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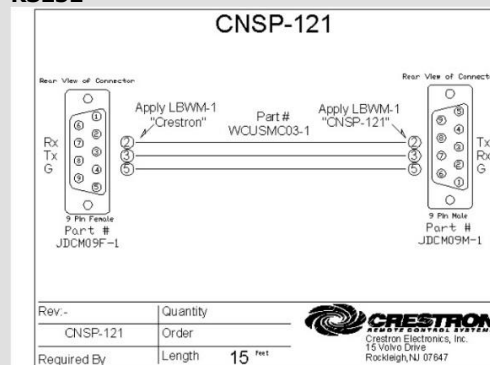# Device Type: TV Tuner

GENERAL INFORMATION:

SIMPLWINDOWS NAME:	ELIUM IRD and HCR module
CATEGORY:	Device Interface
VERSION:	v2.3
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 prior functions of the TV receiver: TV control, Radio Control, MovieNet control, OSD Messages, Multimedia Control and Reading Medialists.
CRESTRON HARDWARE REQUIRED:	2- and 3-series processor
SETUP OF CRESTRON HARDWARE:	**RS232** Baud: 115200 Parity: N Data Bits: 8 Stop Bits: 1 **TCP Connection(NET-RC Mode)** Network Adress of the Elium TV Receiver Default TCP Port: 26 TCP Port is configurable by the server side (IRD Receiver)
VENDOR FIRMWARE:	MCU Firmware: V2.06 U-Boot: V1.03 IRD: V1.01.97
VENDOR SETUP:	Elium IRD-HD 2082 Elium DVR 2090 eSata
CABLE DIAGRAM:	**RS232** **NET** RJ45

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

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.

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

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.
RMC_Red_Button	D	Pulse to push the Red Button.
RMC_Green_Button	D	Pulse to push the Green Button.
RMC_Yellow_Button	D	Pulse to push the Yellow Button.
RMC_Blue_Button	D	Pulse to push the Blue Button.
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.

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

movieNET _Change_Timeline_Order	D	Pulse to change the timeline order.
pictureNET_On	D	Pulse to turn on pictureNET mode.
pictureNET_Off	D	Pulse to turn off pictureNET mode.
pictureNET_1img_Forward	D	Pulse to go one image forward when pictureNET mode is active.
pictureNET_10img_Forward	D	Pulse to go ten images forward when pictureNET mode is active.
pictureNET_lastimg	D	Pulse to go to the last image when pictureNET mode is active.
pictureNET_1img_Backward	D	Pulse to go one image backward when pictureNET mode is active.
pictureNET_10img_Backward	D	Pulse to go ten images backward when pictureNET mode is active.
pictureNET_firstimg	D	Pulse to go to the first image when pictureNET mode is active.
pictureNET_show_OSD_infbar	D	Pulse to show the OSD Infobar when pictureNET mode is active.
pictureNET_activate_configuration_OSD_menu	D	Pulse to activate the Configaration OSD Menu when pictureNET mode is active.
pictureNET_start_Slideshow	D	Pulse to start the Diashow when pictureNET mode is active.
pictureNET_stop_Slideshow	D	Pulse to stop the Diashow when pictureNET mode is active.
Volume_Mute	D	Pulse to Mute the volume.
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.
Get_PVR_Medialist	D	Pulse to get PVR Medialist.
Get_Movie_Medialist	D	Pulse to get Movie Medialist.

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

Get_Audio_Medialist	D	Pulse to get Audio/Music Medialist.
Get_Picture_Medialist	D	Pulse to get Picture Medialist.
Medialist_Page_Up	D	Pulse to raise the Page of Medialist, to get the next Items(1 Sec. to change Page)
Medialist_Page_Down	D	Pulse to lower the Page of Medialist to get the last Items(1 Sec. to change Page)
Medialist_Entry_1_PUSH	D	Pulse to play the first Entry of the Medialist.
Medialist_Entry_2_PUSH	D	Pulse to play the second Entry of the Medialist.
Medialist_Entry_3_PUSH	D	Pulse to play the third Entry of the Medialist.
Medialist_Entry_4_PUSH	D	Pulse to play the fourth Entry of the Medialist.
Medialist_Entry_5_PUSH	D	Pulse to play the fifth Entry of the Medialist.
Medialist_Entry_6_PUSH	D	Pulse to play the sixth Entry of the Medialist.
Medialist_Entry_7_PUSH	D	Pulse to play the seventh Entry of the Medialist.
Medialist_Entry_8_PUSH	D	Pulse to play the eighth Entry of the Medialist.
Medialist_Entry_9_PUSH	D	Pulse to play the ninth Entry of the Medialist.
Medialist_Entry_10_PUSH	D	Pulse to play the tenth Entry of the Medialist.
Medialist_show_Program_Name	D	High to show the Programm Name in the PVR Medialist.
Medialist_show_Channel_Name	D	High to show the Channel Name in the PVR Medialist.
Medialist_show_Date	D	High to show the Date in the PVR Medialist.
Medialist_show_Time	D	High to show the Time in the PVR Medialist.
Medialist_show_full_Name	D	High to show the full file name in the PVR Medialist. If this Signal is high the other four Digital Signals to influence the name will do nothing.
Sort_Medialist	D	Pulse to sort the shown Medialist. In PVR Mode the list will be sort by the date and time. In the three other Modes the list will be sort by the first letter alphabetically.
Get_To_Page_1	D	Pulse to go to Page 1 in the Medialist.
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.

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

Msg_messagebox	S	Serial Signal to show this Serial as a Message with an "OK" Button on the OSD of the Elium Receiver.
Msg_popuphintbox	S	Serial Signal to show this Serial as a PopUp on the OSD of the Elium Receiver.
Rx	S	Serial signal that has to be connected to the [Rx$] output of the C2COM serial driver symbol.

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.

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

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.
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.
Medialist_mode	S	Serial Signal that indicates which Mode (PVR, MOVIE, MUSIC, PIC) is selected.
Medialist_Entry_1	S	Serial Signal that indicates the first Medialist Entry.
Medialist_Entry_2	S	Serial Signal that indicates the second Medialist Entry.
Medialist_Entry_3	S	Serial Signal that indicates the third Medialist Entry.
Medialist_Entry_4	S	Serial Signal that indicates the fourth Medialist Entry.
Medialist_Entry_5	S	Serial Signal that indicates the fivth Medialist Entry.
Medialist_Entry_6	S	Serial Signal that indicates the sixth Medialist Entry.
Medialist_Entry_7	S	Serial Signal that indicates the seventh Medialist Entry.
Medialist_Entry_8	S	Serial Signal that indicates the eight Medialist Entry.
Medialist_Entry_9	S	Serial Signal that indicates the ninth Medialist Entry.
Medialist_Entry_10	S	Serial Signal that indicates the tenth Medialist Entry.
Error_Message_Text	S	Serial signal that indicates the error message when there is a problem.

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

PARAMETERS:

Pulse Time	Sec.	Parameter indicating the time between two poll commands when the 'Poll_Unit' is held high.
Medialist List Length	A	Analog signal that indicates how many list items or buttons are used. (Maximum 10 Items)

TESTING:

OPS USED FOR TESTING:	MC3: 1.007.0019
SIMPL WINDOWS USED FOR TESTING:	4.0.2
CRESTRON DB USED FOR TESTING:	41.01.005
DEVICE DB USED FOR TESTING:	51.07.005
SAMPLE PROGRAM:	Elium IRD & HCR Demo v2.3 Pro2 Elium IRD & HCR Demo v2.3 MC3
REVISION HISTORY:	v2.1: Added Features: Medialists, PictureNET Control, OSD Messages v2.2: Bug fixes v2.3: Changed #DEFAULT_NONVOLATILE to #DEFAULT_VOLATILE in SIMPL+ Module