Cisco TelePresence Codec C60

The Cisco TelePresence® portfolio creates an immersive, in-person experience over the network—empowering you to collaborate with others like never before. Through a powerful combination of technologies and design that allows you and remote participants to feel as if you are all in the same room, the Cisco TelePresence portfolio has the potential to provide great productivity benefits and transform your business. Many organizations are already using it to manage costs, make decisions faster, improve customer intimacy, scale scarce resources, and speed products to market.

Figure 1.   Cisco TelePresence Codec C60

Also available as an integrator package with a Cisco TelePresence PrecisionHD 1080p Camera and one microphone.

Product Overview

The Cisco TelePresence Codec C60 delivers up to 1080p60 end-to-end high definition (HD) video collaboration engine. Designed with the integrator in mind, the C60 provides the flexibility to incorporate HD video and collaboration into many more team-based applications. Integrate into meeting rooms, boardrooms and special industry projects simply and easily.

Cisco TelePresence Codec C60 Features

Table 1 summarizes the key features for the Cisco TelePresence Codec C60.

Table 1.   Cisco TelePresence Codec C60 Feature Summary

Feature Summary	
Design features	• One of the most powerful and feature-rich codecs available with the ultimate in video and audio quality • The next generation HD video collaboration codec • 1 rack unit (1RU) high, rack-mountable, with rack-mounting solution included • Professional-grade connectors • Unmatched quality and flexibility • Standards-compliant 1080p solution—compatible with standards-based video without losing features
Application features	• 720p30 HD embedded Cisco TelePresence MultiSite (MultiSite) with individual transcoding • Collaborate with three simultaneous video inputs • HD Collaboration with 1080p30 and WUXGA* • One button to push (OBTP) to start a meeting • Limitless integration possibilities • Ideal for team-based collaboration, boardrooms, meeting rooms, and industry applications

Feature Summary	
	• Seven video compositors (embedded)
Performance features	• Optimal definition up to 1080p
	• H.323/SIP up to 6 Mbps point-to-point
	• Up to 10 Mbps total MultiSite bandwidth
	• Ability to connect up to five HD sources and four microphones directly into the interface
	• Full duplex audio with high-quality stereo sound
	• Full application programming interface (APIs)
	• Ability to takes advantage of Cisco® TelePresence Total Solution Management, transcoded HD MultiSite, recording and streaming, Multiway, and firewall traversal
	• Cisco TelePresence ClearPath packet loss protection technology for optimal experience
	• Cisco Unified Communications Manager native support (requires Cisco Unified Communications Manager version 8.6 or higher)

Product Capabilities

Table 2 lists the product capability specifications for the Cisco TelePresence Codec C60.

Table 2.   Product Specifications

Specification	Description
Unit delivered complete with:	• Videoconferencing codec, wireless remote control, rack-mounting rails, LAN cable, and power cable
Bandwidth	• H.323/SIP up to 6 Mbps point-to-point
	• Up to 10 Mbps total MultiSite bandwidth
Firewall traversal	• Cisco TelePresence Expressway technology
	• H.460.18 and H.460.19 Firewall Traversal
Video standards	• H.261, H.263, H.263+, and H.264
Video features	• Native 16:9 widescreen
	• Advanced screen layouts
	• Intelligent video management
	• Local auto layout
	• Seven embedded individual video compositors—one for every output and one for every encoder[**]
Video inputs (five inputs)	**Two HDMI Inputs, Supported Formats:**
	• 1920 x 1080@60 and 59.94 Hz (1080p60)
	• 1920 x 1080@50 Hz (1080p50)
	• 1920 x 1080@30 and 29.97 Hz (1080p30)
	• 1920 x 1080@25 Hz (1080p25)
	• 1920 x 1080@24, and 23.97 Hz (1080p24)
	• 1280 x 720@60, and 59.94 Hz (720p60)
	• 1280 x 720@50 Hz (720p50)
	• 720 x 480@60, and 59.94 Hz (480p60)
	• 640 x 480@60 Hz (480p60)
	• 1600 x 1200@50, and 60 Hz (UXGA)
	• 1280 x 1024@60, and 75 Hz (SXGA)
	• 1024 x 768@60, 70, 75, and 85 Hz (XGA)
	• 800 x 600@56, 60, 72, 75, and 85 Hz (SVGA)
	• 1920 x 1200@50 and 60 Hz (WUXGA)
	• 1680 x 1050@60 Hz (WSXGA+)
	• 1440 X 900@60 Hz (WXGA+)
	• 1280 x 768@60 Hz (WXGA)
	Two DVI-I Inputs: Supported Formats:
	Analog (VGA):
	• 1920 x 1080@60 Hz (1080p)
	• 1280 x 720@60 Hz (720p)
	• 1600 x 1200@60 Hz (UXGA)
	• 1280 x 1024@60 and 75 Hz (SXGA)

Specification	Description
	• 1280 x 960@60 Hz • 1024 x 768@60, 70, 75, and 85 Hz (XGA) • 1920 x 1200@50 Hz (WUXGA) • 1680 x 1050@60 Hz (WSXGA+) • 1440 x 900@60 Hz (WXGA+) • 1280 x 800@60 Hz (WXGA) • 1280 x 768@60 Hz (WXGA) Analog (YPbPr): • 1920 x 1080@60 Hz (1080p60) • 1920 x 1080@50 Hz (1080p50) • 1920 x 1080@30 Hz (1080p30) • 1920 x 1080@25 Hz (1080p25) • 1280 x 720@60 Hz (720p60) • 1280 x 720@50 Hz (720p50) • 1280 x 720@30 Hz (720p30) • 720 x 576@50 Hz (576p50) • 720 x 480@60 Hz (w480p60) Digital (DVI-D): • 1920 x 1080@60, 59.94 Hz (1080p60) • 1920 x 1080@50 Hz (1080p50) • 1920 x 1080@30, 29.97 Hz (1080p30) • 1920 x 1080@25 Hz (1080p25) • 1920 x 1080@24, 23.97 Hz (1080p24) • 1280 x 720@60, 59.94 Hz (720p60) • 1280 x 720@50 Hz (720p50) • 720 x 480@60, 59.94 Hz (480p60) • 640 x 480@60 Hz (480p60) • 1600 x 1200@50, 60 Hz (UXGA) • 1280 x 1024@60, 75 Hz (SXGA) • 1024 x 768@60, 70, 75, 85 Hz (XGA) • 800 x 600@56, 60, 72, 75, 85 Hz (SVGA) • 1920 x 1200@50, 60 Hz (WUXGA) • 1680 x 1050@60 Hz (WSXGA+) • 1440 X 900@60 Hz (WXGA+) • 1280 x 768@60 Hz (WXGA) **OneComposite Input (BNC Connectors)** • PAL/NTSC • Extended Display Identification Data (EDID)
Video outputs (three outputs)	**One HDMI Output and One DVI-I Output; Supported Formats:** • 1920 x 1080@60 Hz (1080p60) • 1920 x 1080@50 Hz (1080p50) • 1280 x 720@60 Hz (720p60) • 1280 x 720@50 Hz (720p50) • 1600 x 1200@60 Hz (UXGA) • 1280 x 1024@60 Hz (SXGA) • 1024 x 768@60 Hz (XGA) • 800 x 600@60 Hz (SVGA) • 640 x 480@60 Hz (VGA) • 1920 x 1200@60Hz (WUXGA) • 1360 x 768@60 Hz • 1366 x 768@60 Hz • 1280 x 768@60 Hz (WXGA) **OneComposite Output (BNC Connector): Supported Formats:** • PAL/NTSC • VESA Monitor Power Management Extended Display Identification Data (EDID)

Specification	Description
Live video resolutions (encode anddecode)	• 176 x 144@30 frames per second (fps) (QCIF) • 352 x 288@30 fps (CIF) • 512 x 288@30 fps (w288p) • 576 x 448@30 fps (448p) • 768 x 448@30 fps (w448p) • 704 x 576@30 fps (4CIF) • 1024 x 576@30 fps (w576p) • 1280 x 720@30 fps (720p30) • 1920 x 1080@30 fps (1080p30)[*] • 640 x 480@30 fps (VGA) • 800 x 600@30 fps (SVGA) • 1024 x 768@30 fps (XGA) • 1280 x 1024@30 fps (SXGA) • 1280 x 768@30 fps (WXGA) • 1440 x 900@30 fps (WXGA+) • 1680 x 1050@30 fps (WSXGA+) • 1600 x 1200@30 fps (UXGA)[*] • 1920 x 1200@25 fps (WUXGA)[*] • 512 x 288@60 fps (w288p60) • 768 x 448@60 fps (w448p60) • 1024 x 576@60 fps (w576p60) • 1280 x 720@60 fps (720p60)[*] • 1920 x 1080@60 fps (1080p60)[**] • 720p30 from 768 kbps • 720p60 from 1152 kbps • 1080p30 from 1472 kbps • 1080p60 from 2560 kbps
Audio standards	• G.711, G.722, G.722.1,64 kbps & 128 kbps MPEG4 AAC-LD, and AAC-LD Stereo
Audio features	• CD-quality 20 kHz mono and stereo • Four separate acoustic echo cancellers • Four-port audio mixer • Automatic Gain Control (AGC) • Automatic noise reduction • Active lip synchronization
Audio inputs (seven inputs)	• Four microphones, 48V phantom powered, XLR connector each with separate echo cancellers and noise reduction, all microphones can be set for balanced line level • Two RCA/Phono, Line Level: Stereo PC input, configurable to 2 x RCA/Phono, Line Level: Mono auxiliary/DVD input • One HDMI, digital: Stereo PC/DVD inputs
Audio outputs (three outputs)	• Two RCA/Phono, line level, stereo main audio, configurable to S/PDIF or 2 x RCA/Phono, line level, and mono to recording device • One HDMI, digital, and stereo main audio
Dual stream	• H.239 (H.323) dual stream • BFCP (SIP) dual stream • Support for resolutions up to 1080p30/WUXGA, and independent of main stream resolution
MultiPoint support	• Four-way embedded SIP/H.323 MultiPoint, reference. Reference MultiSite • Cisco TelePresence Multiway support)(requires Cisco TelePresence Video Communications Server [Cisco VCS] and Cisco TelePresence MCU) • Ability to natively join multipoint conferences hosted on Cisco TelePresence Multipoint Switch (CTMS)

Specification	Description
MultiSite features (embedded MultiPoint)	• Four way 720p30 High Definition SIP/H.323 MultiSite • Full individual audio and video transcoding • Individual layouts in MultiSite CP (takes out self view) • H.323/SIP/VoIP in the same conference • Support for Presentation (H.239/BFCP) from any participant at resolutions up to WXGAp30 • Best Impression (Automatic CP Layouts) • H.264, Encryption, Dual Stream from any site • IP Downspeeding • Dial in and dial out • Additional telephone call (no license required) • Conference rates up to 10 Mbps
Protocols	• H.323 • SIP • ISDN (requires Cisco TelePresence ISDN Link)
Embedded encryption	• H.323/SIP point-to-point • Standards-based: H.235-v3 and Advanced Encryption Standard (AES) • Automatic key generation and exchange • Supported in dual stream
IP network features	• DNS lookup for service configuration • Differentiated Services (QoS) • IP adaptive bandwidth management (including flow control) • Auto gatekeeper discovery • Dynamic playout and lip-sync buffering • H.245 DTMF tones in H.323 • Date and Time support via NTP • Packet Loss based Downspeeding • URI Dialing • TCP/IP • DHCP • 802.1x Network authentication • 802.1Q Virtual LAN • 802.1p (QoS and class of service [CoS]) • ClearPath • Medianet: Mediatrace and Metadata
Cisco Unified Communications Manager (requires Cisco Unified Communications Manager Version 8.6 or later)	• Native registration with Cisco Unified Communications Manager • Basic Cisco Unified Communication 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
IPv6 network support	• Single call stack support for both H323 and SIP • Dual-stack IPv4 and IPv6 for DHCP, Secure Shell (SSH), HTTP, Secure HTTP (HTTPS), DNS, and Differentiated Services (DiffServ) • Support for both static and autoconfiguration (stateless address auto configuration)
Security features	• Management through HTTPS and SSH • IP administration password • Menu administration password • Disable IP services • Network settings protection
Network interfaces	• One LAN/Ethernet (RJ-45) 10/100/1000 Mbit
Other interfaces	• USB host for future usage • USB device for future usage • GPIO

Specification	Description

Cisco TelePresence PrecisionHD Camera (1080p)	• 1/3"inch CMOS
	• 12x zoom
	• +15°/-25° tilt and +/-90° pan
	• 43.5° vertical field of view
	• 72° horizontal field of view
	• Focus distance 0.3m-infinity
	• 1920 x 1080 pixels progressive @ 60fps
	• Other formats supported (configurable through Dip-switch):
	  ◦ 1920x1080@60fps (HDMI only)
	  ◦ 1920x1080@50fps (HDMI only)
	  ◦ 1920x1080@30fps
	  ◦ 1920x1080@25fps
	  ◦ 1280x720@60fps
	  ◦ 1280x720@50fps
	  ◦ 1280x720@30fps
	  ◦ 1280x720@25fps
	• Automatic or manual focus, brightness, and white balance
	• Far-end camera control
	• Daisy-chain support (Visca protocol camera)
	• Dual HDMI and HD-SDI output
	• Upside-down mounting with automatic flipping of picture

System management	• Support for the Cisco TelePresence Management Suite • Total management via embedded SNMP, Telnet, SSH, XML, and SOAP • Remote software upload: via web server, SCP, HTTP, and HTTPS • One RS-232 for local control and diagnostics • Remote control and on-screen menu system
Directory services	• Support for local directories (My Contacts) • Corporate Directory • Unlimited entries using server directory supporting LDAP and H.350 (requires Cisco TelePresence Management Suite) • Unlimited number for Corporate Directory (through Cisco TelePresence Management Suite) • 200 number local directory • Received calls • Placed calls • Missed calls with date and time
Power	• Auto-sensing power supply • 100-240 VAC, 50/60 Hz • 175 watts maximum for codec and main camera
Operating temperature and umidity	• 0 to 35° (32 to 95°F) ambient temperature • 10 to 90% relative humidity (RH)
Storage and transport temperature	• -20°C to 60°C at RH 10-90% (non-condensing)
Dimensions	• Length: 17.4" in. (44.2 cm) • Height: 1.7" in (4.4 cm) • Depth: 10.9" in. (27.8 cm) • Weight: 8.8 lbs (4 kg)

* Requires option
** Multiwindow compositing not supported on the dual stream

Regulatory Compliance

- Directive 2006/95/EC (Low-Voltage Directive)—Standard 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 CSA 60950-1-07
- Complies with FCC15B Class A

Ordering Information

Table 3 gives ordering information for the Cisco TelePresence Codec C60

Table 3.   Ordering Information

Product Name	Part Number	Compliance Model Number
Cisco TelePresence Codec C60	CTS-C60-K9	TTC6-10
Comes with: Codec C60, Natural Presenter Package, Rack Mount Kit, Remote Control, HDMI and Power Cables		
Ordering Options for the Cisco TelePresence Codec C60		
Codec C60 Premium Resolution Option	LIC-C60-PR	
Codec C60 Multisite Multi Site Option	LIC-C60-MS	

Service and Support

Cisco and our partners provide a broad portfolio of intelligent, personalized services and support that can help you realize the full value of your Cisco TelePresence investment by increasing business agility and network availability. This portfolio of services accelerates business innovation through a network-based collaboration platform that enables businesses to collaborate anywhere, anytime. For more information about these services, visit: http://www.cisco.com/go/telepresenceservices.

For More Information

For more information about the Cisco TelePresence Codec C60, visit http://www.cisco.com/go/telepresence or contact your local Cisco account representative or authorized Cisco partner. Product specifications are estimates and subject to change without notice.