

PENDVR-ELE8M4K-AI

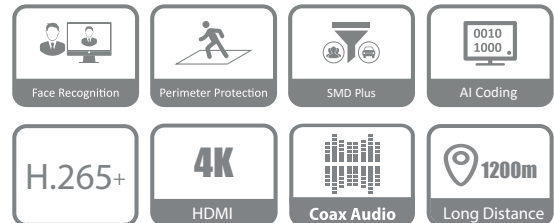
8CH 4K AI Series PENDVR



- H.265+/H.265 dual-stream video compression
- Supports HDCVI/AHD/TVI/CVBS/IP video inputs
- Perimeter Protection and SMD Plus
- Up to 2 channels video stream human face detection
- IoT & POS functionalities
- Max 16 channels IP camera inputs, each channel up to 8MP; Max 128 Mbps incoming bandwidth

System Overview

The PENDVR-ELE8M4K-AI is an advanced 8-channel Digital Video Recorder (DVR) from our Elite series of security equipment. It can handle up to 8 Megapixels (4K) BNC based cameras that use HD-CVI, AHD, TVI and/or analog. It can even use 8 IP cameras in addition to the BNC connected cameras, for a total of 16 cameras. Faces can be recognized in real time with this DVR and compared with stored faces based on a number of characteristics which include age, expression, gender, glasses, mustache, and a mask over the mouth area. These faces can be captured and stored in up to 20 databases (up to 20,000 faces in total) and displayed from recorded footage based on these features. The AI chip in this recorder makes reviewing recorded footage smarter and easier, allowing you to base searches on people or vehicles.



Features

Real Time Face Recognition

With real time face recognition you can use facial features including gender, age, expression, glasses, or even facial hair to identify faces on a real time video stream. This allows you to identify people and also be able to capture a face for storage and record faces with metadata. You can use facial feature filtering while monitoring in real time to show faces with target features.

SMD Plus

SMD Plus, referred to as Smart Motion Detection Plus, is an upgraded version of SMD that greatly improves the alarm accuracy by loading deep-learning algorithm. It analyzes person and vehicle shapes based on motion detection and sends alarms only when a person or vehicle intrudes.

Coaxial Audio/Upgrade/Alarm

This integrated design can reduce wiring troubles and makes it easier to run audio, upgrade your camera, or trigger alarms all via the coax cable.

AI Coding

Compared with H.265, AI codec can reduce up to 50% bit rate and storage requirements while have no loss of decoding compatibility, providing clear human and vehicle details

SMART H.265+

Smart H.265+ technology is a collection of intelligent encoding algorithms based on H.265. To meet the characteristics of video surveillance, Smart H.265+ adopts some key video encoding techniques can be flexibly added/deleted or combined according to different applications and products. Smart H.265+ codec can effectively enhance video encoding efficiency according to the characteristics of different surveillance environments; furthermore, it can greatly reduce transmission bit rate, storage capacity to improve the overall system.

Long Distance Transmission

This system supports long distance transmissions over coaxial cable and UTP. Maximum 700m for 4K/4MP, 800m for 1080P and 1200m for 720P.

HDCVI/AHD/TVI/CVBS Auto-detect

This unit can auto recognize the signal of the camera without having to change settings.

AI Search

Using stored information you can quickly identify people and vehicles from massive video data. This makes it easier to trace back to a certain person vehicle or point in time. Now you can search for targets with ease.

Technical Specification

System	
Main Processor	Embedded Processor
Operating System	Embedded LINUX

Perimeter Protection	
Performance	2 channels, 10 IVS for each channel
Object classification	Human/Vehicle secondary recognition for tripwire and intrusion
AI Search	Search by target classification (Human, Vehicle)

Face Detection	
Performance	Max 12 face pictures/sec processing 2 channels video stream face recognition, only support analog camera
Stranger Mode	Detect strangers' faces (not in device's face database). Similarity threshold can be set manually.
AI Search	Up to 8 target face images search at same time, similarity threshold can be set for each target face image.
Database Management	Up to 20 face databases with 20,000 face images in total. Name, gender, birthday, address, certificate type, cerificate No., countries®ions and state can be added to each face picture.
Database Application	Each database can be applied to video channels independently .
Trigger Events	Buzzer, Voice Prompts, Email, Snapshot, Recording, Alarm Out, PTZ Activation, etc.

SMD Plus	
Performance	8 channels
AI Search	Search by target classification (Human, Vehicle)

Video and Audio	
Analog Camera Input	8 channels, BNC
HDCVI Camera Input	4K, 6MP, 5MP, 4MP, 1080P@25/30fps, 720P@50/60fps, 720P@25/30fps
AHD Camera Input	4K, 5MP, 4MP, 3MP, 1080P@25/30, 720P@25/30fps
TVI Camera Input	4K, 5MP, 4MP, 3MP, 1080P@25/30, 720P@25/30fps
CVBS Camera Input	PAL/NTSC
IP Camera Input	8+8 channels, each channel up to 8MP
Audio In/Out	4/1, RCA
Two-way Talk	Reuse audio in/out, RCA

Recording	
Compression	AI Coding/H.265+/H.265/H.264+/H.264
Resolution	4K, 6MP, 5MP, 4K-N, 4MP, 3MP, 4M-N, 1080P, 720P, 960H, D1, CIF
Record Rate	Main stream: All channel 4K(1fps~7fps); 6MP(1fps~10fps); 5MP(1fps~12fps); 4K-N, 4MP/3MP(1fps~15fps); 4M-N/1080P/720P/960H/D1/CIF (1fps~25/30fps); Sub steram:960H(1fps~15fps); D1/CIF(1fps~25/30fps)
Bit Rate	32 Kbps~6144 Kbps Per Channel
Record Mode	Manual, Schedule (General, Continuous), MD (Video detection: Motion Detection, Video Loss, Tampering), Alarm, Stop

Record Interval	1 – 60 min (default: 60 min), Pre-record: 1 s~30 s, Post-record: 10 s~300 s
Audio Compression	AAC (only for the 1st channel), G.711A, G.711U, PCM
Audio Sample Rate	8 KHz, 16 bit Per Channel
Audio Bit Rate	64 Kbps Per Channel

Display	
Interface	1 HDMI ,1 VGA
Resolution	HDMI: 3840 × 2160, 1920 × 1080, 1280 × 1024, 1280 × 720 VGA: 1920 × 1080, 1280 × 1024, 1280 × 720
Multi-screen Display	When IP extension mode not enabled: 1/4/8/9 When IP extension mode enabled: 1/4/8/9/16
OSD	Camera title, Time, Video loss, Camera lock, Motion detection, Recording

Network	
Interface	1 RJ-45 Port (1000 MB)
Network Function	HTTP, HTTPS, TCP/IP, IPv4/IPv6, Wi-Fi, 3G/4G, SNMP, UPnP, RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, PPPoE, DDNS, FTP, Alarm Server, P2P, IP Search (Supports Dahua IP camera, DVR, NVS, etc.)
Max. User Access	128 users
Smart Phone	iPhone, iPad, Android
Interoperability	ONVIF 16.12, CGI Conformant

Video Detection and Alarm	
Trigger Events	Recording, PTZ, Tour, Video Push, Email, FTP, Snapshot, Buzzer and Screen Tips
Video Detection	Motion Detection, MD Zones: 396 (22 × 18), Video Loss, Tampering and Diagnosis
Alarm input	8
Relay Output	3

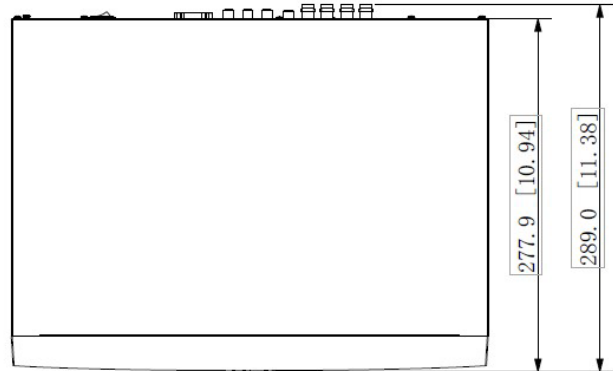
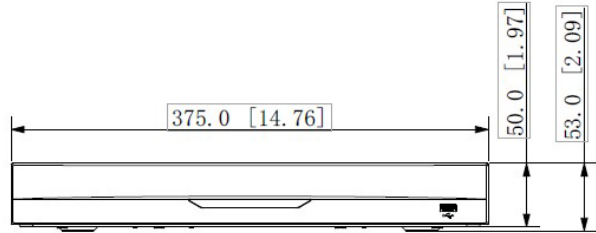
Playback and Backup	
Playback	1/4/9
Search Mode	Time /Date, Alarm, MD and Exact Search (accurate to second)
Playback Function	Play, Pause, Stop, Rewind, Fast play, Slow Play, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Shuffle, Backup Selection, Digital Zoom
Backup Mode	USB Device/Network

Storage	
Internal HDD	2 SATA Ports, up to 10TB capacity for each disk
eSATA	N/A

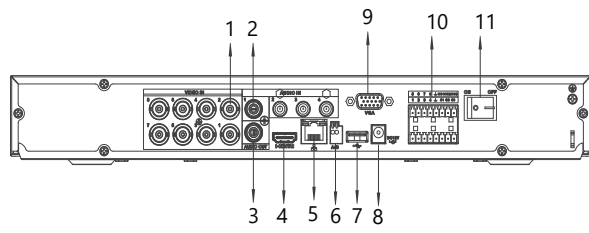
Auxiliary Interface	
USB	2 USB Ports (1 USB 2.0 , 1 USB 3.0)
RS485	1 Port, for PTZ Control
RS232	N/A

Electrical	
Power Supply	DC 12V/4A
Power Consumption (Without HDD)	<10W

Dimensions



Rear Panel



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|---|--------------------------|----|--------------------|
| 1 | VIDEO IN | 7 | USB port |
| 2 | AUDIO IN, RCA Connector | 8 | DC 12V Power Input |
| 3 | AUDIO OUT, RCA Connector | 9 | VGA port |
| 4 | HDMI port | 10 | ALARM IN/OUT |
| 5 | Network port | 11 | Power Switch |
| 6 | RS485 port | | |