PM-852TC33N-AD | ZKBio Sense PTZ Series
ZKBio Sense 5.5-inch 2 MP 33X Zoom Smart IP PTZ Camera

Human | Vehicle

Target Counting Line Crossing Intrusion Detection

Motion Detection Object Left /Remove Auto Tracking

- 5.5 inches metal and plastic casing
- 1/2.8" 2 MP STARVIS CMOS Sensor
- H.265 triple streams encoding
- High quality 33x zoom integrated lens
- IR array LED, 150 m IR effective range
- Built-in micro-SD card slot (support max. 256 GB)
- Embedded intelligent classification algorithm based on computer vision technology
- Multiple intelligent video analytic features supported
- Human & Vehicle classification detection and auto tracking
- Remote viewing with mobile application and platform software
- IP66 protection rating for waterproof and dustproof

Product OverView

ZKBio Sense Series IP PTZ Cameras are the front-end cameras of smart video surveillance solutions released by ZKTeco based on the Deep-Learning algorithm and Computer Vision technology.

By using advanced and powerful CPU, coupled with the embedded intelligent classification algorithm, ZKBio Sense Series IP PTZ Cameras can accurately detect and recognize 3 key types of targets: humans, vehicles and objects. Meanwhile, they can effectively filter out other useless objects, such as animals, leaves, shadows, and rain, so as to reduce false alarms. In addition, auto tracking detection is linked with audio alert and white light for active deterrence warning.

ZKBio Sense Series IP PTZ Cameras support pan speed up to 200°/s, and tilt speed up to 180°/s, which can cover large HD video range and provide extremely clear details. They can be widely used in different scenes such as garden, park, smart school, office, industrial park, community, public security, etc.

Core Features

H.265 HEVC
H.265 is an evolutionary optimization of the traditional H.264, it includes a series of encoding strategy such as ROI, smart 2D / 3D noise reduction, etc. Delivering high quality video with up to 70% lower bandwidth.

IVA (Intelligent Video Analytics)
ZKBio Sense Series IP PTZ Cameras support multiple intelligent video analytic functions, such as Line Crossing, Target Counting, Object Lost / Left, Area Detection, and Smart Motion Detection, which are based on human and vehicle targets classification. Also, these smart functions can link auto tracking with speaker sound and white light for active deterrence warning.

Auto Tracking
ZKBio Sense Series IP PTZ Cameras can focus on the targets in a detection area and keep tracking for a certain period of time until the targets disappear from the detection area.

True WDR
Powered by ZKTeco's powerful ISP algorithm and high-quality sensor, ZKBio Sense Series IP PTZ Cameras are built-in with true WDR feature, which can present excellent images in extreme contrast lighting environment.

ANR (Only for SD card models)
When the network between ZKBio Sense Series IP PTZ Cameras and ZKBio Sense Series NVRs is interrupted, videos can be automatically saved on the SD card of the front end, and then uploaded to the back end after the network is restored, so as to avoid video loss.

Protection
With precise mechanical and rugged metal casing, ZKBio Sense Series IP PTZ Cameras can stand against water and dust with industrial IP66 protection rating, and support to work in various harsh outdoor environments such as temperature range -30 ℃ to +60 ℃, etc.

Technical Specification

Camera

Model	PM-852TC33N-AD
Image Sensor	1/2.8" 2 MP STARVIS CMOS Sensor
Max. Resolution	1920 (H) × 1080 (V)
ROM	128 MB
RAM	256 MB
Scanning System	Progressive Scan
Electronic Shutter Speed	1/5 s to 1/1 00,000 s
Min. Illumination	0.001 Lux @ F1.6 to F3.5 (AGC on, Color) 0 lux (IR on, B & W)
S/N Ratio	> 52 dB
IR Range	150 m
White Light Range	30 m
Illuminator On / Off Control	Auto / Manual
Illuminator Number	4 × IR LED, 3 × White Light LED
Strobe Light	N/A
Smart IR	Support
Angle Adjustment for Installation	Pan: 0° to 360° Tilt: 0° to 90° Rotation: 0° to 360°
TV System	PAL / NTSC
Image Settings	Trigger mode, Brightness, Contrast, Saturation, Hue, Sharpness, AGC, White balance, Gamma, Backlight mode, adjustable by platform software or web browser
Software Reset Default	Support
General Function	Heartbeat, Mirror, Privacy mask, Log, Password reset

Lens

Lens Type	Motorized vari-focal
Lens Mount	M32
Mount Type	Board-in
Focal Length	4.5 to 148.5 mm
Max. Aperture	F1.6 to F3.5
Optical Zoom	33X
Field of View	66.1° (W) to 2.46° (T)
Iris Type	Fixed
Close Focus Distance	0.7 to 4.5 m

	Lens	Detect	Observe	Recognize	Identify
IDORI Distance	Wide	650 m	405 m	129 m	70 m
	Telephoto	2090.0 m	801.4 m	399.0 m	189.8 m

P / T

Pan / Tilt Range	Pan: 0° to 360°, Tilt: -10° to 90°
Pan Speed	0.1 ° to 200°/s
Tilt Speed	0.1° to 180°/s
Preset	255
Preset Speed	10-Level selection
Pattern Group	4
Auto Mode	Support Idle motion, Power-on auto detection, Rotation speed changes with optical zoom proportionally

Protocol	Pelco-D
Tour Group	8
A-B Scan Group	N/A

Video

Video Compression	H.265 / H.264
Resolution	2 MP (1920 × 1080) / 1.3 MP (1280 × 960) / 720 P (1280 × 720)

Max Video Frame Rate	Main Stream	50 Hz (PAL): 25 fps (1920 × 1080, 1280 × 960, 1280 × 720) 60 Hz (NTSC): 30 fps (1920 × 1080, 1280 × 960, 1280 × 720)
	Sub Stream	50 Hz (PAL): 25 fps (704 × 576, 640 × 480, 640 × 360) 60 Hz (NTSC): 30 fps (704 × 576, 640 × 480, 640 × 360)
	Third Stream	50 Hz (PAL): 25 fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 576) 60 Hz (NTSC): 30 fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 576)

Video Stream Capability	Triple streams
Bit Rate Control	CBR / VBR
Video Bit Rate	H.264: 896 Kbps to 6 Mbps H.265: 1024 Kbps to 6 Mbps
Day / Night	Auto (ICR) / Color / B & W
BLC	Support
HLC	Support
WDR	True WDR
Scene Self-adaptation	Support
White Balance	Auto, Custom, Locked, Incandescent lamp, Warm light, Natural light, Fluorescent lamp
Gain Control	Low, Mid low, Mid, Mid high, High
Noise Reduction	2D / 3D NR
Motion Detection	Smart / Ordinary (4 areas)
Region of Interest (ROI)	Support (4 areas, Level 1 to 6)
Defog	N/A
Mirror	Support
Image Rotation	0° / 180° / Horizontal / Vertical
Privacy Masking	4 areas
Corridor Mode	Support
Digital Zoom	Support
Anti-flicker	Support

Audio

Built-in MIC	N/A
Built-in LoudSpeaker	N/A
Audio Compression	G.711 ulaw
Environment Noise Filtering	Support
Audio Sampling Rate	8 kHz / 16 kHz / 32 kHz / 44.1 kHz / 48 kHz
Audio Bit Rate	64 Kbps (G.711 ulaw)

Intelligent Video Analytics

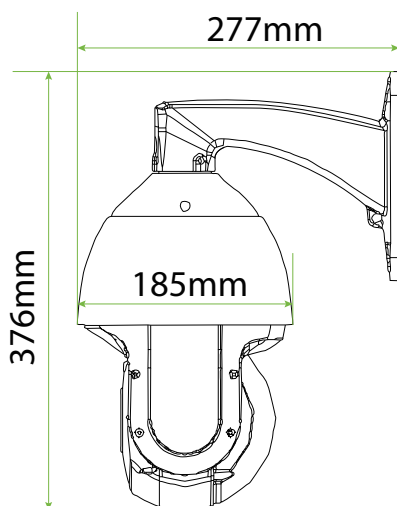| IVA (Perimeter Protection)	Target Counting, Object Lost / Left, Line Crossing, Area Detection, Smart Motion Detection (human and vehicle targets classification)
Intelligent Search	Support fast retrieval by human and vehicle targets classification
Intelligent Video	Support fast retrieval by human and vehicle targets classification, playback and backup
Intelligent Tracking	Support auto tracking by human and vehicle targets classification

Face Detection	
Face Templates	N/A
Face Quality Filtering	N/A
Face Detected Per Frame	N/A
Detection Area	N/A
Detected Face Size	N/A
Capture Response	N/A
Basic Alarm Event	
Basic Alarm Event	SD card error, Network disconnection, IP conflict, Illegal access, Motion detection, Video tampering, External alarm
Basic Alarm Event	Target Counting, Object Lost / Left, Line Crossing, Area Detection, Smart Motion Detection
Alarm Linkage Actions	Upload to memory card / FTP, notify surveillance center, trigger recording, trigger capture, send email
Network	
Simultaneous Live View	Up to 10 channels
Network	1 RJ45 10 M / 100 M self-adaptive Ethernet port
SDK and API	Support SDK, API and ONVIF
Cyber Security	Video encryption; firmware encryption; configuration encryption; account lockout; security logs; IP filtering; trusted boot; trusted execution; trusted upgrade; password protection; complicated password; basic and digest authentication for HTTP / HTTPS; TLS; IP address filter; Security Audit Log
Protocol	TCP / IP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTSP, NTP, UPnP, SMTP, IPv4, UDP, SSL / TLS, PPPoE, SNMP, WebSocket
Interoperability	ONVIF Profile S / T / G
User / Host	Up to 256 users can be added. 3 user levels: admin, operator and guest
Network Storage	FTP, Micro SD card, auto network replenishment (ANR)
Web Browser	IE / Edge / Firefox / Chrome / Safari
Management Software	AntarVis 2.0 / ZKBioSecurity IVS / ZKBioAccess IVS / ZKBio CVSecurity / ZKBio CVAccess
Mobile Application	AntarView Pro+ (iOS & Android)
On-Board Storage	Micro-SD card slot (support max. 256 GB)
Operation System	Windows, MacOS
P2P Cloud Service	Support
Port	
Audio Input	1
Audio Output	1
Alarm Input	2
Alarm Output	1
Interface	
Reset Button	Support
ANR	Support
USB	N/A
RS485	N/A
General	
Power	
Power Supply	PoE (IEEE802.3at, 30 W), DC 12 V ± 10% 4 A reverse polarity protection
Power Consumption	Basic 22 W (12 VDC); 30 W (PoE)
Power Interface	Ø 5.5 mm coaxial power plug

Structure	
Casing Material	Aluminium Alloy + Plastics
Dimensions	376 × 185 × 277 (mm)
Net Weight	5 kg
Gross Weight	5.5 kg
Environment	
Operating Conditions	−30 ℃ to +60 ℃ (−22 ℉ to +140 ℉) / Humidity 95% or less (non-condensing)
Storage Conditions	−30 ℃ to +60 ℃ (−22 ℉ to +140 ℉) / Humidity 95% or less (non-condensing)
Protection Grade	IP66
Certifications	
Certificate	ISO9001, ISO14001, CE, FCC

Ordering Information

Type	Model	Descripton
2 MP Smart IP PTZ Camera	PM-852TC33N-AD	ZKBio Sense 2 MP 33X Zoom Smart IP PTZ Camera

Dimension (mm)

277mm

185mm

376mm

Accessories

Optional	Junction Box	Junction Box with Straight Bracket	Celling Mount Bracket	Pole Mount Bracket	Corner Mount Bracket
Model	ZK-B40-7	ZK-B48-1	ZK-B48-2	ZK-B40-4	ZK-B40-3
Picture					