

# Cisco TelePresence VX Tactical

**Figure 1.** Cisco TelePresence VX Tactical



## Product Overview

The Cisco TelePresence<sup>®</sup> VX Tactical (VX Tactical) brings the power of telepresence to field environments (Figure 1). Portable and ruggedized, the VX Tactical offers the benefits of mobility through a portable briefcase-style form factor and is ideal for use cases such as military, emergency response, and other industries such as oil and gas and construction where field work is required.

Designed to be used in harsh environments, the high impact plastic shell minimizes impact while an aluminum interior frame provides structural strength. The 17.5-inch screen is fully readable in sunlight, and the high-definition (HD) 1080p, 16 x 9 aspect ratio camera provides a quality image of the field user and environment. The unit is based on a Cisco TelePresence System SX20 Quick Set codec (SX20) and supports H.323, and Session Initiation Protocol (SIP) dual stream up to 6 Mbps. You can also set up the VX Tactical in a mobile telepresence conference room scenario with an external microphone, camera, and monitor. (Figure 2). The SX20 codec supports embedded capability for multipoint support with Cisco TelePresence MultiSite technology, enabling you to add three additional participants to a telepresence call.

This high-definition video collaboration system is part of the Cisco TelePresence portfolio, which offers a total solution approach including content sharing, recording, firewall traversal, and management capabilities. Cisco TelePresence VX Tactical is designed to truly extend the power of in-person to everyone, everywhere.

**Figure 2.** Cisco TelePresence VX Tactical in Conference Room Scenario



## Features and Benefits

Table 1 summarizes the primary features for the Cisco TelePresence VX Tactical.

**Table 1.** Cisco TelePresence VX Tactical Feature Summary

| Feature Summary             |   |
|-----------------------------|---|
| <b>Design features</b>      | <ul style="list-style-type: none"> <li>• Water-, sand-, impact-, chemical- and corrosion-resistant case providing portability, durability, and functionality</li> <li>• SX20 Quick Set codec featuring HD video and content sharing with full-duplex audio</li> <li>• Embedded 1080p HD camera and integrated speakers and microphone</li> <li>• Sunlight readable, optically bonded, 17.5-inch 720p60 HD display that is 3x stronger than standard screens</li> <li>• Tactile control panel offering simplified system control and a tethered infrared remote control for full system operation</li> <li>• AC and DC power options for system operation</li> <li>• Security hasps (2x) for securing the unit</li> <li>• IP67 (closed)</li> </ul> |
| <b>Application features</b> | <ul style="list-style-type: none"> <li>• Individual transcoding embedded MultiSite*</li> <li>• HD collaboration with resolutions up to WXGA at full frame rate</li> <li>• High-definition content sharing up to 1080p15</li> </ul>  |
| <b>Performance features</b> | <ul style="list-style-type: none"> <li>• Optimal definition up to 1080p60</li> <li>• H.323/SIP up to 6 Mbps</li> <li>• Built-in individually transcoded multipoint conferencing offers the ability to add three additional callers</li> <li>• Easy provisioning and self-configuration with Cisco Unified Communications Manager (Cisco UCM), Cisco TelePresence Video Communications Server (VCS), or Cisco Callway</li> </ul> <p>* The VX Tactical takes advantage of the Cisco TelePresence Total Solution approach, including Cisco TelePresence Multiway features, recording and streaming, and firewall traversal services.</p>   |

## Product Specifications

Table 2 lists the product capability specifications for the Cisco TelePresence VX Tactical.

**Table 2.** Product Specifications

| Specification                       | Description  |
|-------------------------------------|--|
| <b>Set delivered complete with:</b> | <ul style="list-style-type: none"> <li>• Tethered remote control, shoulder strap, LAN cables, presentation cable, secondary camera and display video cables, power cables, DC-to-DC converter, attachable I/O protection cover, and accessory pouch</li> </ul> |
| <b>Bandwidth</b>                    | <ul style="list-style-type: none"> <li>• H.323 and SIP up to 6 Mbps</li> </ul>   |
| <b>Firewall traversal</b>           | <ul style="list-style-type: none"> <li>• Cisco TelePresence Expressway technology</li> <li>• H.460.18 and H.460.19 firewall traversal</li> </ul>   |

| Specification                      | Description   |
|------------------------------------|---|
| <b>Video standards</b>             | <ul style="list-style-type: none"> <li>• H.263, H.263+, and H.264</li> </ul>  |
| <b>Video features</b>              | <ul style="list-style-type: none"> <li>• Native 16:9 widescreen</li> <li>• Advanced screen layouts</li> <li>• Intelligent video management</li> <li>• Local self-view</li> </ul>  |
| <b>Video inputs (five inputs)</b>  | <p><b>Embedded 1080p Camera:</b></p> <ul style="list-style-type: none"> <li>• 1/3-inch CMOS sensor</li> <li>• 1.2 aperture range</li> <li>• 63.8° horizontal field of view</li> <li>• 42° vertical field of view</li> <li>• 4-mm focal length</li> <li>• 1080 pixels progressive @ 30 frames per second (fps)</li> <li>• Manual focus</li> <li>• Automatic brightness and white balance</li> </ul> <p><b>One Secondary Video Input: HDMI, S-Video, or Composite;<br/>One DVI-I (Analog and Digital)</b></p> <p><b>Supported Formats:</b></p> <ul style="list-style-type: none"> <li>• 640 x 480</li> <li>• 720 x 480</li> <li>• 720 x 576</li> <li>• 800 x 600</li> <li>• 848 x 480</li> <li>• 1024 x 768</li> <li>• 1152 x 864</li> <li>• 1280 x 720</li> <li>• 1280 x 1024</li> <li>• 1280 x 768</li> <li>• 1280 x 800</li> <li>• 1280 x 960</li> <li>• 1360 x 768</li> <li>• 1366 x 768</li> <li>• 1400 x 1050</li> <li>• 1440 x 900</li> <li>• 1680 x 1050</li> <li>• 1920 x 1080</li> </ul> <p><b>Extended Display Identification Data (EDID):</b></p> <ul style="list-style-type: none"> <li>• PAL/NTSC for standard-definition inputs</li> </ul> |
| <b>Video outputs (two outputs)</b> | <p><b>Embedded 720p E-LED Monitor:</b></p> <ul style="list-style-type: none"> <li>• Optically bonded for strength</li> <li>• 17.5-in. diagonal dimension</li> <li>• 1280 x 768 maximum resolution</li> <li>• 16 x 9 aspect ratio</li> <li>• Brightness: 700 cd/m2</li> <li>• Contrast 700:1</li> <li>• Response time: 16 ms</li> <li>• No. of colors: 8 bit-16.7 M</li> <li>• Viewing angle: 160 degrees (horizontal), 140 degrees (vertical)</li> </ul> <p><b>One HDMI Output Supported Formats:</b></p> <ul style="list-style-type: none"> <li>• 1920 x 1080 @ 60 fps (1080p60)</li> <li>• 1920 x 1080 @ 50 fps (1080p50)</li> <li>• 1280 x 720 @ 60 fps (720p60)</li> <li>• 1280 x 720 @ 50 fps (720p50)</li> <li>• 1366 x 768 @ 60 fps (WXGA)</li> <li>• 1360 x 768 @ 60 fps (WXGA)</li> <li>• 1280 x 768 @ 60 fps (WXGA)</li> </ul>  |

| Specification  | Description  |
|--|--|
|  | <b>VESA Monitor Power Management EDID</b><br><b>Live Video Resolutions (Encode and Decode):</b> <ul style="list-style-type: none"> <li>• 176 x 144 @ 30 or 60 fps (QCIF) (decode only)</li> <li>• 352 x 288 @ 30 or 60 fps (CIF)</li> <li>• 512 x 288 @ 30 or 60 fps (w288p)</li> <li>• 576 x 448 @ 30 or 60 fps (448p)</li> <li>• 768 x 448 @ 30 or 60 fps (w448p)</li> <li>• 704 x 576 @ 30 or 60 fps (4CIF)</li> <li>• 1024 x 576 @ 30 or 60 fps (w576p)</li> <li>• 640 x 480 @ 30 or 60 fps (VGA)</li> <li>• 800 x 600 @ 30 or 60 fps (SVGA)</li> <li>• 1024 x 768 @ 30 or 60 fps (XGA)</li> <li>• 1280 x 768 @ 30 or 60 fps (WXGA)</li> <li>• 1280 x 720 @ 30 or 60 fps (HD720p)</li> <li>• 1920 x 1080 @ 30 or 60 fps (HD1080p)</li> </ul> |
| <b>Audio standards</b>                                 | <ul style="list-style-type: none"> <li>• G.711, G.722, G.722.1, and 64-kbps MPEG4 AAC-LD</li> </ul>  |
| <b>Audio features</b>                                  | <ul style="list-style-type: none"> <li>• Two acoustic echo cancellers</li> <li>• Automatic Gain Control (AGC)</li> <li>• Automatic noise reduction</li> <li>• Active lip synchronization</li> </ul>  |
| <b>Audio inputs (three inputs)</b>                     | <ul style="list-style-type: none"> <li>• 1 microphone, 4-pin mini-jack, and 3.5-mm mini-jack</li> <li>• 1 microphone, 3-pin headset, and 3.5-mm mini-jack</li> <li>• 1 mini-jack for line in (computer stereo)</li> </ul>  |
| <b>Audio outputs (two outputs)</b>                     | <ul style="list-style-type: none"> <li>• 2 waterproof 10W stereo speakers</li> <li>• 1 mini-jack headphone out (stereo)</li> </ul>   |
| <b>Dual stream</b>                                     | <ul style="list-style-type: none"> <li>• H.239 (H.323) dual stream</li> <li>• BFCP (SIP) dual stream</li> <li>• Support for resolutions up to 1080p</li> </ul>   |
| <b>Multipoint support</b>                              | <ul style="list-style-type: none"> <li>• Four-way embedded SIP/H.323 multipoint reference MultiSite</li> <li>• Cisco TelePresence Multiway support (requires Cisco TelePresence Video Communication Server [Cisco VCS] and Cisco TelePresence MCU)</li> <li>• Ability to natively join multipoint conferences hosted on Cisco Telepresence Management Switch (Cisco TMS)</li> </ul>  |
| <b>Multisite features (embedded multipoint switch)</b> | <ul style="list-style-type: none"> <li>• Four-way SIP/H.323 MultiSite; resolution up to 576p30</li> <li>• Full individual audio and video transcoding</li> <li>• Individual layouts in multisite continuous presence</li> <li>• H.323 SIP, and voice over IP (VoIP) in the same conference</li> <li>• Support for Presentation (H.239/Binary Floor Control Protocol [BFCP]) from any participant at resolutions up to 1080p15/WUXGA</li> <li>• Best impression (automatic continuous presence layouts)</li> <li>• H.264, encryption, and dual stream from any site</li> <li>• IP downspeeding</li> <li>• Dial in and dial out</li> <li>• Conference rates up to 6 Mbps</li> </ul>  |
| <b>Protocols</b>                                       | <ul style="list-style-type: none"> <li>• H.323</li> <li>• SIP</li> </ul>   |
| <b>Embedded encryption</b>                             | <ul style="list-style-type: none"> <li>• H.323 and SIP point-to-point</li> <li>• Standards-based: H.235v3 and Advanced Encryption Standard (AES)</li> <li>• Automatic key generation and exchange</li> <li>• Support in dual stream</li> </ul>   |
| <b>IP network features</b>                             | <ul style="list-style-type: none"> <li>• Domain Name System (DNS) lookup for service configuration</li> <li>• Differentiated Services (DiffServ) (quality of service [QoS])</li> <li>• IP-adaptive bandwidth management (including flow control)</li> <li>• Auto-gatekeeper discovery</li> </ul>   |

| Specification  | Description   |
|--|---|
|  | <ul style="list-style-type: none"> <li>• Dynamic playout and lip-sync buffering</li> <li>• H.245 dual-tone multifrequency (DTMF) tones in H.323</li> <li>• Date and time support using Network Time Protocol (NTP)</li> <li>• Packet loss-based downspeeding</li> <li>• Uniform Resource Identifier (URI) dialing</li> <li>• TCP/IP</li> <li>• Dynamic Host Configuration Protocol (DHCP)</li> <li>• 802.1x network authentication</li> <li>• 802.1Q Virtual LAN</li> <li>• 802.1p (QoS and class of service [CoS])</li> <li>• ClearPath</li> </ul> |
| <b>Cisco Unified Communications Manager (requires Cisco Unified Communications Manager Version 8.6 or later)</b> | <ul style="list-style-type: none"> <li>• Native registration with Cisco Unified Communications Manager</li> <li>• Basic Cisco Unified Communications Manager provisioning</li> <li>• Firmware upgrade from Cisco Unified Communications Manager</li> <li>• Cisco Discovery Protocol and DHCP option 150 support</li> <li>• Basic telephony features such as hold, resume, and transfer and corporate directory lookup</li> </ul>  |
| <b>IPv6 network support</b>  | <ul style="list-style-type: none"> <li>• Single call stack support for both H323 and SIP</li> <li>• Dual-stack IPv4 and IPv6 for DHCP, Secure Shell (SSH) Protocol, HTTP, Secure HTTP (HTTPS), DNS, and DiffServ</li> <li>• Support for both static and autoconfiguration (stateless address auto configuration)</li> </ul>   |
| <b>Security features</b>   | <ul style="list-style-type: none"> <li>• Management using HTTPS and SSH</li> <li>• IP administration password</li> <li>• Menu administration password</li> <li>• Disable IP services</li> <li>• Network settings protection</li> </ul>  |
| <b>Network interfaces</b>  | <ul style="list-style-type: none"> <li>• One LAN and Ethernet (RJ-45) 10/100/1000 Mb</li> </ul>   |
| <b>System management</b>   | <ul style="list-style-type: none"> <li>• Support for the Cisco TelePresence Management Suite</li> <li>• Total management using embedded Simple Network Management Protocol (SNMP), Telnet, SSH, XML, and Simple Object Access Protocol (SOAP)</li> <li>• Remote software upload using web server, secure copy (SCP), HTTP, and HTTPS</li> <li>• Cisco TelePresence Touch (optional)</li> <li>• Remote control and on-screen menu system</li> </ul>  |
| <b>Directory services</b>  | <ul style="list-style-type: none"> <li>• Support for local directories (My Contacts)</li> <li>• Corporate directory</li> <li>• Unlimited entries using server directory supporting Lightweight Directory Access Protocol (LDAP) and H.350 (requires Cisco TelePresence Management Suite)</li> <li>• Unlimited number for corporate directory (through Cisco TelePresence Management Suite)</li> <li>• Received calls with date and time</li> <li>• Placed calls with date and time</li> <li>• Missed calls with date and time</li> </ul>            |
| <b>Power</b>   | <p><b>AC Power</b></p> <ul style="list-style-type: none"> <li>• Auto-sensing power supply</li> <li>• 100-240 VAC, 50-60 Hz</li> <li>• Maximum 80 W power consumption</li> </ul> <p><b>DC Power</b></p> <ul style="list-style-type: none"> <li>• 12-32 VDC through DC-DC convertor</li> <li>• DC high-voltage protection</li> </ul>  |
| <b>Operating temperature and humidity</b>  | <ul style="list-style-type: none"> <li>• 0 to 35°C (32 to 95°F) ambient temperature</li> <li>• 10 to 90% relative humidity (RH)</li> </ul>  |
| <b>Storage and transport temperature</b>   | <ul style="list-style-type: none"> <li>• -20 to 60°C (-4 to 140°F) at RH 10 to 90% (noncondens sing)</li> </ul>   |
| <b>External dimensions</b>   | <ul style="list-style-type: none"> <li>• Width: 19.2 inches (48.77 cm)</li> <li>• Height: 7.3 inches (18.54 cm)</li> <li>• Depth: 15.2 inches (38.6 cm)</li> </ul>  |

| Specification | Description   |
|---------------|---|
|               | <ul style="list-style-type: none"> <li>Weight: 26.6 pounds (12.1 kg)</li> </ul> |

## Regulatory Compliance

- Directive 2006/95/EC (Low-Voltage Directive) - Standard IEC/EN 60950-1
- Directive 2004/108/EC (EMC Directive) - Standard EN 55022, Class A - Standard EN 55024 - Standard EN 61000-3-2/-3-3
- Approved according to UL 60950-1 and CAN/CSA-C22.2 No. 60950-1-07
- Complies with FCC CFR 47 Part 15 Class A
- Complies with C-Tick AS/NZS CISPR 22:2009 Class A

## Ordering Information

To place an order, please contact your local Cisco representative and refer to Table 3.

**Table 3.** Ordering Information

| Product Name                                 | Part Number        |
|--|--------------------|
| Cisco TelePresence VX Tactical               | CTS-TACT-K9        |
| Optional Secondary Microphone MIC 20         | CTS-QSC20-MIC=     |
| Optional 12 X Camera Kit                     | CTS-PHD-1080P-KIT= |
| Codec SX20 Multisite MS Option               | LIC-SX20-MS        |
| Codec SX20 Premium Resolution Display Option | LIC-SX20-DD        |

## Cisco Service and Support

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 VX Tactical, please visit

<http://www.cisco.com/go/telepresence> or contact your local Cisco account representative.



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