



# HD Integrated Terminal TV-711C4K

## Embedded software: VMS visual management system terminal embedded software V2.0



### 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

- \* Input and output integrated design, can be configured as input terminal, output terminal, KVM input terminal or KVM output terminal according to needs.
- \* 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. 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.
- \* Support real-time preview of the input signal through the client, and the signal status is under control.
- \* Station Logo: When used as an input node, it supports adding pictures as the input source 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.
- \* Splicing wall 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, whether to center, 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, it supports the display wall background map function. You can customize the loading of local pictures, and the background map function can be enabled or disabled on the software.
- \* With 3.5mm analog audio interface and HDMI 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, supports 4 input nodes for synchronous acquisition and synchronous encoding of a 8K signal source, and transmits to 4 output nodes for synchronous decoding and synchronous display, the whole 8K signal picture is clear and smooth, without tearing, realizing 1:1 wall display of 8K signal source.
- \* Support the function of central control, with 1 independent RS-485 interface, 2 RS-232 serial ports, 2 RELAY ports, 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.
- \* It uses domestic chips and domestically-made independently controllable embedded Linux system, supporting 7x24 hours of continuous operation.
- \* 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.
- \* Support DC12V/POE dual power supply, low power consumption, maximum 10W, and the power adapter interface has an anti-falling device.
- \* Support fiber/network port dual link backup.
- \* 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.
- \* The time difference between the signal source picture and the signal source picture after the entire process of input node collection, input node H.265 encoding, network transmission, output node H.265 decoding, and output node display can be as short as 30ms.
- \* Support USB transparent transmission function, no additional equipment is required, no separate network is required, only one network cable or two-way optical fiber cable is needed to realize the transmission of media, signaling and USB transparent transmission data, and USB devices such as USB flash drive, USB camera, U Key, USB HID can be transparently transmitted.



# HD Integrated Terminal TV-711C4K

## EM-IP5620 Embedded software: VMS visual management system terminal embedded software V3.031

- \* Support SIP protocol, built-in seat video intercom function, can connect external USB camera, USB headset and standard SIP protocol equipment for video intercom.
- \* Support national secret algorithms SM2, SM3, SM4 to encrypt and transmit signaling and media streams to ensure data security and controllability.
- \* Built-in AI gesture recognition capability, it can control signal source scaling, dragging, full screen, etc. by recognizing different gestures and converting them into different control instructions.
- \* 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 screen with one click, and push any currently taken over video signal to any window of any splicing wall with one click for display;
- \* When used as an output node, it supports setting the audio equalizer, enabling or disabling the equalizer, enabling or disabling dynamic compression, and has 18 commonly used equalizer scenes built in. You can switch with one click or fully customize the settings. For audios of different frequency bands such as 60 Hz, 170 Hz, 310 Hz, 600 Hz, 1K Hz, 3K Hz, 6K Hz, 12K Hz, 14K Hz, and 16K Hz, the gain can be controlled separately, ranging from -20dB to 20dB.
- \* Supports signal cropping function, and can set cropping coordinates, cropping width and height to crop the input signal.
- \* Support 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 revoked or restored. The annotation can be deleted or deleted all by selecting the eraser.
- \* Support KVM instant communication function. It can communicate with a single person or all members through text or screenshots. The picture supports zooming in and out. After zooming in, it can be dragged to view.
- \* Support adding time display control. The coordinate position, font size, font color, background color, transparency, font spacing, font type, display style, etc. of the time display can be set.
- \* Support adding temperature display control. The coordinate position, font size, font color, background color, transparency, font spacing, font type, temperature prefix, temperature suffix, etc. of the temperature display can be set.
- \* Support 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 humidity display.
- \* Support 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 statistical display.
- \* Support KVM account following function, after logging into any KVM wall account, automatically open the window to display the signal source used last time.
- \* Support AI analysis function, support real-time monitoring and alarm for 16 scenarios such as 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 a reflective clothing, wearing a mask, making a phone call, smoking, falling, smoke, open fire, illegal parking, etc.
- \* The delay between the signal source end screen and the signal source after 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 collected by the input box as a picture for AI analysis, extract the text in the picture and transmit it to another computer through the KVM output box, and the extracted text can be pasted into the file.
- \* The terminal supports decentralized serverless architecture deployment, each node is independent and does not interfere with each other, improving the stability and reliability of system operation;
- \* Supports setting the wall layout to 1P, 4P, 9P, 1+4P, 1+5P, 1+7P, 2+8P, 1+12P, 16P and other common layouts, and can also customize the number of rows and columns of the wall layout, support the use of the original layout of the wall output box, and enable the automatic fill layout mode.

### Specification

<b>Processing capability</b>	When used as an input node, it supports 4K@60fps capture, 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. It supports 4 channels of 4K@60 or 16 channels of 1920×1080@60fps decoding.
<b>Codec capability</b>	Support H.264/H.265 video encoding, PCM audio lossless transmission
<b>Video port</b>	2×HDMI IN, 1×HDMI OUT, 1×DP OUT
<b>Audio port</b>	1×3.5mm stereo input, 1×3.5mm stereo output, input sensitivity: 775mV
<b>USB port</b>	2×USB2.0 (KVM interface), 2×USB3.0(Support audio and video input), 1×Type-C
<b>Network port</b>	1×RJ45 , 10/100/1000Base-T, support POE
<b>OPTICAL port</b>	1×SFP
<b>Serial port</b>	1×RS-485、2×RS-232
<b>Infrared port</b>	1×IR、4×IR OUT
<b>I/O port</b>	3×I/O port
<b>Weak relay port</b>	2×RELAY port
<b>Reset button</b>	1×pinhole RESET button
<b>Mode switch</b>	1×input and output mode switch
<b>Display screen</b>	2.23-inch OLED display with 128*32 pixels
<b>Power supply</b>	DC 12V/POE
<b>Max power consumption</b>	10W
<b>Ambient temperature</b>	-10°C~45°C (working state); -15°C~45°C (non-working state)
<b>Ambient humidity</b>	5%~90% (working state), no condensation
<b>Weight</b>	About 1.0 kg
<b>Dimension (L*W*H)</b>	240×117×41.8mm