



# Polycom VSX 8000 Specifications

ITU H.323 and H.320 compliant

## Bandwidth

- Maximum Data Rate IP and Serial/V.35: Up to 2 Mbps
- Maximum Data Rate ISDN: Up to 2 Mbps

## Video Standards & Protocols

- H.261, Annex D
- H.263+ Annexes: F, I, J, L, N, T
- H.263+ Annexes: W
- H.264
- ITU 60-fps full screen – Pro-Motion

## Frame Rates (Point-to-Point)

- Intelligently selects frame rate for best performance video
- 30 fps at 56 kbps up to 2 Mbps
- 60 fields per second up to 2 Mbps

## Video Inputs: 4 Connectors

- 1 x S-Video; Professional Y/C BNCs (main video camera)
  - 1 x DB15; PowerCam and PowerCam Plus power, PTZ control, IR, mic input
- 1 x S-Video; 4-pin mini DIN (second camera with PTZ control)
- 1 x S-Video; 4-pin mini DIN (VCR or DVD player)
- 1 x VGA (Content input from laptop)

## Serial Data Port: 2 Connectors

- 2 x DB9
- Control port for custom integration with remote devices such as Crestron® and AMX® control systems
- Integration with Polycom Vortex Installed Voice Products
- Communication port for transmission of serial data (i.e. medical devices) over ISDN calls
- Auxiliary camera control

## Video Outputs: 4 Connectors

- 1 x S-Video; Professional Y/C BNCs (main display)
- 1 x S-Video; 4-pin mini DIN (second display)
- 1 x S-Video; 4-pin mini DIN (VCR or DVD player)
- 1 x VGA (Content or video display)

## Video Formats

- NTSC/PAL
- Graphics: XGA, SVGA, VGA

## People Video Resolution

- Pro-Motion interlaced video (60/50 fields full-screen video for NTSC/PAL)
- 2CIF (352 x 480) - Pro-Motion H.264
- 2SIF (352 x 576) - Pro-Motion H.264
- 4SIF (704 x 480)
- 4CIF (704 x 576)
- SIF (352 x 240)
- CIF (352 x 288)
- Choice of 4:3 or 16:9 display aspect ratios
- Display People on VGA Second Monitor

## Content Video Resolution

- XGA (1024 x 768), SVGA (800 x 600), VGA (640 x 480) for or Content on 2nd VGA Displays (when used with primary NTSC/PAL display)
- People video support for 4CIF, 4SIF, 2CIF, 2SIF, CIF and SIF on 2nd VGA display
- Single monitor graphics display (1024 x 768)
- Up to 4CIF for Content on NTSC/PAL displays

## Audio Standards & Protocols

- Polycom StereoSurround ready
- 14 kHz bandwidth with Siren™ 14 on IP, ISDN, and IP/ISDN mixed calls
- 7 kHz bandwidth with G.722, G.722.1
- 3.4 kHz bandwidth with G.711, G.728, G.729A

## Audio Features

- Seamless integration with Polycom Vortex Installed Voice Products
- Audio add-in using SoundStation VTX 1000 conference phone
- Audio add-in over ISDN
- Audio add-in over POTS
- Full-duplex digital audio
- Instant Adaptation Echo Cancellation
- Automatic Gain Control (AGC) – Voice activated
- Automatic Noise Suppression (ANS)

- Ability to turn off Echo Cancellation when external audio equipment is used
- Audio Mixer (Mic, VCR, line-in)
- Built-in tonal speaker test
- Real-time audio level meter for local and far-end microphones
- Microphone and VCR input audio mixing
- Ability to talk over VCR audio

## Audio Inputs: 6 Connectors

- 1 x Conference link
  - Supports up to (3) microphones
  - Supports SoundStation VTX 1000 conference phone
- 2 x RCA/Phono, line level input for VCR, DVD player or audio mixer
- 2 x Phoenix connectors; balanced line level or direct microphone inputs with 48V Phantom power
- 1 x RJ-11 for analog speaker telephone

## Audio Outputs: 6 Connectors

- 2 x Phoenix connectors; balanced line level output
- 2 x RCA/Phono, Line Level output for VCR record
- 2 x RCA/Phono, Line Level output for speakers

## Other ITU-Supported Standards

- H.221 communications
- H.224/H.281 far-end camera control
- Annex O standard for FECC in H.323 calls
- H.225, H.245, H.241, H.331
- H.239 People+Content
- H.231 in multipoint calls
- H.243 MCU password
- H.233, H.234, H.235V3 encryption standards
- Bonding, Mode 1

## Network Interfaces Supported

- SIP Support (Session Initiation Protocol)
- IP (LAN, DSL, cable modem)
- Single 10/100 Ethernet port (10 bps/100Mbps/Auto)
- Optional ISDN QBR1 (Basic Rate Interface) Module
- Optional ISDN PRI (Primary Rate Interface) Module T1/E1
- Optional Serial Module (V.35/RS-530/RS-449 with RS-366 dialing)

## Network Features

- Integration with Cisco Systems® CallManager Version 4.0
- Down speeding over IP and ISDN
- Audio & Video Error Concealment over IP and ISDN, mixed calls
- IP address conflict warning
- Fast Connect IP for quick video connections
- Maximum call length digital timer
- Auto SPID detection and line number configuration
- MGC Click&View™ for individual screen layouts
- Polycom OneDial™ intelligent call management attempts call on preferred network (IP or ISDN) and automatically rolls over to secondary network if needed
- Polycom PathNavigator™ support for easy call placement and network cost optimization
- TCP/IP, UDP/IP, RTP, DNS, WINS, DHCP, ARP, HTTP, FTP, Telnet
- Chair control through API command or Integrated Web Interface
- Software Upgradeable Inverse Multiplexer (IMUX)

## Conference on Demand

- Initiates unscheduled MGC calls from the endpoint
- Utilizes Polycom Office (PathNavigator and MGC)
- Auto selects either the internal or external bridge
- Dials all participants simultaneously

## Security

- COMSEC tested by Titan Systems, Information Security Systems Division, and independently validated to operate with approved government encryption technologies
- KG-194/KIV-7 encryptor support with on screen and address book dialing
- Enhanced integration for independently certified, classified encryption devices
- Account validation number entry
- Secure password authentication
- Unique factory default passwords
- Administrator password

- Dial-in meeting password
- Encrypted password for VSX Web access
- Ability to disable remote interfaces (FTP, Telnet, HTTP, SNMP)
- Ability to disable mixed protocol multipoint calls
- Auto-Answer (On/Off)
- Allow access to user settings (On/Off)

## Embedded Encryption

- Advanced Encryption Standard (AES)
- FIPS validated by National Institute of Standards & Technology (NIST) certified agency
- 128-bit key length
- AES software encryption on ISDN, IP and Serial/V.35 up to 2 Mbps
- Standards-based H.235V3 (IP)
- Standards-based H.233/H.234 (ISDN/Serial)
- Automatic key generation and exchange
- Supported in People+Content™
- Supported in Point-to-Point IP, ISDN and mixed network calls

## User Interface

- User-friendly graphical interface
- Customizable home screen and color themes
- Kiosk mode with scrolling marquee
- User-selectable camera icons and ring tones
- Speed Dial List on home page
- Persistent Preview (Far-site PIP) on all screens
- Picture-In-Picture (PIP) (On/Off, Moveable)
- Dual-Monitor Emulation
- Numerical menu navigation (Similar to mobile phone)
- Date, Time Server accessibility
- Calendar and Conference scheduling
- Alert Signal on home page
- Do Not Disturb (On/Off)
- VSX Web for remote monitoring

## Directory Services

- 4,000+ number global directory
- 1,000+ number local directory
- Speed dial list displaying video buddy list
- Limitless multipoint entries
- Live address book with Polycom Global Directory Services automatically and quickly updates directory with address changes or new endpoints
- Polycom Global Directory Services integrates with Active Directory/LDAP
- Directory Server backup in the event Polycom Global Directory is not accessible
- Automatic ISDN localization of calls

## System Management

- SNMP for enterprise management
- Baseline mode setting for legacy system interoperability through VSX Web Management Tool
- Diagnostics and software upgrades via PC, LAN
- Integrated VSX Web management tool
- Web Director: Remote administrator video monitoring and control from VSX Web (enabled/disabled from endpoint for security)
- Out-of-box setup from VSX Web
- Place a call from VSX Web
- Language independence between set-top interface and VSX Web
- System configuration from VSX Web
- Recent Calls Log – Records last 99 incoming and outgoing calls
- Call Detail Record (CDR) – Reports all incoming and outbound calls along with call statistics
- CDR Feature On/Off
- Downloadable CDR data for processing requires no external management system
- Account number validation at call initiation integrated with Polycom Global Management System for billing purposes
- Administrator-configurable dialing speeds
- Complete support for The Polycom Office™ including:
  - Polycom Global Management System
  - Polycom OneDial
  - Polycom PathNavigator
  - Polycom Conference Suite

- Polycom MGC
- Polycom SoundStation VTX 1000
- Polycom Vortex

## Quality of Service and Experience – iPriority™

- Video Error Concealment
- Audio Error Concealment
- Universal Plug and Play (UPnP)
- IP Precedence (ToS)
  - Configurable video/audio/FECC service value
- DiffServ (DSCP) (COS)
- RSVP
- Dynamic Bandwidth Allocation
- Proactive Network Monitoring
- Packet and jitter control
- Network Address Translation (NAT) support
- Automatic NAT discovery
- Asymmetric speed control
- Alternate Gatekeeper support
- TCP/UDP fixed-port firewall support
- Lip synchronization
- Echo cancellation
- Echo suppression
- Auto gatekeeper discovery
- Automatic gateway dialing profiles
- Specify outbound call routing for gateway/ISDN

## Collaboration Solutions

- People and Content (PC, VCR/DVD, Doc cam) are always displayed simultaneously
- Direct VGA-in connectivity
- People+Content™ IP
  - Show content from laptop/PC over IP network connection
  - No resolution adjustment required on presenter's laptop/PC
  - Supports CIF, SIF, 4CIF, 4SIF, VGA, SVGA, XGA display resolutions
  - Zoom control
  - Supports Windows® 2000 and Windows XP
- Closed captioning support
- Web Streaming in and out of a call, RTP based, suitable with QuickTime™ players
- Adjustable bandwidth for content
  - 10% Content, 90% People
  - 50% Content, 50% People
  - 90% Content, 10% People

## System Options

- People+Content (using ImageShare™ II)
- PowerCam Plus Camera
- PowerCam Camera
- Polycom Digital Tabletop Microphone
- Internal Multipoint Feature (supports up to 6 callers, 5 remote and 1 local)

## Language Support (12 languages)

- Chinese (Simplified), Chinese (Traditional), English, French, German, Italian, Japanese, Korean, Norwegian, Portuguese, Russian, Spanish
- Documentation translations in all languages
- User interface translations in all languages
- Keypad audio dialing confirmation in all languages
- VSX Web translations in all languages
- Remote controls labeled in all languages

## Electrical

- Auto sensing power supply
- Operating voltage/power 85-264 VAC, 47-63 Hz/ 72 Watts

## Environmental Specifications

- Operating Temperature: 0-40° C
- Operating Humidity: 15-80%
- Non-Operating Temperature: -40-70° C
- Non-Operating Humidity (Non-condensing): 10-90%

## Physical Characteristics

- Video Base Unit (W/H/D): 17.25" x 11.73" x 9.68"
- 438.15 mm/43.83 mm/245.85 mm
- Video Base Unit Weight: 8.4 lbs: 3.8 kg

## Warranty

- One-year return to factory parts and labor
- One-year software updates and upgrades



VSX 8000 shown with optional QBR1 network module installed

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