## ılıılı cısco

# 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 telepresence 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 embedded capability for multipoint support with Cisco<sup>®</sup> TelePresence MultiSite technology, enabling users to add three additional participants to a telepresence call.

SX20 Quick Set combines a powerful codec, three camera choices, and a dual-display option 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 and feature-rich package. Cisco TelePresence SX20 Quick Set is designed to truly extend the power of in-person to everyone, everywhere.







Figure 2. Cisco TelePresence SX20 Quick Set with 4x PrecisionHD Camera, Table Microphone, and Remote Control

## **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>Basic API available over IP (Telnet or Secure Shell Protocol [SSH])</li> <li>Dual-display option available</li> <li>High-definition content sharing up to 1080p15 resolution</li> <li>One button to push (OBTP) to start a meeting</li> </ul>	
Performance Features	<ul> <li>Optimal definition up to 1080p60</li> <li>H.323/SIP calls up to 6 Mbps</li> <li>Built-in individually transcoded multipoint conferencing 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 Multiway 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 3. Cisco TelePresence SX20 Quick Set on Wall Mount

## **Product Specifications**

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

 Table 2.
 Product Specifications

Specification	Description
Default components in SX20 Quickset:	SX20 Codec, Cisco TelePresence PrecisionHD Camera – (option of 1080p2.5, 1080p4xS2 or - 1080p12x) Cisco TelePresence Table Microphone 20, remote control, cables, and power supply
Optional components	<ul> <li>Cisco TelePresence Touch 8</li> <li>Wall mount kit</li> <li>Additional microphone</li> </ul>
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>Intelligent video management</li> <li>Local auto-layout</li> </ul>

Specification	Description
Video Inputs (Two Inputs)	One HDMI and One DVI-I (Analog and Digital): Supported Formats:
	• 640x480
	• 720x480
	• 720x576
	• 800x600
	• 848x480
	• 1024x768
	• 1152x864
	• 1280x720
	• 1280x1024
	• 1280x768
	• 1280x800
	• 1280x960
	• 1360x768
	• 1366x768
	• 1400x1050
	• 1440x900
	• 1680x1050
	• 1920x1080
	Extended Display Identification Data (EDID)
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)
	• 1360 x 768@60 fps(WXGA)
	• 1280 x 768@60 fps (WXGA)
	VESA Monitor Power Management
	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, 64 kbps AAC-LD
Audio Standards	- G./ 11, G./22, G./22, I, 04 KUPS AAC-LD

Specification	Description			
Audio Features	<ul> <li>CD-quality 20 KHz mono</li> <li>Two acoustic echo cancellers</li> <li>Automatic Gain Control (AGC)</li> <li>Automatic noise reduction</li> <li>Active lip synchronization</li> </ul>			
Audio Inputs (Four Inputs)	<ul> <li>Two microphones, 4-pin minijack</li> <li>One minijack for line-in (stereo)</li> <li>One audio in from camera (HDMI)</li> </ul>			
Audio Outputs (Two Outputs)	<ul> <li>One minijack for line out (stereo)</li> <li>One HDMI, (digital main audio)</li> </ul>			
Dual Stream	<ul> <li>H.239 (H.323) dual stream</li> <li>BFCP (SIP) dual stream</li> <li>Support resolutions up to 1080p (1920 x 1080)</li> </ul>			
MultiPoint Support	<ul> <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 Multipoint Switch (CTMS)</li> </ul>			
MultiSite Features (Embedded Multipoint)	<ul> <li>Adaptive SIP/H.323 MultiSite; resolution up to 576p30 <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/SXGA</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>			
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 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>DHCP</li> <li>802.1x network authentication</li> <li>802.1p (QoS and class of service [QoS])</li> <li>ClearPath</li> <li>Medianet: Mediatrace and Metadata</li> </ul>			

Specification	Description		
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>		
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 for future usage		
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 (optional)</li> <li>Remote control and on-screen menu system</li> </ul>		
Directory Services	<ul> <li>Support for local directories (My Contacts)</li> <li>Corporate directory</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				
2	25			
2.5x optical zoom (5x with digital*)	4x optical zoom (8x with digital*)	12x optical zoom		
Motorized +5%-25° tilt, +/- 30° pan	Motorized +15%-25° tilt, +/- 90° pan	Motorized +15%-25° tilt, +/- 90° pan		
51.5° vertical field of view	43.5° vertical field of view	43.5° vertical field of view		
83°horizontal field of view	70° horizontal field of view	72°horizontal field of view		
F 2.0	F 1.7	F 1.7		
1920 x 1080 pixels progressive @ 60 fps				
Automatic or manual focus, brightness, and white	e balance			
Far-end camera control				
Dual HDMI/Camera Control and USB output	Dual HDMI/Camera control	HDMI, HD-SDI output, and daisy chain		
Upside-down mounting, picture flips automatically	Upside-down mounting, manual picture flip.	Upside-down mounting, picture flips automatically		
Focus distance 0.3 m – infinity				

\*needs future software upgrade

## **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

Product Name	Part Number	Compliance Model Number
Cisco TelePresence SX20 Quick Set with Precision HD 1080p 2.5x Camera	CTS-SX20-PHD2.5X-K9	
Cisco TelePresence SX20 Quick Set with Precision HD 1080p 4x Camera	CTS-SX20-PHD4X-K9	TTC7-21 (SX20 Codec) TTC8-05 (Camera)
Cisco TelePresence SX20 Quick Set with Precision HD 1080p 12x Camera	CTS-SX20-PHD12X-K9	TTC7-21 (SX20 Codec) TTC8-02 (Camera)

## **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 SX20 Quick Set, <u>http://www.cisco.com/go/telepresence</u> or contact your local account representative.



Americas Headquarters Cisco Systems, Inc. San Jose, CA Asia Pacific Headquarters Cisco Systems (USA) Pte. Ltd. Singapore Europe Headquarters Cisco Systems International BV Amsterdam, The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at www.cisco.com/go/offices.

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: www.cisco.com/go/trademarks. Third party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)

Printed in USA