Polycom® VSX™ 8400/8800

A powerful video conferencing system with innovative packaging and superior sound

Benefits

Sophisticated Styling – Thin, clean lines, sharp, clear plasma displays and a small footprint wrapped around the industry's most powerful video conferencing system

Sensible Solutions – Everything included in a single solution to minimize your effort and maximize your time where it counts
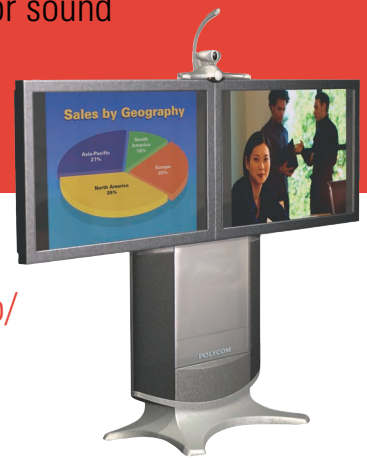
Extraordinary Audio & Video – Smooth motion, high resolution video combined with crystal clear *stereo* audio makes you forget you're in a video conference

Effortless Usability – Dial calls with a remote control or an integrated touch panel – even with a SoundStation VTX 1000 conference phone! Share laptop content with the push of a single button

Additional Features – Calls are always secure with industry approved AES encryption. Stream your conferences for viewing at a later time. Add multiple sites over audio or video to a single call

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™

Sophisticated styling, extraordinary audio/video and effortless usability make these products the ultimate in innovative video conferencing technology.

For customers that desire the greatest quality, performance group video conferencing system available today, the Polycom VSX 8800 and VSX 8400 offer multiple possibilities. With ideal, convenient packaging, the highest quality audio/video and unparalleled ease of use, these systems are excellent choices for large format conferencing environments.

Both the Polycom VSX 8800 and 8400 models feature the new patent pending Polycom StereoSurround™ audio, delivering unprecedented audio clarity, in stereo. The slim-design VSX 8800 and 8400 systems deliver advanced video with H.264 and Pro-Motion™ for television-like video, and an extraordinarily easy to use interface. Together, these features produce a meeting environment so real you can't help but focus on the business at hand.

For maximum performance in a high-end video conferencing system, choose the VSX 8800. Included are tools to enable the addition of multiple participants in a single video conference, People+Content™ collaboration, voice tracking PowerCam™ Plus camera and Polycom StereoSurround with high-fidelity speakers. The VSX 8800 can also be paired with Polycom's state-of-the-art display solution, the Executive Collection. Dual flat panel displays show off the high-quality video and high-resolution presentation material while the technology behind the scenes is hidden in a thin profile cabinet.

The VSX 8400 is ideal for use in an instructor or presenter environment. With the standard People+Content feature and PowerCam camera, the instructor and the presentation are the focus of the video conference. The system is so flexible you can connect multiple peripherals such as a DVD or VCR player, a document camera or a projector for added presentation impact. For convenient integrated conferencing, Polycom offers a combination VSX 8400 and SoundStation VTX 1000™ conference phone bundle. In this configuration, both audio and video participants can be added to the same conference by simply using the VTX 1000 keypad, making video conferencing truly as easy as using a telephone.

The ultimate choice for video conferencing to access the power of Polycom unified collaborative communications solutions.

With the greatest breadth and depth of integrated video, voice, and Web solutions, only Polycom delivers the ultimate communications experience. Our market-leading conferencing and collaboration technologies, supported by world-class service, enable people and organizations to maximize their effectiveness and productivity. Add to that the most experience and proven best-practices in the industry, and it's clear why Polycom has become the smart choice for organizations seeking a strategic advantage in a real-time world..

POLYCOM®

Connect. Any Way You Want.

Polycom VSX 8400/8800 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 2nd VGA Displays (when used with primary NTSC/PAL display)
- People video support for 4CIF and SIF on 2nd VGA display
- Single monitor graphics display (800 x 600)
- 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)
- 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
- Ability to turn off Echo Cancellation when external audio equipment is used

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

Polycom Digital Tabletop Microphone
- 360° voice pick up, 4.8 dB less reverberant than omni microphone
- Three cardioid elements per microphone
- Flotation feet reduce transmission of tabletop noise
- Integrated mute button
- Can be mounted to ceiling or walls

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.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
- 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, UDP/IP, RTP, DNS, WINS, DHCP, ARP, HTTP, FTP, Telnet
- SIP Support (Session Initiation Protocol)
- 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
- 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 end-point 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)
- 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+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
    - PC Utility available for unlimited download (required for each presenter's laptop/PC)

- Closed captioning support
- Web Streaming in and out of a call, RTP based, suitable with QuickTime® players

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"/1.73"/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 8800 Includes

PowerCam™ Plus Camera
Silent, motorized pan-tilt-zoom camera with imbedded microphones enables pointing to presets
- Tilt Range: +/- 25° (Up/Down)
- Pan Range: +/- 100° (Left/Right)
- Horizontal field of view: 65°
- Total Field of View: 265°
- Horizontal resolution: 460 (PAL)/470 (NTSC) TV lines
- Zoom range: 10x
- Auto focus/white balance/brightness/iris
- Standards-based, far-end camera control (FECC)

Polycom Digital Tabletop Microphones (2)
- 360° voice pick up, 4.8 dB less reverberant than omni microphone
- Three cardioid elements per microphone
- Flotation feet reduce transmission of tabletop noise
- Integrated mute button
- Can be mounted to ceiling or walls

People+Content Support
- People+Content IP
- ImageShare™ II
- Direct VGA-in connectivity

Internal Multipoint Features
- Mixed protocol dialing connects a total of four endpoints (IP/ISDN/Serial) through the internal MCU
- Dial-in/Dial-out Calling (IP/ISDN/Serial)
- Password protection for incoming calls
- Supports IP telephones
- Automatic IP/ISDN down speeding
- Supports People+Content from any endpoint (Not just the host site)
- Voice Activated Switching – view current speaker
- Continuous Presence – see all locations
- Automatic Presentation – switch between presenter and continuous presence mode
- MP key installation while in a call
- Audio add-in over ISDN
- Cascading for up to 10 conference participants (mix of IP/ISDN/Serial Video and ISDN Audio)

Stereo Speaker Kit
- Includes subwoofer, (2) high-fidelity speakers and speaker stands
- Subwoofer: 150 watts ouptut power; bass response to 35 Hz
- Speakers: frequency range 100 Hz to 22 KHz

VSX 8400 Includes

PowerCam Camera
- Ultra-quiet, ultra-fast action pan-tilt-zoom (PTZ)
- Tilt Range: +/- 25° (Up/Down)
- Pan Range: +/- 100° (Left/Right)
- Horizontal field of view: 65°
- Total Field of View: 265°
- Horizontal resolution: 460 (PAL)/470 (NTSC) TV lines
- Zoom range: 10x
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People+Content Support
- See details above