Z8616NMR-S | ZKBio Sense Series

GUI 5.0

H.265+ 16 Channels ZKBio Sense Smart Network Video Recorder

4K UHD

- Supports H.265+,H.265, and H.264 video formats with enhanced decoding performance
- Compatible with up to 12MP IP cameras inputs
- Supports 16-channels real-time playback synchronously
- 4 SATA ports, each supports up to 16 TB(64 TB total)
- Supports HDMI (4K) and VGA (1080p) simultaneous independent outputs
- Supports Hot-Swappable hard disk installation
- 1 x RJ45 Ethernet port(10M/100M/1000Mbps self-adaptive)
- Embedded intelligent classification algorithm based on computer vision technology for human/ vehicle classification
- Multiple intelligent video analytics functions (local NVR intelligence processing)
- Supports multiple web browsers login
- P2P cloud service supported
- Compatible with ONVIF Profile S/T/G

| Target Counting | Line Crossing | Intrusion Detection | Motion Detection | Object Left/ Remove |

Product OverView

ZKTeco BioSense smart network video recorder (NVR) enhances the efficiency and safety of video surveillance system. ZKTeco BioSense smart NVR features a powerful CPU hardware and ZKTeco's intuitive graphical operating system(GUI 5.0), these recorders provide 24/7 continuous recording of all video channels with intelligent alarm events. The system automatically classifies and stores footage using human and vehicle detection, while advanced retrieval functions enable rapid playback of specific targets (human/ vehicle), allowing users to quickly locate critical footage and alarm events.

ZKTeco BioSense smart NVR enhances surveillance system efficiency and safety across diverse applications including educational facilities, corporate offices, industrial parks, residential communities, and public security operations.

Core Features

H.265+

H.265+ is an optimization of the H.265 algorithm. Through technologies such as dynamic bitrate control and scene-adaptive encoding, it reduces the required bitrate by 20% - 40% compared with H.265 while maintaining the same video quality.

Intelligent Video Analytics (IVA)

ZKBio Sense Network Video Recorders support multiple intelligent video analytics functions , such as: Line Crossing, Area Detection, Target Counting, Counting Statistics, Object Lost/Left ,Smart Motion Detection base on human and vehicle targets classification.

Smart Retrieval

ZKBio Sense Network Video Recorders support smart retrieval for video and alarm events by human & vehicle classification, enabling users to efficiently search and locate the targeted video clips and alarm events.

ANR (Only for SD card IPC models)

When the connection between IPC and NVR is lost, the video is saved in the SD card. The saved video is automatically transferred to the NVR when network connection is restored, preventing any video loss.

Alarm Push Notification

When the NVR receives alarm events, it can trigger actions including email, alarm alerts and buzzer activation. Also, the alarm messages are pushed to mobile app and management platform software in real-time.
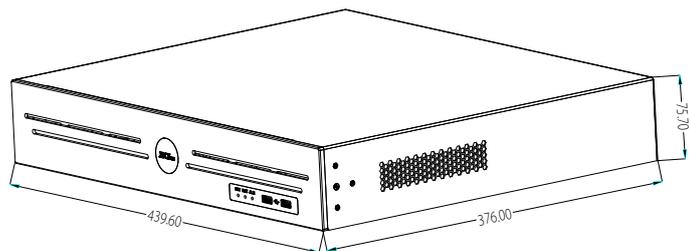
Technical Parameters

Model	Z8616NMR-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	16CH
Two-way Talk	Support
Audio Compression	G.711u
Max Audio Input	16CH by IPC
Third Party Camera Access	ONVIF & RTSP
Live View	
Display Split	1/4/6/8/9/13/16CH
Resolution	12MP(4000*3000)/8MP(3840*2160) / 5MP(2592*1944) / 2MP(1920*1080) /1.3MP(1280*1024) / 1MP(1280*720) / D1(1024*768)
Live View Capability	Local AI OFF:2CH@12MP;4CH@8MP,9CH@3MP,13CH@2MP;16CH@2MP(25/30fps) Local AI ON:2CH@12MP;4CH@8MP,9CH@3MP,13CH@2MP;16CH@2MP(25/30fps)
Recording	
Video Compression	H.265+ / H.265 / H.264
Recording Resolution	12MP/8MP/5MP/3MP/1080P/960P/720P/D1/VGA/4CIF/DCIF/2CIF/CIF/QCIF
Max. Decoding Capability	Local AI OFF:2CH@12MP;4CH@8MP,9CH@3MP,13CH@2MP;16CH@2MP(25/30fps) Local AI ON:2CH@12MP;4CH@8MP,9CH@3MP,13CH@2MP;16CH@2MP(25/30fps)
Incoming Bandwidth	Local AI OFF: 192 Mbps Local AI ON: 160 Mbps
Outgoing Bandwidth	Local AI OFF: 256 Mbps Local AI ON: 256 Mbps
Stream Type	Video, Video & Audio
Bit Rate	Main Stream: 16Kbps ~ 12288Kbps Sub Stream: 50Kbps ~ 4096Kbps
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: 1~ 10 min
Playback and Backup	
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
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	Line Crossing, Area Detection, Smart Motion Detection (base on human and vehicle classification), Target Counting, Object Lost/Left
IVA by Device(Number of Channels)	4
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, Object Lost/Left
Regular Detection	Motion Detection / Video Shelter / Video Loss

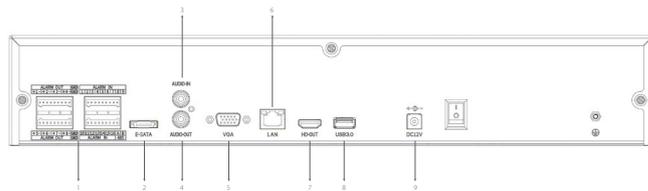|	
Anomaly Alarm	HDD Full, No HDD, S.M.A.R.T error, Network disconnected, IP conflict
Alarm Linkage	Preview, Recording, Snapshot,Buzzer, Preset, Email, Tour, Upload center
Smart Search	Support smart search out target video by human and vehicle classification filtering
Network	
Network Protocol	TCP/IP, HTTP,HTTPS, ONVIF, DHCP, DNS, DDNS, RTSP, NTP, UPnP, SMTP, IPv4/IPv6, UDP, SSL/TLS, PPPoE, WebSocket, ICMP, IGMP, RTP, RTCP, ARP
Max. Online User	30
Web Browser	Google Chrome/Microsoft Edge/Firefox/Safari
Operation System	Windows7/10/11
Management Platform	ZKBio CVSecurity / CVAccess / AntarVis 2.0
Mobile Application	AntarView Pro+ (iOS & Android) or AntarView Plus (iOS & Android) [depends on firmware version]
P2P Cloud Service	Support
Interoperability	ONVIF Profile S/T/G, SDK, CGI, API
Storage & Auxiliary Interface	
SATA Ports	4 SATA Port, up to 16 TB capacity each (support Hot Swap)
eSATA	Support
Raid 0/1/5	Support
HDMI	1*HDMI (3840*2160@30Hz, 1920*1080/60Hz, 1280*1024/60Hz)
VGA	1*VGA(1920*1080/60Hz, 1280*1024/60Hz) (support independent output)
Network Interface	1*RJ-45 Port (10/100/1000 Mbps self adaptive)
PoE Ports	N/A
Standard	N/A
USB	2*USB 2.0,1 * USB 3.0
Audio Input/Output	1 In / 1 Out
Alarm Input/Output	16 In / 8 Out
RS-485	Support
RS-232	N/A
Power	
Power Supply	AC220~240V, 50Hz~60Hz
Power Consumption	≤72W (without HDD)
General	
Casing	1.5U
Working Temperature	-10°C ~ 55°C / 14°F ~ 131°F
Working Humidity	10% ~ 90%
Storage Humidity	10% ~ 90%
Operating Altitude	3,000 m (9,842.52 ft)
Installation	Desktop / Cabinet mount
Dimensions(L*W*H)	439.6*376*75.7(mm)
Net Weight	5.15KG
Certifications	CE-LVD; CE-EMC; FCC certification
Environment	CE-RoHS, WEEE, Reach self-declaration

Order Information

Name	Model	Description
ZKBio Sense Smart NVR	Z8616NMR-S	16CH H.265+ 4K NVR, 4SATA

Dimensions (mm)

Rear Panel

No.	Description	No.	Description
1	Alarm In/Alarm Out	6	LAN Network Interfaces
2	E-SATA Interface	7	HDMI nterfaces
3	AUDIO-IN	8	USB 3.0 Interface
4	AUDIO-OUT	9	Power Supply
5	VGA Interfaces		

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