

# Video Conferencing Endpoint (H.323/SIP)

## All-in-One Full HD Video Conferencing Endpoint

C9 Pro

1080P all-in-one endpoint, high quality image performance and high cyber security, minimal configuration and compatible with various conferencing platform. Best choice for enterprise/government collaboration, online health-care, online teaching/learning and conferencing.



## 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.
- ▶ 1080P Full-HD**  
 Supports 1080P full HD, in addition to supporting built-in high-definition camera input, it also supports DVH (compatible with HDMI, VGA/YPbPr) video input. Supports 2-way HDMI high-definition video output.
- ▶ 72.5° Wide-angle Lens + 12x Optical Zoom**  
 72.5° ultra-wide-angle integrated camera with 12x optical zoom.
- ▶ Standard & Protocols Enable Convergence and Interoperability**  
 Standard SIP and H.323 protocols supported; compatible with the industry's mainstream standard terminals and networked devices.
- ▶ Embedded DSP Solution**  
 Embedded DSP hardware solution offers high efficiency and low latency.
- ▶ Multiple Microphone Connection**  
 Various audio inputs such as USB microphones, analog microphone and linear input are supported to suit different conference scenarios and meet more audio requirements.
- ▶ Low Bandwidth, and High Definition**  
 The latest H.264-HP coding standard supported; 50% less bandwidth than the previous-generation compression standard.
- ▶ 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.
- ▶ 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 Specification

### ▶ Standard & Protocol

Multimedia Framework Protocol	ITU-T H.323, IETF SIP
Video Codec Protocol	H.261, H.263, H.263+, H.264, H.264 High Profile, H.264 SVC
Audio Codec Protocol	G.711, G.719, G.722, G.722.1, G.722.1C, AAC-LD, G.726, SILK, Opus
Double Stream Protocol	ITU-T H.239, IETF BFCP
Other Communication Protocols	H.221, H.224, H.225, H.235, H.241, H.245, H.281, H.350, H.460, H.460, DTMF
Network Transmission Protocols	TCP/IP, UDP, DHCP, SSH, HTTP, HTTPS, RFC2190, RFC3407, RFC2833, RFC4685(RTP/AVPF), S/NTP, ARP

### ▶ Video Features

Active Image Resolution	<ul style="list-style-type: none"> <li>• 1080p, min. bandwidth 102Kbps;</li> <li>• 720p, min. bandwidth 512Kbps;</li> <li>• wide@p/SIP/CF, min. bandwidth 256 Kbps;</li> <li>• w@28p/SIP/CF, min. bandwidth 128 Kbps;</li> <li>• Input: VGA (640×480), SVGA (800×600), XGA(1024×768), WXGA(1280×768), WXGA (1280×800), 1280×960, SXGA(1280×1024), 1360×768, 1366×768, 1440×900, 1600×900, 720p(1280×720), 1080p(1920×1080)</li> <li>• codec: 800×600, 1024×768, 1280×1024, 1280×720, 1920×1080</li> <li>• Output: 800×600, 1024×768, 1280×1024, 1280×720, 1920×1080</li> </ul>
Data Content Resolution	1080P30+1080P30
Active Double Stream	<ul style="list-style-type: none"> <li>• Input: 1080p;</li> <li>• Supports 2-way negatives effective pixels 1/2, 8-inch CMOS;</li> <li>• Lens: 12x optical zoom;</li> <li>• Max. horizontal view angle: 72.5°;</li> <li>• PTZ: Horizontal ±170°;</li> <li>• vertical-30° ~ +90°;</li> <li>• Automatic white balance, automatic exposure, and automatic focus supported;</li> <li>• Remote camera control supported;</li> <li>• MirrorFlip supported;</li> <li>• 255 preset positions</li> </ul>

Built-in HD Camera	<ul style="list-style-type: none"> <li>• Automatic echo cancellation (AEC)</li> <li>• Automatic gain control (AGC)</li> <li>• Automatic noise suppression (ANS)</li> <li>• Lip-sync supported</li> </ul>
Other Image Features	PIP, POP and other display modes supported

### ▶ Audio Features

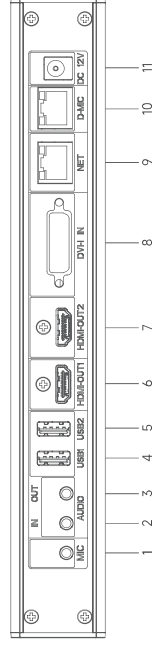
Audio Features	<ul style="list-style-type: none"> <li>• Automatic echo cancellation (AEC)</li> <li>• Automatic gain control (AGC)</li> <li>• Automatic noise suppression (ANS)</li> <li>• Lip-sync supported</li> </ul>
----------------	--

### ▶ Reliability & Security

Network Adaptability	<ul style="list-style-type: none"> <li>• Video forward error correction (FEC), automatic repeat request (ARQ), automatic speed up &amp; down</li> </ul>
Security Management	<ul style="list-style-type: none"> <li>• H.235 signaling and media stream encryption (AES-128, AES-256);</li> <li>• TLS and SRTP</li> <li>• Administrator password: SSH/HTTPS</li> </ul>

NAT/Firewall Traversal	H.460, ICE
------------------------	------------

## Interface Diagram



### ▶ Bandwidth

IP	64Kbps ~ 8Mbps
----	----------------

### ▶ Cloud Integration

Compatible Brands	Cisco, Pexip, Poly, HUAWEI, etc Cloud platform
-------------------	--

### ▶ I/O

Audio Input Interface	<ul style="list-style-type: none"> <li>1 x 3.5mm;</li> <li>1 x 5-pin;</li> <li>1 x MIC;</li> <li>1 x DVH;</li> <li>1 x USB</li> </ul>
-----------------------	---

Audio Output Interface	<ul style="list-style-type: none"> <li>1 x 3.5mm;</li> <li>1 x HDMI;</li> <li>1 x USB</li> </ul>
------------------------	--

Video Input Interface	<ul style="list-style-type: none"> <li>1 x built-in camera input</li> <li>1 x DVH (HDMI, VGA/YPbPr)</li> <li>1 x RTSP (optional)</li> </ul>
-----------------------	---

Video Output Interface	2 x HDMI
------------------------	----------

USB Interface	2 x USB2.0 (USB flash disk and USB microphone etc. supported)
---------------	---

Network Interface	<ul style="list-style-type: none"> <li>1 x RJ45: 10/100 Base-T;</li> <li>1 x Wireless: 802.11a/b/g/n, Wi-Fi (optional)</li> </ul>
-------------------	---

### ▶ Conferencing Features

Language	Simplified Chinese, Traditional Chinese, English, Polish, etc.
Contacts and Call History	10000 Local Contacts and Call Records

Featured Functions	<ul style="list-style-type: none"> <li>• Auxiliary flow accompanying sound;</li> <li>• Network upgrade;</li> <li>• Time switch;</li> <li>• Support DNS SRV;</li> <li>• Incoming password;</li> <li>• Asymmetric bandwidth;</li> <li>• USB microphone access;</li> <li>• Two or three split screen display;</li> <li>• Network address book;</li> <li>• Built in MCU (optional);</li> <li>• Support web control;</li> <li>• WiFi access (optional);</li> <li>• RS232/USB serial API control;</li> <li>• Adaptive standby and automatic wake-up of incoming calls;</li> <li>• Automatically obtain static NAT addresses;</li> <li>• Picture in Picture (1/16 screen size), Picture beside Picture;</li> </ul>
--------------------	---

### ▶ Generic Spec

Dimension/Weight	<ul style="list-style-type: none"> <li>• Dimension: 258mm (W) x 146mm (D) x 170mm (H)</li> <li>• Net Weight: 1.7kg</li> </ul>
------------------	---

Power Supply	<ul style="list-style-type: none"> <li>• Operating voltage: AC 100V ~ 240V, DC 12V</li> <li>• Operating frequency: 50Hz/60Hz</li> <li>• Max. power consumption: 24W</li> </ul>
--------------	--

Environmental Requirements	<ul style="list-style-type: none"> <li>• Temperature: 0° C ~ 40° C (operating state), -40° C ~ 70° C (non-operating state)</li> <li>• Humidity: 10% ~ 80% (operating), 0% ~ 95% (non-operating)</li> <li>• Ambient noise: &lt; 46 dBA SPL</li> <li>• Min. illumination: 5 Lux</li> <li>• Recommended luminance: &gt; 300 Lux</li> </ul>
----------------------------	---

Certification and Standards	China Telecom Network Access, CCC
-----------------------------	-----------------------------------

- 1 — MIC
- 2 — AUDIO IN
- 3 — AUDIO OUT
- 4 — USB
- 5 — USB
- 6 — HDMI OUT
- 7 — HDMI OUT
- 8 — DVH IN
- 9 — NET
- 10 — D-MIC/TOUCH
- 11 — DC 12V