LINK

LINK SW4X1-4KUHD
4 x 1 4K HDMI Switcher

User Manual

Version: V1.0.0

Important Safety Instructions

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.

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.

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.

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

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

6. Clean this apparatus only with dry cloth.

7. Unplug this apparatus during lightning storms or when unused for long periods of time.
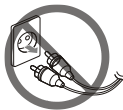
8. Protect the power cord from being walked on or pinched particularly at plugs.

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

10. Refer all servicing to qualified service personnel.

Warnings of FCC

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

　　-- Reorient or relocate the receiving antenna.

　　-- Increase the separation between the equipment and receiver.

　　-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

　　-- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Table of Contents

Introduction

Overview

LINK SW4X1-4KUHD features HDMI 2.0 and HDCP 2.2 compatibility and supports resolutions up to 4K@60Hz 4:4:4 8bit, enabling four Ultra HD sources to be switched to one Ultra HD display. It also allows control through top panel button, IR remote and automatic switch.

Designed for simple installation and compact size, LINK SW4X1-4KUHD offers the convenience of future-ready Ultra HD AV switching, and the reliability of cutting-edge HDMI 2.0 and HDCP 2.2 compatibility.

Features

- Cost effective 4 in to 1 out HDMI switcher
- Fully compliant with HDMI 2.0 and HDCP 2.2
- HDMI inputs and output support up to 4K@60Hz 4:4:4 8bit
- HDMI input and output cable length up to 49ft/15m + 49ft/15m for 1080P, and up to 10ft/3m + 16ft/5m for 4K@60Hz 4:4:4
- Supports top panel button, IR remote and automatic switch control options
- Compact size and easy-to-install

Package Contents

- 1 x Switcher SW4X1-4KUHD
- 1 x DC 5V Power Adapter (with US plug)
- 1 x Switcher IR Remote
- 1 x IR Extension Cable (38KHz)
- 2 x Mounting Bracket

Specifications

| Video	
Input	4 x HDMI IN (Type-A female connector)
Output	1 x HDMI OUT (Type-A female connector)
Input/Output Signal Type	HDMI, HDCP 2.2
Input/Output Resolution Supported	VESA: $640x480^8$, $800x600^8$, $1024x768^8$, $1280x768^8$, $1280x800^8$, $1280x960^8$, $1280x1024^8$, $1360x768^8$, $1366x768^8$, $1400x1050^8$, $1440x900^8$, $1600x900^8$, $1600x1200^8$, $1680x1050^8$, $1920x1200^8$ SMPTE: $720x480P^8$, $720x576P^8$, $1280x720P^{1,2,3,4,5,6,7,8}$, $1920x1080I^{6,8}$, $1920x1080P^{1,2,3,4,5,6,7,8}$, $3840x2160^{2,3,5,6,8}$, $4096x2160^{2,3,5,6,8}$ 1 = at 23.98 Hz, 2 = at 24 Hz, 3 = at 25 Hz, 4 = at 29.97 Hz, 5 = at 30 Hz, 6 = at 50 Hz, 7 = at 59.94 Hz, 8 = at 60 Hz
Maximum Data Rate	18Gbps
Control Method	IR control; Switch button control
Audio	
Audio Format Supported	Fully supports audio formats in HDMI 2.0 specification, including PCM, Dolby TrueHD, Dolby Atmos, DTS-HD Master Audio, DTS:X

General	
Operating Temperature	0°C to 45°C (32°F to 113°F)
Storage Temperature	-20°C to 70°C (-4°F to 158°F)
Humidity	10% to 90%, non-condensing
ESD Protection	Human-body Model: ±8kV(Air-gap discharge)/ ±4kV(Contact discharge)
Power Consumption (Maximum)	1.735W
Device Dimension (W x H x D)	3.93" x 0.77'' x 2.61"/ 100mm x 19.5mm x 66.2mm
Product Weight	0.22kg/0.5lb
Certification	CE, FCC

Cable Specification:

Cable Type	Range	Supported Video
HDMI	Input/Output:15m/50ft	1080P@60Hz
	Input/Output: 10m/33ft	4K@60Hz 4:2:0 8bit
	Input: 3m/10ft Output: 5m/16ft	4K@60Hz 4:4:4 8bit

Panel Description

Top Panel
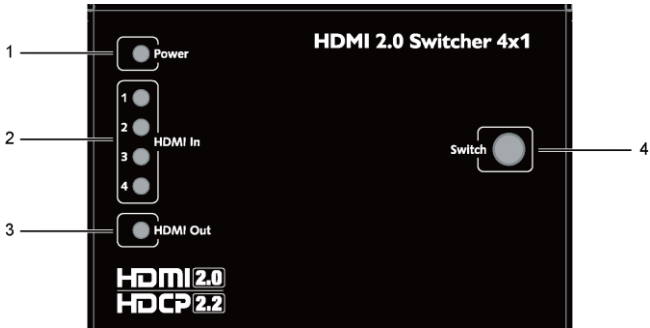
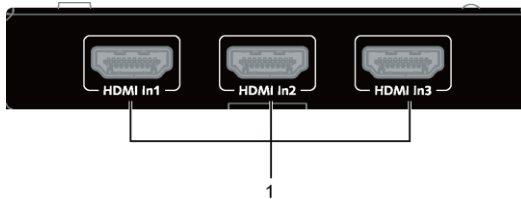| No.	Name	Description
1	Power LED (Red)	On: The switcher is powered on. Off: The switcher is powered off.
2	HDMI In 1-4 LED (Red)	On: The HDMI source is selected. Off: The HDMI source is not selected.
3	HDMI Out LED (Red)	On: An HDMI display is connected to the switcher. Off: No HDMI display is connected to the switcher.
4	Switch Button	Press to cycle through sources.

Front Panel
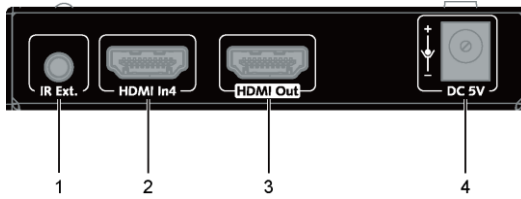
No.	Name	Description
1	IR Ext.	IR extension port. Connect ONLY the provided extension cable w/ red connector
2	HDMI In 4	Connect to an HDMI source.
3	HDMI Out	Connect to an HDMI display.
4	DC 5V	Connect to the power supply provided for DC 5V power input.

Rear Panel

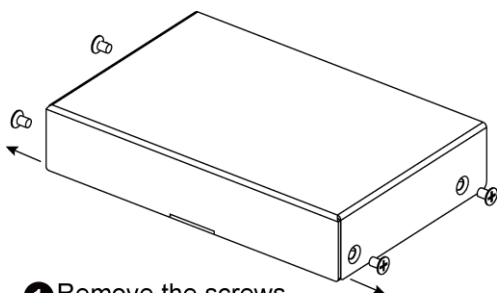| No.	Name	Description
1	HDMI In 1-3	Connect to HDMI sources.

Installation and Wiring

Installation

Note: Before installation, please ensure the device is disconnected from the power source.
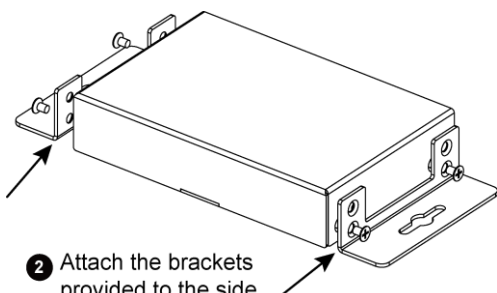
Steps to install the device in a suitable location:

1. Remove the four screws that secure the side panels to the device.

1 Remove the screws from the side panels

2. Position and install the mounting brackets with the four mounting screws mentioned above.

2 Attach the brackets provided to the side panels of the device

3. Mount and secure the device to a surface or a suitable location with the mounting screws.
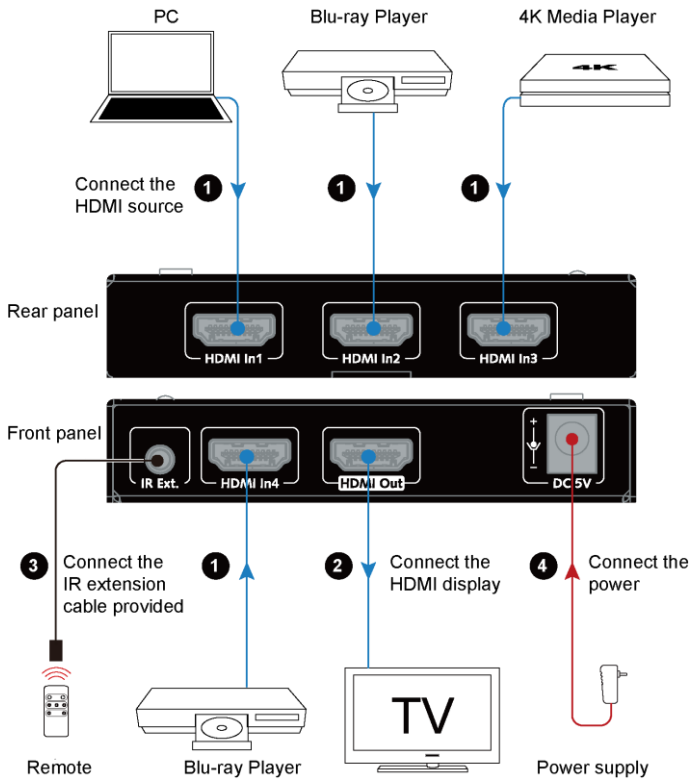
Wiring

Warnings:

• Before wiring, disconnect the power from all devices.

• During wiring, connect and disconnect the cables gently.

Steps for device wiring:

1. Connect HDMI IN

   Connect HDMI source devices to HDMI IN (1-4) of the switcher using high-quality HDMI cables (e.g. PC, Blu-ray player, Apple TV, STB, etc.).

2. Connect HDMI OUT

   Connect an HDMI display device to HDMI OUT of the switcher (e.g. TV, projector, LCD/LED display, etc.).

3. Connect for IR signal extension control

   Connect the IR extension cable provided to IR Ext. port of the switcher.

4. Connect the power adapter provided to the switcher.

5. Power on all attached devices.

PC   Blu-ray Player   4K Media Player

Connect the ❶   ❶   ❶
HDMI source

Rear panel
HDMI In1   HDMI In2   HDMI In3

Front panel
IR Ext.   HDMI In4   HDMI Out   DC 5V

❸ Connect the   ❶   ❷ Connect the   ❹ Connect the
   IR extension   HDMI display   power
   cable provided

Remote   Blu-ray Player   TV   Power supply

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Control of the Switcher

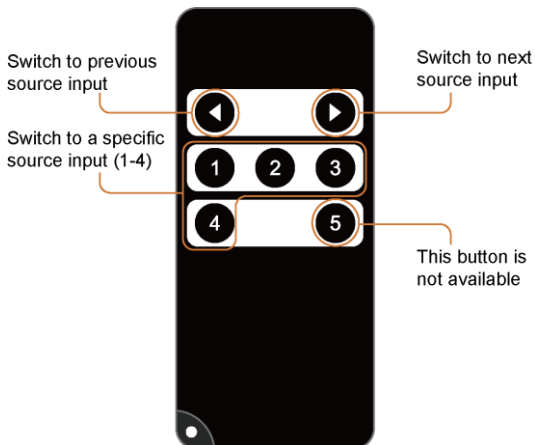You can choose to control SW4X1-4KUHD at your convenience through top panel button, IR remote or automatic switch function.

Top Panel Button Control
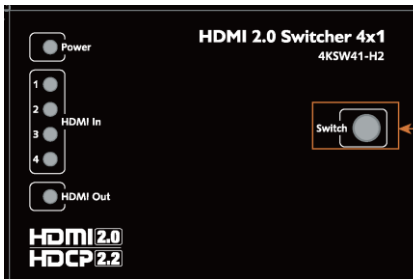
Press the Switch button to cycle through multiple sources.

IR Remote Control

The switcher can be controlled by the IR remote provided. Point the remote directly at the IR extension cable connected to the "IR Ext." port and switch to the desired input source.

Switch to previous source input

Switch to next source input

Switch to a specific source input (1-4)

This button is not available

Button	IR Codes	Description
▶	0x02 0x0a	Switch to next active source input (Cycle 1→4).
◀	0x02 0x08	Switch to previous active source input (Cycle 4→1).
1	0x02 0x04	Switch to source input 1.
2	0x02 0x05	Switch to source input 2.
3	0x02 0x06	Switch to source input 3.
4	0x02 0x0c	Switch to source input 4.
5	N/A	Not available.

Note: Since the encoding format for IR codes above is NEC (38KHz), please ensure any third party device used to IR control the switcher supports NEC (38KHz).

Automatic Switch Control

The switcher supports automatic switching and allows you to control it without staying near it or using the IR remote.

When the switcher is powered on, automatic switching will function as follows:

1. When HDMI sources are inserted, the switcher will switch to the latest connected source for output display.
2. When the HDMI source selected is removed, the switcher will switch to the active source with top priority for output display (Priority: input 1 > input 2 > input 3 > input 4).

Note: Automatic Switching function can only detects 5V of the input source device. If the selected HDMI source in standby mode provides a continuous 5V power output, the Automatic Switching function will not work, i.e. the switcher will not switch the input to other active sources. In this case, please turn off the standby source device selected or remove it from the switcher.

Troubleshooting

Troubleshooting Steps

1   **Power:** Please make sure the source, display devices and switcher are powered on.
2   **Indicator:** Please make sure all LED indicators of the switcher are normal according to user manual.
3   **Devices**: Please make sure picture can be shown normally when connecting source to display device directly.
4   **Cable**: Plug in and unplug HDMI cable or try another HDMI cable. Ensure the specific cable length is within the available transmission range according to the Specification section.
5   **Compatibility:** Please test other source and display devices to determine if it is a compatibility issue.

Warranty Terms and Conditions

For the following cases LINK shall charge for the service(s) claimed for the products if the product is still remediable and the warranty card becomes unenforceable or inapplicable.

1. The original serial number (specified by LINK) labeled on the product has been removed, erased, replaced, defaced or is illegible.
2. The warranty has expired.
3. The defects are caused by the fact that the product is repaired, dismantled or altered by anyone that is not from a LINK authorized service partner. The defects are caused by the fact that the product is used or handled improperly, roughly or not as instructed in the applicable User Guide.
4. The defects are caused by any force majeure including but not limited to accidents, fire, earthquake, lightning, tsunami and war.
5. The service, configuration and gifts promised by salesman only but not covered by normal contract.
6. LINK preserves the right for interpretation of these cases above and to make changes to them at any time without notice.

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