# Polycom VSX 8000

## The ultimate in an easy-to-install, high performance video conferencing system

## Polycom VSX 8000 Benefits

**Form Factor** – Sleek 1U rack mount design that's perfect for integrated environments

**Professional-Grade Connectivity** – Phoenix-style audio connectors for balanced, line-level input and output as well as S-Video, serial and VGA input and output for video

**Solutions Oriented Interoperability** – Designed to seamlessly integrate with Polycom Vortex Installed Voice Products, SoundStation VTX 1000™ conference phone and Polycom MGC™ audio and video bridge products

**Versatility in Peripheral Choice** – Add on a touch panel control device, teletype device for closed-captioning, medical control device or secure encryption devices

**Modular Network Interfaces** – Use the 10/100 Ethernet connection built-in or plug in a QBRI or PRI ISDN network module or a Serial (V.35/RS-530/RS-449) network module

**The Polycom Solution** – Everything you need to deploy and manage a complete video conferencing network with Polycom Global Management System™, Polycom PathNavigator™, Polycom Conference Suite and the Polycom MGC™

---

### A sleek rack mount design, professional grade connectivity and versatile interoperability make this product the perfect choice for integrated and custom environments.

If you are looking for a video conferencing system that combines ease of installation with the highest quality audio and video, the Polycom VSX 8000 offers the perfect marriage of form and function.

The VSX 8000 is specially designed with professional integrators in mind. Starting with the slim, highly integrated, 1U design including: professional grade connectivity, direct VGA input supporting People+Content™ collaboration and versatile slide-in trays to support circuit switched connectivity options (QBRI, PRI, Serial (V.35/RS4449/RS530).

Audio integration flexibility is unparalleled with Phoenix-style connectors, true balanced signals along with the ability to support mixers, direct microphone inputs with phantom power as well the Polycom Digital Tabletop VSX Microphones. Polycom's patent pending Siren™ 14 Stereo Audio is an integral part of every system and is easily configured for any room. Video participants can hear far-end participant's voices project in stereo through left and right speakers for a truly life-like meeting experience.

The Polycom VSX 8000 delivers video performance that will impress even the most demanding customers using the industry's most advanced video technologies, H.264 and Pro-Motion™. Standards based H.264 video offers outstanding video quality at call speeds up to 512 kbps, providing superior video without weighing down the network. For higher bandwidth calls, Pro-Motion, high-resolution, television-like video is an excellent choice for the absolute highest quality picture.

The Polycom VSX 8000 offers a rich feature set including an easy to use, customizable user interface, AES encryption software, built-in quality of service and quality of experience with Polycom's implementation of audio and video error concealment, SNMP support and Gatekeeper and Firewall utilities. Control of the VSX 8000 is accomplished over multiple serial ports for complete API control by external control systems, a full range of IR options as well as control passing with the popular Polycom Vortex Installed Voice Products. All in all, a complete package for integrators to design into a wide range of video conferencing applications.

**The ultimate choice for professional integrators. The power of Polycom conferencing and collaboration solutions.**
With integrated video, voice, data, and Web capabilities, only Polycom solutions let your customers connect, conference, and collaborate anytime, anywhere and any way they want. It's our commitment to making distance communications as natural and interactive as being there. Install systems faster, smarter, and more efficiently with Polycom VSX 8000 and other Polycom conferencing and collaboration solutions.

## POLYCOM®

# 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 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)
- 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 Content on VGA displays
- People video support for 4CIF and SIF on VGA Display
- Up to 4CIF for Content on NTSC/PAL displays

### Audio Standards & Protocols
- Polycom Siren 14 Stereo 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 24 V 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 Q standard for FECC in H.323 calls
- H.225, H.245, H.239, H.241
- H.231 in multipoint calls
- H.243 MCU password
- H.233, H.234, H.235V3 encryption standards
- Bonding, Mode 1

### Network Interfaces Supported
- IP (LAN, DSL, cable modem)
- Single 10/100 Ethernet port (10 bps/100Mbps/Auto)
- Optional ISDN QBRI (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
- Automatic IP/ISDN calling
- 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, DNS, WINS, DHCP, ARP, HTTP, FTP, Telnet
- Basic SIP* (Session Initiation Protocol) implementation
- 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
- Customizeable home screen and color themes
- Kiosk mode with scrolling marquee
- User-selectable camera icons and ring tones
- Up to (99) user defined camera presets
- 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
- Limitless multipoint entries
- Live address book with Polycom Global Directory Services automatically and quickly updates directory with address changes or new endpoints
- Live address book with Polycom Global Directory Services automatically and quickly removes endpoints from directory if they are turned off
- 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
- 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)
- DiffServ (DSCP) (COS)
- Dynamic Bandwidth Allocation
- Proactive Network Monitoring
- Packet and jitter control
- Network Address Translation (NAT) support
- Automatic NAT discovery
- Configurable video/audio/FECC service value
- 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
- Closed captioning support
- Web Streaming in and out of a call, RTP based, suitable with QuickTime players

### System Options
- People+Content (using ImageShare II)
- PowerCam™ Plus Camera
- PowerCam Camera
- Polycom Digital Tabletop Microphone
- Internal Multipoint Feature

### 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 90-250 VAC, 47-63 Hz/ 80 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"/1.73"/9.68"; 438.15 mm/43.83 mm/245.85 mm
- Video Base Unit Weight: 8.4 lbs; 3.8 kg

### Polycom VSX 800 Warranty
- One-year return to factory parts and labor
- One-year software updates and upgrades

* SIP video extensions are in the process of being standards ratified.

---

*VSX 8000 shown with optional QBRI network module installed*

**POLYCOM®**

www.ivci.com        1-800-224-7083