

AI-SRD16

Ultra High Definition Decoder



AI-SRD16 Series decoders are developed on the basis of embedded hardware platform. AI-SRD16 is capable of outputting decoded video via HDMI 1.4, BNC (to DB15) interfaces, and also supports multiple video stream formats, like H.265, H.264, MJPEG, Smart264 and Smart265, which has good decoding performance. It supports H.265/H.264 decoding no more than 32 MP and 4K ultra-high-definition (UHD) video output, which is a new generation of decoder launched by our company for HD network cameras, which can be widely used in various video security system projects.

Video Input

- Support computer, video conference terminals and other devices to serve as video input signal source.
- Support HDMI 4K signal inputs.
- Support network camera, NVR, and other devices to serve as network signal source.
- Support embedded HDMI audio input; audio input supports 16 bit and 48K Hz, two audio channels and stereo sound.
- Support 2-ch 1080p@50/60 or 1-ch 4K@30 encoding via HDMI 1.4 input interface.

Video Output

- Support 4K (3840 × 2160@30 Hz) UHD video output via HDMI 1.4 output interface.
- Support two audio output methods: embedded HDMI audio output and external audio output.
- Adopt frame synchronization technology to ensure complete synchronization of images from all output ports, complete pictures, smooth playback, and without lag, frame loss, tearing or splicing.

Video Encoding and Decoding

- Support H.264 and H.265 encoding of input boards, and sub-stream and mainstream encoding; the default encoding format is H.264.
- Support network cameras, NVR, and other network sources decoding of output boards, sub-stream and main stream decoding including H.264, H.265, Smart264, Smart265, MJPEG, HIK264 and main encapsulation formats such as PS, RTP, TS, ES.
- Support up to 256 video decoding channels and simultaneously decoding of 128-ch 2 MP or 256-ch 720p video decoding on the wall.
- Support decoding streams of multiple resolution no more than 32 MP.
- G.722, G.711A, G.726, G.711U, MPEG2-L2, AAC, MP3, PCM audio compression.
- Support rotate mode of front-end cameras decoding and up to 2560 × 1440 decoding output.
- Two decoding modes: active decoding and passive decoding.
- Support encryption stream, multi-channel stream, and smart stream decoding.

- Support stream editing and switching, and auto switching to the sub stream when the divided window quantity reaches the upper limit.
- Support remote video files decoding output.

Video Wall


- Support single video wall splicing, window opening, window roaming, scene switching, and windows switching.
- Support up to 3 1080p or 1.5 4K signal source windows per screen and each signal source window can be divided into 1, 2, 4, 6, 8, 9, 12, 16, and 25 windows.
- Support up to 64 scenes. You can customize the video wall layout and save it as a scene.
- Support 256 auto-switching plans. You can customize the camera, scenes, and time for each plan.
- You can double click the roaming window to zoom in and zoom out for one roaming window or divided roaming sub-window.
- Support displaying output channel number.
- Support operating network signal sources on video wall in eight directions, including auto-scanning, adjusting aperture, changing the focal length, focusing, and calling preset.
- Support starting/stopping the live view of the window, starting/stopping decoding, starting/stopping switching windows, turning on/off the sound, displaying the window on the top/bottom layer, and other operations.
- Support video recording playback. You can start or stop playback and select the video recording time.
- Support using smart wall clients to cast the screen on the wall.
- Support the live view of network signal sources over RTP/RTSP.

Device Access

- Support docking with 32 MP PanoVu series cameras, fisheye cameras, and conventional front-end network cameras, DVR, NVR, and XVR.
- Support complete software development kit (SDK) for third-party developers.
- Support using the ONVIF and GB28181 protocol to access the decoder.
- Support LCD information interactive, including display information acquirement, image settings, series ports control, time synchronization, backlight parameters configuration and acquirement, output port auto-binding, error code reporting.

Maintenance

- Support using network keyboard or serial port keyboard to control the device, and support window switching, group operation and auto-switching, scene switching, PTZ control, and video wall playback via keyboard.
- Support the access and operation via PC client and Web client.
- Support Chrome 45+.
- Use the built-in gigabit switching network.
- Supports optoelectronic adaptation, link aggregation, and NAT.
- Support remote parameters configuration, getting system status and logs.
- Support daily maintenance such as remote restart, restore default settings and upgrading.
- Support auto fault detection and device exception alarm, including network disconnection, IP conflict, illegal access,

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temperature overshoot, fan status exception, decoding signal source exception and device exception.

- Support user permission management, allowing users with different permissions to use designated resources and operate designated video wall modules.
- Support visualization in operation and maintenance by displaying the network topology structure and keynote network status of main control units (MCU) and service boards.
- Support NTP time synchronization and manual time synchronization.

▪ Specification

| Product Model | |
|---|--|
| Product Model | AI-SRD16 |
| Interface | |
| Alarm In | 8-ch alarm in |
| Alarm Out | 8-ch alarm out |
| Serial Interface | RS-232 (RJ45) × 1, RS-485 × 1 |
| USB Interface | USB 2.0 × 2 |
| Network Interface | RJ45 × 2, 10 M/100 M/1000 Mbps self-adaptive Ethernet interface Optic Interface × 2 100 base-FX/1000 base-X Supports optoelectronic self-adaptation |
| Video Wall | |
| Video Walls | 1 |
| Video Wall Size | ≤ 16 |
| Layers Per Screen | 1080p × 3 or 4K × 1.5 |
| Layers | Layers Per Screen × Output Interface(s) |
| Split Window | yes |
| Scenes | 64 |
| Scene Auto-Switch Delay | 3 s |
| Split Screen | 1, 2, 4, 6, 8, 9, 12, 16, 25 |
| Background Images | Background color only |
| Subtitles | N/A (optional to support) |
| Delay of Displaying Local Signal Source on Video Wall | 120 ms |
| Delay of Displaying Decoded Signal Source on Video Wall | 120 ms |
| Auto-Switching Plans | Support 256 auto-switching plans |
| General | |
| Working Temperature | -10 °C to 55 °C (14 °F to 131 °F) |
| Working Humidity | 10% RH to 90% RH |
| Net Weight | < 8.42 kg (18.56 lb) |
| Gross Weight | 8.42 kg (18.56 lb) |
| Power Consumption | < 150 W |
| Packing List | Decoder × 1 DB15M to 4 × BNC (4-ch CVBS Video Patch Wire) × 2 DB15M to 8 × BNC (8-ch Audio Patch Wire) × 2 Quick Start art Guide × 1 Regulatory Compliance and Safety Information × 1 Hanger × 1 Power Cord × 1 Mat × 4 Grounding Wire × 1 |
| Dimensions (W × H × D) | 440 mm × 321 mm × 88 mm (17.32" × 12.64" × 3.64") |
| Power Supply | 100 to 240 VAC |

| Audio Input | |
|-------------------------------|--|
| Audio Input Interfaces | 2 |
| Audio Input Interface Type | embedded HDMI audio input |
| Video Input | |
| Video Input Resolution | 3840 × 2160@30 Hz, 1920 × 1080@50 Hz, 1920 × 1080@60 Hz, 1280 × 720@50/60 Hz |
| Video Input Interfaces | 2 |
| Video Input Interface Type | 2-ch: HDMI 1.4 |
| Max. Input Resolution | 4K |
| Video Encoding | |
| Video Encoding Channel | 2 |
| Video Encoding Format | H.265/H.264 Default H.264 |
| Video Encoding Capability | 1-ch: 4K 30 2-ch: 1080p 60 |
| Audio Encoding | |
| Audio Encoding Format | G722.1, G711U, G711A, AAC-LC |
| Video Output | |
| Max. Output Resolution | 4K |
| Video Output Interface Type | HDMI 1.4 |
| Video Output Interface(s) | 16 |
| Video Output Resolution | 3840 × 2160@30 Hz, 2560 × 1440@30 Hz, 1920 × 1200@60 Hz, 1920 × 1080@60 Hz, 1920 × 1080@50 Hz, 1680 × 1050@60 Hz, 1600 × 1200@60 Hz, 1280 × 1024@60 Hz, 1280 × 720@60 Hz, 1280 × 720@50 Hz, 1024 × 768@60 Hz |
| Video Output Resolution (BNC) | PAL: 704 × 576@25 Hz, NTSC: 704 × 480@30 Hz |
| Video Output Interface (BNC) | 4-ch: DB15 to BNC |
| Video Decoding | |
| Video Decoding Format | H.264, H.265, SmarH.264, SmarH.265, MJPEG |
| Video Decoding Resolution | Up to 32 MP |
| Video Decoding Channel(s) | 256 |
| Video Decoding Capability | Support 8-ch 32 MP/24 MP/16-ch 12 MP/32-ch 8 MP/40-ch 6 MP/64-ch 4 MP/128-ch 1080p/256-ch 720p and below real-time decoding (4 outputs in a group, sharing decoding capabilities) |
| Audio Output | |
| Audio Output Interface Type | embedded HDMI audio output or DB15 to BNC independent audio output |
| Audio Output Interface(s) | 16 |
| Encoding and Decoding | |
| Audio Decoding Format | G711A, G711U, G722.1, G726-16/U/A, MPEG, AAC-LC, PCM |

▪ Physical Interface

| Front Panel | Description | Rear Panel | Description |
|-------------|--|------------|------------------------|
| CPU | System running status indicator, green for normal working status | AUDIO OUT | Audio Output Interface |
| PCIE | ernal communication status | VIDEO OUT | Video Output Interface |

| | | | |
|-----------|---|-----------|------------------------|
| | indicator, green for normal working status | | |
| POWER | Power supply indicator, red for normal working status | HDMI OUT | HDMI Output Interface |
| HDMI IN1 | HDMI Input Interface 1 | RS-485 | RS-485 Interface |
| HDMI IN 2 | HDMI Input Interface 2 | ALARM IN | Alarm Input Interface |
| USB | USB 2.0 Interface | ALARM OUT | Alarm Output Interface |
| G1 | 1000 M Switching Network Interface 1 | | |
| OPT 1 | 1000 M Optical Interface1 | | |
| RS-232 | Device Debugging Serial Port | | |
| G2 | 1000 M Switching Network Interface 2 | | |
| OPT 2 | 1000 M Optical Interface 2 | | |



▪ **Available Model**

AI-SRD16

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