

Cisco TelePresence VX Clinical Assistant

Figure 1. Cisco TelePresence VX Clinical Assistant



Product Overview

The Cisco TelePresence[®] VX Clinical Assistant brings the power of telepresence to healthcare environments (Figures 1 and 2). Designed for mobility and ease of use at the point of care, the VX Clinical Assistant is a high-definition video collaboration system with functions that make 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, increase patient access to timely care, and work more productively through remote face-to-face collaboration in a medical setting.

Figure 2. Cisco TelePresence VX Clinical Assistant



Features and Benefits

Part of the Cisco family of telepresence products targeted at the medical industry, the VX Clinical Assistant extends the benefits of telepresence to patients and healthcare providers in clinical care scenarios. Together with the rest of the Cisco TelePresence endpoint and infrastructure portfolio, Cisco's family of telemedicine solutions enable innovative applications for collaboration and care delivery to healthcare customers.

- Lightweight and highly mobile with integrated industrial design to maximize durability and functions in a medical environment
- Cisco TelePresence SX20 codec featuring 1080p60 video and high-definition (HD) content sharing
- Cisco TelePresence MultiSite technology, enabling users to add three additional participants to a telepresence call
- Multiple standard- and high-definition video inputs for connectivity with peripheral audio and 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, antibacterial work surface
- Removable cable access panel for convenient cable management
- Both AC and rechargeable battery power 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.
- Can be supported on Cisco WebEx[®] TelePresence network

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 TC6.0 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 screen coating: Antiglare• Energy Star compliant• 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"> ◦ 1920 x 1080 at 60 Hz (1080p60) ◦ 1920 x 1080 at 50 Hz (1080p50) ◦ 1920 x 1080 at 30 Hz (1080p30) ◦ 1280 x 720 at 60 Hz (720p60) ◦ 1280 x 720 at 50 Hz (720p50) ◦ 1280 x 1024 at 60, 75 Hz (SXGA) ◦ 1440 x 900 at 60 Hz (WXGA+) ◦ 1280 x 768 at 60 Hz (WXGA) ◦ 1024 x 768 at 60, 70, and 75 Hz (XGA) ◦ 800 x 600 at 60, 72, 75, and 85 Hz (SVGA) ◦ 640 x 480 at 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"> ◦ 1920 x 1080 at 60 Hz (1080p60) ◦ 1280 x 720 at 60 Hz (720p60) ◦ 1280 x 1024 at 60 and 75 Hz (SXGA) ◦ 1440 x 900 at 60 Hz (WXGA+) ◦ 1280 x 768 at 60 Hz (WXGA) ◦ 1024 x 768 at 60 and 75 Hz (XGA) ◦ 800 x 600 at 60, 72, 75, and 85 Hz (SVGA) ◦ 640x 480 at 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"> ◦ 1920 x 1080 at 60 Hz (1080p60) ◦ 1280 x 720 at 60 Hz (720p60) ◦ 1280 x 1024 at 60 Hz (SXGA) ◦ 1024 x 768 at 60 Hz (XGA) ◦ 800 x 600 at 60 Hz (SVGA) ◦ 640 x 480 at 60 Hz (VGA) ◦ 1280 x 768 at 60 Hz (WXGA) • One HD output to connect system to second external monitor <ul style="list-style-type: none"> ◦ True dual display capabilities enabled
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 two acoustic echo cancellers ◦ Two 3.5-mm audio inputs, one back of system of PC audio, line in (mono): One front of system for electronic audio systems, line in (stereo) • 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 • 70° horizontal field of view • Focus distance 0.3m–infinity • 1920 x 1080 pixels progressive at 30 frames per second (fps) (4x version) • 1920 x 1080 pixels progressive at 60 fps (12x version) • Other formats supported (configurable through dip-switch, 12x version only): <ul style="list-style-type: none"> ◦ 1920 x 1080 at 60 fps (HDMI only) ◦ 1920 x 1080 at 50 fps (HDMI only) ◦ 1920 x 1080 at 30 fps ◦ 1920 x 1080 at 25 fps ◦ 1280 x 720 at 60 fps ◦ 1280 x 720 at 50 fps ◦ 1280 x 720 at 30 fps ◦ 1280 x 720 at 25 fps • 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)
Shipping dimensions	<ul style="list-style-type: none"> • Weight: 170 lb (76.2 kg) (without accessory options) • Width: 33 in. (84 cm) • Depth: 35 in. (89 cm) • Height: 71 in. (180.3 cm) • Weight: 280 lb (127 kg) (without accessory options)
Power	<ul style="list-style-type: none"> • 110 VAC, 60 Hz, 615 watts maximum (110 VAC version) • 230 VAC, 50 Hz, 625 watts maximum (230 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 85°F (10 to 30°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"> • -10 to 40°C (14 to 140°F) at RH 10 to 90% (noncondens sing) • Atmospheric pressure: 700 to 1060 hPa
Approvals and compliance	<ul style="list-style-type: none"> • IEC 60601-1-3rd 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 • w448p60 from 768 kbps • 720p60 from 2560 kbps • 1080p30 from 2560 kbps • 1080p60 from 4096 kbps • Optimal Definition Profile set to Medium (default setting)
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Video standards	<ul style="list-style-type: none"> • 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 • Auto adjusting (VGA video only) • Dual monitor • Main video source mode • Maintain (SD) 4:3 aspect ratio
Live video resolutions (encode and decode)	<ul style="list-style-type: none"> • 176 x 144 at 30 and 60 fps (QCIF) (decode only) • 352 x 288 at 30 and 60 fps (CIF) • 512 x 288 at 30 and 60 fps (w288p) • 576 x 448 at 30 and 60 fps (448p) • 768 x 448 at 30 and 60 fps (w448p) • 704 x 576 at 30 and 60 fps (4CIF) • 1024 x 576 at 30 and 60 fps (w576p) • 1280 x 720 at 30 and 60 fps (HD720p) • 1920 x 1080 at 30 and 60 fps (HD1080p) • 640 x 480 at 30 and 60 fps (VGA) • 800 x 600 at 30 and 60 fps (SVGA) • 1024 x 768 at 30 and 60 fps (XGA) • 1280 x 768 at 30 and 60 fps (WXGA) • Resolutions and frame rate may vary because of system up scaling • Resolutions of 1080p 30 and 60 fps, and all 60-fps resolutions require Premium Resolution option
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 • Two acoustic echo cancellers • 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 1080p15 (main video maximum 1080p60)
Multipoint features	<ul style="list-style-type: none"> • Four-way SIP/H.323 MultiSite; resolution up to 576p30 • Full individual audio and video transcoding • Individual layouts in multisite continuous presence (take out self-view) • H.323, SIP, and voice over IP (VoIP) in the same conference • Support for Presentation (H.239/BFCP) from any participant at resolutions up to 1080p15 • Best Impression (automatic continuous presence layouts) • H.264, encryption, and dual stream from any site • IP downspeeding • Dial in and dial out • Additional telephone call (no license required) • Conference rates up to 6 Mbps

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 • IEEE 802.1q VLAN • IEEE 802.1p QoS and class of service (CoS) • ClearPath • IPv6 network support • Single call stack support for both H.323 and SIP • Dual-stack IPv4 and IPv6 for DHCP, Secure Shell (SSH) Protocol, HTTP, Secure HTTP (HTTPS), DNS, and Differentiated Services (DiffServ) • Support for both static and autoconfiguration (stateless address autoconfiguration) <ul style="list-style-type: none"> ◦ Cisco® Unified Communications Manager (requires Cisco UCM Version 8.6 or later) • Native registration with Cisco Unified Communications Manager • Basic Cisco Unified Communications Manager provisioning • Firmware upgrade from Cisco Unified Communications Manager • Cisco Discovery Protocol and DHCP option 150 support • Basic telephony features such as hold, resume, transfer, and corporate directory lookup
Firewall traversal	<ul style="list-style-type: none"> • Cisco TelePresence Expressway technology • H.460.18 and H.460.19 Firewall Traversal • Auto NAT
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 HTTPS and SSH • Root enable and disable • Root password • User administration on web; local user database • Password (user) and PIN (GUI password) management using the web interface or API • Log in and authorization functions on all interfaces • Audit support • Restrict management by IP address filtering • Sessions and timeouts • 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 • Two USB-to-serial (RS-232) ports for local control
Directory services	<ul style="list-style-type: none"> • Support for local directories (My Contacts) • Corporate directory • Unlimited entries using server directory supporting Lightweight Directory Access Protocol (LDAP) and H.350 • Unlimited number for corporate directory (available with Cisco TelePresence Management Suite) • Received calls with date and time • Placed calls with date and time • Missed calls with date and time

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

Table 4. Ordering Information

Product Name	Part Number
Cisco TelePresence VX Clinical Assistant (110 VAC version)	CTS-CA2-K9
Cisco TelePresence VX Clinical Assistant (240 VAC version)	CTS-CA2-P240V-K9
Select 4x or 12x zoom camera	4x: CTS-PHD-1080P4XS2 or 12x: CTS-PHD-1080P12XS2
Ordering Options for the Cisco TelePresence VX Clinical Assistant	
Premium resolution software option	LIC-SX20-PR. MultiSite option: LIC-SX20-MS
PC cabinet (with switch shelf) option	ACC-CA-CM
Dual Display Arm	ACC-CA-DISP-ARM
Drawer module option	ACC-CA-DM
PC shelf module option	ACC-CA-SM
Laptop tray module option	ACC-CA-LT
Storage pod option	ACC-CA-SP
Scope hooks (2) option	ACC-CA-SH
Splash cover option	ACC-CA-SC
Medical-grade retractable power cord option	ACC-CA-RC
Medical-grade retractable network cord option	ACC-CA-RN
Wireless Connectivity Kit	ACC-CA-WIFI-KIT
Wireless Connectivity Kit includes:	
1. One Cisco wireless access point (WAP)	Select appropriate 1140, 1600, or 2600 series WAP (exact part number depends on geography)
2. One WAP power supply (US only)	AIR-PWRINJ4=
3. One VX Clinical Assistant wireless mount	ACC-CA-WM=

Consult VX Clinical Assistant User Guide for installation instructions

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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