**EVSW4K41**

RS232 Communication and Protocol

Baud rate: 9600 Data bit: 8 Stop bit: 1 Parity bit: none

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| **RS232 Command** |  |  |
| **Communication protocol:** RS232 Communication Protocol | |  |
| Baud rate: 9600         Data bit: 8         Stop bit: 1          Parity bit: none | |  |
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| **1. System Control** |  |  |
| The ending mark of command is “<CR><LF>”. | |  |
| **Command** | **Description** | **Command & Feedback Example** |
| **#GET\_FIRMWARE\_VERSION** | Get the firmware version. | @V1.0.0 |
| **#FACTORY\_RESET** | Restore to factory defaults. | @FACTORY\_RESET |
| **#REBOOT** | System reboot. | @REBOOT |
| **#HELP [PARAM]** | Get the command details. | #HELP SET\_AV |
| [PARAM]=Null; Get all command list. |
| [PARAM]=Any command; Get the English description and usage of the command. | @SELECT VIDEO AND AUDIO INPUT PORT |
|  | #SET\_AV PARAM1 |
|  | PARAM=A,PC1,PC2,PC3 |
|  | A - Airplay/Miracast |
|  | PC1 - HDMI1 |
|  | PC2 - HDMI2 |
|  | PC3 - TYPE-C |
| **#SET\_RST\_WIRELESS** | Reset Airplay/Miracast power | @RESET WIRELESS DEVICE |
| **#SET\_KEYPAD\_LOCK 1** | Lock front panel buttons. | #SET\_KEYPAD\_LOCK 1 |
| **#SET\_KEYPAD\_LOCK 0** | Unlock front panel buttons (Default). | #SET\_KEYPAD\_LOCK 0 |
| **#GET\_KEYPAD\_LOCK** | Get the locking status of the front panel buttons. | @KEYPAD\_LOCK 1 |
|  |  |  |
| **2. Source Switching** |  |  |
| **Command** | **Description** | **Command & Feedback Example** |
| **#SET\_AV A** | Select the input source: Airplay/Miracast (Default). | @AV Airplay/Miracast |
| **#SET\_AV PC1** | Select the input source: PC1. | @AV PC1 |
| **#SET\_AV PC2** | Select the input source: PC2. | @AV PC2 |
| **#SET\_AV PC3** | Select the input source: PC3. | @AV PC3 |
| **#GET\_AV** | Get the current input source. | @AV PC1 |
| **#SET\_AUTO\_SWITCH 0** | Disable auto-switching mode. | @AUTO\_SWITCH 0 |
| **#SET\_AUTO\_SWITCH 1** | Enable auto-switching mode. | @AUTO\_SWITCH 1 |
| **#GET\_AUTO\_SWITCH** | Get the auto-switching status. | @AUTO\_SWITCH 1 |
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| **3. CEC/RS232 Function Setting** |  |  |
| The ending mark of command is “<CR><LF>”. | |  |
| **Command** | **Function** | **Command & Feedback Example** |
| **#SET\_SYNCACT\_CEC 1** | Enable the function of automatically sending CEC commands. | @SYNCACT\_CEC 1 |
| When detecting video input signal or not detecting any video signal, the switcher will automatically send the corresponding CEC command to control the display device. |
| **#SET\_SYNCACT\_CEC 0** | Disable the function of automatically sending CEC commands. | @SYNCACT\_CEC 0 |
| **#GET\_SYNCACT\_CEC** | Get the function setting status of automatically sending CEC commands. | @SYNCACT\_CEC 1 |
| **#SET\_SYNCACT\_RS232 1** | Enable the function of automatically sending RS232 commands. | @SYNCACT\_RS232 1 |
| When detecting video input signal or not detecting any video signal, the switcher will automatically send the corresponding RS232 command to control the display device. |
| **#SET\_SYNCACT\_RS232 0** | Disable the function of automatically sending RS232 commands. | @SYNCACT\_RS232 0 |
| **#GET\_SYNCACT\_RS232** | Get the function setting status of automatically sending RS232 commands. | @SYNCACT\_RS232 1 |
| **#SET\_DISPLAY 1** | Power on display device (Simultaneously sending CEC and RS232 commands to display device). | @DISPLAY 1 |
| **#SET\_DISPLAY 0** | Power off display device (Simultaneously sending CEC and RS232 commands to display device). | @DISPLAY 0 |
| **4. Function Setting** |  |  |
| The ending mark of command is “<CR><LF>”. | |  |
| **Command** | **Description** | **Command & Feedback Example** |
| **#SET\_OFF\_CNT 1** | Set the number of sending DISPLAY OFF command to 1 time. | @OFF\_CNT 1 |
| **#SET\_OFF\_CNT 2** | Set the number of sending DISPLAY OFF command to 2 times. | @OFF\_CNT 2 |
| **#GET\_OFF\_CNT** | Get the number of sending DISPLAY OFF command. | @OFF\_CNT 1 |
| **#SET\_OFF\_DELAY [PARAM]** | Set the delay time of sending DISPLAY OFF command to [PARAM]. | #SET\_OFF\_DELAY 5 |
| [PARAM]=5~100 (1=100ms). | @OFF\_DELAY 5 |
| **#GET\_OFF\_DELAY** | Get the delay time of sending DISPLAY OFF command. | @OFF\_DELAY 5 |
| **#SET\_OUTPUT\_HDCP [PARAM]** | Set the HDCP mode of output port to [PARAM]. [PARAM]=1~3: | #SET\_OUTPUT\_HDCP 1 |
| 1 - ACTIVE |
| 2 - ON |
| 3 - OFF | @OUTPUT\_HDCP 1 |
| **#GET\_OUTPUT\_HDCP** | Get the HDCP mode of output port. | @OUTPUT\_HDCP 1 |
| **#SET\_SW\_HDCP\_MODE [PARAM]** | Switch the input ports to support HDCP2.2 status. [PARAM]= 0/1. | #SET\_SW\_HDCP\_MODE 1 |
| 0 - UNSUPPORT HDCP2.2 |
| 1 - SUPPORT HDCP2.2 | @SW\_HDCP\_MODE 1 |
| **#GET\_SW\_HDCP\_MODE** | Get the HDCP2.2 status of input ports. | @SW\_HDCP\_MODE 1 |
| **#UPLOAD\_USER\_EDID [PARAM]** | Upload the user-defined EDID [PARAM]. | #UPLOAD\_USER\_EDID 1 |
| PARAM = 1 ~ 5 |
| 1 – User-defined EDID 1 |
| 2 - User-defined EDID 2 |
| 3 - User-defined EDID 3 |
| 4 - User-defined EDID 4 |
| 5 - User-defined EDID 5 |
| When the command applied, system prompts to upload the EDID file (.bin). Operation will be cancelled in 10 seconds. | @USER\_EDID 1 READY |
|  | PLEASE SEND EDID DATA IN 10S |
|  | OK/ERROR |
| **#SET\_DTIME [PARAM1]: [PARAM2]** | When not detecting video input signal, set the auto power-off time of display device to [PARAM1]: [PARAM2]. The default time is 10 minutes. | **#SET\_DTIME 1:30** |
| [PARAM1]=0~30 minutes. |
| [PARAM2]=0~1800 seconds. | @DTIME 1:30 |
| **#GET\_DTIME** | Get the auto power-off time of display device. | @DTIME 30:0 |
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| **5. Special Commands** |  |  |
| ***Note:****The below commands don’t need ending mark.* | |  |
| **Command** | **Description** | **Command & Feedback Example** |
| **#SET\_ON\_[PARAM1]\_ [PARAM2]:XXXX** | Set the ASCII RS232 command **XXXX** to be sent to control the third-party device when the **DISPLAY ON** button is pressed. | #SET\_ON\_05\_30:1234567 |
| [PARAM1] = 00~06 (Baud Rate) |
| 00 - 115200 |
| 01 - 57600 |
| 02 - 38400 |
| 03 - 19200 |
| 04 - 9600 |
| 05 - 4800 |
| 06 - 2400 |
| [PARAM2] = 00~99. The delay time of sending command. |
| XXXX: Any ASCII code (up to 48 bytes). | @BAUDRATE: 4800 |
|  | @DELAY TIME: 30 s |
|  | @DISPLAY ON TO SEND:1234567 |
| Page Break |  |  |
| **Command** | **Description** | **Command & Feedback Example** |
| **#SET\_H\_ON\_[PARAM1]\_ [PARAM2]:XX XX** | Set the HEX RS232 command **XX XX** to be sent to control the third-party device when the **DISPLAY ON** button is pressed. | #SET\_H\_ON\_05\_30:31 32 33 34 35 |
| [PARAM1] = 00~06 (Baud Rate) |
| 00 - 115200 |
| 01 - 57600 |
| 02 - 38400 |
| 03 - 19200 |
| 04 - 9600 |
| 05 - 4800 |
| 06 - 2400 |
| [PARAM2] = 00~99. The delay time of sending command. |
| XX XX: Any HEX code (0-9, A-F; up to 20 bytes. It must have a blank between 2 different XX). | @BAUDRATE: 4800 |
|  | @DELAY TIME: 30 s |
|  | @DISPLAY ON HEX TO SEND:31 32 33 34 35 |
| **#SET\_OF\_[PARAM1]\_ [PARAM2]:XXXX** | Set the ASCII RS232 command **XXXX** to be sent to control the third-party device when the **DISPLAY OFF** button is pressed. | #SET\_OF\_05\_30:ABCDEFG |
| [PARAM1] = 00~06 (Baud Rate) |
| 00 - 115200 |
| 01 - 57600 |
| 02 - 38400 |
| 03 - 19200 |
| 04 - 9600 |
| 05 - 4800 |
| 06 - 2400 |
| [PARAM2] = 00~99. The delay time of sending command. |
| XXXX: Any ASCII code (up to 48 bytes). | @BAUDRATE: 4800 |
|  | @DELAY TIME: 30 s |
|  | @DISPLAY OFF TO SEND:ABCDEFG |
| Page Break |  |  |
| **Command** | **Description** | **Command & Feedback Example** |
| **#SET\_H\_OF\_[PARAM1]\_ [PARAM2]:XX XX** | Set the HEX RS232 command **XX XX**to be sent to control the third-party device when the **DISPLAY OFF** button is pressed. | #SET\_H\_OF\_05\_30:41 42 43 44 45 |
| [PARAM1] = 00~06 (Baud Rate) |
| 00 - 115200 |
| 01 - 57600 |
| 02 - 38400 |
| 03 - 19200 |
| 04 - 9600 |
| 05 - 4800 |
| 06 - 2400 |
| [PARAM2] = 00~99. The delay time of sending command. |
| XX XX: Any HEX code (0-9, A-F; up to 20 bytes. It must have a blank between 2 different XX). | @BAUDRATE: 4800 |
|  | @DELAY TIME: 30 s |
|  | @DISPLAY OFF HEX TO SEND:41 42 43 44 45 |