

# DH-XVR1B16-I

16 Channels 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-I Series featuring max.full-channel SMD Plus to benefit customers from AI upgrade (The number of channels differs depending on the model. Please refer to the specifications below for information on the number of channels.). This series has been developed to reduce false-alarm rates and the cost of human surveillance, 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

With intelligent algorithm, Dahua Smart Motion Detection technology can categorize the targets that trigger motion detection and filter the motion detection alarm triggered by non-concerned targets to realize effective and accurate alarm.

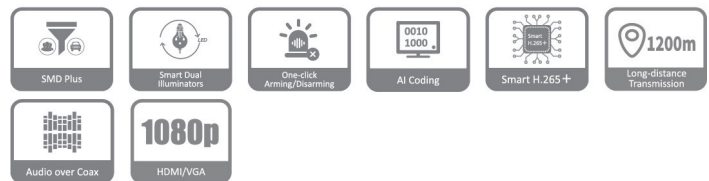
### Smart Dual Illuminators

With Smart Dual Illuminators technology, you can select Smart Illumination Mode for the system to automatically switch between IR mode and white light mode. It allows white light to be turned on when a target is detected by the SMD Plus/Perimeter Protection function of AI-enabled XVR. This significantly reduces light pollution at night. Together with other modes, including IR Mode and White Light Mode, the smart dual illumination technology can meet the requirements of a wide variety of scenes.

### One-click Arming/Disarming

With just one click, you can enable or disable alarm linkages to show messages, send emails, output audio alarms and more, through the mobile app and platform.

- 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



## AI Coding

Compared with H.265/H.264, AI coding can reduce more than 50% bit rate and storage requirements without loss of decoding compatibility, providing clear human and vehicle details.

## Smart H.265+

Smart H.265+ Codec reduces bit rate and storage requirements by up to 90%, outranking standard H.264 video compression and eliminating the need to invest in a new camera.

## 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.

## Audio over Coax

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

## Technical Specification

### System

|                     |                            |
|---------------------|----------------------------|
| Main Processor      | Industrial-grade processor |
| Operating System    | Embedded Linux             |
| Operating Interface | Web; Local GUI             |

### SMD Plus

|                      |   |
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| SMD Plus by Recorder | 8-channel: Secondary filtering for human and motor vehicle , reducing false alarms caused by leaves, rain and lighting condition change |
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### Audio and Video

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| Analog Camera Input | 16 channels, BNC: adaptive access by default; HDCVI, AHD, TVI and CVBS access can be configured. |
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| Camera Input | 1. CVI: 1080p@ 25/30 fps, 720p@ 25/30 fps<br>2. TVI: 1080p@ 25/30 fps, 720p@ 25/30 fps<br>3. AHD: 1080p@ 25/30 fps, 720p@ 25/30 fps<br>4. CVBS: PAL/NTSC |
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|                 |   |
|-----------------|---|
| IP Camera Input | Up to 18 channels of IPC access<br>2 IP channels by default + 16 channels (analog channels are converted to IP channels)<br>incoming bandwidth: 64 Mbps, recording bandwidth: 64 Mbps and outgoing bandwidth: 64 Mbps<br>*After IP channels are added beyond the existing channels, the AI Function (SMD) will be disabled. |
|-----------------|---|

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|-------------------|--|
| Encoding Capacity | Main Stream:<br>the 1st channel 1080N/720p (1 fps–25/30 fps), others 1080N/720p (1 fps–15 fps); 960H/D1/CIF(1 fps–25/30 fps)<br>Sub stream:<br>CIF (1 fps–7 fps) |
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|             |     |
|-------------|-----|
| Dual-stream | Yes |
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|----------------|-------------------|
| Video Bit Rate | 32 kbps–6144 kbps |
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|                |               |
|----------------|---------------|
| Audio Sampling | 8 kHz, 16 bit |
|----------------|---------------|

|                |         |
|----------------|---------|
| Audio Bit Rate | 64 kbps |
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| Video Output | 1 HDMI, 1 VGA<br>HDMI/VGA: 1920 × 1080, 1280 × 1024, 1280 × 720 |
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| Multi-screen Display | 1/4/8/9/16 |
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|                           |  |
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| 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 |
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### Network

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|------------------|---|
| Network Protocol | HTTP; HTTPS; TCP/IP; IPv4; RTSP; UDP; SMTP; NTP; DHCP; DNS; DDNS; P2P |
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|                     |              |
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| Mobile Phone Access | iOS, Android |
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|                  |                             |
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| Interoperability | ONVIF 21.06; CGI Conformant |
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|         |                                   |
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| Browser | Chrome<br>IE9 or later<br>Firefox |
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| Network Mode | Single-address mode |
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## Recording Playback

|             |                                   |
|-------------|-----------------------------------|
| Record Mode | General, motion detection, alarm; |
|-------------|-----------------------------------|

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| Recording Playback | 1/4/9/16 |
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| Backup Method | USB device and network |
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| Playback Mode | Instant playback, general playback, event playback, tag playback |
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## Alarm

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| General Alarm | Motion detection, video loss, tampering |
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| Anomaly Alarm | No disk, disk error, low space, offline, ip conflict, MAC conflict |
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| Alarm Linkage | Record, snapshot (panoramic), IPC external alarm output, access controller, voice prompt, buzzer, log, preset, email |
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## Ports

|             |   |
|-------------|---|
| Audio Input | 1-channel RCA<br>16-channel BNC (Coaxial Audio) |
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| Audio Output | 1-channel RCA |
|--------------|---------------|

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| Two-way Talk | Yes (share the same audio input with the first channel) |
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| HDD Interface | 1 SATA port, up to 16 TB. The maximum HDD capacity varies with environment temperature. |
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| USB | 2 USB ports (USB 2.0) |
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| HDMI | 1 |
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|     |   |
|-----|---|
| VGA | 1 |
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|              |                                      |
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| Network Port | 1 (10/100 Mbps Ethernet port, RJ-45) |
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## General

|              |             |
|--------------|-------------|
| Power Supply | 12 VDC, 2 A |
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|                   |       |
|-------------------|-------|
| Power Consumption | <10 W |
|-------------------|-------|

|            |                   |
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| Net Weight | 0.89 kg (1.96 lb) |
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|              |                   |
|--------------|-------------------|
| Gross Weight | 1.42 kg (3.13 lb) |
|--------------|-------------------|

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| Product Dimensions | 260.0 mm × 231.4 mm × 47.6 mm (10.24" × 9.11" × 1.87") (W × D × H) |
|--------------------|--|

|                      |   |
|----------------------|---|
| Packaging Dimensions | 333.0 mm × 315.0 mm × 89.0 mm (13.11" × 12.40" × 3.50") (W × D × H) |
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| Operating Temperature | –10 °C to +55 °C (+14 °F to +131 °F) |
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| Operating Humidity | 0%–90% (RH) |
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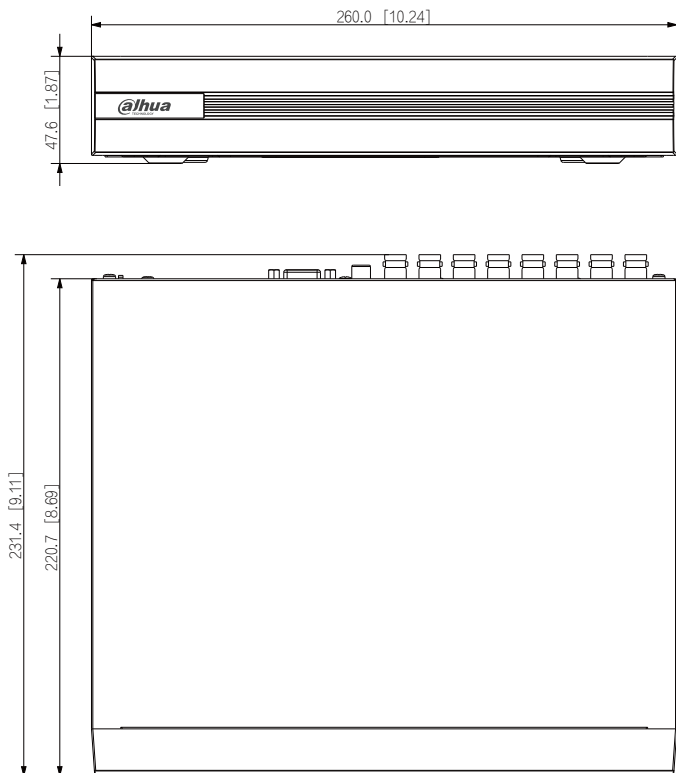
|              |         |
|--------------|---------|
| Installation | Desktop |
|--------------|---------|

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| Certifications | FCC: Part 15 Subpart B<br>CE: CE-LVD: EN 60950-1/IEC 60950-1<br>CE-EMC: EN 61000-3-2; EN 61000-3-3; EN 55032; EN50130; EN 55024 |
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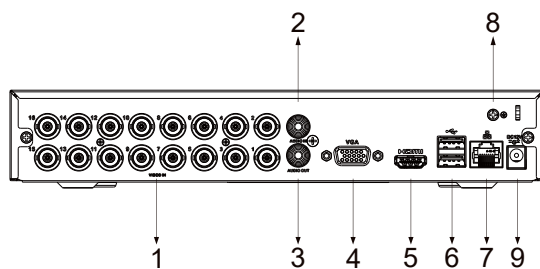
## Ordering Information

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

### Dimensions (mm[inch])



### Panels



- |                            |                           |
|----------------------------|---------------------------|
| 1 VIDEO IN                 | 2 AUDIO IN, RCA Connector |
| 3 AUDIO OUT, RCA Connector | 4 VGA Port                |
| 5 HDMI Port                | 6 USB Ports               |
| 7 Network Port             | 8 Ground                  |
| 9 Power Input              |                           |