▶ Polycom® VSX™ 7000e

Award-winning mainstream video conferencing system offers you more flexibility than ever before

A split video conferencing solution for medium to large-sized conference rooms.

Designed for flexibility, the Polycom VSX 7000e split system is ideal for medium to large conference rooms where there is a requirement to have the camera and video system separated; for instance, configurations that include plasma or LCD displays or projection screens. The VSX 7000e configurations include a wide range of options that will match the needs of most meeting rooms, options such as data sharing, multiple cameras and video bridging capability.

Like the other award-winning products in the VSX line, the VSX 7000e includes Polycom StereoSurround™ for the best audio in the market, as well as Polycom Pro-Motion™ for optimal motion handling and video resolution. VSX 7000e customers can combine the SoundStation VTX1000® conference phone with their system, allowing them to make video calls through their conference phone and to use it as their stereo microphone, eliminating clutter and wires on the conference table. Take your choice of how you want to call – IP (H.323 and SIP) or ISDN – and be assured that your video conference is secure with the most up-to-date encryption standards.

The VSX 7000e makes it easy to get started by giving you the option of connecting either a VGA or TV as your main display. For applications that require content sharing, connect both a TV (for People) and a VGA (for Content) display. The VSX 7000e is designed for maximum flexibility combining easy installation and setup – thus allowing users to quickly and easily configure their VSX 7000e system for immediate video conferencing.

The different connection options, all of which are plug-and-play, allow you to connect up to 3 pan-tilt zoom cameras, a VCR/DVD to playback or record video and audio, document camera or other video sources, and a PC to display content from the Web or other network sources. Once these other video and content sources are connected, users can easily show a PowerPoint® presentation, pictures, live video feeds, as well as play audio files – all while participating in a video conference. And the other participants in the video conference can always see the people speaking as well as the content being shown at the same time, imitating the environment of everyone being in the same room.

In today's Internet driven world, the ability to conduct real time communication and collaboration has become critical to an organisation's survival. As the market leader in voice, video, data and web solutions, our award-winning conference technology makes it easy for people to interact and maximise productivity – over any network, in numerous environments, anywhere around the globe. That's why more organisations worldwide prefer using Polycom conferencing solutions. Because when people work together, great things happen.

▶ Sleek video component design – 1U height rack-mountable system plus PowerCam™ camera, microphone array and remote control

▶ Superior, natural sound – Polycom StereoSurround™ delivers crisp, natural voice clarity - even when multiple parties are speaking simultaneously – by using dual channel, Siren™ 14 technology

▶ Outstanding video – Premium quality video at any bandwidth with smooth natural motion and sharp, clear images. Employs standard-based H.264 compression and Pro-Motion™ video for optimal viewing

▶ Multimedia made easy – Show high-res images or presentations in your meetings while in a video call. And, you can connect your PC directly to the VSX 7000e or share content cable-free using Polycom's unique People+Content™ IP technology

▶ Flexible connections – Supports multiple cameras and displays including single XGA monitors, high resolution document camera, DVD and VCR for playback and record

▶ Simplified dialling and enhanced performance – Integrate the SoundStation VTX 1000 to launch video calls, capture soft voices clearly from across the entire room in StereoSurround and eliminate the need for microphones and wires

▶ Secure Conferencing – Ensuring your video conferences are secure and private through embedded encryption via secure video, audio and data traffic; secure web management, protection against unauthorised access (web, telnet, FTP)

▶ The Polycom Solution – Everything you need to deploy and manage a complete video conferencing network with Polycom ReadiManager SE 200, Polycom Global Management System™, Polycom PathNavigator™, Polycom Conference Suite™ and the Polycom MGC™

◆ POLYCOM®

H.323, SIP and H.320 compliant

VSX 7000e Bundled Packages:
- VTX 7000e VTX: VSX 7000e with SoundStation VTX 1000 instead of the microphone array
- VSX 7400e Presenter: VSX 7000e, PowerCam, VGA encoder key, ImageShare II, People+Content IP
- VSX 7400e Presenter VTX: VSX 7400 Presenter with SoundStation VTX 1000 instead of microphone array
- VSX 7800e Presenter MP: VSX 7000e, PowerCam, VGA encoder key, ImageShare II, People+Content IP, 4-way MPPlus
- VSX 7800e Presenter MP VTX: VSX 7800e with SoundStation VTX 1000 instead of microphone array

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

Video Standards & Protocols
- H.261
- H.263+ Annexes: F, I, J, L, N, T
- H.263++ Annexes: W
- H.264
- ITU 50/60-fps full screen – Pro-Motion

Frame Rates (Point-to-Point)
- Intelligently selects frame rate for best performance video
- 30 fps from 56 Kbps up to 2 Mbps
- 60 fields per second from 512Kbps to 2 Mbps

Video Inputs: 4 Connectors
- 1 x S-Video Main Camera
- PowerCam™ PTZ control, IR
- 1 x S-Video; 4-pin mini DIN (2nd camera with PTZ control)
- 1 x S-Video; 4-pin mini DIN (3rd camera with PTZ control, VCR or DVD)
- 1 x VGA HD-15 (Direct connect or using the ImageShare II device)

Serial Data Port: 2 x DB9 Connectors
- 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 or IP calls
- Auxiliary camera control over 2nd and/or 3rd PTZ camera

Video Outputs: 4 Connectors
- 1 x S-Video (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 HD-15 (Main or content display)

Video Formats
- NTSC/PAL
- 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)
- QSIF (176 x 120), QCIF (176 x 144)
- Choice of 4:3 or 16:9 display aspect ratios

Content Video Resolution
- XGA (1024 x 768), SVGA (800 x 600), VGA (640 x 480) for single monitor VGA or when using VGA as 2nd monitor
- Up to 4CIF/4SIF on NTSC/PAL displays for people or content

Audio Standards & Protocols
- Polycom StereoSurround
- 14 kHz bandwidth with Polycom Siren 14 (G.722.1 Annex C)
- 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, IP or 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 array, VCR, line-in)
- Built-in tonal speaker test
- Real-time audio level meter
- Microphone and VCR input audio mixing
- Ability to talk over VCR audio

Audio Inputs: 4 Connectors
- 1 x Conference link
  - Supports up to (3) microphones
  - Supports SoundStation VTX 1000 conference phone
- 2 x RCA/Phono, line level input (VCR/DVD)
- 2 x RCA stereo, line level input
- 1 x RJ-11 for analog speaker telephone

Audio Outputs: 4 Connectors
- 2 x RCA/Phono, Line Level output for VCR record
- 2 x RCA/Phono, Line Level output for speakers

Polycom VSX Microphone Array
- 360° voice pick up
- Three cardioid elements per microphone
- Flotation feet reduced transmission of tabletop noise
- Integrated mute button
- Optional Polycom Ceiling Microphone Array is available

Other ITU-Supported Standards
- H.221 communications
- H.224/H.281 far-end camera control
- H.223 Annex Q far-end camera control
- 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
- H.460 NAT/firewall traversal
- Bonding, Mode 1

SIP Supported (Sessions Initiation Protocol)
- Register and authenticate with:
  - Microsoft LCS
  - Nortel MCS
  - Standards-based SIP servers
- FECC
- H.261, H.263, H.264
- G.711, G.722, G.722.1, G.728, G.729A, Siren 14 (G.722.1 Annex C)
- Microsoft LCS contact list support
- Microsoft LCS presence support
- Interoperable with Microsoft Office Communicator

Network Interfaces Supported
- 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 with appropriate cables
- Optional wireless LAN support via customer provided wireless bridge 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
- Maximum call length digital timer
- Auto SPID detection and line number configuration
- 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 optimisation
- 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

Internal Multipoint (Optional)
- Mixed protocol dialling connects a total of four endpoints (IP/ISDN/Serial) through the internal MCU
- StereoSurround and Siren 14 audio
- Dual monitor emulation
- Dial-in/Dial-out Calling (IP/ISDN)
- Password protection for incoming calls
- Supports audio-add in
- Automatic IP/ISDN down speeding
- Supports People+Content™ from any endpoint
- Voice Activated Switching - view current speaker
- Continuous Presence - see all locations
- Automatic Presentation - switch between presenter

and continuous presence mode
- Audio add-in over ISDN
- Cascading for up to 10 conferencing participants

Conference on Demand
- Initiates unscheduled MGC calls from the endpoint
- Utilises the Polycom Office™ (Polycom 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 dialling
- FIPS 140-2 (Pre-validation List)
  - Secure web (HTTPS)
  - Secure Telnet, FTP
  - Security mode
- Account validation number entry
- Secure password authentication
- Administrator password – in-room and remote access
- Dial-in meeting password
- 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 197 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
- customisable home screen and colour 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
- Calendar and Conference scheduling
- Alert Signal on home page
- Do Not Disturb (On/Off)
- Closed captioning support

Directory Services
- 4,000+ number global directory
- 1,000+ number local directory for single or multipoint entries
- Speed dial list displaying video buddy list
- 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 localisation of calls

System Management
- SNMP for enterprise management
- Baseline mode setting for legacy system interoperability
- 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 – 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 dialling speeds

iPriority™ – Quality of Service Features
- 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
- Adjustable Packet Size
- NAT/firewall traversal (H.460)
- 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 synchronisation
- Echo cancellation
- Echo suppression
- Auto gatekeeper discovery
- Automatic gateway dialling profiles
- Specify outbound call routing for gateway/ISDN

Collaboration Solutions
- People and Content (PC, VCR/DVD, Doc cam) are displayed simultaneously
- People+Content IP
  - Show content from laptop/PC over IP network connection
  - Content shown in native resolution
  - Supports Windows® 2000 and Windows XP
- QSX (Optional)
  - Connect to VGA port to show content from laptop/PC
  - Content shown in native resolution
  - Up to 10 voice participants can view content being shared
- Adjustable bandwidth for content
  - 10% Content, 90% People
  - 50% Content, 50% People
  - 90% Content, 10% People
- Web Streaming in and out of a call, RTP based, suitable with QuickTime® players

Language Support (15 languages)
- Chinese (Simplified), Chinese (Traditional), English (American), English (British), French, German, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, Spanish
- Translated items include:
  - Documentation (no Hungarian/Polish)
  - User interface
  - Audio dialling confirmation
  - VSX web
  - Remote control (no Hungarian/Polish)

Electrical
- Auto sensing power supply
- Operating voltage/power 85-264 VAC, 47-63 Hz/72 Watts
- Max 85 VA@115v60Hz, 95 VA@220v50Hz
- Max Heat Dissipation: 246 BTU/hour

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 labour
- 90-day Software Warranty