

HDMI 4x4 Matrix Switch RS-232 Command

1. RS-232 Command:

Baudrate: 19200

Data width: 8bit

Parity: none

Stop: 1bit

Port switch command package length is 13byte:

[0xa5+0x5b+0x02+0x03+**input port(1~4)**+0x00+**output port(1~4)**+0x00+0x00+0x00+0x00+0x00+**checksum**]

All you need to change is just "input port", "output port", "checksum"

Checksum = $0x100 - (0xa5+0x5b+0x02+0x03+\text{input port}+0x00+\text{output port}+0x00+0x00+0x00+0x00+0x00)$

For example: Set output 1 form input 2 command:

A5 5B 02 03 02 00 01 00 00 00 00 00 F8

Edid set command package length is 13byte:

[0xa5+0x5b+0x03+0x02+**Edid index(1~15)**+0x00+**input port(1~4)**+0x00+0x00+0x00+0x00+0x00+**checksum**]

Edid index list:

SE_1080I_20	= 1
SE_1080I_51	= 2
SE_1080I_71	= 3
SE_1080P_20	= 4
SE_1080P_51	= 5
SE_1080P_71	= 6
SE_3D_20	= 7
SE_3D_51	= 8
SE_3D_71	= 9
SE_4K2K_20	= 10
SE_4K2K_51	= 11
SE_4K2K_71	= 12
SE_DVI_1024_768	= 13
SE_DVI_1920_1080	= 14
SE_DVI_1920_1200	= 15

Edid copy command package length is 13byte:

[0xa5+0x5b+0x03+0x04+**output port (1~4)**+0x00+**input port(1~4)**+0x00+0x00+0x00+0x00+0x00+**checksum**]

Means: copy output port X edid to input port X

Output HDP status query package is 13byte:

This is a query command which mean you must send query package and then receive an answer.

For example: Query output 1(1~4) HPD status

Send package: A5 5B 01 05 **01** 00 00 00 00 00 00 00 F9

Receive package: A5 5B 01 05 01 00 **FF** 00 00 00 00 00 FA

The red **01** mean the output port number, it should be 1~4.

The blue **FF** mean this port's HPD is LOW, if **00** mean HIGH.

Input port status query package is 13byte:

This is a query command which mean you must send query package and then receive an answer.

[0xa5+0x5b+0x01+0x04+**output**

port(1~8)+0x00+0x00+0x00+0x00+0x00+0x00+0x00+**checksum**]

For example: Query input 1(1~4) status

Send package: A5 5B 01 04 **01** 00 00 00 00 00 00 00 FA

Receive package: A5 5B 01 04 01 00 **FF** 00 00 00 00 00 FB

The red **01** mean the input port number, it should be 1~4.

The blue **FF** mean this port is plug in, if **00** mean plug out.

Beep on/off command package length is 13byte:

[0xa5+0x5b+0x06+0x01+**Beep onoff(0x0f:ON;**

0xf0:OFF)+0x00+0x00+0x00+0x00+0x00+0x00+0x00+**checksum**]

2. IR Code:

NEC code

#define SYSTEM_CODE 0x00

Function	Code
#define IR_KEY_POWER	0x14
#define IR_KEY_OUTPUT_1_FROM_1	0x09
#define IR_KEY_OUTPUT_1_FROM_2	0x1D
#define IR_KEY_OUTPUT_1_FROM_3	0x1F
#define IR_KEY_OUTPUT_1_FROM_4	0x0D
#define IR_KEY_OUTPUT_1_PRE	0x1B
#define IR_KEY_OUTPUT_1_NEXT	0x11
#define IR_KEY_OUTPUT_2_FROM_1	0x17
#define IR_KEY_OUTPUT_2_FROM_2	0x12
#define IR_KEY_OUTPUT_2_FROM_3	0x59
#define IR_KEY_OUTPUT_2_FROM_4	0x08
#define IR_KEY_OUTPUT_2_PRE	0x55
#define IR_KEY_OUTPUT_2_NEXT	0x48
#define IR_KEY_OUTPUT_3_FROM_1	0x5e
#define IR_KEY_OUTPUT_3_FROM_2	0x06
#define IR_KEY_OUTPUT_3_FROM_3	0x05
#define IR_KEY_OUTPUT_3_FROM_4	0x03
#define IR_KEY_OUTPUT_3_PRE	0x07
#define IR_KEY_OUTPUT_3_NEXT	0x40
#define IR_KEY_OUTPUT_4_FROM_1	0x18
#define IR_KEY_OUTPUT_4_FROM_2	0x44
#define IR_KEY_OUTPUT_4_FROM_3	0x0f
#define IR_KEY_OUTPUT_4_FROM_4	0x51
#define IR_KEY_OUTPUT_4_PRE	0x1E
#define IR_KEY_OUTPUT_4_NEXT	0x0E