

Z8504NEQ-S | BioSense Series

H.265 4 Channels BioSense Network Video Recorder



- H.265/H.264 decoding
- Support 4-channel 4K IP cameras input & preview
- 4 channels realtime playback synchronously
- HDMI output up to 4K UHD
- Embedded intelligent classification algorithm based on computer vision technology
- Pair with Biosense IP cameras to form a video surveillance system with multiple intelligent analytics
- Support multiple web browsers login
- P2P cloud service supported



Target Counting



Line Crossing



Intrusion Detection



Motion Detection



Object Left/Remove

Product Overview

BioSense Series Network Video Recorder (NVR) is the back-end storage device of the new intelligent video surveillance solution released by ZKTeco based on the Deep-Learning algorithm and Computer Vision technology.

Embedded with advanced and powerful CPU hardware, and ZKTeco's graphical operation system, the BioSense Series Network Video Recorders are the ideal couple for the front-end BioSense Series IP Cameras. The NVR can support 24/7 continuously recording all video and intelligent alarm events generated by the front-end IP Cameras, and store safely into hard drive by human & vehicle classification. After recording the video and intelligent alarm events, the NVR can allow the user to efficiently retrieve and playback the target video evidence, especially for the key types of targets such as humans, vehicles, and objects. This function enables the user to focus on the most effective video clips and alarm events.

The BioSense Network Video Recorders 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)

BioSense Network Video Recorders support multiple intelligent video analytic functions couple with the BioSense IP Cameras, such as: Target Counting, Object Lost/Left, and the Line Crossing, Area detection, Smart Motion Detection base on human and vehicle targets classification.

Smart Retrieval

BioSense Network Video Recorders support smart retrieval for video and alarm events by human & vehicle classification, enable user to efficiently search out the targeting video clips and alarm events.

ANR (Only for SD card IPC models)

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

Alarm Push Notification

Alarm events received by the NVR can trigger actions such as sending emails, playing audio, sounding a buzzer, and displaying an alarm message. These actions can be pushed in real-time to a mobile app or a management platform software.

Technical Parameters

| | |
|------------------------------------|--|
| Model | Z8504NEQ-S |
| System | |
| Main Processor | Multi-core embedded processor |
| Operating System | Embedded LINUX |
| Operation Interface | Web browser & Local GUI |
| Video and Audio | |
| Max IPC Video Input | 4CH |
| Two-way Talk | Support |
| Audio Compression | G.711u |
| Max Audio Input | 4CH by IPC |
| Third Party Camera Access | ONVIF & RTSP |
| Live View | |
| Display Split | 1/4 CH |
| Resolution | 8MP(3840*2160) / 5MP(2592*1944) / 2MP(1920*1080) / 1.3MP(1280*1024) / 1MP(1280*720) / D1(1024*768) |
| Live View Capability | 1CH@8MP(25/30fps) / 4CH@D1(25/30fps) |
| Recording | |
| Video Compression | H.265 / H.264 |
| Recording Resolution | 8MP/5MP/3MP/1080P/960P/720P/D1/VGA/4CIF/DCIF/2CIF/CIF/QCIF |
| Max. Decoding Capability | 4CH@8MP(25/30fps) |
| Incoming Bandwidth | 40 Mbps |
| Outgoing Bandwidth | 40 Mbps |
| Stream Type | Video, Video & Audio |
| Bit Rate | Main Stream: 16Kbps ~ 8192Kbps Sub Stream: 50Kbps ~ 700Kbps |
| Storage Method | Local hard drive and network |
| Record Mode | Schedule, Manual, Motion Detection, IVA Events Alarm |
| Record Interval | 1 ~ 120 min (default: 60 min), Pre-record: 1 ~ 30 sec, Post-record: 10 ~ 300 sec |
| Playback and Backup | |
| Playback Channel | 4CH synchronously playback |
| Search Mode | Time/ Date, Alarm Types, IVA Search |
| Playback Function | Play, Stop, Play Forward, Play Backward, 30 Seconds Forward, 30 Seconds Backward, Fast Play, Slow Play, Single Frame Play, Hide/Show Time Bar, Backup, Snapshot, Full Screen |
| Backup Mode | USB Device / Network Remote |
| Intelligent Video Analytics | |
| IVA by Camera | Line Crossing, Area Detection, Smart Motion Detection (base on human and vehicle classification), Target Counting, Object Lost/Left |
| Local IVA Functions displaying | Line Crossing, Area Detection, Smart Motion Detection (base on human and vehicle classification), Target Counting, Counting Statistics, Object Lost/Left |
| IVA by Device(Number of Channels) | Up to IPC |
| IVA by Camera (Number of Channels) | 4 |

| IVA Alarm | |
|-------------------------------|--|
| Smart IVA Alarm | Line Crossing, Area Detection, Smart Motion Detection (base on human and vehicle classification), Target Counting, Counting Statistics, Object Lost/Left |
| Regular Detection | Motion Detection / Video Shelter / Video Loss |
| Anomaly Alarm | HDD Full, No HDD, S.M.A.R.T error, Network disconnected, IP conflict |
| Alarm Linkage | Preview, Recording, Snapshot,Buzzer, Preset, Email, Tour, Upload center |
| Smart Search | Support smart search out target video by human and vehicle classification filtering |
| Network | |
| Network Protocol | TCP/IP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTSP, NTP, UPnP, SMTP, IPv4, UDP, SSL/TLS, PPPoE, SNMP, WebSocket, P2P |
| Max. Online User | 20 |
| Web Browser | Google Chrome/Microsoft Edge/Firefox/Safari/Opera |
| Operation System | Windows |
| Management Platform | ZKBio CVSecurity / ZKBio Access IVS / AntarVis 2.0 |
| Mobile Application | AntarView Pro+ (iOS & Android) |
| P2P Cloud Service | Support |
| Interoperability | ONVIF Profile S/G, SDK, CGI, API |
| Storage & Auxiliary Interface | |
| SATA Ports | 1 SATA Port, up to 8 TB capacity |
| eSATA | N/A |
| Raid 0/1/5/6/10 | N/A |
| HDMI | 1*HDMI (4K) |
| VGA | 1920*1080/60Hz, 1280*1024/60Hz |
| Network Interface | 1 RJ-45 Port (10/100Mbps self adaptive) |
| PoE Ports | N/A |
| Standard | N/A |
| USB | 3*USB 2.0 |
| Audio Input/Output | 0/1 output |
| Alarm Input/Output | N/A |
| RS-485 | N/A |
| RS-232 | N/A |
| Power | |
| Power Supply | DC 12V/2A |
| Power Consumption | ≤ 24W (without HDD) |
| General | |
| Casing | 1U |
| Operating Temperature | -10°C to 55°C / 14°F to 131°F |
| Operating Humidity | 0% to 90% RH (Non-condensing) |
| Storage Humidity | 30% to 80% RH (Non-condensing) |
| Operating Altitude | 3,000 m (9,842.52 ft) |
| Installation | Desktop / Cabinet mount |
| Dimensions(L*W*H) | 255 * 210 * 43 (mm) |
| Net Weight | 2.8kg (without HDD) |
| Gross Weight | 3.3kg (without HDD) |
| Certification | ISO14001, ISO9001, CE, FCC |

Order Information

| Name | Model | Description |
|--------------------|------------|-------------------------|
| BioSense Smart NVR | Z8504NEQ-S | 4CH H.265 4K NVR, 1SATA |

Dimension (mm)



Side view

Interfaces (Back Side)

