Certified Module

Partner: BiAmp
Model: AudiaFlex & Nexia
Device Type: DSP

GENERAL INFORMATION

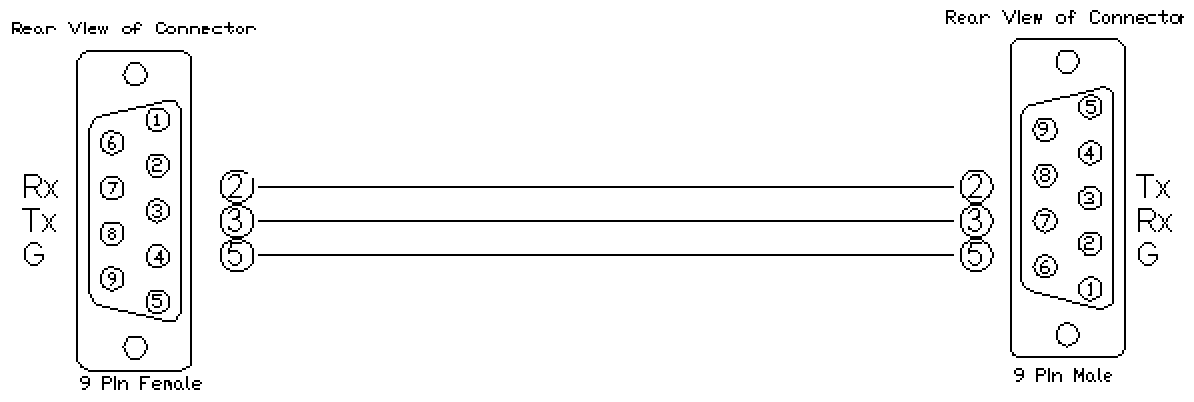
SIMPLWINDOWS NAME:	BiAmp AudiaFlex + Nexia Level Control v7.0
CATEGORY:	Mixer
VERSION:	7.0
SUMMARY:	This module controls any level point in the BiAmp AudiaFlex or Nexia.
GENERAL NOTES:	This module will control any level point in the BiAmp AudiaFlex and Nexia. This module MUST be used in conjunction with the BiAmp AudiaFlex + Nexia Command Processor v7.0.umc module. The command processor module processes all transmitted and received serial strings and reformats device feedback so that this data can be sent to the proper module for final processing. The To_Processor output of this module must be connected to the From_Modules input on the BiAmp AudiaFlex + Nexia Command Processor v7.0 module. The Instance_ID_to_Processor must be connected to one of the Module_*_Instance_ID inputs on the BiAmp AudiaFlex + Nexia Command Processor v7.0 module. The From_Processor input on this module must be connected from the corresponding To_Module_* output on the BiAmp AudiaFlex + Nexia Command Processor v7.0 module. When polling the BiAmp for current status, you should poll for only the information you really need at the time. The more data points you poll for at one time, the longer it will take to get an update for any one data point. It should not normally be necessary to poll for all data points all the time. This module has (8) eight parameter fields, all of which must be set for proper module operation. All parameters are entered as ASCII characters. Volume_Device_Type is the control block type. This selected from a drop down list. Volume_Device_ID is the device's ID and is automatically assigned when the .dap file is compiled. Volume_Device_Instance is the "Logic Block's" ID that is automatically assigned when the .dap file is compiled. Alternately, the Volume_Device_Instance could be the Instance TAG entered in the .dap file. Volume_Index_1 is the first index number from the BiAmp software. This is typically the channel, input or output number to be controlled. Volume_Index_2 is the second index number from the BiAmp software. In a lot of cases this will be zero. Volume_Upper_Limit is the volume level's upper limit. This should be entered as the dB level and negative numbers are allowed. Volume_Lower_Limit is the volume level's lower limit. This should be entered as the dB level and negative numbers are allowed. Volume_Step is the number of dB to adjust the volume by with each volume adjustment. This selected from a dropdown list. The options are 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5 and 6.0. This information is all contained in the Block properties field when developing the .dap file within the BiAmp AudiaFlex Windows software. A .dap file (Crestron Test v7.0.dap) was created by Crestron for testing purposes and MUST be used for proper operation of the BiAmp AudiaFlex + Nexia v7.0 Demo Pro2 program. NOTE: THIS MODULE WAS DEVELOPED AND TESTED WITH THE BIAMP AUDIAFLEX. THE INCLUDED .DAP FILE WAS PROVIDED BY BIAMP, AND IS FOR THE AUDIAFLEX ONLY. ACCORDING TO BIAMP, THESE MODULES WILL WORK FOR THE NEXIA. A CONFIGURATION FILE WILL NEED TO BE CREATED FOR THE NEXIA (NOT PROVIDED), AND WILL BE REQUIRED FOR OPERATION OF THE UNIT. FOR MORE INFORMATION ABOUT CONFIGURATION FILES AND HOW TO CREATE THEM PLEASE CONTACT BIAMP.

©2004 Crestron Electronics, Inc.
15 Volvo Drive • Rockleigh, NJ 07647
800.237.2041 / 201.767.3400

www.crestron.com
Crestron Certified Integrated Partner Modules can be found archived on our website in the Design Center. For more information please contact our Technical Sales Department at techsales@crestron.com. The information contained on this document is privileged and confidential and for use by Crestron Authorized Dealers, CAIP Members, A+ Partners and Certified Integrated Partners only. *Specifications subject to change without notice.*

Partner: BiAmp
Model: AudiaFlex & Nexia
Device Type: DSP

	When the Initialize input on the BiAmp AudiaFlex + Nexia Command Processor v7.0 is pulsed, the BiAmp AudiaFlex + Nexia Command Processor v7.0 module will send out initialization strings to each of the To_Module_* outputs, asking for the connected module's command type, instance ID or Tag and indexes. The control module will transmit that information out its Instance_ID_to_Processor output. The Instance_ID_to_Processor output of a control module must be connected to one of the Module_*_Instance_ID inputs. The corresponding To_Module_* output must be connected to the From_Processor input of the same control module.
CRESTRON HARDWARE REQUIRED:	ST-COM, C2-COM
SETUP OF CRESTRON HARDWARE:	RS232 Baud: 38400 Parity: N Data Bits: 8 Stop Bits: 1
VENDOR FIRMWARE:	4.560



CONTROL:

Volume_Up/Down	D	Press and hold to adjust the volume level.
New_Volume_Level	A	Analog value of volume level. This is the signed dB level to set the volume level to. Will be sent when the Send_New_Level input is pulsed. This will allow preset values to be sent to the BiAmp.
Send_New_Level	D	Pulse to send the volume entered in the New_Volume_Level input. This will allow preset values to be sent to the BiAmp.
Poll_Level	D	Pulse to poll for the current value.
From_Processor	S	Serial data signal to be routed from one of the To_Module_* outputs on the BiAmp AudiaFlex + Nexia Command Processor v7.0 module.

Partner: BiAmp
Model: AudiaFlex & Nexia
Device Type: DSP

FEEDBACK:

Volume_Gauge	A	Analog value indicating the current volume level. To be displayed using a gauge on a touch panel.
Volume_Level_Sign_Unscaled	A	Analog volume level value. This is the signed dB level. To be displayed using a digital gauge on a touch panel.
Volume_Level_Text	S	Serial signal indicating the current volume level. This will show from -100.0 to 12.0
To_Processor	S	Serial data signal to be sent to the BiAmp AudiaFlex + Nexia Command Processor v7.0.
Instance_ID_to_Processor	S	Serial signal to be routed to one of the Module_*_Instance_ID inputs on the BiAmp AudiaFlex + Nexia Command Processor v7.0 module.

PARAMETERS:

Volume_Device_Type	ASCII	Select the proper device type from the drop down list.
Volume_Device_ID	ASCII	Device address automatically assigned after the BiAmp .dap file is compiled
Volume_Device_Instance	ASCII	Logic Block ID assigned after the BiAmp .dap file is compiled
Volume_Index_1	ASCII	Volume index to be controlled. This is the input, channel or output number being controlled.
Volume_Index_2	ASCII	This used for cross point type devices. Typically, this would be zero. For cross points this is the output number for the cross point being controlled.
Volume_Upper_Limit	ASCII	This is the upper limit for the volume level being controlled. This is the signed dB value.
Volume_Lower_Limit	ASCII	This is the lower limit for the volume level being controlled. This is the signed dB value.
Volume_Step	ASCII	Select the volume step value from the dropdown list. Default is 1.0 dB.

Partner: BiAmp
Model: AudiaFlex & Nexia
Device Type: DSP

TESTING:

OPS USED FOR TESTING:	3.155.1240
SIMPL WINDOWS USED FOR TESTING:	2.10.32
DEVICE DB USED FOR TESTING:	20.02.009.00
CRESTRON DB USED FOR TESTING:	20.00.05.00
SAMPLE PROGRAM:	BiAmp AudiaFlex + Nexia v7.0 Demo Pro2
REVISION HISTORY:	V3 – 2-Series Only, corrected dialer timing, text display, speed of dialing and over all operation (firmware) V4 – Changed timing of dialer strings sent when off hook V5 – Made changes for the new responses from the BiAmp. These new responses have the command details and status in them. This eliminates the need to poll for status when making changes. Added new commands. Added buffering for the responses to improve system response. V5.1-Changed the Command Processor module to handle the response for presets. Also eliminated the Command Processor sending any response if the unit ID is determined to be 0. Changed all of the modules to allow instance IDs up to 65534d. Changed all modules to look for the proper channel ID. Added MBMUTE command to the On-Off module. V7.0 – Changed all modules to allow the use on Instance ID Tags. Changed the volume control module to allow for the selection of the size of the volume change step. Changed the command processor module to handle all filtering of the feedback. Eliminated the unit buffer module. Also eliminated the need for using serial buffers.