ES-852E21T-S3-MI-SE | ZKBio Sense Lite Series

2MP Fixed Lens Eyeball IP Camera







Line Crossing



Area Detection



Motion Detection



IP67 Metal Casing

- 1/2.9" 2MP CMOS Sensor
- H.265 triple stream encoding
- High-quality optical lens: 2.8mm
- 30m IR effective range
- Built-in PoE & Microphone
- Built-in micro-SD card slot (support max. 256GB)
- Embedded intelligent classification algorithm based on
- computer vision technology
- Multiple intelligent video analytic features
- Support multiple browsers web client Remote viewing with mobile application and platform software
- Lightning protection up to 6K V
- IP67 metal casing

Product Overview

ZKBio Sense Lite Series IP Camera is the front-end of intelligent video surveillance solution released by ZKTeco based on the Deep-Learning algorithm and Computer Vision technology.

By using advanced and powerful CPU,couple with the embedded intelligent classification algorithm based on computer vision technology, the ZKBio Sense Lite IP Cameras can accurately detect and recognize 2 key types of target: human, vehicles, meanwhile effectively filter out the other useless objects such as: animals, leaves, shadows, and rain, etc to reduce the false alarms, and more focusing on the important alarms.

The ZKBio Sense Lite IP Cameras can greatly help to improve the efficiency and safety of the entire video surveillance system, can be widely used in different scenario such as 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)

The ZKBio Sense Lite IP Cameras support multiple intelligent video analytic functions: Line Crossing, Area detection, Smart Motion Detection supports human and vehicle targets classification.

ANR (Only for SD card models)

While the connection lost between IPC and NVR, the video will be saved in SD card. The saved video will be auto replenished to NVR when network recovers to avoid any video lost.

Protection

With precise mechanical and rugged metal casing design, the ZKBio Sense Lite Series IP Cameras can stand against water and dust with industrial IP67 rank, and support to work at variety of harsh outdoor environments such as temperature range -30℃ to +60 ℃,etc.

Technical Specification

Camera

Model	ES-852E21T-S3-MI-SE
Image Sensor	1/2.9" 2MP CMOS
Max.Resolution	1920(H)*1080(V)
ROM	128MB
RAM	256MB
Scanning System	Progressive Scan
Electronic Shutter Speed	1/5 s to1/100,000 s
Min. Illumination	0.01Lux@F2.0 (AGC on, Color) 0 lux (IR on, B&W)
S/N Ratio	>52dB
IR Range	30 m
Illuminator On/Off Control	Auto/Manual
Illuminator Number	2*IR LED
Smart IR	Support
Angle Adjustment for Installation	Pan: 0°–360° Tilt: 0°–90° Rotation: 0°–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	Fixed Lens				
Lens Mount	M12				
Mount Type	Board-in				
Focal Length	2.8mm				
Max. Aperture	F2.0				
Optical Zoom	N/A				
Field of View	FOV: 110° Horizontal: 113° Vertical: 60° Diagonal: 130°				
Iris Type	Fixed				
Close Focus Distance	1.5 m				
	Lens	Detect	Observe	Recognize	Identify
DORI Distance	2.8mm	43 m	16 m	9 m	4 m

Video

Video Compression	H.265 / H.264	
Resolution	1080P (1920*1080) / 1.3MP (1280*960) / 720P (1280*720) / D1 (704*576) / VGA (640*480) / Q720 (640*360)	
Max Video Frame Rate	Main stream	50Hz (PAL): 25fps (1920*1080, 1280*960, 1280*720) 60Hz (NTSC): 30fps (1920*1080, 1280*960, 1280*720)
	Sub stream	50Hz (PAL): 25fps (704*576, 640*480, 640*360) 60Hz (NTSC): 30fps (704*576, 640*480, 640*360)
	Third stream	50Hz (PAL): 25fps (1920*1080, 1280*960, 1280*720, 704*576) 60Hz (NTSC): 30fps (1920*1080, 1280*960, 1280*720, 704*576)

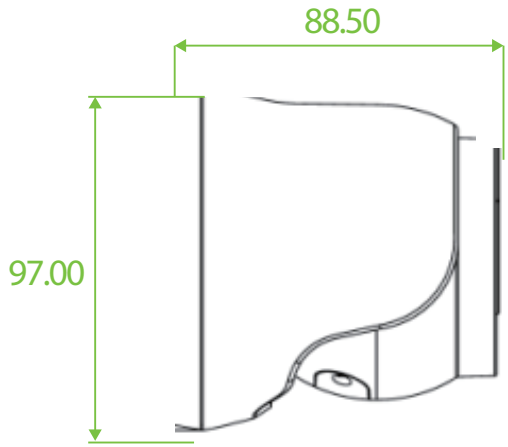
Video Stream Capability	Triple streams
Bit Rate Control	CBR / VBR
Video Bit Rate	H.264: 896kbps–6Mbps H.265: 1024Kbps ~ 6Mbps
Day/Night	Auto (ICR) / Color / B&W
BLC	Support
HLC	Support
WDR	DWDR
Scene Self-adaptation	Support
White Balance	Auto, Custom, Locked, Incandescent lamp, Warm light, Natural light, 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 1~6)
Defog	N/A
Mirror	Support
Image Rotation	0°/90°/180°/270°/Horizontal/Vertical
Privacy Masking	4 areas
Corridor Mode	Support
Digital Zoom	Support
Anti-flicker	N/A
Audio	
Built-in MIC	Support
Audio Compression	G.711ulaw
Environment Noise Filtering	Support
Audio Sampling Rate	8 kHz/16 kHz/32 kHz/44.1 kHz/48 kHz
Audio Bit Rate	64 Kbps (G.711ulaw)
Intelligent Video Analytics	
IVA (Perimeter Protection)	Line Crossing, Area detection, Smart Motion Detection (human and vehicle targets classification)
Intelligent Search	Embedded intelligent classification algorithm based on computer vision technology
Intelligent Video	Support fast retrieval by human & vehicle targets classification, playback and backup
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
Alarm	
Basic Alarm Event	SD card error, Network disconnection, IP conflict, Illegal access, Motion detection, Video tampering, External alarm
Smart Alarm Event	Line Crossing, Area detection, Smart Motion Detection (human and vehicle targets classification)
Alarm Linkage Actions	Upload to memory card/FTP, Notify surveillance center, trigger recording, trigger capture, send email

Network	
Simultaneous Live View	Up to 15 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. 256GB)
Operation System	Windows
P2P Cloud Service	Support
Port	
Audio Input	N/A
Audio Output	N/A
Alarm Input	N/A
Alarm Output	N/A
Interface	
Reset Button	Support
ANR	Support
USB	N/A
RS485	N/A
General	
Power	
Power Supply	PoE (IEEE802.3af,Class 3), DC 12V±10% reverse polarity protection
Power Consumption	Basic ≦3W (12 VDC); 4.5 W (PoE)
Power Interface	Ø 5.5 mm coaxial power plug
Structure	
Casing Material	Aluminium Alloy
Dimensions	Φ97.00 x 88.50 (mm)
Net Weight	0.42kg
Gross Weight	0.60kg
Environment	
Operating Conditions	–30 °C to +60 °C (–22 °F to +140 °F)/ Humidity 95% or less (non-condensing)
Storage Conditions	–30 °C to +60 °C (–22 °F to +140 °F) /Humidity 95% or less (non-condensing)
Ingress Protection Rating	IP67
Certifications	
Certificates	ISO9001, ISO14001, CE, FCC

Ordering Information

Type	Model	Descripton
2MP IP Camera	ES-852E21T-S3-MI-SE	2MP Fixed Lens Eyeball IP Camera

Dimension (mm)



Side view



Bottom view

Accessories

Optional	Junction Box	Junction Box with Straight Bracket	Junction Box with Bent Bracket	Corner Mount Bracket	Pole Mount Bracket
Model	GB01	GB02	GB03	MT03	MT04
Picture					

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