High-Definition Cloud Video Conference Multipoint Control Unit (MCU)

VY-M008E/VY-M016E/VY-M032E





Functional description:

1. The device adopts an embedded operating system instead of the Windows system; it features carrier-grade and modular design, enabling 7*24-hour uninterrupted online operation.
2. It supports video coding and decoding protocols including H.264, H.264 MP, H.264 HP and H.265, as well as audio coding and decoding protocols such as G.711A, G.711U, G.722, iLBC, G.722.1, G.722.1C, OPUS_16K, OPUS_24K and OPUS_48K, with the maximum audio quality up to 48KHz.
3. It integrates multiple service modules in one, including registration, traversal, enterprise address book, video conference management, whiteboard collaboration, voice control, recording and storage, and live streaming.
4. It supports a bandwidth rate ranging from 64Kbps to 8Mbps, and video resolutions including 4KP30, 1080P60, 1080P30, 720P60, 720P30 and 4CIF.
5. Dual-stream capability: The secondary video can also support 4K30fps on the premise of ensuring the main video at 4K30fps.
6. It supports the full trans-coding technology, ensuring that each connected conference room can participate in the same conference with any different protocol, bandwidth, format and frame rate. Packet loss of any participating terminal in the conference only affects the corresponding conference room without impacting the overall conference effect.
7. It supports protocol interconnection with mainstream H.323 video conference devices of ZTE, Huawei, Polycom, Cisco and other brands, realizing interconnection and mutual control.
8. A single device supports more than 8 independent conference rooms, 8 concurrent virtual conferences and 8 concurrent 4KP30 users. It is equipped with virtual conference room function and SVC multi-stream mode, supporting multi-screen display for each port, automatic Ontable multi-screen, automatic Layout multi-screen and a maximum of 64 sub-screens. It supports calling party conference initiation, URI call, IP address call and unified access number.
9. A single device supports 8-channel HDMI video output with a built-in video wall output function, which can output the composite screen of different conferences or select to output the single screen of any conference room in different conferences.
10. It supports access of various video conference terminals, including but not limited to multi-interface terminals, split-type terminals, all-in-one terminals, all-in-one portable terminals, desktop terminals, surveillance cameras, UAVs, law enforcement recorders and other hardware terminals. Meanwhile, it supports direct access to conferences from laptops, PCs, web live streaming terminals, browsers (supporting WebRTC web-based conference participation with audio and video interaction without installing apps or other related software), as well as IOS and Android mobile phones and tablets.
11. It supports AVC aggregation mode, multi-level cascading, multi-screen fusion coding and broadcast mode, and various conference discussion modes such as branch conference rooms viewing composite screens, designated conference room screens and designated multi-conference room screens.
12. It supports holding multiple groups of 4K30fps high-definition multi-screen conferences simultaneously, with the maximum number of multi-screens for each group of conferences being ≥32 channels, and no mutual interference between different groups of conferences.
13. It supports face check-in and group check-in functions. The face recognition check-in technology requires no clicking or setting; participants only need to walk into the conference room to complete the check-in automatically when entering the conference, and group check-in is also available. This saves precious time and energy, allowing participants to focus more on the conference content.
14. It supports digital signages for displaying participants' names, position introductions and other information during the conference, and the digital identity signages can be presented in all participating conference rooms, including local and remote conference rooms.
15. It has the conference preview capability to support real-time monitoring and preview of conferences.
16. It is equipped with a built-in central management server platform supporting the cluster management of up to 256 MCUs, enabling the management of up to 256 MCU clusters on a single page. In provincial-level conferences, it can directly manage and view the audio and video of terminals under different MCUs, and realize multi-screen conferences of terminals under multiple MCUs on a single management page, as well as MCU cascading composite multi-screens without small windows. The main conference room can manage the terminal devices of conference rooms under different MCUs on a single page, and perform operations such as one-click invitation of terminal devices of conference rooms under different MCUs in various districts and counties to join the conference, speaking right management, video broadcasting, arbitrary layout adjustment with window creation, audio mute, video off, screen polling, and hanging up/inviting conference rooms. It supports designated multi-MCU multi-screen polling for more convenient and efficient unified management and control.
17. It supports specifying the layout and the window positions of conference members for scheduled conferences. The window positions of different conference room layouts can be edited arbitrarily when scheduling a conference, and the conference rooms can be automatically arranged according to the preset window positions after one-click invitation to join the conference without secondary manual management and control.

18. It supports the role setting of conference members, including host, speaker, audience, etc., and can set different viewing contents such as multi-screen, host terminal, speaker terminal and other members. After the conference is successfully scheduled, members are invited to join the conference automatically, and all members can view the preset screen contents with simple and efficient conference control operations.
19. It supports the MCU cascading function with the cascading of 256 MCU resource pools, and the cascading mode can support more than 10,000 users to join the conference. It supports MCUs to form resource pools and a distributed MCU architecture, realizing unified management of MCU resources, dynamic allocation of MCU resources and mutual backup.
20. It supports IPv4 and IPv6 protocols with the capability to traverse routers and firewalls to ensure system security, and supports the setting of parameters such as QOS, NAT and H.245 tunnel.
21. It supports dual-machine hot backup and can specify a standby server. When the primary server fails to work due to abnormal situations such as network disconnection and power outage, the central management server will transfer the conferences and related data on the primary server to the standby server for processing, with the switching time less than 10 seconds.

Technical specifications:

Model	VY-M008E	VY-M016E	VY-M032E
Capacity	8-channel 4K30fps	16-channel 4K30fps	32-channel 4K30fps
Concurrent Conferences	8 independent conferences		
Bandwidth Rate	64Kbps-8Mbps		
Network Communication Protocols	H.323, SIP		
Video Resolutions	4KP30, 1080P60, 1080P30, 720P60, 720P30, 4CIF		
Audio Coding & Decoding Protocols	G.711A, G.711U, G.722, iLBC, G.722.1, G.722.1C, OPUS_16K, OPUS_24K, OPUS_48K		
Video Coding & Decoding Protocols	H.264, H.264 MP, H.264 HP, H.265		
Video Interfaces	8 HDMI interfaces		
Power Supply	200VAC ~ 240VAC, 50Hz ~ 60Hz		
Network Ports	4 RJ45 standard ports (100M/1000M), including 2 redundant ports for internal and external network traversal and dual-network integrated communication, and 1 video wall expansion port.		
Temperature	0℃ ~ 35℃ (Operating State); -40℃ ~ 55℃ (Non-operating State)		
Relative Humidity	10% ~ 80% (Operating State); 0% ~ 95% (Non-operating State) (No Condensation)		
Ambient Noise	Less than 50dBA		
Device Dimensions	433mm*285mm*65mm		
Power Consumption	30W		
Weight	10Kg		