



Functional description:

- Utilizes a Linux-based distributed architecture design with a decentralized framework, enabling scalability to any number of nodes without requiring servers or master nodes. Each node operates independently without mutual interference, reducing system operational risks and lowering maintenance costs.
- Fanless silent design, supporting standalone installation in a 1U rack or side-by-side installation of two units simultaneously;
- Each node unit employs H.265 data stream encoding/decoding chips with backward compatibility, ensuring smooth system operation;
- Video Interface: Supports RTSP, RTMP protocols, proprietary protocols, 2 HDMI ports, embedded audio synchronous or asynchronous input/output, supports port backup; supports 1 encoding channel, 1 HDMI loop-out.
- Audio Interfaces: 1 x 3.5mm MIC IN, 1 x 3.5mm MIC OUT, 1 x Phoenix Connector LINE IN, 1 x Phoenix Connector LINE OUT. Supports AAC, G.711, G.726, proprietary protocols, supports CBR/VBR, adjustable frame rate 1-60fps. Audio input interface with embedded audio synchronous or asynchronous input, supports volume adjustment, and offers three modes: synchronous, asynchronous, and mixing. Supports multi-channel audio mixing playback with lossless audio quality.
- Supports modular management of audio visualization, enabling control of output volume levels for each node via sliders. Displays audio as energy bars and uses animated effects to show the audio status of nodes.
- Features one factory reset button, three USB 2.0 ports, one USB 3.0 port, two Gigabit Ethernet ports, one Gigabit fiber port, 2 HDMI video input/output ports, 2 3.5mm audio input/output ports, 2 3-pin Phoenix audio connectors, 1 relay port, 1 RS232 port, 1 RS485 port, 3 IR/IO ports, 2 input/output toggle DIP switches, and 1 seat function DIP switch.
- Supports HDMI, DVI, VGA, and other signal types, with maximum resolution up to 3840×2160@60Hz and backward compatibility.
- Supports unicast and multicast, supports fixed bitrate transmission with an adjustable range of 128 kbps to 40 Mbps;
- Supports integrated input/output design, allowing nodes to be defined as inputs or outputs via two DIP switches. Additionally supports remotely programming different firmware via software to define nodes as inputs or outputs.
- Supports H.264 and H.265 IPC encoding cameras. IPC network camera signals are directly output and displayed on the large screen without requiring a third-party transcoding server. Supports PTZ functions including zoom in, zoom out, pan left/right, and rotation.
- System scenarios offer one-click restore functionality; node devices feature programmable storage capabilities, enabling automatic restoration of the system to its pre-power-off state after restarting following a power outage. This includes settings such as volume levels, large screen status, signal positioning, and lighting conditions.
- Supports classification, grouping, and sorting management of signal sources. All signal sources can be managed through three-level grouping displayed in a tree structure, and can be sorted by name, IP address, or custom criteria. The client software supports real-time preview display of no fewer than 50 dynamic video streams.
- Supports OSD overlay display of device name, time, and station logo; supports dual station logos with customizable text for each logo.
- Supports environmental control modules, enabling direct control of lighting, curtains, and other environmental elements via serial ports such as RS232 and RS485 without requiring central control devices.
- Supports USB pass-through functionality, enabling transparent transmission of USB data between the agent node and remote computer hosts. This facilitates the use of various USB peripherals including USB flash drives, USB keys, CA certificates, portable hard drives, portable optical drives, webcams, printers, and touchscreens.
- Supports OSD subtitle overlay and high-definition background images;
- Supports automatic recognition of EDID extended display identifiers and HDCP;
- Supports dual power supply modes: POE and external power supply.
- Supports over-the-air firmware upgrades for encoding devices;
- Supports optical network hot backup;
- Supports node LCD status display, capable of showing node name, IP address, operational status, and other information;
- Supports node highlighting functionality: When a node is selected in the software, its LCD screen will continuously flash, facilitating node identification.
- Supports transforming output nodes into seat nodes with seat functionality through both physical DIP switches and remote firmware programming via software.
- Online Upgrade: Supports upgrading encoding devices via the network, enabling online firmware updates for the equipment.
- Supports soft KVM functionality, enabling remote desktop control of computers from a tablet device, including remote power-on and power-off capabilities. Network isolation is maintained between the tablet and the remote computer.
- Supports AI voice control on Android tablets, enabling users to retrieve saved presets and clear the screen via voice commands. This allows for quick switching of large-screen display content without requiring any third-party devices.
- Supports mirror mode, allowing you to set up mirrored displays. When performing operations on the primary screen, other mirrored displays will follow suit.
- Supports tablet and seat interconnection, enabling any signal source to be pushed to the seat via the tablet for coordinated operation.
- Supports button linkage functionality, enabling a single button to control multiple buttons for box control and network control;
- Audio-only wall display functionality enables audio content to be projected onto the large screen independently via client software.
- Annotation feature enables real-time markup on the display via the software interface. Arrows, symbols, ellipses, rectangles, text, and other elements can be instantly synchronized to the display with a single click.

Technical specifications:

Technical Specifications	VM-TS27
Video Interface	1 HDMI input, 1 HDMI loop-through output
Video Resolution	Signal resolution supports up to 3840 × 2160@60Hz with backward compatibility.
Video Bitrate	Adjustable range : 128 kbps to 40 Mbps
Video format	Features H.265 data stream encoding/decoding chip with backward compatibility, supports RTSP, RTMP protocols, and proprietary protocols.
Audio Interface	2x 3.5mm audio input/output jacks 2x 3-pin Phoenix audio connectors
Audio Format	Supports AAC, G.711, G.726, and proprietary protocols ; supports CBR/VBR ; supports adjustable frame rates from 1 to 60 fps ; audio input interface ; embedded audio synchronous or asynchronous input supports volume adjustment ; supports synchronous, asynchronous, and mixed audio modes ; supports multi-channel audio mixing playback with lossless audio quality.
USB port	3 USB 2.0 ports, 1 USB 3.0 port
Network Interface	2 Gigabit Ethernet ports, 1 Gigabit fiber port
Control Interface	1 relay interface, 1 RS232 interface, 1 RS485 interface, 3 IR/IO ports
Power Supply	Supports dual power supply modes : POE and external power supply.
Power consumption	Device power consumption ≤ 10W
Operating Temperature	-10 °C to 60 °C