



Blustream ACM200 Crestron Module

Revision: 20190524
Date: 2019-05-24
Author(s): Richard Mullins

Overview	3
Installation	3
Module Configuration	4
IP Connection	4
Input Signals	5
Switching Commands	5
Join [digital]	5
Receiver [analog]	5
Transmitter [analog]	5
Mode [analog]	6
Receiver Commands	6
Receiver_CEC [digital]	6
Fast_Switching [digital]	6
HDR [digital]	6
Stretch [digital]	6
HDCP Manage[digital]	7
Matrix Mode [digital]	7
Video Wall Mode [digital]	7
Reboot Receiver [digital]	7
Rotate [analog]	7
Scaler [analog]	8
Transmitter Commands	9
Transmitter CEC [digital]	9
HDMI Audio [digital]	9
Analog Audio [digital]	9
Auto Audio [digital]	9
Reboot Transmitter [digital]	9
EDID [analog]	10
Video Wall Commands	11
Video Wall [analog]	11
VideoWallConfig [analog]	11

Overview

The Blustream Crestron module allows for IP control over the Blustream ACM200 controller.



The module provides control over switching, video wall configuration, the transmitter audio setting, CEC settings, EDID settings, the scaler resolution, rotation and the ability to send RS232 commands to a remote unit. All of these controls are detailed in the sections below.

Installation

The zip file that included this documentation has the simpl+ module and the Simpl# clz file that need to be copied in to your project folder. The files were built and tested on a Crestron 3-series processor.

The zip file also contains a SIMPL project and a VT-Pro touchscreen design that you can use for testing.

Module Configuration

This module needs to be configured with an IP address, set as a module parameter.

IP Connection

The IP Address needs to be entered using the module parameter IP_Address as shown below.



Input Signals

The module has a series of digital for switching the various options. In most cases these will act on the last receiver or transmitter analog value. For example, if you want to join receiver 2 to transmitter 5 then you would need to set the receiver and transmitter analogs first and then hit 5the join digital to trigger the change.

The following sections are split by switching, receiver, transmitter and video wall commands. In the case of the receiver commands, the currently set receiver will be used. In the case of the transmitter, the currently set transmitter will be used.

Switching Commands

Join **[digital]**

The Join command will join the currently set receiver to the currently set transmitter using the currently set switching mode. You would typically set the receiver, transmitter and switching values first.

Receiver **[analog]**

This signal sets the receiver that the next command will act on. This would be set before triggering a join or receiver command. Valid values are between 1 and 99 and must match the value set on the receiver itself.

Transmitter **[analog]**

This signal sets the receiver that the next command will act on. This would be set before triggering a join or transmitter command. Valid values are between 1 and 99 and must match the value set on the transmitter itself.

Mode [\[analog\]](#)

This signal sets the mode for the join command and should be set before sending the join command. Valid values are shown in the table below.

Value	Mode
0	Switch All signals from transmitter to receiver
1	Switch video only from transmitter to receiver
2	Switch audio only from transmitter to receiver
3	Switch IR only from transmitter to receiver
4	Switch RS232 only from transmitter to receiver
5	Switch USB only from transmitter to receiver
6	Switch CEC only from transmitter to receiver

Receiver Commands

Receiver_CEC [\[digital\]](#)

This signal turns the CEC mode on or off. This signal is level based, so latch it high to keep the CEC mode active. This would typically be done with a TOGGLE.

Fast_Switching [\[digital\]](#)

This enables or disables fast switching for the currently set receiver. This signal is level based, so latch it high to keep the CEC mode active. This would typically be done with a TOGGLE.

HDR [\[digital\]](#)

This enables or disables HDR for the currently set receiver. This signal is level based, so latch it high to keep the CEC mode active. This would typically be done with a TOGGLE.

Stretch [\[digital\]](#)

This enables or disables stretching for the currently set receiver. This signal is level based, so latch it high to keep the CEC mode active. This would typically be done with a TOGGLE.

HDCP Manage [\[digital\]](#)

This enables or disables HDCP management mode for the currently set receiver. This signal is level based, so latch it high to keep the CEC mode active. This would typically be done with a TOGGLE.

Matrix Mode [\[digital\]](#)

This sets the currently selected receiver back to matrix switching mode (forcing the receiver back from video wall mode). This signal is edge triggered, a high signal will change mode and the low will be ignored. Using the join command will automatically trigger this mode change so there is no need to perform it during a join.

Video Wall Mode [\[digital\]](#)

This sets the currently selected receiver to video wall mode (forcing the receiver to change from matrix mode). This signal is edge triggered, a high signal will change mode and the low will be ignored. Using the video wall configuration command will automatically trigger this mode change so there is no need to perform it during a video wall change.

Reboot Receiver [\[digital\]](#)

This signal will reboot the currently set receiver. This signal is edge triggered, a high signal will change mode and the low will be ignored.

Rotate [\[analog\]](#)

This signal will set the rotation of the currently set receiver. Valid values are 0, 90, 180 and 270. Any other values will be ignored and will produce no change.

Scaler [analog]

This signal will set the scaler resolution of the currently set receiver. Valid values are between 0 and 13. The resolutions are listed in the table below.

Value	Resolution
0	Bypass scaler
1	2160p@30
2	2160p@24
3	1080p@50
4	1080p@60
5	1080i@50
6	1080i@60
7	720p@60
8	720p@50
9	1280x1024@60
10	1024x768@60
11	1360x768@60
12	1440x900@60
13	1680x1050@60

Transmitter Commands

Transmitter CEC [\[digital\]](#)

This signal turns the CEC mode on or off. This signal is level based, so latch it high to keep the CEC mode active. This would typically be done with a TOGGLE.

HDMI Audio [\[digital\]](#)

This signal sets the audio source to the HDMI signals audio. This signal is edge triggered, a high signal will change mode and the low will be ignored.

Analog Audio [\[digital\]](#)

This signal sets the audio source to the analog input. This signal is edge triggered, a high signal will change mode and the low will be ignored.

Auto Audio [\[digital\]](#)

This signal sets the audio source to automatically choose the correct audio. This signal is edge triggered, a high signal will change mode and the low will be ignored.

Reboot Transmitter [\[digital\]](#)

This signal will reboot the currently set receiver. This signal is edge triggered, a high signal will change mode and the low will be ignored.

EDID [analog]

This signal will set the EDID resolution of the currently set transmitter. Valid values are between 0 and 18. The resolutions are listed in the table below.

Value	Resolution
0	HDMI 1080p@60, Audio 2CH PCM
1	HDMI 1080p@60, Audio 5.1CH PCM/DTS/DOLBY
2	HDMI 1080p@60, Audio 7.1CH PCM/DTS/DOLBY
3	HDMI 1080i@60, Audio 2CH PCM
4	HDMI 1080i@60, Audio 5.1CH PCM/DTS/DOLBY
5	HDMI 1080i@60, Audio 7.1CH PCM/DTS/DOLBY
6	HDMI 1080p@60 3D, Audio 2CH PCM
7	HDMI 1080p@60 3D, Audio 5.1CH PCM/DTS/DOLBY
8	HDMI 1080p@60 3D, Audio 7.1CH PCM/DTS/DOLBY
9	HDMI4K@30 4:4:4, Audio 2CH PCM
10	HDMI 4K@30 4:4:4, Audio 5.1CH PCM/DTS/DOLBY
11	HDMI 4K@30 4:4:4, Audio 7.1CH PCM/DTS/DOLBY
12	DVI 1280x1024@60, Audio None
13	DVI 1920x1080@60, Audio None
14	DVI 1920x1200@60, Audio None
15	HDMI4K@30 4:4:4, Audio 7.1CH (Default)
16	HDMI4K@60 4:2:0, Audio 2CH PCM
17	HDMI 4K@60 4:2:0, Audio 5.1CH PCM/DTS/DOLBY
18	HDMI 4K@60 4:2:0, Audio 7.1CH PCM/DTS/DOLBY

Video Wall Commands

Video Wall **[analog]**

The Video Wall signal sets the video wall to affect. This signal needs to be set before changing the configuration (using the VideoWallConfig signal)

VideoWallConfig **[analog]**

The VideoWallConfig signal sets the new configuration for the currently selected Video Wall. The Video Wall signal should be set first before setting this signal.