Crestron Flex B160-T – Wall Mount UC Video Conference System for Microsoft Teams® Rooms

- > The ultimate front-of-room video conferencing solution for Microsoft Teams®
- > Present, call, conference, and collaborate — all through a single smart sound bar and 10" tabletop touch screen!
- 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
- Integrated 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 180° far-field adaptive beamforming microphone arr
- > High-powered 2-way stereo speakers
- > Advanced AEC & DSP technology
- > Stylish multicolor indication of volume, mute, and operational status
- > Analog audio input and output for local source and assistive listening devices
- > 10" (257 mm) tabletop color touch screen
- > Support for a second touch screen (sold separately)
- > 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^[1]
- > IoT cloud based provisioning and management
- > Enterprise-grade security
- > Optional 330° touch screen swivel mount available
- > Complete kit contains the Crestron smart sound bar & camera, touch screen, UC Engine assembly, cables, power supplies, and 1-year XiO Cloud Premium^[2]





The Crestron Flex B160-T system (UC-B160-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 UC Video Conference Smart Sound Bar & Camera (UC-SB1-CAM), which comprises a high-performance, full-duplex conferencing speakerphone and camera in one stunning wall mountable device. Control of the complete system is provided via a high-definition 10° tabletop touch screen (included).

Cestron 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^W 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.



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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 B160-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.

Crestron[®] Smart Sound Bar & Camera

All in one incredible front-of-room device, the Flex B160-T system facilitates effortless conferencing without any other microphones, speakers, or camera to install. Mounted on the wall or placed on a credenza beneath the display(s), the smart sound bar looks great and sounds even better. Its high-powered stereo speakers, adaptive beamforming microphone, and advanced digital signal processing deliver exceptional full-duplex speakerphone performance with highly intelligible, echo-free voice clarity. Its compact, all-in-one design reduces clutter on the conference table, and even accommodates rooms with no table at all.

A perfect view of the room is achieved through the built-in, high-end conferencing camera, which features HD 1080p video resolution and ultra wide-angle 150° diagonal field of view. 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. Genius Framing digital autozoom intelligently detects at the people in the room and frames everyone in the shot so no one gets left out.

The smart sound bar features an alluring multicolor LED status bar, which stylishly displays the volume setting in an outwardly expanding bar of light, and changes color to indicate operation and mute status. Installation is a breeze using the integral hinged mounting bracket, which attaches easily to the wall and allows the sound bar to be tipped forward for full access to the rear panel connections.

Tabletop Touch Screen

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 Flex B160-T system is incredibly easy and intuitive to use. Simple operation

and one-touch meeting joins are facilitated through a customizable, feature-rich touch screen UX familiar to users of Microsoft Teams and Office 365 software. Its native Teams UI means staff members can move effortlessly between using Crestron Flex in the meeting room and a phone or personal computer at their desk or workstation. Built-in calendaring and corporate directory access provide knowledge workers with the tools they need to work smart and efficiently.

The Flex B160-T system ships with one 10" tabletop touch screen included. A second touch screen (TSW-1060 Series) may be added to provide a second point of control. Additionally, Flex B160-T allows 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.^[1]

The touch screen can sit freely on any tabletop, shelf, or credenza, or be permanently attached to the surface using the optional 330° swivel mount kit (TSW-560/760/1060-SMK sold separately). It can be powered using PoE from the network or the included 100-240V PoE injector.

UC Engine

All the capabilities of a complete Microsoft Teams video conferencing and content sharing solution are



emoowered 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 B160-T system, providing extreme processing performance, Gigabit Ethernet, and complete connectivity for one or two HD displays and the smart sound bar.

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 sound bar's integrated 180° far-field microphone array faithfully captures voices throughout the room using adaptive beamforming technology to focus in on whoever is speaking. Its high-powered, two-way stereo speakers produce full, rich and real sounding audio for both voice and program material. High-performance AEC technology achieves transparent full-duplex performance free of distracting echo or noise. Wideband audio codec support allows for fullspectrum, bidirectional voice communication.

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.



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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.

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.



UC Engine Assembly





UC Engine – Front & Rear Panels

SPECIFICATIONS

Included Components

UC-SB1-CAM: UC video conference smart sound bar & camera TSW-1060-B-S: 10" touch screen, black TSW-1060-TTK-B-S: Tabletop kit for touch screen, black UUC-BRKT-100-ASSY: UC Engine Assembly, comprised of: 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; CBL-MDP-HD-0.5 Mini DisplayPort to HDMI converter; USB cable for HDMI to USB converter, USB 3.0 Type-B male to Type-A male, 3 ft (1 m); Mounting bracket (no model): USB 3.0 cable for sound bar, Type A male to Type B male, 6 ft (1.83 m)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) DM-CBL-ULTRA-PC-50: Ethernet LAN cable for touch screen, CAT6a, RJ45-to-RJ45, blue, 50 ft (15 m) PWE-4803RU: PoE injector for touch screen CCS-UCA-KB-USB: Wireless keyboard w/touchpad for setup Smart Sound Bar & Camera

Speakers: Stereo 2-way, 20 watts per channel, 3 inch (76 mm) woofers, 3 x 4-3/8 inch (76 x 112 mm) passive radiators, 1 inch (25 mm) dome tweeters, 80 Hz to 20 kHz (±3 dB) frequency response, 91 dB SPL @ 1 meter output level (both channels driven at full power)

Microphone: Linear guad-element far-field adaptive beamforming microphone array, 23 ft (7 m) pickup range, ±90° horizontal pickup angle, 20 Hz to 8 kHz frequency response

Audio DSP: Acoustic echo cancellation, dereverberation, automatic gain control, dynamic noise suppression, adaptive beamforming, speaker volume control; full-duplex IEEE 1329 Type 1 compliant

Camera Optics: 12 Megapixel Sony® IMX477 Type 1/2.3 CMOS sensor, ultra wide angle six element aspherical glass lens, f/2.8 aperture Camera Field of View: 150° diagonal, 120° horizontal, 90° vertical



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Camera Processing: Intel Movidius® Myriad® X VPU with Neural Compute Engine hardware accelerator, dynamic light optimization, auto white balance, autozoom

Camera Autozoom: "Genius Framing" automatic lossless digital zoom intelligently frames around people in the room

Camera Noise Reduction: 3D noise reduction, bias compensating spatiotemporal filtering, wide area chroma filtering, flicker elimination

Camera Scaling: Real-time scaling, dewarping, and perspective correction Camera Resolution: HD 1080p @ 30 fps

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

USB: USB 3.0 Type-B port; UAC 1.0, UVC 1.1, & HID; 2-channel stereo far-end/content signal input, 2-channel mono microphone signal output, camera output: for audio, video, and communications interface to UC Engine Analog Audio Input: 2-Channel stereo via 3.5 mm TRS mini-phone jack.

fixed level (bypasses DSP), 1 Vrms maximum per channel for full rated output, for in-room amplification of an external audio source

Analog Audio Output: 2-Channel stereo via 3.5 mm TRS mini-phone jack, fixed level, 1 Vrms maximum, feeds amplified audio content to an assistive listening system

Go To Sleep Time: Enters low-power standby mode after 5 minutes with no audio signal present

Wake Time/Threshold: Wakes from standby within 0.5 seconds upon detection of a USB audio input or $\geq 5 \text{ mV}$ (±2 mV) analog audio input Status Bar: Multi-segment RGBY LED zero-center mutually-diverging linear bargraph, indicates the speaker volume setting by expanding left and right proportionally from center; illuminates green when a USB Audio host is connected, red when the mic is muted; blinks red when the speakers and mic are both muted; all LEDs extinguish when the speaker is muted or no USB Audio host is connected

Main Power: IEC 60320 C14 main power inlet (power cord included) 500 mA maximum @ 100-240 Volts AC, 50/60 Hz

Enclosure: Lightly textured gunmetal black finish, plastic housing perforated stainless steel grilles, die-cast aluminum rear cover, steel hinged mounting bracket

Mounting: Freestanding or surface wall mount at ear/face level Dimensions: 4.57 x 43.60 x 3.90 in (117 x 1108 x 100 mm) HWD Weight: Approximately 15 lb (6.8 kg)

Refer to the UC-SB1-CAM spec sheet for additional specifications and compliances.

Tabletop Touch Screen

Touch Screen: 10.1 inch (257 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^[1] Ethernet: 10/100 Mbps: enterprise grade security and management including IEEE 802.1X, Active Directory authentication, SSL, TLS, SSH, SFTP (SSH File Transfer Protocol), digest access authentication, password login, HTTPS secure provisioning, XiO Cloud client, IEEE 802.3at compliant Power over Ethernet: IEEE 802.3at compliant PoE or PoE+ PD (Powered Device):

- Requests 15 Watts from an 802.3at Type 2 PSE with LLDP advanced power management;
- Requests 30 Watts (PoE+ Class 4) from an 802.3at Type 2 PSE without LLDP;

Requests 15.4 Watts (PoE Class 0) from an 802.3af (or 802.3at Type 1) PSE

PoE Injector: A PoE injector is included to power the touch screen if network PoE is not available

Construction: Plastic tabletop housing, smooth black finish, edge-to-edge glass with black surround

Dimensions: 5.42 x 10.23 x 5.69 in (138 x 260 x 145 mm) HWD Weight: 41.2 oz (1166 g)

Refer to the TSW-1060-B-S, TSW-1060-TTK-B-S, and PWE-4803RU spec sheets for additional specifications and compliances. One additional TSW-1060 series touch screen may be added.

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: USE 3.0 host supporting USB HID, UAC, and UVC for audio conference sound bar, camera, content ingest, and keyboard/mouse devices Content Ingest: HDMI input via HDMI to USB 3.0 converter (model HD-CONV-USB-200, included)

Eisplay Output: Single or dual display support, native Mini DisplayPort Grimary) 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: 16.00 x 14.00 x 1.62 in (407 x 356 x 41 mm) HWD

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

MODELS & ACCESSORIES

Available Models

UC-B160-T: Crestron Flex B160-T – Wall Mount UC Video Conference System for Microsoft Teams[®] Rooms

Available Accessories

TSW-1060 Series: 10.1" Touch Screen TSW-1060-TTK Series: Tabletop Kit for TSW-1060 TSW-560/760/1060-SMK: Swivel Mount Kit CEN-SWPOE-16: 16-Port Managed PoE Switch



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CEN-SW-POE-5: 5-Port PoE Switch

SW-XIOC-S Series: XiO Cloud[™] Standard Provisioning and Management Service Subscription for one device

SW-XIOC-P Series: XiO Cloud[™] Premium Provisioning and Management Service Subscription for one device

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

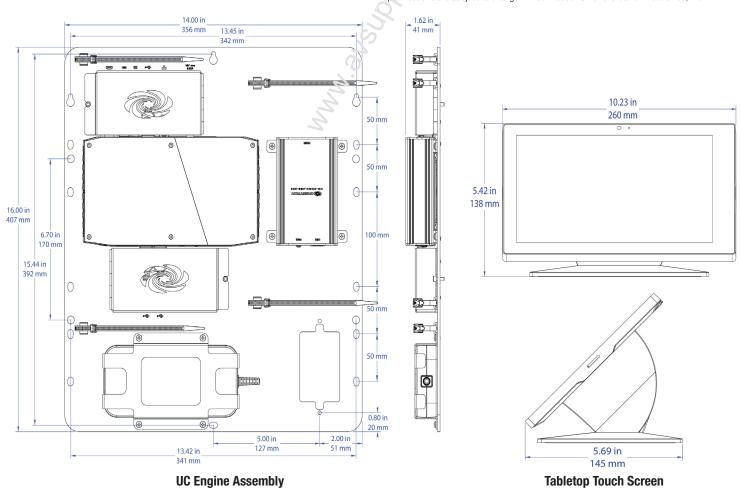
SW-FUSION-P-L: Crestron Fusion® On-premises; Unlimited rooms; lifetime service, support, and updates

Notes:

- 1. 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.
- 2. 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.

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3.90 in 43.60 in 100 mm 1108 mm 4.57 in 117 mm \bigcirc PO • • • • 00 2.00 in 2.00 in 50.8 mm 12.00 in 50.8 mm (each) 305 mm (each) JANANANANANANA. ۲ ٢ \bigcirc \bigcirc ۲ ۲ 0 Connector Panel behind Mounting Bracket

Connector Panel

Smart Sound Bar