MODULE NAME: CMS Display Interface
CATEGORY:

VERSON: 1.6a

SUMMARY:

GENERAL NOTES: This module has been designed to directly interface with the CMS Extron Router Parser v1.6 Module. To manually select an input, you must use an Analog Init Symbol:

1: Video
2: S-Video
3: Component
4: RGB
5: DVI

The module operates as follows:

Power On Sequence

Any input selection will power the device on. The "screen-down-relay" output will pulse.

If the "lift-delay" parameter value is 0s, the "power-on-232" output will pulse. If the "en-warming" input is enabled: After the "init-time" delay expires, "input-nnnn-232" will pulse.

Note: The display cannot be turned off during warm up.

If the "lift-delay" parameter is a value other than zero, the above sequence will occur AFTER the "lift-delay" time expires.

Power Off Sequence

The "power-off" input will turn the display device off. The "screen-up-relay" output will pulse.

If the "en-cooling" input is enabled: After the "cool-time" delay expires, the "lift-up-relay" output will pulse.

Note: the display cannot be turned on during cool down.

Manual Lift Controls

The "lift-up-button" input will turn the display off. If the display is already off and is NOT cooling, the input will pulse the "lift-up-relay" output based on the "lift-relay-pulse" parameter value.

The "lift-down-button" input will pulse the "lift-down-relay" output.

Display Mute

If the display is muted, selecting an input will un-mute the display, then select the input.

Input Descriptions:

Name	Type	Description
en-macro	Digital	Latch to enable macro
en-cooling	Digital	Latch to enable cooling logic
en-warming	Digital	Latch to enable warming logic
power-on	Digital	Pulse to turn display on
power-off		
mute-tog	Digital	Pulse to toggle display mute
mute-on	Digital	Pulse to turn display mite on
mute-off	Digital	Pulse to turn display mute off
sel-input	Analog	Set value to select display input
lift-up-button	Digital	Pulse to manually raise the lift
lift-down-button	Digital	Pulse to manually lower the lift
screen-up-button	Digital	Pulse to manually raise the screen
screen-down-button	Digital	Pulse to manually lower the screen
external-nnnn-nn-fb	Digital	Latched signal from display interface module
display-nnnn-source$	Serial	Current source routed to display input. Connect to proper serial output of CMS Extron Router Parser module.

Output Descriptions:

Name	Type	Description
power-on-fb	Digital	Latched signal indicating display is on
power-off-fb	Digital	Latched signal indicating display is off
mute-on-fb	Digital	Latched signal indicating display mute is on
mute-off-fb	Digital	Latched signal indicating display mute is off
input-nnnn-fb	Digital	Latched signal indicating current display input
power-on-232	Digital	Pulsed signal used to turn display on
power-off-232	Digital	Pulsed signal used to turn display off
mute-on-232	Digital	Pulsed signal used to turn display mute on
mute-off-232	Digital	Pulsed signal used to turn display mute off
same-input-232	Digital	Pulsed signal used to select the same input on the display device regardless of what input was selected. Use when display is connected to an external scaler.
input-nnnn-232	Digital	Pulsed signal used to select display input
warming-fb	Digital	Latched signal active during display warm up. Based on "init-time" parameter
cooling-fb	Digital	Latched signal active during display cool down. Based on "cool-time" parameter
warming-bar	Analog	Ramping signal (0 – 65535) changes during display warm up
cooling-bar	Analog	Ramping signal (0 – 65535) changes during display cool down
lift-up-relay	Digital	Pulsed output used to raise display lift. Pulse length based on "lift-relay-pulse" parameter
lift-down-relay	Digital	Pulsed output used to lower display lift. Pulse length based on "lift-relay-pulse" parameter.
lift-busy-fb	Digital	Latched signal active while lift is moving. Active time based on "lift-delay" parameter value.
display-source$	Serial	Current source on display.

Parameter Descriptions:

Name	Type	Description
init-time	Parameter	Warm up time value (sec)
cool-time	Parameter	Cool down time value (sec)
en-warming	Parameter	Lift delay time value (sec). Time it takes for the lift to fully drop.
lift-relay-pulse	Parameter	Relay pulse length (sec)
screen-relay-pulse	Parameter	Relay pulse length (sec)