

DH-XVR1B16-I

16 Channel Penta-brid 1080N/720p Compact 1U 1HDD WizSense Digital Video Recorder



Wiz Sense

Launched by Dahua Technology, WizSense is a series of AI products and solutions that adopt independent AI chip and deep learning algorithm. It focuses on human and vehicle with high accuracy, enabling users to fast act on defined targets. Based on Dahua's advanced technologies, WizSense provides intelligent, simple and inclusive products and solutions.

Series Overview

Dahua Technology, a world-leading video-centric smart IoT solution and service provider, debuted its new XVR series, Cooper Series featuring SMD Plus to benefit customers from AI upgrade. The series are designated to reduce false-alarm rates and human surveillance costs, thus bringing great value to customers in search of products with accurate human/vehicle alarm to raise the security level of various indoor and outdoor facilities.

Functions

SMD Plus

SMD Plus, referred to as Smart Motion Detection Plus, which is an upgrading 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 send alarms only when person and vehicle intrudes.

*SMD Plus takes effect when SMD or IVS&SMD is selected in AI Mode.

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.

- H.265+/H.265 dual-stream video compression
- Supports Full-channel AI-Coding
- Supports HDCVI/AHD/TVI/CVBS/IP video inputs
- Max 18 channels IP camera inputs, each channel up to 6MP; Max 64 Mbps Incoming Bandwidth
- Long transmission distance over coax cable
- Up to 8 channels video stream (analog channel) SMD Plus



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 XVR can auto recognize the signal of front-camera without any setting. It makes operation more friendly and convenient.

High Definition Camera Input

The XVR supports up to 1080p HDCVI camera and 6MP IP camera input.

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. 700 m for 4K/4MP, 800 m for 1080p and 1200 m for 720p.

Technical Specification

System

| | |
|------------------|--------------------|
| Main Processor | Embedded processor |
| Operating System | Embedded linux |

SMD Plus

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|-------------|--|
| Performance | 8 channels |
| AI Search | Search by target classification (Human, Vehicle) |

Video and Audio

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|---------------------|---------------------------------------|
| Analog Camera Input | 16 channels, BNC |
| HDCVI Camera | 1080p@ 25/30 fps, 720p@ 25/30 fps |
| AHD Camera | 1080p@ 25/30 fps, 720p@ 25/30 fps |
| TVI Camera | 1080p@ 25/30 fps, 720p@ 25/30 fps |
| CVBS Camera | PAL/NTSC |
| IP Camera Input | 16+2 channels, each channel up to 6MP |
| Audio In/Out | 1/1, RCA |
| Two-way Talk | Reuse audio in/out, RCA |

Recording

| | |
|-------------------|--|
| Video Compression | AI Coding/H.265+/H.265/H.264+/H.264 |
| Resolution | 1080N; 720p; 960H; D1; HD1; BCIF; CIF; QCIF |
| Record Rate | Main Stream: the 1st channel 1080N/720p (1 fps–25/30 fps), others 1080N/720p (1 fps–15 fps); 960H/D1/HD1/BCIF/CIF/QCIF (1 fps–25/30 fps) Sub stream: CIF/QCIF (1 fps–7 fps) |
| Video Bit Rate | 32 kbps–4096 kbps per channel |
| Record Mode | Manual; Schedule (General, Continuous); MD (Video detection: Motion Detection, Video Loss, Tampering); Alarm; Stop |
| Record Interval | 1 min–60 min (default: 60 min), Pre-record: 1 sec–30 sec, Post-record: 10 sec–300 sec |
| Audio Compression | G.711A; G.711U; PCM |
| Audio Sample Rate | 8 KHz, 16 bit per channel |
| Audio Bit Rate | 64 kbps per channel |

Display

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|----------------------|--|
| Interface | 1 HDMI; 1 VGA |
| Resolution | 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 |
| OSD | Camera title; Time; Video loss; Camera lock; Motion detection; Recording |

Network

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|------------------|--|
| Interface | 1 RJ-45 Port (100 MB) |
| Network Function | HTTP; HTTPS; TCP/IP; IPv4/IPv6; UPnP; RTSP; UDP; SMTP; NTP; DHCP; DNS; IP Filter; DDNS; FTP; Alarm Server; P2P; IP Search (Supports Dahua IP camera, DVR, NVS, etc.) |
| Max. User Access | 128 users |

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|------------------|-----------------------------|
| Smart Phone | iPhone; iPad; Android |
| Interoperability | ONVIF 16.12, CGI Conformant |

Video Detection and Alarm

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|-----------------|--|
| 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 | N/A |
| Relay Output | N/A |

Playback and Backup

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|-------------------|---|
| 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

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|--------------|----------------------------------|
| Internal HDD | 1 SATA port, up to 6 TB capacity |
| eSATA | N/A |

Auxiliary Interface

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|-------|-----------------------|
| USB | 2 USB ports (USB 2.0) |
| RS232 | N/A |
| RS485 | N/A |

Electrical

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|---------------------------------|-----------|
| Power Supply | DC 12V/2A |
| Power Consumption (Without HDD) | < 10W |

Construction

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|--------------------------|--|
| Dimensions | Compact 1U, 260.0 mm × 231.4 mm × 47.6 mm (10.24" × 9.11" × 1.87") |
| Net Weight (without HDD) | 0.89 kg (1.96 lb) |
| Gross Weight | 1.42 kg (3.13 lb) |
| Installation | Desktop installation |

Environmental

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|----------------------|--|
| Operating Conditions | -10°C to +45°C (+14°F to +113°F), 10%–90% (RH) |
| Storage Conditions | -20°C to +70°C (-4°F to +158°F), 0%–90% (RH) |

Third-party Support

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

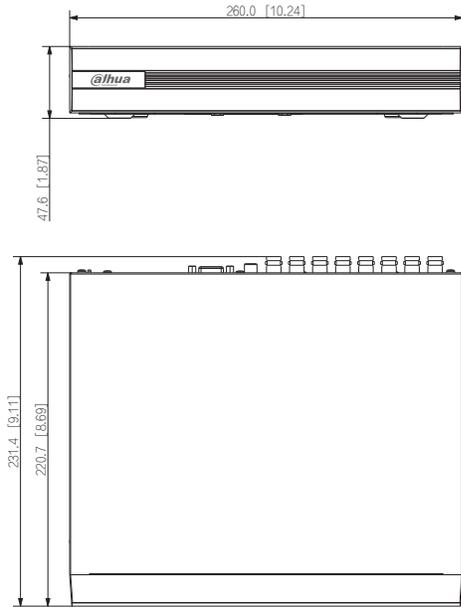
Certifications

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|----------------|--|
| 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 |
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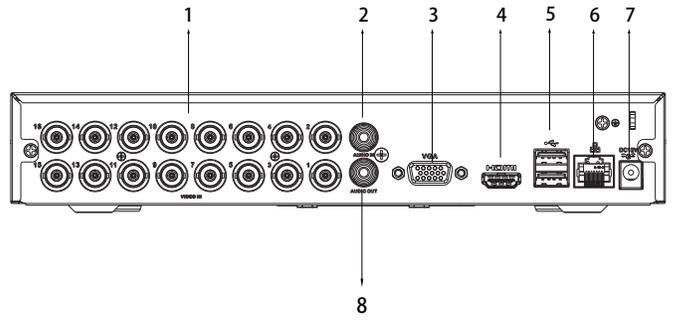
Ordering Information

| Type | Part Number | Description |
|-------------------------|--------------|---|
| 16 Channel WizSense XVR | DH-XVR1B16-I | 16 Channel Penta-brid 1080N/720p Compact 1U WizSense Digital Video Recorder |

Dimensions (mm[inch])



Panels



- | | |
|---------------|----------------------------|
| 1 VIDEO IN | 2 AUDIO IN, RCA Connector |
| 3 VGA Port | 4 HDMI Port |
| 5 USB Ports | 6 Network Port |
| 7 Power Input | 8 AUDIO OUT, RCA Connector |