1. Crestron Module Information

Partner: Yamaha

Model: RIO3224-D, RIO1608-D, RI8-D

Device Type: Dante I/O-Rack

2. General Information

Simple Windows Name: Yamaha_Rio32_V.1.1, Yamaha_Rio16_V.1.1, Yamaha_Ri8_V.1.1

Category: Mixer

Summary: This module controls a Yamaha RIO I/O Rack Ethernet connection.

3. General Notes:

This module is designed to control a Yamaha RIO I/O Rack with a Crestron Control System via Ethernet.

Because the core routines are written in Simple# the module only runs on Crestron System3 devices!

The archive contains the following files:

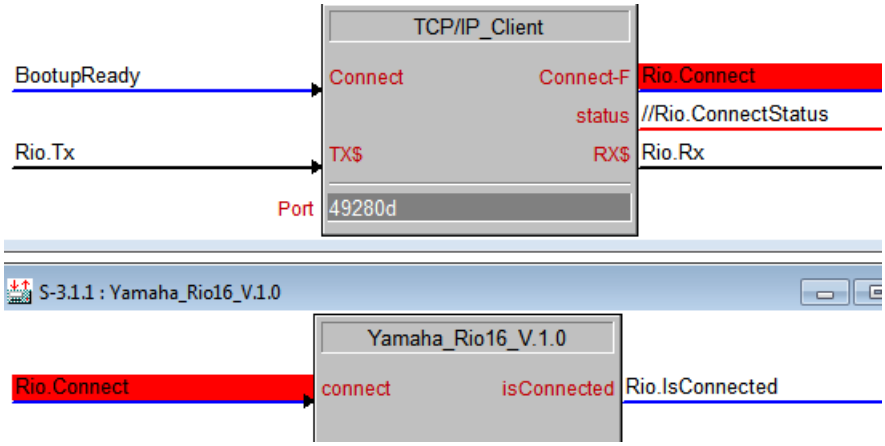
Yamaha_RIO32_V.1.1.usp	The Simple+ wrapper for the RIO32 Simple# module
Yamaha_RIO16_V.1.1.usp	The Simple+ wrapper for the RIO16 Simple# module
Yamaha_RI8_V.1.1.usp	The Simple+ wrapper for the RI8 Simple# module
Yamaha_Rio_V.1.0.1.clz	The Simple# module as an interface for RIO
Sample App Rio16 V1_1.smw	Sample Application for controlling RIO1608-D via Ethernet
Rio1608SampleUI.vtp	XPanel UI for RIO1608-D Sample App
ToggleWithFeedback.umc	A helper Macro to realize a Toggle Function with feedback

4. Tested software versions

- Crestron Simple Windows 4.14.31
- Crestron Simple+ 4.05.01
- Crestron Cross Compiler 1.3
- Crestron Database 202.05.002.00
- Crestron Device Database 200.40.004.00
- Crestron VT-Pro-e 6.2.02
- Crestron Smart Graphics Controls 2.17.00.05

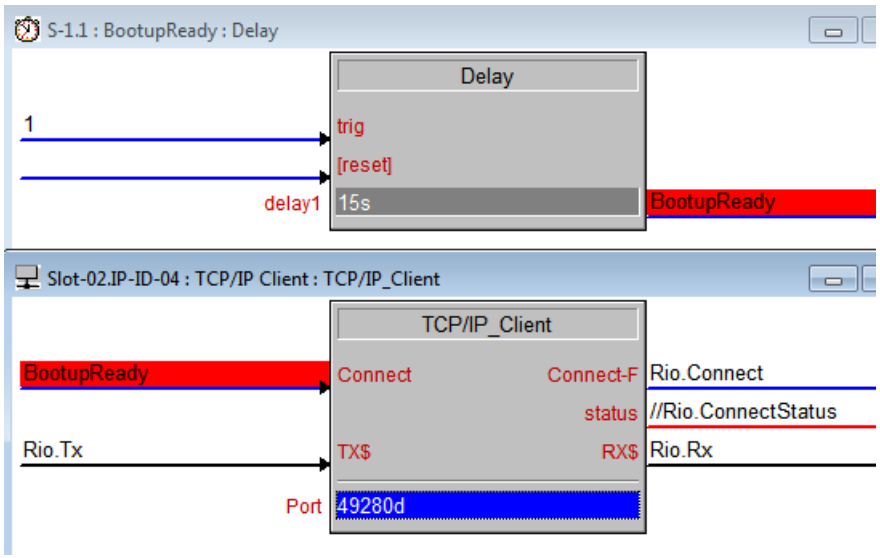
5. Wiring:

We recommend to use the “Connect-F” signal (feedback if TCP/IP connection is successful) as an input for the connect signal of the module:
(in the sample app we use a manual connect/disconnect just for demo purposes)



It is not recommended to use a “1” signal at the “Connect”-input of the TCP/IP-Client module. Because of the heavy work load for the Crestron-CPU during the boot-up phase, some signal may not have a consistent state.

Use a small delay instead (approx. 10-30s):



The module uses the keep-alive function of the RIO. The time period is about 10s. If there is no answer after that time, the Crestron CPU assumes a broken connection and tries to re-connect.

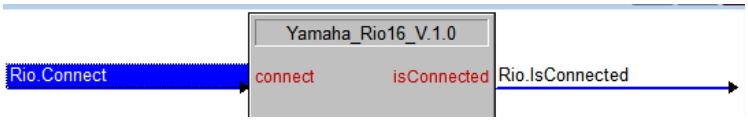
The default TCP/IP Port Number of the MTX is “49280”

Please keep in mind the RIO has only one Network-Port but 3 IP-Adresses (Dante Primary, Dante Secondary and RIO Control). The connections has to go to the Rio Control Port. To set those IP-Adress you have to use the Software R-Remote. Consider the manual of the RIO how to do that and how to set the DIP-Switches.

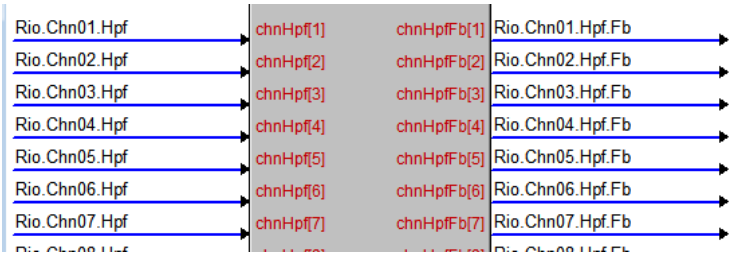
6. Signals:

The module is looking like this:
(number of HPF-, 48V- and Gain-signals depends if it's a RI8, RIO16 or RIO32:

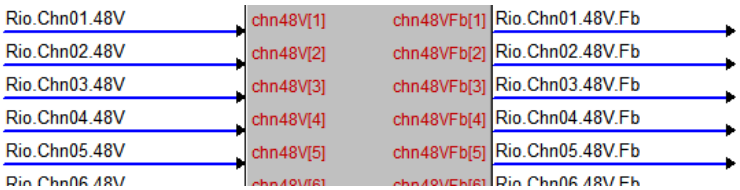
Connect Section:



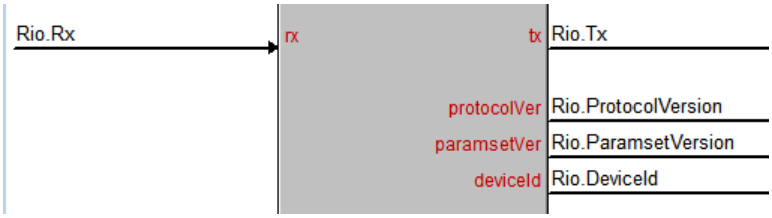
HPF Section:



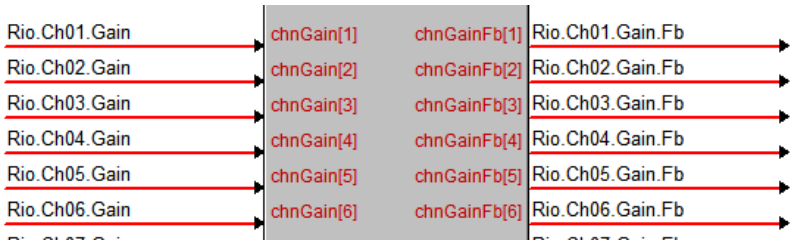
48V Section:



RX/TX and Info Section



Gain Section

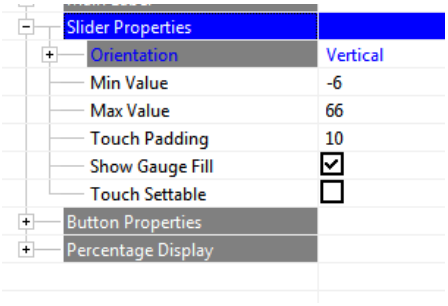


Description:

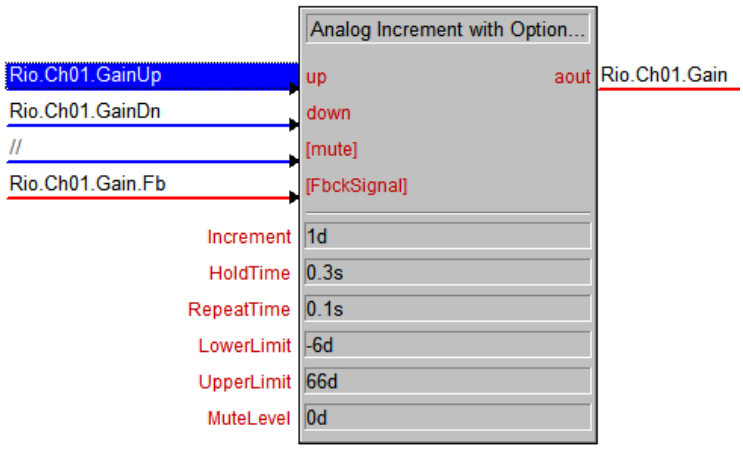
Controls		
connect	digital	1: causes the module to connect to the RIO 0: causes disconnect
chnHpf[1] .. [XX]	digital	HPF on in the respective channel
chn48V[1] .. [XX]	digital	48V phantom power on in the respective channel
chnGain[1] .. [XX]	analog	Gain Level of the respective channel. Valid values: -6 .. 66
Rx	serial	RX-Data (usually connected to the RX Signal of the TCP/IP-Client Module.
Feedback		
isConnected	digital	"1" if the module is successfully connected to the MTX
chnHpfFb[1] .. [XX]	digital	Current status of the respectice HPF
chn48VFb[1] .. [XX]	digital	Current status of the respectice 48V phantom power
chnGainFb[1] .. [XX]	analog	Current gain level
protocolVer	serial	The protocol version of the connected device
paramSetVer	serial	The Parameter Set Version of the connected device
deviceId	serial	The Device ID of the connected device
Tx	serial	TX-Data (usually connected to the TX Signal of the TCP/IP-Client Module)

7. Parameter Range:

The Gain Level is in the range -6 to 66. You have to pay attention to this fact in Touchpanel Design if you using a Gauge or a Silder (set the appropriate parameters for "Min Value" and "Max Value"),



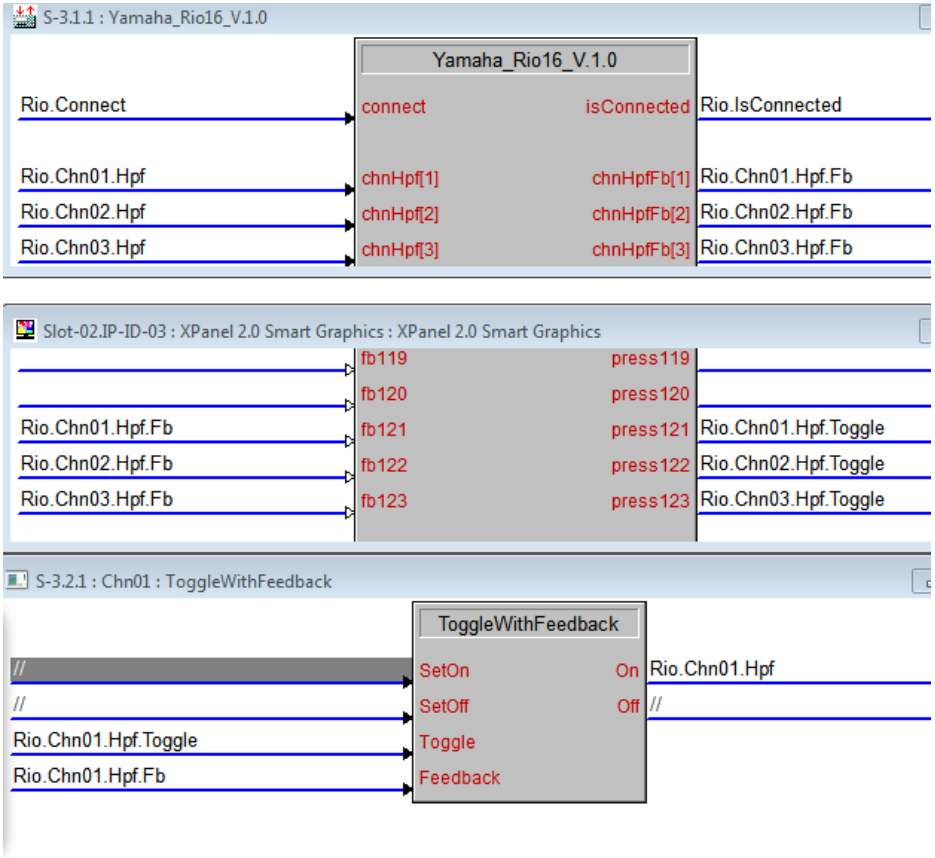
Also observe these parameters if you a Ramp, Analog Increment or some like this in SimpleWIndows: See here the parameters "LowerLimit" and "Upper Limit":



8. ON's and OFF's (HPF and 48V):

You can set these two parameters just by set to respective signals to ON or OFF .

If you want to use a toggle, you have to pay attention to the real status in the RIO (feedback). To make this more easier for you, we provide a small helper makros for that.
These macros is called "ToggleWithFeedback" You can use it for setting parameters on, off or just use toggeling. In the sample application you can see and test how it works:



Other Documents

In case you are encounter any errors (you may see them on the rx signal in the debugger coming from the RIO) please also have a look at the other documents as:

- latest Release Notes
- FAQ