

Cisco TelePresence TX9000 Series

Product Overview

The Cisco TelePresence® TX9000 Series (TX9000) is the new benchmark for immersive “in-person” collaboration. With modern design and advanced functions, the TX9000 Series enables business transformation through natural and effective communication with enhanced collaboration tools.

The Cisco TelePresence TX9000 Series features two products: the one-row TX9000 seats up to six participants and the two-row TX9200 seats up to 18 participants. The TX9000 Series combines life-size, high-definition (HD) video, content sharing, spatial audio, and an advanced touch user interface, all integrated into a specially-designed room environment for the ultimate immersive experience.

Figure 1. Cisco TelePresence TX9000 One-Row System



Features and Benefits

The Cisco TelePresence TX9000 Series creates a high-quality, simple, and reliable immersive experience by transparently integrating modern design and technology:

- The Cisco TelePresence TX9000 Series can deliver three 1080p 60fps HD video streams and a 1080p HD, full-motion 30fps content-sharing stream for superior video and content collaboration.
- Three 65-inch HD screens offer real-size, life-like remote meeting participation.
- State-of-the-art cameras clustered together deliver optimal eye contact and a continuous whole-room experience with no field-of-view overlap.
- An ultra-thin (one-inch) light reflector provides high-quality facial lighting for reduced glare with flexible deployment options (See Figure 3 for mounting options: wall mount or free standing).
- The system is designed with software and component stability in mind to ensure enterprise-grade reliability.

Figure 2. Cisco TelePresence TX9200 Two-Row System



Figure 3. Two Light Reflector Options for the Cisco TelePresence TX9000 - Wall Mounted and Free Standing

Light Reflector Options



Wall Mounted



Free Standing

Table 1 lists the features and benefits of the Cisco TelePresence TX9000 Series.

Table 1. Features and Benefits

Feature	Description
Ergonomic desk environment	The TX9000 offers an inviting relaxed seating environment with a large open workspace. The curved desk and screen layout enable comfortable in-room and remote personal interaction from any seating position.
Natural eye contact	The three HD screens are positioned to provide direct, natural eye contact and optimal viewing angles from all seating positions.
Integrated lighting	The TX9000 includes built-in LED lighting with a uniquely designed rear light reflector to deliver soft, natural facial lighting, removing any dark shadows caused by top lighting and bringing studio-quality lighting to immersive telepresence.
Built-in power and network	Each seating position is equipped with a personal power and network LAN connection, designed to enhance the ease of use of personal devices.
Collaboration content sharing	The TX9000 has simple, easy-to-use 1080p 30fps collaboration connections for both local and remote content sharing.
Intuitive touch control	The TX9000 supports the Cisco TelePresence Touch 12 (Touch 12) device for system operation and control. The intuitive interface enables users to operate the system with no prior training through a clear, familiar interface. Along with the rich control features of the Touch 12, hardware buttons provide basic operations such as volume, mute, call, and Live Desk to encourage user interaction.

Feature	Description
Scheduling and one-button-to-push	As with all Cisco TelePresence products, the TX9000 supports simple scheduling through Microsoft Exchange or Lotus Domino calendar services, enabling Cisco's unique one-button-to-push meeting start feature.
Cisco WebEx conferencing enabled	The Cisco TelePresence WebEx® integration feature extends Cisco TelePresence meetings to Cisco WebEx users. This solution offers unified scheduling and one-button-to-push meeting start, and it combines audio and data-sharing capabilities. Remote attendees join through the Cisco WebEx Meeting Center and receive video and content from the Cisco TelePresence system. This integration improves user experience, making meetings easier and more productive.
Three-camera cluster	The TX9000 design includes a centrally located cluster of three HD cameras positioned in an unobtrusive location, allowing maximum screen usage while offering best-in-class eye contact.
Advanced HD camera	The TX9000 Series has three HD 1080p, 60 fps (frames per second)-capable cameras.
Advanced content sharing	The TX9000 Series supports a full motion HD 1080p, 30 fps content channel.
Large content screen	The TX9000 Series has a 42-inch LED 1080p screen for content sharing.
Advanced microphones	Personal in-desk microphones enable high quality audio pick-up with room and individual mute options.
Advanced audio	Uniquely designed speakers positioned above the screens provides the highest-quality audio replication to all participants.
Spatial audio	Speaker location and use of the AAC-LD audio codec provide life-like location-based audio.
Flexible room sizes	The TX9000 has seating options that support up to 18 participants.
Flexible room design	The immersive room experience can be further enhanced by a common room design and remediation. The TX9000 supports a wide range of room styles, color palettes, and lighting levels, and its modern design philosophy fits well in all office environments.
Interoperability	Interoperability of the TX9000 Series is guaranteed with all Cisco video endpoints and 3 rd party H.323 and SIP standards based endpoints.
Flexible Content Options	Share and receive content at 1080p 30fps. Annotate on anything being shared from anyone using your Touch12 with the TX line of endpoints. Any endpoint in the meeting, including WebEx, can view the annotations. In software version TX6.1 you can move your content being shared from the bottom content display to the center main display.

Product Specifications

Table 2 gives general specifications. Table 3 gives video and audio specifications. Table 4 gives other specifications, and Table 5 gives temperature ratings for the TX9000 Series.

Table 2. Specifications of the TX9000 Series

Specification	Description
Product compatibility	<ul style="list-style-type: none"> • Cisco Unified Communications Manager 8.6 or later • Cisco TelePresence Multipoint Switch 1.7 or later • Cisco TelePresence Manager 1.7(5) or 1.8(1) and higher • Cisco TelePresence Management Suite 13.2 or later
Software compatibility	Cisco TelePresence System Software 1.9 or later
Protocols	Cisco Discovery Protocol, Session Initiation Protocol (SIP), IP, Dynamic Host Configuration Protocol (DHCP), Secure Shell (SSH) Protocol, 802.1p/q, Real-Time Transport Protocol (RTP) and Secure RTP (SRTP), Telepresence Interoperability Protocol (TIP), H.264, and Binary Floor Control Protocol (BFCP)
Connectivity	Ethernet (1 LAN, RJ-45 connection: 100/1000), internal 4-port Ethernet switch, and HD video connector
Programming interfaces	Web-based user interface; you can configure IP address assignment statically or through the Cisco TelePresence administrator web interface
Physical dimensions (H x W x D)	TX9000: 8 x 19 x 14'4" feet (2.4 x 5.8 x 4.4 m) of space is required at minimum TX9000 (with free standing light reflector): 8 x 19 x 15 feet (2.4 x 5.8 x 4.6 m) of space is required at minimum TX9200: 8 x 31 x 21'5" feet (2.44 x 9.93 x 6.53 m) of space is required at minimum TX9200: (with free standing light reflector) 8' x 31' x 22'1" (2.44 x 9.45 x 6.73 m)
Weight	TX9000: 2041 lb (926 kg) (system weight) TX9200: 2691 lb (1221 kg) (system weight) Free-standing reflector option: 650 lb (295 kg)

Specification	Description
Power	Maximum: 2.93 kW Max without table leg power, add 1.44 kW with table leg power
Total typical heat dissipation	2.93 kW Participant convenience ports consume additional power (maximum of 1.44 kW for six participants) 9,500 BTU/hr

Table 3. Video and Audio Specifications

Specification	Description
Bandwidth consumption¹	19.2 Mbps (1080p, 60 fps best motion handling), 11.9 Mbps (1080p, 30 fps best motion handling), 10.1 Mbps (1080p, 30 fps better motion handling), 8.8 Mbps (1080p, 30 fps good motion handling) 9.6 Mbps (720p, 60 fps best motion handling), 6.4 Mbps (720p, 30 fps best motion handling), 4.5 Mbps (720p, 30 fps better motion handling), 3.1 Mbps (720p, 30 fps good motion handling) ²
Video standards	SIP, H.264, TIP, BFCP
Video frame rate	Capable of 60 fps using H.264
Data and graphics frame rate	Content sharing up to 1080p resolution, 30fps
Native National Television Standards Committee (NTSC)	720p and 1080p
Resolution	1920 x 1080 native. Please refer to the following URL for detailed resolution support: http://www.cisco.com/en/US/partner/docs/telepresence/interop/1_8/deployment/guide/pt2pt.html#wp1074794
Audio standards	G.711/G722 and AAC-LD (22 kHz)
Audio features	Cisco Dynamic Echo Cancellation for spatial audio
Cisco TelePresence HD camera	CMOS 2/3-inch sensor C-mount lens 1080p, 60 fps Minimum vertical illumination 200 lux Manual focus

Table 4. Additional Specifications

Specification	Description
Firmware upgrades	Downloadable from Cisco Unified Communications Manager
Video network features	Intelligent packet loss recovery of video transmission
Network interface	<ul style="list-style-type: none"> One LAN or Ethernet (RJ-45); 100/1000 Mbps Internal 4-port Ethernet switch with 2 Power over Ethernet (PoE) (IEEE 802.3af) ports on codec
Interoperability	<ul style="list-style-type: none"> Cisco Telepresence System Software TC5.1 or later Support for a wide range of resolutions to third-party standards-based video endpoints

Table 5. Temperature Ratings

Temperature	Description
Conference-room operating temperature	41 to 95°F (5 to 35°C)
Relative humidity	10 to 95% (non-condensing)

Warranty Information

Find warranty information on Cisco.com at the [Product Warranties](#) page.

¹ Average bandwidth utilization as of CTS1.9 software. Depending on the network, Max bandwidth may be required.

² Does not include content stream. Average 1080p 30fps content stream bandwidth is 1.4 Mbps.

Ordering Information

Table 6 gives ordering information for the TX9000 Series. When ordering a TX9000 or TX9200, please also make selections for light reflector types (wall-mount or free-standing) and either maple- or walnut-finish tables. Please note: the natural woods that are used for the tabletop finishes have a unique color, grain, and texture. As a result, there may be slight variations in grain between the table sections due to the natural formation of the wood.

Table 6. Ordering Information

Product Name	Part Number	Table Options	Part Numbers	Light Reflector Options	Part Number
Cisco TelePresence TX9000	CTS-TX9000	Maple	CTS-TX9XX0-TBL-MF	Wall Mount	CTS-TX9K-LTRF-PNL
		Walnut	CTS-TX9XX0-TBL-WF	Free-Standing	CTS-TX9K-LTRF
Cisco TelePresence TX9200	CTS-TX9200	Maple	CTS-TX9XX0-TBL-MF (first-row table) CTS-TX9XX0-TBL-MB (second-row table)	Wall Mount	CTS-TX9K-LTRF-PNL
		Walnut	CTS-TX9XX0-TBL-WF (first-row table) CTS-TX9XX0-TBL-WB (second-row table)	Free-Standing	CTS-TX9K-LTRF

Table 7 gives the ordering information for light reflector conversion kits. If a different light reflector type is subsequently required, the following conversion kits are available. Please note that the free-standing light reflector version requires a slightly larger room than the wall-mount version.

Table 7. Light Reflector Conversion Kits

Product Name	Part Number
Wall Mount to Free-Standing Conversion Hardware Kit. Retain your panels to use with this conversion kit.	CTS-TX9K-WMFS-KIT=
Free-Standing to Wall Mount Conversion Hardware Kit. Retain your panels to use with this conversion kit.	CTS-TX9K-FSWM-KIT=

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, visit:

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

For More Information

For more information about the Cisco TelePresence TX9000 Series, please visit

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




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