

OMX-HDMI-1X8-4K2 MANUAL

4K UHD 1X8 HDMI 2.0 SPLITTER/DISTRIBUTION AMPLIFIER WITH EDID



Table of Contents

Safety Precautions.....	Page 3
Introduction.....	Page 4
In the Box.....	Page 4
Features.....	Page 4
Specifications.....	Page 5
Installation Requirements.....	Page 5
Panel Description.....	Page 6
Installation and Connection.....	Page 7
Connection Diagram.....	Page 7
Connection Instructions.....	Page 7
EDID Management.....	Page 8
FAQ.....	Page 9
Support & Warranty.....	Page 10



Safety Precautions

Please read all instructions before installing or operating this equipment and connecting the power supply.

Please keep the following in mind as you unpack and install the unit:

1. To prevent fire or shock hazards, do not expose this equipment to high humidity and/or dust. Do not use in an unprotected outdoor installation nor any area classified as overly damp or wet.
2. The temperature for installation should be kept between -4°F and 140°F (-20°C and 60°C). Avoid direct sunlight exposure or extreme temperature changes over a short period of time.
3. Do not disassemble or place the unit on an unstable base.
4. Do not drop the unit and avoid heavy impacts.
5. This unit should not be permanently installed unless proper ventilation is provided. Any enclosure openings must not be blocked or covered as they protect the unit from overheating.
6. Before cleaning, turn off the power and unplug the unit from all connections. Use a damp cloth. Do not use liquid cleaners or aerosol cleaners.
7. Do not overload outlets and extension cords, as this may result in a risk of fire or electric shock.
8. Never push objects of any kind, including liquids, into this unit through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock.
9. Do not attempt to open or service this unit yourself; opening or removing covers may expose you to dangerous voltage and other hazards.
10. The unit does not contain user-serviceable parts. Contact your authorized dealer or an authorized repair service company if it requires service.

Introduction:

The Ocean Matrix OMX-HDMI-1X8-4K2 is a 1x8 HDMI splitter that can distribute a single 4K x 2K HDMI signal to up to 8 synchronized displays. This unit has an onboard intelligent EDID management system that allows the OMX-HDMI-1X8-4K2 to match and automatically output the best display resolutions and can output 4K x 2K and 1080p signals simultaneously. This is ideal for Entertainment spaces, sports bars, restaurants, and digital signage.

In the Box:

- 1x HDMI Splitter
- 1x 12V/1A Power Adapter



Features:

- Distribute 1 HDMI source to up to 8 HDMI displays
- Support Ultra HD resolutions 4K x 2K@60Hz (4:4:4 8bpc)
- Supports HDMI 4:4:4 chroma subsampling
- Supports HDR
- HDMI 2.0 and HDCP 2.2 compliant
- Low power consumption
- Built-in intelligent EDID Management, automatically matching outputs with the best display resolution
- 16 preset EDID profiles
- Simultaneous output mix of 4k and 1080p signals
- Plug and play

Specifications

- Input: 1 HDMI
- Output: 8 HDMI
- Power indicator LED: 1
- Signal Indicator LED: 8
- HDMI Version: HDMI 2.0, backwards compatible with HDMI 1.4
- HDCP Version: Compatible with HDCP 1.4, HDCP 2.2
- HDMI Resolution: 480i/480p/576i/720p/1080i/1080p/4K x 2K@24/25/30/60Hz (4:4:4 8bpc)
- Frequency Range: 25MHz – 600MHz
- Video Format: 3D Video and 4K x 2K@30/60Hz (4:4:4 8bpc) Ultra HD Video
- Input and output TMDS signal: 0.7-1.5Vp-p (TMDS)
- Input and output DDC signal: 5Vp-p (TTL)
- Audio Formats: Standard Audio, DSD (Direct Stream Digital), HD (HBR) audio
- Working Temperature: 32°F° to 140°F (0°C to 60°C)
- Power Supply: 12V/1A
- Power consumption: <8W
- Dimensions (in): 10.3 x 3.2 x 0.9
- Weight: 1lb (454g)

Installation Requirements

1. Source: HDMI video source, such as a Blu-ray DVD, PS5, STB, PC, etc...
2. Display: HDTV, projector, or other display with HDMI port.
3. HDMI cable: HDMI 2.0 standard cable or greater (Can support 4K x 2K@60Hz).

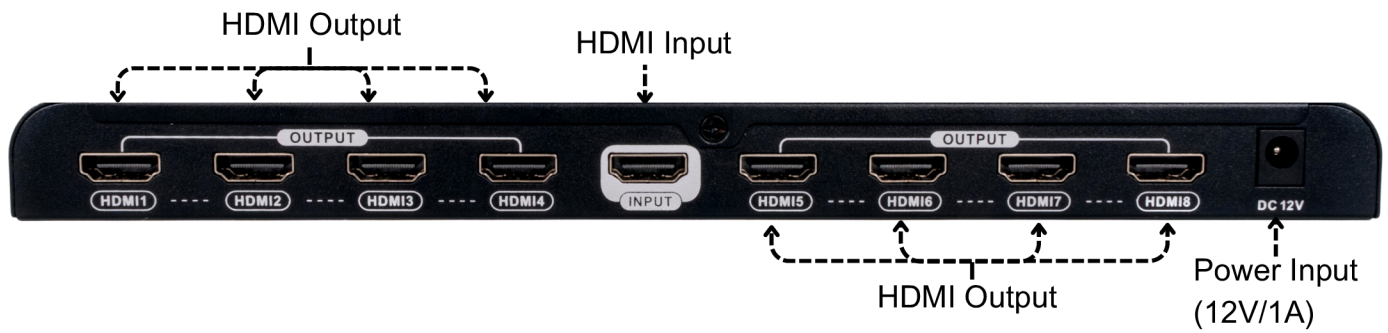


Panel Description

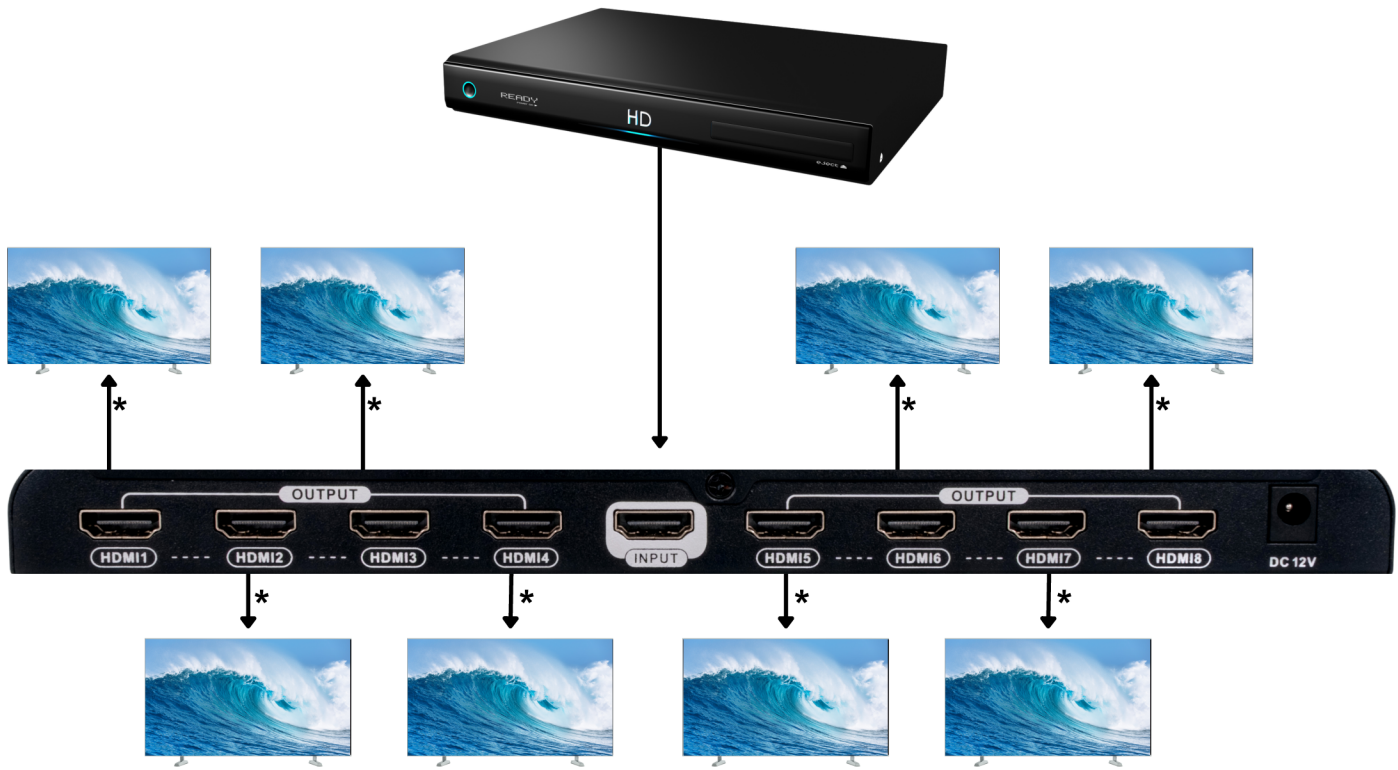
Front



Rear



Installation and Connection Connection Diagram



*: HDMI Cable

Installation and Connection Connection Instructions

1. Connect the HDMI video source to the splitter input port with an HDMI cable.
2. Connect the splitter output port to the HDMI display with an HDMI cable.
3. Power on the splitter (Power indicator LED will light on).

Installation and Connection

EDID Management

1. Before the output of the HDMI signal, the splitter will read the EDID information of the connected TVs and send it back to the HDMI source part to let it determine the output mode.
2. The splitter has 16 preset built-in EDID profiles that the 4 switches can activate.

NOTE:

Copy Once: Only reads the EDID of the first connected output.

MIX1: Lowest format of audio and the lowest format of video.

MIX2: The highest quality audio format paired with downscaled video.

MIX3: The lowest quality audio format paired with downscaled video.



Switch up for "1"



Switch down for "0"

EDID Information	Switch Status			
	1	2	3	4
4k@60Hz 2CH	0	0	0	0
4k@60Hz 7.1CH	1	0	0	0
4k@30Hz 2CH	0	1	0	0
4k@30Hz 7.1CH	1	1	0	0
1080p@60Hz 2CH	0	0	1	0
1080p@60Hz 7.1CH	1	0	1	0
1080i@60Hz 2CH	0	1	1	0
1080i@60Hz 7.1CH	1	1	1	0
1080p@50Hz 2CH	0	0	0	1
1080P@50Hz 7.1CH	1	0	0	1
4K@30Hz HDR	0	1	0	1
4K@60Hz HDR	1	1	0	1
Copy Once	0	0	1	1
MIX1	1	0	1	1
MIX2	0	1	1	1
MIX3	1	1	1	1

FAQ

Q: No Image output

A: 1. Check the power supply of the splitter and make sure the power light is on.

2. Check if the HDMI cables are securely and correctly connected.

3. Check and make sure the TV has been set up to the right channel.

4. While connected to the PC or notebook via HDMI, please ensure the output mode is in the mirror or extend mode.

Q: The display is unstable, and the splash screen, snowflakes, or audio are stuck.

A: 1. Check and make sure all connections are good and correct.

2. Try to connect the HDMI source to display directly; if it is the same, please change the source device.

3. Use a high-quality HDMI 2.0 cable or newer to transmit a 4K x 2K UHD signal.

Q: The display can't output 4K x 2K UHD Images when all connections are correct.

A: 1. Ensure the input sources are 4K x 2K@60Hz UHD signal.

2. Ensure the TV supports 4K x 2K@60Hz resolution.

3. Check if the HDMI cables are compliant with HDMI 2.0 standards.

Q: The display can't output an HDR effect image when all connections are correct.

A: 1. Check and make sure the input sources support the HDR effect.

2. Check and make sure the TV can support HDR image effects.



Support & Warranty

Ocean Matrix products are warrantied for one (1) year from the date of purchase, with parts and labor included. Our objective is to maintain engineering excellence and an R&D laboratory dedicated to the latest technology compliance testing. We strive for exceptional quality every day to ensure your confidence in our products and our commitment to your success.

This warranty is limited to defects or failures in hardware workmanship, materials, or functionality and does not cover customer damage, abuse, or unauthorized modification. If this product fails or does not perform as warranted, your recourse shall be repair or replacement. Under no condition shall Ocean Matrix be liable for any damage incurred through the use of this product. This damage includes but is not limited to lost profits, lost savings, or incidental or consequential damage arising from the use of or inability to use this product.

Ocean Matrix specifically disclaims all other warranties, expressed or implied, and the installation or use of this product shall be deemed as an acceptance of these terms by the user. All warranty claims must be submitted with proof of purchase from an authorized distributor or reseller.

Ocean Matrix reserves the right to repair or replace items identified as within warranty. To determine warranty product failures, all warranty repairs must be returned freight prepaid, insured, and inspected before any in-warranty or out-of-warranty repairs occur.

