

Partner: Cisco  
 Model: SX80  
 Device Type: Video Conference



**GENERAL INFORMATION**

<b>SIMPLWINDOWS NAME:</b>	Cisco SX80
<b>CATEGORY:</b>	Conferencing
<b>VERSION:</b>	1.2
<b>SUMMARY:</b>	This module will control the Cisco SX80 video codec via RS232.
<b>GENERAL NOTES:</b>	<p>This module will control the Cisco SX80 video codec. It was tested with the SX80. It should also control the MX200 G2, MX300 G2, MX700 and MX800. It also provides true feedback. Not all functions are available on all models. Also, some functions may require the installation of option keys. For more information on the options please contact Cisco.</p> <p>Note that you do not have the ability to store presets on the far end system. To store a preset on the near end system, press and hold the desired preset button for 2 seconds. The Near_End_Camera_Preset_Stored output will pulse, and the preset will be saved.</p> <p>For presentations, you have the ability to select any near end video source for transmission. For far end control, you can select any of the far end video sources.</p> <p>For manual dialing, you have the ability to select from any of the available call qualities. You also have the ability to designate what type of call to place (H323/SIP/H320).</p> <p>For phone book dialing, you have the ability to dial any of the entries that have been entered into the Cisco local and corporate directories.</p> <p>The phone book will be downloaded into the Crestron processor all at once and stored. This will be done upon system initialization. It is recommended that the phone book is downloaded each night to make sure all updates have been read into the Crestron processor. It is possible that some of the phone book entries may be folders. There are outputs on the module that indicate if the selected entry is a folder. Once you are inside a folder, you can use the Phone_Book_Up_One_Level input to move back to the previous phone book level. There is an output called Phone_Book_Names_XSIG. This serial output is intended to be routed to an Intersystem Communications symbol (Speed Key: XSIG). There should be 255 serial outputs on the XSIG symbol in your program. This allows the phone book to be displayed using a Vertical Button List Smart Graphic object. The other two signals needed are Phone_Book_Selected_Entry_In to be routed from the Item_Clicked output on the Vertical Button List object symbol and Phone_Book_Total_Rows_Value to be routed to the Set_Num_of_Items input on the Vertical Button List symbol. A folder will be indicated by the addition of "[+]" in front of the name of the entry.</p> <p>This module is <b>NOT</b> System Builder compatible. It is for use in 2-series and higher Crestron processors.</p>
<b>CRESTRON HARDWARE REQUIRED:</b>	C2I-*COM*, ST-COM, C2-COM-*
<b>SETUP OF CRESTRON HARDWARE:</b>	RS232 Baud: 115200 Parity: None Data Bits: 8 Stop Bits: 1



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**CONTROL:**

Control_Near_End_Camera_<1...7>	D	Pulse to select the near end camera to control.
<Near/Far>_End_Camera_Tilt_<Up/Down>	D	Press and hold to tilt the near or far end camera up or down.
<Near/Far>_End_Camera_Pan_<Left/Right>	D	Press and hold to pan the near or far end camera left or right.
<Near/Far>_End_Camera_Zoom_<In/Out>	D	Press and hold to zoom the near or far end camera in and out.
Near_End_Camera_Focus_<Near/Far>	D	Press and hold to adjust the focus of the near end camera.
Near_End_Camera_Start_Auto_Focus	D	Pulse to trigger auto focus on the selected near end camera.
<Near/Far>_End_Camera_Preset_<1..15>	D	Pulse to move the near end camera to the desired preset. Press and hold to store the current near end camera position in the desired preset.
Near_End_Source_Input_<1...5>	D	Pulse to select the desired near end video input.
Near_End_Input_4_Connector_<DVI/S-Video>	D	Pulse to select the desired connector for input 4.
Near_End_Presentation_<Local_Only/Local_+_Remote/Toggle>	D	Pulse to set the presentation mode to local only or local + Remote.
Near_End_Presentation_Source_Input_<1...4>	D	Pulse to start sending the desired near end presentation source to the far end.
Near_End_Presentation_Stop	D	Pulse to stop sending the near end presentation source to the far end.
Far_End_Presentation_Source_Input_<1...15>	D	Pulse to select the far end presentation source to be sent to the near end.
Far_End_Presentation_Stop	D	Pulse to stop the far end from sending the presentation source to the near end.
Volume_Level_In	A	Analog input to allow preset volume levels be sent to the Cisco. Valid Range is 1d to 100d.
Volume_<Up/Down>	D	Press and hold to adjust the volume level.
Volume_Mute_<On/Off/Toggle>	D	Pulse to turn the volume mute on and off.
Microphones_Mute_<On/Off/Toggle>	D	Pulse to turn the near end microphone mute on and off.
Incoming_Call_<Answer/Reject>	D	Pulse to answer or reject the incoming call.
Dial_Numebr_In	S	Serial input for the end point number to be dialed.
Call_Type_<H320/H323/SIP/Default>	D	Pulse to select the call type.

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Call_Speed_<1...5>	D	Pulse to select the desired call speed. The call speeds are set using the Call Speed <1...5> parameter fields.
Call_<Audio_Only/Video/Default>	D	Pulse to select the desired call.
Dial	D	Pulse to dial the end point address entered using the Dial_Number_In input.
Hang_Up_All_Calls	D	Pulse to hang up all connected calls.
Hang_Up_Call_<1/2/3>	D	Pulse to hang up individual connected calls.
Phone_Book_<Local/Corporate>	D	Pulse to select the local or corporate phone book for download.
Get_Phone_Book	D	Pulse to download the desired phone book to the Crestron processor. Crestron recommends using the When symbol in SIMPL to do this every night. See the demo program for an example of how to do this.
Phone_Book_Search_Text_In`	S	Serial input to allow searching the phone book.
Phonebook_<Up_One/Top>_Level	D	Pulse to go up one level from a folder or the go to the top level of the phonebook.
Phone_Book_Selected_Entry_In	A	Analog input to be routed from the Item Clicked output of a Vertical Button List Smart Graphic symbol.
Phone_Book_Clear_Selected_Item	D	Pulse to clear the selected phone book entry.
Phonebook_Dial	D	Pulse to dial the selected phonebook entry.
Select_Call_<1/2/3>_For_Control	D	Pulse to select the call for the DTMF tones to be sent to.
DTMF_Key_<01/2/3/4/5/6/7/8/9/*/#>	D	Pulse to enter the DTMF tones.
<Activate/Deactivate>_Standby	D	Pulse to send the codec into standby or wake the codec up from standby.
Auto_Answer_<On/Off/Toggle>	D	Pulse to turn auto answer on and off.
Mute_Microphones_When_Call_Auto_Answered_<On/Off/Toggle>	D	Pulse to turn the on and off microphone mute when a call is auto answered.
Encryption_<On/Off/Best_Effort>	D	Pulse to set the encryption mode.
Far_End_Control_Of_Near_End_Cameras_<On/Off/Toggle>	D	Pulse to enable or disable far end control of the near end camera.
Do_Not_Disturb_<On/Off/Toggle>	D	Pulse to turn do not disturb on and off.
User_Interface_OSD_Output_Video_<1/2/3/4/Auto>	D	Pulse to select the video output for the on screen display to appear on.

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Selfview_<On/Off/Toggle>	D	Pulse to turn the self-view on and off.
Selfview_Fullscreen_<On/Off/Toggle>	D	Pulse to turn selfview full screen mode on and off.
Selfview_PIP_Position_*	D	Pulse to set the position of the selfview pip window.
Selfview_On_Monitor_<1/2/3/4>	D	Pulse to set the monitor output for the selfview.
Input_4_DVI_Input_Signal_Type_*	D	Pulse to set the input signal type for the input 4 DVI connector.
Input_4_S-Video_Input_Signal_Type_*	D	Pulse to set the input signal type for the input 4 S-Video connector.
From_Device	S	Serial signal to be routed from the [rx\$] output of a 2-way serial com port symbol.

### FEEDBACK:

Near_End_Camera_<1...7>_Is_Selected_For_Control	D	High to indicate the near end camera currently being controlled.
Near_End_Camera_Preset_Stored	D	Pulses high for 3.0 seconds when a near camera preset has been stored.
Near_End_Source_Input_<1/2/3/4>_Is_Selected	D	High to indicate the currently selected near end video input.
Near_End_Input_4_Connector_<DVI/S-Video>_Is_Selected	D	High to indicate the selected connector for input 4.
Near_End_Presentation_Is_<Local_Only/Local_+_Remote>	D	High to indicate the presentation mode.
Near_End_Presentation_Source_Input_Is_<1/2/3/4/Stopped>	D	High to indicate the currently selected near end presentation source.
Volume_Level_Gauge	A	Analog output indicating the current volume level.
Volume_Mute_Is_<On/Off>	D	High to indicate the current volume mute state.
Microphones_Mute_Is_<On/Off>	D	High to indicate the current microphone mute state.
There_Is_An_Incoming_Call	D	High to indicate that there is an incoming call.
Incoming_Call_<Remote_Number/Display_Name/Call_Type>_Text	S	Serial output indicating the number, name and call type of the incoming call.
Call_Type_Is_<H320/H323/SIP/Default>	D	High to indicate the currently selected call type.
Call_Speed_<1/2/3/4/5>_Is_Selected	D	High to indicate the selected call speed.
Call_<Audio_Only/Video/Default>_Is_Selected	D	High to indicate the currently selected call quality.

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<b>Number_Of_Connected_Calls_Value</b>	A	Analog output indicating the number of active calls that are connected.
<b>Call_&lt;1/2/3&gt;_Is_Connected</b>	D	High to indicate which call(s) are connected.
<b>Call_&lt;1/2/3&gt;_Display_Name_Text</b>	S	Serial output indicating the far end name of the connected call(s).
<b>Call_&lt;1/2/3&gt;_Display_Number_Text</b>	S	Serial output indicating the far end number of the connected call(s).
<b>Call_&lt;1/2/3&gt;_Call_Status_Text</b>	S	Serial output indicating the call status text for the connected call(s).
<b>Call_&lt;1/2/3&gt;_Call_Type_Text</b>	S	Serial output indicating the call type for the call(s). Possible call types are Video, Audio, AudioCanEscalate, ForwardAllCall and Unknown.
<b>Phone_Book_Is_&lt;Local/Corporate&gt;</b>	D	High to indicate the phone book currently in use.
<b>Get_Phone_Book_Is_Busy</b>	D	High to indicate that the phone book is being downloaded.
<b>Phone_Book_Search_Is_Busy</b>	D	High to indicate that the module is busy searching the phone book.
<b>Phone_Book_Is_On_Top_Level</b>	D	High to indicate that the phone book is at the top level.
<b>Phone_Book_Total_Rows_Value</b>	A	Analog output indicating the number items in the phone book. This is for use with the Vertical Button List Smart Graphic object. It should be routed to the Set_Num of Items input on the Vertical Button List symbol. See the demo program for an example of to do this.
<b>Phone_Book_Folder_Name_Text</b>	S	Serial signal indicating the name of the currently selected folder. Top level will be either Local or Corporate.
<b>Phone_Book_Entry_XSIG</b>	S	Serial output to be routed to the rx\$ input on an Intersystem Communication (Speed Name: XSIG) symbol. The XSIG symbol should have 255 serial outputs. See the demo program for an example of to do this.
<b>Phone_Book_Selected_Item_&lt;Name/Number&gt;_Text</b>	S	Serial signals indicating the name and number of the selected entry.
<b>Phone_Book_Selected_Item_Is_Contact</b>	D	High to indicate that the selected phone book entry is a contact.
<b>Call_&lt;1/2/3&gt;_Is_Selected_For_Control</b>	D	High to indicate which call the DTMF tones will be sent to.
<b>Standby_Is_&lt;Active/Deactivated&gt;</b>	D	High to indicate the current standby status.
<b>Auto_Answer_Is_&lt;On/Off&gt;</b>	D	High to indicate the auto answer status.
<b>Mute_Microphones_When_Call_Auto_Answered_Is_&lt;On/Off&gt;</b>	D	High to indicate the microphone mute when a call is auto answered status.
<b>Encryption_Mode_Is_&lt;On/Off/Best_Effort&gt;</b>	D	High to indicate the currently selected encryption mode.

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Far_End_Control_Of_Near_End_Cameras_Is_<On/Off>	D	High to indicate whether far end control of the near end camera is enabled or disabled.
Do_Not_Disturb_Is_<On/Off>	D	High to indicate the current do not disturb setting.
User_Interface_OSD_Output_Is_Video_<1/2/3/4/Auto>	D	High to indicate which display output the on screen display will appear on.
Selfview_Is_<On/Off>	D	High to indicate the current self-view status.
Selfview_Fullscreen_Is_<On/Off>	D	High to indicate the selfview full screen setting
Selfview_PIP_Position_Is_*	D	High to indicate the current selfview pip position.
Selfview_Is_On_Monitor_<1/2/3/4>	D	High to indicate the monitor output that selfview will be displayed on.
Input_4_DVI_Input_Signal_Type_Is_*	D	High to indicate the current input 4 DVI signal type.
Input_4_S-Video_Input_Signal_Type_Is_*	D	High to indicate the current input 4 S-Video signal type.
To_Device	S	Serial output to be routed to the TX\$ input of a TCP/IP Client or to the [tx\$] input of a 2-way serial com port symbol.

## TESTING:

OPS USED FOR TESTING:	CP3: 1.010.0060 DMPS-300-C: 4.007.0032
SIMPL WINDOWS USED FOR TESTING:	4.02.53
DEVICE DB USED FOR TESTING:	60.00.001.00
CRES DB USED FOR TESTING:	47.05.002.01
SYMBOL LIBRARY USED FOR TESTING:	906
SAMPLE PROGRAM:	Cisco SX80 v1.2 Demo
REVISION HISTORY:	v1.0 – Initial Release v1.2 – Several fixes <ol style="list-style-type: none"> <li>1) Fixed an issue with the near end camera preset commands.</li> <li>2) Fixed an issue with selecting the incorrect dialing protocol when dial a phone book entry.</li> <li>3) Fixed an issue with connected call digital outputs.</li> <li>4) Removed the IR Emulation commands. It is not possible to use the IR Emulation to control the SX80 as with past Cisco codecs.</li> </ol>