



4K 4x2 HDMI™ Matrix with
Downscaler and Audio Return
Channel

USER MANUAL

UHD-402D

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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, lightning strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the service life of your equipment.

Please Activate your warranty by registering our product through the link below - www.orei.com/register

Technical Support

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Our experienced Technical Support Team is here for you to answer your questions, give technical advice or help troubleshoot your project to get you installed on time and on budget. Call, email or chat with us now.

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Send us an instant message now. Our Technical Support Team will respond momentarily. Available during live support hours.

Introduction

The UHD-402D is a versatile HDMI Matrix designed to enhance your audio and video experience. It supports HDMI 2.0 and HDCP 2.2 compliance, with video resolutions up to 4K@60Hz YUV 4:4:4 and HDR support. This device features separate audio outputs for both HDMI outputs A & B, with ARC support for output A. It boasts a high bandwidth of 600MHz/6Gbps per channel (18Gbps all channels). In addition, it includes a 4K to 1080p Downscale feature when in Splitter mode. With support for uncompressed LPCM audio and various compressed audio formats such as DTS and Dolby Digital. Whether for home entertainment systems or professional setups, the UHD-402D offers reliable performance and advanced features to enhance your viewing and listening pleasure.



1. HDMI 2.0 & HDCP 2.2 Compliant
2. Video resolutions up to 4K@60Hz YUV 4:4:4
3. HDR Support
4. Separate audio outputs for both HDMI outputs A & B.
5. ARC support for output A
6. 600MHz/6Gbps per channel (18Gbps all channels) bandwidth
7. 12 bit per channel (36bit all channels) deep color
8. 4K to 1080p Downscale feature when in Splitter mode
9. Uncompressed LPCM audio
10. Supports compressed audio such as DTS, Dolby Digital (including DTS-HD Master Audio™ and Dolby TrueHD)
11. Easy control via the buttons on the front or the included remote

Package Contents

1.	UHD-402D	1pcs
2.	Remote Control	1pcs
3.	USB Power Charger	1pcs
4.	USB-A to USB-C Power Cable	1pcs
5.	User Manual	1pcs

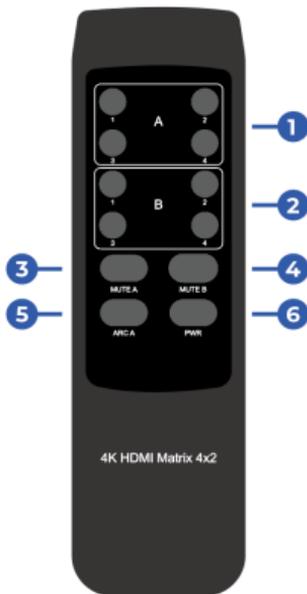
Specifications

Technical	
HDCP Compliance	HDCP 2.2
HDMI Compliance	HDMI 2.0
VideoBandwidth	6.0Gbps/600MHz per channel(18Gbps all channels)
Video Resolution	480p,576p,720p,1080p,4K@24/30/50/60Hz
Color Space	4:4:4 / 4:2:2 / 4:2:0
Color Depth	8/10/12 bit
Audio Formats	Uncompressed LPCM Compressed DTS, Dolby Digital (including DTS-HD Master Audio™ and Dolby TrueHD)
ESD Protection	Contact discharge (±4KV), air discharge (±8kv),Implementation of the standard: IEC61000-4-2

Connection	
Input	4 × HDMI IN [Type A, 19-pin female] 1 × USB C [Power Input]
Output	2 × HDMI OUT [Type A, 19-pin female] 2 × 3.5mm [Aux Jack] 2 × Optical [S/PDIF]
Mechanical	
Housing	Metal
Color	Black
Dimensions	L: 171mm / 6.73in W: 61mm / 2.4in H: 20mm / 0.78in
Weight	245g / 8.64oz
Power Supply	Input: AC 100-240V 50/60Hz, Output: DC 5V/2A (US/EU standards, CE/FCC/UL certified)
Power Consumption	5W (Max)
Operating Temperature	0°C ~ 70°C / 32°F ~ 158°F
Storage Temperature	-10°C ~ 80°C / -14°F ~ 176°F
Relative Humidity	5~90% RH (non-condensing)

Operation Controls and Functions

IR Remote Operation Instruction

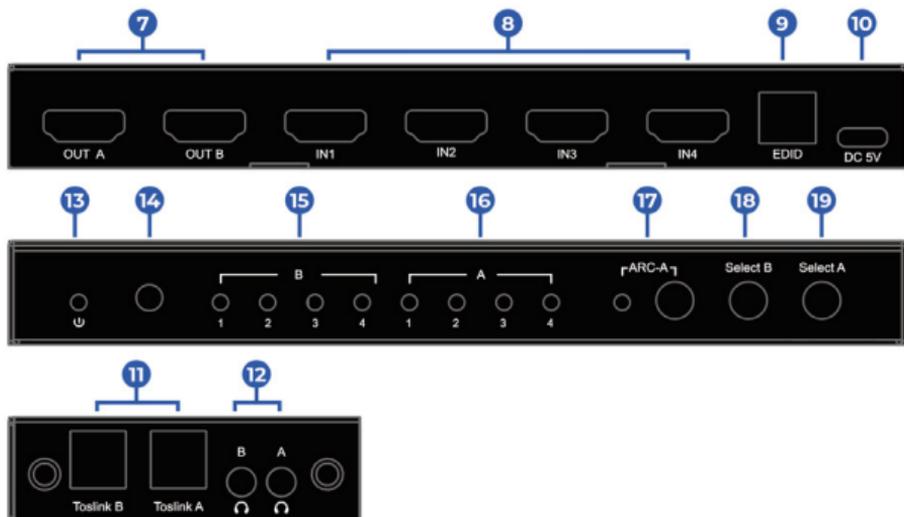


Remote Control Size: 145x 42.5 x 20.5 mm

No.	Name	Function Description
1.	Number 1, 2, 3, 4(A)	Select the corresponding video source for output A.
2.	Number 1, 2, 3, 4(B)	Select the corresponding video source for output B.

Operation Controls and Functions

No.	Name	Function Description
3.	MUTE A	Turn off/on the OUTPUT A audio.
4.	MUTE B	Turn off/on the OUTPUTB audio.
5.	ARC A	Turn off/on ARC for OUTPUT A
6.	PWR	Press to turn on the matrix, press again to turn it off.



Operation Controls and Functions

No.	Name	Function Description
7.	Output A/B	Connect a display device such as a TV or Monitor.
8.	Input1-4	Connect a media device such as a DVD Player, set-top box, etc.
9.	EDID	Dip switches to change EDID settings
10.	DC/5V	DC 5V Input to power the device
11.	Toslink A/B	Optical audio outputs for each of the HDMI outputs
12.	Stereo A/B	Analog audio outputs for each of the HDMI outputs
13.	POWER	The LED Indicator will light up when the device is turned on.
14.	IR	IR Signal Receiver window
15.	B 1-4	Describes the input that is currently going to Output B
16.	A 1-4	Describes the input that is currently going to Output A
17.	ARC A	ARC Mode On/off key and LED Indicator. LED On: ARC is turned on and the audio from Optical OUT A comes from the TV ARC port LED Off: ARC is turned off and the audio from the Optical & Analog outputs comes from the media sources
18.	OUTPUT B	Press to switch between the 4 connected sources
19.	OUTPUT A	Press to switch between the 4 connected sources

0 means switch position UP
1 means switch position DOWN

Mode	DIP Switch status				EDID Setting Description
	1	2	3	4	
Mode1	0	0	0	0	Copy EDID from HDMI Output A
Mode2	0	0	0	1	1080p, 2CH AUDIO
Mode3	0	0	1	0	1080p, DOLBY/DTS 5.1
Mode4	0	0	1	1	1080p, HD AUDIO
Mode5	0	1	0	0	1920x1200p, 2CH AUDIO
Mode6	0	1	0	1	1920x1200p, DOLBY/DTS 5.1
Mode7	0	1	1	0	1920x1200p, HD AUDIO
Mode8	0	1	1	1	4K@60, 10.2G, HDR10, 2CH AUDIO
Mode9	1	0	0	0	4K@60, 10.2G, HDR10, DOLBY/DTS 5.1
Mode10	1	0	0	1	4K@60, 10.2G, HDR10, HD AUDIO
Mode11	1	0	1	0	4K@60, 18G, HDR10, 2CH AUDIO

EDID Settings

Model2	1	0	1	1	4K@60, 18G, HDR10, DOLBY/DTS 5.1
Model3	1	1	0	0	4K@60, 18G, HDR10, HD AUDIO
Model4	1	1	0	1	MIX1
Model5	1	1	1	0	MIX2
Model6	1	1	1	1	MIX3

Note:

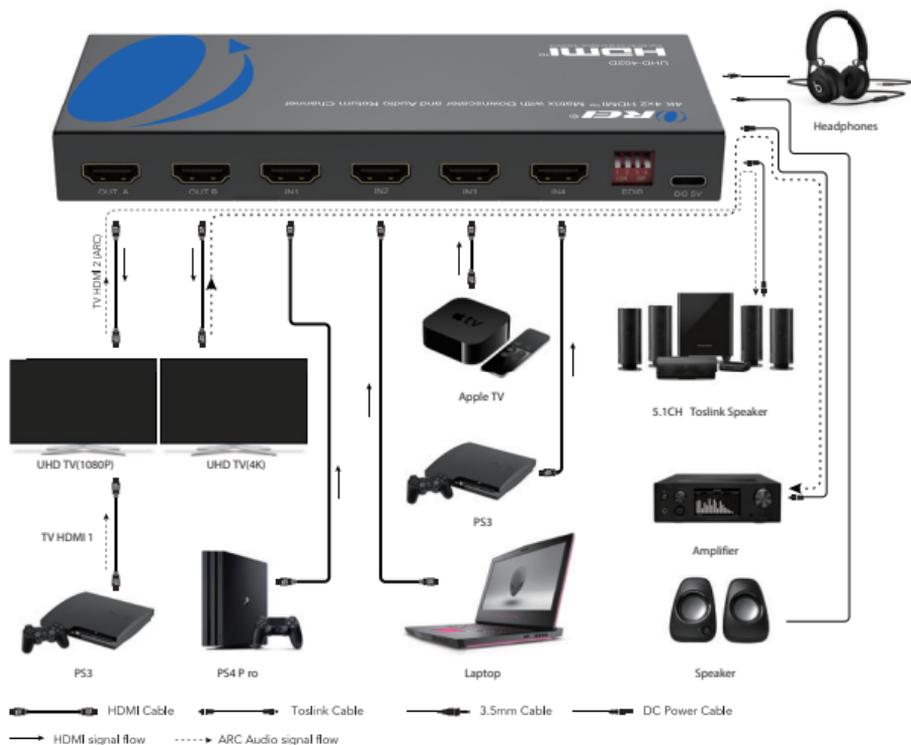
MIX1: Lowest format of audio/video

MIX2: Highest format of audio, Compose Downscaler of Video,

MIX3: Lowest format of audio, Compose Downscaler of Video

Downscaler: The device will downscale 4K video to 1080p to display on FHD displays while maintaining 4K on the 4K displays.

Application Example



FAQs & Troubleshooting

1. Not working

1. Check if the power adapter is firmly connected. If needed, try a different outlet.
2. Try changing the HDMI cables.
3. Try a lower resolution from the source.
4. Check if the LEDs on the front are lighting up.

2. Can I connect my ARC soundbar to Output A to get audio?

No, that would not work. The OUT A is only for displays with ARC/eARC. You cannot connect an ARC/eARC soundbar there. You can connect your soundbar to the Optical or Analog outputs for audio.

Still have some questions?

Please feel free to contact us at: info@orei.com. OR Fill out the form on the 'Contact Us' page on the website.

Our team will be more than happy to help you.

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