



Description

This product is an integrated input and output terminal that integrates powerful system functions such as visual management, KVM seating collaboration, splicing, network transmission, matrix, central control, and fusion. It adopts a fully distributed structure design and can be expanded to any number of units. It is simple and easy to use. Failure of any unit will not affect the operation of the entire system, and the reliability is high. The redundant and backup design has strong stability and supports KVM cross-screen roaming and ultra-low latency mouse control. It has an embedded self-developed video splicing synchronization algorithm and can be directly connected to the LED screen. The structure adopts a desktop design (optional rack accessories), with beautiful appearance and high-end quality.

Features

- *Integrated input and output design allows for configuration as an input terminal, output terminal, KVM input terminal, or KVM output terminal based on requirements.
- *Supports YUV 4:4:4 format encoding and decoding. When used as an input node, it supports 4K@60fps, 4K@30fps, 1920×1080P@60fps, and 1920×1080P@30fps high-definition video signal input and is backward compatible, allowing simultaneous transmission of multiple streams. 4K input is compatible with both 4K and 2K output terminals. When used as an output node, it supports 4K@60fps, 4K@30fps, 1920×1080P@60fps, and 1920×1080P@30fps high-definition output and is backward compatible. It also supports dual-channel high-definition video signal output via HDMI and DP 4K@60fps. Supports tiling, scaling, overlaying, and splitting of images.
- *Supports real-time preview of input signal sources via WEB or client. Both WEB and client support KVM control of computer signal sources, giving you complete control over signal scheduling.
- *Logo: When used as an input node, you can add an image to the input source as the logo without adding any external devices. You can set the logo to display in the top left or bottom left corner, or at custom X and Y coordinates. You can upload new images or use existing ones.
- *Video Wall Subtitles: When used as an output node, you can display subtitles (such as welcome messages) on the video wall without adding any external devices. You can set the font type, alignment, font size, font color, background color, transparency, scrolling speed, font spacing, centering, and display position.
- *Input Box Subtitles: When used as an input node, you can display subtitles on the input source without adding any external devices. You can set the font type, font size, font color, background color, transparency, and display position.
- *Local HD Background: When used as an output node, you can display the background image for the video wall without adding any external devices. You can load a custom local image and enable or disable the background image function in the software. * Features a 3.5mm analog audio port and an HDMI digital audio port, capable of transmitting raw, uncompressed PCM audio. It supports AAC and OPUS audio codecs.
- *Supports KVM functionality, enabling graphical (non-text) screen capture, takeover, and push to any monitor or large screen. KVM cross-screen roaming and virtual mouse control optimize the KVM user experience, supporting cross-platform operation across Windows, Linux, and Mac platforms.
- *KVM supports visual management of the OSD menu, allowing users to adjust the number of preview videos per page to meet their needs, up to eight per page. KVM takeover includes prompts and confirmations.
- *Supports KVM role permission management, allowing users to control KVM signal management permissions through server permission management.
- *Supports fingerprint scanners for KVM fingerprint login and facial recognition login with USB cameras, establishing fast, reliable, and secure access channels.



- * Embedded with proprietary video splicing and synchronization algorithms, it eliminates the need for a splicing processor and can directly connect to LED, LCD, DLP, and other splicing screens, ensuring tear-free and synchronized video. * Built-in input synchronization supports simultaneous capture and encoding of an 8K signal source on four input nodes, and simultaneous decoding and display on four output nodes. The entire 8K signal is clear, smooth, and tear-free, ensuring seamless transmission of 8K signals.
- * Equipped with central control functionality, it features one independent RS-485 port, two RS-232 ports, two low-power relay ports, three I/O ports, and four infrared output ports, supporting custom programming.
- * Built-in infrared learning module learns infrared codes for infrared remote control devices, including camera remote controls.
- * The control interface supports bidirectional data transmission and supports connecting to sensor devices to display environmental data and other information on the tablet.
- * Equipped with a 0.96-inch (128×64) OLED display, which can display the terminal IP and operating status in real time.
- * Features a desktop design with an optional cabinet-style cooling rack for unified power management.
- * Utilizes domestically produced chips and a domestically controlled embedded Linux system, supporting 24/7 continuous operation.
- * Supports rapid online batch upgrades via the server.
- * Supports automatic recovery from power outages, restoring the device to its pre-outage state.
- * Features a button with anti-accidental operation function, enabling factory reset and one-click dynamic IP function reset.
- * The terminal's HDMI IN interface has an adjustable fixing device to accommodate different HDMI cable specifications and prevent detachment.
- * Supports DC12V/POE dual power supply modes. The DC interface has a locking mechanism to prevent power supply loosening and detachment. POE supports the IEEE 802.3at standard, with low power consumption, maximum 10W.
- * Supports dual-link backup for optical fiber and Ethernet ports.
- * Supports a packet loss recovery mechanism. Even with 20% packet loss, audio and video remain clear and smooth, without lag or pixelation.
- * Endpoints support offline hold, maintaining the original display and output even when disconnected from the server, preventing freezing or black screens.
- * Supports USB transparent transmission. No additional equipment or a separate network is required. Simply connect a single Ethernet cable or bidirectional fiber optic cable to transmit media, signaling, and USB transparent data. This supports USB devices such as USB flash drives, USB cameras, USB keys, and USB HIDs.
- * Supports SIP protocol, built-in agent video intercom functionality, and supports connecting external USB cameras and USB headsets for video intercom with standard SIP devices.
- * Supports national encryption algorithms SM2, SM3, and SM4 for encrypted signaling and media streams, ensuring data security and control. * Built-in AI gesture recognition converts gestures into control commands for zooming, dragging, and full-screening sources.
- * Supports simultaneous control of four 4K60 or sixteen 1080P60 video signals. Each video signal supports KVM control, allowing one-click full-screen zooming of any signal source, one-click restoration of the full-screen source, and one-click push of any currently controlled video signal to any window on any video wall.
- * When used as an output node, it supports setting an audio equalizer, which can be enabled or disabled, as well as dynamic compression. It has 18 built-in common equalizer scenes that can be switched with one click or fully customized. The gain can be controlled individually for different frequency bands such as 60Hz, 170Hz, 310Hz, 600Hz, 1KHz, 3KHz, 6KHz, 12KHz, 14KHz, and 16KHz, with a range of -20dB to 20dB.
- * Supports signal cropping, allowing you to crop input signals by setting cropping coordinates, width, and height.
- * Supports signal source annotation. As an input node, you can annotate input signals via the control tablet, PC, KVM station, or web client. As a KVM output node, you can annotate signals from connected input boxes. Annotations support freehand lines, straight lines, arrows, squares, circles, triangles, and other annotation shapes. You can set the line thickness and color, undo and redo annotations, and use the eraser to delete or remove all annotations.
- * Supports KVM instant messaging, allowing you to communicate with one or all users via text or screenshots. Images can be zoomed in and out, and can be dragged and dropped after zooming.
- * Supports the addition of a time display control, allowing you to configure the time display's coordinate position, font size, font color, background color, transparency, font spacing, font type, and display style.
- * Supports the addition of a temperature display control, allowing you to configure the temperature display's coordinate position, font size, font color, background color, transparency, font spacing, font type, temperature prefix, and temperature suffix. * Supports the addition of a humidity display control, allowing you to configure the humidity display's coordinate position, font size, font color, background color, transparency, font spacing, font type, humidity prefix, humidity suffix, and more.
- * Supports the addition of a real-time people counting control, allowing you to configure the display's coordinate position, font size, font color, background color, transparency, font spacing, font type, statistics prefix, statistics suffix, and more.
- * Supports the KVM account tracking function, automatically opening a window to display the last used signal source after logging into any KVM video wall account.
- * Supports AI target recognition algorithms, enabling video structured analysis capabilities such as pedestrian attribute recognition, crowd counting, area crowd counting, area over-capacity detection, face capture, face recognition, pedestrian capture, vehicle capture, high-frequency stranger detection, low-frequency person detection, and more.



- *Supports AI perimeter protection algorithms, enabling video structured analysis capabilities such as area intrusion detection, electric bicycle entry into elevator detection, and non-motor vehicle illegal parking detection. *Supports AI behavioral recognition algorithms, enabling video structured analysis capabilities such as identification of people leaving their posts, not wearing masks, making phone calls, smoking, falling, fighting, wandering, using mobile phones, holding knives, sleeping, climbing, climbing over walls, and crowds.
- *Supports AI work safety recognition algorithms, enabling video structured analysis capabilities such as identification of people not wearing work clothes, shorts and short sleeves, not wearing helmets, and not wearing reflective clothing.
- *Supports AI environmental safety recognition algorithms, enabling video structured analysis capabilities such as identification of smoke, open flames, overflowing trash cans, exposed garbage, and objects thrown from high places.
- *Supports AI intelligent traffic recognition algorithms, enabling video structured analysis capabilities such as identification of illegally parked vehicles, vehicle flow statistics, regional vehicle statistics, vehicle congestion detection, overparked vehicles, license plate obstruction detection, concrete mixer trucks, dump trucks, uncovered dump trucks, safety ropes, and exposed soil. *Supports AI-powered smart water management recognition algorithms, enabling video structured analysis functions such as person-overboard identification, regional vessel counts, vessel traffic statistics, and vessel intrusion detection.
- *Latency between the signal source and the entire signal process, including input node acquisition, H.265 encoding, network transmission, H.265 decoding, and display, is reduced to 16.7ms.
- *Supports OCR text recognition, capturing a computer screen captured by the input box as an image for AI analysis. The extracted text can then be extracted and transferred to another computer via the KVM output box. The extracted text can then be pasted into a file.
- *The terminal supports a decentralized serverless architecture deployment, with each node independent and non-interfering. A failure in any node does not affect system operation, improving system stability and reliability. *Supports setting of common layouts such as 1P, 4P, 9P, 1+4P, 1+5P, 1+7P, 2+8P, 1+12P, and 16P. You can also customize the number of rows and columns in the layout, reuse the original layout of the video wall output box, and enable auto-fill layout mode.
- *Supports video wall recording, allowing you to copy the video wall layout for recording, and supports 16-split screen recording.
- *Supports RTSP, ONVIF, and GB28181 protocols, allowing direct connection and pulling of surveillance signals.

Specification

Processor	Domestic processor (8 cores), built-in 6 TOPS computing power, 8GB RAM, 32GB eMMC storage
Video processing power	When used as an input node, it supports 4K@60fps acquisition, 4K@60fps encoding, and is backward compatible. When used as an output node, it supports 4K@60fps decoding, 4K@60fps output display, and is backward compatible, supporting 4-channel 4K@60 or 16-channel 1920×1080@60fps decoding; supporting H.264/H.265 video codec
Audio processing power	Support PCM audio lossless transmission, AAC codec, OPUS codec
Video interface	1×HDMI IN, 1×HDMI OUT, DP OUT
Audio port	1×3.5mm stereo audio input, 1×3.5mm stereo audio output, input sensitivity: 775mV
USB interface	2×USB2.0 (KVM interface), 2×USB3.0 (support audio and video input), 1×Type-C (Debug interface)
Network port	1×RJ45, 10/100/1000Base-T, support POE
OPTICAL fiber optic network interface	1×SFP
Serial port	1×RS-485, 2×RS-232
Infrared	1×IR, 4×IR OUT
I/O Ports	3 × I/O ports
Weak relay port	2×RELAY port
Reset button	1× Pinhole RST reset button (to restore factory settings or reset dynamic IP button)
Mode switch	1× input/output mode selection switch
Power supply	DC 12V/POE
POWER	Lockable DC12V power interface
OLED	0.96-inch (128x64) OLED display
Maximum power consumption	10W
Ambient temperature	-10°C~45°C (working state) -15°C~45°C (non-working state)
environment humidity	5%~90% (working status), no condensation
weight	About 1.02Kg
Dimensions	240×117×41.8mm