 43° × diagonal 95°
Iris Type	Fixed
Close Focus Distance	2.8 mm: 1.2 m (3.9 ft) 3.6 mm: 2.4 m (7.9 ft)

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8mm	56.0 m (183.7 ft)	22.4 m (73.5 ft)	11.2 m (36.7 ft)	5.6 m (18.4 ft)
	3.6mm	80.0 m (262.5 ft)	32.0 m (105.0 ft)	16.0 m (52.5 ft)	8.0 m (26.3 ft)

Professional, Intelligent

Perimeter Protection	Tripwire, intrusion (Recognition of vehicle and people)
Intelligent Search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos

Video

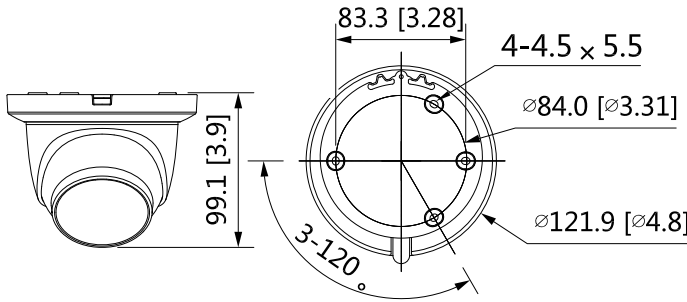|	
Video Compression	H.265; H.264; H.264H; H.264B; MJPEG (only supported by the sub stream)
Smart Codec	Smart H.265+/ Smart H.264+
Video Frame Rate	Main stream (2688 × 1520@ 1–25/30 fps) sub stream (704 × 576@ 1–25/704 × 480 @ 1-30 fps) third stream (1280 × 720@ 1–25/30 fps)
Stream Capability	3 streams
Resolution	4M (2688 × 1520); 3M (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: 3 kbps–8192 kbps H.265: 3 kbps–8192 kbps
Day/Night	Color/B/W
BLC	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)
Image Rotation	0°/90°/180°/270° (Support 90°/270° with 1920 × 1080 resolution and lower.)
Mirror	Yes
Privacy Masking	4 areas

Audio

Audio Compression	G.711a; G.711Mu; G726; AAC

Alarm

Alarm Event	No SD card; SD card full; SD card error; less service time of SD card (smart card supports); network disconnection; IP conflict; illegal access; voltage detection; security exception; motion detection; video tampering; scene changing; intensity change; tripwire; intrusion; SMD

Network

Network	RJ-45 (10/100 Base-T)
SDK and API	Yes
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; SNMP
Interoperability	ONVIF(Profile S/Profile G);CGI;P2P;Milestone;Genetec
Scene self-adaptation	Yes
User/Host	20 (Total bandwidth: 64M.)
Edge Storage	FTP; SFTP; Micro SD Card (support max. 256 G); Dahua Cloud; NAS
Browser	IE: IE8; IE9; IE11 Chrome Firefox
Management Software	Smart PSS; DSS; DMSS
Mobile Phone	IOS; Android

Certification

Certifications	CE-LVD: EN62368-1 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
Power Consumption	< 4.5W

Environment

Operating Conditions	-40°C to +60°C (-40°F to +140°F)/ less than 95%
Storage Conditions	-40°C to +60°C (-40°F to +140°F)
Protection Grade	IP67

TDOEIY4N3A

Structure

Casing	Inner core: Metal Cover: Metal Decoration ring: Plastic
Dimensions	99.1 mm × Φ121.9 mm (3.9" × Φ4.8")
Net Weight	480 g (1.05 lb)
Gross Weight	660 g (1.45 lb)

Accessories

Junction Box	Wall Mount	Pole Mount

DC12V1A Power Adapter	Single-port long reach ethernet over coax extender	Integrated Mount tester

TLC SD card

Junction Mount	Wall Mount	Pole Mount

Dimensions (mm[inch])

83.3 [3.28]

4-4.5 × 5.5

∅84.0 [∅3.31]

99.1 [3.9]

3-120°

∅121.9 [∅4.8]