18Gbps 4 x 4 HDMI Matrix Switch with downscaler

SC04.MX44

User Manual

Version 1.0

Thank you for purchasing this product

For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lighting strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

Contents

1. Introduction

The SC04.MX44 matrix switches 4 x HDMI inputs to 4 x HDMI outputs in a true matrix environment, any input to any output simultainiously and supports 18Gbps video bandwidth with resolutions up to 4K/60Hz 4:4:4, HDR10+ and Dolby Vision™.

The matrix supports LPCM 7.1, Dolby True HD™, DTS-HD Master Audio.

It's advanced EDID features provide auto detection, copy and built in standard settings ensuring compatibility with all source and sink devices.

The matrix is controlled with switches located on the front panel and an IR remote control.

2. Features

- 4 x HDMI inputs to 4 HDMI outputs
- Supports 18Gbps
- 4K/60Hz, YCbCr 4:4:4
- HDMI 2.0, HDCP 2.2
- Advanced EDID
- Downscale from 4K ↔ 1080P
- Supports HDR, HDR10+, HLD, Dolby Vision
- LPCM 7.1, Dolby True HD™, DTS HD Master Audio
- Front panel and IR control

3. Package contents

1. Main Unit (SC04.MX42)
2. Power Adaptor 12V/2.5A
3. IR Remote
4. Mounting Brackets
5. User Manual

4. Specifications

Connectivity
HDMI Input: 4 x HDMI Type A, 19-Pin Female
HDMI Output: 4 x HDMI Type A, 19-Pin Female
Power: 1 x 2.1mm DC Jack

Signal
Signal Input: HDMI
Standards: HDMI 2.0, HDCP 2.2
Bandwidth: 18Gbps
Video Resolutions: 4K/60Hz, 4:4:4
Colour Space: RGB/YCbCr 4:4:4, YCbCr 4:2:2, YUV 4:2:0, HDR, HDR 10+, DLD, Dolby Vision
Colour Depth: 8/10/12-bit
Audio: LPCM 7.1, Dolby True HD™, DTS HD Master Audio
Infra-Red: Wide Bandwidth, Frequency 30KHz to 56KHz (940nm)

Power
Type: AC to DC Mains Adaptor
Input: 100~240V AC 50/60Hz
Output: Transmitter 12V/2.5A
Consumption: 11 Watts

Environment
Operating Temperature: -0° to 40°C
Storage Temperature: -20° to 60°C
Operating Humidity: 20 to 90% RH (no condensation)
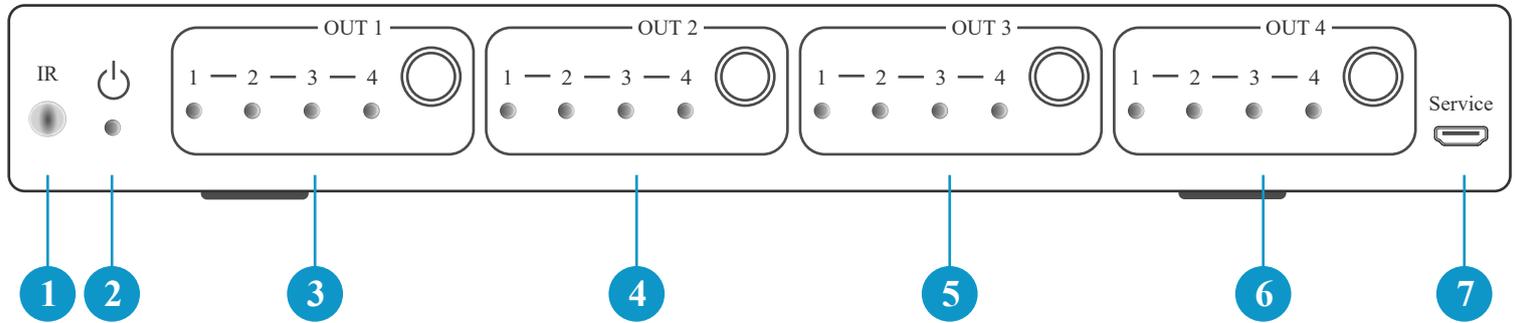**Dimensions:** (W) 220 x (D) 205 x (H) 19
Weight: 535g
Colour: Black
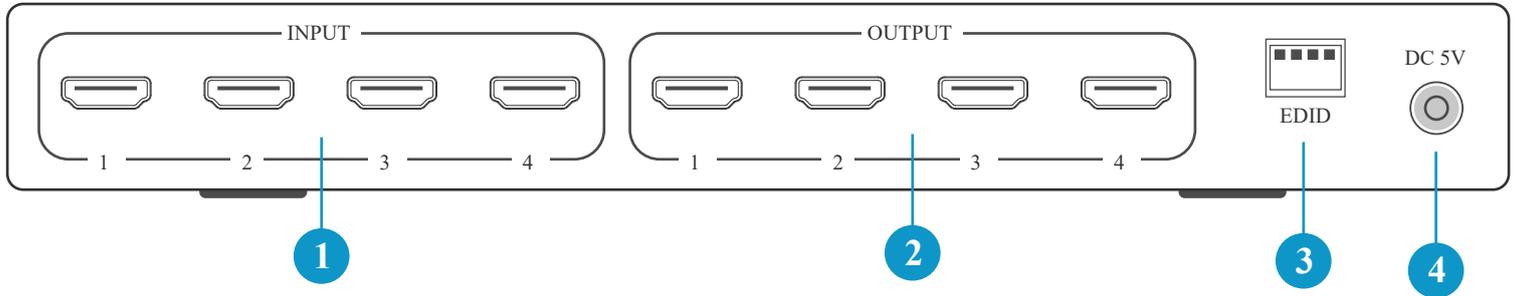**ESD:** Human Body - +/-8kV, (air gap discharge) & +/-4kV (contact discharge)
Safety and Emissions: CE, FCC, RoHS
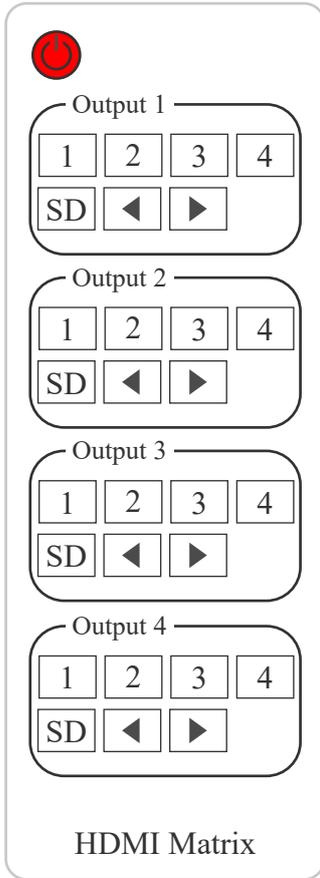
5. Front Panel Description

Number	Name	Function / Description
1	IR	Infra-Red sensor
2	Power LED	The LED illuminates Red when the product is on or in standby
3	Output 1	Short press on the OUT 1 button selects the input source, the corresponding LED will illuminate green. Downscale: Press the OUT 1 button for 3 seconds to activate the downscale from 4K ↔ 1080P.
4	Output 2	Short press on the OUT 2 button selects the input source, the corresponding LED will illuminate green. Downscale: Press the OUT 2 button for 3 seconds to activate the downscale from 4K ↔ 1080P.
5	Output 3	Short press on the OUT 3 button selects the input source, the corresponding LED will illuminate green. Downscale: Press the OUT 3 button for 3 seconds to activate the downscale from 4K ↔ 1080P.
6	Output 4	Short press on the OUT 4 button selects the input source, the corresponding LED will illuminate green. Downscale: Press the OUT 4 button for 3 seconds to activate the downscale from 4K ↔ 1080P.
7	Service	Used for firmware upgrades only.

6. Rear Panel Description

Number	Name	Function / Description
1	Inputs 1 ↔ 4	Connect to the HDMI source devices with a high quality HDMI cables.
2	Outputs 1 ↔ 4	Connect to the displays or sink devices with a high quality HDMI cables.
3	EDID	0000 → 1080p, Stereo Audio 2.0 0001 → 1080p, Dolby/DTS 5.1 0010 → 1080p, HD Audio 7.1 0011 → 4K/30_444, Stereo Audio 2.0 0100 → 4K/30_444, Dolby/DTS 5.1 0101 → 4K/30_444, HD Audio 7.1 0110 → 4K/60_444, Stereo Audio 2.0 SDR 0111 → 4K/60_444, Dolby/DTS 5.1 SDR 1000 → 4K/60_444,HD Audio 7.1 SDR 1001 → 4K/60_444, Stereo Audio 2.0 HDR 1010 → 4K/60_444, Dolby/DTS 5.1 HDR 1011 → 4K/60_444, HD Audio 7.1 HDR 1100 → Copy Output 1 1101 → Copy Output 2 1110 → Copy Output 3 1111 → Copy Output 4
4	Power	Connect the 12V/2.5A power adaptor supplied.

7. IR Remote

Button	Function / Description
	Power ON and Standby
Output 1 ↔ 4	Selects input source to outputs.
◀ ▶	Selects the next or last input.
SD	Activates the downscaler

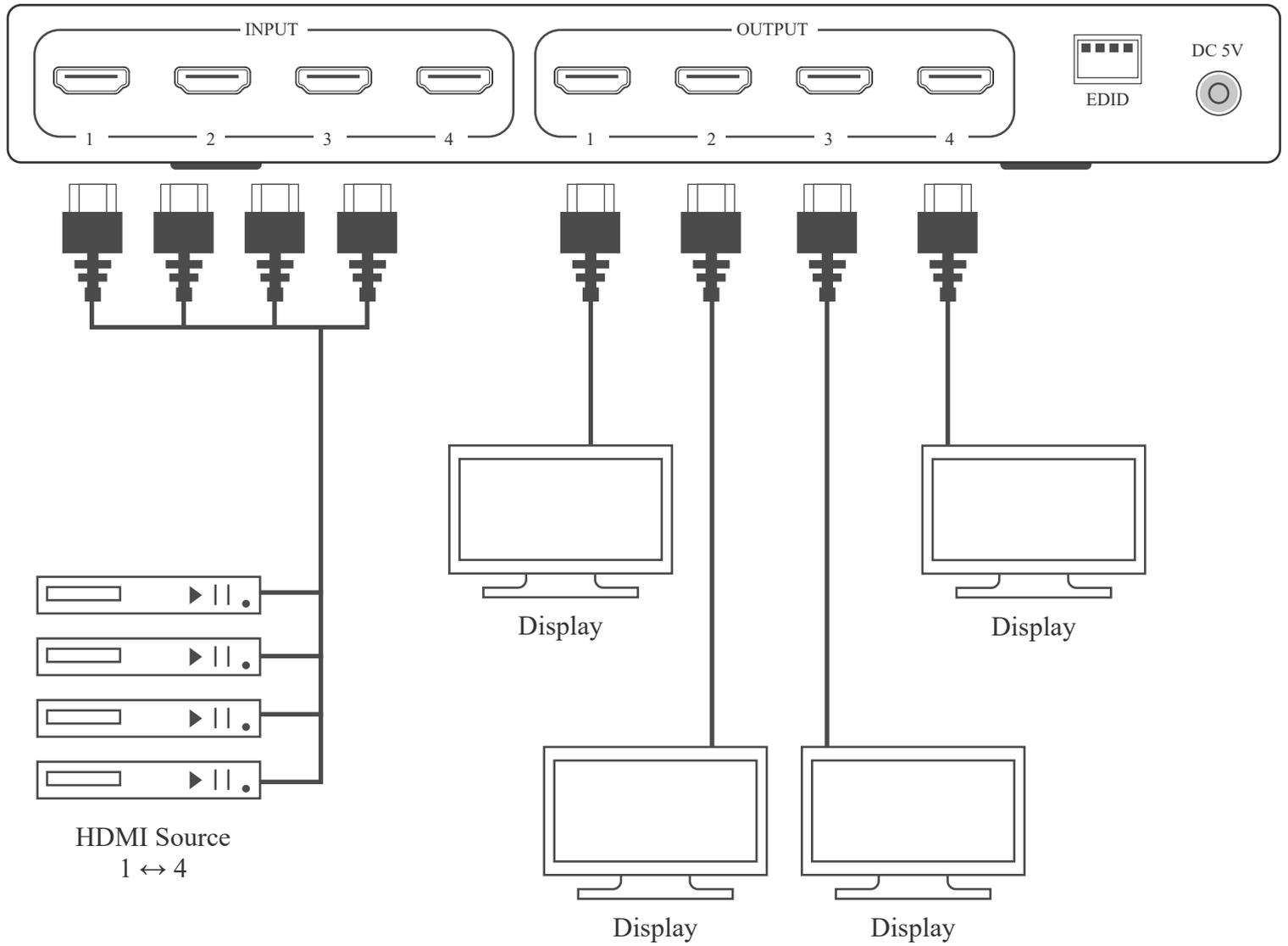## 8. HDMI Cable Lengths (input/output)

5m ↔ 4K@60Hz / 8bit YCbCr 4:4:4
10m ↔ 4K@30Hz / 8bit
15m ↔ 1080p/60Hz / 8bit

It is recommended that a high quality premium HDMI cables is used for both input and output connections.

9. Application Drawing

INPUT   1   2   3   4

OUTPUT   1   2   3   4

EDID

DC 5V

HDMI Source
1 ↔ 4

Display

Display

Display

Display

10. Maintenance

Clean this unit with a soft, dry cloth. Never use alcohol, pint thinner of benzene to clean these devices.

Servicing

Damage requiring service: This product should be serviced by a qualified service engineer if:
- The DC power cord or AC adaptor has been damaged.
- Objects or liquids have entered the housings.
- The product has been exposed to rain.
- The product has stopped working or shows signs of significant change in operating performance or function.
- The unit has been dropped or severely damaged externally.

Servicing personnel: Do not attempt to service the product beyond that described in these instructions. Refer all other servicing to authorised serving personnel.

Replacement parts: When parts need replacing ensure the service engineer uses parts specified by the manufacture or parts that have the same characteristics as the original parts. Unauthorised substitutes may result in fire, electric shock or other hazards.

Safety check: After a repair or service, ask the engineer to perform safety checks to confirm the product is in proper working condition.

Warranty

If your product does not work properly because of a defect in materials or workmanship, our Company (referred to as "the warrantor") will , for the length of the period indicated as below, (Parts and labour 2 years) which starts with the date of original purchase ("Limited Warranty period"), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new of a refurbished product. The decision to repair or replace will be made by the warrantor.

During the "Labour" Limited Warranty period there will be no charge for labour. During the "Parts" warranty period, there will be no charge for parts. You must mail-in your product during the warranty period. This Limited Warranty is extended only to the original purchaser and only covers product purchased as new. A purchase receipt or other proof of original purchase date is required for Limited Warranty service.

Returning a Product

When shipping the unit carefully pack and send it prepaid, adequately insured and preferably in the original carton. Include a letter detailing the complaint and provide a day time phone number and/or email address where you can be reached.

Limited warranty limits and exclusions

This Limited Warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage. The Limited Warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, maladjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or service by anyone other than a Factory Service centre or other authorized service engineer, or damage that is attributable to acts of God.

THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER "LIMITED WARRANTY COVERAGE".THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY. (As examples, this excludes damages for lost time, cost of having someone remove or re-install an installed unit if applicable, travel to and from the service, loss of or damage to media or images, data or other recorded content. The items listed are not exclusive, but are for illustration only).

PARTS AND SERVICE, WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY, ARE YOUR RESPONSIBILITY. This returns policy does not affect your legal rights. Details of your legal rights are available from Trading Standards or Citizens Advice Consumer Service.