**SECTION 27 41 16**

**INTEGRATED AUDIO-VIDEO SYSTEMS AND EQUIPMENT**

**GUIDE SPECIFICATION**

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# **GENERAL**

## **SUMMARY**

### Section Includes:

#### Unified Communications and Collaboration Systems

## **RELATED REQUIREMENTS**

### Section 27 15 00 - Communications Horizontal Cabling

### Section 27 41 16 - Audio-Video Systems and Equipment

## **REFERENCES**

### Abbreviations and Acronyms

#### BYOD - Bring You Own Device

#### UC - Unified Communications

#### UCS - Unified Communication System

#### UCC - Unified Communications Computer

# **PRODUCTS**

## **TABLETOP CONFERENCE SYSTEMS**

### Basis of Design Tabletop UCS for Large Rooms:

#### Crestron UC-MX70-T

*Specifier Note:*

*The UC-MX70-T system provides a complete video conference room solution for use with the Microsoft Teams Rooms intelligent communications platform. It supports single or dual video displays, and features the Crestron Flex tabletop conference device, UC Bracket Assembly with UC ENGINE, AVer® CAM520 PRO enterprise-grade camera, mic pod, cables, and power supply.*

*Bring Your Own Device (BYOD)*

*Conference room visitors can connect their laptop computer to the tabletop user interface device (Crestron Flex system) to use their own UC conference platform. The UC-MX70-T's built-in content ingest device switches to the connected laptop's UC platform and returns to the native Microsoft Teams Rooms platform when disconnected.*

*For additional information see: https://www.crestron.com/Products/Workspace-Solutions/Unified-Communications/Crestron-Flex-Tabletop-Conferencing-Systems/UC-MX70-T*

### Basis of Design Tabletop UCS For Medium Rooms:

#### Crestron UC-MX50-T

*Specifier Note:*

*The UC-MX50-T system provides a complete video conference room solution for use with the Microsoft Teams Rooms intelligent communications platform. It supports single or dual video displays, and features the Crestron Flex tabletop conference device, UC Bracket Assembly with UC-ENGINE, Huddly IQ™ Collaboration Camera, cables, and power supply.*

*Bring Your Own Device (BYOD)*

*Conference room visitors can connect their laptop computer to the Crestron Flex system to use their own UC conference platform. The UC-MX50-T's built-in content ingest device switches to the connected laptop's UC platform and returns to the native Microsoft Teams Rooms platform when disconnected.*

*For additional information see:*

*https://www.crestron.com/Products/Workspace-Solutions/Unified-Communications/Crestron-Flex-Tabletop-Conferencing-Systems/UC-MX50-T*

### Collaboration Platforms:

#### The UCS shall natively support Microsoft Teams Rooms.

*Specifier Note:*

*The UC-MX70-T system brings the full Microsoft Teams Rooms UC experience to any meeting space in an enterprise or SMB facility, whether implementing a cloud based Microsoft Teams Rooms deployment, on-premises Skype® for Business software, or a hybrid of the two.*

*Microsoft Teams Rooms are purpose-built calling and meeting room solutions delivering a native Microsoft Teams experience, with HD audio and video, on Teams certified 3rd party hardware. Teams Rooms deliver consistent, intuitive, and inclusive meeting experiences.*

*https://rooms.microsoft.com/*

##### The UCS shall be a certified Microsoft Teams solution.

*Specifier Note:*

*https://rooms.microsoft.com/*

#### UCS shall support collaboration platforms installed on user laptop computers via HDMI and USB connections located on the tabletop user interface device.

*Specifier Note:*

*Bring Your Own Device (BYOD)*

*Conference room visitors can connect their laptop computer to the tabletop user interface device to use their own UC conference platform. The UC-MX(50/70)-T's built-in content ingest device switches to the connected laptop's UC platform and returns to the native Microsoft Teams Rooms platform when disconnected.*

### The Tabletop UCS shall be composed of the following:

#### System Software Components

##### Integrated Microsoft Teams

##### User Interface and Control Integration Software

###### The UCS user interface shall support switching between native collaboration software and collaboration software installed on a user laptop.

###### The UCS shall support optional automation and control functionality via a control processor by same manufacturer.

*Specifier Notes:*

*The Crestron Flex tabletop conferencing device can integrate with a Crestron control system (control processor) to enable touch screen control of room lighting, motorized window shades, climate control, AV, and other amenities.*

#### System Components:

##### Tabletop Console:

###### Functional System Components:

Microphone

Speaker

User interface

###### System Connections:

HDMI Input

HDBT Output

LAN port

Table microphone connections

USB B

##### Unified Communications Computer (UCC):

*Specifier Notes:*

*Native Microsoft Teams® Software Experience*

*UC systems feature Microsoft Teams conferencing software for easy collaboration and content sharing.*

###### The UCC shall include pre-installed collaboration software.

###### The UCC shall include connections for external source content, high definition USB camera and display devices.

##### Table Microphone

*Specifier Note:*

*CCS-UCA-MIC*

*The add on extension microphone is included with the UC-MX70-T and is an optional accessory for the UC-MX50-T.*

*For additional information see:*

*https://www.crestron.com/Products/Audio/Microphones/Wired-Microphones/CCS-UCA-MIC-KIT*

##### HD Camera

*Specifier Note:*

*UC-MX70-T camera:*

*UC-CAM-HD-520 - AVer® CAM520 PRO*

*UC-MX-50-T camera:*

*CCS-CAM-USB-F-400 Huddly IQ*

##### Cabling and Mounting Hardware

### External content source device integration

#### The UCS shall support connection of HDMI source devices for use as collaboration content.

### User Laptop Integration

#### UCS shall include wired connections for a user provided laptop with installed collaboration software.

#### User laptop shall receive camera and microphone content through a single USB connection.

### Video Presentation

#### The UCS shall include a USB HD camera for integration with web video conferencing software.

#### The UCS tabletop console shall include an HDMI input connection that is extended to the UCC via a single cable HDBT connection. Additional video and USB extending hardware shall not be accepted.

### Touch Screen User Interface

#### The UCS shall support the optional addition of a secondary control touch screen by same manufacturer.

#### The Tabletop Conference System shall include an integrated touch screen user interface with the following capabilities:

##### Native Microsoft Teams Rooms Touch Screen User Interface

##### One-touch Teams meeting joins

### System Installation

#### The connection the user interface device and the UC engine assembly shall require no more than a single category 5 type cable.

#### Unified collaboration engine shall be a component of an integrated mounting assembly designed for installation behind display devices.

### Network Management

#### The Tabletop Conference System shall support:

##### Cloud based management service by same manufacturer

##### Cloud-based provisioning enabling complete network configuration in advance of hardware installation, with touchless updates following installation.

### Network Security

#### The Tabletop Conference System shall support advanced security features including:

##### 802.1x authentication

##### Active Directory authentication

##### LDAP directory access

# **EXECUTION**

*NOT USED in this Guide Specification. Specifier shall Specify PART 3 On-Site work as needed.*

# **APPENDICES**

## **SPECIFIED PRODUCTS**

*Specifier Note: This Article includes Crestron products specified in this Guide Specification document. This Article is for reference only and should not be required in actual project manual unless included in an overall system equipment list.*

### Crestron UC-MX70-T

### Crestron UC-MX50-T