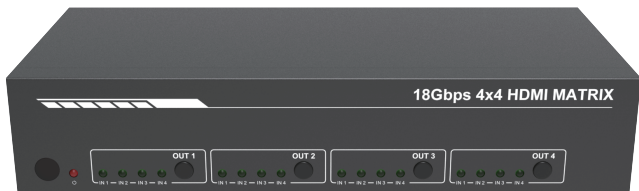


# 4x4 HDMI 2.0 18Gbps Matrix Switcher



## User Manual

VER 1.0

# Thank you for purchasing this product

For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

## Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

## Table of Contents

|  |    |
|--|----|
| 1. Introduction.....                         | 1  |
| 2. Features.....                             | 1  |
| 3. Package Contents.....                     | 1  |
| 4. Specifications.....                       | 2  |
| 5. Operation Controls and Functions.....     | 3  |
| 5.1. Front Panel.....                        | 3  |
| 5.2. Rear Panel.....                         | 4  |
| 5.3. Connecting to the Switcher.....         | 5  |
| 5.4. Using the Switcher.....                 | 5  |
| 6. IR Remote.....                            | 6  |
| 7. Using the Built-In Web GUI Interface..... | 6  |
| 8. API Control Command.....                  | 16 |
| 9. Application Example.....                  | 21 |

## 1. Introduction

This high performance HDMI Matrix Switcher can switch any of these four HDMI 2.0 sources to four HDMI 2.0 displays. Each input and output supports up to 4K60 444 resolution and HDCP 2.2. The outputs can be individually scaled for 1080p. De-embedded audio as analog L/R and coaxial is available for both outputs. The ARC function can return display device audio to coaxial port output only. Advanced EDID management is supported. With its 18Gbps bandwidth and the additional features with latest HDMI standards. This switcher can be controlled from the front panel, RS-232, IR remote, or TCP/IP.

## 2. Features

- ☆ HDMI 2.0, HDCP 2.2 / HDCP 1.4 and DVI 1.0 compliant
- ☆ Four 18G HDMI 2.0 video inputs support up to 4K60 444 resolution
- ☆ Four 18G HDMI 2.0 video outputs support up to 4K60 444 resolution
- ☆ Four outputs can be individually scaled for 4K→1080p
- ☆ De-embedded audio to analog L/R and Coaxial ports output
- ☆ ARC audio return to the coaxial ports output only
- ☆ Built-in Web GUI for TCP/IP control
- ☆ Advanced EDID management supported
- ☆ Four methods of control: Front panel, RS-232, IR remote and TCP/IP
- ☆ Compact design for easy and flexible installation

## 3. Package Contents

| Qty | Item                                 |
|-----|--------------------------------------|
| 1   | 4×4 HDMI 2.0 18Gbps Matrix Switcher  |
| 1   | 12V/2.5A Locking Power Adapter       |
| 1   | IR Remote                            |
| 2   | Mounting Ears                        |
| 1   | 38KHz IR Receiver Cable (1.5 meters) |
| 1   | 3-pin Phoenix Connector              |
| 1   | User Manual                          |

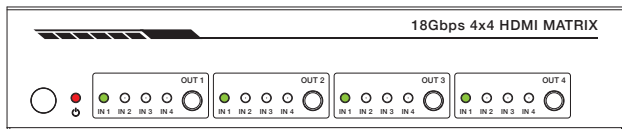
## 4. Specifications

| <b>Technical</b>      |   |
|-----------------------|---|
| HDMI Compliance       | HDMI 2.0  |
| HDCP Compliance       | HDCP 2.2 and HDCP 1.4   |
| Video Bandwidth       | 18 Gbps   |
| Video Resolution      | 4K2K 50/60Hz 4:4:4<br>4K2K 50/60Hz 4:2:0<br>4K2K 30Hz 4:4:4<br>1080p, 1080i, 720p, 720i, 480p, 480i<br>All HDMI 3D TV formats<br>All PC resolutions including 1920 x 1200 |
| Output Scaling        | 4K to 1080p   |
| 3D Support            | Yes   |
| Color Space           | RGB, YCbCr4:4:4, YCbCr4:2:2, YCbCr 4:2:0  |
| Color Depth           | 8-bit, 10-bit, 12-bit [1080P, 4K30Hz, 4K60Hz (YCbCr 4:2:0)]<br>8-bit [4K60Hz (YCbCr 4:4:4)]   |
| HDMI Audio Formats    | PCM2.0/5.1/7.1CH, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD  |
| Coaxial Audio Formats | PCM2.0, Dolby Digital / Plus, DTS 2.0/5.1   |
| L/R Audio Formats     | PCM2.0CH  |
| HDR Support           | HDR10, HDR10+. Dolby Vision, HLG  |
| ESD Protection        | Human-body Model: $\pm 8\text{kV}$ (Air-gap discharge),<br>$\pm 4\text{kV}$ (Contact discharge)   |
| <b>Connections</b>    |   |
| Input Ports           | 4×HDMI Type A [19-pin female]   |
| Output Ports          | 4×HDMI Type A [19-pin female]<br>4×L/R audio out [3.5mm Stereo Mini-jack]<br>4×COAX audio out [RCA]   |
| Control ports         | 1x TCP/IP [RJ45]<br>1x RS-232[3-pin phoenix connector]<br>1x IR EXT [3.5mm Stereo Mini-jack]  |

| <b>Mechanical</b>   |   |                      |                         |
|---|---|----------------------|-------------------------|
| Housing   | Metal Enclosure   |                      |                         |
| Color   | Black   |                      |                         |
| Dimensions  | 220mm (W)×105mm (D)×44mm (H)  |                      |                         |
| Weight  | 792g  |                      |                         |
| Power Supply  | Input: AC100~240V 50/60Hz<br>Output: DC12V/2.5A (Locking connector) |                      |                         |
| Power Consumption   | 10W (max), 1.56W (Standby)  |                      |                         |
| Operating Temperature   | 0°C ~ 40°C / 32°F ~ 104°F   |                      |                         |
| Storage Temperature   | -20°C ~ 60°C / -4°F ~ 140°F   |                      |                         |
| Relative Humidity   | 20~90% RH (non-condensing)  |                      |                         |
| Resolution / Cable Length   | 4K60 - Feet / Meters  | 4K30 - Feet / Meters | 1080P60 - Feet / Meters |
| HDMI IN / OUT   | 10ft / 3M   | 30ft / 10M           | 42ft / 15M              |
| The use of "Premium High Speed HDMI" cable is highly recommended. |   |                      |                         |

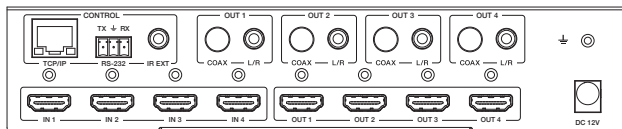
## 5. Operation Controls and Functions

### 5.1 Front Panel



| Name                                    | Function description  |
|---|---|
| IR Sensor                               | IR input for remote control of the switcher.                          |
| POWER LED                               | Red LED indicates that the unit is powered.                           |
| OUT 1 / OUT 2 /<br>OUT 3 / OUT 4 Button | Press to select the desired input.                                    |
| IN 1 IN 2 / IN 3 / IN 4<br>LED          | Green LED indicates when the input is selected for respective output. |

## 5.2 Rear Panel



| Name  | Function description   |
|---|--|
| TCP/IP (RJ45)                               | Control port for TCP/IP control or accessing the built-in Web GUI.                         |
| RS-232                                      | 3-pin pluggable connector for RS-232 control of the Switcher.                              |
| IR EXT                                      | IR eye input for IR control of the Switcher.   |
| Coaxial Audio OUT 1 / OUT 2 / OUT 3 / OUT 4 | RCA connector for coaxial audio output from HDMI OUT 1 / OUT 2 / OUT 3 / OUT 4.            |
| L/R Audio OUT 1 / OUT 2 / OUT 3 / OUT 4     | 3.5mm Mini-jack connector for stereo audio output from HDMI OUT 1 / OUT 2 / OUT 3 / OUT 4. |
| Earthing Point                              | Screw terminal for earthing the Switcher.  |
| HDMI Input 1 to 4                           | HDMI Source inputs 1 to 4.   |
| HDMI Output 1 to 4                          | HDMI outputs for displays 1 to 4.  |
| DC 12V IN                                   | DC 12V input for 12V 2.5A PSU.   |

## 5.3 Connecting to the Switcher

1. Connect the desired HDMI input sources.
2. Connect the desired HDMI display devices.
3. Connect any CONTROL inputs that may be required: TCP/IP, RS-232 or IR IN.
4. Connect any audio devices to either the Coaxial or L/R outputs.
5. Connect the 12V DC PSU.

## 5.4 Using the Switcher

### 5.4.1 Power LED and Standby Mode

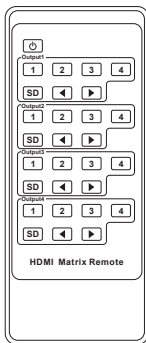
The Power LED provides the following indications:

| Color | Description   |
|-------|---|
| Red   | The Switcher is active and fully controllable   |
| Off   | The Switcher is in standby mode, this state can be changed by using API commands or IR Remote, or from the Web GUI interface. |

### 5.4.2 Selecting Inputs

Manual Selection of the inputs is done by briefly pressing the OUT 1 / OUT 2 / OUT 3 / OUT 4 button repeatedly for that channel until the desired input is selected.

## 6. IR Remote



|                                    |   |
|------------------------------------|---|
|                                    | Power on the Switcher or set it to standby mode.  |
| <b>Output 1 (Output 2 / 3 / 4)</b> |   |
| <b>1/2/3/4</b>                     | Select the desired input source to Output 1 port output, the corresponding green LED on the front panel illuminates.                  |
| <b>SD</b>                          | Switch downscale or bypass mode to the Output 1 port output.  |
|                                    | Select the last or next the desired input source to Output 1 port output, the corresponding green LED on the front panel illuminates. |

## 7. Using the Built-In Web GUI Interface

The Switcher has a built-in Web interface to provide a means of controlling or configuring various settings. There are six pages available, each of which will be outlined in detail in the following sections:

The six pages are:

1. **Status** – Display information about the firmware and IP setting.
2. **Video** – Switch the desired input source to output and set the preset.
3. **Input** – Display information about the input signal and EDID setting.
4. **Output** – Display information about the output signal and scaler option.
5. **Network** – Allow basic network setting management and login options.
6. **System** – Panel lock, beep, serial baudrate setting and firmware update.

*Note these six pages are only accessible in **Admin mode**, when **User mode** is used only the **Status** and **Video** pages are available.*

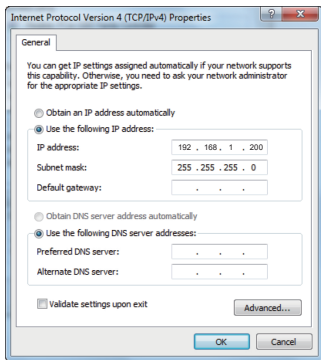
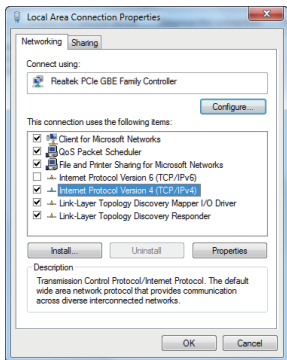


To access the Web interface, enter the IP address of the switcher into the address bar of any web browser. The default IP address is **192.168.1.100**. Please see the following operation method.

*Note that if the IP address of the switcher is not know, use the RS-232 command given in the Network Setting section “r ip addr!” to discover the current IP address or set the switcher to factory default status and IP address restores to default 192.168.1.100.*

**Step 1:** The TCP/IP port on the rear panel is directly connected a PC with an UTP cable.

**Step 2:** Set your PC IP address to the same network segment with Switcher, for instance set PC IP address to 192.168.1.200 and Subnet mask to 255.255.255.0.



**Step 3:** Enter the Switcher's IP address into your browser on the PC to enter Web GUI page.



After entering the IP address the following log in screen will appear:



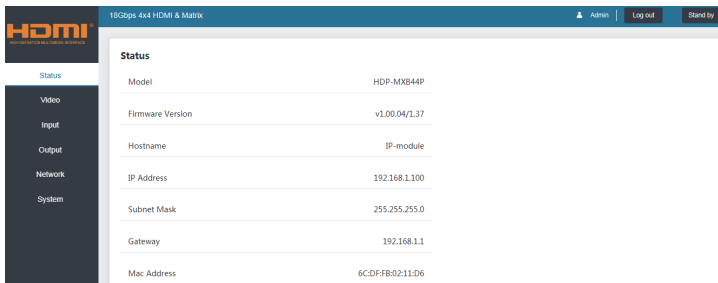
Select the Username from the list and enter the password. The default passwords are:

|          |             |              |
|----------|-------------|--------------|
| Username | <b>User</b> | <b>Admin</b> |
| Password | <b>user</b> | <b>admin</b> |

After entering the log in details, click the LOGIN button and the following Status page will appear.

## ■ Status page

The Status page provides basic information about the product Model name, the installed firmware version and the network setting. This page is visible in both User and Admin modes.



The screenshot shows the web interface for the HDMI 19Gbps 4x4 HDMI & Matrix. The top navigation bar includes the HDMI logo, the product name, and user controls for Admin, Log out, and Stand by. A left sidebar contains menu items for Status, Video, Input, Output, Network, and System. The main content area displays the Status page with a table of system information.

| Status           |                   |
|------------------|-------------------|
| Model            | HDP-MXB44P        |
| Firmware Version | v1.00.04/L.37     |
| Hostname         | IP-module         |
| IP Address       | 192.168.1.100     |
| Subnet Mask      | 255.255.255.0     |
| Gateway          | 192.168.1.1       |
| Mac Address      | 6C:DF:FB:02:11:D6 |

The buttons at the top right of the web interface are always available and provide the following function:

- The **Log out** button will disconnect the current user from display the log in screen.
- The **Power on** button changes the power status of the Switcher between On and Stand-by mode.

## ■ Video page

The Video page allows selection of the inputs source and set the presets.

The screenshot shows the 'Video' page of an HDMI 19Gbps 4x4 HDMI & Matrix interface. The page has a dark blue header with the HDMI logo and navigation links for 'Admin', 'Log out', and 'Power on'. A left sidebar contains menu items: 'Status', 'Video', 'Input', 'Output', 'Network', and 'System'. The main content area is titled 'Switch' and contains two tables.

| Outputs  | Video Source |
|----------|--------------|
| Output 1 | HDMI 1 INPUT |
| Output 2 | HDMI 2 INPUT |
| Output 3 | HDMI 3 INPUT |
| Output 4 | HDMI 4 INPUT |

Below the 'Switch' section is the 'Presets' section, which contains a table with four columns: 'Presets Name', 'Presets Set', 'Presets Save', and 'Presets Clear'.

| Presets Name | Presets Set | Presets Save | Presets Clear |
|--------------|-------------|--------------|---------------|
| preset1      | Set         | Save         | Clear         |
| preset2      | Set         | Save         | Clear         |
| preset3      | Set         | Save         | Clear         |
| preset4      | Set         | Save         | Clear         |

To this preset setting, first you need to select the desired input source to four output ports. Then click the **Save** button to save the setting. When you click the line **Set** button, this preset you have saved will be used. The **Clear** button will clear the preset. There are four presets setting available.

## ■ Input page

The Input page provides information about which inputs are connected and have a signal present. The inputs can be giving more meaningful names, if desired. The EDID column provides a list of EDID options for each individual input.

| Inputs | Active | Name   | EDID                            |
|--------|--------|--------|---------------------------------|
| HDMI 1 | ●      | Input1 | 4K2K60_444 Stereo Audio 2.0 HDR |
| HDMI 2 | ●      | Input2 | 4K2K60_444 HD Audio 7.1 HDR     |
| HDMI 3 | ●      | Input3 | 4K2K60_444 Stereo Audio 2.0 HDR |
| HDMI 4 | ●      | Input4 | 4K2K60_444 Stereo Audio 2.0 HDR |

Load EDID to User Memory

Select EDID File:

Select Destination:

Load EDID to Computer

Select EDID File:

The following EDID options are available in any of the EDID drop-down lists:

- 1080P, Stereo Audio 2.0
- 1080P, Dolby/DTS 5.1
- 1080P, HD Audio 7.1
- 1080I, Stereo Audio 2.0
- 1080I, Dolby/DTS 5.1
- 1080I, HD Audio 7.1
- 3D, Stereo Audio 2.0
- 3D, Dolby/DTS 5.1
- 3D, HD Audio 7.1
- 4K2K30Hz\_444 Stereo Audio 2.0

4K2K30Hz\_444 Dolby/DTS 5.1  
4K2K30Hz\_444 HD Audio 7.1  
4K2K60Hz\_420 Stereo Audio 2.0  
4K2K60Hz\_420 Dolby/DTS 5.1  
4K2K60Hz\_420 HD Audio 7.1  
4K2K60Hz\_444 Stereo Audio 2.0  
4K2K60Hz\_444 Dolby/DTS 5.1  
4K2K60Hz\_444 HD Audio 7.1  
4K2K60Hz\_444 Stereo Audio 2.0 HDR  
4K2K60Hz\_444 Dolby/DTS 5.1 HDR  
4K2K60Hz\_444 HD Audio 7.1 HDR  
USER\_1  
USER\_2  
COPY\_FROM\_TX\_1  
COPY\_FROM\_TX\_2  
COPY\_FROM\_TX\_3  
COPY\_FROM\_TX\_4

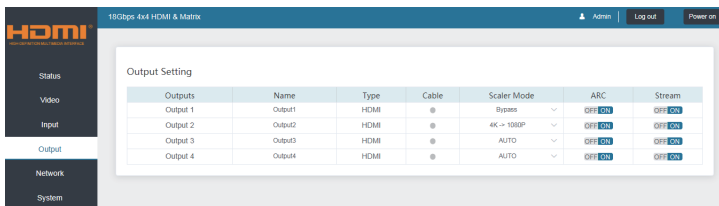
This page also provides a means of sending a binary EDID file to either **User 1** or **User 2** EDID memories:

1. Select the binary EDID file on your PC by click on the **Browse** button.
2. Select either **User 1** or **User 2** from the drop-down list.
3. Click the **Upload** button.

The EDID data from any input or from the **User 1** and **User 2** locations can be read and stored on your PC.

## ■ Output page

The outputs can also be assigned meaningful names, if desired. The Output page provides information about the signal status of the outputs.



| Outputs  | Name    | Type | Cable | Scaler Mode | ARC    | Stream |
|----------|---------|------|-------|-------------|--------|--------|
| Output 1 | Output1 | HDMI | ●     | Bypass      | OFF ON | OFF ON |
| Output 2 | Output2 | HDMI | ●     | 4K → 1080P  | OFF ON | OFF ON |
| Output 3 | Output3 | HDMI | ●     | AUTO        | OFF ON | OFF ON |
| Output 4 | Output4 | HDMI | ●     | AUTO        | OFF ON | OFF ON |

The **Scaler** mode menu provides the following options:

|                 |   |
|-----------------|---|
| <b>Bypass</b>   | Follow the input source. (Pass-through)   |
| <b>4K→1080P</b> | Downscale to 1080p, if needed.            |
| <b>AUTO</b>     | Scaler to match the display requirements. |

The **ARC** buttons enable or disable the display device audio to the coaxial audio outputs. If the ARC function enables, the L/R audio port will have no voice output simultaneously.

The **Stream** buttons enable or disable the output signal for the respective output.

## ■ Network page

The Network page allows the configuration of the network settings.

*Note that the IP address boxes are only accessible when the **Mode** button is set to **Static**.*

The log in passwords can be changed on this page.

*Note that any changes to this page will require the new details into the web browser and/or the log in screen.*

The screenshot shows the web interface for an HDMI Matrix device. The top navigation bar includes the HDMI logo, the device name '10Gbps 4x4 HDMI & Matrix', and user controls for 'Admin', 'Log out', and 'Power on'. A left sidebar contains menu items: 'Status', 'Video', 'Input', 'Output', 'Network' (highlighted), and 'System'. The main content area is divided into two sections: 'IP Settings' and 'Web Login Settings'. In the 'IP Settings' section, the 'Mode' is set to 'Static' (selected over 'DHCP'). The IP Address is 192.168.1.100, Subnet Mask is 255.255.255.0, Gateway is 192.168.1.1, and the Telnet Port is 23. The 'Web Login Settings' section shows the 'Username' set to 'User' (selected over 'Admin'). There are input fields for 'Old Password', 'New Password', and 'Confirm', with a 'Password' label below. A 'Product Model' field contains 'HDP-MXB44P'. At the bottom of the settings area are two buttons: 'Set Network Defaults' and 'Save'.



## ■ System page

The system page allows setting of the panel lock and beep on/off, control RS-232 port baud rate.

This page is also used to install new firmware update, restore the factory default settings and reboot the Switcher.

The screenshot displays the 'System' configuration page. On the left, a dark sidebar contains a menu with the following items: Status, Video, Input, Output, Network, and System. The main content area is organized into several sections:

- Panel Lock:** A toggle switch currently set to 'OFF'.
- Beep:** A toggle switch currently set to 'ON'.
- Serial Baud Rate:** A selection of radio buttons with values 4800, 9600, 19200, 38400, 57600, and 115200. The 115200 option is selected.
- Firmware Update:** A 'Browse...' button followed by an empty text input field, and an 'Update' button.
- Factory Reset:** A 'Reset' button.
- Reboot:** A 'Reboot' button.

## 8. API control command

The Switcher can also be controlled by RS-232. Connect a PC by using a serial cable and open any of a Serial Command tool on the PC such as **Comm Operator, Docklight or hercules**, etc to send command for controlling the Switcher. Please see the following connection diagram.

**Baudrate:** 115200(default)  
**Data bits:** 8  
**Parity:** None  
**Stop bits:** 1

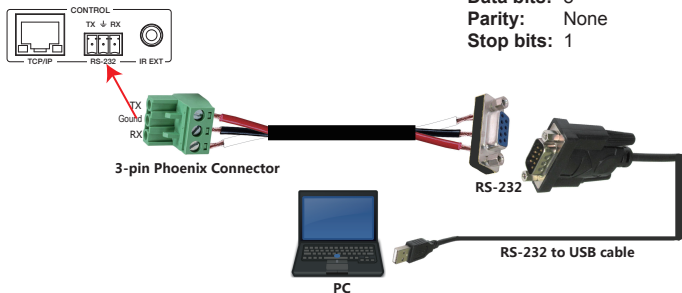


Figure 1: 3-pin phoenix connector to USB

### Important:

1. All messages sent to the Switcher must be terminated with an exclamation mark (!). Any carriage return that is present after the end of the command will be ignored.
2. All spaces shown in the commands are required.
3. All response messages are terminated by a CR/LF sequence.
4. When all four inputs are requested by the same command, the response will report each input on a separate line.
5. When four outputs are requested by the same command, the response will report each output on a separate line.

The ASCII list about the product is shown as below.

| ASCII Command  |   |  |
|--|---|--|
| Serial port protocol: Baud rate : 115200 (default), Data bits: 8bit, Stop bits:1, Check bit: None<br>TCP/IP protocol port: 8000<br>The x, y, z and XXX are parameters. |   |  |
| RS-232Command  | Function description  | Feedback   |
| <b>Power</b>   |   |  |
| s power z!   | power on/off the device,z=0~1(z=0 power off, z=1 power on)                      | power on<br>System Initializing...<br>Initialization Finished!<br>power off  |
| r power!   | get current power state   | power on /power off  |
| s reboot!  | reboot the device   | Reboot...<br>System Initializing...<br>Initialization Finished!  |
| <b>SYSTEM Setup</b>  |   |  |
| help!  | Lists all commands  |  |
| r type!  | Get device model  | HDP-MXB44P   |
| r status!  | Get device current status   | Get the unit all status:<br>power, beep, lock, in/out<br>connection, video/audio<br>crosspoint, edid, scaler,hdcp,<br>network status |
| r fw version!  | Get Firmware version  | MCU FW version x.xx.xx   |
| r link in x!   | Get the connection status of the x input port,<br>x=0~4(0=all)                  | HDMI IN1: connect  |
| r link out y!  | Get the connection status of the y output port,<br>y=0~4(0=all)                 | HDMI OUT1: connect   |
| s reset!   | Reset to factory defaults   | Reset to factory defaults<br>System Initializing...<br>Initialization Finished!  |
| s beep z!  | Enable/Disable buzzer function,z=0~1(z=0 beep off, z=1 beep on)                 | beep on / beep off   |
| r beep!  | Get buzzer state  | beep on / beep off   |
| s lock z!  | Lock/Unlock front panel button,z=0~1(z=0 lock off,z=1 lock on)                  | panel button lock on<br>panel button lock off  |
| r lock!  | Get panel button lock state   | panel button lock on/off   |
| s save preset z!   | Save switch state between all output port and the input port to preset z, z=1~8 | save to preset 1   |
| s recall preset z!   | Call saved preset z scenarios, z=1~8  | recall from preset 1   |

|                       |  |  |
|-----------------------|--|--|
| s clear preset z!     | Clear stored preset z scenarios,z=1~8  | clear preset 1   |
| r preset z!           | Get preset z infomation, z=1~8   | video/audio crosspoint   |
| s baud rate xxx!      | Set the serial port baud rate of RS02 module, z=(115200,57600,38400,19200,9600,4800)         | Baudrate:115200  |
| r baud rate!          | Get the serial port baud rate of RS02 module   | Baudrate:115200  |
| s id z!               | Set the control ID of the product, z=000~999   | id 888   |
| <b>Output Setting</b> |  |  |
| s in x av out y!      | Set input x to output y, x=1~4, y=0~4(0=all)   | input 1 -> output 2  |
| r av out y!           | Get output y signal status y=0~4(0=all)  | input 1 -> output 1<br>input 2 -> output 2<br>.....<br>input 4 -> output 4   |
| s out y stream z!     | Set output y stream on/off, y=0~4(0=all) z=0~1 (0:disable,1:enable)                          | Enable out 1 stream<br>Disable out 1 stream  |
| r out y stream!       | Get output y stream status, y=0~4(0=all)   | Enable out 1 stream  |
| s hdmi y scaler z!    | Set hdmi output y port output scaler mode, y=0~4 (0=all), z=1~3(1=bypass,2=4k->1080p,3=Auto) | hdmi 1 set to bypass mode  |
| r hdmi y scaler !     | Get hdmi output y port output mode y=0~4(0=all)  | hdmi 1 set to bypass mode  |
| s hdmi y hdcp z!      | Set hdmi output y port hdcp status y=0~4(0=all) z=0~1(1=active,0=off)                        | hdmi 1 hdcp active   |
| r hdmi y hdcp!        | Get HDCP status of HDMI out y, y=0~4(0=all)  | hdmi 1 hdcp active   |
| <b>Audio Setting</b>  |  |  |
| s hdmi y arc z!       | Turn on/off arc of HDMI output y, y=0~4(0=all) z=0~1(z=0,off,z=1 on)                         | hdmi output 1 arc on<br>hdmi output 1 arc off  |
| r hdmi y arc!         | Get the arc state of HDMI output y, y=0~4(0=all)   | hdmi out1 arc on   |
| <b>EDID Setting</b>   |  |  |
| r edid in x!          | Get EDID status of the input x, x=0~4(0=all inputs)  | IN1 EDID: 4K2K60_444,<br>Stereo Audio 2.0<br>IN2 EDID: 4K2K60_444,<br>Stereo Audio 2.0<br>IN3 EDID: 4K2K60_444,<br>Stereo Audio 2.0<br>IN4 EDID: 4K2K60_444,<br>Stereo Audio 2.0 |
| r edid data hdmi y!   | Get the EDID data of the hdmi output y port, y=1~4   | EDID : 00 FF FF FF FF FF<br>FF 00 .....  |

|                            |   |  |
|----------------------------|---|--|
| s edid in x from z!        | <p>Set input x EDID from default EDID z,<br/> x=0~4(0=all),z=1~23</p> <ol style="list-style-type: none"> <li>1、 1080p,Stereo Audio 2.0</li> <li>2、 1080p,Dolby/DTS 5.1</li> <li>3、 1080p,HD Audio 7.1</li> <li>4、 1080i,Stereo Audio 2.0</li> <li>5、 1080i,Dolby/DTS 5.1</li> <li>6、 1080i,HD Audio 7.1</li> <li>7、 3D,Stereo Audio 2.0</li> <li>8、 3D,Dolby/DTS 5.1</li> <li>9、 3D,HD Audio 7.1</li> <li>10、 4K2K30_444,Stereo Audio 2.0</li> <li>11、 4K2K30_444,Dolby/DTS 5.1</li> <li>12、 4K2K30_444,HD Audio 7.1</li> <li>13、 4K2K60_420,Stereo Audio 2.0</li> <li>14、 4K2K60_420,Dolby/DTS 5.1</li> <li>15、 4K2K60_420,HD Audio 7.1</li> <li>16、 4K2K60_444,Stereo Audio 2.0</li> <li>17、 4K2K60_444,Dolby/DTS 5.1</li> <li>18、 4K2K60_444,HD Audio 7.1</li> <li>19、 4K2K60_444,Stereo Audio 2.0 HDR</li> <li>20、 4K2K60_444,Dolby/DTS 5.1 HDR</li> <li>21、 4K2K60_444,HD Audio 7.1 HDR</li> <li>22、 USER1</li> <li>23、 USER2</li> <li>24、 Copy_From_Hdmi_Tx_1</li> <li>25、 Copy_From_Hdmi_Tx_2</li> <li>26、 Copy_From_Hdmi_Tx_3</li> <li>27、 Copy_From_Hdmi_Tx_4</li> </ol> | IN1 EDID:1080p,Stereo Audio 2.0  |
| <b>Network setting</b>     |   |  |
| r ipconfig!                | Get the Current IP Configuration  | IP Mode: Static, IP: 192.168.1.72<br>Subnet Mask: 255.255.255.0,<br>Gateway: 192.168.1.1<br>Mac address: 00:1C:91:03:80:01<br>TCP/IP port=8000, telnet port=10                         |
| r mac addr!                | Get network MAC address   | Mac address: 00:1C:91:03:80:01   |
| s ip mode z!               | Set network IP mode to static IP or DHCP,<br>z=0~1 (z=0 Static, z=1 DHCP )  | Set IP mode:Static.<br>Please use "s net reboot!"<br>command or repower device<br>to apply new config!   |
| r ip mode!                 | Get network IP mode   | IP mode: Static  |
| s ip addr xxx.xxx.xxx.xxx! | Set network IP address  | Set IP address:192.168.1.100<br>Please use "s net reboot!"<br>command or repower device to<br>apply new config! DHCP on,<br>Device can't config static address,<br>set DHCP off first. |

|                            |                                     |  |
|----------------------------|-------------------------------------|--|
| r ip addr!                 | Get network IP address              | IP address:192.168.1.100   |
| s subnet xxx.xxx.xxx.xxx!  | Set network subnet mask             | Set subnet Mask:255.255.255.0<br>Please use "s net reboot!" command or repower device to apply new config!<br>DHCP on, Device can't config subnet mask, set DHCP off first.            |
| r subnet!                  | Get network subnet mask             | Subnet Mask:255.255.255.0  |
| s gateway xxx.xxx.xxx.xxx! | Set network gateway                 | Set gateway:192.168.1.1<br>Please use "s net reboot!" command or repower device to apply new config!<br>DHCP on, Device can't config gateway, set DHCP off first.                      |
| r gateway!                 | Get network gateway                 | Gateway:192.168.1.1  |
| s tcp/ip port x!           | Set network TCP/IP port (x=1~65535) | Set tcp/ip port:8000   |
| r tcp/ip port!             | Get network TCP/IP port             | tcp/ip port:8000   |
| s telnet port x!           | Set network telnet port(x=1~65535)  | Set telnet port:23   |
| r telnet port!             | Get network telnet port             | telnet port:23   |
| s net reboot!              | Reboot network modules              | Network reboot...<br>IP Mode: Static<br>IP: 192.168.1.72<br>Subnet Mask: 255.255.255.0<br>Gateway: 192.168.1.1<br>Mac address: 00:1C:91:03:80:01<br>TCP/IP port=8000<br>telnet port=10 |

*Note that you can send 'RS232 command' to control the Switcher via Serial Command tool. The 'Function description' explains function about the command. The "Feedback" displays whether the command sends success or not and feedback the information you need to.*

## 9. Application Example

