Embedded software: VMS visual management system terminal V3.031 TV-711A4K



Description

It is an integrated input and output terminal of a visual management platform. It integrates powerful system functions such as visual management, KVM collaboration, splicing, network transmission, matrix, central control and fusion. It adopts a completely distributed structure design and supports unlimited unit extension; any unit failure will not affect the operation of the entire system, featuring high reliability. It is designed with a redundancy and backup design, bringing strong stability; it supports KVM cross-screen roaming, and mouse control with ultra-low delay. With built-in self-developed video splicing synchronization algorithm, it can be directly connected to the LED video wall. It is characterized by desktop design (optional rack accessories) and elegant appearance.

Feature

* The integrated input and output design can be freely configured as input terminal, output terminal or KVM terminal.

* Support 4K@30fps, 1920*1080P@60fps, 1920*1080P@30fps HD video signal input and backward compatibility; when used as an output node, support 4K@60fps, 4K@30fps, 1920*1080P@60fps, 1920*1080P@30fps HD output and backward compatibility, and synchronous multi-stream transmission; 4K input can be compatible with 4K and 2K output terminals at the same time.

* Support H.264/H.265 decoding display of 4K@60fps; support 2 channels of 4K@30fps or 8 channels of 1080P@30fps H264/H265 decoding and display, support picture tiling, scaling, overlaying, and splitting.

* Support real-time preview of the input signal through the client, and the signal status is under control.

* Station logo: without adding external devices, it supports adding text or picture to the input source as the logo; the font, font size, color and background color of the logo can be customized; the logo size can be changed as needed.

* Subtitles: without adding external devices, subtitles (such as welcome messages) can be displayed on the splicing screen. The font size, color, and position can be customized, and dynamic scrolling subtitles is supported.

* Local HD basemap: without adding external devices, it supports the display wall basemap function; you can load local pictures, and can set the basemap function on and off on the software.

* With 3.5mm analog audio interface and HDM digital audio interface, it supports the transmission of original PCM audio without coding compression; * Support KVM function, capture screen and send screen graphically (non-text), send screen to any monitor or large screen, support KVM cross-screen roaming, support virtual mouse control to optimize KVM operation experience, support cross-platform operation, including Windows, Linux, Mac and other system platforms.

* KVM supports OSD menu visual management, the number of preview videos on a single page can be adjusted as needed, the maximum number of previews on a single page can reach 8, and information prompts and confirmations are provided meanwhile.

* Support KVM role permission management, control KVM signal management permission through the server permission management function.

* Support access to fingerprint sensor to realize KVM fingerprint identification login, and support to cooperate with USB camera to realize KVM face recognition login function, and establish a fast, reliable and safe access channel.

* Built-in self-developed video splicing synchronization algorithm, no splicing processor is required, it can be directly connected to LED sending card, LCD, DLP and other splicing screens, and the picture is synced without tearing.

* Built-in input synchronization function, support 4 input nodes for synchronous acquisition and synchronous encoding of an 8K high-resolution signal source, and transmit it to 4 output nodes for synchronous decoding and synchronous display. The entire 8K signal picture is clear and smooth without tearing, Realize 1:1 display of 8K high-resolution signal source on the wall;

* Support the function of central control, with independent RS-232 serial port, RS-485 interface, 2 RELAY interfaces, 3 IO ports and 4 infrared output interfaces, and support custom programming.

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

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

* With a 2.23-inch OLED display, it can display the terminal IP address and operating status in real time.

* Desktop structure design, optional cabinet-type cooling rack, and unified power supply management.

* Adopt embedded linux system, support 7x24 hours of continuous operation.

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* Support online batch upgrade through the server.

* Support automatic recovery from abnormal power failure, and the device automatically restores to the previous status.

* Support one-key reset dynamic IP, one-key reset and restore file system functions.

* Support POE, adapter dual power supply, low power consumption, maximum 12W.

* Support fiber/network port dual link backup. When any link fails, it supports automatic seamless switching to another link for transmission, and no packet loss occurs during the switching process.

* Support network packet loss repair mechanism, when 10% network packet loss, the audio and video is clear and smooth, without freeze or mosaic. * The terminal node supports the offline maintenance function. When disconnected from the server, the original display screen can still be displayed

and output normally, without screen freeze or blackout.

* Support national secret algorithms SM2, SM3, SM4 to encrypt and transmit signaling and media streams to ensure data security and controllability. * Support the push function of visual video wall, which can display the video wall image in real time, adjust the screen layout of any video wall, the

splicing mode of signal source, and control the zoom in, zoom out, and movement of signal source.

* Support to take over 8 1080P30 video signals at the same time, all 8 video signals support KVM control, it supports one-key full-screen zooming in on any signal source, one-key restoration of the full-screen signal source image, and one-key push of any video signal currently taken over to be displayed on any window of any video wall.

* When used as an output node, it can be used with the input node to realize the USB transparent transmission function, no need to add additional equipment, no need to use a separate network, and only need to connect a network cable or two-way optical fiber cable to realize the common transmission of media, signaling, and USB transparent transmission data;

* Support SIP protocol, built-in seat video intercom function, can connect external USB camera, USB headset and standard SIP protocol equipment for video intercom.

* When used as an output node, it supports setting the audio equalizer, enabling or disabling the equalizer, enabling or disabling dynamic compression, and built-in 18 commonly used equalizer scenes, which can be switched with one key or fully customized, for 60 Hz, 170 Hz, 310 Hz, 600 Hz, 1K Hz, 3K Hz, 6K Hz, 12K Hz, 14K Hz, 16K Hz and other audio frequency bands, the gain can be controlled independently, and the range is -20dB to 20dB.

Specification

Model	TV-711A4K
Processing capability	When used as an input node, it supports 4K@30fps, 1920*1080P@60fps, 1920*1080P@30fps HD video signal input and backward compatibility; when used as an output node, it supports 4K@60fps, 4K@30fps, 1920*1080P@60fps, 1920*1080P@30fps HD signal output and backward compatibility, supports 4K@60fps H.264/H.265 decoding display, and supports 2-channel 4K@30 or 8-channel 1920*1080@30fps codec
Codec capability	Support H.264/H.265 video encoding, PCM audio lossless transmission
Video port	1*HDMI IN (support audio), 1*HDMI OUT (support audio), 1*VGA OUT
Audio port	1*3.5mm stereo input, 1*3.5mm stereo output, input sensitivity: 775mV
USB port	2*USB2.0 (KVM port), 1*USB3.0 (support video input)
Network port	1*RJ45, 10/100/1000Base-T, support POE
OPTICAL port	1*SFP
Serial port	1*RS-485, 1*RS-232
Infrared port	1*IR learning window, 4*IR OUT
I/O port	3*I/O port
Weak relay port	2*RELAY port
Reset button	1*pinhole RESET button
Mode switch	1*input and output mode switch
Display screen	2.23-inch OLED display with 128*32 pixels
Power supply	DC 12V/POE
Max power consumption	12W
Ambient temperature	-10°C~45°C (working state); -15°C~45°C (non-working state)
Ambient humidity	5%~90% (working state), no condensation
Weight	About 0.9kg
Dimension (L*W*H)	240*117*44.8mm