alhua
TECHNOLOGY

DH- XVR7104HE-4KL-X

4 Channel Penta-brid 4K Mini 1U Digital Video Recorder

· H.265+/H.265 dual-stream video compression
· Supports HDCVI/AHD/TVI/CVBS/IP video inputs
· Supports 8 channels of IPC access, each channel up to 8MP input; Max 32Mbps Incoming Bandwidth
· IoT & POS functionalities
· Smart Search and Intelligent Video System

| Pro Series | H.265 | 4CH | 2K HDMI |
| IoT | POS | Coax Audio | Smart Fan |

System Overview

With the surveillance operators pursuing to HD/UHD which further adds the storage and transmission cost, HDCVI H.265+/H.265 has been released to incredibly decrease the required bitrate while ensuring the video quality in realizing high resolution surveillance such as 4MP/4K. Designed as a collection of intelligent encoding algorithm based on H.265, H.265+ significantly improves encoding efficiency and save bandwidth/storage cost, which fully meet the needs of users facing budget constraints who both require quality and performance.

Besides smart codec, the series supports various advanced functions like IoT and POS functionalities, making the whole system smarter and more convenient which is a perfect choice for mid to large-scale business and projects where both high reliability and flexibility are required.

Functions

Smart H.265+
Smart Codec, H.265+ can reduce up to 80% bit rate and storage requirements compared with H.264 without having to invest in new cameras.

HDCVI/AHD/TVI/CVBS Auto-detect
The XVR can auto recognize the signal of front-camera without any setting. It makes operation more friendly and convenient.

Coaxial Audio/Upgrade/Alarm
The integrated design can reduce wiring troubles which makes it much more cost-effective and convenient for installation.

Long Distance Transmission
The HDCVI system supports long distance transmission over coaxial cable and UTP, max. 700m for 4K/4MP, 800m for 1080P and 1200m for 720P.

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

POS Functionality
This funcion includes POS ticket information overlay and search which can be widely used in retail programs.

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

Spot Output
It is made for a secondary monitor. This allows the operator to view one special monitor that assigned to selected cameras or video inputs from higher security areas.

Intelligent Video System (IVS)
With built-in intelligent video analytics, the XVR has the ability to detect and analyze moving objects for improved video surveillance. The XVR provides optional standard intelligence at the edge allowing detection of multiple object behaviors such as abandoned or missing objects. IVS also supports Tripwire analytics, allowing the camera to detect when a pre-determined line has been crossed.

Face Detection
It is a typical technology being used in a variety of applications for searching or identification of individuals.

Smart Search
This function helps you get more motion detect video during a short time through drawing a region when playback. It is very useful when an emergency occurs.

ONVIF

Technical Specification

System

Main Processor	Embedded Processor
Operating System	Embedded LINUX

Video and Audio

Analog Camera Input	4 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	4+4 Channel, each channel up to 8MP
Audio In/Out	4 Channel Input, 1 Channel Output, RCA
Two-way Talk	Reuse audio in/out, RCA

Recording

Compression	H.265+/H.265/H.264+/H.264
Resolution	4K, 6MP, 5MP, 4K-N, 4MP, 3MP, 4M-N, 1080P, 720P, 960H, D1, CIF, QCIF
Record Rate	Main stream: 4K(1~7fps); 6MP(1~10fps); 5MP(1~12fps); 4K-N/4MP/3MP(1~15fps); 4M-N/1080P/720P/960H/D1/CIF/QCIF (1~25/30fps); Sub steram:960H(1~15fps); D1/CIF/QCIF(1~25/30fps)
Bit Rate	1Kbps ~ 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

Display

Interface	1 HDMI, 1 VGA
Resolution	HDMI:2560×1440, 1920×1080, 1280×1024, 1280×720 VGA: 1920×1080, 1280×1024, 1280×720
Multi-screen Display	When IP extension mode not enabled: 1/4 When IP extension mode enabled: 1/4/6
OSD	Camera title, Time, Video loss, Camera lock, Motion detection, Recording

Network

Interface	1 RJ-45 Port (100M)
Network Function	HTTP, HTTPS, TCP/IP, IPv4/IPv6, UPnP, RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, PPPoE,DDNS, FTP, Alarm Server,P2P, IP Search (Support 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
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	1 SATA Port, up to 10TB capacity for each disk
eSATA	N/A

Auxiliary Interface

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

Electrical

Power Supply	DC12V/2A
Power Consumption	<10W (Without HDD)

Construction

Dimensions	Mini 1U, 325mm×255mm×55mm (12.8" x 10" x 2.2")
Net Weight	1.45kg (3.2lb) (without HDD)
Gross Weight	2kg (4.4lb)
Installation	Desktop installation

Environmental

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

Third-party Support

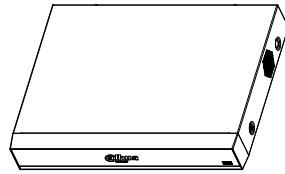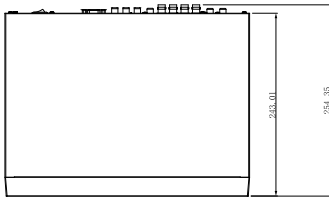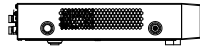|	
Third-party Support	Dahua, Arecont Vision, AXIS, Bosch, Brickcom, Canon, CP Plus, Dynacolor, Honeywell, Panasonic, Pelco, Samsung, Sanyo, Sony, Videotec, Vivotek, and more

Certifications

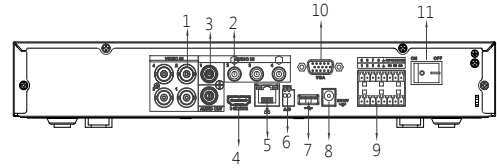|	
Certifications	FCC: Part 15 Subpart B
	CE: CE-LVD: EN 60950-1/IEC 60950-1 CE-EMC: EN 61000-3-2, EN 61000-3-3, EN 55032, EN 50130, EN 55024
	UL: UL 60950-1

Ordering Information

Type	Part Number	Description
4 Channel XVR	DH-XVR7104HE-4KL-X	4 Channel Penta-brid 4K Mini 1U Digital Video Recorder

Rear Panel

DH-XVR7104HE-4KL-X

1	VIDEO IN	7	USB port
2	AUDIO IN, RCA Connector	8	DC12V Power Input
3	AUDIO OUT, RCA Connector	9	ALARM IN / OUT
4	HDMI port	10	VGA port
5	Network port	11	Power Switch
6	RS485 port		

Dimensions (mm)