

Description

This module handles all communications with the EX-1280C. It acts as a router, accepting all traffic and sending only the necessary information to the endpoints, as well as ensuring all communications are received by the DSP. Each [from_modulexx\$] corresponds to [to_modulexx\$] and should be tied to a singular device module.

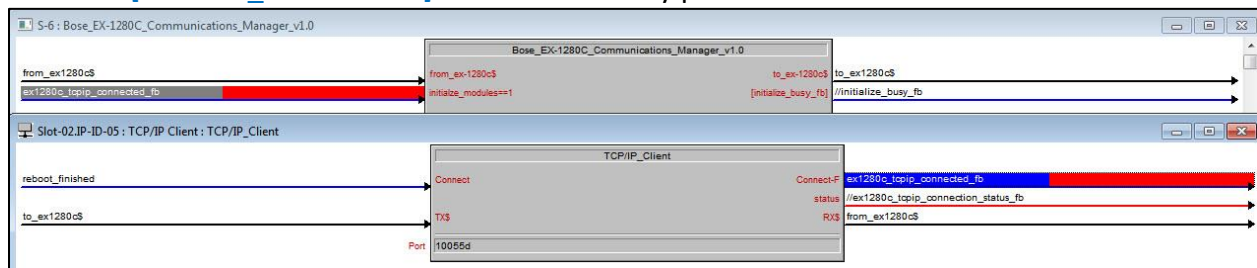
Supported Processors

This module may be used with any 2-Series or 3-Series Crestron processor with an Ethernet port, or Serial port capable of 115,200 baud.

Communication setup

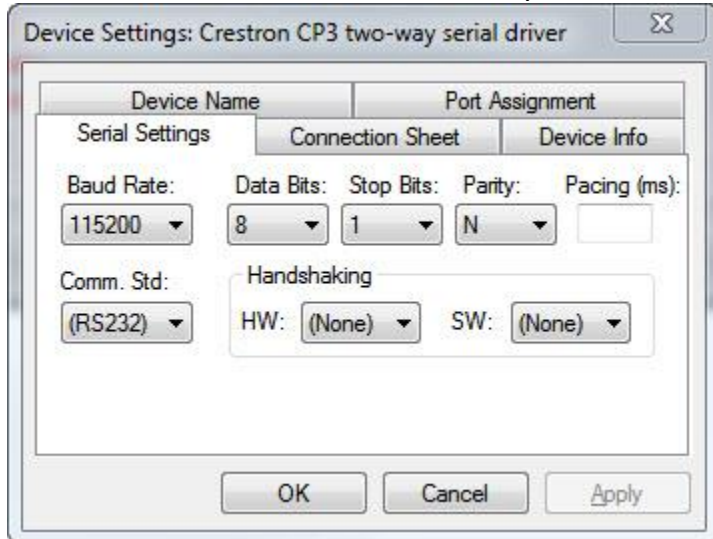
For Ethernet:

Add in a TCP/IP client into the program. Connect the TX\$, RX\$, and connect signals to the TCP/IP Client. Enter the IP address into the TCP/IP Client and set the port to 10055d. Connect the **Connect-F** from the TCP/IP Client to the **[initialize_modules==1]** input on the Communications manager. Latch the **Connect** input on the TCP/IP Client when you are ready to connect to the DSP. In this scenario, each time Crestron connects to the DSP, the **Connect-F** will drive the **[initialize_modules==1]** and automatically poll for all values.



For Serial:

Simply connect the TX\$ and RX\$ to the com port the EX-1280C is connected to. Set the baud rate to 115200, 8 Data Bits, 1 Stop Bits, N Parity, No HW or SW handshaking. There is no need to manage the connection to the DSP, however you must latch high [\[initialize_modules==1\]](#). This can be done with a 1 or with a delay, but must be latched high.



Inputs, Outputs, and Parameter Descriptions

Digital Inputs

initialize_modules==1	Latch high after program is started. This will query each module for label tags to determine where traffic should be routed. Additionally this will begin polling for all values for all connected modules. When using a TCP/IP connection, this input should be driven from the Connect-F from a TCP/IP client.
[manually_advance_command_queue]	Pulse to manually advance the command queue. Typically used for debugging purposes.

Serial Inputs

from_ex-1280c\$	Tie to rx\$ of TCP/IP Client or Com port.
[from_modulexx\$]	Tie to to_communications_manager\$ of control module
[from_room_combine_modules\$]	Tie to to_communications_manager\$ of room combine modules.

Digital Outputs

[initialize_busy_fb]	High when the Communications manager is busy initializing all modules.
[engine_is_waiting_for_a_response_fb]	High when the Communications Manager is waiting for a response.
[commands_in_queue_fb]	High when commands are waiting to be sent.

Serial Outputs

to_ex-1280c\$	Tie to tx\$ of TCP/IP Client or Com port.
to_modulexx\$	Tie to from_communications_manager\$ of same control module above signal is from.
[to_room_combine_modules\$]	Tie to room combine modules from_communications_manager\$ input.

Paramaters

Command Timeout	Define the time at which the communication manager will wait to send the next command if no response is received. Default time is 5s.
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Testing Environment

EX-1280C	v0.201_build4
EX-8ML	v1.000
ControlSpace Designer	v5.0.0.805
Crestron AV3	v1.501.2867.26681
SIMPL Windows	4.07.03
Device Database	86.05.003.00
Crestron Database	63.06.002.00

Distribution Files

Bose_EX-1280C_Communications_Manager_v1.1.umc	User module containing communications manager logic.
Bose_EX-1280C_Communications_Manager_Engine_v1.1.usp	SIMPL+ module for use inside communications module.
Bose_EX-1280C_Communications_Manager_Engine_v1.1.ush	SIMPL+ header for use inside communications module.

Revision History

V1.0 – Initial Release

V1.1 – Support for room combine serial strings.