Polycom® HDX 9000™ Series

Premier Video Conferencing Systems for High Impact Visual Experiences

The ultimate high-definition integrator's codec, designed to be the heart of a customer's telepresence solution

Raising the bar for performance and flexibility, Polycom HDX 9000™ Series video conferencing systems deliver high-definition collaboration experiences to conference rooms, lecture halls, executive suites and more.

High-Performance Architectures Radically Boost Visual Communication

Polycom HDX 9000 Series systems powerfully and seamlessly integrate with rich-media tools to enhance any presentation or meeting environment. Through integration of Polycom HDX 9000 Series systems' powerful set of APIs and abundant video and audio connectors, customers can create and customize conferencing solutions for simple to advanced applications, including auditoriums utilizing multiple cameras, projectors and displays; executive boardrooms with touch-panel displays, recessed lighting and individual participant monitors; and training facilities with high-definition lecture recording systems and HD document cameras. Polycom HDX 9000 Series systems also offer greater conferencing flexibly with the optional embedded multipoint feature, which allows multiple sites to be brought online quickly and easily.

High-Quality, Natural Interaction

Life-like conference audio for Polycom HDX 9000 Series systems environments is driven by Polycom Siren 22 and Polycom StereoSurround technologies, enabling attendees to hear remote participants' voices in stereo through left and right dual-mode speakers within a single microphone array. Polycom HDX 9000 Series systems are powerful enough to discern the subtlest of sounds and transmit them to others in the conference, enabling clearer and less ambiguous communications and more efficient meetings.

Find Out More

Learn what the Polycom HDX 9000 Series can do for your organization. Visit us at www.polycom.com or contact your Polycom representative.

Benefits

▶ High-definition video conferencing – Natural communications in 1280 x 720 at 30 fps (720p), with exceptional resolution even at lower data rates

▶ High-definition voice – Polycom Siren™ 22 and Polycom StereoSurround™ technologies for powerful, superior room-filling audio performance

▶ High-definition content sharing – Polycom collaboration technology for sharing graphics, presentations and rich-media content with HD and non-HD systems

▶ Flexible, simplified integration – 2U design, flexible video and audio inputs and outputs for integration into many types of rooms and environments, with complete system remote control

POLYCOM®

Video Standards & Protocols
- H.261
- H.263++
- H.264
- People+Content / H.239
- H.263 & H.264 Video Error Concealment

People Video Resolution
- 720p, 30fps at 832 Kbps–4Mbps
- 4SIF (704 x 480)/4CIF (704 x 576) at 256Kbps–784 Kbps
- SIF (352 x 240), CIF (352 x 288)
- QSIF (176 x 120), QCIF (176 x 144)
- Choice of native 4:3 or 16:9 display aspect ratios

Content Video Resolution
- Up to 720p
- Input: SXGA (1280x1024), XGA (1024 x 768), SVGA (800 x 600), VGA (640 x 480)
- Output: XGA (1024x768), SVGA (800x600)

Audio Standards & Protocols
- Polycom StereoSurround
- 22kHz bandwidth with Polycom Siren 22
- 14kHz 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
- Automatic Gain Control
- Automatic Noise Suppression
- Instant Adaptation Echo Cancellation
- Audio Error Concealment
- Keyboard Noise Reduction
- Music Mode
- Discussion Mode Stereo Audio (with MP-Plus option)

Other ITU-Supported Standards
- H.221 communications
- H.224/H.281 far-end camera control
- H.323 Annex Q far-end camera control
- H.225, H.245, H.241, H.331
- H.239 dual stream
- H.231 in multipoint calls
- H.243 chair control
- H.460 NAT/firewall traversal
- BONDING, Mode 1

Network
- Interfaces
  - 10/100/1000 auto NIC, RJ45 connector
  - RJ11 analog phone connector
- H.323 up to 4 Mbps pt-to-pt, 8 Mbps total with MPPlus (9004)
- Loss Packet Recovery
  - Polycom LPR for QoS
  - Reconfigurable MTU size (IP only)
- SIP up to 4 Mbps

- SIP / H.323 Dual Stack
- IPV6 support
- SIP / H.323 Dual Stack
- H.320 (Optional)
  - ISDN Quad BRI
  - ISDN PRI T1 or E1
  - Serial (RS449, V.35, RS 530) up to 2 Mbps
- RS232
  - Camera control
  - API Control
  - Data pass-through
  - Audio mixer control
- iPriority™ for QoS
- Polycom Lost Packet Recovery™ (LPR™)
- Dynamic Bandwidth Allocation (DBA)
- Reconfigurable MTU size
- Auto SPID detection and line number configuration
- CMA Enhancements
  - H.350
  - XMPP Presence
  - XML provisioning over HTTPS

User Interface
- Directory Services
- System Management
  - Web-based
  - SNMP
  - Polycom Converged Management Application™
- CDR
- API support
- International languages (17)
- RSS 2000 integration with HDX remote control
- USB Software Update

Security
- Secure Web
- Security Mode
- Embedded AES FIPS 197, H.235V3 and H.233/234
- Secure password authentication

Options
- Polycom EagleEye™ HD Camera
  - 1280 x 720p CCD imager
  - 12X optical zoom
  - 72deg FOV at min zoom
  - +- 100 deg pan range
  - +20/-30 deg tilt range
  - Output formats: SMPTE 296M 1280 x 720p, 50/60 FPS
  - Component, YPbPr output
- Avaya Network Connectivity
- People On Content
- MP*Plus* software for up to 4 (all models) or 8 (9004) sites
  - Audio transcoding
  - Video transcoding (line rate & speed)

- StereoSurround and Siren 22 audio
- Dual monitor emulation
- People+Content supported
- Voice activated switching
- High Definition in continuous presence mode
- HDX Microphone Array or Ceiling Microphone Array
- SoundStructure™ integration w/SoundStation® IP 7000 conference phone
- Upgrade to 8 Mbps line rate (to be used only with internal MCU on 9004)
- Polycom Executive Collection (Dual 50" HD Displays, audio system and ergonomically designed furniture)

Electrical
- Auto sensing power supply
- Typical operating voltage/power 189VA @ 115V @ 60 Hz @ .67 PF
- Typical operating voltage/power 192VA @ 230V @ 60 Hz @ .66 PF
- Typical operating voltage/power 196VA @ 230V @ 50 Hz @ .65 PF

These numbers were empirically collected under TYPICAL operating conditions. No attempt was made to force max power consumption. Voltages and currents are RMS. Power units are Volt-Amp.

Environmental Specification
- Operating Temperature: 0-40°C
- Operating Humidity: 10-80%
- Non-Operating Temperature: -40° -70° C
- Non-Operating Humidity (Non-condensing): 10-90%
- Maximum altitude is 10,000 feet

Physical Characteristics
- Video Base Unit (W/H/D): 17.2"x3.44"x14.5"; 436.88 mm / 87.38 mm / 368.3 mm
- Video Base Unit Weight: 20.5 lbs; 9.3 kg

Warranty
- One-year return to factory parts and labor
- 90-day software warranty

Technical Documentation
- Award-winning documentation for setting up, maintaining, and using the system available at www.polycom.com/videodocumentation

▼ POLYCOM®

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