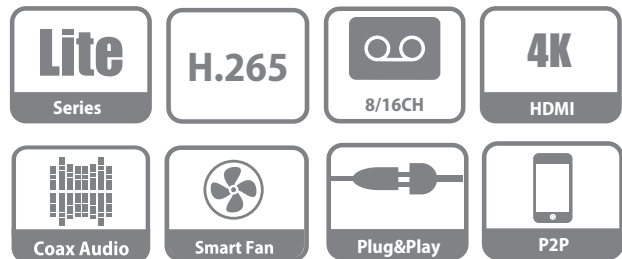# FHD5808/16S-X
8/16 Channel Penta-brid 1080P 2U Digital Video Recorder

· H.265+/H.265 dual-stream video compression
· Supports HDCVI/AHD/TVI/CVBS/IP video inputs
· Max 12/24 channels IP camera inputs, each channel up to 6/8MP; Max 48/96Mbps incoming bandwidth
· 4/8 channels support Tripwire & Intrusion; First 2 channels support Object Abandoned & Missing
· DH-XVR5816S-X supports HDMI2 for spot output

Lite Series | **H.265** | 8/16CH | **4K** HDMI

Coax Audio | Smart Fan | Plug&Play | P2P

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.

The Lite Series is designed for high cost performance and quality. The range offers a great solution for users facing budget constraints who both require quality and performance. And with the adoption of Smart H.265+/H.265, the series improves encoding efficiency, saving on bandwidth/storage costs, and significantly reducing the Total Cost of Ownership (TCO).

Functions

Smart H.265+
Smart Codec, H.265+ can reduce up to 90% bit rate and storage requirements compared with H.264 without having to invest in new cameras.

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

SMD Functionality
SMD, referred to as Smart Motion Detection, is a new surface learning algorithm based on motion detection. It can reduce false alarms with intelligent analysis, saving time and labor costs of checking useless alarms. Furthermore, human and vehicle classification makes it possible to quickly locate the alarm triggering scenarios.

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

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

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.

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
HDMI2 of DH-XVR5816S-X 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 DVR has the ability to detect and analyze moving objects for improved video surveillance. The DVR 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.

Technical Specification

System

Main Processor	Embedded Processor
Operating System	Embedded LINUX

Video and Audio

Analog Camera Input	8/16 Channel, BNC
HDCVI Camera	5MP, 4MP, 1080P@25/30fps, 720P@50/60fps, 720P@25/30fps
AHD Camera	5MP, 4MP, 1080P@25/30, 720P@25/30fps
TVI Camera	5MP, 4MP, 1080P@25/30, 720P@25/30fps
CVBS Camera	PAL/NTSC
IP Camera Input	8CH: 8+4 Channel, each channel up to 6MP 16CH: 16+8 Channel, each channel up to 8MP
Audio In/Out	8CH: 8/1, BNC 16CH: 16/1, BNC
Two-way Talk	1 Mic In, 1 Mic Out, BNC

Recording

Compression	H.265+/H.265/H.264+/H.264
Resolution	5M-N, 4M-N, 1080P, 1080N, 720P, 960H, D1, CIF
Record Rate	Main stream:the 1st & 2nd channel 5M-N (1~10fps) , others 4M-N/1080P(1~15fps); 1080N/720P/960H/ D1/CIF (1~25/30fps) Sub steram: D1/CIF(1~15fps)
Bit Rate	32Kbps ~ 6144Kbps 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	8CH: 1 HDMI, 1 VGA, 1 TV 16CH: 2 HDMI, 1 VGA, 1 TV
Resolution	8CH:HDMI 1:1920×1080, 1280×1024, 1280×720 16CH:HDMI 1:3840×2160, 2560×1440, 1920×1080, 1280×1024, 1280×720 HDMI 2 / VGA: 1920×1080, 1280×1024, 1280×7201920×1080, 1280×1024, 1280×720
Multi-screen Display	8CH: When IP extension mode not enabled: 1/4/8/9 When IP extension mode enabled: 1/4/8/9/16 16CH: When IP extension mode not enabled: 1/4/8/9/16 When IP extension mode enabled: 1/4/8/9/16/25
OSD	Camera title, Time, Video loss, Camera lock, Motion detection, Recording

Network

Interface	8CH: 1 RJ-45 Port (1000M) 16CH: 2 RJ-45 Ports(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	8/16
Relay Output	6

Playback and Backup

Playback	8CH: 1/4/8 16CH: 1/4/8/16
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	8 SATA Ports, up to 10TB capacity
eSATA	1 Port

Auxiliary Interface

USB	8CH: 4 USB Ports (4 USB 2.0) 16CH: 4 USB Ports (2 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	2U, 440mm×455mm×95mm (17.3" x 17.9" x 3.7")
Net Weight	7kg (15.4 lb) (without HDD)
Gross Weight	9.8kg (21.6lb)
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

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