PENDVR-EL16C4K-AI3

16 Channels Penta-brid 4K-N/5MP 1.5U 4HDDs Digital Video Recorder

- H.265+/H.265 dual-stream video compression.
- Supports 16-channel AI-Coding.
- Supports HDCVI/AHD/TVI/CVBS/IP video inputs.
- Max 32 channels IP camera inputs, each channel up to 12MP; Max 128 Mbps incoming bandwidth.
- Up to 8 channels video stream (analog channel) perimeter protection.
- Up to 16 channels video stream (analog channel) SMD plus.
- Up to 2 channels video stream (analog channel) human face recognition.
- IoT & POS functionalities.

Technical Specification

System	
Main Processor	Industrial-grade processor
Operating System	Embedded Linux
Operating Interface	Web; Local GUI
Perimeter Protection	
Perimeter Performance AI by Recorder (Number of Channels)	Advanced Model: 2 channels, 10 IVS for each channel General Model: 8 channels, 10 IVS for each channel
Face Detection	
Face Attributes	Gender; age group; glasses; expressions; face mask; beard
Face Detection Performance of AI by Recorder (Number of Channels)	2 channels (up to 12 face images/s)
Face Recognition	
Face Database Capacity	Up to 10 face databases with 20,000 face images in total. Name, gender, birthday, address, certificate type, cerificate No., countries & regions and state can be added to each face image
Face Recognition Performance of AI by Recorder (Number of Channels)	2 channels
SMD Plus	
SMD Plus by Recorder	16 channels: Secondary filtering for human and motor vehicle SMD Plus, reducing false alarms caused by leaves, rain and lighting condition change
Audio and Video	
Analog Camera Input	16 BNC ports, supports HDCVI/AHD/TVI/CVBS auto-detect
Camera Input	1. CVI: 4K, 6 MP, 5 MP, 4 MP, 1080p@25/30 fps; 720p@50/60 fps; 720p@25/30 fps. 2. TVI: 4K, 5 MP, 4 MP, 3 MP, 1080p@25/30 fps; 720p@25/30 fps. 3. AHD: 4K, 5 MP, 4 MP, 3 MP, 1080p@25/30 fps; 720p@25/30 fps.

IP Camera Input	Up to 32 channels of IPC access 16 IP channels by default + 16 channels (analog channels are converted to IP channels) incoming bandwidth: 128 Mbps, recording bandwidth: 128 Mbps and outgoing bandwidth: 128 Mbps *After IP channels are added beyond the existing channels, the AI Function (IVS, SMD, FACE) will be disabled.
Encoding Capacity	Main stream: 4K@(1fps-7fps); 6 MP@(1fps-10fps); 5 MP@(1fps-12fps); 4K-N, 4 MP, 3 MP@(1fps-15fps); 4M-N, 1080p, 720p, 960H, D1,CIF@(1fps–25/30fps); Sub stream: 960H@(1fps–15fps); D1/CIF@(1 fps–25/30fps)
Dual-stream	Yes
Video Bit Rate	32 kbps–6144 kbps
Audio Sampling	8 kHz, 16 bit
Audio Bit Rate	64 kbps

Video Output	2 HDMI, 1 VGA, 1 TV Resolution VGA/HDMI2: 1920 × 1080, 1280 × 1024, 1280 × 720 HDMI1: 3840 × 2160, 1920 × 1080, 1280 × 1024, 1280 × 720 *Heterogeneous video sources output for HDMI2 is configurable.
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
Third-party Camera Access	ONVIF; Panasonic; Sony; Axis; Arecont; Pelco; Canon; Samsung

Compression Standard

Video Compression	AI Coding; H.265+; H.265; H.264+; H.264
Audio Compression	G.711a; G.711u; PCM

Network

Network Protocol	HTTP; HTTPS; TCP/IP; IPv4; RTSP; UDP; SMTP; NTP; DHCP; DNS; DDNS; P2P
Mobile Phone Access	iOS; Android
Interoperability	ONVIF 21.12; CGI
Browser	Chrome, IE9 or later, Firefox
Network Mode	Multi-address mode,Fault Tolerance,Load Balance

Recording Playback

Record Mode	General, motion detection; intelligent; alarm; POS
Recording Playback	1/4/9/16
Backup Method	USB device and network
Playback Mode	Instant playback, general playback, event playback, tag playback, smart playback (face and motion detection)

Storage

Disk Group	Yes

Alarm

General Alarm	Motion detection; video loss; tampering; local alarm
Anomaly Alarm	No disk; storage error; disk full; camera offline; IP conflict; MAC conflict
Intelligent Alarm	Face detection; face recognition; perimeter protection
Alarm Linkage	Record; snapshot (panoramic); IPC external alarm output; access controller; voice prompt; buzzer; log; preset; email

Ports

TV Output	Yes
Audio Input	16-channel BNC (external) 16-channel BNC (coaxial audio)
Audio Output	1-channel BNC
Two-way Talk	1-channel BNC
Alarm Input	16 channels
Alarm Output	6 channels
HDD Interface	4 SATA ports, up to 16TB for a single HDD, the maximum HDD capacity varies with environment temperature
eSATA	1

RS-232	1 port, for PC Communication & Keyboard
RS-485	1 port, for PTZ control
USB	4 (2 front USB 2.0 ports, 2 rear USB 3.0 ports)
HDMI	2
VGA	1
Network Port	1 (10/100/1000 Mbps Ethernet port, RJ-45)

General

Power Supply	100-240 VAC, 50/60 Hz
Power Consumption	<20 W
Net Weight	6.8 kg (14.99 lb)
Gross Weight	9.3 kg (20.50 lb)
Product Dimensions	2U, 439.9 mm × 463.0 mm × 94.9 mm (17.32" × 18.23" × 3.73") (W × D × H)
Packaging Dimensions	570.0 mm × 570.0 mm × 226.0 mm (22.44" × 22.44" × 8.90") (W × D × H)
Operating Temperature	–10 °C to +55 °C (14 °F to +131 °F)
Operating Humidity	10%–90% (RH)
Installation	Rack or desktop
Certifications	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 FCC: Part 15 Subpart B