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Artison Backpack Crestron Module

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Overview

The Artison Backpack Crestron module allows for IP control over the Backpack amplifier with full control for power, switching inputs, volume, sound modes and the on screen display.

The module also provides feedback for power, mute state, the current input, current volume, the surround mode selected for each input and the current firmware version.

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

The module communicates with the Backpack using a TCP/IP connection. You will need to add a TCP/IP Client symbol to your project and configure it with the IP Address of the backpack and the port number (default is 50006d).

The module alos needs to be configured with a licence code set as a module parameter. The licence code can be obtained directly from Redline, by sending them the MAC address of the Crestron processor you are using the module on.
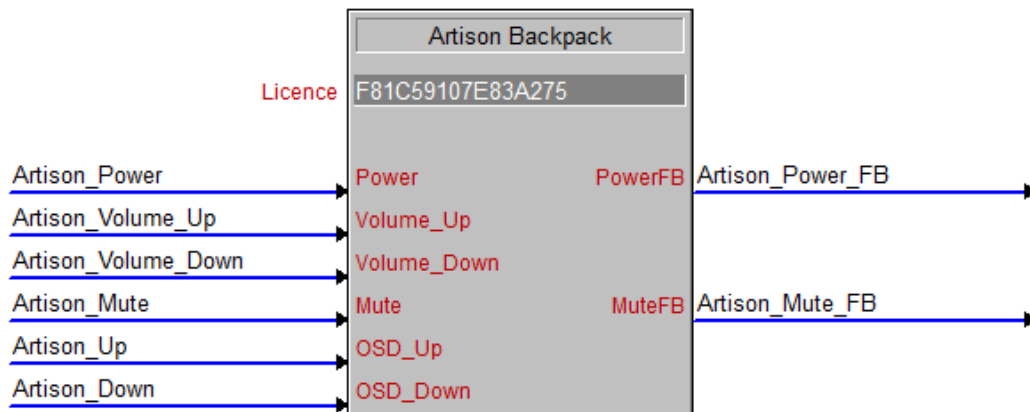
TCP Connection

To connect the module, join the communication pins (Rx and Tx) to the TCP/IP Client and the TCP Status to the Backpack status pin. The Connect pin on the TCP/IP Client can be configured in a way that makes best sense for your project.
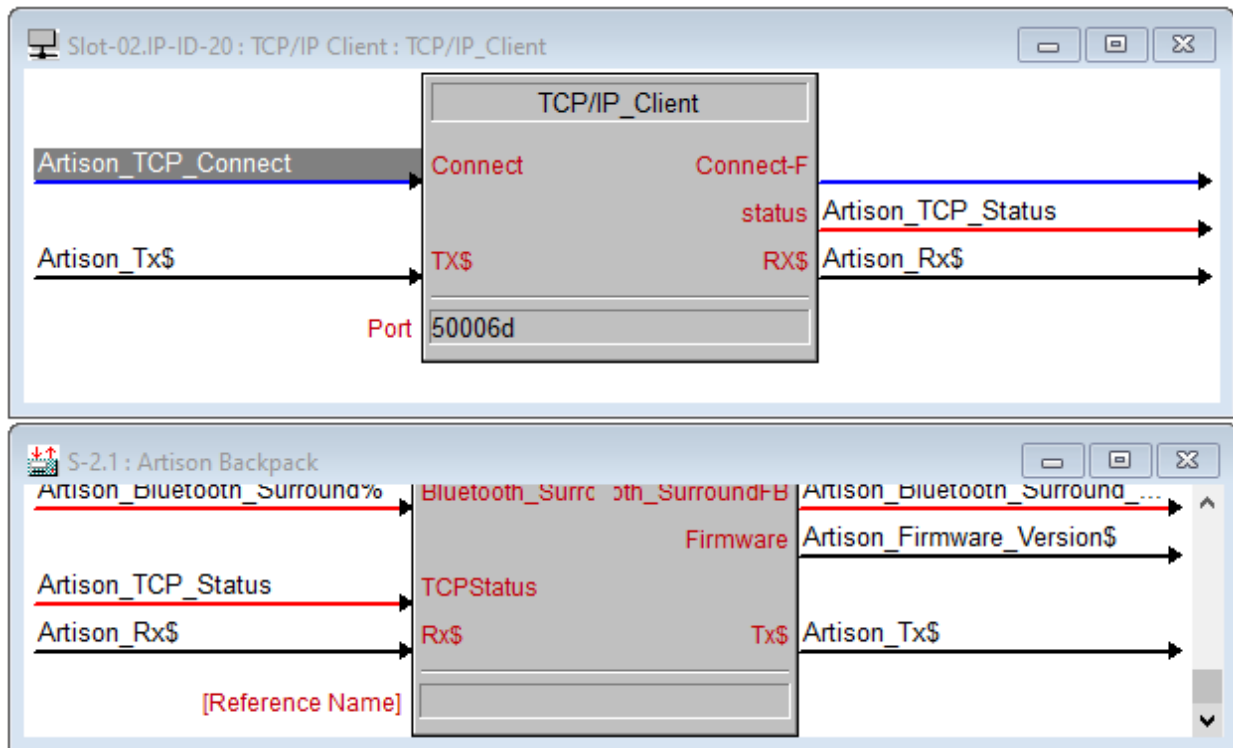
Licence

The licence that you are given by Redline needs to be entered into the Licence parameter field (shown below).

Module Signals

Input Signals

Power [digital]

The power join is edge triggered. It will turn the power on to the amplifier on the rising edge of the signal and turn the power off on the trailing edge. Typically this would be controlled via a TOGGLE symbol.

Volume Up / Down [digital]

The Volume up and down signals will raise and lower the current volume by 1%. The signals are edge triggered so if you want to provide a press and hold function they will need to be run through an OSC symbol.

Menu [digital]

The menu signal will cause the on screen display to be shown. The signal is edge triggered with the rising edge triggering the OSD and the trailing edge having no effect. Raising the sgnal while the OSD is being displayed will hide the menu.

Back [digital]

The back signal is edge triggered with the rising edge sending going back on step in the menu hierarchy. If the Backpack is at the main menu it will close the menu. The trailing edge has no effect.

Up/Down/Left/Right [digital]

The Up, Down, Left and Right signals are used to navigate the menu. The rising edge will move the menu in that direction, the trailing edge has no effect.

Pair [digital]

The back signal is edge triggered with the rising edge putting the amplifier into Bluetooth pairing mode. The trailing edge has no effect. After a period of time the pairing function will turn itself off.

Input [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	Source OFF
1	DLNA
2	HDMI-1
3	HDMI-2
4	HDMI-3
5	TV (ARC)
6	Optical
7	Auxiliary
8	Bluetooth

Volume [analog]

This signal sets the current volume. The value needs to be between 0 and 100 so it should be attached to a ASCALE symbol (see the example project included with this documentation for details.

DLNA/HDMI1-3/ARC/OPT/AUX/Bluetooth Surround [analog]

These signals set the appropriate surround mode for the matching input. Please note that it is only possible to change the mode for current input, so if the current input is HDMI-1, you will only be able to set the HDMI1_Surround signal. Valid values for the surround modes are shown in the table below.

Value	Mode
0	Surround Off
1	2 Channel Stereo
2	5 Channel Stereo
3	Pro Logic II Movie
4	Pro Logic II Music
5	DTS Music
6	DTS Movie

Output Signals

Power FB [digital]

The Power_FB signal signifies the current power state. The signal will be high if the power is on and low if the power is off.

Mute FB [digital]

The Mute_FB signal signifies the current mute state. The signal will be high if the mute is active and low if the mute is inactive.

Input FB [analog]

The Input_FB signal contains the current input selected. The inputs are listed in the Inputs section above.

DLNA/HDMI1-3/ARC/OPT/AUX/Bluetooth Surround FB [analog]

The various Surround FB signals contain the the current surround state for that input. The surround mode is only fetched if the input is used, so on start up these values will be 0. The surround mode are listed in the Inputs section above.

Firmware [string]

This signal contains the current firmware version.