

C9H

1080P All-in-One Video Conferencing Endpoint

All-in-One / SIP H.323 / Open API



Product Features

● All-in-One Integration

For the All-in-one integration, camera and terminal integration is a single device for simple and convenient operation. Externally connected microphones are supported; compact and easy to install and deploy.

● Embedded DSP Solution

Embedded DSP hardware solution offers high efficiency and low latency.

● Standard & Protocols Enable Convergence and Interoperability

Standard SIP and H.323 protocols supported; compatible with the industry's mainstream standard terminals and networked devices.

● Low Bandwidth, and High Definition

The latest H.264 HP coding standard supported; 50% less bandwidth than the previous-generation compression standard.

● Multiple Microphone Connection

Various audio inputs such as USB microphone, analog microphone and linear input are supported to suit different conference scenarios and meet more audio requirements.

● Excellent Network Security

H.460 firewall traversal supported to guarantee the secure connection of public and private networks. H.235 and SRTP protocols and the encryption algorithms such as AES-128 are supported for all-round guarantee for communication security.

● 1080P Full-HD

1080P full HD supported; in addition to the built-in HD camera input, 1 x HDMI IN and 2 x HDMI OUT are also supported.

● 72.5° Wide-angle Lens

72.5° ultra-wide-angle integrated camera with 12x optical zoom.

● Fully Open API

Fully open API supports the development of third-party applications and is easy for secondary development by customer to meet their customization requirements.

● Built-in MCU (Optional)

Built-in MCU (optional) support up to 1+3 terminal HD video conferencing, ideal for small- and medium-sized enterprises that require low cost and simple maintenance of video conferencing.

● Local and Remote Recording & Broadcasting

Remote recording and broadcasting are supported; conference recording and broadcasting is realized with only one PC. USB flash disk can be used to record and keep conference minutes confidential.

● Simultaneous Bilingual Audio Signals Supported

Simultaneous bilingual audio signals are supported; This terminal support simultaneous input /output of voice in two different languages and the flexible mixing and coded output of voice in two different languages.

● Superior Anti-Packet Loss Capability

The proprietary FEC technology could be activated in the event of severe network packet loss; the loss of less than 20% packets has no effect on the system, and conferences can still go on even if 30% packets are lost.

● RTMP Push & Pull and RTSP Pull Streaming (Optional)

The device supports RTMP push streaming to the live broadcast platform for live broadcasting of conference. RTSP pull streaming can be realized through web cameras.

Product Specifications

Standard & Protocol

Multimedia Framework Protocol	ITU-T H.323, IETF SIP
Video Codec Protocol	H.261, H.263, H.263+, H.263++ H.264, H.264 High Profile, H.264 SVC (Optional)
Audio Codec Protocol	G.711a/u, G.719, G.722, G.722.1*, G.722.1C*, AAC-LD, G.726, SILK
Double Stream Protocol	ITU-T H.239, BFCP
Other Communication Protocols	H.221, H.224, H.225, H.235, H.241, H.245, H.281, H.350, H.460, T.140, DTMF
Network Transmission Protocols	TCP/IP, UDP, DHCP, SSH, HTTP, HTTPS with SSL/TLS, RTP, RTCP, RFC3261, RFC3264, RFC2190, RFC3407, RFC2833, RFC4585(RTP/AVPF), SNTP, ARP

Video Features

Active Image Resolution	• 1080p, min. bandwidth 1024Kbps; • 720p, min. bandwidth 512Kbps; • w448p/4SIF/4CIF, min. bandwidth 256 Kbps; • w288p/SIF/CIF, min. bandwidth 128 Kbps
Data Content Resolution	• Input: VGA (640x480), SVGA (800x600), XGA (1024x768), WXGA (1280x768), WXGA (1280x800), 1280x960, SXGA (1280x1024), 1360x768, 1366x768, 1440x900, 1600x900, 720p (1280x720), 1080p (1920x1080); • codec: 800x600, 1024x768, 1280x1024, 1280x720, 1920x1080; • Output: 800x600, 1024x768, 1280x1024, 1280x720, 1920x1080
Active Double Stream	Dual 1080p or Dual 720p
Built-In HD Camera	• Input: 1080p; • Sensor: 2.07 megapixels effective pixels, 1/2.8-inch CMOS; • Lens: 12x optical zoom; • Max. horizontal view angle: 72.5°; • PTZ: Horizontal+/-170°, vertical-30° ~ +90°; • Automatic white balance, automatic exposure, and automatic focus supported; • Remote camera control supported; • Mirror/Flip supported; • 255 preset positions
Other Image Features	PIP, POP and other display modes supported

Audio Features

Audio Features	• Automatic echo cancellation (AEC) • Automatic gain control (AGC) • Automatic noise suppression (ANS) • Lip-sync supported
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Reliability & Security

Network Adaptability	Video forward error correction (FEC), automatic repeat request (ARQ), automatic speed up & down
Security Management	• H.235 signaling and media stream encryption (AES-128, AES-256); • TLS and SRTP • Administrator password: SSH/HTTPS

Bandwidth

IP	64Kbps ~ 8Mbps
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Interfaces

Audio Input Interface	1 x 3.5mm linear input; 1 x 3.5mm microphone input; 1 x HDMI IN; 1 x USB microphone input
Audio Output Interface	1 x 3.5mm linear output; 1 x HDMI Audio output; 1 x USB Audio output
Video Input Interface	1 x built-in camera input; 1 x HDMI; 1 x RTSP (optional)
Video Output Interface	2 x HDMI
USB Interface	2 x USB2.0 (USB flash disk and USB microphone etc. supported)
Network Interface	1 x RJ45: 10M/100M Base-T

Conferencing Features

Language	Simplified Chinese, Traditional Chinese, English, Polish, etc.
Contacts and Call History	10,000 local contacts and call records
Featured Functions	• Secondary stream accompaniment; • Network upgrade; • Timed start/shutdown; • DNS SRV supported; • Incoming call password; • Asymmetric bandwidth; • USB microphone access; • Two- and three-split display; • Network address book; • Built-in MCU (optional); • Web conference control supported; • RS232/USB serial port API control; • Automatic standby and automatic wake-up by incoming call; • Static NAT addresses obtained automatically; • PIP (1/16 screen size), PBP; • Third-party integrated API supported; • GB/T 28181 Video surveillance (Optional)

General Specifications

Dimension	• Terminal size: 240mm x 146mm x 160mm • Package size: 285mm x 235mm x 230mm
Weight	• Net weight: 1.7Kg; • Gross weight: 2.5Kg
Power Supply	• Operating voltage: AC 100V ~ 240V, DC 12V • Operating frequency: 50Hz/60Hz • Max. power consumption: 18 W
Environmental Requirements	• Temperature: 0° C ~ 40° C (operating state), -40° C ~ 70° C (non-operating state) • Relative humidity: 10% ~ 80% (operating state), 0% ~ 95% (non-operating state) • Ambient noise: < 46 dBA SPL • Min. illuminance: 5 lux • Recommended illuminance: > 300 lux
Certification and Standards	China Telecom Network Access, CCC