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.

Feature

*The input and output integrated design can be configured as an input terminal, output terminal, KVM input terminal or KVM output terminal according to needs.

*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. It supports 4K@60fps YUV444 acquisition and encoding, and simultaneous transmission of multiple streams. 4K input is compatible with 4K and 2K output terminals at the same time. 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 supports 4K@60fps YUV444 decoding and display.

*When used as an output node, it supports 4K@60fps H.264/H.265 encoding and decoding, supports 4-channel 4K@60fps or 16-channel 1080P@60fps H.264/H.265 decoding and display, and supports screen tiling, scaling, overlaying, and splitting.

*Supports real-time preview of input signals through the client, so that the signal status is under full control.

*Station logo: When used as an input node, it supports adding pictures as the input source's logo without adding external devices. The logo can be set to display in the upper left corner, lower left corner, or customized X, Y coordinates. You can upload new pictures or use the uploaded pictures for setting.

*Split screen subtitles: When used as an output node, it supports displaying subtitles (such as welcome words, etc.) on the splicing screen without adding external devices. You can set the font type, arrangement, font size, font color, background color, transparency, scrolling speed, font spacing, centering, display position, etc.

*Input box subtitles: When used as an input node, it supports displaying subtitles on the input source without adding external devices. You can set the font type, font size, font color, background color, transparency, display position, etc.

Local high-definition background map: Without adding external devices, the display wall background map function is supported. You can customize the loading of local pictures and enable or disable the background map function on the software.

*It has a 3.5mm analog audio interface and an HDMI digital audio interface, which can transmit original PCM audio without encoding compression.

*Supports KVM function, and performs screen capture, takeover and screen push in a graphical (non-text) manner, which can be pushed to any display or large screen. It supports KVM cross-screen roaming, supports virtual mouse control, optimizes KVM operation experience, and supports cross-platform operations, including Windows, Linux, Mac and other system platforms.

*KVM supports OSD menu visual management and can adjust the number of single-page preview videos according to user needs. The maximum number of single-page previews can reach eight. KVM has information prompts and confirmations when taking over.

*Supports KVM role permission management, and can control KVM signal management permissions through the server permission management function.

*It supports the connection of fingerprint scanner to realize KVM fingerprint recognition login, and also supports the KVM face recognition login function with USB camera to establish a fast, reliable and secure access channel.

*It has an embedded self-developed video splicing synchronization algorithm, and does not require a splicing processor. It can be directly connected to LED, LCD, DLP and other splicing screens, and the picture is synchronized without tearing.

*The built-in input synchronization function supports 4 input nodes to synchronously collect and encode an 8K signal source, and transmit it to 4 output nodes for synchronous decoding and display. The entire 8K signal picture is clear and smooth without tearing, realizing the transmission of 8K signal source.

*It has central control function, with 1-channel independent RS-485 port, 2-channel RS-232 ports, 2-channel weak relay ports, 3-channel IO ports and 4-channel infrared output ports, and supports custom programming.

*Built-in infrared learning module, can learn infrared codes of infrared remote control devices including camera remote controllers.

*The control interface supports two-way data transmission and supports the connection of sensor devices to display environmental data and other information on the tablet.

*It adopts desktop structure design, with optional cabinet-type cooling rack and unified power supply management.

*It uses domestic chips and domestically-made independently controllable embedded Linux system, supporting 7x24 hours of continuous operation.

*Supports online batch rapid upgrade through the server.

*Supports automatic recovery from abnormal power outages, and the device automatically returns to the state before the power outage.

*Supports one-key reset of dynamic IP function.

*Supports DC12V/POE dual power supply mode, low power consumption, maximum 10W.

*Supports optical fiber/network port dual-link backup.

*It supports a repair mechanism when network packet loss occurs. When the network packet loss rate reaches 10%, the audio and video are clear and smooth without any lag or mosaic.

*The terminal node supports the offline retention function. When disconnected from the server, the original display screen can still be displayed and output normally without screen freezing or black screen.

*Supports USB transparent transmission function, no need to add additional equipment, no need to use a separate network, only need to connect a network cable or a two-way optical fiber cable to realize the transmission of media, signaling, and USB transparent data. It can transparently transmit USB devices such as USB flash drives, USB cameras, U Keys, USB HID, etc.

*Supports SIP protocol, built-in agent video intercom function, and can be connected to external USB camera, USB headset and standard SIP protocol equipment for video intercom.

*Supports national encryption algorithms SM2, SM3, and SM4 to encrypt and transmit signaling and media streams to ensure data security and controllability.

*Built-in AI gesture recognition capability, which recognizes different gestures and converts them into different control commands to control signal source zoom, drag, full screen, etc.

*Supports taking over 16 1080P60 video signals at the same time. All 16 video signals support KVM control. You can zoom in on any signal source in full screen with one click, restore the full-screen signal source image with one click, and push any currently taken over video signal to any window on any splicing wall for display with one click.

*When used as an output node, it supports setting the audio equalizer, which can be enabled or disabled, and dynamic compression. It has 18 commonly used equalizer scenes built in, which can be switched with one click, or fully customized. The gain of audio in different frequency bands such as 60Hz, 170Hz, 310Hz, 600Hz, 1KHz, 3KHz, 6KHz, 12KHz, 14KHz, 16KHz, etc. can be controlled separately, ranging from -20dB to 20dB.

*Supports signal cropping function, you can set cropping coordinates, cropping width and height to crop the input signal.

*Supports signal source annotation function. When used as an input node, the input signal can be annotated through the control panel, PC, KVM seat, and web terminal. When used as a KVM output node, the input box signal can be annotated. When annotating, it supports free drawing, straight line, arrow, square, circle, triangle and other annotation forms. The thickness and color of the annotation line can be set. The annotation operation can be undone or restored. The eraser can be used to select and delete the annotation or delete all.

*Supports KVM instant communication function, which allows communication with one person or all employees via text or screenshots. Images can be zoomed in and out, and can be dragged for viewing after zooming in.

Supports adding time display controls, and can set the coordinate position, font size, font color, background color, transparency, font spacing, font type, display style, etc. of the time display.

*Supports adding temperature display controls, and can set the coordinate position, font size, font color, background color, transparency, font spacing, font type, temperature prefix, temperature suffix, etc. of the temperature display.

*Supports adding humidity display controls, and can set the coordinate position, font size, font color, background color, transparency, font spacing, font type, humidity prefix, humidity suffix, etc. of the humidity display.

*Supports adding real-time people counting controls, and can set the coordinate position, font size, font color, background color, transparency, font spacing, font type, statistical prefix, statistical suffix, etc. of the statistical display.

*Supports KVM account following function. After logging into any KVM wall-mounted account, a window will automatically open to display the last used signal source.

*It supports AI analysis function and real-time monitoring and alarm for 16 scenarios including not wearing work clothes, human attributes, people crossing the line, number of people in the area, over-limit of people in the area, area intrusion, leaving the post, not wearing a helmet, not wearing reflective clothing, wearing a mask, making phone calls, smoking, falling, smoke, open flames, illegal parking, etc.

*The delay between the image at the signal source end and the image after the signal source goes through the entire process of input node acquisition, input node H.265 encoding, network transmission, output node H.265 decoding, and output node display can be as short as 30ms.

*Supports OCR text recognition function, which can capture a computer screen captured by the input box as a picture for AI analysis, extract text from the picture and transfer it to another computer through the KVM output box, and the extracted text can be pasted into a file.

*The terminal supports decentralized serverless architecture deployment, and each node is independent and does not interfere with each other, which improves the stability and reliability of system operation;

It supports setting the layout of the wall-pushing window to common layouts such as 1P, 4P, 9P, 1+4P, 1+5P, 1+7P, 2+8P, 1+12P, and 16P. It also supports customizing the number of rows and columns of the wall-pushing layout. It supports using the original layout of the wall-pushing output box and can enable the automatic fill layout mode.

Specification

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.
Codec capability	Support H.264/H.265 video encoding and PCM audio lossless transmission
Video interface	1×HDMI IN, 1×HDMI 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
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 button
Restore factory settings button	1×pinhole RCV button
Mode switch	1×Input and output mode switch
Power supply	DC 12V/POE
Maximum power consumption	10W
Ambient temperature	-10℃~45℃ (working state) -15℃~45℃ (non-working state)
environment humidity	5%~90% (working status), no condensation
weight	About 1.02Kg
Dimensions (L x W x H)	240×117×41.8mm