

Yinker 4K60Hz 4 in 4 out

Yinker 4K60Hz 4x4 HDMI Matrix and 2x2 Video Wall Processor User Manual

Model: 4K60Hz 4 in 4 out

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your Yinker 4K60Hz 4x4 HDMI Matrix and 2x2 Video Wall Processor. This device is designed to connect up to four HDMI input sources and distribute them to four HDMI output displays, functioning as both a switcher and a splitter. It also features advanced video wall processing capabilities.

2. KEY FEATURES

- **4x4 HDMI Matrix Switching:** Connects 4 HDMI input sources to 4 HDMI output displays.
- **2x2 HDMI Video Wall Controller:** Supports multiple splicing modes including 1x1, 1x2, 2x1, 2x2, 1x3, 3x1, 1x4, and 4x1, with customized splicing and splitting options.
- **Individual Audio Control:** Features built-in audio input embedder and audio output extractor for professional audio management.
- **4K60Hz Resolution Support:** Supports video resolutions up to 4K*2K@60Hz 4:4:4, with downscaling to 4K and 1080P simultaneously. Compatible with HDMI 2.0 and HDCP 2.2, and backward compatible. Includes EDID management.
- **Multiple Switching Methods:** Control via front panel buttons, IR remote, RS232/LAN, Web GUI, and Android APP.
- **User-Friendly Interface:** Backlit buttons and an LCD information screen for easy operation and status monitoring.

3. PACKAGE CONTENTS

Verify that all items listed below are included in your package. If any items are missing or damaged, please contact Yinker Official support.

- Yinker 4x4 HDMI Matrix Unit x1
- IR Remote Control x1 (AAA batteries not included)
- Power Adapter and Cord x1

- Ground Wire x1
- RS-232 Cable x1
- QR code for user manual and software download x1



Image: Contents of the Yinker 4x4 HDMI Matrix package.

4. CONNECTIONS AND SETUP

Follow these steps to connect your Yinker HDMI Matrix to your input sources and output displays.

1. **Power Off All Devices:** Ensure all HDMI sources (e.g., set-top box, PC, laptop, game console) and displays (e.g., TV, monitor, projector) are powered off before making connections.
2. **Connect HDMI Input Sources:** Connect your HDMI source devices to the HDMI IN 1-4 ports on the Yinker Matrix using high-quality HDMI 2.0 cables.
3. **Connect HDMI Output Displays:** Connect your HDMI display devices to the HDMI OUT 1-4 ports on the Yinker Matrix using high-quality HDMI 2.0 cables.

4. Connect Audio Devices (Optional):

- For audio embedding, connect an external audio source to the 3.5mm Audio Input port.
- For audio extraction, connect an audio receiver or speakers to the 3.5mm Audio Output port.

5. Connect Control Interfaces (Optional):

- For RS232 control, connect the RS232 cable to your control system.
- For LAN/Web GUI/APP control, connect an Ethernet cable from the LAN port to your network router or switch.

6. **Connect Power:** Connect the provided power adapter to the DC 12V port on the matrix and then plug it into a power outlet.

7. **Power On:** Power on the Yinker HDMI Matrix, then power on your HDMI source devices and displays.

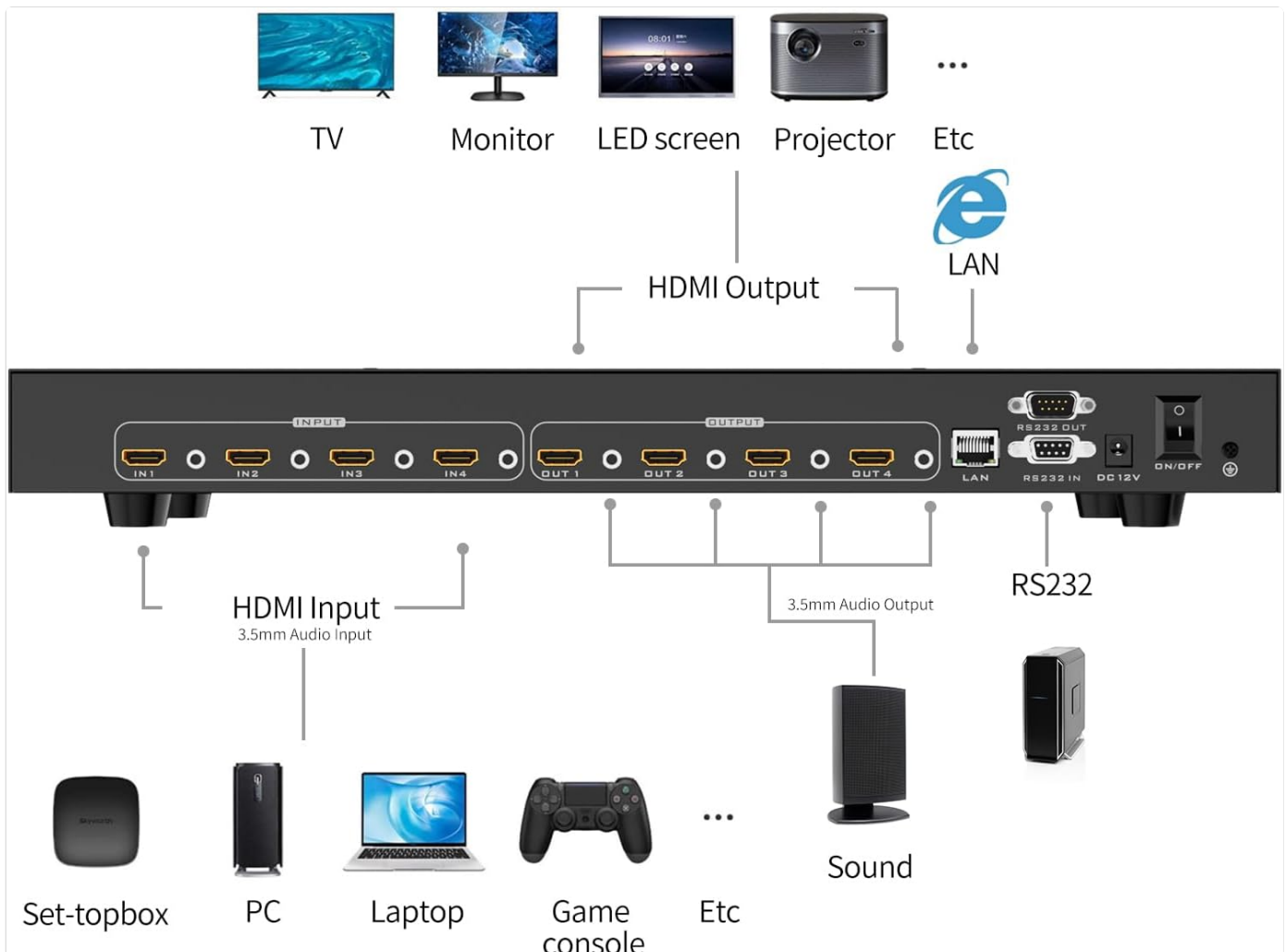


Image: Rear panel connection diagram of the Yinker 4x4 HDMI Matrix.

5. OPERATING INSTRUCTIONS

5.1 Switching Methods

The Yinker HDMI Matrix offers multiple ways to switch between input sources and output displays:

- **Front Panel Buttons:** Use the physical buttons on the front panel to select inputs and outputs. The LCD screen will display the current matrix status.
- **IR Remote Control:** Use the included IR remote to switch inputs and outputs from a distance. Point the remote directly at the IR receiver on the front panel.

- **RS232/LAN Control:** For advanced integration, the device can be controlled via RS232 serial commands or over a local area network (LAN). Refer to the detailed command set in the full user manual (available via QR code).
- **Web GUI / Android APP Control:** Access the device's web-based graphical user interface (GUI) through a web browser on your computer or use the dedicated Android application for convenient control.

Support 4 Switching Modes



Panel Button



IR Remote



RS232/LAN



Web GUI

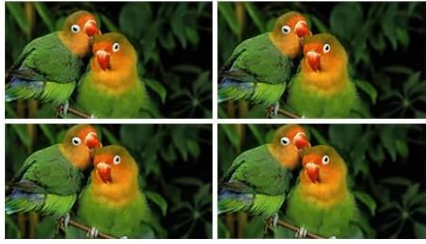
Image: Overview of the four control methods for the Yinker HDMI Matrix.

5.2 Video Wall Modes

The matrix supports various video wall configurations, allowing you to combine multiple displays into a single large screen or arrange them in custom layouts.

- **Splitter Mode:** Displays the same input source on multiple screens.
- **Matrix Mode:** Allows independent routing of any input to any output.
- **Splicing Mode (Video Wall):** Combines multiple displays to form a larger single image. Supported modes include 1x1, 1x2, 2x1, 2x2, 1x3, 3x1, 1x4, and 4x1.
- **Customized Mode:** Offers flexible screen splicing and splitting options beyond standard configurations.

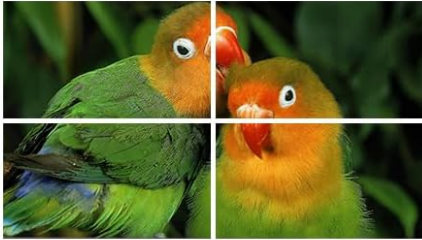
Multiple Display Modes



Splitter Mode



Matrix Mode



Splicing Mode



Customized Mode



Image: Visual representation of various display modes, including video wall configurations.

5.3 Audio Management

The device provides comprehensive audio control features:

- **Audio Embedding:** Integrate external audio signals into the HDMI stream via the 3.5mm audio input.
- **Audio Extraction:** Extract audio from the HDMI stream to external audio systems (speakers, amplifiers) via the 3.5mm audio output.
- Individual audio control ensures smooth audio transmission without loss.



Image: Audio embedding and extraction ports on the Yinker HDMI Matrix.

5.4 Resolution and EDID Management

The Yinker HDMI Matrix supports high-resolution video and includes EDID management for optimal display compatibility.

- Supports resolutions up to 4K*2K@60Hz with 4:4:4 color space (RGB, YCbCr4:4:4/2:2).
- Capable of downscaling 4K signals to 1080P simultaneously, allowing compatibility with mixed resolution displays.
- EDID management ensures proper communication between source and display for optimal video output.

Real 4K@60Hz HD Resolution

Support EDID management, 4Kx2K@60Hz, downscale to 4K and 1080P simultaneously



Image: Demonstration of 4K@60Hz resolution and 1080P downscaling.

6. SPECIFICATIONS

Brand	Yinker
Model	4K60Hz 4 in 4 out
Color	Black
Input Interface	HDMI x 4, 3.5mm Audio Input x 1
Output Interface	HDMI x 4, 3.5mm Audio Output x 1
HDMI Version	HDMI 2.0
HDCP Version	HDCP 2.2 (backward compatible)

Supported Resolution	Up to 4K*2K@60Hz 4:4:4 (RGB, YCbCr4:4:4/4:2:2)
Downscaler	Supports downscaling to 4K and 1080P simultaneously
Control Methods	Front Panel Buttons, IR Remote, RS232, LAN, Web GUI, Android APP
Audio Format	PCM/DSD/Dolby AC3/DTS-HD/DTS5.1/DTS7.1
Power Supply	DC 12V
Compatible Devices	Laptop, Satellite Receiver, Gaming Console, DVD Player, Camera, Blu-Ray Player

7. TROUBLESHOOTING

If you encounter issues with your Yinker HDMI Matrix, please refer to the following common troubleshooting steps:

- **No Video Output:**

- Ensure all HDMI cables are securely connected to both the matrix and the source/display devices.
- Verify that the correct input source is selected on the matrix and the correct HDMI input is selected on your display.
- Check if the power adapter is properly connected and the unit is powered on.
- Try using different HDMI cables, as faulty cables can cause signal loss.
- Ensure your display supports the output resolution from the matrix. If not, try adjusting the source device's resolution or utilize the matrix's downscaling feature.

- **No Audio Output:**

- Confirm that the audio settings on your source device are correctly configured for HDMI output.
- Check connections to any external audio systems (e.g., speakers connected to the 3.5mm audio output).
- Ensure the volume on both the display and any connected audio systems is not muted or set too low.

- **Remote Control Not Working:**

- Ensure there are fresh AAA batteries installed in the remote control.
- Point the remote directly at the IR receiver on the front panel of the matrix.
- Remove any obstructions between the remote and the matrix.

- **Video Wall Not Displaying Correctly:**

- Ensure all displays in the video wall are of the same type and resolution for optimal performance.
- Verify the splicing mode settings are correctly configured according to your desired layout.
- Consult the full user manual for detailed video wall configuration instructions.

- **Interference/Noise:**

- If experiencing electromagnetic interference, ensure the ground wire is properly connected.
- Consider using HDMI cables with ferrite beads to reduce potential noise.

For further assistance, please refer to the comprehensive user manual available via the provided QR code or contact Yinker Official support.

8. WARRANTY AND SUPPORT

The Yinker 4K60Hz 4x4 HDMI Matrix comes with a **1-year manufacturer's warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use.

For warranty claims, technical support, or to download the full user manual and software, please contact Yinker Official support. Contact information can typically be found on the product packaging or the Yinker brand website.

Please retain your proof of purchase for warranty service.

