

ES-854F22T-S3-MI-SE ZKBio Sense Lite series

4MP Fixed Lens Eyeball IP Camera











Detection



Casing

- 1/3" 4MP CMOS Sensor
- H.265 Triple stream encoding
- · High-quality optical lens: 3.6mm
- 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 6KV
- · 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: Target Counting, Object Lost/ Left, and the 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 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°C to +60°C,etc.

Technical Specification

| Camera Model ES-854F22T-S3-MI-SE Image Sensor 1/3*4MP CMOS Max.Resolution 2550HP1-H40(v) ROM 128MB RAM 256MB Scanning System Progressive Scan Electronic Shutter Speed 1/5 s to 1/10,0000 s Min. Illumination 001Luxq8F1.6 (ACC on Color) John Ratio 557dB IR Range 30 m Illuminator On/Off Control Auto/Manual Illuminator Number 2*RLED Smart IR Support Angle Adjustment for Installation Title 9-90° Rotation 0*-360° TV System TV System PALVTSC Image Settings Trigger mode, Brightness, Contrast, Saturation, Huc, Sharpness, ACC, White balance, Gamma, Backlight mode, adjustable by platform software or web browser Software Reset Default Support General Function Heartbeat, Mirror, Privacy mask, Log, Plassword reset Lens Lens Mount M12 Mount Type Board-in For Signal Fine Section S | | | | | | |
|--|-----------------------------------|---|--------|------------------|-----------|----------|
| Image Sensor 1/3" 4MP CMOS | Camera | | | | | |
| Max.Resolution 2560Hy11440(V) ROM 128MB RAM 256MB Scanning System Progressive Scan Electronic Shutter Speed 1/.5 s tol/100,000 s Min. Illumination 0.01Lux@F1.6 (AGC on, Color) 5/N Ratio \$26B IR Range 30 m Illuminator On/Off Control Auto/Manual Illuminator Number 2*IR ITD Smart IR Support Angle Adjustment for Installation Part 0**-360° Tots System PAL/NTSC Image Settings Trigger mode, Brightness, Contrast, Saturation, Hue, Sharpness, ACC, 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 Lens Mount M12 Mount Type Road in Focal Length 3,0mm Max. Aperture F1.6 Optical Zoom N/A Filed of View Fixed Iris Type Lens Detect | Model | ES-854F22T-S3-MI-SE | | | | |
| ROM 256MB Scanning System Progressive Scan Floring System Floring Syst | Image Sensor | 1/3"4MP CMOS | | | | |
| RAM Progressive Scan Progr | Max.Resolution | | | 2560(H)*1440(V) | | |
| Scanning System Progressive Scan | ROM | | | 128MB | | |
| Electronic Shutter Speed | RAM | | | 256MB | | |
| Min. Illumination S/N Ratio S/S788 IR Range 30 m Illuminator On/Off Control Illuminator Number Smart IR Angle Adjustment for Installation TV System Irrigger mode, Brightness, Contrast, Saturation, Hue, Sharpness, AGC, White balance, Gamma, Backlight mode, adjustable by platform software or web browser Software Reset Default General Function Lens Lens Lens Type Lens Mount Mount Type Boand-in Focal Length Max. Aperture Optical Zoom N/A Field of View Dorical Zoom Doric Jose Fixed Close Focus Distance DORI Distance Lens Detect Doric Jose Pocus Poci (1280*960) / 720P (1280*960) / 720P (1280*720) / DI Procedure Doric (1280*720) / DI Procedure Doric (1280*960) / 13MP (1280*960) / 720P (1280*720) / DI Procedure Doric (1280*720) / DI Procedure Doric (1280*720) / DI Procedure Doric (1280*960) / 720P (1280*720) / DI Procedure Doric (1280*720) / DI Procedure Doric (1280*960) / 720P (1280*720) / DI Procedure Doric (1280*720) / DI Procedure Doric (1280*960) / 720P (1280*720) / DI Procedure Doric (1280*720) / DI Procedure Doric (1280*960) / 720P (1280*720) / DI Procedure Doric (1280*720) / DI Procedure Doric (1280*960) / 720P (1280*720) / DI Procedure Doric (1280*720) / | Scanning System | | | Progressive Scan | | |
| S/N Ratio S/N Sylve S/N Sy | Electronic Shutter Speed | | | | | |
| Illuminator On/Off Control Auto/Manual Illuminator Number 2*IR LED | Min. Illumination | | | | or) | |
| Illuminator On/Off Control Auto/Manual Illuminator Number 2*IR LED | S/N Ratio | | | >52dB | | |
| Illuminator Number 2"IRLED Support | IR Range | | | 30 m | | |
| Smart IR Angle Adjustment for Installation Angle Adjustment for Installation 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 General Function Heartbeat, Mirror, Privacy mask, Log, Password reset Lens Lens Lens Type Fixed Lens Lens Mount Mount Type Board-in Focal Length Max. Aperture Optical Zoom N/A Field of View Field of View Titype Fixed Close Focus Distance Lens Lens Detect Doserve Recognize Identify Video Video Video Compression H265 / H264 Resolution PAL/NTSC Trigger mode, Brightness, Contrast, Saturation, Hue, Sharpness, AGC, White balance, Gamma, Backlight Macklight Sharpness, AGC, White balance, Gamma, Backlight Sharpness, AGC, White Sharp | Illuminator On/Off Control | | | Auto/Manual | | |
| Angle Adjustment for Installation TV System Pat: 0"-360" Till: 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 General Function Heartbeat, Mirror, Privacy mask, Log, Password reset Lens Lens Lens Type Lens Mount Mu12 Mount Type Board-in Focal Length Max. Aperture Optical Zoom Field of View Field of View Field of View Close Focus Distance DORI Distance Lens DORI Distance Video Video Video Compression H265 / H264 Resolution MAX PAPOL Sharpen Sharpe | Illuminator Number | | | 2*IR LED | | |
| Angle Adjustment for Installation Til: 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 General Function Heartbeat, Mirror, Privacy mask, Log, Password reset Lens Lens Lens Type Fixed Lens Lens Mount Mount Type Board-in Focal Length Max. Aperture Optical Zoom N/A Field of View Field of View Fixed Close Focus Distance DORI Distance Lens Lens Detect Doserve Recognize Identify Video Video Video Compression H.265 / H.264 Resolution 4MP(2560*1440) / 3MP(2304*1296) / 1080P (1920*1080) / 1.3MP (1280*960) / 720P (1280*720) / D1 Resolution | Smart IR | | | | | |
| 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 General Function Heartbeat, Mirror, Privacy mask, Log, Password reset Lens Lens Lens Type Fixed Lens Lens Mount Mount Type Board-in Focal Length Max. Aperture Optical Zoom N/A FOV: 90° Horizontal: 88° Vertical: 45° Diagonal: 105° Iris Type Lens DORI Distance Lens Lens Lens Lens Lens Lens Lens Len | Angle Adjustment for Installation | Tilt: 0°-90° | | | | |
| Software Reset Default General Function Lens Lens Type Lens Mount Mount Type Board-in Focal Length Max. Aperture Optical Zoom Field of View Field of View Close Focus Distance DORI Distance Video Video Compression MaxPassword reset Lens Support Heartbeat, Mirror, Privacy mask, Log, Password reset Lens Support Suppo | TV System | | | PAL/NTSC | | |
| General Function Heartbeat, Mirror, Privacy mask, Log, Password reset Lens Fixed Lens Lens Mount M12 Mount Type Board-in Focal Length 3.6mm Max. Aperture F1.6 Optical Zoom N/A Field of View FOV: 90° Horizontal: 88° Vertical: 45° Diagonal: 105° Iris Type Fixed Close Focus Distance 1.5 m DORI Distance Lens Detect Observe Recognize Identify Video Video Video Compression H.265 / H.264 Resolution 4MP(2560*1440) / 3MP(2304*1296) / 1080P (1920*1080) / 1.3MP (1280*960) / 720P (1280*720) / D1 | Image Settings | Trigger mode, Brightness, Contrast, Saturation, Hue, Sharpness, AGC, White balance, Gamma, Backlight mode, adjustable by platform software or web browser | | | | |
| Lens Type Fixed Lens Lens Mount M12 Mount Type Board-in Focal Length 3.6mm Max. Aperture F1.6 Optical Zoom N/A Field of View FOV: 90° Horizontal: 88° Vertical: 45° Diagonal: 105° Iris Type Fixed Close Focus Distance 1.5 m DORI Distance Detect Observe Recognize Identify Video Video Video Compression H.265 / H.264 Resolution 4MP(2560*1440) / 3MP(2304*1296) / 1080P (1920*1080) / 1.3MP (1280*960) / 720P (1280*720) / D1 | Software Reset Default | | | | | |
| Lens Type Fixed Lens Lens Mount M12 Mount Type Board-in Focal Length 3.6mm Max. Aperture F1.6 Optical Zoom N/A FOV: 90° Horizontal: 88° Vertical: 45° Diagonal: 105° Iris Type Fixed Close Focus Distance 1.5 m DORI Distance Detect Observe Recognize Identify 3.6mm 50 m 19.2 m 10 m 4.3 m Video Video Compression H.265 / H.264 Resolution 4MP(2560*1440) / 3MP(2304*1296) / 1080P (1920*1080) / 1.3MP (1280*960) / 720P (1280*720) / D1 | General Function | Heartbeat, Mirror, Privacy mask, Log, Password reset | | | | |
| Lens Mount Type | Lens | | | | | |
| Mount Type Board-in Focal Length 3.6mm Max. Aperture F1.6 Optical Zoom N/A Fov: 90° FOV: 90° Horizontal: 88° Vertical: 45° Diagonal: 105° Diagonal: 105° Iris Type Fixed Close Focus Distance 1.5 m DORI Distance Detect Observe Recognize Identify 3.6mm 50 m 19.2 m 10 m 4.3 m Video Video Compression H.265 / H.264 Resolution | Lens Type | | | Fixed Lens | | |
| Focal Length 3.6mm | Lens Mount | | M12 | | | |
| Max. Aperture F1.6 Optical Zoom N/A Field of View Fov: 90° Horizontal: 88° Vertical: 45° Diagonal: 105° Iris Type Fixed Close Focus Distance 1.5 m DORI Distance Lens Detect Observe Recognize Identify 3.6mm 50 m 19.2 m 10 m 4.3 m Video Video Compression H.265 / H.264 Resolution 4MP(2560*1440) / 3MP(2304*1296) / 1080P (1920*1080) / 1.3MP (1280*960) / 720P (1280*720) / D1 | Mount Type | Board-in | | | | |
| Optical Zoom N/A Field of View FOV: 90° Horizontal: 88° Vertical: 45° Diagonal: 105° Iris Type Fixed Close Focus Distance 1.5 m DORI Distance Lens Detect Observe Recognize Identify Video Video Compression H.265 / H.264 Resolution 4MP(2560*1440) / 3MP(2304*1296) / 1080P (1920*1080) / 1.3MP (1280*960) / 720P (1280*720) / D1 | Focal Length | 3.6mm | | | | |
| Field of View Field of View Horizontal: 88° Vertical: 45° Diagonal: 105° Iris Type Fixed Close Focus Distance 1.5 m Lens Detect Observe Recognize Identify John Video Video Video Compression H.265 / H.264 AMP(2560*1440) / 3MP(2304*1296) / 1080P (1920*1080) / 1.3MP (1280*960) / 720P (1280*720) / D1 | Max. Aperture | F1.6 | | | | |
| Field of View Horizontal: 88° Vertical: 45° Diagonal: 105° Iris Type Fixed Close Focus Distance 1.5 m DORI Distance Detect Observe Recognize Identify 3.6mm 50 m 19.2 m 10 m 4.3 m Video Video Compression H.265 / H.264 Resolution 4MP(2560*1440) / 3MP(2304*1296) / 1080P (1920*1080) / 1.3MP (1280*960) / 720P (1280*720) / D1 | Optical Zoom | | | | | |
| Close Focus Distance 1.5 m DORI Distance Lens Detect Observe Recognize Identify 3.6mm 50 m 19.2 m 10 m 4.3 m Video Video Compression H.265 / H.264 4MP(2560*1440) / 3MP(2304*1296) / 1080P (1920*1080) / 1.3MP (1280*960) / 720P (1280*720) / D1 | Field of View | Horizontal: 88° Vertical: 45° | | | | |
| Dori Distance Lens Detect Observe Recognize Identify 3.6mm 50 m 19.2 m 10 m 4.3 m Video Video Compression H.265 / H.264 Resolution 4MP(2560*1440) / 3MP(2304*1296) / 1080P (1920*1080) / 1.3MP (1280*960) / 720P (1280*720) / D1 | Iris Type | | | | | |
| DORI Distance 3.6mm 50 m 19.2 m 10 m 4.3 m Video Video Compression H.265 / H.264 Resolution 4MP(2560*1440) / 3MP(2304*1296) / 1080P (1920*1080) / 1.3MP (1280*960) / 720P (1280*720) / D1 | Close Focus Distance | 1.5 m | | | | |
| Video Video Compression H.265 / H.264 4MP(2560*1440) / 3MP(2304*1296) / 1080P (1920*1080) / 1.3MP (1280*960) / 720P (1280*720) / D1 | DON'N: | Lens | Detect | Observe | Recognize | Identify |
| Video Compression H.265 / H.264 Resolution 4MP(2560*1440) / 3MP(2304*1296) / 1080P (1920*1080) / 1.3MP (1280*960) / 720P (1280*720) / D1 | DORI DISTANCE | 3.6mm | 50 m | 19.2 m | 10 m | 4.3 m |
| 4MP(2560*1440) / 3MP(2304*1296) / 1080P (1920*1080) / 1.3MP (1280*960) / 720P (1280*720) / D1 | Video | | | | | |
| RECOULION | Video Compression | H.265 / H.264 | | | | |
| | Resolution | | | | | |

| | | 50Hz (PAL): 25fps (2560*1440,1920*1080, 1280*960, 1280*720) | | |
|---|--|---|--|--|
| | Main stream: | 60Hz (NTSC): 30fps (2560*1440,1920*1080, 1280*960, 1280*720) | | |
| Max Video Frame Rate | Sub stream: 50Hz (PAL): 25fps (704*576, 640*480, 640*360) 60Hz (NTSC): 30fps (704*576, 640*480, 640*360) 50Hz (PAL): 25fps (1920*1080, 1280*720, 704*576) 50Hz (PAL): 25fps (1920*1080, 1280*720, 704*576) | | | |
| | | | | |
| Video Stream Capability | 60Hz (NTSC): 30fps (1920*1080, 1280*960, 1280*720, 704*576) Triple streams | | | |
| Bit Rate Control | CBR / VBR | | | |
| Video Bit Rate | H.264: 192kbps–8Mbps | | | |
| | H.265: 224Kbps ~ 8Mbps | | | |
| Day/Night BLC | Auto (ICR) / Color / B&W | | | |
| | Support | | | |
| HLC | | Support | | |
| WDR | | DWDR | | |
| Scene Self-adaptation | Auto Custono Lo | Support | | |
| White Balance | Auto, Custom, Loc | cked, 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 Anti-flicker | Support | | | |
| | N/A | | | |
| Audio | | Comment | | |
| Built-in MIC | | Support | | |
| Audio Compression | G.711ulaw | | | |
| Environment Noise Filtering | | Support | | |
| Audio Sampling Rate Audio Bit Rate | 8 kHz/16 kHz/32 kHz/44.1 kHz/48 kHz | | | |
| | | 64 Kbps (G.711ulaw) | | |
| Intelligent Video Analytics IVA (Perimeter Protection) | Lina Crossing Area dat | vaction Smart Motion Dotaction (human and vahicle targets classification) | | |
| | 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 last retri | eval by human & vehicle targets classification, playback and backup | | |
| Face Detection | | N/A | | |
| Face Cuality Filtering | 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 | | | |

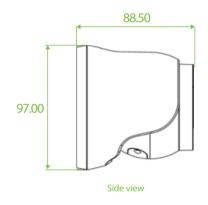
| Alarm | | | |
|------------------------|--|--|--|
| Basic Alarm Event | SD card error, Network disconnection, IP conflict, Illegal access, Motion detection, Video tampering, External alarm | | |
| Smart Alarm Event | Line Crossing, Area detection, Smart Motion Detection (human and vehicle targets classification) | | |
| 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. 256G) | | |
| 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 | Ф97.00 x 88.50 (mm) | | |
| Net Weight | 0.42kg | | |
| Gross Weight | 0.60kg | | |

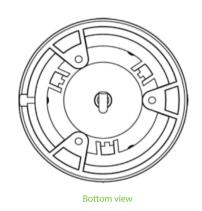
| Environment | |
|----------------------|---|
| Operating Conditions | -30°C to $+60^{\circ}\text{C}$ (-22°F to $+140^{\circ}\text{F}$)/ Humidity 95% or less (non-condensing) |
| Storage Conditions | -30°C to $+60^{\circ}\text{C}$ (-22°F to $+140^{\circ}\text{F}$) /Humidity 95% or less (non-condensing) |
| Protection Grade | IP67 |
| Certifications | |
| Certificates | ISO9001;ISO14001;CE; FCC |

Ordering Information

| Туре | Model | Descripton |
|---------------|---------------------|----------------------------------|
| 4MP IP Camera | ES-854F22T-S3-MI-SE | 4MP Fixed Lens Eyeball IP Camera |

Dimension (mm)





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 | | | | | 0 |





