



# **EXMICRO2iSW**

## **18Gbps Extender with 2 input Switch**



User Manual

VER 2.1

## Thank you for purchasing this product

The Simplified MFG EXMICRO2iSW is designed to provide years of reliable service. At Simplified MFG, we want the experience with this device to be the best possible and are committed to helping achieve that experience.

## 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 to protect and extend the life of your equipment. A HDSURGE is highly recommended on cable and satellite boxes.

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## 1. Introduction

The EXMICRO2iSW can extend two sources (selectable via IR remote) HDMI2.0b (18Gbps) high-definition audio and video signal and two-way IR up to 50 meters (164 feet) between transmitter and receiver over a single Cat5e/6/7 cable. The EXMICRO2iSW supports resolutions up to 4K2K@60Hz 4:4:4, up to 18Gbps, and HDCP 2.2/1.4. In addition, the EXMICRO2iSW extender is equipped with a switch to select either of two sources, two-way IR which allows for source selection, source control, and display control, EDID override settings, and an optical audio breakout at RX (S/PDIF).

The EXMICRO2iSW extender is one of, if not the most efficient HDMI extenders available today. The current draw is typically less than one third the normal current draw making

this device more efficient and smaller.

## 2. Features

- HDMI 2.0b, HDCP 2.2 / HDCP 1.4 and DVI 1.0 compliant
- Supports input and output video resolution up to 4k2k@60Hz 4:4:4 up to 18Gbps
- Two source (selectable via remote) inputs
- Supports HDR/HDR+
- Optical audio breakout at RX (S/PDIF)
- Distance up to 164ft/50m @ 4k or 1080p
- Compact size
- Two-way 12V IR transmission that is control system compatible
- EDID override (copy display/ 1080p 2 ch./ 4K 2ch./ copy loop out
- Single power supply – can be powered from either the RX or TX

## 3. Package Contents

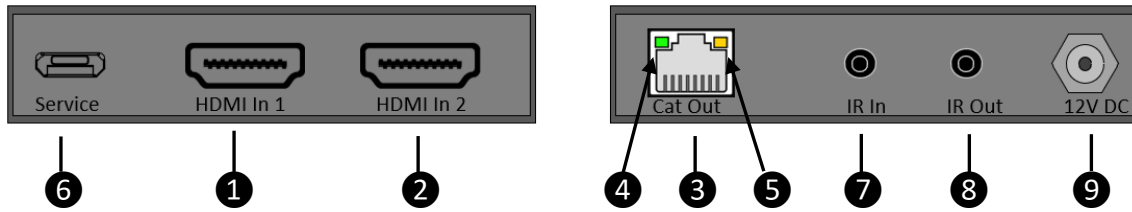
- 1× HDMI 18Gbps transmitter
- 1× HDMI 18Gbps receiver
- 1× IR Blaster (1.5m length)
- 1× 20~60KHz IR Receiver (1.5m length)
- 1× 12V/1A Locking Power supply
- 4× Mounting Ears
- 1× User Manual

## 4. Specifications

<b>Technical</b>		
HDMI Compliance	HDMI 2.0b	
HDCP Compliance	HDCP 2.2 / HDCP 1.4	
Video Bandwidth	18Gbps	
HDR Formats	HDR/HDR10+	
Video Resolution	Up to 4K60Hz 4:4:4	
Color Space	RGB / YCbCr 4:4:4, YCbCr 4:2:2/4:2:0, YUV 4:4:4	
Color Depth	8/10/12-bit (1080P60Hz, 4K30Hz, 4K60Hz YCbCr 4:2:2/4:2:0) 8-bit (4K60Hz 4:4:4)	
HDMI Audio Formats	LPCM 2.0/2.1/5.1/6.1/7.1, Dolby Digital, Dolby TrueHD, Dolby Digital Plus (DD+), DTS-ES, DTS HD Master, DTS HD-HRA, DTS-X	
ESD Protection	Human body model — ±8kV (Air-gap discharge) &±4kV (Contact discharge)	
<b>Connections</b>		
Transmitter	Inputs: 2x HDMI Type A [19-pin female] 1 x IR in [3.5mm Stereo mini jack] 1x SERVICE [Micro USB, Update port] Outputs: 1x IR out [3.5mm Stereo mini jack] 1x CAT out [RJ45, 8-pin female]	
Receiver	Inputs: 1x IR in [3.5mm Stereo mini jack] 1x CAT in [RJ45, 8-pin female] 1x SERVICE [Micro USB, Update port] Outputs: 1x HDMI Type A [19-pin female] 1 x IR out [3.5mm Stereo mini jack] 1x Optical (S/PDIF) audio breakout	
<b>Mechanical</b>		
Housing	Metal Enclosure	
Color	Black	
Dimensions	Transmitter / Receiver: 90mm/3.5" [W] x 68mm/2.625" [D] x 15mm/.75" [H]	
Weight	Transmitter: 160g, Receiver: 155g	
Power Supply	Input: AC 100 - 240V 50/60Hz Output: DC 12V/1A	
Power Consumption	3.84 W	
Op. Temperature	32 - 104°F / 0 - 40°C	
Storage Temperature	-4 - 140°F / -20 - 60°C	
Relative Humidity	20 - 90% RH (no condensation)	
Distance	4K	1080p
CAT5e	147ft / 45M	147ft / 45M
CAT6/6a/7	164ft / 50M	164ft / 50M

## 5. Operation Controls and Functions

### 5.1 Transmitter Panel

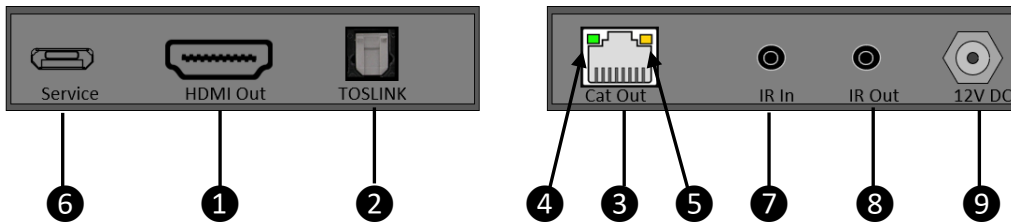


Number	Name	Function description
1	HDMI In 1	HDMI Input 1 port, connect to HDMI source such as a streamer or a set top box
2	HDMI In 2	HDMI input 2 port, connect to second HDMI source device such as a streamer or set top box
3	CAT Out	Connect to CAT IN port on the receiving end with a CAT6 cable.
4	Power LED (Green)	The LED will illuminate when the transmitter and receiver are connected, and power is applied to one of them.
5	Data signal LED (Orange)	The LED will illuminate when the transmitter and the receiver have signal transmission (link)
6	SERVICE port	For firmware updated use.
7	IR In	Connect to IR receiver (included). The IR signal is then sent to the IR Out to the IR Blaster at the receiver.
8	IR Out	Connect to wideband IR Blaster (included). The IR signal is from the IR IN port of the receiver.
9	DC 12V	Plug DC 12V/1A power supply into the unit and connect the adapter to an AC outlet. <b>(Note: The EXMICRO2 can be powered from either the RX or the TX by 12V/1A power adapter, only one supply is needed)</b>



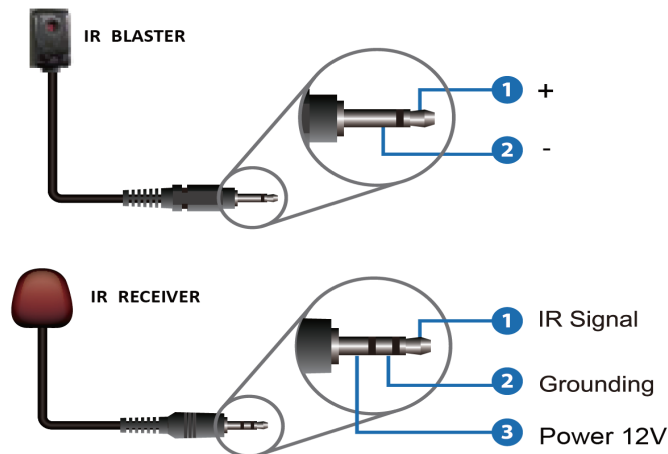
	EDID is copied from the connection at RX
	EDID is preset to 4K @ 60Hz. 5.1 Audio
	EDID is preset to 4K @ 60Hz. Stereo
	EDID is preset to 1080p Stereo

## 5.2 Receiver Panel



Number	Name	Function description
1	HDMI Out	HDMI output port, connect to HDMI display device such as TV or Projector with an HDMI cable.
2	TOSLINK	Optical Audio Breakout
3	CAT In	Connect to CAT Out port on the transmitter end with a CAT6 cable.
4	Power LED (Green)	The LED will illuminate when the transmitter and receiver are connected, and power is applied to one of them.
5	Data signal LED (Orange)	The LED will illuminate when the transmitter and the receiver have signal transmission (link).
6	SERVICE port	For firmware update use.
7	IR In	Connect to wideband IR Receiver. The IR signal will be transmitted to the IR Out port of the transmitter.
8	IR Out	The IR from the TX IR In will be transmitted through the IR blaster connected here.
9	DC 12V	Plug DC 12V/1A power supply into the unit and connect the adapter to an AC outlet. <b>(Note:</b> The EXMICRO2i can be powered from either the RX or the TX by 12V/1A power adapter, only one supply is needed)

## 5.3 IR Pin Definition





## 7. Troubleshooting

The EXMICRO2iSW is 100% tested and uses a very stable and reliable chipset. It is unlikely to not work out of the box. HDMI is a constantly changing format and can change with little to now warning. The EXMICRO2iSW has a lot of safeguards built in to alleviate these pressures. The first is the EDID switches, the second is the LED indicators, and the third is that we can change firmware if needed easily in the field.

<b>Issue</b>	<b>Solution</b>
No Power indicator (Green LED at Cat connection)	Both RX and TX need to be connected before the LED indicator illuminates. If both are connected, check the category cable and/or power connection
No image on display	The amber LED indicated the status of the HDMI circuit. The amber LED should be illuminated on both the RX and the TX either solid or flashing about 1 time per second. Not illuminated means the circuit is not complete, flashing rapidly is a HDMI cable failure.
No Sound at Display/AVR/Soundbar	If there is a picture and no sound, the unit is operating correctly, there is some other sort of conflict. You can use the EDID switch to see if this is the case. Engage one of the preset EDID's and the sound should return.
Intermittent picture	If the picture is flashing on or off, it is nearly always a cable issue. Look at HDMI cables and the category cable/connection. Running a known working category cable across the floor is a good way to troubleshoot the cat cable
Picture and sound are stable, but goes away seemingly randomly requiring a reset	This is most likely an issue with a streaming device and possibly some set top boxes. This can be resolved in several ways. Please contact tech support with a description of the entire HDMI circuit and we will tell you the best path to take to resolve this.



## 8. Warranty

Should you feel that this product does not function adequately due to defects in materials or workmanship, we (referred to as “the warrantor”) will, for the length of the period indicated below (starting from the original date of the purchase) either a) repair the product with new or refurbished parts. Or b) Replace the product with new or refurbished product. All Simplified MFG products are covered by a 3-year warranty. During this period there will be no charge for unit repair, replacement of unit components or replacement of the product if deemed necessary. The decision to repair or replace is made by the warrantor. The purchaser must mail in the product during the warranty period. This limited warranty only covers the product purchased as new and is extended to the original purchaser only. It is non-transferrable to subsequent owners, even during the warranty period. A purchase receipt or other proof of purchase date is required for the limited warranty service.

## 9. Contact Information

Sales and Tech Support

P. 833-HDMI-411 (833-436-4411)

E. [info@simplifiedmfg.com](mailto:info@simplifiedmfg.com)



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