# MX-5004MS

4x1 HDMI Quad-Viewer & Seamless Switcher

User Manual

rev: 250306
Made in Taiwan

## INTRODUCTION

The **MX-5004MS 4x1 HDMI Quad- Viewer & Seamless Switcher** offers an unparalleled combination of flexibility and cost-effectiveness, making it the ideal solution for routing high-definition video from up to four HDMI sources to a single remote display simultaneously. This device supports a range of video layouts, with five default display modes to choose from, allowing users to customize the viewing experience. Additionally, it features seamless switching in a single view mode, ensuring smooth transitions between sources.

Perfect for applications like digital signage, conference room presentations, and other AV setups, the MX-5004MS ensures high-quality video output, supporting up to UHD resolution for enhanced visual clarity. The unit can be controlled via multiple methods, including an IR remote, software, or push button control, providing maximum flexibility to suit any user's preferences and needs. This makes the MX-5004MS an excellent choice for various professional environments that require dynamic, high-quality video display solutions.

## FEATURES

- 4 x HDMI inputs and 1 x HDMI output
- Input resolution supports 480i/480p/576i/576p/720p/1080i/1080p/4K30
- Output resolution supports 720p@60, 1080p@60, and 4K30
- Supports HDCP 1.4
- Supports 5 display modes: One View Mode, Dual View Mode (Left and Right), Quad View Mode, Quad View Cycled Mode, and Quad View H Mode
- Supports seamless switching in One View Mode
- Supports audio extraction via stereo audio from the selected HDMI input
- Supports audio switch function
- Supports cascading
- Firmware upgradable for support of new features and technology enhancements
- Perfect as a video converter and a video switcher
- Supports software control via micro-USB
- Supports IR remote, software and push button control

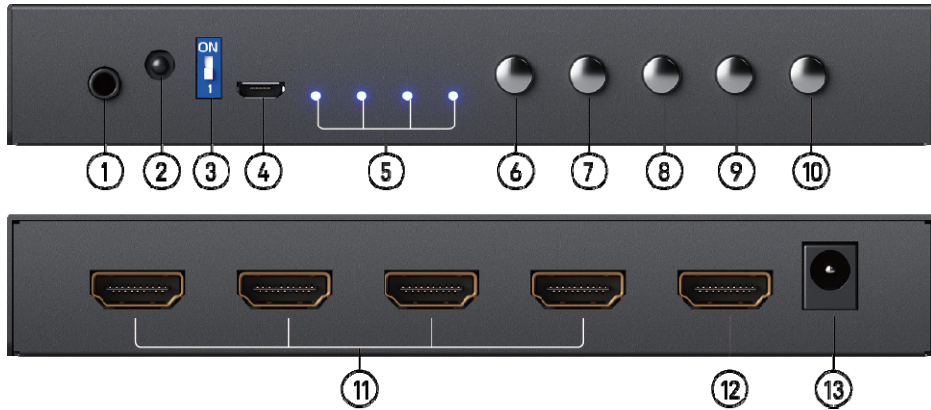(!)  * The audio does **NOT** support Dolby and DTS

## PACKAGE CONTENTS

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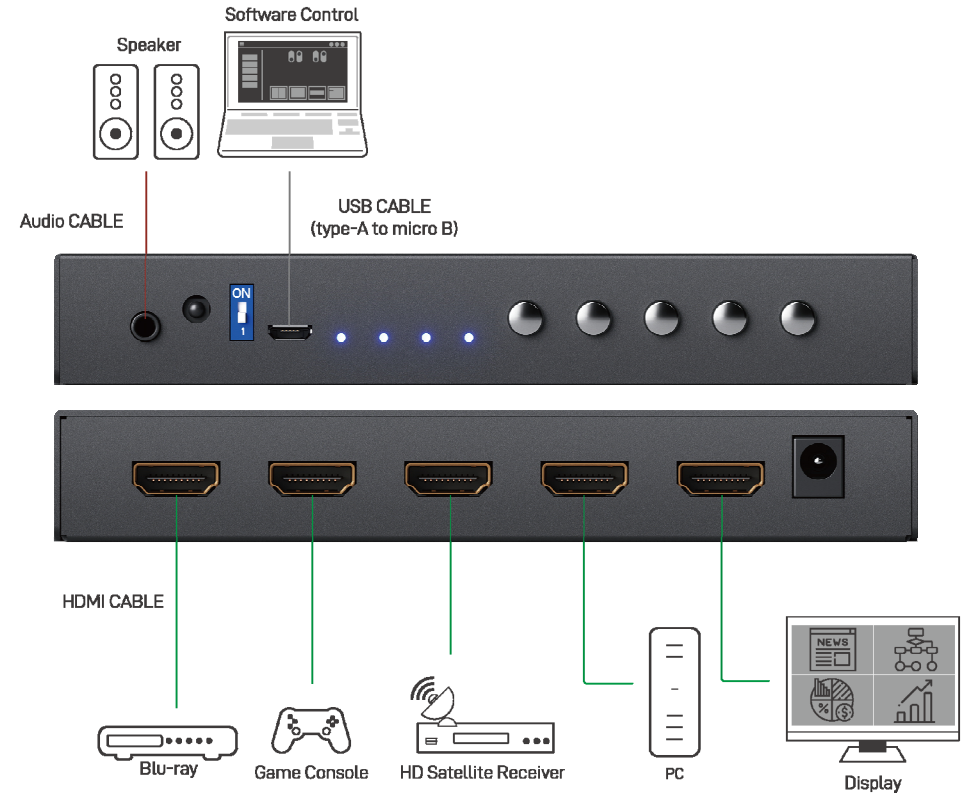- 1x IR Remote control (21 keys)

## SPECIFICATIONS

| Model Name | MX-5004MS |
|---|---|
| **Technical** | |
| Role of usage | Multi-viewer/ video processor |
| HDCP compliance | HDCP 1.4 |
| Video bandwidth | HDMI [7.2Gbps] |
| Output Video Support | 720p60/ 1080p60/ 4K30 |
| Input Video Support | 480i/480p/576i/576p/720p/1080i/1080p/4K30 |
| Video Format Support | HDMI |
| Audio support | Bypass |
| Control | IR remote, software and push button control |
| Embedded video mixer | Yes |
| Input TMDS signal | 1.2 Volts [peak to peak] |
| ESD protection | Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge] |
| Input | 4x HDMI + 1x micro-USB |
| Output | 1x HDMI + 1x 3.5mm phone jack |
| HDMI connector | Type A [19-pin female] |
| USB connector | Micro-USB |
| HDCP compliance | HDCP 1.4 |
| **Mechanical** | |
| Housing | | Metal enclosure |
| Dimensions [L x W x H] | Model | |
| | Package | |
| | Carton | |
| Weight | Model | |
| | Package | |
| Fixedness | | Wall-mounting case |
| Power supply | | 12V DC |
| Power consumption | | 5 Watt [max] |
| Operation temperature | | 0~40°C [32~104°F] |
| Storage temperature | | -20~60°C [-4~140°F] |
| Relative humidity | | 20~90% RH [no condensation] |

## PANEL DESCRIPTIONS



1. **Stereo Output** (3.5mm)
2. **IR Sensor:** Receive IR commands from the IR remote
3. **Dip Switch:** [OFF] Normal mode; [ON] Firmware update mode
4. **Micro-USB:** For software control or firmware update
5. **Source Status LED:** Indicate the active input source (from the left to the right is input 4, input 3, input 2, input 1)
6. **One View mode:** Switch source in one view (full screen) mode
7. **Audio Switch:** Switch stereo audio out from source 1-4 or mute audio
8. **Quad View Cycled Mode:** Switch source in quad view cycled mode
9. **Default layout Modes:** Switch between 3 default layout modes (Dual View Mode (left & right), Quad View Mode, and Quad View H mode)
10. **720p/ 1080p/ 4K30:** Switch output resolution to 720p60, 1080p60, or 4K30
11. **SOURCE 1-4:** HDMI inputs (from the left to the right: input 1, input 2, input 3, input 4)
12. **HDMI OUT:** HDMI output
13. **+12V DC:** 12V DC power jack

## CONNECTION DIAGRAM

## OPERATION APPROACH

### Method A: IR Remote Control



| Button | Function |
|---|---|
|  | Switch output resolution |
| HDCP FOLLOW | [Enable]: HDCP follow the source<br>[Disable]: HDCP is always 1.4 |
| POWER | Power ON/OFF the device |
|  | The input information |
| CH1 | Input 1 in one view mode |
| CH2 | Input 2 in one view mode |
|  | Turn on/off output's audio |
| CH3 | Input 3 in one view mode |
| CH4 | Input 4 in one view mode |
|  | Switch stereo audio from source 1-4 |
|  | Quad-view mode |
|  | Dual view mode (left & right) 1 |
|  | Switch source in quad-view mode |
|  | Quad view H mode |
|  | Dual view mode (left & right) 2 |

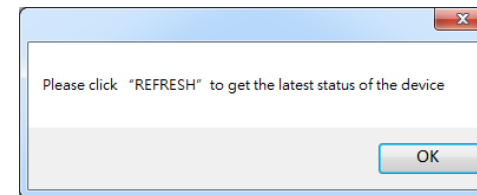### Method B: Software Control through Micro-USB port

1. **System Requirement**
   (1) OS Information: MS Win 10/11
   (2) Baud rates: 115200
   (3) Software size: 1MB
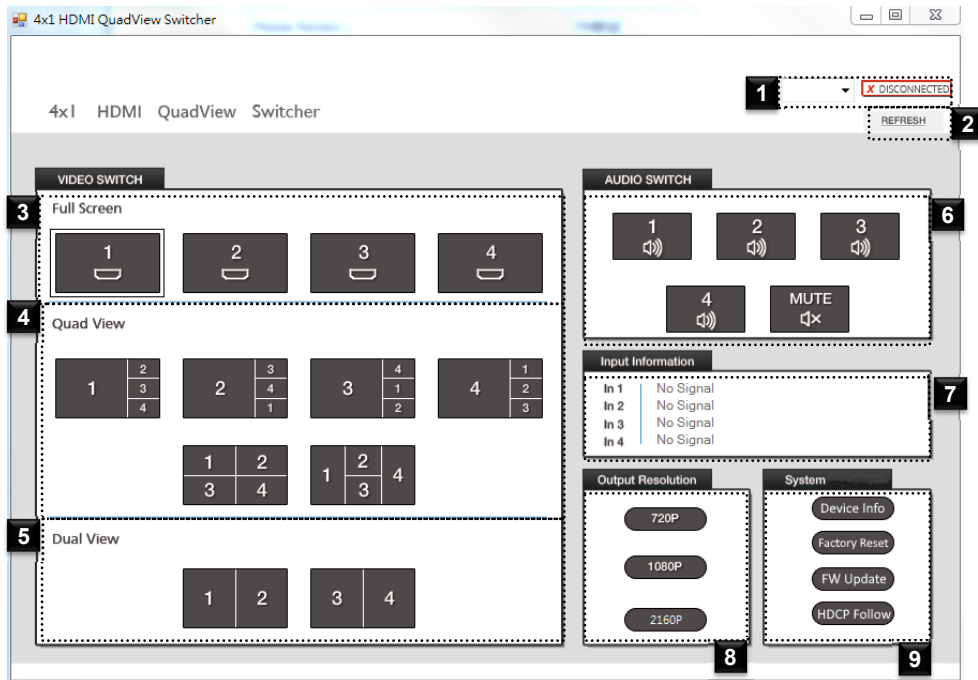   (4) Minimum RAM requirement: 256 MB

2. **Control Interface**

   Before clicking on the icon of the software, make sure you have secured the connection between your computer COM port and the MX-5004MS.

   When clicking on the software control program, the following window will pop-up (under Microsoft Windows 7, please run as administrator.)

   

   After you clicking the OK button, it will enter directly to the control interface (Please click **DISCONNECTED** button to connect the software),

| 1 | COM Port Selection & Connection Status |
|---|---|
| 2 | Refresh |
| 3 | Video Switch – Full Screen (One View Mode) |
| 4 | Video Switch – Quad View Mode |
| 5 | Video Switch – Dual View Mode |
| 6 | Audio Switch |
| 7 | Input Information |
| 8 | Output Resolution Setting |
| 9 | System Setting |

**(1) COM Port Selection & Connection Status**

Please ensure you have secured the connection between your computer COM port and the device. Select correct COM port and click the connection/disconnect button to connect software.

**(2) Refresh**

This button can get all information of the device and update this software state.

**(3) Video Switch – Full Screen (One View Mode)**
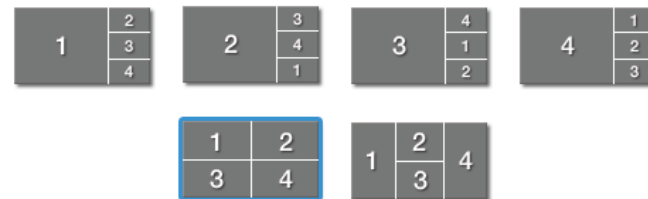
Select input source in one view mode (full screen).



**(4) Video Switch – Quad View Mode**

We provides 3 default quad view mode for user to select different layout modes.



**(5) Video Switch – Dual View Mode**

It has 2 dual view layout modes for user to select.

**(6) Audio Switch**

To set up the audio source of the output (stereo and HDMI).



**(7) Input Information**

Show the input source resolution.

| In 1 | No Signal |
|------|-----------|
| In 2 | No Signal |
| In 3 | No Signal |
| In 4 | No Signal |

**(8) Output Resolution Setting**

We provide 3 most common output resolution (2160P, 1080p & 720p) for user select.

**(9) System Setting**

a) Device Info

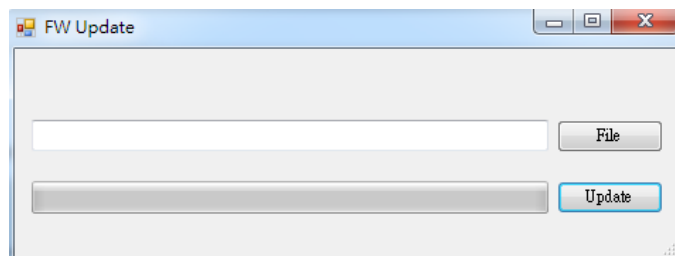The software & firmware version information

b) Factory Reset

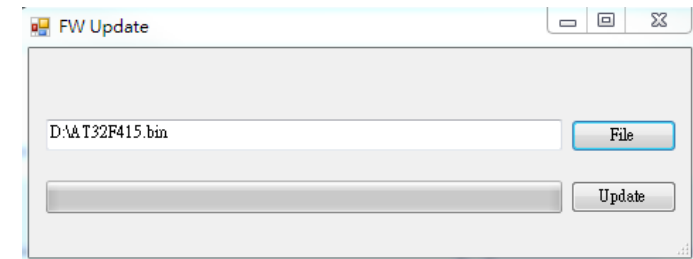The process of default reset will take about 10 seconds.

c) FW Update

Before you start to update, please make sure you have secured the connection between your computer COM port and the device.

➢ Please move the dip switch on F/W mode, and then power cycle the device.

➢ Click [FW Update] button to do firmware update.

➢ The firmware update window shows up as below.



➢ Click [File] button to load firmware file.

➢ Click [Update] button to start firmware update process.

➢ After updating, please move the dip switch on normal mode and power cycle the device.

d) HDCP Follow

[Enable]: HDCP follow the source

[Disable]: HDCP is always 1.4

## WARRANTY

The SELLER warrants the **MX-5004MS 4x1 HDMI Quad- Viewer & Seamless Switcher** free from defects in the material and workmanship for 1 year from the date of purchase from the SELLER or an authorized dealer. Should this product fail to be in good working order within 1 year warranty period, The SELLER, at its option, repair or replace the unit, provided that the unit has not been subjected to accident, disaster, abuse or any unauthorized modifications including static discharge and power surge. This warranty is offered by the SELLER for its BUYER with direct transaction only. This warranty is void if the warranty seal on the metal housing is broken.

Unit that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for 90 days from the day of reshipment to the BUYER. If the unit is delivered by mail, customers agree to insure the unit or assume the risk of loss or damage in transit. Under no circumstances will a unit be accepted without a return authorization number.

The warranty is in lieu of all other warranties expressed or implied, including without limitations, any other implied warranty or fitness or merchantability for any particular purpose, all of which are expressly disclaimed.

Proof of sale may be required in order to claim warranty. Customers outside Taiwan are responsible for shipping charges to and from the SELLER. Cables and power adapters are limited to a 30 day warranty and must be free from any markings, scratches, and neatly coiled.

The content of this manual has been carefully checked and is believed to be accurate. However, The SELLER assumes no responsibility for any inaccuracies that may be contained in this manual. The SELLER will NOT be liable for direct, indirect, incidental, special, or consequential damages resulting from any defect or omission in this manual, even if advised of the possibility of such damages. **Also, the technical information contained herein regarding the MX-5004MS features and specifications is subject to change without further notice.**