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# Cisco TelePresence SX20 Quick Set

## Product Overview

The Cisco TelePresence<sup>®</sup> SX20 Quick Set (SX20 Quick Set) can transform any flat panel display into a sleek and powerful video conferencing system. The SX20 Quick Set is designed to deliver high definition video and multiparty conferencing with the flexibility to accommodate various room size and configurations - all at a value price. The SX20 Quick Set supports optional embedded multipoint support with Cisco<sup>®</sup> TelePresence MultiSite technology, enabling users to add three additional participants to a video call.

SX20 Quick Set combines a powerful codec, premium resolution of 1080p, two camera choices, and a dual-display feature in an easy-to-deploy and easy-to-use solution. Whether you're a small business just getting started with telepresence or a large enterprise looking to expand your existing deployment, the SX20 Quick Set delivers the performance you would expect from more expensive systems - in a compact, feature-rich and affordable package.

Now, the SX20 Quick Set supports cloud registration to <u>Cisco Spark Services</u> for even faster and more cost effective deployment<sup>1</sup>. Cisco TelePresence SX20 Quick Set is designed to truly extend the power of in-person to everyone, everywhere.



Figure 1. Cisco TelePresence SX20 Quick Set in a Small Meeting Room Environment

<sup>&</sup>lt;sup>1</sup> Requires Collaboration Endpoint Software Version 8.2 or later (CE8)

#### **Features and Benefits**

Table 1 summarizes the primary features for the Cisco TelePresence SX20 Quick Set.

 Table 1.
 Cisco TelePresence SX20 Quick Set Feature Summary

Feature Summary		
Design Features	<ul> <li>Transforms a flat panel display into a 1080p high-definition meeting space</li> <li>Intuitive connections make setup as easy as connecting a DVD player</li> <li>Provides up to 1080p60 resolution - compatible with standards-based video without loss of features</li> <li>Sleek, compact design</li> </ul>	
Application Features	<ul> <li>Multimedia and presentations can be shared at the touch of a button</li> <li>Supports Cisco Intelligent Proximity for content sharing to mobile devices and wireless sharing from Macs and PCs<sup>2</sup></li> <li>Supports Switched Conferencing (SVC) for enhanced layouts<sup>2</sup></li> <li>Easily control room peripherals such as lights, room dividers, curtains, directly from the Cisco TelePresence Touch 10 (optional) through customizable API<sup>3</sup> (requires external third-party control system processor)</li> <li>Basic API available over IP (Telnet or Secure Shell Protocol [SSH]) or over RS-232 with USB adapter</li> <li>Dual-display</li> <li>High-definition content sharing up to 1080p30 resolution</li> <li>One button to push (OBTP) to start a meeting</li> </ul>	
Performance Features	<ul> <li>Premium resolution (1080p60)</li> <li>H.323/SIP calls up to 6 Mbps</li> <li>Built-in individually transcoded multipoint conferencing (optional) offers ability to add three additional participants</li> <li>Easy provisioning and self-configuration with Cisco Unified Communications Manager (CUCM), Cisco TelePresence Video Communications Server (VCS), or Cisco WebEx TelePresence</li> <li>Takes advantage of the Cisco TelePresence Total Solution approach, including Cisco TelePresence ad-hoc conferencing features, recording and streaming, and firewall traversal services</li> <li>Cisco Unified Communications Manager native support (requires Cisco Unified Communications Manager Version 8.6 or higher)</li> </ul>	

Figure 2. Cisco TelePresence SX20 Quick Set on Optional Wall Mount



 <sup>&</sup>lt;sup>2</sup> Requires Collaboration Endpoint Software Version 8.0 or later (CE8)
 <sup>3</sup> Requires Collaboration Endpoint Software Version 8.1 or later (CE8)

# **Product Specifications**

Table 2 lists the product capability specifications for the Cisco TelePresence SX20 Quick Set.

 Table 2.
 Product Specifications

Specification	Description
Software compatibility	Cisco TelePresence Software Version TC 5.1 or later
	Cisco Collaboration Endpoint Software Version 8.0 or later (requires Touch 10 or TRC6 remote control)
Product delivered with	<ul> <li>SX20 or SX20N Codec, Cisco TelePresence Precision Camera (choice of Precision 40 or 12X), Cisco TelePresence Table Microphone 20, remote control, cables, and power supply</li> <li>SX20N: TRC6 remote control, CE 8.x software</li> </ul>
	• SX20: TRC5 remote control, TC 7.3 software
Optional hardware components	Cisco TelePresence Touch 10
	Wall mount kit     Additional microphone
Bandwidth	H.323 and SIP up to 6 Mbps
Minimum bandwidth for resolution/frame rate	<ul> <li>720p30 from 768 kbps</li> <li>720p60 from 1152 kbps</li> <li>1080p30 from 1472 kbps</li> <li>1080p60 from 2560 kbps</li> </ul>
Firewall Traversal	<ul> <li>Cisco TelePresence Expressway Technology</li> <li>H.460.18, H.460.19 firewall traversal</li> </ul>
Video Standards	• H.263, H.263+, H.264
Video Features	<ul> <li>Native 16:9 widescreen</li> <li>Advanced screen layouts</li> <li>Local auto-layout</li> </ul>
Video Inputs (Two Inputs)	One HDMI and One DVI-I (Analog and Digital); supports formats up to maximum 1920x1080 @ 60 fps (HD1080p60), including: • 640x480 • 720x480 • 720x576 • 800x600 • 848x480 • 1024x768 • 1152x864 • 1280x720 • 1280x1024 • 1280x768 • 1280x768 • 1280x800 • 1280x960 • 1360x768 • 1366x768 • 1400x1050 • 1440x900 • 1680x1050 • 1920x1080 Extended Display Identification Data (EDID)

Specification	Description
Video Outputs	Two HDMI Outputs Supported Formats:
(Two Outputs)	• 1920 x 1080@60 fps (1080p60)
	• 1920 x 1080@50 fps (1080p50)
	• 1280 x 720@60 fps (720p60)
	• 1280 x 720@50 fps (720p50)
	• 1366 x 768@60 fps (WXGA) <sup>4</sup>
	• 1360 x 768@60 fps(WXGA) <sup>4</sup>
	<ul> <li>1280 x 768@60 fps (WXGA)<sup>4</sup></li> </ul>
	• 1280 x 1024@60 fps <sup>4</sup>
	• 1024 x 768@60 fps <sup>4</sup>
	VESA Monitor Power Management (DPM)
	CEC Power Management supported on HDMI output
	EDID
	Live Video Resolutions (Encode and Decode):
	• 176 x 144@30, 60 fps (QCIF) (Decode only)
	• 352 x 288@30, 60 fps (CIF)
	• 512 x 288@30, 60 fps (w288p)
	• 576 x 448@30, 60 fps (448p)
	• 768 x 448@30, 60 fps (w448p)
	• 704 x 576@30, 60 fps (4CIF)
	• 1024 x 576@30, 60 fps (w576p)
	• 640 x 480@30, 60 fps (VGA)
	• 800 x 600@30, 60 fps (SVGA)
	• 1024 x 768@30, 60 fps (XGA)
	• 1280 x 768@30, 60 fps (WXGA)
	• 1280 x 720@30, 60 fps (HD720p)
	• 1920 x 1080@30, 60 fps (HD1080p)
Audio Standards	• G.711, G.722, G.722.1, G.728, G.729, AAC-LD and OPUS
Audio Features	High quality 20 KHz stereo
	Two acoustic echo cancellers
	Automatic Gain Control (AGC)
	Integration with third-party audio systems
	Automatic noise reduction
	Active lip synchronization
Audio Innute	
Audio Inputs	Two microphones, 4-pin minijack
(Four Inputs)	One minijack for line-in (stereo)
	One audio in from camera (HDMI)
Audio Outputs	One minijack for line out (stereo)
(Two Outputs)	One HDMI, (digital main audio)
Dual Stream	• H.239 (H.323) dual stream
	BFCP (SIP) dual stream
	• Support resolutions up to 1080p) at 30 frames per second
Multipoint Support	<ul> <li>Four-way embedded SIP/H.323 conferencing capability with MultiSite option</li> </ul>
Multipoint Support	Ad-hoc conferencing supported through:
	<ul> <li>Unified Communications Manager Media Resource Group (requires a Cisco TelePresence MCU)</li> </ul>
	<ul> <li>Cisco TelePresence Multiway (requires Cisco TelePresence Video Communication Server (Cisco VCS)</li> </ul>
	and a Cisco TelePresence MCUJ <sup>4</sup>
	Ability to natively join multipoint conferences hosted on Cisco Telepresence Multipoint Switch (CTMS) <sup>3</sup>
	• Switched conferencing (SVC) <sup>2</sup>

<sup>&</sup>lt;sup>4</sup> Requires TC Software Version TC5.1 or later. Not supported in CE8

Specification	Description
MultiSite Features (Embedded Multipoint) (Optional upgrade)	<ul> <li>Adaptive SIP/H.323 MultiSite; resolution up to 720p30 <ul> <li>3-way resolution up to 720p30</li> <li>4-way resolution up to 576p30</li> </ul> </li> <li>Full individual audio and video transcoding</li> <li>Individual layouts in MultiSite continuous presence</li> <li>H.323/SIP/VoIP in the same conference</li> <li>Support for Presentation (H.239/BFCP) from any participant at resolutions up to 1080p15</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>Participants can be added by dialing in or host can dial out</li> <li>Conference rates up to 6 Mbps</li> </ul>
Protocols	<ul> <li>H.323</li> <li>SIP</li> <li>ISDN (requires Cisco TelePresence ISDN Link)</li> </ul>
Embedded Encryption	<ul> <li>H.323 and SIP point-to-point</li> <li>Standards-based: H.235 v3 and Advanced Encryption Standard (AES)</li> <li>Automatic key generation and exchange</li> <li>Supported in dual stream</li> </ul>
IP Network Features	<ul> <li>DNS lookup for service configuration</li> <li>Differentiated services (quality of service [QoS])</li> <li>IP-adaptive bandwidth management (including flow control)</li> <li>Automatic gatekeeper discovery</li> <li>Dynamic playout and lip-sync buffering</li> <li>H.245 Dual Tone Multi-frequency (DTMF) tones in H.323</li> <li>RFC 4733 DTMF tones in SIP</li> <li>Date and time support using Network Time Protocol (NTP)</li> <li>Packet loss-based down speeding</li> <li>Uniform resource identifier (URI) dialing</li> <li>TCP/IP</li> <li>DHCP</li> <li>802.1x network authentication</li> <li>802.1Q Virtual LAN</li> <li>802.1p (QoS and class of service [QoS])</li> <li>ClearPath</li> </ul>
Cisco Unified Communications Manager (requires Cisco Unified Communications Manager Version 8.6 or later)	<ul> <li>Native registration with Cisco Unified Communications Manager</li> <li>Basic Cisco Unified Communications Manager provisioning</li> <li>Software 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/transfer and Corporate Directory lookup</li> </ul>
Cisco Video Communication Server	Recommend latest software
IPv6 Network Support	<ul> <li>Single call stack support for both H323 and SIP</li> <li>Dual-stack IPv4 and IPv6 for DHCP, SSH, HTTP, HTTPS, DNS, DiffServ</li> <li>Support for both Static and Automatic IP configuration (stateless address auto configuration)</li> </ul>
Security Features	<ul> <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>
Network Interfaces	One LAN and Ethernet (RJ-45) 10/100/1000 Mbit
Other Interfaces	Two USB ports can be used for serial control

Specification	Description
System Management	<ul> <li>Support for the Cisco TelePresence Management Suite</li> <li>Total management using embedded SNMP, Telnet, SSH, XML, SOAP</li> <li>Remote software upload: using web server, secure copy (SCP), HTTP, HTTPS</li> <li>Cisco TelePresence Touch 10 (optional)</li> <li>Remote control and on-screen menu system</li> </ul>
Directory Services	<ul> <li>Support for local directories (My Contacts)</li> <li>Unlimited entries using server directory supporting 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>
Power	<ul> <li>Auto-sensing power supply</li> <li>100 - 240 VAC, 50/60 Hz</li> <li>Maximum 40 watts for codec and main camera</li> </ul>
Operating Temperature and Humidity	<ul> <li>0°C to 40°C (32°F to 104°F) ambient temperature</li> <li>10% to 90% Relative Humidity (RH)</li> </ul>
Storage and Transport Temperature	<ul> <li>-20°C to 60°C (-4°F to 140°F) at RH 10% - 90% (non -condensing)</li> </ul>
SX20 Codec Dimensions	<ul> <li>Width: 11.8 inches (30.0 cm)</li> <li>Height: 1.4 inches (3.4 cm)</li> <li>Depth: 7.1 inches (18.0 cm)</li> <li>Weight: 3.1 pounds (1.4 kg)</li> </ul>

Camera Overview Part Number				
Precision 40 Camera	PrecisionHD 12x Camera			
8x zoom (4x optical plus digital)	12x optical zoom			
Motorized +15°/-25°tilt, +/- 90°pan	Motorized +15°/-25°tilt, +/- 90°pan			
43.5° vertical field of view	43.5° vertical field of view			
70° horizontal field of view	72° horizontal field of view			
F 1.7	F 1.7			
1920 x 1080 pixels progressive @ 60 fps				
Automatic or manual focus, brightness, and white balance				
Far-end camera control				
Dual HDMI/Camera control	HDMI, HD-SDI output, and daisy chain			
Upside-down mounting, manual picture flip	Upside-down mounting, picture flips automatically			
Focus distance 0.3 m - infinity				

#### **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

#### **Ordering Information**

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

Table 3.	Ordering Information
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Product Name	Part Number	Compliance Model Number
Cisco TelePresence SX20 Quick Set with PrecisionHD 4x Camera (TC7 software and TRC5 remote)	CTS-SX20-PHD4X-K9	TTC7-21 (SX20 Codec) TTC8-05 (4x Camera)
Cisco TelePresence SX20 Quick Set with PrecisionHD 12x Camera (TC7 software and TRC5 remote)	CTS-SX20-PHD12X-K9	TTC7-21 (SX20 Codec) TTC8-02 (12x camera)
Cisco TelePresence SX20N Quick Set with Precision 40 Camera (CE8 software and TRC6 remote)	CTS-SX20N-P40-K9	TTC7-21 (SX20 Codec) TTC8-05 (4x Camera)
Cisco TelePresence SX20 Quick Set with PrecisionHD 12x Camera (CE8 software and TRC6 remote)	CTS-SX20N-12X-K9	TTC7-21 (SX20 Codec) TTC8-02 (12x camera)
Cisco TelePresence SX20 MultiSite option	LIC-SX20-MS L-SX20-MS (through L-SX-SERIES-PAK)	
Cisco TelePresence Touch 10 Control Device	CTS-CTRL-DVX-10	TTC5-09
Cisco TelePresence Touch 10 PoE power injector	CTS-PWR-AIR-INJ5=	
Cisco TelePresence Remote Control 5	CTS-RMT-TRC5=	
Cisco TelePresence Remote Control 6 (for CE8)	CST-RMT-TRC6=	
Cisco TelePresence Table Microphone 20	CTS-MIC-TABL20	
Wall Mount Kit for SX20	CTS-SX20-QS-WMK	
Camera Break Out Cable to RJ45 and HDMI (both female)	CAB-PHD4XS2-SPLIT	
Extension Cable for the Table Microphone 20	CAB-MIC20-EXT	

#### **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: <a href="http://www.cisco.com/go/telepresenceservices">http://www.cisco.com/go/telepresenceservices</a>.

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## For More Information

For more information about the Cisco TelePresence SX20 Quick Set, http://www.cisco.com/go/telepresence or contact your local account representative.

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Printed in USA

