

# Z8516NFR-S | BioSense Series

## H.265+ 16 Channels BioSense Network Video Recorder



- H.265+/H.265/H.264 decoding
- Support 16-channel IP cameras input & preview
- 16 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 75% 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 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.

## Alarm Push Notification

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

## Technical Parameters

Model	Z8516NFR-S
System	
Main Processor	Multi-core embedded processor
Operating System	Embedded LINUX
Operation Interface	Web browser & Local GUI
<b>Video and Audio</b>	
Max IPC Video Input	16CH
Two-way Talk	Support
Audio Compression	G.711u
Max Audio Input	16CH by IPC
Third Party Camera Access	ONVIF & RTSP
<b>Live View</b>	
Display Split	1/4/9/16 CH
Resolution	8MP(3840*2160) / 5MP(2592*1944) / 2MP(1920*1080) / 1.3MP(1280*1024) / 1Mp(1280*720) / D1(1024*768)
Live View Capability	16CH@D1(25/30fps)
<b>Recording</b>	
Video Compression	H.265+ /H.265 / H.264
Recording Resolution	8MP/5MP/4MP/3MP/1080P/960P/720P/D1
Max. Decoding Capability	16CH@D1(25/30fps)
Incoming Bandwidth	80 Mbps
Outgoing Bandwidth	80 Mbps
Stream Type	Video, Video & Audio
Bit Rate	Main Stream: 256Kbps ~ 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
<b>Playback and Backup</b>	
Playback Channel	16CH 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
<b>Intelligent Video Analytics</b>	
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)	16

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	5
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	2 SATA Port, up to 8 TB capacity each
eSATA	N/A
Raid 0/1/5/6/10	N/A
HDMI	1*HDMI (4K)
VGA	1*VGA(1920*1080/60Hz, 1280*1024/60Hz)
Network Interface	1 RJ-45 Port (10/100Mbps)
PoE Ports	N/A
Standard	N/A
USB	3*USB 2.0
Audio Input/Output	N/A
Alarm Input/Output	N/A
RS-485	Support
RS-232	N/A
Power	
Power Supply	DC 12V/3A
Power Consumption	≤ 24W (without HDD)
General	
Casing	1.5U
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)	325 * 246 * 50 (mm)
Net Weight	3kg (without HDD)
Gross Weight	3.5kg (without HDD)
Certifications	ISO14001, ISO9001, CE, FCC

## Order Information

Name	Model	Description
BioSense Smart NVR	Z8516NFR-S	16CH H.265+ PoE NVR, 2SATA

## Dimension (mm)



## Interfaces (Back Side)

