

Luxi Presenter TPR-150CR RS-232 commands

Rev 4.03

Daisy chain commands

Function	Command		Response		Notes	Factory default
	Local box	External host to MCU	Destination box	All other boxes		
System information commands						
Query system size		q	Max Tx=M¶ Max Rx=N¶ Me=Txm¶ or Me=Rxn¶			Handled locally at daisy chain FW from local device list
Unsolicited message when system status changes			Reset¶	Reset¶	Reset¶	Host to send "q" after receiving this "Reset" from the device; this happens after device detects any changes in the daisy-chain, or after daisy chain IC reboots and sync the UART port
Signal routing commands						
Send video and audio from source <u>m</u> to display <u>d</u>		<u>m</u> * <u>ns</u>	AV Tx <u>m</u> live¶ AV Rx <u>d</u> live¶	AV Tx <u>m</u> live¶ AV Rx <u>d</u> live¶	AV Tx <u>m</u> live¶ AV Rx <u>d</u> live¶	Any device can send, daisy chain req is sent to Txm and Rxn to create the video stream. The response is sent to all Tx and Rx boxes
Send video from source Tx <u>m</u> to all displays and audio from source Tx <u>m</u> to audio sinks on the Audio Sink Distribution List, same behavior for 'Show Me' button when pressed from Tx <u>m</u>		<u>m</u> *s	AV Tx <u>m</u> live¶	AV Tx <u>m</u> live¶	AV Tx <u>m</u> live¶	Any device can send, daisy chain req is sent to Txm to broadcast to all Rx. The response is sent to all Tx and Rx boxes. The next broadcast command will change the source but maintain the audio distribution list. The broadcast will be turned off by the next point to point route command in row 13.
Define devices Rx <u>n1</u> , <u>n2</u> , <u>n3</u> and <u>n4</u> to be on the Audio Sink Distribution List		<u>n1</u> , <u>n2</u> , <u>n3</u> , <u>n4</u> S	Audio Sink Rx <u>n1</u> , <u>n2</u> , <u>n3</u> , <u>n4</u> live¶	Audio Sink Rx <u>n1</u> , <u>n2</u> , <u>n3</u> , <u>n4</u> live¶	Audio Sink Rx <u>n1</u> , <u>n2</u> , <u>n3</u> , <u>n4</u> live¶	This list needs to be setup repeatedly at each Tx device locally. Use pass thru command in row 18 to send to each Tx one by one if setup is done from an external controller at one location. The MCU of each Tx will then send the command locally to the daisy chain IC. The current list will be replaced by the next (new) list command. If not defined, Rx1,Rx2,Rx3,Rx4 will be the default list. The response is send to all Tx and Rx boxes
Pass thru commands						
The external host connected to Presenter <u>x</u> sending to the external device connected to Presenter <u>y</u> to control the functions of that external device		<u>x</u> * <u>y</u> (xxxx)Q		xxxx		Add a leading "0" in front of any number associated with a Rx device to distinguish from the Tx number. Response send back to the host device. Maximum 25 characters in bracket
The external device connected to Presenter <u>y</u> sending the response back to the external host connected to Presenter <u>x</u>			rrrrr	rrrrr		Any message comes in to the RS-232 port on box <u>y</u> within 1 seconds from the command in row 19 is considered a response to command 19 and will be sent back to box <u>x</u> . MCU in box <u>y</u> will end the response reception mode when seeing 1st carriage return or 1s timer ending whichever happens first
The external host connected to Presenter <u>x</u> sending to Presenter <u>y</u> to control the functions of that Presenter		<u>x</u> * <u>y</u> (xxxx)Q				Add a leading "0" in front of any number associated with a Rx device to distinguish from the Tx number. Response send back to the host device
Presenter <u>y</u> sending response back to the external host connected to Presenter <u>x</u>			rrrrr			

All commands below are local commands when the control host is connected directly to the Presenter device
To control a Presenter device remotely, place the local commands and responses below into pass thru command in line 22

Product information commands

Query device part number	<u>p</u>	74-018-01¶			Numeric and dash only
Query rear PCB MCU firmware version	<u>P</u>	x.xx¶			Numeric only
Query front PCB MCU firmware version	<u>1P</u>	x.xx¶			Numeric only; local only, no pass thru
Query front PCB scaler firmware version	<u>2P</u>	x.xx¶			Numeric only; local only, no pass thru
Query front PCB splitter firmware version	<u>3P</u>	x.xx¶			Numeric only; local only, no pass thru
System information commands					
Query current live source and display	<u>s</u>	AV Txm live¶			

		AV Rxn live¶		If in AV broadcast mode (one source to all displays), no need for this response
Query current live audio sinks	S	Audio Sink Rxn1,n2,n3,n4 live¶		
EQ value reading	E	xx		Input EQ value reading

Factory default settings

Scaler commands

Reset command				
Reset to factory defaults	r	Txm reset		
Tx input selection commands				
Select local input x of Txm device	xs	Txm Input x live¶		From Txm device
Set auto sw on on Txm device	0s	Txm auto sw on¶		From Txm device
Query local input switch status	s	Txm Input x live¶ Auto sw on (or off)¶		From Txm device 2s (HDMI input)
Query local input signal status	100s	Input x, y, z, signal present¶		From Txm device
Defeat front panel switch from all functions	0A	Front panel Show Me off and input sw off¶		Front panel button no function; when pressed all LEDs fast blinking twice
Allow front panel switch Show Me selection and input switching	1A	Front panel Show Me on and input sw on¶		Front panel button 1st press activates "Show Me"; 2nd press and on to toggle among 3 inputs; if pressed and held for 7 seconds, all 3 LEDs blink twice and it goes to
Allow front panel switch Show Me selection but no input switching	2A	Front panel Show Me on but input sw off¶		Front panel button 1st press activates "Show Me"; 2nd press, the LED fast blinking 3 times; if press and hold for 7 seconds, the 3 LEDs blink twice, and it's now in 1A
Query front panel switch status	A	Front panel Show Me off (or on) and input sw off (or on)¶		2A (auto sw on, front panel Show Me on, input sw
Scaler commands				
Initiate auto image on Txm device	a	Txm auto image on¶		
Set output format to pixel to pixel on Txm device	0o	Txm output format pixel to pixel¶		From Txm device; Only supports 6 preset resolutions: 720p, 1080p, 1024x768, 1280x800, 1366x768, 1920x1200
Set output format to 720p on Txm device	1o	Txm output format 720p¶		1o (output 720p)
Set output format to 1080p on Txm device	2o	Txm output format 1080p¶		
Set output format to 1280x800 on Txm device	3o	Txm output format 1280x800¶		
Set output format to 1920x1200 on Txm device	4o	Txm output format 1920x1200p¶		
Set output format to 1024x768 on Txm device	5o	Output format 1024x768¶		
Set output format to 1280x1024 on Txm device	6o	Output format 1280x1024¶		
Set output format to 1600x1200 on Txm device	7o	Output format 1600x1200¶		
Query output format on Txm device	o	(One of the responses from cell C60 to C67)		
Set zoom level on Txm device	xz	Txm zoom level x¶		From Txm device; x has 6 possible values, 1 thru 6
Query zoom level on Txm device	z	Txm zoom level x¶		From Txm device
Video output commands				
Video mute	0m	Video mute on¶		Kill all video
Video off OSD off when no input	1m	Video off OSD off when no input¶		This would enable monitor sleep mode
OSD on when no input	2m	OSD on when no input¶		This would enable screen saver
OSD off in all conditions	3m	OSD off¶		2m (OSD on when no input)
Query video output mode	m	(One of the responses from cell C75 to C78)		
Audio commands				
Audio mute on	0M	Audio mute on¶		Both analog and HDMI audio muted
Digital audio pass thru	1M	Digital audio pass thru¶		HDMI/DP audio pass thru; 3.5 mm audio mixed with HDMI/DP audio to analog output
Audio mixing and embedding	2M	Audio mixing and embedding¶		3.5 mm audio mixed with HDMI/DP audio to both analog and HDMI outputs
3.5 mm audio with VGA only	3M	3.5 mm audio with VGA only¶		

Press and hold front panel switch for more than 7 seconds will toggle the auto sw on or off; LED fast blinking 3 or 2 times respectively; the Show Me function is always active unless

3.5 mm audio only	<i>4M</i>	3.5 mm audio only¶			3.5 mm audio is always active; all other audio muted in all inputs	
Query audio mode	<i>M</i>	(One of the responses from cell C79 to C83)				
Display power control commands						
Store display power on command xxx	<i>2{xxx}R</i>	Display power on command stored¶				
Erase display power on command	<i>2ØR</i>	Display power on command erased¶				
Query display power on command	<i>2R</i>	Display power on command is xxx¶				
Store display power off command yyy	<i>1{yyy}R</i>	Display power off command stored¶				
Erase display power off command	<i>1ØR</i>	Display power off command erased¶				
Query display power off command	<i>1R</i>	Display power off command is yyy¶				
Enable display power control and set power off delay to z minutes	<i>1*zR</i>	Display power control enabled¶ Display power off delay y minutes¶			z can be any number between 1 to 60	
Disable display power control	<i>ØR</i>	Display power control disabled¶				ØR (display power control disabled)
Query display power control status	<i>R</i>	Display power control enabled (or disabled)¶ Display power off delay y minutes¶			Only when the status is enabled	
		xxx	xxx		Sent out from the RS232 ports of local 150 Tx and Rx1 after projector control is enabled initially, and when the first signal detected after "yyy" sent	
		yyy	yyy		Sent out from the RS232 ports of local 150 Tx and Rx1 after no input signal detected for "z" minutes.	

Front PCB scaler firmware update	<i>2u</i>	Check monitor's OSD for status¶			Authorized engineers only	
Set RS-232 baud rate to 9600	<i>20u</i>	Baud rate 9600				20u (9600)
Set RS-232 baud rate to 19200	<i>21u</i>	Baud rate 19200				
Query RS-232 baud rate	<i>u</i>	Baud rate 9600 (or) Baud rate 19200				
Query the 13 digits monitor EDID value	<i>1E</i>	Monitor EDID xxx				Luxi TPR150CR
Set the 13 digits monitor EDID value	<i>1{xxx}E</i>	Monitor EDID xxx				
Erase the 13 digit monitor EDID value	<i>1ØE</i>	Monitor EDID erased				
Query the 3 digits vendor EDID value	<i>2E</i>	Monitor EDID xxx				Lux
Set the 3 digits vendor EDID value	<i>2{xxx}E</i>	Monitor EDID xxx				
Erase the 3 digit vendor EDID value	<i>2ØE</i>	Monitor EDID erased				

RS-232 baud rate and protocol **9600 or 19200 baud, 8 data bits, 1 stop bit, no parity**

Note: The italic and underlined letters represent decimal numeric numbers
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RS-232 port pin configurations

¶ is CR/LF (carriage return/line feed) (HEX value 0D 0A)