



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 and RTMP protocols, proprietary protocols, 1 HDMI 2.0 port, embedded audio synchronous or asynchronous output, supports 1 encoding input or decoding output;
- Audio Interface: 1 x 3.5mm MIC IN, 1 x 3.5mm MIC OUT. Supports AAC, G.711, G.726, and proprietary protocols. Supports CBR/VBR. Frame rate adjustable from 1-60fps. Audio input interface with 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;
- 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 DIP switches, and 1 seat function DIP switch.
- Supports HDMI, DVI, VGA, and other signal types. Input resolution supports up to 3840×2160@30Hz with backward compatibility. Output resolution supports up to 4096×2160@60Hz with backward compatibility.
- Supports fixed bitrate transmission with an adjustable range of 128 kbps to 40 Mbps;
- Supports unicast and multicast;
- 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.
- Supports pushing video feeds to large screens from the operator console. Any video source in the list can be pushed from the local console to display full-screen on either local or remote video walls. Features include windowing, roaming, overlaying, and drawing tools, with real-time previews of both the signal source and virtual screen.
- Supports both regular window layouts (e.g., 2x2, 3x3) and freeform windowing via manual dragging to split the window layout arbitrarily when using a large screen.
- Supports video/voice intercom and text chat between agents, enabling direct one-on-one video/voice/text communication; supports agent-to-agent broadcasts, allowing one-to-many communication between agents or broadcasting from an agent to the entire lobby environment.
- Supports multi-party conference mode, accommodating ≥16 operators in the conference interface simultaneously, with 16-channel mixing capability. Participants can be added or removed at any time during the conference.
- Supports pre-operation mode at the agent end, enabling layout adjustments within the virtual display area. Changes made during layout adjustments will not be displayed in real-time on the main screen. Clicking the push-to-screen button instantly displays the finalized layout on the main screen, preventing accidental operations.
- Supports remote KVM control, enabling operators to remotely manage computers in the server room and perform power on/off operations. Capable of simultaneously controlling up to 16 different signal sources across multiple windows. Features both manual and automatic power-on control modes.
- Supports signal requests and push notifications between seats; supports three-tier permission management; supports signal capture from large display screens; supports large screen partition management; supports saving and retrieving predefined scenarios for both agent terminals and large display screens.
- Supports multiple login methods (username/password, fingerprint, facial recognition), featuring seat memory functionality. Users are not restricted to their assigned seats; logging in from any seat retains the original layout without requiring reconfiguration.
- Supports agent-side message queue notifications; alerts for agent sign-in/sign-out status changes and other message delivery events;
- Supports top and bottom OSD menu bars, enabling all operations—screen push, seat push, takeover, control, request, and visual intercom—exclusively via mouse for a PC-like experience. Keyboard shortcuts are also supported.
- System scenes offer one-click restoration functionality; node devices feature programmable storage capabilities, enabling automatic system recovery to pre-power-off states after restarting following a power outage. This includes restoring settings such as volume levels, large screen status, signal positioning, and lighting environments.
- 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, cameras, printers, and touchscreens.
- Supports OSD subtitle overlay and high-definition background images;
- Supports automatic recognition of EDID extended display identifiers and supports HDCP;
- Supports dual power supply modes: POE and external power supply.

Technical specifications:

Technical Specifications	VM-TS28
Video Interface	1 HDMI 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	1 3.5mm MIC IN, 1 3.5mm MIC OUT
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	2 USB 2.0 ports, 1 USB 3.0 port
Network Interface	1 Gigabit RJ45 Ethernet port, 1 Gigabit SFP fiber optic port
Control Interface	1 RS232 port, 1 RS485 port, 1 I/O port, 1 IR-RX port (configurable as an I/O port), 1 IR-TX port (configurable as an I/O port)
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