

PENDVR-EL16C4K-XI

16 Channel 4K Pentabrid DVR



System Overview

This unit supports H.265+ and H.265 dual stream compression which can significantly reduce the bit rate and storage requirements up to 90% over the standard H.264 video compression. It also has 4 SATA ports accepting up to 8TB drives in each plus one eSATA port allowing you to have an external recording device to backup to. There are many features included, such as integrated IVS (Intelligent Video System) including tripwire analytics, POS functionality, facial detection, and missing or abandoned objects. This unit can support 16 BNC connected cameras plus 16 IP cameras each up to 12MP in resolution, or you can use this as a 32 channel NVR using all IP cameras.

Features

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.

HDCVI/AHD/TVI/CVBS Auto-detect

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

High Definition Camera Input

This NVR supports up to 8MP HD resolution (3840 x 2160) HDCVI camera and 12MP IP camera input.

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.
*CVI ONLY

Face Detection

Whether you wish to recognize, identify or verify a person, a camera with facial recognition software is an efficient solution. It can help you improve customer service and protect your assets by identifying important customers or potential perpetrators.

- H.265+/H.265 dual-stream video compression
- Supports 32 channels of IPC access, each channel up to 12MP input; Max 128Mbps incoming bandwidth
- All channels support Tripwire & Intrusion; First 4 channels support Object Abandoned & Missing
- Supports HDMI2 for spot output



IoT Functionality

HDCVI IoT can achieve multi-dimensional surveillance by integrating sensors with monitoring video, which not only can generate a report for analysis but also prevent risk in advance.

POS Functionality

This function is mainly used in retail programs which can superimpose POS ticket information on the video channel to preview and record.

Smart Fan Design

The smart fan can automatically turn on or turn off according to the CPU temperature. This function effectively reduces the fan noise to provide a better user experience.

Spot Output

The spot monitor outputs are separate and in addition to the VGA and HDMI video outputs that these DVRs support. The VGA and HDMI monitor outputs display the menu system and controls of the DVR. Spot outputs always display the live security camera views that you configure.

Intelligent Video System (IVS)

IVS system provides advanced, accurate video analysis for both IP and analog cameras. The IVS engine can track, classify and analyze the behavior of individual or group of objects over long distance to greatly improve parameter security and monitoring efficiency.

Smart Search

The smart search feature on a security recorder will allow you to skip over video that has motionless areas to get to the footage that you want to review. This is a great feature especially if you record in realtime and have multiple cameras.

Technical Specification

System

Main Processor	Embedded Processor
Operating System	Embedded LINUX

Video and Audio

Analog Camera Input	16 Channel, BNC
HDCVI Camera	4K, 6MP, 5MP, 4MP, 1080P@25/30fps, 720P@50/60fps, 720P@25/30fps
AHD Camera	5MP, 4MP, 3MP, 1080P@25/30, 720P@25/30fps
TVI Camera	5MP, 4MP, 3MP, 1080P@25/30, 720P@25/30fps
CVBS Camera	PAL/NTSC
IP Camera Input	16+16 Channel, each channel up to 12MP
Audio In/Out	4/1, BNC
Two-way Talk	1 Mic In, 1 Mic Out, BNC

Recording

Compression	H.265+/H.265/H.264+/H.264
Resolution	4K, 6MP, 5MP, 4MP, 3MP, 4M-N, 1080P, 720P, 960H, D1, CIF
Record Rate	Main stream: 4K(1~7fps); 6MP(1~10fps); 5MP(1~12fps); 4MP/3MP(1~15fps); 4M-N/1080P/720P/960H/D1/CIF(1~25/30fps) Sub stream: 960H(1~15fps); D1/CIF(1~25/30fps)
Bit Rate	32Kbps ~ 8192Kbps 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 ~ 30 sec, Post-record: 10 ~ 300 sec
Audio Compression	AAC(only for the 1st channel), G.711A, G.711U, PCM
Audio Sample Rate	8KHz, 16 bit Per Channel
Audio Bit Rate	64Kbps Per Channel

Display

Interface	2 HDMI, 1 VGA, 1 TV
Resolution	HDMI 1:3840×2160, 2560×1440, 1920×1080, 1280×1024, 1280×720 HDMI 2 /VGA: 1920×1080, 1280×1024, 1280×720
Multi-screen Display	When IP extension mode not enabled: 1/4/8/9/16 When IP extension mode enabled: 1/4/8/9/16/25/36
OSD	Camera title, Time, Video loss, Camera lock, Motion detection, Recording

Network

Interface	1 RJ-45 Port (1000M)
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	16
Relay Output	6

Playback and Backup

Playback	1/4/9/16
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	4 SATA Ports, up to 10TB capacity for each disk
eSATA	1 Port

Auxiliary Interface

USB	3 USB Ports (1 USB 2.0 , 2 USB 3.0)
RS232	1 port, for PC communication & Keyboard
RS485	1 Port, for PTZ Control
RS422	1 Port, for PTZ Control

Electrical

Power Supply	AC100V-240V, 50/60Hz
Power Consumption (Without HDD)	<35W

Construction

Dimensions	1.5U, 440mm×417mm×76mm (17.3" x 16.4" x 3.0")
Net Weight (without HDD)	4.8kg (10.58lb)
Gross Weight	7.4kg (16.31lb)
Installation	Desktop installation/Rack-mounted

Environmental

Operating Conditions	-10°C ~ +55°C (+14°F ~ +131°F), 10%~ 90% RH
Storage Conditions	-20°C ~ +70°C (-4°F ~ +158°F) , 0~ 90% RH

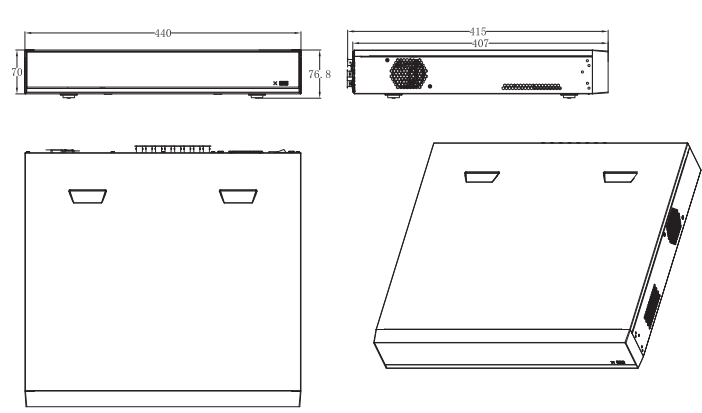
Third-party Support

Third-party Support	Dahua, Arecont Vision, AXIS, Bosch, Brickcom, Canon, CP Plus, Dynacolor, Honeywell, Panasonic, Pelco, Samsung, Sanyo, Sony, Videotec, Vivotek, and more
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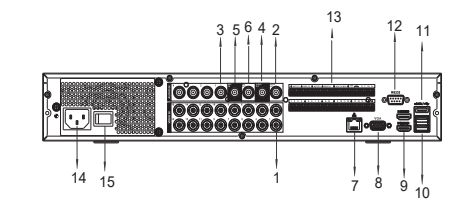
Certification

Certifications	FCC: Part 15 Subpart B
	CE: CE-LVD: EN 60950-1/IEC 60950-1 CE-EMC: EN 61000-3-2, EN 61000-3-3, EN 55032, EN 50130, EN 55024
	UL: UL 60950-1

Dimensions (mm)



Rear Panel



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|---|--------------------------|----|--------------------------------|
| 1 | VIDEO IN | 9 | 2*HDMI port |
| 2 | VIDEO OUT | 10 | 2*USB port |
| 3 | AUDIO IN, BNC Connector | 11 | eSATA port |
| 4 | AUDIO OUT, BNC Connector | 12 | RS232 port |
| 5 | MIC IN, BNC Connector | 13 | ALARM IN/OUT; RS485;
RS422; |
| 6 | MIC OUT, BNC Connector | 14 | Power Input |
| 7 | Network port | 15 | Power Switch |
| 8 | VGA port | | |