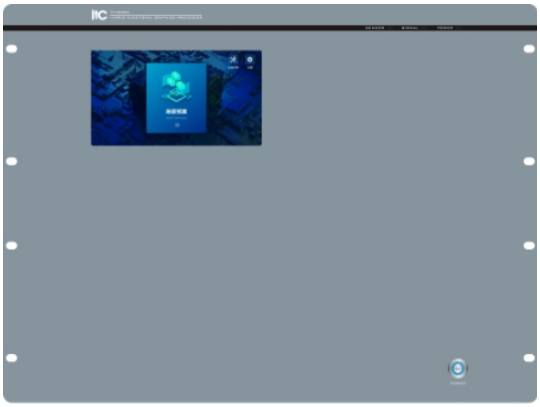
Controller TV-68128

Fusion all-in-one controller embedded software V3.084



Description

Fusion all-in-one machine is based on FPGA hardware architecture and adopts a plug-in card design. Different interfaces can flexibly match actual needs. It is characterized by low failure rate and high reliability. It integrates high-score collection, output customization, visual management and other technologies, and is a comprehensive, visual audiovisual control platform.It is mainly used in command centers, data management and control centers, and comprehensive management systems in the security industry. The system integrates KVM agent management, large screen splicing management, IoT device control, audio processing, video recording, optical moment agents, video conference management and other systems. The agent side supports a set of keyboard and mouse to manage multiple devices. It can push the agent screen to the big screen, or capture the screen from the big screen to the agent. The platform software can control the large screen display signal, audio control, screen recording, and screen polling, as well as the control of IoT equipment such as on-site lights and curtains, the systems are seamlessly connected to achieve unified on-site scheduling.

Feature

*Pure hardware plug-in architecture design, 19-inch standard rack-mounted installation, metal structure cabinet ;
*Using 8U metal structure cabinet, the prototype's shell protection level meets the IP20 requirements in GB/T4208-2017 ;
*Built-in 7-inch touch screen, monitoring status viewing, parameter setting, plan calling and other operations can be performed through the touch screen ;
*The device adopts a plug-in card design and has a built-in data exchange backplane, which can detect the device temperature and power online status ;
*Supports lossless and uncompressed audio and video transmission, provides uncompressed transmission and near-zero delay fiber optic KVM technology, supports multiple video format signal transmission, and seamless switching of video signals, with no delay, no black field, no blue screen, and no flicker screen etc. transition state ;
*Supports video splicing, seat and large-screen display integration, and supports access to central control cards, recording cards, video conference cards, digital conference cards, paperless system cards, and platform server cards to achieve environmental control, recording, and remote conference, local conference and other functions unified management and control;
*Support one person multi-computer, one machine multi-screen, signal takeover, push, scene polling, permission assignment, hot key setting and other optical moment seat functions, and the use of non-IP transmission technology, image switching without black screen, to achieve real-time all-round rapid control;
*The agent fiber optic board interface supports customized input or output, and matches the server or agent station by detecting the fixed number of the supporting transmitter;
*The display screen of a single seat supports viewing 4 business systems at the same time, and a set of mouse and keyboard can perform cross-screen operations between different business systems;
*Supports the Chinese OSD translucent menu of Moment Agent. You can use the mouse to directly click on the menu to operate;
*Supports KVM role permission management, and can control KVM signal management permissions through the server permission management function;
*Without adding external equipment, it supports station logo function, text background and position are adjustable;
*Without adding external equipment, it supports subtitle function, subtitle content, background, color, scrolling rate, scrolling direction, and adjustable position;
*Without adding external equipment, it supports high-definition basemap function, and the basemap can reach 8K resolution;
*Video input board, video output board, optical fiber switching card, preview board, echo board, central control board, recording board, video conference board, digital conference board, paperless system board support With the hot-swappable function, the device does not need to be shut down, restarted and set up. After replacing the video board, the previous layer data can be quickly restored to ensure normal playback of the picture. The board can be flexibly replaced and maintained conveniently;
*Supports direct access to various image interfaces such as HDMI, SDI, DVI, FIBER, HDBaseT, IP, etc. without the need for conversion through optical fiber or network cable; the input resolution supports up to 4096×2160@60Hz, and the output resolution supports up to 4096×2160@60Hz.

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*Excellent heat dissipation system design, using the left and right side air inlet and outlet design to optimize the air outlet rate and improve the heat dissipation capacity of the entire machine, ensuring long-term stable operation of the equipment at an ambient temperature of 45°C;
*The system supports B/S and C/S management and control architecture, supports web access to system backend management, and supports real-time monitoring of system management and status through web browsers. Extensible support for using iPad tablet software, Android tablet software, and Windows computer clients to perform operations such as visual management of the system, signal switching, picture overlay, picture-in-picture, picture splicing, picture roaming, picture zoom in/out, picture move/close, etc. Supports real-time monitoring of the display control area; supports multi-user and multi-platform synchronous operations, and supports real-time synchronization of operating interfaces on different platforms;
*The system is designed based on a pure hardware architecture based on FPGA. The system operates efficiently and stably. The internal video data transmission adopts high-speed data parallel processing bus switching technology. The maximum bandwidth of the input and output buses is up to 1937Gbps. The video bus transmission bandwidth of a single input board is up to 4×6.5 Gbps, the video bus transmission bandwidth of a single output board is up to 16×6.5Gbps;
*The IP input card supports simultaneous decoding of 4-channel IP code streams of 4096×2160@30fps;
*It can monitor equipment temperature and power online status, and has intelligent identification of board and interface combinations, board and interface status monitoring, and signal loss warning;
*Supports online firmware upgrade, the firmware version is intelligently forward compatible, the upgrade process is safe, stable, and fast, and the firmware version information of the display device and each board can be refreshed in real time, making it easy to quickly confirm the upgrade results on site;
*Equipped with a video output board, a maximum of 16 layers can be opened in a single image, enabling arbitrary window opening, overlay, roaming, and zooming;
*Supports simultaneous preview of all input sources and echo of all outputs;
*When the video input source is 60Hz, the image delay time from video source input to output is 32ms;
*Supports the superimposition and display of multiple display windows of different video input signals on any video output display screen, with window image roaming, zooming, and superimposition;
*Supports multiple terminal users to be online and deliver data at the same time. The operation response time is within 1 second, and online firmware upgrade operations are possible;
*A single video output card supports the creation of a maximum of 4 screens, and a single device supports the creation of a maximum of 20 screens; it has irregular screen construction, and can realize screen creation with a single card and a single interface;
*Supports setting 3,000 scene plans;
*Supports layer parameter settings, including zoom, layer top and bottom, layout mode, and overlay;
*Supports custom settings for input and output resolutions, which can be saved as EDID templates, and can be imported and exported. Multiple resolution setting modes are available, including: preset resolution and custom resolution;
*Supports real-time viewing of monitoring device operating parameters and status information on the device side, including device name, device SN, device interface connection status, operating status, IP address, and firmware version;
*The device can intelligently identify board and interface combinations, and has board and interface status monitoring. If the input source signal is lost, it can proactively report an early warning;
*Supports dual control card backup function. When the main control card fails during work, it will automatically and seamlessly switch to the backup control card. During the switching process, there will be no black screen and no audio lag, achieving high stability of the equipment;
*Supports dual power supply backup function. Dual power supply access can be switched at will. If any power supply fails, it can be supported by the other power supply, achieving high reliability of the equipment.

Specification

Power button	1×power button
Input card slot	10
Mixed slot	5, can be connected to video input card, output card or fiber optic switching card
Fiber switch slot	6, can also be connected to video input card
Preview slot	1
Echo slot	1
Control slot	2
Business card slot	6, can be connected to the central control board, recording and broadcasting board, video conference board, digital conference board, paperless server card and platform server card

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Touchscreen	1 piece
HDMI port	1×HDMI output port
Serial port	3×DB9 port
Network port	2×RJ45 ports, supporting up to Gigabit network
USB interface	4×USB3.0
Technology Architecture	Centralized , private protocol
Power supply	AC 220V
Rated power consumption	650W
Dimensions (L × W × H)	482.6mm × 315.1mm × 360.4mm
Weight	20Kg
Operating Temperature	0 ℃—+45℃
Operating Humidity	10%-80%