Manufacturer: Bose
Model: EX Series
Device Type: Digital Signal Processor

GENERAL INFORMATION

SIMPLWINDOWS NAME:	Bose EX Series Level Control v3.2
CATEGORY:	Conferencing
VERSION:	3.2
SUMMARY:	The Level Control component controls the volume of a specified channel in the Bose ControlSpace design.
GENERAL NOTES:	IMPORTANT: While this module suite supports the majority of the Bose EX Series family, there may be certain modules or module attributes that are not supported by certain devices. Please refer to the Bose ControlSpace Serial Control Protocol v5.10 documentation for more information regarding which controls are supported for the device you are using.
CRESTRON HARDWARE REQUIRED:	Crestron 3-Series or 4-Series processor.
VENDOR FIRMWARE:	v2.520

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PARAMETERS:

Module_Name	Set to the name of the module to be controlled.
Module Type	A list for the user to select which type of module is being controlled. Selections include: Input Volume, Input Gain, Output, Gain Module, Standard Mixer Input, Standard Mixer Output, PSTN Input, PSTN Output, VoIP Input, VoIP Output, USB Input, USB Output, AMM Input and AMM Output.
Module_Channel	Set to the channel of the module that the component will control. If there is only one channel to be controlled, it should be set to 1d.
Upper_Limit	Defines the upper limit of the volume control in decibels.
Lower_Limit	Defines the lower limit of the volume control in decibels.
Level_Step	Defines the step size in decibels that the level in increase or decrease when the Level_Up or Level_Down signals are pulsed or held.
Command_Processor_ID	The unique identifier for the command processor module this module will register with.

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CONTROL:

Level_Up	D	Pulse to raise level by the amount indicated in the 'Level_Step' parameter. Holding this signal high will continuously ramp up the level.
Level_Down	D	Pulse to lower level by the amount indicated in the 'Level_Step' parameter. Holding this signal high will continuously ramp down the level.
New_Level_Percent	A	Set to the desired level percentage of the specified control. Valid values include 0 to 65535 representing 0% to 100% where 0% is the value of the Lower_Limit parameter and 100% is the value of the Upper_Limit parameter.
Set_New_Level_Percent	D	Pulse to push to new level percentage value of the New_Level_Percent signal to the EX Series device.
New_Level_dB	A	Set to the desired decibel value of the specified control. The valid range is the range set with the Upper_Limit and Lower_Limit parameters. This is a signed integer value.
Set_New_Level_dB	D	Pulse to push to new level decibel value of the New_Level_dB signal to the EX Series device.
Enable	D	Latch high to enable this component.

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FEEDBACK:

Is_Initialized	D	Indicates the module is registered to the command processor and is synchronized with current device state when the signal is high, or not synchronized with current device state when the signal is low.
Volume_Level_Percent	A	Indicates current volume level as a percentage in relation to the Upper_Limit and Lower_Limit parameters.
Volume_Level_dB	A	Indicates the current volume level in decibels.
Is_Quarantined	D	Indicates that there was a problem getting this component initialized due to a configuration issue when the signal is high, or that no initialization issue occurred when the signal is low. A quarantined component will not prevent the command processor or other components from getting initialized.

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TESTING:

OPS USED FOR TESTING:	CP3 1.8001.4666.20418 MC4 2.8000.00017
SIMPL WINDOWS USED FOR TESTING:	4.2000.00
CRES DB USED FOR TESTING:	216.0500.002.00
DEVICE DATABASE:	200.24500.001.00
SYMBOL LIBRARY USED FOR TESTING:	1180
SAMPLE PROGRAM:	Bose EX Series v3.2 IP Demo.smw Bose EX Series v3.2 RS232 Demo.smw
REVISION HISTORY:	v3.0 – Initial Release v3.1 – Fixed bug with multiple modules controlling level and mute attributes of multiple ControlSpace blocks. v3.2 – No updates have been performed.

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