



4KMX42-H2A

4 x 2 4K HDMI Matrix Switcher

API Command Set

Version: V1.0.0

RS232 Default Setting

Parameters	Value
Baud Rate	115200 bps
Data bits	8 bits
Parity	None
Stop bits	1 bit
Flow control	None

Command

Take Command `SET SW in out<CR><LF>` as an example:

1. `[SET SW]` denotes command key words, case insensitive.
2. `[in out]` denotes parameters, case insensitive; incorrect parameters number will not be recognized.
3. `<CR><LF>` denotes a carriage return or a line feed; all commands must be ended up with a carriage return or a line feed.

IDX	Description	Command	Example
Normal switch case			
1	Switch Input for Output	<p>Command: SET SW <i>in out</i><CR><LF></p> <p>Return: SW <i>in out</i><CR><LF></p> <p>Parameter: <i>in</i> = {in1, in2, in3, in4}; <i>out</i> = {out1,out2};</p> <p>Description: SW is short for Switch Switch one input source for one output sink</p>	<p>Command: SET SW in1 out2<CR><LF></p> <p>Return: SW in1 out2<CR><LF></p> <p>Description: Switch input 1 for hdmi output 2</p>
2	Get which input mapping to the indicate Output	<p>Command: GET MP <i>out</i><CR><LF></p> <p>Return: Mp <i>in out</i><CR><LF></p> <p>Parameter: <i>in</i> = {in1, in2, in3, in4}; <i>out</i> = {out1,out2};</p> <p>Description: MP is short for mapping Get which input mapping to the indicate Output</p>	<p>Command: GET MP out1<CR><LF></p> <p>Return: MP in1 out1<CR><LF></p> <p>Description: Get which input mapping to output 1</p>

IDX	Description	Command	Example
3	Switch indicate input for all outputs	<p>Command: SET SW in all<CR><LF></p> <p>Return: SW in all <CR><LF></p> <p>Parameter: in = {in1, in2, in3, in4}; all = {all};</p> <p>Description: SW is short for Switch Switch one input source for all output sink</p>	<p>Command: SET SW in1 all <CR><LF></p> <p>Return: SW in1 all<CR><LF></p> <p>Description: Switch input1 for all output sink</p>
4	Get which output mapping to all input	<p>Command: GET MP all<CR><LF></p> <p>Return: MP in out<CR><LF> MP in out<CR><LF></p> <p>Parameter: in = {in1, in2, in3, in4}; all = {all};</p> <p>Description: MP is short for mapping Get which output mapping to all input</p>	<p>Command: GET MP all <CR><LF></p> <p>Return: MP in1 out1<CR><LF> MP in2 out2<CR><LF></p> <p>Description: Get which output mapping to all input</p>

IDX	Description	Command	Example
CEC Control			
5	Set CEC POWER ON/OFF	<p>Command: SET CEC_PWR <i>out prm</i><CR><LF></p> <p>Return: CEC_PWR <i>out prm</i><CR><LF></p> <p>Parameter: <i>prm</i> = {on, off} <i>out</i> = {out1, out2};</p> <p>Description: Set sink power on or off</p>	<p>Command: SET CEC_PWR out1 <i>on</i><CR><LF></p> <p>Return: CEC_PWR out1 <i>on</i><CR><LF></p> <p>Description: Set sink hdmi output 1 power on</p>
6	Set CEC AUTO POWER ON/OFF	<p>Command: SET AUTOCEC_FN <i>out prm</i><CR><LF></p> <p>Return: AUTOCEC_FN <i>out prm</i><CR><LF></p> <p>Parameter: <i>prm</i> = {on, off} <i>out</i> = {out1, out2};</p> <p>Description: Set sink auto power Function ON or OFF</p>	<p>Command: SET AUTOCEC_FN out1 <i>on</i><CR><LF></p> <p>Return: AUTOCEC_FN out1 <i>on</i><CR><LF></p> <p>Description: Set sink hdmi output 1 auto power ON</p>

IDX	Description	Command	Example
7	Get CEC AUTO POWER ON/OFF Status	<p>Command: GET AUTOCEC_FN <i>out</i><CR><LF></p> <p>Return: AUTOCEC_FN <i>out</i> <i>prm</i><CR><LF></p> <p>Parameter: <i>prm</i> = {on, off} <i>out</i> = {out1, out2};</p> <p>Description: Get Sink auto power Function ON or OFF Status.</p>	<p>Command: GET AUTOCEC_FN <i>out1</i><CR><LF></p> <p>Return: AUTOCEC_FN <i>out1 on</i></p> <p>Description: Get Sink auto power status, and the status is ON.</p>
8	Set CEC POWER Delay Time	<p>Command: SET AUTOCEC_D <i>out</i> <i>prm</i><CR><LF></p> <p>Return: AUTOCEC_D <i>out</i> <i>prm</i><CR><LF></p> <p>Parameter: <i>out</i> = {out1, out2}; <i>prm</i> = {1,2,3...} // according to the actual time counter, 1 means 1 minute ,2 means 2 minutes. Default wait time is 2 minutes, Max wait time is 30 minutes.</p> <p>Description: AUTOCEC_D is short for CEC auto Power Delay Timing</p>	<p>Command: SET AUTOCEC_D <i>out1</i> <i>2</i><CR><LF></p> <p>Return: AUTOCEC_D <i>out1</i> <i>2</i><CR><LF></p> <p>Description: when no active signal to hdmiout1, 2 minutes later, the unit will auto power off.</p>

IDX	Description	Command	Example
9	Get CEC POWER Delay Time Status	<p>Command: GET AUTOCEC_D <i>out</i> <CR><LF></p> <p>Return: AUTOCEC_D <i>out</i> <i>prm</i><CR><LF></p> <p>Parameter: <i>out</i> = {<i>out1</i>, <i>out2</i>}; <i>prm</i> = {1,2,3...} // according to the actual time counter, 1 means 1 minute, 2 means 2 minutes, Default wait time is 2 minutes, Max wait time is 30 minutes.</p> <p>Description: AUTOCEC_D is short for CEC auto Power Delay Timing</p>	<p>Command: GET AUTOCEC_D <i>out1</i> <CR><LF></p> <p>Return: AUTOCEC_D <i>out1 2</i> <CR><LF></p> <p>Description: Get <i>hdmiout1</i> auto power delay time, the result is 2 minutes</p>

IDX	Description	Command	Example
EDID			
10	Set Input EDID	<p>Command: SET EDID <i>in prm</i><CR><LF></p> <p>Return: EDID <i>in prm</i><CR><LF></p> <p>Parameter: <i>in</i> = {in1, in2, in3, in4}; <i>prm</i> = {1 ~11} 1) Restore Defaults; 2) Copy EDID from HDMI out1; 3) Copy EDID from HDMI out2; 4) 4K@60Hz 4:4:4, 2.0ch, with HDR; 5) 4K@60Hz 4:4:4, 5.1ch, with HDR; 6) 4K@60Hz 4:4:4, 7.1ch, with HDR; 7) 4K@30Hz 4:4:4, 2.0ch, with HDR and 4:2:0; 8) 4K@30Hz 4:4:4, 7.1ch, with HDR and 4:2:0; 9) 1080P@60Hz, 2.0ch; 10) 1080P@60Hz, 5.1ch; 11) 1080P@60Hz, 7.1ch;</p> <p>Description: Set Input EDID</p>	<p>Command: SET EDID <i>in1 4</i><CR><LF></p> <p>Return: EDID <i>in1 4</i><CR><LF></p> <p>Description: Set in1 EDID 4K@60Hz 4:4:4, 2.0ch, with HDR;</p>

IDX	Description	Command	Example
11	Get All Input EDID status	<p>Command: GET EDID <i>all</i> <CR><LF></p> <p>Return: EDID <i>in prm</i><CR> EDID <i>in prm</i><CR> EDID <i>in prm</i><CR><LF></p> <p>Parameter: in = {in1,in2,in3,in4}; prm = {1 ~11} 1) Restore Defaults; 2) Copy EDID from HDMI out1; 3) Copy EDID from HDMI out2; 4) 4K@60Hz 4:4:4, 2.0ch, with HDR; 5) 4K@60Hz 4:4:4, 5.1ch, with HDR; 6) 4K@60Hz 4:4:4, 7.1ch, with HDR; 7) 4K@30Hz 4:4:4, 2.0ch, with HDR and 4:2:0; 8) 4K@30Hz 4:4:4, 7.1ch, with HDR and 4:2:0; 9) 1080P@60Hz, 2.0ch; 10) 1080P@60Hz, 5.1ch; 11) 1080P@60Hz, 7.1ch;</p> <p>Description: Get all input EDID Status</p>	<p>Command: GET EDID <i>all</i> <CR><LF></p> <p>Return: EDID in1 1<CR> EDID in2 2<CR></p> <p>Description: Get all input EDID Status</p>

IDX	Description	Command	Example
12	Get one input EDID Status	<p>Command: GET EDID <i>in</i> <CR><LF></p> <p>Return: EDID <i>in prm</i><CR><LF></p> <p>Parameter: <i>in</i> = {in1, in2, in3, in4}; <i>prm</i> = {1 ~11} 1) Restore Defaults; 2) Copy EDID from HDMI out1; 3) Copy EDID from HDMI out2; 4) 4K@60Hz 4:4:4, 2.0ch, with HDR; 5) 4K@60Hz 4:4:4, 5.1ch, with HDR; 6) 4K@60Hz 4:4:4, 7.1ch, with HDR; 7) 4K@30Hz 4:4:4, 2.0ch, with HDR and 4:2:0; 8) 4K@30Hz 4:4:4, 7.1ch, with HDR and 4:2:0; 9) 1080P@60Hz, 2.0ch; 10) 1080P@60Hz, 5.1ch; 11) 1080P@60Hz, 7.1ch;</p> <p>Description: Get one input EDID Status</p>	<p>Command: GET EDID in1<CR><LF></p> <p>Return: EDID in1 4<CR><LF></p> <p>Description: Get in1 edid status, and the status is 4K@60Hz 4:4:4, 2.0ch, with HDR;</p>
System Info			
13	Factory reset	<p>Command: RESET<CR><LF></p> <p>Return: RESET<CR><LF></p> <p>Description: Factory reset</p>	<p>Command: RESET<CR><LF></p> <p>Return: RESET<CR><LF></p> <p>Description: Factory reset all board</p>

IDX	Description	Command	Example
14	System reboot	<p>Command: REBOOT<CR><LF></p> <p>Return: REBOOT<CR><LF></p> <p>Description: System reboot</p>	<p>Command: REBOOT<CR><LF></p> <p>Return: REBOOT<CR><LF></p> <p>Description: System reboot</p>
15	Get selected target firmware version	<p>Command: GET VER<CR><LF></p> <p>Return: VER <i>prm</i><CR><LF></p> <p>Parameter: <i>prm</i> = {...} // according to actual firmware version</p> <p>Description: Get selected target firmware version</p>	<p>Command: GET VER<CR><LF></p> <p>Return: VER 1.0<CR><LF></p> <p>Description: Get firmware version</p>
16	Set IR System Code	<p>Command: Set IR_SC <i>prm</i> <CR><LF></p> <p>Return: IR_SC <i>prm</i><CR><LF></p> <p>Parameter: <i>prm</i> = {<i>all</i>, <i>mode1</i>, <i>mode2</i>}; <i>mode1</i> = 0x00 <i>mode2</i> = 0x4e</p> <p>Description: Set IR System Code</p>	<p>Command: Set IR_SC <i>mode1</i><CR><LF></p> <p>Return: IR_SC <i>mode1</i><CR><LF></p> <p>Description: Set IR System code mode 1</p>

IDX	Description	Command	Example
17	Get IR System Code	<p>Command: Get IR_SC <CR><LF></p> <p>Return: IR_SC <i>prm</i><CR><LF></p> <p>Parameter: <i>prm</i> = {<i>all, mode1, mode2</i>}; <i>mode1</i> = 0x00 <i>mode2</i> = 0x4e</p> <p>Description: Get IR System Code</p>	<p>Command: Get IR_SC <CR><LF></p> <p>Return: IR_SC <i>mode1</i><CR><LF></p> <p>Description: Get IR System code, IR System code is mode 1</p>
18	Get the API list	<p>Command: help<CR><LF></p> <p>Description: Get the API list</p>	<p>Command: help<CR><LF></p> <p>Description: Get the API list</p>
Audio Mute			
19	Set Audio Output mute	<p>Command: SET MUTE <i>out pcm</i><CR><LF></p> <p>Return: MUTE <i>out pcm</i><CR><LF></p> <p>Parameter: <i>pcm</i> = {on, off}; //on means mute; off means unmute <i>out</i> = {hdmaudioout1, hdmaudioout2, spdifaudioout1, spdifaudioout2, audioout1, audioout2};</p> <p>Description: Set Audio mute or not mute.</p>	<p>Command: SET MUTE <i>audioout1 on</i><CR><LF></p> <p>Return: MUTE <i>audioout1 on</i><CR><LF></p> <p>Description: Set audioout1 mute on</p>

IDX	Description	Command	Example
20	Get Audio Output mute status	<p>Command: GET MUTE <i>out</i><CR><LF></p> <p>Return: MUTE <i>out pcm</i><CR><LF></p> <p>Parameter: pcm = {on, off};; //on means mute; off means unmute <i>out</i> = {hdmaudioout1, hdmaudioout2, spdifaudioout1, spdifaudioout2, audioout1, audioout2, all};</p> <p>Description: Get Audio Output mute status</p>	<p>Command: GET MUTE <i>audioout1</i><CR><LF></p> <p>Return: MUTE <i>audioout1 pcm</i><CR><LF></p> <p>Description: Get Audio Output mute status.</p>



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