



**NETWORK
TECHNOLOGIES
INCORPORATED**

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4K-HD-SCALER

4K HDMI Up/Down Scaler with Audio Extractor



Features:

- Down-scale 4K (4096 x 2160/3840 x 2160) to 1080p
- Up-scale 1080p to 4K(3840 x2160) up to 4:4:4 @60Hz
- Supports HDMI cables up to 50 feet
- Audio output with 3.5mm Jack and Toslink (except with 480i/576i/1080i resolution applications)
- Bypass non 1080p and 4K resolutions
- Manual EDID Configuration Button
- Can pass 3-D at 1080p
- Lip sync
- Supports HDCP conversion between HDCP 1.4 and HDCP 2.2 as per the source, and the display requirements.

**Warning**

- Do not expose this box to Rain, Moisture, and Dripping.
- Only use accessories specified by the manufacture.
- Unplug this box during Lightning Storms.

1. Introduction

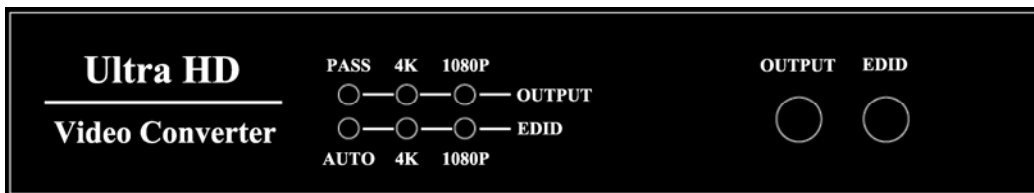
The 4K-HD-SCALER supports up-scale 1080p to 4K, down-scale 4K to 1080p.

For non-4K and non-1080p, it will bypass the Input to the Output.

It is able to extract audio from the HDMI Input and output to the 3.5mm STEREO Jack and the TOSLINK port..

Note: When the input is 480i/576i/1080i, there is no audio output from the 3.5mm STEREO Jack or TOSLINK port.

2. Front Panel, Buttons and LEDs



OUTPUT button: select output resolution between **PASS**, **4K**, **1080P**.

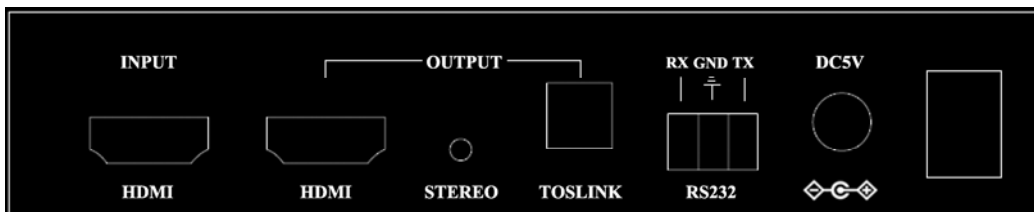
- *1. **PASS**: bypass Input of any format to the Output.
- *2. **4K**: This only works with 1080p input. It will up-scale 1080p to 4K.
- *3. **1080p**: only works with a 4K input. It will down-scale the 4K to 1080p.
- *4. Frame rate conversion is not supported.

Note: When changing functions from up-scale to down-scale, or down-scale to upscale, the 4K-HD-SCALER must be power-cycled.

EDID button: select **AUTO**, **4K**, **1080P**

- *1. **AUTO**: It will automatically copy the EDID data from the display devices.
- *2. **4K**: Force the EDID to 4K.
- *3. **1080p**: Force the EDID to 1080p.

3. Back Panel



- *1. "RS232" Phoenix Connector is only for firmware upgrade

4. Specifications

Operating Temperature Range	0 °C ~ 40°C
Storage Temperature	-20 °C ~ 60°C
Input / Output HDMI Format	Up to HDMI 2.0/HDCP2.2/18Gbps, 4:4:4 60Hz.
Power	3 watts (Max), 5V/1.5A power adapter
Main Unit Dimensions (L*H*W)	143mm×83mm×26mm (5.62 x 3.26 x 1.00 inch)
Main Unit Weight	0.35kg
Package Size (L*H*W)	220mm×196mm×54mm (8.66 x 7.72 x 2.125 inch)

5. Package Contents

- 4K-HD-SCALER 1pc
- User Manual 1pc
- Power Supply, 5V/1.5A 1pc

6. Appendix, Input/Output Resolution

Scale up		Scale down	
In	Out	In	Out
1080p24	3840x2160/24	3840x2160/24	1080p24
1080p25	3840x2160/25	3840x2160/25	1080p25
1080p30	3840x2160/30	3840x2160/30	1080p30
1080p50	3840x2160/50	3840x2160/50	1080p50
1080p60	3840x2160/60	3840x2160/60	1080p60
		4096x2160/24	1080p24
		4096x2160/25	1080p25
		4096x2160/30	1080p30
		4096x2160/50	1080p50
		4096x2160/60	1080p60

Resolution supported for passthrough			
3840x2160/24	480i	1080P30	1360x768/60/75
3840x2160/25	576i	1080P50	1400x1050/60/60RB
3840x2160/30	480p	1080P60	1440x900/60/60RB
3840x2160/50	576p	640x480/75	1680x1050/60
3840x2160/60	720p50	800x600/60/75	1920x1200/60RB
4096x2160/24	720p60	1024x768/60/75	1600x900/60RB
4096x2160/25	1080i50	1280x768/60/75	
4096x2160/30	1080i60	1280x800/60/75	
4096x2160/50	1080P24	1280x960/60/75	
4096x2160/60	1080P25	1280x1024/60/75	