



MUXLAB

INFINITE CONNECTIONS

4x4 HDMI Matrix Switch, 4K/60

User Manual

100508



Table of Contents

1. Safety Precautions.....	3
2. Introduction.....	4
3. Features.....	4
4. Package Contents.....	4
5. Specifications.....	5
6. Operating and Connecting.....	5
7. Setting.....	6
8. Scaler Setting.....	8

1 Safety Precautions

To ensure the best performance from the product, please read all instructions carefully before using the device. Save this manual for future reference.

- Follow basic safety precautions to reduce the risk of fire, electrical shock, and injury.
- Do not dismantle the housing or modify the module. It may result in electrical shock or burns.
- Do not open or remove the housing of the device as you may be exposed to dangerous voltage or other hazards.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture and do not install this product near water. Keep the product away from liquids.
- Spillage into the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on the housing, unplug the module immediately.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.
- Using supplies or parts not meeting the product specifications may cause damage, deterioration or malfunction.
- Refer all servicing to qualified service personnel.
- Install the device in a place with adequate ventilation to avoid damage caused by overheating.
- Unplug the power when left unused for a long period of time.
- Information on disposal of devices: do not burn or mix with general household waste, please treat them as normal electrical waste.

Copyright Notice

All contents in this manual are copyrighted, and cannot be cloned, copied, or translated without the express permission of MuxLab Inc. Product specifications and information in this document are for reference only, and the content may be updated from time to time without prior notice.

2 Introduction

The 4x4 HDMI Matrix Switch (Model: 100508) is a 4 in 4 out HDMI Matrix with Ultra HD up to 4k60 4:4:4 8bit HDR and HDCP2.2. It reliably distributes four HDMI source signal to four HDMI displays. Also provide audio de-embedded via coaxial port for each HDMI port. All output port support 4K scale down to 1080P.

The 4x4 HDMI Matrix Switch can be controlled by front panel buttons, IR, RS232, and IP/web UI. Also we provide API commands for your control system. It is ideal for applications such as Home theatre, offices, school, conference rooms, shopping malls, hotels and museums, which require manage multiple sources and distribute an HDMI source signal to multiple displays.

3 Features

- Distributes four HDMI sources signal to four HDMI displays
- HDMI2.0 with 4K/60 4:4:4 8bit and HDCP 2.2 compliant
- Supports HDR 10 and Dolby Vision
- Supports 4K scale down to 1080P
- Supports remote control, button, RS232, Telnet & Web GUI
- Supports Audio De-embed, coaxial audio out without display
- Supports 3D, Support deep color 30bit, 36bit
- Digital audio format, pass through as DTS-HD/Dolby-trueHD/LPCM7.1/DTS/Dolby-AC3/DSD, Dolby Atmos, and all other HDMI standard formats
- Supports signal retiming, No loss of quality
- No driver required, Plug and play, Installs in minutes

4 Package Contents

- One (1) 4x4 HDMI Matrix Switch, 4K/60
- One (1) Power supply
- Two (2) Mounting ear
- One (1) IR extender cable
- One (1) IR remote
- Two (2) Reusable cable ties
- One (1) User manual (available via download)

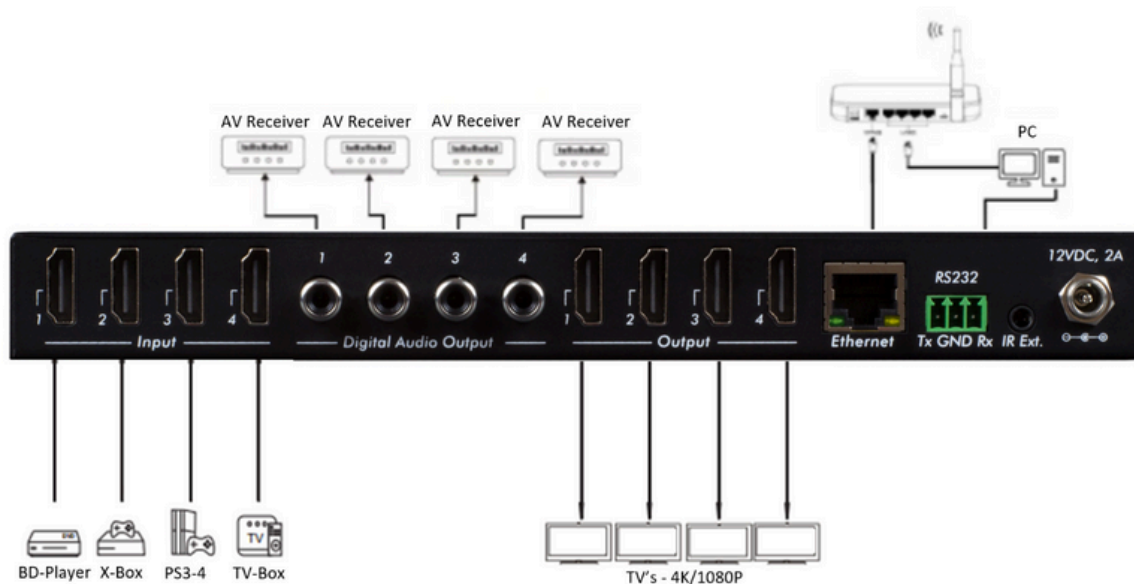
Notes: Confirm that the product and accessories are all included. If not, please contact the supplier from which you purchased the unit.

5 Specifications

Technical	
HDMI Compliance	HDMI 2.0
HDCP Compliance	HDCP 2.2
HDMI Resolution	24/50/60fs/2160p/1080p/1080i/720p/576p/576i/480p/480i
Support Video Format	24bit, 30bit, 36bit deep color
Support Audio Format	DTS-HD/Dolby-trueHD/LPCM7.1/DTS/Dolby-AC3/DSD/Dolby Atmos
Max Bandwidth	600MHz
Max Baud Rate	6Gbps
Input/Output TMDS signal	0.5~1.5V p-p(TTL)
Input/Output DDC signal	5V p-p (TTL)
Max working current	1.5A
Power adapter format	Input: 100-240VAC (50HZ, 60HZ) ; Output: 12VDC/2A
Operating Temperature	(-15 to +55°C)
Operating Humidity	5 to 90%RH (No Condensation)
Dimensions (L x W x H)	220*130*25(mm)
Weight	380g
Warranty	2 years
Order Information	100508 4x4 HDMI Matrix Switch, 4K/60 (UPC: 627699505083)

6 Operating and Connecting

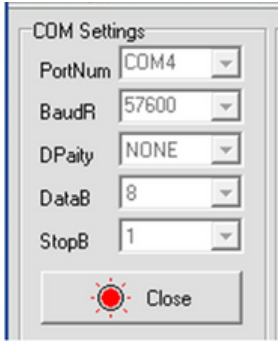
1. Connect one cable from each HDMI source devices to HDMI input.
2. Connect one cable from each display (monitor or projector) to the HDMI outputs.



7 Setting

RS232 Control

Advanced user may need to control the matrix via RS232, connect a PC or control system. Professional RS232 serial interface software (e.g. UART Assist) may be needed as well. Before executing API commands through RS232, ensure the RS232 port of the matrix and control PC are set correctly.



Below are the commands for control

Note: All commands need typing 'enter' at the end.

Command	Function
EZH	System help, it will show all commands
EZSTA	Show System Status
EZS RST	Reset to Factory Defaults
EZS DEBUG MODE1 EN	Set Cascade Mode Enable (Turn OFF HDCP)
EZS DEBUG MODE1 DIS	Set Cascade Mode Disable (Turn ON HDCP)
EZS OUTx VS INy	Set Output x To Input y {x=[0~4](0=ALL), y=[1~4]}
EZS OUTx EXA EN	Set Ex-Audio Output Enable {x=[0~4](0=ALL)}
EZS OUTx EXA DIS	Set Ex-Audio Output Disable {x=[0~4](0=ALL)}
EZS OUTx STREAM ON	Set Output x Stream ON {x=[0~4](0=ALL)}
EZS OUTx STREAM OFF	Set Output x Stream OFF {x=[0~4](0=ALL)}
EZS INx EDID y	Set Input x EDID {x=[0~4](0=ALL), y=[0~32]}
EZS HIP xxx.xxx.xxx.xxx	Set Host IP Address to xxx.xxx.xxx.xxx
EZG HIP	Get Host IP Address

IP Control

Connect the USB or RS232 to PC, using the RS232 interface to send command "EZG HIP", you will get the IP address of the matrix.

Make sure your PC and the matrix on the same network.

Typing in the IP address in a browser

Note: please begin with http://

e.g: You get a IP address 192.168.101.20

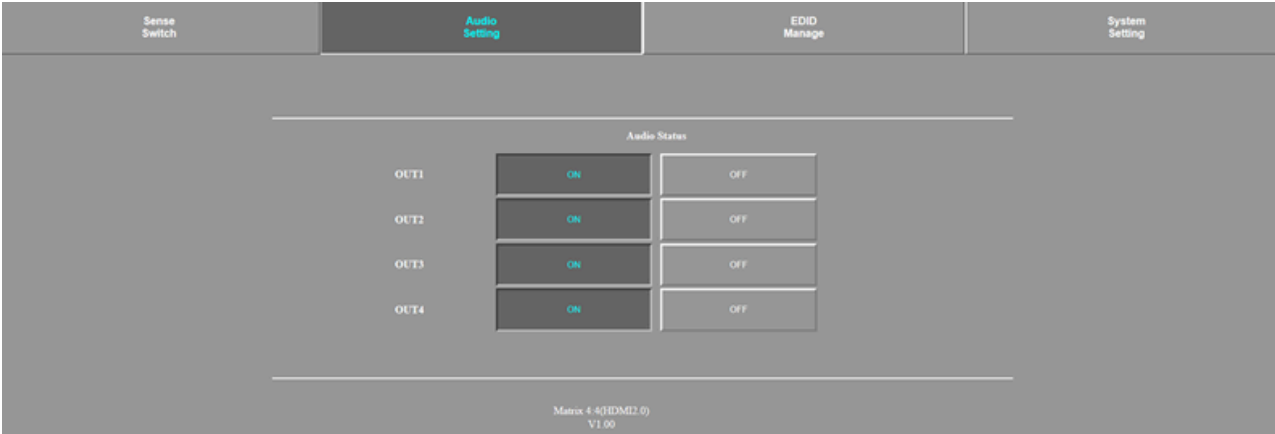
please typing in http:// 192.168.101.20

And you will see four sections

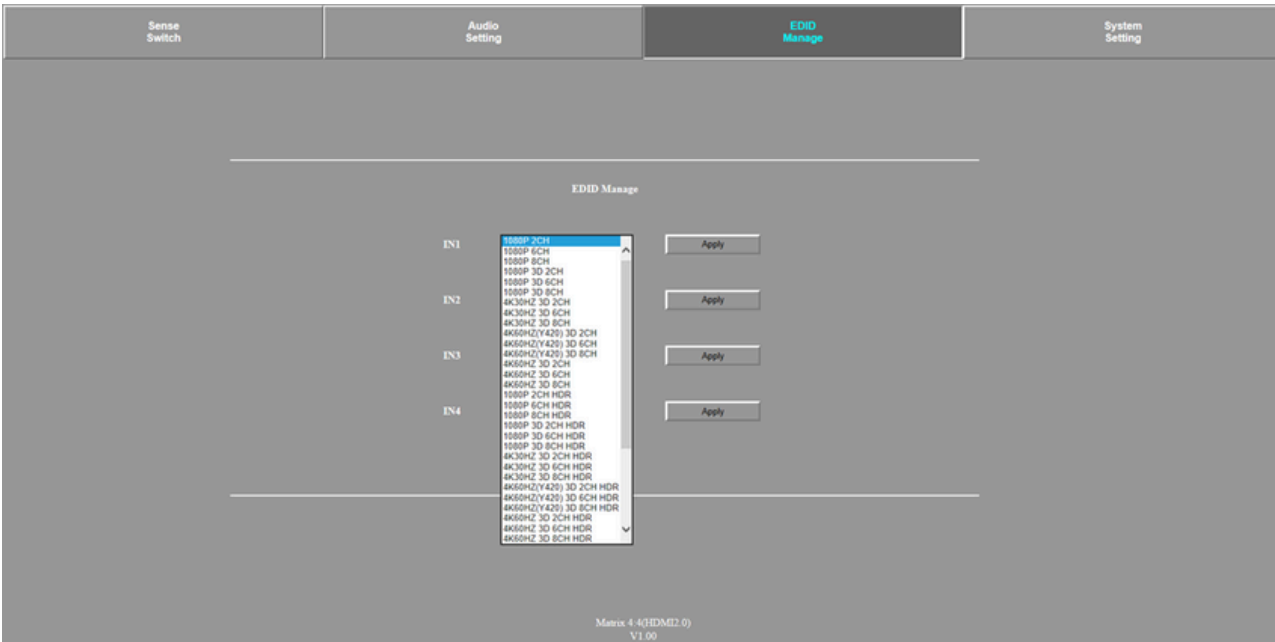
Sense Switch, select inputs for each output.



Audio Setting, turn on/off audio breakout.



EDID Manage, select EDID for each input, there are more than 40 kinds of EDID options.



System setting, set IP address and alias name.

8 Scaler Setting

Press the output select button for 3 seconds until the LED flash 3times, the output port scaler function will be on and will make 4K signal scale down to 1080p.

Press the output select button for 3 seconds until the LED flash 1times, and the output port scaler function will be off.

For example

You want to make output1 port scaler on.

You need to press the output1 select button for 3 seconds until the LED flash 3times, the output1 port scaler function will be on and will make 4K signal scale down to 1080p.

Press the output1 select button for 3 seconds until the LED flash 1times, and the output1 port scaler function will be off.