

**SECTION XXXXX – CONTROL SYSTEM SPECIFICATION****PART 1 - GENERAL****PART 2 - PRODUCTS****2.1 ROOM CONTROL SYSTEM AND MEDIA RECEIVER**

- A. The room control system and media receiver shall be manufactured by Crestron and is intended to be located at the display device location. The room control system and media receiver shall interface with a control system interface and media transmitter as found under item 2.2.
1. The room control system and media receiver shall provide a single connection from a control system interface and media transmitter and provide the communication, audio output and video output signals to a single display device.
  2. The room control system and media receiver shall meet the following minimum requirements:
    - a. TCP/IP communications
    - b. DHCP and static IP address capability
    - c. DNS support
    - d. SSL encryption
    - e. Built-in Web server
    - f. Support both Web-based and PC executable virtual touchpanel applications
    - g. Support real-time asset management applications
    - h. Receiver shall require a single CAT5e type cable from a control system interface and media transmitter and support the following signal types:
      - 1) Computer RGB, video (XGA resolution up to 84 feet, UXGA maximum up to 34 feet) with stereo audio
      - 2) Composite video source with stereo audio
      - 3) Control signals for communication
      - 4) Power required for the transmitting interface
    - i. Receiver audio shall be transmitted digitally at 20-bit, 48 kHz resolution
    - j. Audio shall be amplified via a built-in 20 watt stereo amplifier at 8ohm impedance
    - k. Onboard digital signal processing shall provide adjustment of master volume, bass, treble and balance settings at setup
    - l. Receiver shall be equipped with the following connectivity:
      - 1) One (1) 18VDC power connection (power supply included)
      - 2) Two (2) relay contacts
      - 3) Four (4) digital input ports
      - 4) One (1) infrared IR port
      - 5) One (1) computer port (RJ11) for configuration and set-up
      - 6) One (1) 10/100 Ethernet port (RJ45)
      - 7) One (1) bi-directional RS-232 port (DB-9)
      - 8) One (1) composite video output (RCA)
      - 9) One (1) RGB video output (DB15)
  3. The room control system and media receiver shall be the Crestron iMedia IM-RXV1.
- B. The room control system and media receiver shall be manufactured by Crestron and is intended to be located at the display device location. The room control system and media receiver shall interface with one to three control system interface(s) and media transmitter(s) as found under item 2.2.
1. The room control system and media receiver shall provide a single connection from one to three control system interface(s) and media transmitter(s) and provide the communication, audio output and video output signals to a single display device.
  2. The room control system and media receiver shall meet the following minimum requirements:

- a. TCP/IP communications
  - b. DHCP and static IP address capability
  - c. DNS support
  - d. SSL encryption
  - e. Built-in Web server
  - f. Support both Web-based and PC executable virtual touchpanel applications
  - g. Support real-time asset management applications
  - h. Receiver shall require a single CAT5e type cable from one to three control system interface(s) and media transmitter(s) and support the following signal types:
    - 1) Computer RGB, video (XGA resolution up to 84 feet, UXGA maximum up to 34 feet) with stereo audio
    - 2) Composite video source with stereo audio
    - 3) Control signals for communication
    - 4) Power required for the transmitting interface
  - i. Receiver audio shall be transmitted digitally at 20-bit, 48 kHz resolution
  - j. Audio shall be amplified via a built-in 20 watt stereo amplifier at 8ohm impedance
  - k. Onboard digital signal processing shall provide adjustment of master volume, bass, treble and balance settings at setup
  - l. Receiver shall be equipped with the following connectivity:
    - 1) One (1) 18VDC power connection (power supply included)
    - 2) Two (2) relay contacts
    - 3) Four (4) digital input ports
    - 4) One (1) infrared IR port
    - 5) One (1) computer port (RJ11) for configuration and set-up
    - 6) One (1) 10/100 Ethernet port (RJ45)
    - 7) One (1) bi-directional RS-232 port (DB-9)
    - 8) One (1) composite video output (RCA)
    - 9) One (1) RGB video output (DB15)
3. The room control system and media receiver shall be the Crestron iMedia IM-RXV3.

## 2.2 CONTROL SYSTEM INTERFACE AND MEDIA TRANSMITTER

- A. The control system interface and media transmitter shall be manufactured by Crestron and is intended to be located at the point of connection to a video and/or computer source. The control system interface and media transmitter shall interface with a room control system and media receiver as found under item 2.1.
1. The control system interface and media transmitter shall provide a single connection to a room control system and media receiver.
  2. The control system interface and media transmitter shall meet the following minimum requirements:
    - a. Install flush in any flat surface or underneath a tabletop
    - b. Transmitter shall require a single CAT5e type cable connection to the room control system and media receiver and transmit to the receiver the following:
      - 1) Computer RGB, video (XGA resolution up to 84 feet, UXGA maximum up to 34 feet) with stereo audio
      - 2) Composite video source with stereo audio
      - 3) Control signals for communication
    - c. Power to operate the transmitter shall also be contained on the same CAT5e wire and provided from the room control system and media receiver.
    - d. Contain, on its faceplate, the following:
      - 1) One VIDEO selection button
      - 2) One PC selection button
      - 3) One rotary volume control knob
    - e. A simple press of either the VIDEO or PC button on the faceplate of the transmitter shall:

- 1) Select the appropriate input
  - 2) Turn on the display
  - 3) Lower the screen or lift (if applicable to the design)
  - 4) Route all the signals where they need to go
  - f. The entire system shall be turned off at any time by simply holding down either button for 5 seconds
  - g. Transmitter shall be equipped with the following connectivity:
    - 1) One (1) RCA female, composite video input
    - 2) Two (2) RCA female, unbalanced stereo line-level audio inputs (linked with the video input)
    - 3) One (1) DB15HD female, RGB (VGA) input
    - 4) One (1) 3.5mm TRS mini phone jack: unbalanced stereo line-level audio inputs (linked with the PC input)
  3. The room control system and media receiver shall be the Crestron iMedia IM-TCCV.
- B. The control system interface and media transmitter shall be manufactured by Crestron and is intended to be located at the point of connection to a video and/or computer source. The control system interface and media transmitter shall interface with a room control system and media receiver as found under item 2.1.
1. The control system interface and media transmitter shall provide a single connection to a room control system and media receiver.
  2. The control system interface and media transmitter shall meet the following minimum requirements:
    - a. Install flush-mount into a tabletop
    - b. Transmitter shall require a single CAT5e type cable connection to the room control system and media receiver and transmit to the receiver the following:
      - 1) Computer RGB, video (XGA resolution up to 84 feet, UXGA maximum up to 34 feet) with stereo audio
      - 2) Composite video source with stereo audio
      - 3) Control signals for communication
    - c. Power to operate the transmitter shall also be contained on the same CAT5e wire and provided from the room control system and media receiver.
    - d. Contain, on its faceplate, the following:
      - 1) One VIDEO selection button
      - 2) One PC selection button
      - 3) One rotary volume control knob
    - e. A simple press of either the VIDEO or PC button on the faceplate of the transmitter shall:
      - 1) Select the appropriate input
      - 2) Turn on the display
      - 3) Lower the screen or lift (if applicable to the design)
      - 4) Route all the signals where they need to go
    - f. The entire system shall be turned off at any time by simply holding down either button for 5 seconds
    - g. Transmitter shall be equipped with the following connectivity:
      - 1) One (1) RCA female, composite video input
      - 2) Two (2) RCA female, unbalanced stereo line-level audio inputs (linked with the video input)
      - 3) One (1) DB15HD female, RGB (VGA) input
      - 4) One (1) 3.5mm TRS mini phone jack: unbalanced stereo line-level audio inputs (linked with the PC input)
  3. The room control system and media receiver shall be the Crestron iMedia IM-FTCCV-B.
- C. The control system interface and media transmitter shall be manufactured by Crestron and is intended to be located at the point of connection to a video and/or computer source. The

control system interface and media transmitter shall interface with a room control system and media receiver as found under item 2.1.

1. The control system interface and media transmitter shall provide a single connection to a room control system and media receiver.
2. The control system interface and media transmitter shall meet the following minimum requirements:
  - a. Install in a standard 3-gang electrical box
  - b. Transmitter shall require a single CAT5e type cable connection to the room control system and media receiver and transmit to the receiver the following:
    - 1) Computer RGB, video (XGA resolution up to 84 feet, UXGA maximum up to 34 feet) with stereo audio
    - 2) Composite video source with stereo audio
    - 3) Control signals for communication
  - c. Power to operate the transmitter shall also be contained on the same CAT5e wire and provided from the room control system and media receiver.
  - d. Contain, on its faceplate, the following:
    - 1) One VIDEO selection button
    - 2) One PC selection button
    - 3) One rotary volume control knob
  - e. A simple press of either the VIDEO or PC button on the faceplate of the transmitter shall:
    - 1) Select the appropriate input
    - 2) Turn on the display
    - 3) Lower the screen or lift (if applicable to the design)
    - 4) Route all the signals where they need to go
  - f. The entire system shall be turned off at any time by simply holding down either button for 5 seconds
  - g. Transmitter shall be equipped with the following connectivity:
    - 1) One (1) RCA female, composite video input
    - 2) Two (2) RCA female, unbalanced stereo line-level audio inputs (linked with the video input)
    - 3) One (1) DB15HD female, RGB (VGA) input
    - 4) One (1) 3.5mm TRS mini phone jack: unbalanced stereo line-level audio inputs (linked with the PC input)
3. The room control system and media receiver shall be the Crestron iMedia IM-WCCV.

D. The control system interface and media transmitter shall be manufactured by Crestron and is intended to be located at the point of connection to a video and/or computer source. The control system interface and media transmitter shall interface with a room control system and media receiver as found under item 2.1.

1. The control system interface and media transmitter shall provide a single connection to a room control system and media receiver.
2. The control system interface and media transmitter shall meet the following minimum requirements:
  - a. Shall contain two parts:
    - 1) The interface panel shall install in a standard 2-gang electrical box, providing video, RGB, and stereo audio inputs
    - 2) The control panel shall install in a separate 1-gang wall plate, which may be installed up to 40 feet from the interface panel
  - b. Transmitter shall require a single CAT5e type cable connection to the room control system and media receiver and transmit to the receiver the following:
    - 1) Computer RGB, video (XGA resolution up to 84 feet, UXGA maximum up to 34 feet) with stereo audio
    - 2) Composite video source with stereo audio
    - 3) Control signals for communication

- c. Power to operate the transmitter shall also be contained on the same CAT5e wire and provided from the room control system and media receiver.
  - d. Contain, on its faceplate, the following:
    - 1) One VIDEO selection button
    - 2) One PC selection button
    - 3) One rotary volume control knob
  - e. A simple press of either the VIDEO or PC button on the faceplate of the transmitter shall:
    - 1) Select the appropriate input
    - 2) Turn on the display
    - 3) Lower the screen or lift (if applicable to the design)
    - 4) Route all the signals where they need to go
  - f. The entire system shall be turned off at any time by simply holding down either button for 5 seconds
  - g. Transmitter shall be equipped with the following connectivity:
    - 1) One (1) RCA female, composite video input
    - 2) Two (2) RCA female, unbalanced stereo line-level audio inputs (linked with the video input)
    - 3) One (1) DB15HD female, RGB (VGA) input
    - 4) One (1) 3.5mm TRS mini phone jack: unbalanced stereo line-level audio inputs (linked with the PC input)
3. The room control system and media receiver shall be the Crestron iMedia IM-WCCV-S.
- E. The control system interface and media transmitter shall be manufactured by Crestron and is intended to be located at the point of connection to computer source. The control system interface and media transmitter shall interface with a room control system and media receiver as found under item 2.1.
- 1. The control system interface and media transmitter shall provide a single connection to a room control system and media receiver.
  - 2. The control system interface and media transmitter shall meet the following minimum requirements:
    - a. Install flush in any flat surface or underneath a tabletop
    - b. Transmitter shall require a single CAT5e type cable connection to the room control system and media receiver and transmit to the receiver the following:
      - 1) Computer RGB, video (XGA resolution up to 84 feet, UXGA maximum up to 34 feet) with stereo audio
      - 2) Control signals for communication
    - c. Power to operate the transmitter shall also be contained on the same CAT5e wire and provided from the room control system and media receiver.
    - d. Contain, on its faceplate, the following:
      - 1) One PC selection button
      - 2) One rotary volume control knob
    - e. A simple press of the PC button on the faceplate of the transmitter shall:
      - 1) Select the input
      - 2) Turn on the display
      - 3) Lower the screen or lift (if applicable to the design)
      - 4) Route all the signals where they need to go
    - f. The entire system shall be turned off at any time by simply holding down the PC button for 5 seconds
    - g. Transmitter shall be equipped with the following connectivity:
      - 1) One (1) DB15HD female, RGB (VGA) input
      - 2) One (1) 3.5mm TRS mini phone jack: unbalanced stereo line-level audio inputs (linked with the PC input)
3. The room control system and media receiver shall be the Crestron iMedia IM-TCC.

- F. The control system interface and media transmitter shall be manufactured by Crestron and is intended to be located at the point of connection to computer source. The control system interface and media transmitter shall interface with a room control system and media receiver as found under item 2.1.
1. The control system interface and media transmitter shall provide a single connection to a room control system and media receiver.
  2. The control system interface and media transmitter shall meet the following minimum requirements:
    - a. Install flush-mount into a tabletop
    - b. Transmitter shall require a single CAT5e type cable connection to the room control system and media receiver and transmit to the receiver the following:
      - 1) Computer RGB, video (XGA resolution up to 84 feet, UXGA maximum up to 34 feet) with stereo audio
      - 2) Control signals for communication
    - c. Power to operate the transmitter shall also be contained on the same CAT5e wire and provided from the room control system and media receiver.
    - d. Contain, on its faceplate, the following:
      - 1) One PC selection button
      - 2) One rotary volume control knob
    - e. A simple press of the PC button on the faceplate of the transmitter shall:
      - 1) Select the input
      - 2) Turn on the display
      - 3) Lower the screen or lift (if applicable to the design)
      - 4) Route all the signals where they need to go
    - f. The entire system shall be turned off at any time by simply holding down the PC button for 5 seconds
    - g. Transmitter shall be equipped with the following connectivity:
      - 1) One (1) DB15HD female, RGB (VGA) input
      - 2) One (1) 3.5mm TRS mini phone jack: unbalanced stereo line-level audio inputs (linked with the PC input)
  3. The room control system and media receiver shall be the Crestron iMedia IM-FTCC-B.
- G. The control system interface and media transmitter shall be manufactured by Crestron and is intended to be located at the point of connection to computer source. The control system interface and media transmitter shall interface with a room control system and media receiver as found under item 2.1.
1. The control system interface and media transmitter shall provide a single connection to a room control system and media receiver.
  2. The control system interface and media transmitter shall meet the following minimum requirements:
    - a. Install in a standard 2-gang electrical box
    - b. Transmitter shall require a single CAT5e type cable connection to the room control system and media receiver and transmit to the receiver the following:
      - 1) Computer RGB, video (XGA resolution up to 84 feet, UXGA maximum up to 34 feet) with stereo audio
      - 2) Control signals for communication
    - c. Power to operate the transmitter shall also be contained on the same CAT5e wire and provided from the room control system and media receiver.
    - d. Contain, on its faceplate, the following:
      - 1) One PC selection button
      - 2) One rotary volume control knob
    - e. A simple press of the PC button on the faceplate of the transmitter shall:
      - 1) Select the input
      - 2) Turn on the display
      - 3) Lower the screen or lift (if applicable to the design)

- 4) Route all the signals where they need to go
- f. The entire system shall be turned off at any time by simply holding down the PC button for 5 seconds
- g. Transmitter shall be equipped with the following connectivity:
  - 1) One (1) DB15HD female, RGB (VGA) input
  - 2) One (1) 3.5mm TRS mini phone jack: unbalanced stereo line-level audio inputs (linked with the PC input)
- 3. The room control system and media receiver shall be the Crestron iMedia IM-WCC.

**END OF SECTION XXXX**