

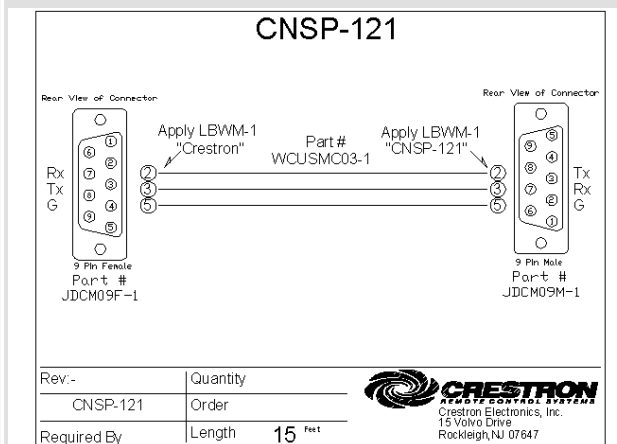
Partner: Elium
 Model: HRC & IRD
 Device Type: TV Tuner



GENERAL INFORMATION:

SIMPLWINDOWS NAME:	ELIUM IRD and HCR module
CATEGORY:	Device Interface
VERSION:	v2.1
SUMMARY:	This macro handles the communication between the Elium satellite receiver and the Crestron processor.
GENERAL NOTES:	This macro handles the communication between the Elium satellite receiver and the Crestron processor. The macro owns the 3 prior functions of the satellite receiver: TV control, Radio Control and MovieNet control.
CRESTRON HARDWARE REQUIRED:	2- and 3-series processor
SETUP OF CRESTRON HARDWARE:	RS232 Baud: 115200 Parity: N Data Bits: 8 Stop Bits: 1
VENDOR FIRMWARE:	MCU Firmware: V1.04 U-Boot: V1.03 IRD: V1.01.42
VENDOR SETUP:	Elium CI-Sat Elium Esata

CABLE DIAGRAM:





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CONTROL:

Turn_Power_On	D	Pulse to turn unit on.
Turn_Power_Off	D	Pulse to turn unit off.
Get_Unit_Status	D	Pulse to poll for the status of the unit (ON/OFF).
Select_Radio_Mode	D	Pulse to switch the unit to Radio mode.
Select_TV_Mode	D	Pulse to switch the unit to TV mode.
Get_Current_Mode	D	Pulse to poll for the current unit mode (Radio/TV).
Teletext_ON	D	Pulse to activate Teletext mode.
Teletext_OFF	D	Pulse to deactivate Teletext mode.
Get_Teletext_Status	D	Pulse to poll for the current Teletext mode (ON/OFF).
Get_Current_Temp	D	Pulse to poll for the current Temperature.
Volume_Up	D	Pulse to raise the volume (each pulse will increase the volume by 5%).
Volume_Down	D	Pulse to lower the volume (each pulse will decrease the volume by 5%).
Brightness_Up	D	Pulse to raise the brightness (each pulse will increase the brightness by 5%).
Brightness_Down	D	Pulse to lower the brightness (each pulse will decrease the brightness by 5%).
Contrast_Up	D	Pulse to raise the contrast (each pulse will increase the contrast by 5%).
Contrast_Down	D	Pulse to lower the contrast (each pulse will decrease the contrast by 5%).
Saturation_Up	D	Pulse to raise the saturation (each pulse will increase the saturation by 5%).
Saturation_Down	D	Pulse to lower the saturation (each pulse will decrease the saturation by 5%).
Pulse_Up	D	Pulse to go up.
Pulse_Down	D	Pulse to go down.
Pulse_Left	D	Pulse to go left.
Pulse_Right	D	Pulse to go right.

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Pulse_Menu	D	Pulse to open the menu.
Pulse_Ok	D	Pulse to select 'ok'.
Digit_X	D	Pulse to select digit x, range x: 0 to 9.
Enter	D	Pulse to select enter.
Channel_up	D	Pulse to raise the channel by one.
Channel_down	D	Pulse to lower the channel by one.
TV_Get_Nr_Channel	D	Pulse to retrieve the current TV channel number.
Get_Amount_Of_Channels	D	Pulse to retrieve the amount of channels.
Get_Program_Information	D	Pulse to retrieve the current program information.
Get_Current_Channel_Name	D	Pulse to retrieve the current channel name.
RADIO_Get_Nr_Channel	D	Pulse to retrieve the current Radio channel number.
movieNET_On	D	Pulse to turn on movieNET mode.
movieNET_Off	D	Pulse to turn off movieNET mode.
movieNET_Play	D	Pulse to start playing the selected movie when movieNET mode is active.
movieNET_Pauze	D	Pulse to the pause the selected movie when movieNET mode is active.
movieNET_2%Forward	D	Pulse to go 2%forward in movie when movieNET mode is active.
movieNET_2%Backward	D	Pulse to go 2%backward in movie when movieNET mode is active.
movieNET_Go_To_Start_Movie	D	Pulse to go the start of the movie when movieNET mode is active.
movieNET_Go_to_End_Movie	D	Pulse to go the end of the movie when movieNET mode is active.
movieNET_Go_to_Middle_Of_The_Movie	D	Pulse to go the middle of the movie when movieNET mode is active.
movieNET_Timeline	D	Pulse to activate/deactivate the timeline on the screen.
movieNET_Change_Timeline_Order	D	Pulse to change the timeline order.
Volume_Mute	D	Pulse to Mute the volume.

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Rec_On	D	Pulse to start recording.
Rec_Off	D	Pulse to Stop recording.
Program_Guide_On	D	Pulse to activate the program guide.
Program_Guide_Off	D	Pulse to deactivate the program guide.
Program_Guide_Select	D	Pulse to select the program guide.
Info_Program_On	D	Pulse to activate program info.
Info_Program_Off	D	Pulse to deactivate program info.
Poll_Unit	D	Pulse to poll the unit for status info. Keep high to poll the unit in regular intervals. The time between each interval is indicated by the "Pulse Time" parameter.
Volume	A	Analog input to set the volume.
Brightness	A	Analog input to set the brightness.
Contrast	A	Analog input to set the contrast.
Saturation	A	Analog input to set the saturation.
Rx	S	Serial signal that has to be connected to the [Rx\$] output of the C2COM serial driver symbol.

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FEEDBACK:

Unit_Status_fb	D	High to indicate that the unit is powered on.
Radio_Mode_Is_Selected	D	High to indicate that Radio mode is selected
TV_Mode_Is_Selected	D	High to indicate that TV mode is selected.
Teletext_Status_fb	D	High to indicate that Teletext mode is on.
Volume_Is_Muted	D	High to indicate that the volume level is muted
Unit_Is_Processing	D	High if there are more than 10 commands in the command queue to send to the Elium device. It is a safety so the Elium device can execute all the commands, without creating an overflow.
Current_Mode_Analog	A	Analog output indicating the current mode. 82 = Radio Mode, 84 = TV Mode.
Teletext_Page_Analog	A	Analog output indicating the teletext page.
Cooler_Temp_Analog	A	Analog output indicating the cooler temperature.
Volume_Analog	A	Analog output indicating the volume.
Brightness_Analog	A	Analog output indicating the brightness.
Contrast_Analog	A	Analog output indicating the contrast.
Saturation_Analog	A	Analog feedback signal that indicate the saturation.
Channel_Nr_Key_Analog	A	Analog output indicating the volume.
TV_Nr_Channels_Analog	A	Analog output indicating the TV Channel number.
TV_Amount_Of_Channels_Analog	A	Analog output indicating the amount of TV channels.
TV_Program_Duration_Analog	A	Analog output indicating the duration of the TV program.
RADIO_Amount_Of_Channels_Analog	A	Analog output indicating the amount of Radio channels.
RADIO_Nr_Channels_Analog	A	Analog output indicating the Radio channel number.
RADIO_Program_Duration_Analog	A	Analog output indicating the duration of the Radio program.
Tx	S	Serial signal that has to be connected to the [Tx\$] Input of the C2COM serial driver symbol.

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TV_Channel_Name_Text	S	Serial signal indicating the name of the TV channel.
TV_Program_Name_Text	S	Serial signal that indicates the name of the TV program.
RADIO_Channel_Name_Text	S	Serial signal that indicates the name of the Radio channel.
RADIO_Program_Name_Text	S	Serial signal that indicates the name of the Radio program.
Error_Message_Text	s	Serial signal that indicates the error message when there is a problem.

PARAMETERS:

Pulse Time	Sec.	Parameter indicating the time between two poll commands when the 'Poll_Unit' is held high.
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TESTING:

OPS USED FOR TESTING:	PRO2: 4.003.0015 MC3: 1.002.00
SIMPL WINDOWS USED FOR TESTING:	3.10.20
CRESTRON DB USED FOR TESTING:	29.02.103.00
DEVICE DB USED FOR TESTING:	39.00.005.00
SAMPLE PROGRAM:	Elium IRD & HCR Demo v2.1 Pro2 Elium IRD & HCR Demo v2.1 MC3
REVISION HISTORY:	V. 2.1