TDPTZ4MP32CT-AI
4MP 32x In-ceiling Network PTZ Camera

・1/2.8" 4Megapixel STARVIS™ CMOS.

・32x optical zoom.

・Starlight technology.

・Max. 25/30 fps@4MP.

・Auto-tracking.

・Perimeter protection.

・Face detection.

・SMD4.0.

・IK10.

Starlight | WDR | IK10 | Perimeter Protection | Auto Tracking | Quick Pick

Functions

Starlight Technology
With advanced image processing technology and optical technology, TOUGHDOG's Starlight technology can provide clear colorful video in the environment of low illuminance. It widely applies to various environments of low illuminance.

Wide Dynamic Range
The camera produces vivid images, even in high-contrast lighting conditions, by using industry-leading wide dynamic range (WDR) technology. For scenes that quickly alternate between bright and low lighting, WDR adjusts to fully capture both the bright and dark areas of a scene, producing superior quality videos.

Protection (±25%, 6 kV)
Designed with ±25% input voltage tolerance, the camera is suitable for even the most unstable outdoor conditions. Its 6 kV lightning rating ensures protection against lightning for both the camera and its structure.

Perimeter Protection
Automatically filters out false alarms caused by animals, rustling leaves, bright lights, and more, and uses secondary recognition during target detection to improve alarm accuracy.

Auto-tracking
This feature controls the pan/tilt/zoom actions of the camera to automatically track an object in motion and to keep it in the scene. The tracking action can be triggered manually or automatically by defined rules. Once a rule is triggered, the camera can zoom in and track the defined target automatically.

SMD 4.0
TOUGHDOG Smart Motion Detection technology works with intelligent algorithms to classify targets that trigger motion detection alarms. It filters out objects that are not targets, such as small and large animals, to avoid triggering false alarms. With an AI NVR, Quick Pick technology becomes available, allowing you to easily search for and pick out human and vehicle targets from SMD event videos, prioritizing the highest matches.

Technical Specification

Camera

Image Sensor	1/2.8" CMOS
Pixel	4 MP
Max. Resolution	2560 (H) × 1440 (V)
ROM	4 GB
RAM	1 GB
Electronic Shutter Speed	1/1 s–1/30,000 s
Scanning System	Progressive
Min. Illumination	Color: 0.005 lux@F1.6 B/W: 0.0005 lux@F1.6

Lens

Focal Length	4.8 mm–154 mm			
Max. Aperture	F1.6–F4.0			
Field of View	H: 55.8°–2.3° V: 31.9°–1.3° D: 63.7°–2.7°			
Optical Zoom	32×			
Focus Control	Auto; semi-auto; manual			
Close Focus Distance	0.1 m–1.5 m			
Iris Control	Auto; manual			
DORI Distance	Detect	Observe	Recognize	Identify
	3,080 m (10,104.99 ft)	1216.6 m (3,991.47 ft)	616 m (2,021.00 ft)	308 m (1,010.50 ft)

PTZ

Pan/Tilt Range	Tilt: 0° to +90°, auto flip 180 Pan: 0° to 360° endless
Manual Control Speed	Pan: 0.1°/s–350°/s; Tilt: 0.1°/s–250°/s
Preset Speed	Pan: 500°/s; Tilt: 500°/s
Preset	300
Tour	8 (up to 32 presets per tour)
Pattern	5
Scan	5
Power-off Memory	Yes
Idle Motion	Pattern; Preset; Scan; Tour
PTZ Protocol	DH-SD

Intelligence

IVS (Perimeter Protection)	Tripwire; intrusion; climbing fences; loitering detection; abandoned/missing object; fast moving; parking detection; people gathering; vehicle/human alarm classification; linkage tracking
Face Detection	Supports face detection, optimization, tracking, capturing pictures, uploading high-quality face snapshots, and face enhancement; Supports attributes extraction. 6 attributes and 8 expressions: Gender, age, glasses, expressions (angry, sad, hate, surprise, calm, happy and confused), mask, mustache; Supports face cutout: Face, one-inch photo. Capturing strategies include real-time capturing, optimization, and quality first.

Auto Tracking	Yes
SMD	Yes
Quick Pick	With AI NVR, quickly pick up the human/vehicle targets that users are interested in from SMD events.

Video

Video Compression	H.264H; H.264B; Smart H.265+; H.264; H.265; MJPEG (Sub Stream1); Smart H.264+
Streaming Capability	3 streams
Resolution	4M (2560 × 1440); 3M (2048 × 1536); 1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)
Video Frame Rate	Main stream: 4M/3M/1080p/1.3M/720p (1–25/30 fps) Sub stream 1: D1/VGA/CIF (1–25/30 fps) Sub stream 2: 1080p/1.3M/720p (1–25/30 fps)
Bit Rate Control	CBR/VBR
Video Bit Rate	H264: 96–14848 Kbps H265: 38–8960 Kbps
Day/Night	Auto (ICR)/Color/B/W
BLC	Yes
WDR	120 dB
HLC	Yes
White Balance	Auto; indoor; outdoor; tracking; manual; sodium lamp; natural light; street lamp
Gain Control	Auto; manual
Noise Reduction	2D NR; 3D NR
Motion Detection	Yes
Region of Interest (RoI)	Yes
Image Stabilization	Electronic (EIS)
Defog	Electronic
Digital Zoom	16×
Image Rotation	180°
Privacy Masking	Up to 24 areas can be set, with up to 8 areas in the same view
S/N Ratio	≥55 dB

Audio

Audio Compression	PCM; G.711a; G.711Mu; G.726; MPEG2-Layer2; G722.1; G729; G723

Network

Network Port	RJ-45 (10/100 Base-T)
Network Protocol	FTP; RTMP; IPv6; Bonjour; IPv4; DNS; RTCP; PPPoE; NTP; RTP; 802.1x; HTTPS; SNMP; TCP/IP; DDNS; UPnP; NFS; ICMP; UDP; IGMP; HTTP; SSL; DHCP; SMTP; Qos; RTSP; ARP
Interoperability	CGI; SDK; ONVIF (Profile S&G&T); P2P
Streaming Method	Unicast/Multicast
User/Host	20 (total bandwidth: 64 M)
Storage	Micro SD card (512 GB); FTP/SFTP; NAS

Browser	IE 9 and later versions Chrome 41 and later versions Firefox 50 and later versions iOS 10 and later versions
Management Software	DSS Pro; DMSS
Mobile Client	iOS; Android

Certification

Certifications	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4-2014 UL: UL62368-1 + CAN/CSA C22.2, No. 62368-1

Port

Audio Input	1 channel (LINE IN, bare wire)
Audio Output	1 channel (LINE OUT,bare wire)
Alarm Linkage	Capture; recoding; send email; preset; tour; pattern; alarm digital output; audio
Alarm Event	Motion/Tampering detection; audio detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection
Alarm I/O	2/1
Audio I/O	1/1

Power

Power Supply	24 VDC/2.5 A ± 25% (Included) PoE+ (802.3at)
Power Consumption	Basic: 13 W Max.: 16 W (PTZ)

Environment

Operating Temperature	−30 °C to +60 °C (−22 °F to +140 °F)
Operating Humidity	≤ 95%
Protection	IK10; 6000V lightning proof; surge protection; voltage transient protection

Structure

Product Dimensions	176.6 mm × Φ198.0 mm (6.95" × Φ7.80")
Net Weight	2.2 kg (4.85 lb)
Gross Weight	3.7 kg (8.16 lb)

Ordering Information

Type	Model	Description
4MP PTZ Camera	TDPTZ4MP32CT-AI	4MP 32x Starlight Network PTZ Camera
Accessories	DC 24 V/2.5 A	Power Adapter

Accessories

Included:

DC24V/2.5A
Power Adapter

Dimensions (mm[inch])