

Cisco TelePresence VX Clinical Assistant



Product Overview

The Cisco TelePresence[®] VX Clinical Assistant brings the power of telepresence to healthcare environments. Designed for mobility and ease of use at the point of care, the VX Clinical Assistant is a high-definition video collaboration system with functionality that makes it ideal for medical use cases ranging from remote patient consultations to virtual care teams and medical education. This mobile telemedicine endpoint is part of the Cisco TelePresence portfolio, which offers a total solution approach including content sharing, recording, firewall traversal, and management capabilities. With the VX Clinical Assistant, healthcare providers can overcome the barrier of distance, deliver better and timelier care to patients, and work more productively through remote face-to-face collaboration in a medical setting.



Features and Benefits

Part of the Cisco family of telepresence products targeted at the medical industry, VX Clinical Assistant offers healthcare facilities an entry-level product to bring the benefits of telepresence to patients and employees. Together with the rest of the Cisco TelePresence endpoint and infrastructure portfolio, Cisco's family of telemedicine solutions bring innovative applications for collaboration and extending care to healthcare customers.

- Lightweight and highly mobile with integrated industrial design to maximize durability and functionality in a medical environment
- Cisco TelePresence C-Series codec featuring 1080p30 video, full-duplex audio, and high-definition (HD) content sharing
- Multiple standard- and high-definition video inputs for connectivity with peripheral audio/video medical devices
- 1080p HD camera with full pan-tilt-zoom (PTZ) capability and far-end camera control (FECC) - 4x zoom standard, 12x zoom optional
- Friction camera mount that provides additional camera tilt for patients in hospital beds or wheelchairs
- 24-inch 1080p HD LED backlit display that enables vivid telepresence experiences with minimal power consumption
- Dual system speakers and amplifier for high-output audio in a medical setting
- Tactile control panel offering simple system control with minimal training, plus infrared remote control for full untethered system operation
- Slip-proof, anti-bacterial work surface
- Removable cable access panel for convenient cable management
- Both AC and rechargeable battery powered through medical-grade isolation transformer
- Five 5-inch hospital-grade, antistatic free running castors with foot locks
- Flexible range of storage module options for computers, medical devices, supplies, etc.

Product Specifications

Table 1 lists the physical specifications, Table 2 gives video and audio specifications, and Table 3 gives network, security, and management specifications of the Cisco TelePresence VX Clinical Assistant.

Table 1. Product Specifications

Product compatibility	Fully compatible with standards-based telepresence and video systems
Software compatibility	Cisco TelePresence Software Version TC5.0 or later
Components	Fully integrated unit includes: <ul style="list-style-type: none">• Codec• Display• Camera• Microphone and system speakers• Rechargeable battery• Infrared remote control• Cables• Tactile one-touch control panel

Display	<ul style="list-style-type: none"> • 24-in. widescreen LCD/LED backlight monitor • Maximum resolution: 1920x1080 • Color support: 16.7 million colors • Response time: 5 ms • Display positions adjustment: Tilt • Display screen coating: Antiglare • Features: f-Engine technology, SUPER energy saving technology • Image contrast ratio: 1000:1 and 5000000:1 (dynamic) • Image brightness: 250 cd/m2 • Image maximum H-View angle: 170 • Image maximum V-View angle: 160
Video inputs/outputs	<ul style="list-style-type: none"> • Three S video inputs (4-pin mini din connectors) • Three composite inputs (RCA connectors) <ul style="list-style-type: none"> ◦ PAL/NTSC • Three High-Definition Multimedia Interface (HDMI) inputs (one designated as main camera input); supported formats: <ul style="list-style-type: none"> ◦ 1920x1080@60 Hz (1080p60) ◦ 1920x1080@50 Hz (1080p50) ◦ 1920x1080@30 Hz (1080p30) ◦ 1280x720@60 Hz (720p60) ◦ 1280x720@50 Hz (720p50) ◦ 1280x1024@60, 75 Hz (SXGA) ◦ 1440x900@60 Hz (WXGA+) ◦ 1280x768@60 Hz (WXGA) ◦ 1024x768@60, 70, 75 Hz (XGA) ◦ 800x600@60, 72, 75, 85 Hz (SVGA) ◦ 640x480@60 Hz VGA) • Two Digital Visual Interface Input (DVI-I) inputs (one designated as PC input); supported formats: <ul style="list-style-type: none"> ◦ Analog (Video Graphics Array [VGA]): <ul style="list-style-type: none"> ◦ 1920x1080@60 Hz (1080p60) ◦ 1280x720@60 Hz (720p60) ◦ 1280x1024@60, 75 Hz (SXGA) ◦ 1440x900@60 Hz (WXGA+) ◦ 1280x768@60 Hz (WXGA) ◦ 1024x768@60, 75 Hz (XGA) ◦ 800x600@60, 72, 75, 85 Hz (SVGA) ◦ 640x480@60 Hz (VGA) ◦ Digital (DVI-D) <ul style="list-style-type: none"> ◦ Same as HDMI, earlier in table • One composite output (RCA connector) • One HDMI output (main display); supported formats: <ul style="list-style-type: none"> ◦ 1920x1080@60 Hz (1080p60) ◦ 1280x720@60 Hz (720p60) ◦ 1280x1024@60 Hz (SXGA) ◦ 1024x768@60 Hz (XGA) ◦ 800x600@60 Hz (SVGA) ◦ 640x480@60 Hz (VGA) ◦ 1280x768@60 Hz (WXGA)
Audio inputs and outputs	<ul style="list-style-type: none"> • Audio inputs <ul style="list-style-type: none"> ◦ Two microphones, 4 pin MiniJack with mixed monosignal with 1 echo canceller ◦ Two 3.5-mm audio inputs, line level: 1 back of system of PC audio, 1 front of system for electronic audio systems • Audio output <ul style="list-style-type: none"> ◦ One 1/4 Phono line level (Head Phones)

Camera	<ul style="list-style-type: none"> • Cisco TelePresence PrecisionHD Camera: 1080p • One-third-inch complementary metal oxide semiconductor (CMOS) • 4x zoom or 12x zoom • +15° and -25° tilt, +/- 90° pan • 43.5° vertical field of view • 72° horizontal field of view • Focus distance 0.3m-infinity • 1920x1080 pixels progressive @30 frames per second (fps) (4x version) • 1920x1080 pixels progressive @60 fps (12x version) • Other formats supported (configurable through dip-switch, 12x version only): <ul style="list-style-type: none"> ◦ 1920x1080@60fps (HDMI only) ◦ 1920x1080@50fps (HDMI only) ◦ 1920x1080@30fps ◦ 1920x1080@25fps ◦ 1280x720@60fps ◦ 1280x720@50fps ◦ 1280x720@30fps ◦ 1280x720@25fps • Automatic or manual focus, brightness, and white balance • Far-end camera control • Kensington Lock Connection
User interface	<ul style="list-style-type: none"> • TRC 5 I/R remote control for full system control • "One-touch" tactile control panel for supplemental control of volume, camera, and video source
Physical dimensions	<ul style="list-style-type: none"> • Diameter: 27 in. (68.5 cm) • Height: 67 in. (170 cm) • Weight: 168 lb (71.67 kg) (without accessory options)
Power	<ul style="list-style-type: none"> • 110 VAC, 60 Hz, 615 watts maximum (110 VAC version) • 240 VAC, 50 Hz, 625 watts maximum (240 VAC version) • 90 watts nominal • 35 Ah rechargeable battery, Battery life: approximately 3.25 hours without peripherals • Rear of cart: Two AC outlets for peripherals rated 150 watts maximum • Medical grade isolation transformer
Operating temperature and humidity	<ul style="list-style-type: none"> • 50 to 95°F (10 to 35°C) ambient temperature • 20 to 90% relative humidity (RH) • Atmospheric pressure: 700 to 1060 hPa
Storage and transport temperature	<ul style="list-style-type: none"> • -4 to 140°F (-20 to 40°C) at RH 10 to 90% (noncondens sing) • Atmospheric pressure: 700 to 1060 hPa
Approvals and compliance	<ul style="list-style-type: none"> • IEC 60601-1-2nd edition • Compliance with FCC 47 CFR Part 15 • FDA Class I Medical Device Data System (MDDS) • Medical Device Directive EN 60601-1

Table 2. Video and Audio Specifications

Bandwidth	<ul style="list-style-type: none"> • H.323 and Session Initiation Protocol (SIP) up to 6 Mbps point-to-point • 720p30 from 768 kbps • 720p60 from 1152 kbps • 1080p30 from 1472 kbps
Video standards	<ul style="list-style-type: none"> • H.261 • H.263 • H.263+ • H.264

Video features	<ul style="list-style-type: none"> • Native 16:9 widescreen • Advanced screen layouts • Intelligent video management • Local auto layout
Live video resolutions (encode and decode)	<ul style="list-style-type: none"> • 176x144@30 fps (QCIF) • 352x288@30 fps (CIF) • 512x288@30 fps (w288p) • 576x448@30 fps (448p) • 768x448@30 fps (w448p) • 704x576@30 fps (4CIF) • 1024x576@30 fps (w576p) • 1280x720@30 fps (720p30) • 1920x1080@30 fps (1080p30) (requires option) • 512x288@60 fps (w288p60) • 768x448@60 fps (w448p60) • 1024x576@60 fps (w576p60) • 1280x720@60 fps (720p60) (requires option) • 640x480@30 fps (VGA) • 800x600@30 fps (SVGA) • 1024x768@30 fps (XGA) • 1280x768@30 fps (WXGA)
Audio standards	<ul style="list-style-type: none"> • G.711 • G.722 • G.722.1 • 64 kbps MPEG4 AAC-LD
Audio features	<ul style="list-style-type: none"> • CD-quality 20-kHz mono • One acoustic echo canceller • Automatic Gain Control (AGC) • Automatic noise reduction • Active lip synchronization
Dual stream	<ul style="list-style-type: none"> • H.239 (H.323) dual stream • Binary Floor Control Protocol (BFCP) (SIP) dual stream • Support for resolutions up to WXGAp15 (main video maximum 720p30)

Table 3. Network, Security, and Management Specifications

Protocols	H.323 SIP
Network interfaces	One LAN or Ethernet (RJ-45) 10/100/1000 Mbps
Other interfaces	<ul style="list-style-type: none"> • Three USB inputs for diagnostic and upgrades
IP network features	<ul style="list-style-type: none"> • Domain Name System (DNS) lookup for service configuration • H.235 Gatekeeper Authentication • Differentiated Services (quality of service [QoS]) • IP adaptive bandwidth management (including flow control) • Auto gatekeeper discovery • Dynamic playout and lip-sync buffering • H.245 dual-tone multifrequency (DTMF) tones in H.323 • Date and time support with Network Time Protocol (NTP) • Packet loss-based downspeeding • Uniform Resource Identifier (URI) dialing • TCP/IP • Dynamic Host Configuration Protocol (DHCP) • IEEE 802.1x network authentication • ClearPath

Firewall traversal	<ul style="list-style-type: none"> • Cisco TelePresence Video Communication Server Expressway • H.460.18 and H.460.19 Firewall Traversal • Auto NAT • SIP ICE
Embedded encryption	<ul style="list-style-type: none"> • H.323 and SIP point-to-point • Standards-based: H.235v3 Advanced Encryption Standard (AES) • Automatic key generation and exchange • Support in dual stream
Security features	<ul style="list-style-type: none"> • Management through Secure HTTP (HTTPS) and Secure Shell (SSH) Protocol • Root Enable/Disable • Root Password • JITC security features • User administration on web, local user database • Password (user) and PIN (GUI password) management using the web interface or API • Log in/authorization functionality on all interfaces • Audit support • Restrict management by IP address filtering • Sessions and time outs • Mutual authentication on web • IP administration password • Menu administration password • Disable IP services • Network settings protection
System management	<ul style="list-style-type: none"> • Support for Cisco TelePresence Management Suite • Total management through embedded Simple Network Management Protocol (SNMP), Telnet, SSH, XML, and Simple Object Access Protocol (SOAP) • Remote software upload: Through web server, Secure Copy Protocol, HTTP, and HTTPS • Remote control and on-screen menu system • One RS-232 for local control and diagnostics (Y-cable required)
Directory services	<ul style="list-style-type: none"> • Support for local directories (My Contacts) • Corporate directory • Unlimited entries using server directory • Lightweight Directory Access Protocol (LDAP) and H.350 • Unlimited number for corporate directory (available with Cisco TelePresence Management Suite local directory: 200 numbers) • Received calls • Placed calls • Missed calls with date and time

Table 4 gives ordering information. To place an order, please contact your local Cisco representative.

Table 4. Ordering Information

Product Name	Part Number
Cisco TelePresence VX Clinical Assistant (110 VAC version)	CTS-CA-K9
Cisco TelePresence VX Clinical Assistant (240 VAC version)	CTS-CA-P240V-K9
Select 4x or 12x zoom camera	4x: CTS-PHD-1080P4XS1 OR 12x: CTS-PHD-1080P12XS
Dual display software option	LIC-QSC20-DD
License key for HD	LIC-QSC20-HD
Premium resolution software option	LIC-QSC20-PR
Drawer module option	ACC-CA-DM
Drawer module lock option	ACC-CA-DML
PC shelf module option	ACC-CA-SM
Laptop tray module option	ACC-CA-LT

Product Name	Part Number
Storage pod option	ACC-CA-SP
Scope hooks (2)	ACC-CA-SH
Splash cover	ACC-CA-SC
Wireless mount	ACC-CA-WM
Medical-grade retractable cord	ACC-CA-RC

Cisco Services

Cisco and our partners provide a broad portfolio of smart, personalized services and support that can help you realize the full business value of your Cisco TelePresence investment by increasing business agility and network availability. This portfolio of services accelerates business innovation by harnessing the network as a powerful business platform. For more information about these services, please visit:

<http://www.cisco.com/go/telepresenceservices>.

For More Information

For more information about the Cisco TelePresence portfolio, visit <http://www.cisco.com/go/telepresence> or contact your local Cisco representative.



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