TDODIY510F

5MP Fisheye Network CAMERA

- 5MP, 1/2.7" CMOS image sensor, low illuminance, high image definition
- Outputs max. 5MP (2592 × 1944) @25/30 fps
- H.265 codec, high compression rate, ultra-low bit rate
- Built-in efficient IR illuminator, and the max. illumination distance: 32ft
- ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments
- 120dB WDR, 3D DNR, HLC, BLC, digital watermarking, applicable to various monitoring scenes
- Intelligent detection: Intrusion, tripwire, people counting in area
- 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, and voltage detection
- Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card, built-in Mic
- 12V DC/PoE power supply, easy for installation
- Heat map for people counting. You can adjust the number of people, time threshold to generate a heat map, which can be exported.

Series Overview

With fisheye lens, TOUGHDOG series camera can realize 360° surveillance, and it is widely applied in various scenes such as airports, shopping centers, banks and hotels.

Functions

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.

Heat Map

TOUGHDOG heat map technology is used to display the crowd density and people appearance probability. Display the crowd status by different colors. Generally, the crowd status is the statistics of people quantity in space and time dimensions.

In Area No.

With advanced stereo image technology and deep leaning algorithm, TOUGHDOG In Area No. technology recognizes human targets accurately to count people in area in real-time. You can set people quantity threshold, when the number larger or smaller than the threshold, it triggers linkage. It is applicable in the scene that has limit on people quantity.

5Mp	Smart Codec	Heat Map	In Area No	Fisheye	WDR

True WDR

With advanced Wide Dynamic Range (120dB 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 (wide voltage)

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

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Technical Specification

Camera

Image Sensor	1/2.7"5Megapixel progressive CMOS
Max. Resolution	2592 (H) × 1944 (V)
ROM	128 MB
RAM	512 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.006 Lux @F2.0
S/N Ratio	＞56 dB
Illumination Distance	10 m (32.8 ft)
Illuminator On/Off Control	Auto/Manual
Illuminator Number	3 (IR LED)

Lens

Lens Type	Fixed-focal
Mount Type	M12
Focal Length	1.4 mm
Max. Aperture	F2.0
Field of View	Horizontal: 180° Vertical: 180° Diagonal: 180°
Iris Type	Fixed
Close Focus Distance	0.2 m (0.7 ft)

DORI Distance	Detect	Observe	Recognize	Identify
	28 m (91.9 ft)	11.2 m (36.7 ft)	5.6 m (18.4 ft)	2.8 m (9.2 ft)

Smart Event

Heat Map	Yes

Professional, intelligent

IVS (Perimeter Protection)	Tripwire; intrusion
People Counting	Support people counting in area, and displaying and outputting yearly/monthly/daily reports (matching devices are needed); support people counting in 4 areas
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 (2592 × 1944 @1–25/30 fps) sub stream (704 × 576 @1–25 fps/704 × 480 @1–30 fps) third stream (1280 × 720 @1–25/30 fps)
Stream Capability	3 streams
Resolution	5M (2592 × 1944); 3M (2048 × 1536); UXGA (1600 × 1200); 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	Auto (ICR)/Color/B/W
BLC	Yes
HLC	Yes
WDR	120 dB
Scene Self-adaptation	Yes
White Balance	Auto/natural/street lamp/outdoor/manual/regional custom
Gain Control	Auto/Manual
Noise Reduction	3D DNR
Motion Detection	OFF/ON (4 areas)
Region of Interest (RoI)	Yes (4 areas)
Smart Illumination	Yes
Privacy Masking	4 areas

Audio

Built-in MIC	Yes
Audio Compression	PCM; G.711a; G.711Mu; G726; AAC

Alarm

Alarm Event	No SD card; SD card full; SD card error; service life warning ; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; scene changing; audio detection; voltage detection; external alarm; people counting in area; stay alarm; people counting; people No. exception detection; safety exception

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/Profile T); CGI; Milestone; Genetec; P2P
User/Host	20 (Total bandwidth: 64 M)
Storage	Cloud; FTP; SFTP; Micro SD card (support max. 256 G); NAS
Browser	IE: IE8, IE9 and IE11 Chrome Firefox
Management Software	Smart PSS; DSS; DMSS
Mobile Phone	IOS; Android

Certification

Certification	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

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Port

Audio Input	1 channel (RCA port)
Audio Output	1 channel (RCA port)
Alarm Input	1 channel in: 5mA 3V–5V DC
Alarm Output	1 channel out: 300mA 12V DC

Power

Power Supply	12V DC/PoE
Power Consumption	Basic power consumption: 3.6W (12V DC); 4.4W (PoE) Max. power consumption (H.265 + IR on+ intelligent function + WDR): 7.3W (12V DC); 8.8W (PoE)

Environment

Operating Conditions	−10°C to +50°C (14°F to +122°F)/Less than 95% RH
Strorage Conditions	−40°C to +60°C (−40°F to +140°F)

Structure

Casing	Metal + plastic
Dimensions	44.6 mm × Φ126.2 mm (1.8" × Φ5.0")
Net Weight	299 g (0.7 lb)
Gross Weight	441 g (1.0 lb)

Ordering Information

Type		Description
5MP Camera		5MP WizMind IR Fisheye Network CAMERA, PAL
		5MP WizMind IR Fisheye Network CAMERA, NTSC
Accessories (Optional)		Wall Mount
		Ceiling Mount
		Pole Mount
		12V DC 1A Power Adapter
		Single-port Long Reach Ethernet over Coax Extender
		Integrated Mount Tester
		TLC SD Card

Accessories

Optional

Wall Mount

Celling Mount

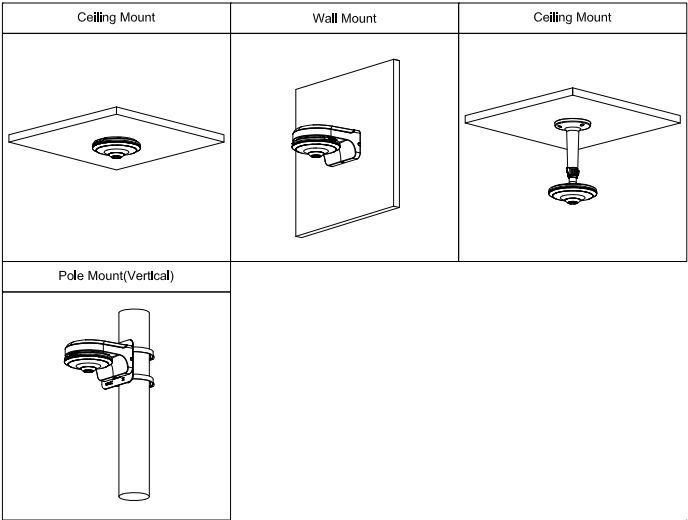Pole Mount

12V DC/1A Power Adapter

Single-port Long Reach Ethernet over Coax Extender

Integrated Mount Tester

TLC SD Card

Dimensions (mm[inch])

44.6 [1.76]

3-4.4 [⌀0.17]
⌀98.3 [⌀3.87]
⌀126.2 [⌀4.97]