

**Partner: Clearone**  
**Model: ConvergePro2**  
**Device Type: Digital Signal Processor**



## GENERAL INFORMATION

<b>SIMPLWINDOWS NAME:</b>	Clearone ConvergePro2 Crosspoint Control v1.2
<b>CATEGORY:</b>	Mixer
<b>VERSION:</b>	1.2
<b>SUMMARY:</b>	This module controls the MT protocol command, is used to control a single cross point on the DSP Matrix. Provide as many of these as you need for each cross point needed to control.
<b>GENERAL NOTES:</b>	
<b>CRESTRON HARDWARE REQUIRED:</b>	3-series processor <b><u>only</u></b>
<b>SETUP OF CRESTRON HARDWARE:</b>	This module requires the "Clearone ConvergePro2 Command Processor IP v1.2" or the "Clearone ConvergePro2 Command Processor RS232 v1.2" modules in order to operate. Please read the help files associated with these modules.
<b>VENDOR FIRMWARE:</b>	v5.0.35.0

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**PARAMETER:**

<b>Command_Processor_ID</b>	Setting to indicate the ID for the command processor that this module will register itself with.
<b>Input_Channel_Name</b>	You must use the DSP Control Points "Named" Value vs the EPT/EPN values. <b>Correct Example: "Mic-01" or "VoIP_1_Rx".</b>
<b>Output_Channel_Name</b>	You must use the DSP Control Points "Named" Value vs the EPT/EPN values. <b>Correct Example: "Voip_1_Tx" or "Speakers".</b>
<b>Crosspoint_Type</b>	The cross point type is used to determine how you need the cross point routed. <b>Crosspoint (Non-Mics)</b> <b>Gated (Mics Only)</b> <b>Non-Gated (Mics Only)</b> <b>Pre-AEC (Mics Only)</b> <b>Pick which is applicable for your input.</b>
<b>Attenuation_Step</b>	Up/Down Ramp db value selection.

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## CONTROL:

Poll	D	Pulse to poll for the current value.
Attenuation_Up, Attenuation_Down	D	<p>Press and hold to adjust the attenuation level. Use the parameter "Attenuation_Step" value.</p> <p><i>Increasing the value of the Attenuation_Step will speed up how long it takes to get at the limits.</i></p> <p><i>Setting the Attenuation level will automatically route the cross point.</i></p>
AttenuationDB_Value	A	<p>Sets the value to be set using <b>Set_AttenuationDB</b>. If the digital signal <b>Set_AttenuationDB</b> is high when this value changes, the module will automatically send the new value. The value will be validated prior to sending to insure this value falls in the correct range. This is a <u>signed dB level</u>. Valid ranges are the Max Level or Min Level settings set inside your Clearone ConvergePro2 programming.</p> <p>Note: A debounce value of 300ms has been added preventing this value to be reset to quickly, thus safe guarding communication queues. DO NOT BYPASS.</p> <p>Note: this input is not designed to be used with a Ramp symbol in SIMPL Windows. It is only designed to be used for preset levels and SMART Graphic Sliders.</p> <p><i>Setting the Attenuation level will automatically route the cross point.</i></p>
Set_AttenuationDB	D	<p>Pulse to send the gain entered in the <b>GainDB_Value</b> input. This will allow preset values to be sent to the Clearone ConvergePro2.</p> <p><i>When using SMART Graphic Sliders, tie the digital press join to this signal.</i></p> <p><i>Setting the Attenuation level will automatically route the cross point.</i></p>
AttenuationPercent_Value	A	<p>Sets the value to be set using <b>Set_AttenuationPercent</b>. If the digital signal <b>Set_AttenuationPercent</b> is high when this value changes, the module will automatically send the new value. The value will be validated prior to sending to insure this value falls in the correct range. This is an <u>unsigned level</u>.</p> <p>Note: A debounce value of 300ms has been added preventing this value to be reset to quickly, thus safe guarding communication queues. DO NOT BYPASS.</p> <p>Note: this input is not designed to be used with a Ramp symbol in SIMPL Windows. It is only designed to be used for preset levels and SMART Graphic Sliders.</p> <p>Value Range: 0d-65535d</p> <p><i>Setting the Attenuation level will automatically route the cross point.</i></p>
Set_AttenuationPercent	D	<p>Pulse to send the gain entered in the <b>AttenuationPercent_Value</b> input. This will allow preset values to be sent to the Clearone.</p> <p><i>When using SMART Graphic Sliders, tie the digital press join to this signal.</i></p> <p><i>Setting the Attenuation level will automatically route the cross point.</i></p>

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**CONTROL** *continued:*

<b>Crosspoint_On</b>	D	Pulse to route or unmute cross point. If not routed, will route based on the cross point type. If already routed will unmute the cross point, if muted.
<b>Crosspoint_Off</b>	D	Pulse to mute the cross point. If not routed, will route based on the cross point type and mute the cross point.
<b>Crosspoint_Toggle</b>	D	Pulse to toggle the mute on the cross point.
<b>Crosspoint_Clear</b>	D	Pulse to un-route and clear the cross point with zero db attenuation.

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**FEEDBACK:**

<b>Is_Initialized</b>	D	Signal is high to indicate the module has successfully received all required responses from its initializing queries.
<b>AttenuationDB_FB</b>	A	Analog attenuation db level value. This is the signed dB level.
<b>AttenuationPercent_FB</b>	A	Analog attenuation db value. This is the scaled unsigned level based on the Min/Max range for the level. Value Range: 0d-65535d
<b>Crosspoint_On_FB</b>	D	Mute On Status
<b>Crosspoint_Off_FB</b>	D	Mute Off Status

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**TESTING:**

<b>OPS USED FOR TESTING:</b>	CP3: v1.503.0016
<b>SIMPL WINDOWS USED FOR TESTING:</b>	4.09.04
<b>CRES DB USED FOR TESTING:</b>	66.06.003.00
<b>DEVICE DATABASE:</b>	92.00.002.00
<b>SYMBOL LIBRARY USED FOR TESTING:</b>	1055
<b>SAMPLE PROGRAM:</b>	Clearone ConvergePro2 v1.2 IP Demo Clearone ConvergePro2 v1.2 RS232 Demo
<b>REVISION HISTORY:</b>	v1.0 – Initial Release v1.1 – No revisions have been made to this module. v1.2 – No revisions have been made to this module.