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-channel realtime playback synchronously
- 16 SATA Port, up to 16 TB capacity each
- Dual HDMI (4K) and dual VGA (1080p) outputs with independent simultaneous display capability
- Hot swap drives for continuous recording and easy HDD replacement
- Dual Ethernet ports 10M/100M/1000Mbps self-adaptive
- Redundant power supply
- Embedded intelligent classification algorithm based on computer vision technology for human / vehicle classification
- Multiple intelligent video analytics functions (NVR local intelligence)
- 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, these recorders provide 24/7 continuous recording of all video channels and intelligent alarm events. The system automatically classifies and stores footage by human and vehicle detection on the hard drive. Moreover, an 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 analytic 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.
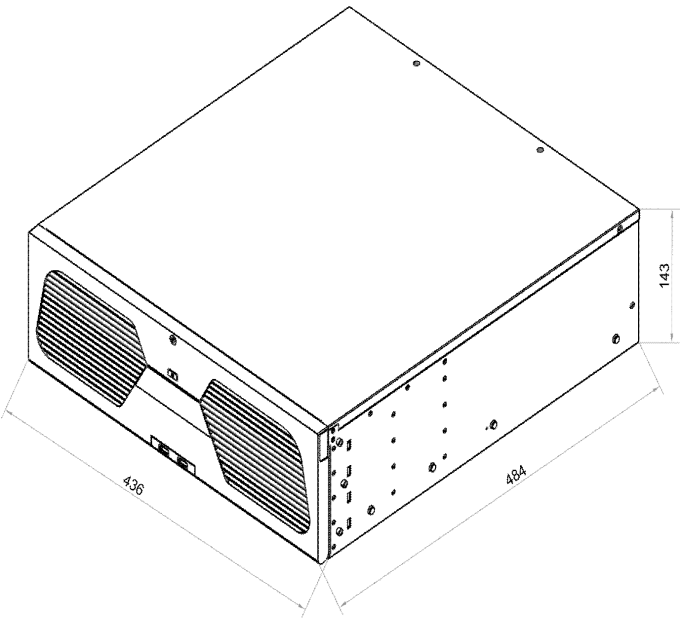
Technical Parameters

Model	Z86128NTR-D-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	128CH
Two-way Talk	Support
Audio Compression	G.711u
Max Audio Input	128CH by IPC
Third Party Camera Access	ONVIF & RTSP
Live View	
Display Split	1/4/6/8/9/13/16/25/36/49/64CH
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:1CH@12MP,4CH@8MP,9CH@3MP,13CH@2MP,16CH@2MP,36CH@D1,64CH@VGA(25/30fps) Local AI ON:1CH@12MP,4CH@8MP,9CH@3MP,13CH@2MP,16CH@2MP,36CH@D1
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:1CH@12MP,4CH@8MP,9CH@3MP,13CH@2MP,16CH@2MP,36CH@D1,64CH@VGA(25/30fps) Local AI ON:1CH@12MP,4CH@8MP,9CH@3MP,13CH@2MP,16CH@2MP,36CH@D1
Incoming Bandwidth	Local AI OFF:600Mbps Local AI ON:562Mbps
Outgoing Bandwidth	Local AI OFF:256Mbps Local AI ON:256Mbps
Stream Type	Video, Video & Audio
Bit Rate	Main Stream: 16Kbps ~ 8192Kbps Sub Stream: 50Kbps ~ 1024Kbps
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	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, Counting Statistics, Object Lost/Left
IVA by Device(Number of Channels)	8
IVA by Camera (Number of Channels)	128
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

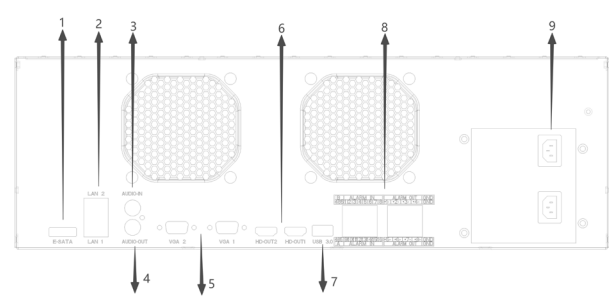|	
Anomaly Alarm	HDD Full, No HDD, S.M.A.R.T error, Network disconnected, IP conflict
Alarm Linkage	Preview, Recording, Snapshot,Buzzer, Preset, Email, Tour, Upload center
Smart Search	Support smart search out target video by human and vehicle classification filtering
Network	
Network Protocol	TCP/IP, HTTP, HTTPS, ONVIF, DHCP, DNS, DDNS, RTSP, NTP, UPnP, SMTP, IPv4, UDP, SSL/TLS, PPPoE, WebSocket, ICMP, IGMP, RTMP, RTP, RTCP, ARP
Max. Online User	30
Web Browser	Google Chrome/Microsoft Edge/Firefox/Safari
Operation System	Windows
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	16 SATA Port, up to 16 TB capacity each (support Hot Swap)
eSATA	Support
Raid 0/1/5/6/10	Support
HDMI	2*HDMI (4K)
VGA	2*VGA(1920*1080/60Hz, 1280*1024/60Hz)(support independent output)
Network Interface	2 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	AC100~240V, 50Hz~60Hz(redundant power supply)
Power Consumption	≤45W(without HDD)
General	
Casing	3U
Working Temperature	-10℃ ~ 55℃ / 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)	484*436*143(mm)
Net Weight	11.8KG
Gross Weight	22.5KG
Certifications	CE-LVD; CE-EMC; FCC certification
Environment	CE-RoHS, WEEE, Reach self-declaration

Order Information

Name	Model	Description
ZKBio Sense Smart NVR	Z86128NTR-D-S	128CH H.265+ 4K NVR, 16SATA

Dimensions (mm)

Rear Panel

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

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