ITU H.323 and H.320 compliant
Cisco AVVID Certified

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
- 360Þ 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 optimisation
- 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
- Utilises 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
- Customisable 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 localisation 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)
  - 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 synchronisation
- 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 unimited 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): 438.15 mm/43.83 mm/245.85 mm (17.25"/1.73"/9.68")
- Video Base Unit Weight: 3.8 kg8.4 lbs

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

VSX 8800 Includes

PowerCam™ Plus Camera
Silent, motorised 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)

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- Three cardioid elements per microphone
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- 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
- Auto focus/white balance/brightness/iris
- Standards-based, far-end camera control (FECC)

Polycom Digital Tabletop Microphones (2)
- See details above

People+Content Support
- See details above