Crestron Mercury® X Tabletop Conference System

- *Tabletop conferencing device for audio and videoconferencing solutions*
- *7 in. (178 mm) HD color touch screen UX provides a consistent user experience in every room*
- *Single cable connection provides HD video content along with CEC, IP, IR, or RS-232 display control (when used as part of the CCS-UC-1-X KIT)*
- *Network management, provisioning, and system alerts through the XiO Cloud® service*
- *Enterprise-grade security - connects and communicates securely over any enterprise or SMB network*
- *Configurable for use with Microsoft Teams® Rooms and Zoom Rooms™ conferencing applications and other open-platform audio and video conferencing applications*
- *Full open SIP conferencing speakerphone with Bluetooth® connectivity for use with mobile phones*
- *Native Skype® for Business VoIP support*
- *HDMI input and AirMedia® 2.0 technology provide Bring Your Own Device (BYOD) presentation and content sharing capabilities (when used in an open UC ecosystem)*
- *USB connectivity for computers running web conferencing software*
- *Full-duplex audio performance with an integrated 360° quad microphone array, 2-way wideband voice quality, and Limes Audio TrueVoice® AEC technology*
- *Built-in PIR occupancy detector*

The Crestron Mercury X Tabletop Conference System (CCS-UC-1-X) is a high-performance, full duplex conferencing speakerphone and touch screen controller with extensive connectivity for BYOD scenarios and UC conference systems.[1]

Video Conferencing and Web Collaboration

Video conferencing is enabled by connecting a USB camera and a computer running a web conferencing or UC application such as Microsoft Teams® Rooms, Skype for Business, Cisco WebEx®, GotoMeeting®, Slack®, BlueJeans, or Zoom Rooms™ software to the CCS-UC-1-X.

Built-in AirMedia 2.0 technology allows for wireless presentation of content from a laptop, smartphone, or tablet device via the room's Wi-Fi® wireless network.

Visit crestron.com/airmedia for more information.[2]

An AV source can be plugged in via HDMI® to present full-motion HD video content on the room display. Sources with DisplayPort™ or USB Type-C® outputs can also be connected using an optional Crestron video cable system (CBL-MULTI-6 or CBL-MULTI-12, sold separately).

The CCS-UC-1-X also works with the Crestron Airboard™ Whiteboard Capture System (CCS-WB-1), allowing for in-room and remote collaboration. The CCS-UC-1-X can manage remote participants, start and stop a whiteboard session, route the whiteboard content to the associated display, and email a snapshot or timeline of the whiteboard session.

Visit crestron.com/airboard for more information.[3]

When used as part of a Crestron Flex UC system, the CCS-UC-1-X becomes the control point for operating a Microsoft Teams Rooms or Zoom Rooms conference room.

Voice Calling and Audio Conferencing

The CCS-UC-1-X is a full-duplex conferencing speakerphone that is compatible with major SIP-compliant phone systems. Dialing and answering calls is easy and intuitive using the large HD color touch screen. Corporate directory access (LDAP) enables one-touch dialing from the customer's centrally managed directory.

The CCS-UC-1-X can also pair with a mobile phone using Bluetooth® connectivity to make calls or join a call in progress. Controls for the Bluetooth enabled phone appear on the touch screen, enabling instant connectivity with the press of a button.

Connect a laptop computer via USB to improve audio performance for any softphone or audio conferencing application running on the laptop.

Native Skype for Business VoIP support enables one-touch join capability for scheduled Skype meetings (audio only), or you can place a Skype call using the directory or dial pad.

Microsoft Teams® Rooms Intelligent Communications

When used as part of a Crestron Flex system for Microsoft Teams Rooms, the CCS-UC-1-X provides a native Microsoft Teams Rooms video conferencing experience, whether implementing a cloud based Microsoft Teams Rooms deployment, on-premises Skype for Business, or a hybrid of the two. The CCS-UC-1-X provides simple operation and one touch meeting joins through a Microsoft Teams Rooms UX. Onboard calendaring and corporate directory access provide the tools needed to work smart and efficiently.

Visit crestron.com/Products/Featured-Solutions/Flex-for-Teams for more information.

Crestron Mercury® X Tabletop Conference System

Zoom Rooms™ Video Conferencing and Collaboration

As part of a Crestron Flex system for Zoom Rooms, the CCS-UC-1-X can be used as a high-performance conferencing speakerphone and touch screen control panel for a Zoom Rooms conferencing and collaboration solution. It replaces the individual speaker, microphone, and tablet components of a typical Zoom Rooms setup, delivering the Zoom Rooms experience in one integrated tabletop device.

Visit crestron.com/Products/Featured-Solutions/Flex-for-Zoom-Rooms for more information.

Superb Sound Quality

The CCS-UC-1-X has a 360° quad microphone array that captures voices at every seat at the table while its high-powered, full-range speaker produces clear sounding audio for both voice and program material.[4] Limes Audio TrueVoice® AEC technology achieves full-duplex performance free of distracting echo or noise. Wideband audio codec support allows for full-spectrum, bidirectional voice communication. Large or long tables are easily accommodated by adding up to two mic pods (CCS-UCA-MIC KIT sold separately) for extended coverage.

Appspace® Digital Signage Integration

The CCS-UC-1-X integrates with the Appspace content management application for digital signage to show Appspace content on a connected display when a space is not in use. For best practices on configuring signage content visit docs.appspace.com.

HD Color Touch Screen

The high-definition, full color touch screen provides quick access, intuitive operation, and a consistent user experience from room to room. The touch screen is configurable and can be personalized using custom background images.

Room Scheduling Integration

The CCS-UC-1-X system integrates directly with Microsoft Exchange Server® or Crestron Fusion® software to allow seamless room scheduling and automation for any number of rooms. The built-in calendar application provides details about the current scheduled meeting, and allows meetings to be scheduled right from the touch screen. Notifications show the time left and what's scheduled next on the front-of-room display.

As part of a Crestron Fusion room scheduling solution, the Crestron PinPoint™ App can be used to locate and reserve any available room in the facility. As you enter a room equipped with a CCS-UC-1-X, the built-in PinPoint beacon[5] detects your presence and provides personalized feedback and connection options on your mobile device, letting you instantly start a presentation. The CCS-UC-1-X also works with Crestron room scheduling touch screens installed outside each room, all integrated through Crestron Fusion or Microsoft Exchange Server software.

Occupancy Sensing

The CCS-UC-1-X detects room occupancy using a combination of motion and voice activity. A built-in passive infrared detector initially senses when someone is present, and then voice activity is used to maintain the room's occupied status.

Occupancy detection automates the system to power down to save energy when all parties leave the room. System power can also be managed according to a daily schedule.

Network Management and Security

The CCS-UC-1-X is an enterprise-grade appliance, equipped for mass deployment throughout any sized corporate, university, medical, military, or governmental facility.

Cloud based provisioning enables complete network configuration in advance of hardware delivery, with touchless updates following installation. The XiO Cloud® service enables monitoring and logging of room and equipment usage, as well as centralized help desk support. Advanced security features ensure privacy, reliability, and compliance with your organization's IT policies.

The CCS-UC-1-X can also be configured individually using a computer web browser, or in batches using the Crestron Deployment Tool for the Powershell® framework.

Crestron Fusion management enables monitoring and logging of room and equipment usage, as well as centralized help desk support. Advanced security features ensure privacy, reliability, and compliance with the organization's IT policies.

XiO Cloud Provisioning and Management Service

The CCS-UC-1-X is compatible with the XiO Cloud service, which enables installers and IT managers to deploy and manage thousands of devices in the amount of time it previously took to manage just one. The XiO Cloud service allows for system alerts and network management and provisioning.

Visit www.crestron.com/xiocloud for more information.

Crestron Mercury® X Tabletop Conference System

Specifications

Communications

Ethernet	100 Mbps, auto-switching, autonegotiating, autodiscovery, full/half duplex, DHCP, TCP/IP, UDP/IP, CIP, SSL, TLS, SSH, SFTP (SSH File Transfer Protocol), SRTP, IEEE 802.1X, Active Directory authentication, digest access authentication, password login, XiO Cloud service, Microsoft Intune® client
SIP	Open SIP, SDP, IETF SIP (RFC 3261 and companion RFCs), DTMF tone generation (RFC 2833 and in-band), low-delay audio packet transmission, adaptive jitter buffers, packet loss concealment
Skype for Business VoIP	Skype for Business client (audio only), compatible with Microsoft 365 cloud service or on-premises Skype for Business Server 2015 (or above); Supports Enterprise Voice, Phone System, Microsoft 365 modern authentication (limited), directory lookup, PSTN calling
Microsoft Teams Rooms	Connects with a Crestron Flex UC Video Conference System for system control
Zoom Rooms	Connects with a Crestron Flex UC Video Conference System for system control
Bluetooth	Bluetooth 4.0 device pairing for wideband speech (HFP) and multimedia audio streaming (A2DP), Crestron PinPoint proximity detection beacon[5]
USB Device	USB 2.0 device supporting UAC, UVC, and HID for plug-and-play compatible audio/speakerphone interface and camera video output to a USB host computer running web conferencing or other software; AEC enabled USB speakerphone and camera compliant with Microsoft Teams Rooms and Skype for Business software specifications
USB Host	USB 2.0 host supporting UVC for camera video input
RS-232	2-way display device control and monitoring up to 115.2k baud with software handshaking (when used as part of the CCS-UC-1-X KIT)
IR/Serial	1-way display device control via infrared up to 1.1 MHz or serial TTL/RS-232 (0-5 Volts) up to 19.2k baud (when used as part of the CCS-UC-1-X KIT)
HDMI	HDCP 1.4, EDID, CEC
HDMI Over CAT5[6]	HDCP 2.2, EDID, Ethernet, IR/RS-232
AirMedia	(Via Ethernet) IPv4, mDNS, TLS, AES
Extension Microphones	A2B bus protocol, single master, multiple slave; Synchronous data, multichannel I2S/TDM to I2S/TDM; Exclusively for use with Crestron mic pods, model CCS-UCA-MIC KIT (sold separately)

Audio

Codec Support	G.711, G.722, G.729, Siren 7, SILK
AEC	Limes Audio TrueVoice acoustic echo cancellation, automatic mic mixing, automatic gain control, and dynamic noise reduction; Full duplex IEEE 1329 Type 1 compliant
Microphones	360° quad mic array with (4) cardioid electret elements; Pickup Range: 20 ft (6 m) typical
Speaker	Full range speaker; Amplifier Power: 11 W maximum; Output Volume: 95 dB SPL at 0.5 m; Frequency Response: 90 Hz to 22 kHz

Video

Content Input Signal Types	HDMI (DVI and Dual-Mode DisplayPort connectivity compatible[7]), AirMedia[1]
Camera Input/Output Signal Type	USB
Display Output Signal Type	HDMI over CAT5[6]
Content Input Signal Resolutions	Up to 1920x1080@60Hz (1080p60) Display Output Resolutions: 1280x720@50Hz (720p50), 1280x720@60Hz (720p60), 1920x1080@50Hz (1080p50), 1920x1080@60Hz (1080p60)

AirMedia

OS Support	Apple® iOS®, Android™, Windows® 7, Windows 8, Windows 10, macOS®, Chrome OS™
Video Frame Rate	Up to 30 fps, audio supported
Client Software Video Frame Rate	30 fps, audio supported **NOTE:** Audio is not supported on Android devices.

Crestron Mercury® X Tabletop Conference System

Full Screen Device Mirroring	Shares the screen image and audio from an Apple iOS, Android, macOS, or Windows device
Output Resolutions	640x480@60Hz, 800x600@60Hz, 1024x768@60Hz, 1280x720@50Hz (720p50), 1280x720@60Hz (720p60), 1280x800@60Hz, 1366x768@60Hz, 1440x900@60Hz, 1600x900@60Hz, 1600x1200@60Hz, 1680x1050@60Hz, 1920x1080@50Hz (1080p50), 1920x1080@60Hz (1080p60)

NOTE: All video inputs will be scaled to the selected HDMI output resolution.

Bitrate Peak	0.25 to 8.5 Mbps, variable depending on content complexity
Bitrate Average	1.4 Mbps typical

NOTES:

- The bitrate for Apple native mirroring may deviate from above depending on the OS version and content
- The AirMedia Extension for the Google® Chrome™ browser relies on web technologies for screen sharing that are built-in to the web browser. Performance variations with motion video (quality and frame rate) may occur based upon the encoding capabilities of the Chrome OS device and the nature of the content being displayed (i.e., high-motion video).

Audio Format	Stereo

Occupancy Sensor

PIR Detection Range	6 ft (1.83 m) in front of touch screen, wakes touch screen and display device, and reports room occupancy to Crestron Fusion software
Voice Activity Detection	Keeps room occupancy and touch screen active as long as speech is detected through the microphones

Touch Screen

Display Type	TFT active matrix color LCD
Size	7 in. (178 mm) diagonal
Aspect Ratio	16:10 WXGA
Resolution	1280 x 800 pixel
Touch Screen	Capacitive, multi-touch capable
Character Support	Unicode UTF-8

Language Support	Arabic, Chinese (Simplified), Chinese (Traditional), Czech, Danish, Dutch (NL), English (UK), English (US), Finnish, French (FR), German (DE), Greek, Hebrew, Hungarian, Italian (IT), Japanese (JP), Korean, Norwegian (NO), Polish, Portuguese, Portuguese (Brazilian), Romanian, Russian (RU), Slovak, Spanish (ES), Swedish, Thai

Buttons & Indicators

Mic Mute Symbol & Light Bar	(2) Capacitive buttons with bi-color LEDs, toggles between mute and unmute;
	The symbol LED flashes green when the unit is powering up;
	All LEDs illuminate red when the mic is muted;
	All LEDs illuminate green when the mic is unmuted during an active call or online meeting

Connectors

G	(1) 6-32 screw;
	Chassis ground lug
LAN	(1) 8-pin RJ-45 connector, female;
	100Base-TX Ethernet port;
	12 ft (3.66 m) Ethernet cable included
TX OUT	(1) 8-pin RJ-45 connector, female, shielded;
	For connection to the RX IN port on a compatible receiver
USB B	(1) Micro-USB Type B connector, female;
	USB 2.0 device port;
	6 ft (1.83 m) USB micro-B male to A male cable included
HDMI IN	(1) HDMI Type A connector, female;
	Digital video/audio input for presenting content from a source;
	DisplayPort and USB Type-C compatible using a Crestron video cable system (CBL-MULTI-6 or CBL-MULTI-12, sold separately)
MIC POD 1-2	(2) RJ9 4P4C connector, female;
	For connection of up to two CCS-UCA-MIC microphone pods (sold separately)
USB/ACC	(1) USB Type A connector, female;
	USB 2.0 host port
24V DC 2.5A	(1) 2.1 x 5.5 mm DC power connector;
	24 VDC power input for universal power pack

Crestron Mercury® X Tabletop Conference System

Power

Power Pack	Input: 100-240 VAC, 50/60 Hz;
	Output: 2.5 A @ 24 VDC;
	Model: PW-2420RU (included)
	NOTE: The CCS-UC-1-X cannot be powered by Power over Ethernet (PoE+).
Power Consumption	22 W (typical)

Environmental

Operational Temperature	32° to 95° F (0° to 35° C)
Storage Temperature	-4° to 160° F (-20° to 70° C)
Humidity	5% to 95% RH (non-condensing)
Heat Dissipation	75 BTU/hr (typical)

Dimensions

Height	4.11 in. (104 mm)
Width	8.92 in. (227 mm)
Depth	12.74 in. (324 mm)

Weight

5.5 lb (2.5 kg)

Compliance

Regulatory Model: CCS-UC-1
CE, IC, UL 60950-1, FCC Part 15 Class B, Japan MIC/VCCI Class A, ICES-003 Issue 5 Class A, EN55022:2010 Class A, AS/NZS CISPR22:2010 Class A, VCCI Class A, EN55024:2010, EN61000-3-2:2014, EN61000-3-3:2013, EN60950-1:2006, EN60950-A2:2013, EN60950-A11:2009, EN60950-A1:2010, EN60950-A12:2011, FCC 15.247, RSS 210 Issue 8, RSS Gen Issue 4, ETSI EN 301 489-1, ETSI EN 301 489-17, AS/NZS 4268:2012, NZ Telepermit, Australia A&C Tick, RoHS compliant

Model

CCS-UC-1-X
Crestron Mercury® X Tabletop Conference System

Included Accessories

PW-2420-RU
Desktop Power Pack, 24 VDC, 2.5 A, 2.1 mm, Universal

Available Accessories

AM-USB-WIFI
AirMedia® USB Adapter with Wi-Fi® Connectivity

CBL-MULTI-6
Crestron Mercury® HD Video Cable System, with 6 ft Cables

CBL-MULTI-12
Crestron Mercury® HD Video Cable System, with 12 ft Cables

CCS-UCA-SMK
Swivel Mount Kit

CCS-UCA-MIC KIT
Microphone Pods, Set of 2

CCS-WB-1
Crestron AirBoard™ Whiteboard Capture System

SW-FUSION-C-3
Crestron Fusion® Cloud; 250 rooms; 3-year service, support, and updates

SW-FUSION-P-L
Crestron Fusion® On-premises; Unlimited rooms; lifetime service, support, and updates

SW-HS-x-C
Crestron Fusion® Cloud Room Scheduling; 1-year, 3-year, or lifetime service, support, and updates for one touch screen

SW-HS-x-P
Crestron Fusion® On-premises Room Scheduling; 1-year, 3-year, or lifetime service, support, and updates for one touch screen

SW-XIOC-EM
XiO Cloud® Provisioning and Management Service, Endpoint Management License

SW-XIOC-S
XiO Cloud® Provisioning and Management Service, Support License

SW-XIOC-API
XiO Cloud® Provisioning and Management Service, REST API License

SW-XIOC-WA
XiO Cloud® Provisioning and Management Service, Workplace Analytics License

Crestron Mercury® X Tabletop Conference System

Notes:

1. Some features are not available in certain operating modes.

2. AirMedia wireless presentation requires a wired network connection between the CCS-UC-1-X and an external Wi-Fi wireless access point (not included). Laptops may alternately connect to AirMedia using a wired Ethernet connection. Full-motion video performance is dependent upon the performance of the network and the sending device. Computer client software and mobile device apps are available for download at https://www.crestron.com/airmedia.

3. Crestron Airboard integration with Crestron Mercury devices is entirely configuration-based.

4. The HDMI audio input signal is routed to the display device speakers. It does not play through the device speaker. The HDMI input is intended for use with laptops and other AV sources that include onboard audio volume adjustment. The device's volume control setting does not affect signals heard through the display speakers.

5. The built-in PinPoint beacon is not enabled at this time. This feature will be enabled in a future update.

6. CAT5e or better.

7. HDMI connections require an appropriate adapter or interface cable to accommodate a DVI or Dual-Mode DisplayPort signal. CBL-HD-DVI interface cables are available separately. DisplayPort and USB Type-C input capability can be enabled using a Crestron video cable system (CBL-MULTI-6 or CBL-MULTI-12, sold separately).

This product may be purchased from select authorized Crestron dealers and distributors. To find a dealer or distributor, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/How-To-Buy/Find-a-Representative or by calling 855-263-8754.

This product is covered under the Crestron standard limited warranty. Refer to www.crestron.com/warranty for full details.

The specific patents that cover Crestron products are listed online at patents.crestron.com.

Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.
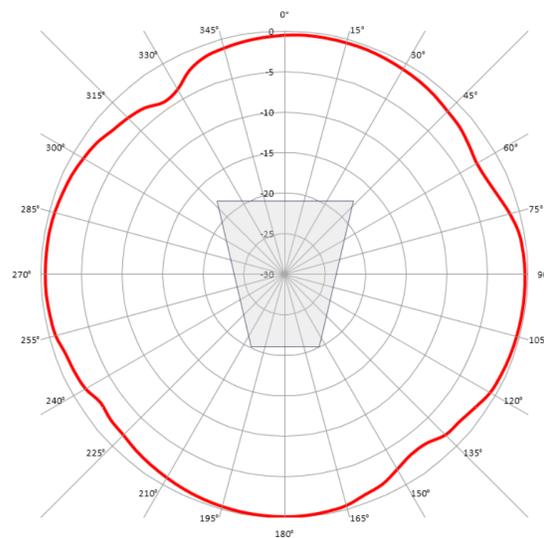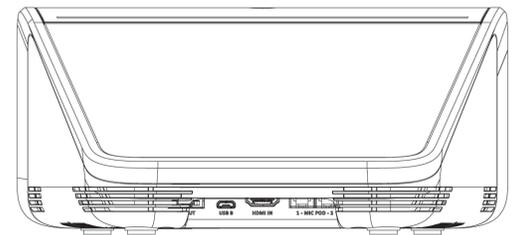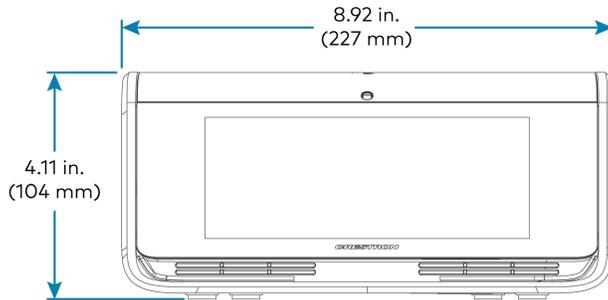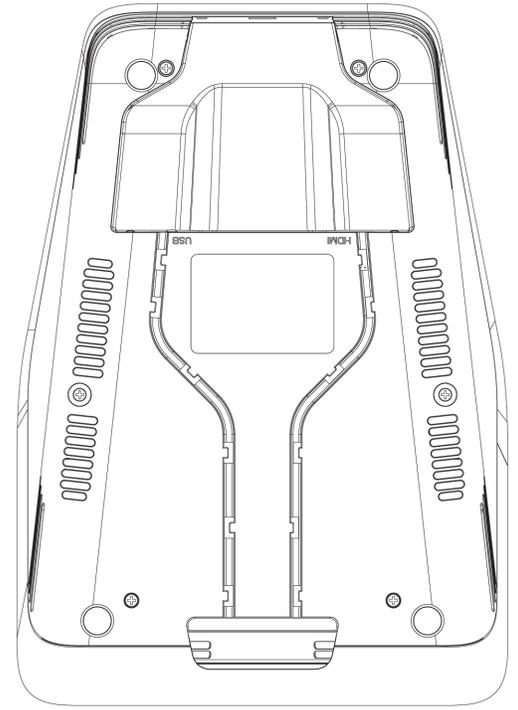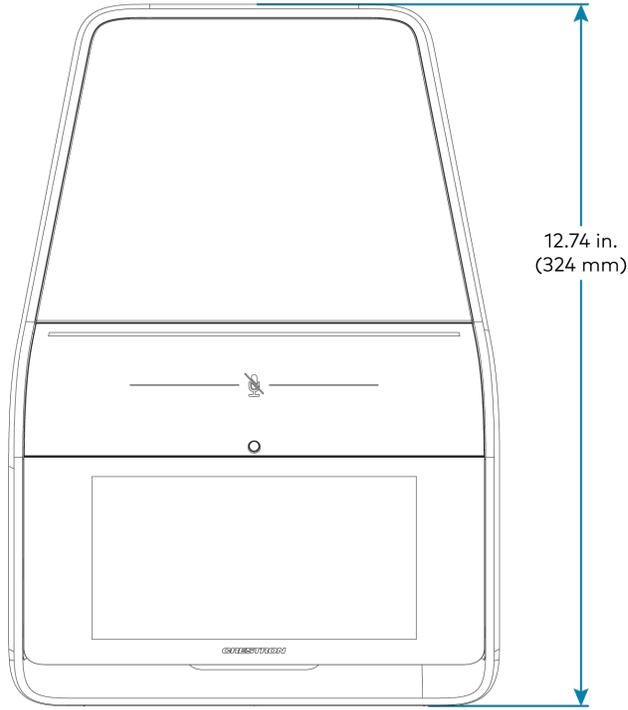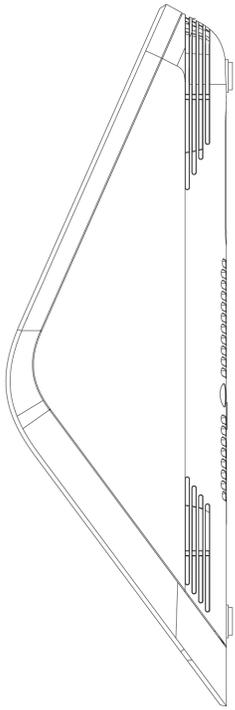
Crestron, the Crestron logo, AirMedia, Crestron Airboard, Crestron Fusion, Crestron Mercury, PinPoint, and XiO Cloud are either trademarks or registered trademarks of Crestron Electronics, Inc. in the United States and/or other countries. Apple and macOS are either trademarks or registered trademarks of Apple Inc. in the United States and/or other countries. Appspace is either a trademark or a registered trademark of Appspace Inc. in the United States and/or other countries. Bluetooth is either a trademark or registered trademark of Bluetooth SIG, Inc. in the United States and/or other countries. Cisco Webex and IOS are either trademarks or registered trademarks of Cisco Technology, Inc. in the United States and/or other countries. GotoMeeting is either a trademark or registered trademark of Citrix Online, LLC in the United States and/or other countries. Android, Chrome, Chrome OS, Google, and TrueVoice are either trademarks or registered trademarks of Google LLC in the United States and/or other countries. HDMI is either a trademark or registered trademark of HDMI Licensing LLC in the United States and/or other countries. Microsoft, Active Directory, Microsoft 365, Microsoft Intune, Microsoft Teams, Powershell, Skype, and Windows are either trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries. Slack is either a trademark or registered trademark of Slack Technologies, Inc. in the United States and/ or other countries. USB Type-C is either a trademark or registered trademark of USB Implementers Forum, Inc. in the United States and/or other countries. DisplayPort is either a trademark or registered trademark of Video Electronics Standards Association (VESA®) in the United States and/or other countries. Wi-Fi and Miracast are either trademarks or registered trademarks of Wi-Fi Alliance in the United States and/or other countries. Zoom and Zoom Rooms are either trademarks or registered trademarks of Zoom Video Communications, Inc. in the United States and/or other countries. Other trademarks, registered trademarks, and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Crestron disclaims any proprietary interest in the marks and names of others. Crestron is not responsible for errors in typography or photography.

Specifications are subject to change without notice.

©2020 Crestron Electronics, Inc.

Rev 07/15/20

Crestron Mercury® X Tabletop Conference System

12.74 in.
(324 mm)

8.92 in.
(227 mm)

4.11 in.
(104 mm)

Microphone Array
Voice Bandwidth
Pickup Polar Pattern

CRESTRON