

MT-VIKI 4X4

MT-VIKI 4K HDMI Matrix Switch 4x4 User Manual

Model: 4X4 | Brand: MT-VIKI

1. INTRODUCTION

This manual provides detailed instructions for the MT-VIKI 4K HDMI Matrix Switch 4x4. This high-performance device allows you to route any of 4 HDMI input sources to any of 4 HDMI output displays independently. It functions as both a switcher and a splitter, supporting resolutions up to 4K@30Hz. The unit is designed for professional applications and offers multiple control options including front panel buttons, IR remote, RS232, and LAN.

2. PRODUCT FEATURES

- **4x4 HDMI Matrix Functionality:** Allows any of 4 HDMI inputs to be routed to any of 4 HDMI outputs simultaneously.
- **4K@30Hz Resolution Support:** Supports video resolutions up to 3840x2160@30Hz.
- **Multiple Control Options:** Switch inputs/outputs via front panel buttons, IR remote control, RS232 serial port, or LAN.
- **EDID Management:** Built-in EDID management for optimal display compatibility.
- **Audio Format Support:** Compatible with PCM, Dolby AC3, DTS5.1, DTS7.1, and DSD audio formats.
- **Rack Mount Design:** Fits standard 1U 19-inch cabinets/racks for professional installations.
- **Backlit Buttons:** Features acrylic crystal buttons with LED backlighting for clear visibility.
- **Advanced Chipset:** Utilizes a US 12.75G high-bandwidth ADI switching chip for synchronous signal switching.
- **8KV ESD Protection:** Provides enhanced electrostatic discharge protection.

3. SETUP INSTRUCTIONS

3.1 Package Contents

Before installation, please verify that all items are present in the package:

- MT-VIKI 4K HDMI Matrix Switch 4x4 Unit
- Power Adapter

- IR Remote Control
- RS232 Cable
- Rack Mount Ears (2)
- User Manual (this document)

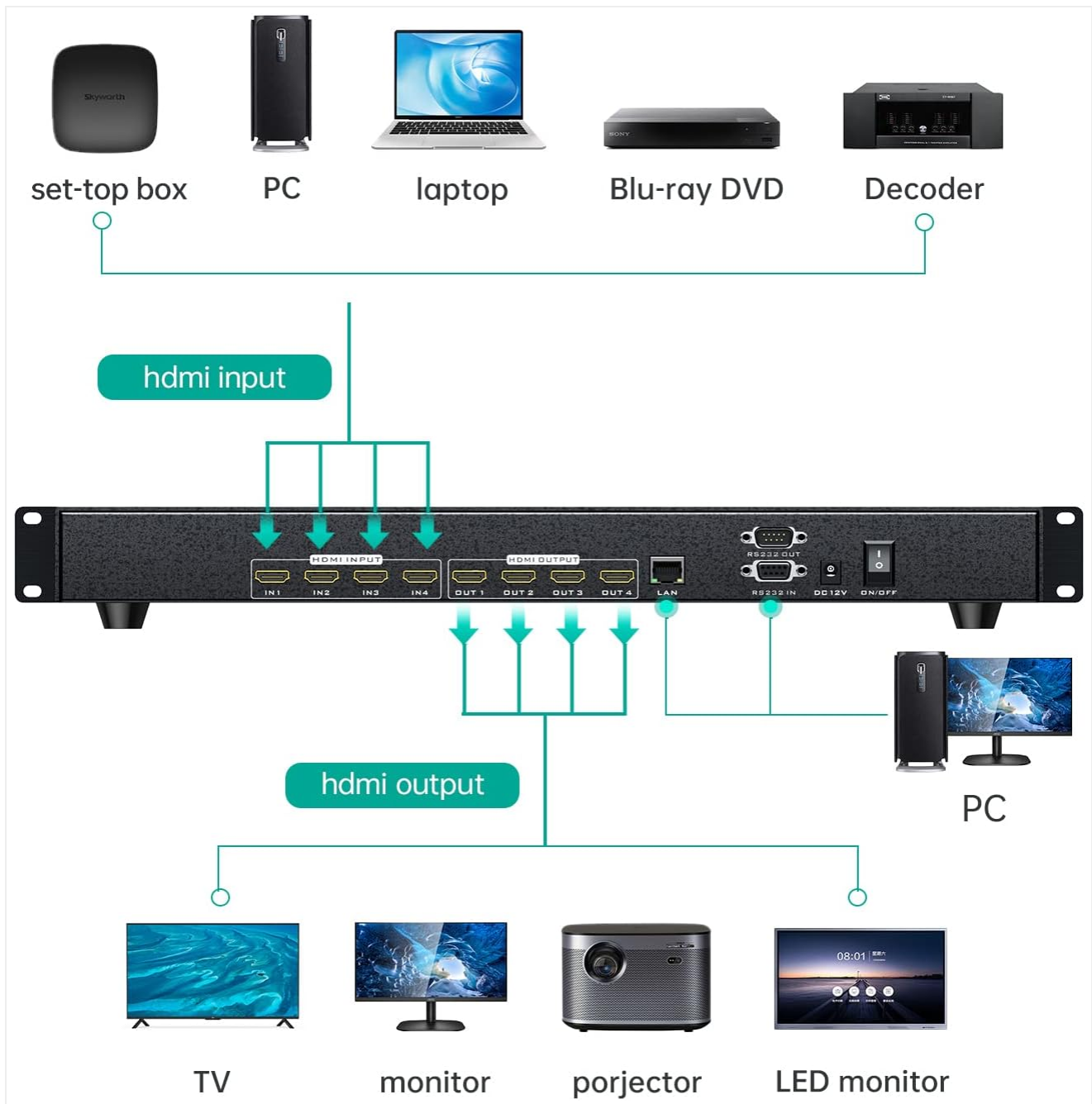


Figure 3.1: Package Contents - MT-VIKI 4K HDMI Matrix Switch 4x4, power adapter, IR remote, RS232 cable, and rack mount ears.

3.2 Physical Installation

The MT-VIKI 4K HDMI Matrix Switch 4x4 is designed for rack mounting. Attach the included rack mount ears to the sides of the unit using the provided screws. Secure the unit into a standard 1U 19-inch rack.



Figure 3.2: Rack Mount Installation - The MT-VIKI 4K HDMI Matrix Switch 4x4 mounted in a standard 19-inch rack.

3.3 Connection Diagram

Follow the steps below to connect your devices:

1. Connect up to four HDMI source devices (e.g., set-top box, PC, laptop, Blu-ray DVD, decoder) to the **HDMI INPUT** ports (IN1-IN4) on the rear panel of the matrix switch using HDMI cables.
2. Connect up to four HDMI display devices (e.g., TV, monitor, projector) to the **HDMI OUTPUT** ports (OUT1-OUT4) on the rear panel using HDMI cables.
3. For remote control via RS232, connect the RS232 port on the matrix switch to your control system using the provided RS232 cable.
4. For remote control via LAN, connect the LAN port on the matrix switch to your network.
5. Connect the power adapter to the **DC 12V** input on the rear panel and then plug it into a power outlet.
6. Power on all connected devices.

Various Screen Configuration

Distribute any source to any of the 4 HDMI displays



1. splitter mode

All display share the same input source



2. matrix & splitter mode

Part of displays share the same input source



3. matrix mode

Each display select a standalone input source

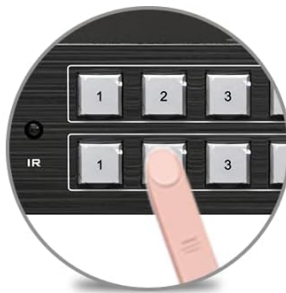
Figure 3.3: Connection Diagram - Illustrates connecting HDMI sources to inputs and HDMI displays to outputs, along with control ports.

RICH CONTROL OPTIONS

4 Method for easy Switching



IR remote control



Button
Switch



LAN control



RS232

Figure 3.4: Rear Panel - Detailed view of the HDMI input/output ports, RS232, LAN, and power connections.

4. OPERATING INSTRUCTIONS

4.1 Front Panel Control

The front panel features input and output selection buttons, along with control buttons for EDID, Menu, Enter, Up, and Down.



Figure 4.1: Front Panel Controls - Shows the input/output selection buttons and menu navigation buttons.

- **Input Selection:** Press the desired **INPUT** button (1-4) to select an input source.
- **Output Selection:** Press the desired **OUTPUT** button (1-4) to select an output display.
- **Switching:** To route an input to an output, first select the desired output, then select the desired input. For example, to send Input 1 to Output 2, press 'Output 2' then 'Input 1'.
- **ALL Button:** Routes the currently selected input to all outputs.

4.2 IR Remote Control

The included IR remote control provides convenient wireless operation. Point the remote towards the IR receiver on the front panel of the matrix switch.

4.3 RS232 and LAN Control

For advanced control, the matrix switch can be managed via RS232 or LAN. Refer to the included CD driver for the 'MatrixController' software and detailed protocol specifications for integration with third-party control systems.

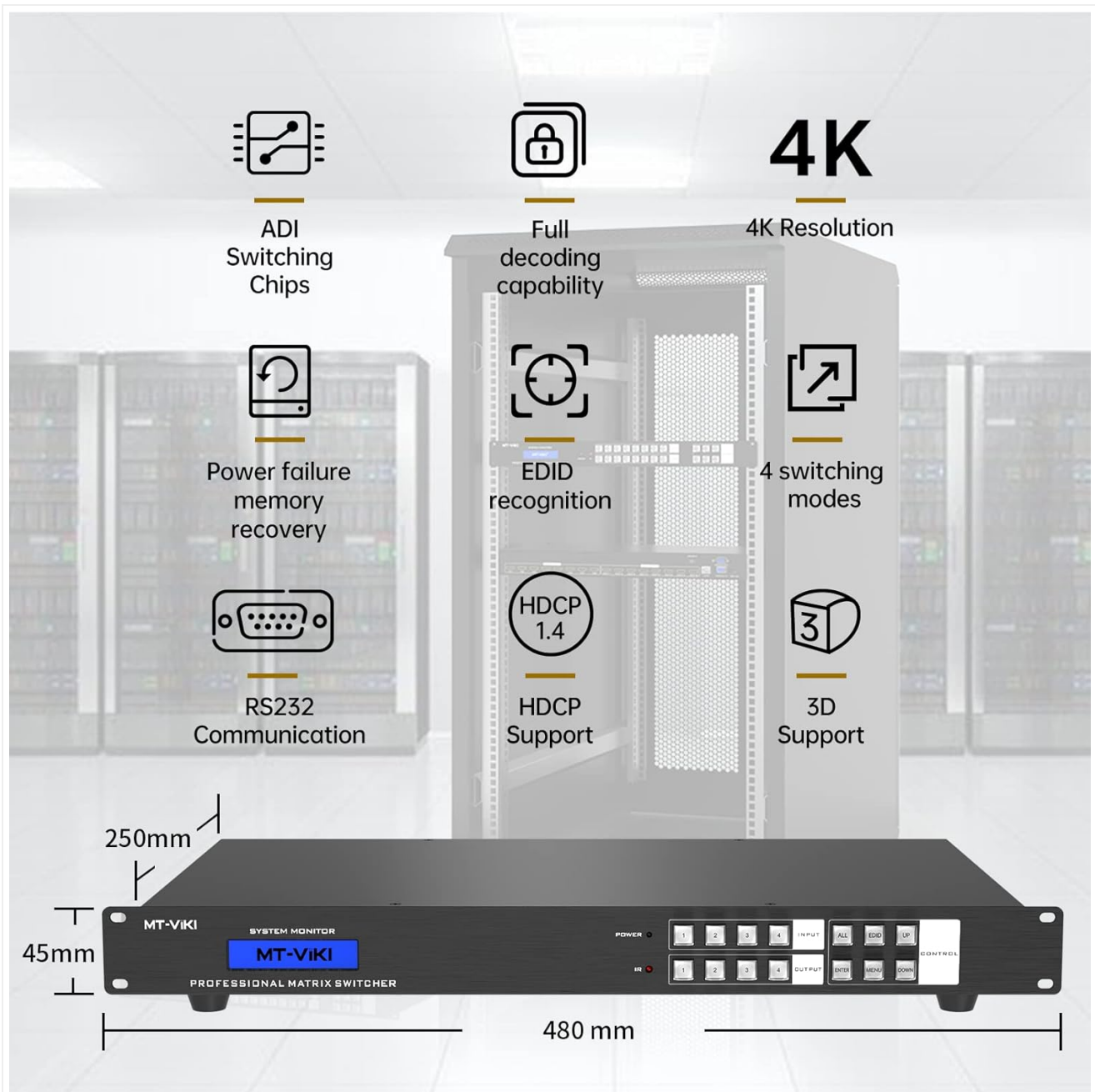


Figure 4.2: Control Options - Visual representation of the IR remote, front panel buttons, LAN, and RS232 control methods.

4.4 EDID Management

EDID (Extended Display Identification Data) settings are crucial for ensuring optimal resolution and audio compatibility between your sources and displays. The matrix switch allows you to adjust EDID settings to prevent display issues.



Video 4.1: How to set EDID for best display. This video demonstrates the steps to configure EDID settings on the matrix switch for optimal video output.



Video 4.2: How to set 1080p for HDMI matrix switch. This video explains how to adjust settings to ensure 1080p resolution output, which can be helpful for compatibility with certain monitors.

4.5 Beep Sound Control

The matrix switch may emit a beep sound upon certain operations. You can enable or disable this sound through the unit's menu.

Video 4.3: How to turn on/off beep sound. This video guides you through the process of enabling or disabling the audible feedback from the matrix switch.

4.6 Various Screen Configurations

The matrix switch supports different display modes:

- **Splitter Mode:** All displays share the same input source.
- **Matrix & Splitter Mode:** Part of the displays share the same input source, while others show different inputs.
- **Matrix Mode:** Each display selects a standalone input source.



Figure 4.4: Various Screen Configurations - Visual examples of how inputs can be distributed to outputs in different modes.

5. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the unit. Avoid liquid cleaners or abrasive materials.
- **Ventilation:** Ensure proper airflow around the unit to prevent overheating. Do not block ventilation openings.

- **Environment:** Operate the device in a cool, dry environment away from direct sunlight, heat sources, and excessive humidity.
- **Cable Management:** Securely connect all cables to prevent accidental disconnections or damage.

6. TROUBLESHOOTING

If you encounter issues with your MT-VIKI 4K HDMI Matrix Switch 4x4, refer to the following common problems and solutions:

- **No Display / Black Screen:**
 - Check all HDMI cable connections to ensure they are secure.
 - Verify that all source and display devices are powered on and functioning correctly.
 - Adjust the EDID settings as described in Section 4.4 to ensure compatibility.
 - Try using shorter, high-quality HDMI cables, especially for 4K resolutions.
- **Snowflake / Moire / Flickering Image:**
 - This often indicates signal degradation due to long or low-quality HDMI cables. Replace cables with certified high-speed HDMI cables.
 - Ensure the resolution and refresh rate settings on your source device are compatible with both the matrix switch and the display.
 - Check EDID settings.
- **No Audio:**
 - Verify that the audio settings on your source device are correctly configured.
 - Ensure the display device's audio input is selected correctly.
 - Check EDID settings, as incorrect EDID can affect audio transmission.
- **Remote Control Not Responding:**
 - Ensure there are no obstructions between the remote and the IR receiver on the matrix switch.
 - Replace the batteries in the IR remote control.



Video 6.1: How to solve display issues like no display, long cable, snowflake, moire. This video provides visual guidance on resolving common video signal problems.

7. SPECIFICATIONS

Brand	MT-VIKI
Model	4X4
Color	Black
Connector Type	HDMI
Compatible Devices	Television, PC, Laptop, Blu-ray DVD, Decoder, Projector
Cable Type	HDMI
Number of Ports	8 (4 Input, 4 Output)

Resolution Support	Up to 4K (3840x2160) @ 30Hz
ESD Protection	8KV
Audio Format Support	PCM, Dolby AC3, DTS5.1, DTS7.1, DSD
Control Methods	Front Panel Buttons, IR Remote, RS232, LAN

8. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the product's official Amazon listing or contact MT-VIKI customer service directly. Details regarding specific warranty periods and support channels are typically provided with your purchase or on the manufacturer's website.

Optional protection plans are available for purchase, offering extended coverage beyond the standard manufacturer's warranty. Please check the product page for current protection plan options and terms.