

**Partner: Planar**  
**Model: UltraLux Series**  
**Device Type: LCD Display**



**GENERAL INFORMATION**

<b>SIMPLWINDOWS NAME:</b>	Planar UltraLux Series RS232 v1.1
<b>CATEGORY:</b>	TV/Video Projector
<b>VERSION:</b>	1.1
<b>SUMMARY:</b>	This module controls RS232 communication with the Planar UltraLux Series monitors.
<b>GENERAL NOTES:</b>	<p>Per the protocol documentation and verification during testing, the monitor may not respond with accurate mute status when queried. This is a known bug. Until this issue is resolved in a monitor firmware update, it is recommended that the programmer set the volume manually to 0 in order to simulate mute, rather than using the module's mute signal.</p> <p>"Auto scan" should be turned off in order for module to operate properly and provide accurate feedback.</p> <p>If input is switched to a source where no sync is detected, the monitor will enter standby mode (similar to shutdown) after 12 seconds. This is a feature of the monitor and cannot be disabled.</p> <p>It has been noticed during module development that it takes between 1 – 3 seconds for the monitor to respond to a command. As such, there is a delay of 1 – 3 seconds for accurate feedback following any command.</p> <p>Due to the manner in which the monitor handles input selection, it is recommended that the programmer turn on the monitor and wait for feedback that it is on prior to selecting inputs. If an input is selected before the monitor is turned on, the monitor may report an incorrect input as current.</p> <p>It has also been noticed during module development that, after selecting an input, the monitor may sometimes report that the selected input is current and then, after a poll, report that a different input is current (even if no other command has been sent to change the input). This most often seems to occur when selecting inputs where no sync is detected. As such, it is highly recommended that only inputs that currently have sync detected be selected.</p> <p>Per the protocol manual, the current version of monitor firmware may report incorrect mute status. Until this issue is resolved, it is recommended that the direct mute control and feedback not be utilized but that volume be set to 0 when muting is desired.</p>
<b>CRESTRON HARDWARE REQUIRED:</b>	<p>Crestron 2-Series* or 3-Series processor.</p> <p><i>*this module is set up to work with a 2-Series processor but has not been tested with one as of this writing.</i></p>

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<b>SETUP OF CRESTRON HARDWARE:</b>	RS232: Baud: 19200 Parity: None Data Bits: 8 Stop Bits: 1 Flow Control: None
<b>VENDOR FIRMWARE:</b>	N/A
<b>VENDOR SETUP:</b>	N/A

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**PARAMETER:**

<b>Volume_Step_Size</b>	Setting to indicate the single step amount to increment/decrement the volume.
<b>Backlight_Step_Size</b>	Setting to indicate the single step amount to increment/decrement the backlight.

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**CONTROL:**

<b>Connect</b>	D	Pulse to establish communication with the monitor.
<b>Disconnect</b>	D	Pulse to break communication with the monitor.
<b>Reinitialize</b>	D	Pulse to re-establish communication with the monitor. Pulsing this signal is the equivalent of pulsing Disconnect followed by Connect.
<b>Power_On</b>	D	Pulse to turn on the monitor.
<b>Power_Off</b>	D	Pulse to turn off the monitor.
<b>Power_Toggle</b>	D	Pulse to toggle the power status of the monitor.
<b>Volume_Up</b>	D	Pulse to raise the volume of the monitor by 1 step. Hold to raise the volume of the monitor in 1 step increments until released. The volume will be raised by the amount assigned to the parameter "Volume_Step_Size".
<b>Volume_Down</b>	D	Pulse to lower the volume of the monitor by 1 step. Hold to lower the volume of the monitor in 1 step increments until released. The volume will be lowered by the amount assigned to the parameter "Volume_Step_Size".
<b>Volume_Set</b>	A	Set the volume level of the monitor.
<b>Volume_Mute_On</b>	D	Pulse to mute the volume of the monitor.
<b>Volume_Mute_Off</b>	D	Pulse to unmute the volume of the monitor.
<b>Volume_Mute_Toggle</b>	D	Pulse to toggle the volume mute status of the monitor.
<b>Auto_Scan_On</b>	D	Pulse to turn on auto scan.
<b>Auto_Scan_Off</b>	D	Pulse to turn off auto scan.
<b>Auto_Scan_Toggle</b>	D	Pulse to toggle the auto scan status of the monitor.
<b>Input_[X]</b>	D	Pulse to switch the current input on the monitor to [X].
<b>Input_Cycle</b>	D	Pulse to cycle to the next input of the monitor.

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**CONTROL *continued:***

<b>Backlight_Up</b>	D	Pulse to raise the backlight of the monitor by 1 step. Hold to raise the backlight of the monitor in 1 step increments until released. The backlight will be raised by the amount assigned to the parameter "Backlight_Step_Size".
<b>Backlight_Down</b>	D	Pulse to lower the backlight of the monitor by 1 step. Hold to lower the backlight of the monitor in 1 step increments until released. The backlight will be lowered by the amount assigned to the parameter "Backlight_Step_Size".
<b>Backlight_Set</b>	A	Set the backlight level of the monitor.
<b>Poll_Enable</b>	D	Latch high to enable polling the monitor for the status of all relevant attributes. Unlatch to turn off polling.  <i>Note: the monitor does not provide unsolicited feedback. Enabling polling is highly recommended for accurate and up-to-date feedback.</i>
<b>From_Device</b>	S	Serial signal to be routed from a 2-way COM port.

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**FEEDBACK:**

<b>Is_Communicating</b>	D	High to indicate that communication has been established with the device. Once communication has been established, the module will attempt to initialize automatically.
<b>Is_Initialized</b>	D	High to indicate that the module's internal state variables are now synced with the device's current state.
<b>Power_Is_On</b>	D	High to indicate the monitor is currently on.
<b>Volume_Level</b>	A	Value indicating the current volume level of the monitor.
<b>Volume_Is_Muted</b>	D	High to indicate the volume of the monitor is currently muted.
<b>Auto_Scan_Is_On</b>	D	High to indicate auto scan is currently on.
<b>Input_Is_[X]</b>	D	High to indicate the current input of the monitor is set to [X].
<b>Backlight_Level</b>	A	Value indicating the current backlight level of the monitor.
<b>Polling_Is_Enabled</b>	D	High to indicate the module is currently set to poll for device status.
<b>To_Device</b>	S	Serial signal to be routed to a 2-way COM port.

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**TESTING:**

<b>OPS USED FOR TESTING:</b>	RMC3: 1.011.0023
<b>SIMPL WINDOWS USED FOR TESTING:</b>	4.03.14.01
<b>CRES DB USED FOR TESTING:</b>	52.05.013.00
<b>DEVICE DATABASE:</b>	67.00.001.00
<b>SYMBOL LIBRARY USED FOR TESTING:</b>	956
<b>SAMPLE PROGRAM:</b>	Planar UltraLux Series Demo RS232 RMC3
<b>REVISION HISTORY:</b>	v1.0 – Initial Release v1.1 – Added Volume and Mute Control