

CRESTRON FLEX M150 SERIES



The Crestron **Flex M150** combines high-performance audio and touch screen control with the power of the Crestron UC ENGINE to transform your meeting room into a world-class UC and collaboration space. The full kit seamlessly integrates with Microsoft Teams™, Skype® for Business, and Zoom Rooms™ software in an exceptionally easy-to-use and manage solution.

As Crestron's flagship UC product, Crestron Flex M150 takes a new approach to the notoriously complex and disjointed world of telephony. By leveraging the flexibility of an open platform, Crestron is able to natively support Microsoft Teams, Skype for Business, Zoom Rooms video functionality with our UC ENGINE and USB camera. Crestron UC devices provide a simple, easy-to-use and manage way to collaborate from anywhere work is done. Crestron Flex M150 can be centrally provisioned and managed via the Crestron XiO Cloud™ IoT-based platform, resulting in tremendous time and cost savings.



OPEN UC

CRESTRON MERCURY® TABLETOP CONFERENCING SYSTEM

With an attractive, practical design and unrivaled sound quality, Crestron Mercury delights the user and delivers a native platform experience from Microsoft with a minimum of distractions. A large, high-resolution color display is at the center of the Crestron Mercury experience. Wideband audio capability provides crystal clear speech during calls. A 360-degree array of sensitive microphones and a full-range speaker further enhances audio quality during meetings. Crestron Mercury delivers nothing less than the best possible communications experience.

UC ENGINE

The Crestron UC ENGINE is the driving force in a Crestron Flex M150 meeting space. With an incredibly powerful NUC PC at its core, the UC ENGINE ensures a flawless meeting experience no matter the type of space, number of participants, type of presentation content, or number of video streams. The UC ENGINE interfaces directly with the Crestron Mercury, Huddly IQ® video conferencing camera, and HDMI® to USB video converter (HD-CONV-USB-200).

HD TO USB VIDEO CONVERTER

Want to show content to participants in the room and on the call? No problem. With the HD-CONV-USB-200 you can effortlessly display your content to local and remote participants through the Crestron UC-ENGINE. Just connect and go!

HUDDLY GO 2.0 VIDEO CONFERENCING CAMERA

With auto-zoom, people counting, and a perfect picture, the Huddly GO 2.0 camera delivers nothing less than the best possible video conferencing experience. It's as simple to set up out-of-the-box as it is to use, with no configuration required.

CRESTRON XIO CLOUD

Crestron Flex M150 devices benefit from zero-touch deployment via the Crestron XiO Cloud. With only the serial number and device MAC address, which are provided at shipment, a network admin can remotely configure the devices before they even arrive on-site.

Once online it will connect to the Cloud, retrieve its configuration and then, within seconds, be ready to make calls. Using the Crestron XiO Cloud dashboard, the network admin is able to manage every connected workplace device from Crestron and supported partners.

SPECIFICATIONS

Components:

Base unit with speakerphone & audio conferencing capabilities via SIP, Bluetooth, & USB

USB cable for laptop computer, Type A male to micro-B male, 6 ft (1.83 m), Model: CBL-USB-A-BMICRO-6

Ethernet LAN cable, RJ45 male-to-male, 12 ft (3.66 m)

Cable retention plate & tie wraps

Universal power pack, Model: PW-2420RU

Management and Security

Crestron Mercury is an enterprise-grade appliance, ideally equipped for mass deployment throughout any-sized corporate, university, medical, military, or governmental facility. Cloud-based provisioning^[1] enables complete network configuration in advance of hardware delivery, with touchless updates following installation. Devices can also be configured individually using a computer web browser.

802.3at PoE+ compatibility enables Crestron Mercury to be powered through its primary LAN connection.^[2]

1. LDAP corporate directory access, built-in PinPoint beacon, and cloud-based provisioning are not enabled at this time. These features will be enabled in the future via firmware update.
2. When used without any microphone pods connected, the system may be powered using either PoE+ or the included power pack (model PW-2420RU). If one or two mic pods are connected, the system MUST be powered using the power pack. PoE+ cannot be used to power the system 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 system. Crestron recommends using the CEN-SWPOE-16 16-port switch, which supports PoE+. Please be aware, the CEN-SW-POE-5 5-port switch does NOT support PoE+ and cannot be used to power the system.

Communications

Ethernet: 10/100 Mbps (x2), auto-switching, auto-negotiating, auto-discovery, full/half duplex, TCP/IP, UDP/IP, CIP, DHCP, SSL, TLS, SSH, SFTP (SSH File Transfer Protocol), SRTP, IEEE 802.1X, HTTPS secure provisioning, IEEE 802.3at Type 2 compliant.

Mic Pod: A²B bus protocol, single master, multiple slave; synchronous data, multichannel I2S/TDM to I2S/TDM.

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: Quad mic array with (4) cardioid electret elements; Pickup Range: 20 ft (6 m) typical

Speaker: Full range speaker; Amplifier Power: 11 Watts maximum; Output Volume: 95 dB SPL at 0.5 m; Frequency Response: 90 Hz to 22 kHz

Occupancy Sensor

PIR Detection Range: 6 ft (1.83 m) in front of touch screen, wakes system (touch screen and video display) and reports room occupancy to Crestron Fusion.

Voice Activity Detection: Keeps room occupancy, touch screen, and display active as long as speech is detected through the microphones

Touch Screen

Display Type: TFT active matrix color LCD

Size: 7 inch (178 mm) diagonal

Aspect Ratio: 16:9 HD 720

Resolution: 1280 x 720 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, 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 (and a red border appears around the touch screen display), all LEDs illuminate green when the mic is unmuted if a USB device is connected.

Connectors

G: (1) 6-32 screw; Chassis ground lug

LAN: (1) 8-pin RJ45 connector, female; 10Base-T/100Base-TX Ethernet port; PoE+ PD port^[3]

USB B: (1) Micro-USB Type B connector, female; USB 2.0 device port; 6 ft (1.83 m) micro-B male to A male USB cable included

MIC POD 1 – 2: (2) RJ9 4P4C connectors, female; For connection of up to two CCS-UCA-MIC microphone pods (sold separately)^[3]

24V DC 2.5A: (1) 2.1 x 5.5 mm DC power connector; 24 Volt DC power input for universal power pack^[3]

Power

Power Pack (included): Input: 100–240 Volts AC, 50/60 Hz; Output: 2.5 Amps @ 24 Volts DC; Model: PW-2420RU^[3]

Power over Ethernet: IEEE 802.3at Type 2, Class 4 (25.5 W) PoE+ Powered Device^[3]

Power Consumption: 20 Watts (typical)

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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: 123 BTU/hr (typical)

Dimensions

Height: 4.11 in (105 mm)

Width: 8.92 in (227 mm)

Depth: 12.74 in (324 mm)

Weight

5.5 lb (2.5 kg)

Compliance

UL 60950-1, FCC Part 15 Class A, 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-A1:2009, EN60950-A1:2010, EN60950-A12:2011, FCC 15.247, RSS 210 Issue 8, RSS Gen Issue 4, ETSI EN 301489-1, ETSI EN 301489-17, AS/NZS 4268:2012, NZ Telepermit, Australia A&C Tick, RoHS compliant.

UC Engine Specifications:

Processor: 6th generation Intel® Core™ i7-6770HQ processor with Intel® Iris™ Pro graphics (2.6 to 3.5 GHz Turbo, Quad Core, 6 MB Cache, 45W TDP)

RAM: 8GB (2x4GB) DDR4 2400MHz

Storage: 128GB m.2 SSD

Networking: Intel® I219-LM 10/100/1000 Mbps Ethernet

Power: 19V, 120W AC-DC power adapter

Camera

Software Specifications:

High-quality video scaling and dewarping

Flicker elimination

Robust automatic white balance

Optical aberration correction

3D Noise Reduction

Color: Gray matters

Easy Installation:

Flexible mounting options

Suitable for desktop and room scenarios

Hardware Specifications:

High-grade 6 element ultra-wide angle optics

Horizontal field of view 120 degrees

Vertical field of view 90 degrees

Diagonal field of view 150 degrees

f/2.8 aperture

16 Megapixel 1/2.2" CMOS Sensor

SuperSpeed USB

High-Performance video processing engine

Low power consumption

Video

HD 720p 30fps output

16:9 aspect ratio

Digital Pan/Tilt/Zoom with 3x lossless digital zoom

UVC 1.1 Compatible

YCbCr 4:2:0 and YCbCr 4:2:2 support over USB

ACCESSORIES

Included Accessories

PW-2420RU: Desktop Power Pack, 24VDC, 2.5A, 2.1mm, Universal (Qty. 1 included).

CBL-USB-A-EXT-15: USB Extension Cable, Type A Male-to-Female, 15 ft (4.57 m) (Qty. 1 included).

CBL-USB-A-BMICRO-6: USB Cable, Type A Male to Micro-B Male, 6 ft (1.83 m)

Available Accessories

CCS-UCA-SMK: Swivel Mount Kit for CCS-UC-1

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

CCS-UCA-MIC KIT: Microphone Pods for CCS-UC-1, set of two

CCS-UCA-MIC W/PS KIT: Microphone Pods for CCS-UC-1, set of two w/Universal Power Pack

CNSP-XX: Custom Serial Interface Cable

SW-FUSION-EM: Fusion EM® Energy Management Software; contact Crestron Sales Support Services for a quote

CBL-MULTI-HD-6: Crestron Mercury™ Multihead HD Video Cable, 6 ft (1.8 m)

CCS-UCA-EXT KIT: Display & Camera Extender Kit for CCS-UC-1

HD-EXT-USB-2000-C: 4K HDMI® & USB over HDBaseT® Extender 2000