Operating Instructions

Thanks for purchasing our product.
Please be sure to read this instruction manual
carefully before using our product.

CE ♻ RoHS 🗑

Introduction

The Spider Matrix is a 4-by-4 DVI/HDMI true matrix. It allows any source (Blue-Ray player, HD DVD player, satellite receiver, game system, etc.) to be shown on the any of the four displays simultaneously, no matter the source is HDCP or not. Extra infrared receiver extension, IR emitter are supplied for the control.

The Spider has the ability of equalization and amplification to ensure HDMI signal's transmission through long cable without quality loss.

This Matrix offers solutions for digital entertainment center, HDTV retail and show site, HDTV, STB, DVD and projector factory, noise, space and security concerns, data center control, information distribution, conference room presentation, school and corporate training environments.

Contents

HDMI Matrix (Router Type)

■ Product Overview

■ Features

- Easy to use: install in seconds.
- Allows up to four HDMI audio/video devices to be independently switched to four HDMI monitors, HDTV's, or projectors.
- The four outputs could show the same or different source simultaneously no matter the source is HDCP or not.
- Support high definition resolutions 1080p, 1080i, 720p and other standard video formats.
- Each port supports HDMI or DVI inputs.
- With extra infrared receiver extension.
- Two switching modes: panel buttons, local IR.
- HDCP compliant.
- HDMI 1.4 version.

⚠ Warning

To reduce the risk of fire, electric shock or product damage:

1. Do not expose this apparatus to rain, moisture, dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

6. Clean this apparatus only with dry cloth.

2. Do not install or place this unit in a bookcase, built-in cabinet or in another confined space. Ensure the unit is well ventilated.

7. Unplug this apparatus during lightning storms or when unused for long periods of time.

3. To prevent risk of electric shock or fire hazard due to overheating, do not obstruct the unit's ventilation openings with newspapers, tablecloths, curtains, and similar items.

8. Protect the power cord from being walked on or pinched particularly at plugs.

4. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9. Only use attachments / accessories specified by the manufacturer.

5. Do not place sources of naked flames, such as lighted candles, on the unit.

10. Refer all servicing to qualified service personnel.

■ Package Contents

① Main unit.

② 5VDC Power Supply.

③ 1x Remote (Battery type: CR2025 3V).

④ 4x IR_RX (IR receiver) extension cable.

⑤ 4x IR_TX (IR emitter) extension cable.

⑥ 4x IR_RX cable extender jack pair. (Refer to page 8).

⑦ Operating Instructions.

⑧ 2x Mounting Ear.
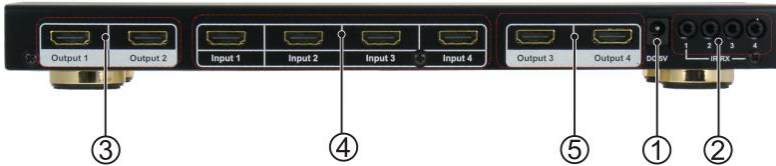
■ Panel Descriptions

Front Panel

① Output selection and indicator of input for output port 1 to 4.

② IR window.

③ Key lock button.

④ Indicator of locking status, when the output selection buttons are locked, LED inside lit.

⑤ Power switch.

⑥ IR TX OUTPUT 1 to 4.

⑦ USB port for ISP.

⑧ DIP switch.

① Power input.
② IR extension 1to 4.
③ Output 1 and 2 with HDMI.
④ Input ports 1 to 4 with HDMI.
⑤ Output 3 and 4 with HDMI.

📖 **NOTE:** RS232 port and LAN port are for matrix control. The LAN port is connected to the computer via direct UTP and connected to the router via cross UTP.

■ Connections and Operations

1) Connect the HDMI input sources (such as HD-DVD, PS3, STB etc) into the matrix.

2) Connect the HDMI outputs (such as HD-LCD, HD-DLP) into the product.

3) Connect the IR RX receiving cable into IR cable extension and connect the IR TX cable into matrix emitter.

4) Power on the input source you want to show. (Keep the unused input power off, otherwise it may interfere the normal display.)

5) Connect the power supply into matrix and turn on the display you want to watch.

6) Use remote or push the button to choose input source. Extra infrared receiver extensions, IR emitter, are supplied for remote control.

7) The IR signal of any IR extension will through "TX IR" port to send the signal out.

8) Source - Sink Auto fit Function

This function applies to the situation when the source's HDMI version exceeds the sink's HDMI version. (This function can be used to fix the deep color, 1080P, 1080i, 2ch audio, multi channel audio issue.)

For example:

When the TV is HDMI 1.2 version and PS3 source is HDMI 1.4 version, it will output HDMI 1.2 version.

(1) Under default mode, this machine will output 1.2 version HDMI signal (1080P and stereo audio).

(2)   Under button mode.

There are two modes to update the EDID data according to the DIP setting. When the DIP is in default mode (0, 0, 0), the matrix will be in mix mode.

A、When the source is HDMI1.4, (e.g., HDMI output from PS3), OUTPUT1 to 4 both support HDMI1.4 displays,   press "selection of OUTPUT1" and "lock key" simultaneously, the machine will output HDMI1.4 signals.

B、When the source is HDMI1.4, (e.g., the HDMI output from PS3), OUTPUT 1 to 4 are connected to the displays that can only support HDMI 1.2 MAX, press "selection of OUTPUT1" and "lock key" simultaneously (no matter whether HDMI OUTPUT port is connected to the display that supports HDMI 1.4 or not), it will output HDMI 1.2 signals.

When the DIP is in default mode (0, 0, 0), the matrix will be in copy mode.

📖   **Note:** The method to reset the machine to default EDID setting: Disconnect the input and output. Please press "selection of OUTPUT1" and "lock key" Simultaneously for at least 3 seconds, and EDID of all the four input ports will be reset to the default setting. The audio setting of the default EDID is stereo. It is suitable for TV sets.

9) DIP switch setting

Position ID			
1	2	3	Mix the low version EDID.(default) (note 1)
0	0	0	reserved
0	0	1	reserved
0	1	0	reserved
0	1	1	Copy the EDID of the display which connected the OUTPUT1(note 2)
1	0	0	reserved
1	0	1	reserved
1	1	0	reserved
1	1	1	reserved

 Note1: The matrix will mix the EDID data of the sink devices. The mixed EDID data will use the lowest resolution of the video and the least channel number of the audio. For example, some sink device support 1080P, some sink device only support 1080i, some support 5.1 audio, but some only support stereo. Then the mixed EDID will be 1080i and stereo.

 Note2: If user wants to just use one sink device's EDID data, this DIP setting can be used.

 Attention: Please insert or extract cables gently**.**

■ SPECIFICATIONS

Operating Temperature Range	-5 to +35°C (-41 to +95 °F)
Operating Humidity Range	5 to 90 % RH (no condensation)
Input Video Signal	0.5-1.0 volts p-p
Input DDC Signal	5 volts p-p (TTL)
Signaling Rate	2.25Gbit/s
Video Format Supported	DTV/HDTV: 1080p/1080i/720p/576p/480p/576i/480i
Audio Format Supported	DTS-HD、Dolby trued
Output Video	HDMI1.2 and HDMI 1.4
Maximum Transmission Distance	<15m (If needed, HDMI extender is optional)
Power Consumption	12wtts (Max.)
Dimensions	300mmL×96mmW×26mmH /11.8"L×3.8"W×1"H
Mass (Main Unit)	0.7kg/4.4lb

📖 **Note:** Specifications are subject to change without notice. Mass and dimensions are approximate.
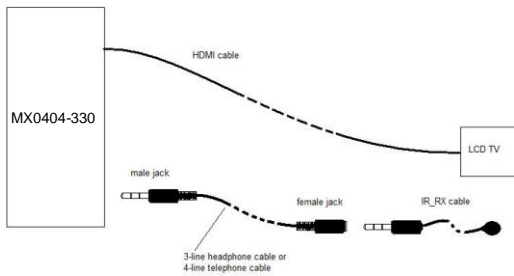
IR receiver cable extender jacks.

When the display device is not near to the matrix, the IR_RX cable will be too short. There is pair of jacks to extend the IR_RX cable.　Customer or installer
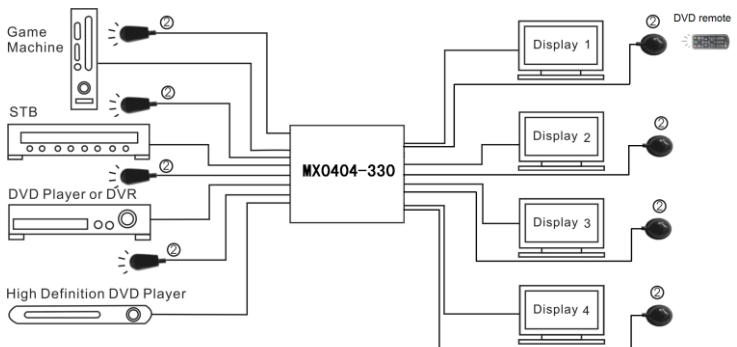
can use the headphone cable or 4-line telephone cable to form the IR cable extender.

Use the male jack and female jack to extend the IR_RX cable like the picture below.

■ **Typical Application**

Note: ① IR RX , ② IR TX

■ Maintenance

Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner or benzene to clean this unit