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UC-M150-T

Crestron Flex M150-T – Tabletop UC Video Conference System for Microsoft Teams® Rooms

- > The ultimate tabletop video conferencing solution for Microsoft Teams®
- > Present, call, conference, and collaborate — all through one amazing tabletop device!
- > Native Microsoft Teams touch screen UX — provides a consistent user experience with simple operation and one-touch meeting joins
- > A complete kit solution — just add displays and mounts
- > Easy to specify and install — no custom design, programming, or software installation required!
- > Easy to provision and manage through Crestron® XiO Cloud™
- > Works natively with any Microsoft Teams or Skype® for Business account — no MCUs, gateways, or other add-ons needed!
- > Connects and communicates securely over any enterprise or SMB network
- > Supports single or dual display configurations
- > High-definition USB camera with lossless digital autozoom
- > HDMI® input for laptop and other AV content sources
- > Dual HDMI outputs for room display devices
- > Exceptional full-duplex audio performance
- > Extremely natural 2-way wideband voice quality
- > Integrated 360° quad microphone array
- > High-powered full-range speaker
- > Limes Audio TrueVoice® AEC technology
- > High-visibility mic mute indication
- > Available add-on mic pods for extra coverage
- > 7" (178 mm) HD color touch screen
- > Active Directory® authentication and corporate directory access
- > Microsoft® Exchange and Office 365® integration
- > Onscreen calendaring and meeting management
- > Optional control of room lighting, shades, thermostats, and other equipment^[2]
- > Built-in PIR occupancy detector wakes the device and reports to Crestron Fusion®
- > Persistent occupancy awareness combining motion and voice detection
- > IoT cloud based provisioning and management
- > Enterprise-grade security
- > Power management and scheduling
- > PoE+ or AC line powered^[1]
- > 100-240V universal power packs included^[1]
- > Optional 180° swivel mount kit available
- > Complete kit contains the Crestron Mercury® tabletop console, Huddly™ camera, UC Engine, cables, power supplies, and 1-year XiO Cloud Premium^[3]



The Crestron Flex M150-T system ([UC-M150-T](#)) provides a complete video conference room solution for use with the Microsoft Teams intelligent communications platform. It supports single or dual video displays, and features the Crestron Mercury® Tabletop UC Audio Conference Console, which comprises a high-performance, full-duplex conferencing speakerphone and touch screen controller in one stunning tabletop device.

Crestron Flex transforms any meeting room, huddle space, or executive office into a highly effective collaboration space, enabling people to work together and share content irrespective of location. Intuitive operation, exceptional full-duplex wideband audio, and full-motion HD video afford a gratifying and productive meeting experience for all participants. Crestron Flex is secure, easy to deploy, and easy to manage, with extensive features and capabilities engineered to maximize the value of your investment through increased efficiency and productivity.

Crestron Flex

Crestron Flex is a comprehensive line of unified communications and collaboration solutions for the enterprise. Current options include conferencing and desk phone solutions for Microsoft Teams® and Skype® for Business, with future solutions coming soon for Zoom Rooms™ and Open UC (open-platform support for any web collaboration, conferencing, or telephony platform). From the desktop to the conference room and beyond, Crestron Flex delivers a distinctively simple and consistent user experience in all the places people work and meet.

Built on the IoT cloud based [XiO Cloud™](#) platform, Crestron Flex empowers IT administrators and AV integrators to deploy, manage, monitor, and *evolve* thousands of networked UC devices — simply, quickly, and securely — all from a single dashboard. By standardizing on Crestron Flex, any organization can realize a more productive and stress-free workplace through greater acceptance and utilization of UC technology that's truly easy to use.

Native Microsoft Teams® Experience

Microsoft Teams is the hub for teamwork in Office 365® software, engaging people and bringing them together through messaging, voice over IP, online meetings, conferencing, content sharing, and collaboration. The Flex M150-T system brings the full Microsoft Teams IC experience to any meeting space in an enterprise or SMB facility, whether implementing a cloud based Microsoft Teams deployment, on-premises Skype for Business, or a hybrid of the two.

For applications requiring support for other UC platforms, refer to the Crestron Mercury “Open UC” video conference system, model CCS-UC-1-AV W/PS. For a complete Zoom Rooms solution, visit <https://www.crestron.com/zoomrooms>.

Crestron Mercury® UC Conference Console

Through one amazing tabletop device, the Flex M150-T system facilitates effortless conferencing and control, with simple operation and one-touch meeting joins through a feature-rich touch screen UX familiar to users of Microsoft Teams and Office 365 software. Onboard calendaring and corporate directory access provide knowledge workers with the tools they need to work smart and efficiently. Its advanced speakerphone delivers highly intelligible, echo-free voice clarity, and its striking yet functional design is perfectly at home on any conference table.



Intelligent HD Camera

Compact in size, yet tremendous on performance, the included Huddly IQ camera features HD 1080p video resolution with ultra-wide 150° diagonal field of view to capture the entire room. Lossless digital autozoom intelligently detects people in the room and frames them perfectly for an optimal image. High precision aspherical optics, 12 MP CMOS sensor, and advanced video processing ensure an immersive, crystal clear video image free from light or noise artifacts or optical aberrations.



UC Engine

All the capabilities of a complete Microsoft Teams video conferencing and content sharing solution are empowered by the Crestron UC Engine. For ultimate performance, Crestron employs a powerful Intel® NUC Mini PC running Microsoft® software with built-in XiO Cloud provisioning. The UC Engine forms the core of the Flex M150-T system, providing extreme processing performance, Gigabit Ethernet, and complete connectivity for one or two HD displays, the Huddly™ camera, and the Crestron Mercury console.



Presenting and sharing content from a laptop PC is facilitated through a single HDMI® input, supporting full-motion HD video and audio via the included HDMI to USB converter. The converter and UC Engine are mounted together on a bracket, which comes fully pre-assembled and ready to install behind the display device(s). All required cables are included for a complete and simple installation. Just add your choice of HD displays, display mounts, two LAN connections, and AC power.



Superb Sound Quality

The Crestron Flex system facilitates perfectly natural conversations with exceptional audio fidelity and pickup. The console's integrated 360° quad microphone array faithfully captures voices at every seat at the table. Its high-powered, full-range speaker produces full, rich and real sounding audio for both voice and program material. Limes Audio TrueVoice® AEC technology achieves transparent full-duplex performance free of distracting echo or noise. Wideband audio codec support allows for full-spectrum, bidirectional voice communication.

Functional Flexibility

The console's unique sloped shape is not only attractive and unobtrusive — it's also functional, allowing for placement at either the center or head of the table. Large or long tables are easily accommodated by adding up to two mic pods (CCS-UCA-MIC KIT sold separately), which may be daisy-chained or individually home run to the main console.^[1]

Tapping the mute bar on top of the console mutes the microphones. Its extra-bright, bi-color indicator bar ensures that the mic and mute status are clearly visible to the whole room. Each mic pod also includes a remote mute button and indicator for full room participation.

For ultimate versatility, the console can be powered using either PoE+ or the included 100-240V universal power pack.^[1] It can sit freely on any tabletop surface, or be permanently attached to the table using the optional 180° swivel mount kit (CCS-UCA-SMK sold separately).

HD Color Touch Screen

Its extra-large, high-definition touch screen makes the Flex M150-T system easy for everyone to use, whether starting or joining an online meeting, dialing or answering a phone call or video call, looking up contacts, or presenting and sharing content. The full-color user interface provides quick access and intuitive operation through a customizable, feature-rich UI familiar to users of Microsoft Teams and Office 365 software, so staff members can move effortlessly between using Crestron Flex in the meeting room and a phone or personal computer at their desk or workstation.

Additionally, Flex M150-T includes the ability to integrate with a Crestron control system to enable touch screen control over room lighting, motorized window shades, climate control, AV, and other amenities.^[2]

Occupancy Sensing

Through the Crestron Mercury console, Crestron Flex detects room occupancy using a patent-pending combination of motion and voice activity. Its built-in passive infrared detector initially senses when someone is present in front of the touch screen, and then voice activity is used to maintain the room's occupied status as long as anyone in the room is talking.

Occupancy detection provides several benefits, such as monitoring and reporting room usage to Crestron Fusion®, or automating 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

Crestron Flex is an enterprise-grade solution, engineered in partnership with Microsoft to integrate seamlessly into any Microsoft Teams or Skype for Business deployment. Crestron Flex is ideally equipped for mass deployment throughout any-sized corporate, university, medical, military, or governmental facility.

IoT cloud based provisioning enables complete network configuration in advance of hardware delivery, with touchless updates following installation. Crestron Fusion or XiO Cloud 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. PoE+ compatibility enables the Crestron Mercury console to be powered through its LAN connection.^[1]

XiO Cloud™ Connected

XiO Cloud is Crestron's unifying IoT cloud based platform for remotely provisioning, monitoring, and managing Crestron devices across an enterprise or an entire client base. XiO Cloud enables installers and IT managers to deploy and manage thousands of devices in the amount of time it would ordinarily take to manage just one. It provides a zero-touch solution that allows complete configuration of device settings without any hardware in hand, then simply connect each device on site and let XiO Cloud push out the settings, licenses, drivers, and firmware updates – automatically and securely – for a quick and painless, ready-to-use deployment.

Ongoing XiO Cloud services facilitate daily management and monitoring of every device through a single dashboard with comprehensive reporting and logging, live status viewing and alerts, performance metrics and analytics, scheduled actions and updates, and more. As requirements grow and evolve, new features and functionality can be added easily to one or many devices at any time without ever going on site. XiO Cloud is a subscription-based service offering an adaptable SaaS (Software as a Service) solution with graduated levels of functionality and unlimited scalability. For more information about XiO Cloud, please visit <https://www.crestron.com/xiocloud>.

SPECIFICATIONS

Included Components

CCS-UC-1-T-V: Crestron Mercury tabletop UC audio conference console for Microsoft Teams video

PW-2420RU: Universal power pack for audio conference console^[1]

CCS-CAM-USB-F-400: Huddly IQ camera

UC-BRKT-100-ASSY: UC Engine Assembly, comprised of:

CBL-MDP-HD-0.5 Mini DisplayPort to HDMI converter

UC-ENGINE UC Engine for Microsoft Teams video;

HD-CONV-USB-200 HDMI to USB 3.0 converter for content ingest;

UC-CONN-HD EDID emulator for UC Engine display output;

USB cable for HDMI to USB converter, USB 3.0 Type-B male to Type-A male, 3 ft (1 m);

Mounting bracket

CBL-USB-A-BMICRO-6: USB cable for audio conference console, Type A male to micro-B male, 6 ft (1.83 m)

CBL-USB-A-EXT-15: USB extension cable for audio conference console, Type A male-to-female, 15 ft (4.57 m)

USB cable for camera, USB-C™ male to USB 3.0 Type-A male, 3 ft (90 cm)

CBL-USBC-HD-9: USB-C™ to HDMI converter cable, USB Type-C male to HDMI Type A male, 9 ft (2.7 m)

CBL-HD-20: HDMI cable for content source, Type A male-to-male, 20 ft (6.1 m)

CBL-HD-THIN-HS-6: Thin HDMI cable for connecting display device, Type A male-to-male, 6 ft (1.8 m)

CBL-CAT5E-7: Ethernet LAN cable for UC Engine, RJ45-to-RJ45, black, 7 ft (2.1 m)

Ethernet LAN cable for audio conference console, RJ45 male-to-male, 12 ft (3.66 m)

CCS-UCA-KB-USB: Wireless keyboard w/touchpad for setup

Audio Conference Console

Touch Screen: 7 inch (178 mm) diagonal capacitive multi-touch TFT active matrix color LCD, 1280 x 800 pixels, displays Microsoft Teams UI plus optional Crestron Smart Graphics® room control UI^[2]

Mic Mute Symbol & Light Bar: (2) Capacitive “buttons” with bi-color LEDs, either button toggles between mute and unmute, the symbol LED blinks 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

AEC: Limes Audio TrueVoice acoustic echo cancellation, automatic mic mixing, automatic gain control, and dynamic noise reduction; full-duplex IEEE 1329 Type 1 compliant

Speaker: Full range speaker, 11 Watts amplifier power, 95 dB SPL at 0.5 m maximum output, 90 Hz to 22 kHz frequency response

Microphones: 360° quad mic array, 20 ft (6 m) typical pickup range

Extension Microphones: Supports two mic pods, model **CCS-UCA-MIC KIT** (sold separately)

Occupancy Sensor: Patent-pending “Persistent Occupancy Awareness” combining passive infrared motion and voice activity detection, 6 ft (1.83 m) PIR range in front of touch screen, activates touch screen and reports room occupancy to Crestron Fusion

Ethernet: 10/100 Mbps; enterprise grade security and management including IEEE 802.1X, Active Directory authentication, LDAP, Kerberos, SSL, TLS, SSH, SFTP (SSH File Transfer Protocol), SRTP, digest access authentication, password login, HTTPS secure provisioning, XiO Cloud client, IEEE 802.3at Type 2 compliant

USB: USB 2.0 micro Type B device port, supports UAC for audio interface to UC Engine (included)

Power Options:

PoE+: IEEE 802.3at Type 2, Class 4 (25.5 W) PoE+ Powered Device^[1];

24VDC: 24 Volts DC via external 100-240V AC, 50/60 Hz power pack, model **PW-2420RU** (included)

Dimensions: 4.11 x 8.92 x 12.74 in (105 x 227 x 324 mm) HWD

*Refer to the **CCS-UC-1-T-V** and **CCS-UCA-MIC KIT** spec sheets for additional specifications and compliances.*

Camera

Model: Huddly IQ

Optics: 12 Megapixel Sony® IMX477 Type 1/2.3 CMOS sensor, ultra wide angle six element aspherical glass lens, f/2.8 aperture

Field of View: 150° diagonal, 120° horizontal, 90° vertical

Processing: Intel Movidius® Myriad® X VPU with Neural Compute Engine hardware accelerator, automatic 180° image rotation when mounted upside down, dynamic light optimization, auto white balance, autozoom

Autozoom: Automatic lossless digital zoom intelligently frames around people in the room

Noise Reduction: 3D noise reduction, bias compensating spatio-temporal filtering, wide area chroma filtering, flicker elimination

Scaling: Real-time scaling, dewarping, and perspective correction

USB: USB 3.1 via USB Type-C port, supports UVC 1.1 for video and communications interface to UC Engine

Resolution: HD 1080p @ 30 fps

Color Space: YCbCr 4:2:0, YCbCr 4:2:2, MJPEG

Power: USB powered

Mounting: Embedded mounting hinge for attachment to a display device, 1/4-20 threaded fitting for tripod mount

Dimensions: 1.30 x 1.58 x 2.82 in (33 x 40 x 72 mm) HWD

Refer to the CCS-CAM-USB-F-400 spec sheet for additional specifications and compliances.

UC Engine Assembly

Mini PC: Intel NUC Kit NUC6i7KYK

Processor: 6th generation Intel Core® i7-6770HQ processor with Intel Iris® Pro Graphics 580, 8 GB RAM, 128GB SSD, Intel I219-LM 10/100/1000 Mbps Ethernet, Windows® 10 IOT Edition OS

UC Client: Microsoft Teams or Skype for Business

Management Client: Crestron XiO Cloud, Microsoft Intune®

USB: USB 3.0 host supporting USB HID, UAC, and UVC for audio conference console, camera, content ingest, and keyboard/mouse devices

Content Ingest: HDMI input via HDMI to USB 3.0 converter (model HD-CONV-USB-200, included)

Display Output: Single or dual display support, native Mini DisplayPort (primary) and USB Type-C (secondary) outputs, HDMI outputs enabled via converter cables (included)

Camera Input Resolution: HD 1080p @ 30 fps

Content Input Resolution: HD 1080p @ 60 fps

Display Output Resolution: HD 1080p @ 60 fps

Power: 19 Volts DC via external 100-240V AC, 50/60 Hz adapter (included)

Construction: Metal mounting bracket, black, preassembled with UC Engine and USB to HDMI converter

Mounting: Surface wall mount behind the display device, or attach to the rear of the display device via the bolts attaching the display to a VESA® compliant display mount; the Crestron bracket includes mounting holes on both side edges, spaced 100, 200, and 300 mm vertically, to allow for attachment to either side of the display mounting plate

Dimensions: Approximately 16 x 14 x 1.5 in (407 x 356 x 39 mm) HWD

Refer to the UC-ENGINE, HD-CONV-USB-200, and UC-BRKT-100-ASSY spec sheets for additional specifications and compliances.

Notes:

1. When used without any microphone pods connected, the Crestron Mercury console may be powered using either PoE+ or the included power pack (model [PW-2420RU](#)). If one or two mic pods are connected, the console MUST be powered using the power pack. PoE+ cannot be used to power the console if any mic pods are connected. When using PoE+, make sure the network switch supports PoE+ (802.3at Type 2). Regular PoE (802.3af or 802.3at Type 1) cannot be used to power the console. Be advised, the UC Engine component can only be powered using its included AC power adapter. The UC Engine cannot be powered via PoE or PoE+.
2. Room control capability (lighting, shades, thermostats, etc.) requires additional equipment and commissioning to be provided by a Crestron authorized integrator and/or programmer. Additional costs may apply.
3. Complimentary XiO Cloud subscriptions are subject to the terms of the Crestron Cloudware License Agreement at <https://www.crestron.com/cloudwarelicensepdf>, as well as additional terms of the Crestron Cloudware License Agreement Addendum at <https://www.crestron.com/cloudwarelicenseaddendumpdf>, which control in any conflict with the Agreement. Complimentary subscriptions may be applied to new accounts only. New UC-P110-T phones may be added to existing XiO Cloud subscription accounts at a discounted rate. An additional purchase toward the existing subscription account term may be required. For more information, please contact license@crestron.com.

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 <https://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 for 3 years, except for the touch screen display which is covered for 90 days. Refer to <https://www.crestron.com/warranty> for full details.

The specific patents that cover Crestron products are listed online at <https://www.crestron.com/legal/patents>.

Certain Crestron products contain open source software. For specific information, visit <https://www.crestron.com/opensource>.

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MODELS & ACCESSORIES

Available Models

UC-M150-T: Crestron Flex M150-T – Tabletop UC Video Conference System for Microsoft Teams®

Available Accessories

CCS-UCA-SMK: Swivel Mount Kit

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

CEN-SWPOE-16: 16-Port Managed PoE Switch

SW-XIOC-S-1: XiO Cloud™ Standard Provisioning and Management Service for one device, 1 year subscription

SW-XIOC-S-2: XiO Cloud™ Standard Provisioning and Management Service for one device, 2 year subscription

SW-XIOC-S-3: XiO Cloud™ Standard Provisioning and Management Service for one device, 3 year subscription

SW-XIOC-P-1: XiO Cloud™ Premium Provisioning and Management Service for one device, 1 year subscription

SW-XIOC-P-2: XiO Cloud™ Premium Provisioning and Management Service for one device, 2 year subscription

SW-XIOC-P-3: XiO Cloud™ Premium Provisioning and Management Service for one device, 3 year subscription

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



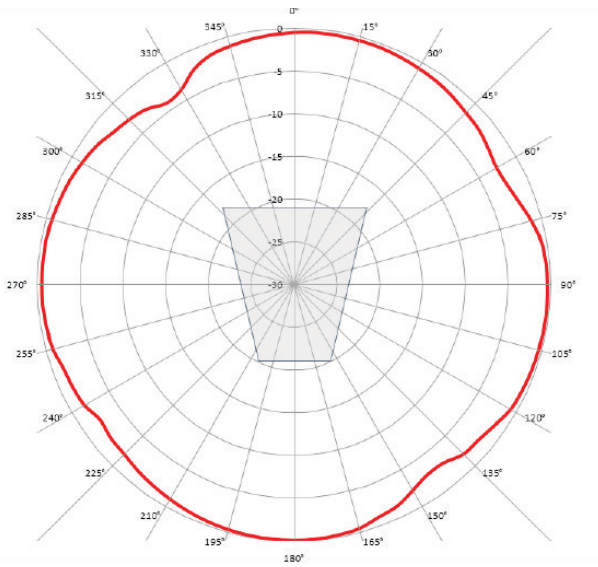
UC Engine – Front Panel



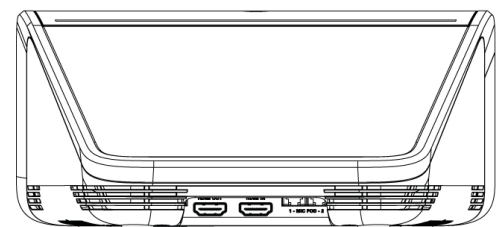
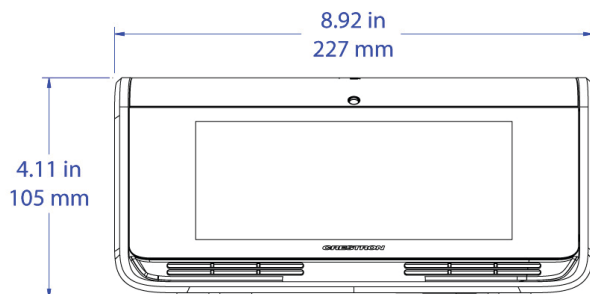
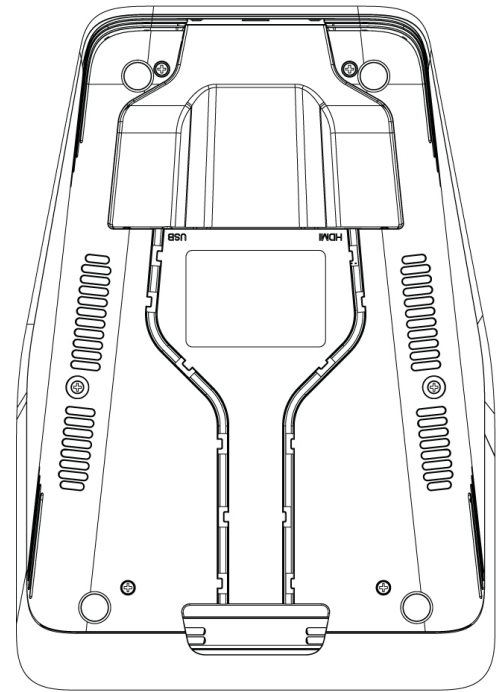
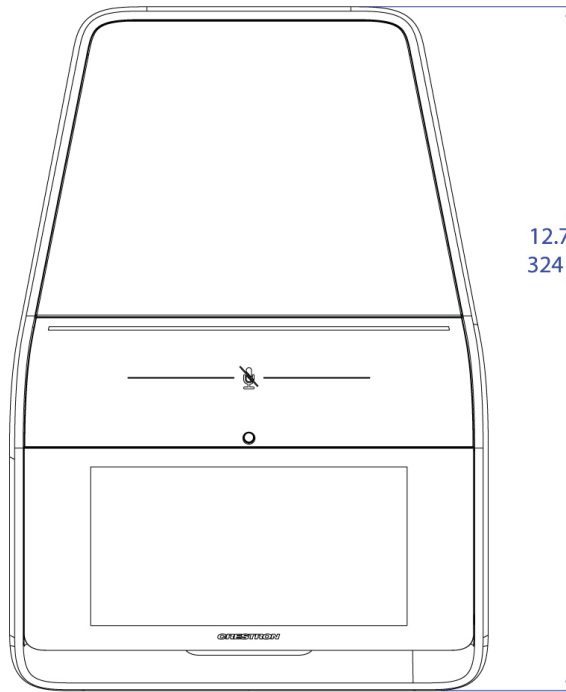
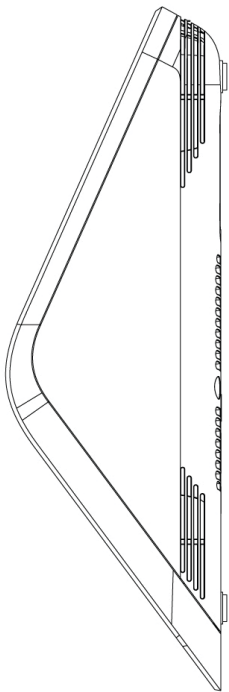
UC Engine – Rear Panel

UC-M150-T

Crestron Flex M150-T – Tabletop UC Video Conference System for Microsoft Teams® Rooms



Microphone Array
Voice Bandwidth
Pickup Polar Pattern



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