adertech

VC-U8H-UB32

8K HDMI to USB 3.2 Gen 1 Video Capture Card



User manual

Thank you for purchasing this product

We have done everything possible to ensure that our equipment pleases our consumers. When solving any problems in the operation and connection ADERTECH equipment, it is best to contact authorized companies and specialists who work with our equipment. Our equipment is intended for professional use, so you have professional skills in using such equipment. ADERTECH is a manufacturer of a wide range of multimedia solutions.

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.

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1. Introduction

This product has the features of superior performance, superior compatibility, easy to carry and simple installation. It can capture HDMI™ video input signal, video resolution up to 8K@60Hz, 4K2K@144Hz. It supports microphone/linear audio input and loop output, compatible with HDMI™ digital mixing audio capturing. The data transfer rate of USB 3.2 Gen 1 signal is up to 5Gpbs. The products conforms to UVC and UAC standard. Simple plug and play, no driver download and installation setting required.

2. Features

- ☆ HDMI™ video and audio streams over USB 3.2 Gen 1
- ☆ Supports HDMI™ input & loopout up to 8K@60Hz, 4K2K@144Hz with HDR
- ☆ Captures 4K60fps, 2560x1440@144fps with uncompressed quality
- ☆ Mix HDMI™ mic and line-in audio with precision to output via 3.5mm analog output ports and USB capturing port
- ☆ Works on multiple operation system platforms (Windows 7/10/11, Mac OS and Linux OS)
- ☆ Compatible with USB 3.2 Gen 1, transmission rate up to 5Gpbs
- ☆ Compatible with OBS, Streamlabs, Vmix, Zoom, Microsoft Teams, and more
- ☆ Supports YUY2, NV12, I420, MJPEG video capture format
- ☆ Simple plug and play, no driver download and installation setting required

3. Package Contents

① 1× 8K HDMI™ to USB 3.2 Gen 1 Video Capture Card
② 1× USB Cable (Type C, Male to Male, 1m)
③ 1× User Manual

4. Specifications

Technical	
HDMI™ Compliance	HDMI™ 2.1
HDCP Compliance	HDCP 2.3
Video Bandwidth	48Gbps
USB Bandwidth	5Gbps
Video Resolution (Input & Output)	Up to 8K@60Hz, 4K2K@144Hz * All available resolutions are shown as follow.
Color Space	RGB, YCbCr_4:4:4, YCbCr_4:2:2, YCbCr_4:2:0
Color Depth	8/10/12-bit
HDMI™ Audio Formats	Maximum Channels: 8 Channels Sampling Rate (kHz): 32, 44.1, 48, 88.2, 96, 176.4, 192 Bitstream: Standard & High-definition
USB Audio Formats	Maximum Channels: 2 Channels Sampling Rate (kHz): 44.1, 48 Bitstream: None
HDR	HDR, HDR10, HDR10+, Dolby Vision, HLG
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge), ±4kV (Contact discharge)
Connection	
Input	1× IN [HDMI™ Type A, 19-pin female] 1× MIC IN [3.5mm audio jack] 1× LINE IN [3.5mm audio jack]
Output	1× OUT [HDMI™ Type A, 19-pin female] 1× LINE OUT [3.5mm audio jack] 1× USB-C [USB-C port, 12-pin female]
Mechanical	
Housing	Aluminum Enclosure
Color	Silver
Dimensions	114mm [W] × 82mm [D] × 22mm [H]
Weight	180g
Power Supply	USB Power Supply
Power Consumption	5.8W (Max)

Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F
Operating Humidity	20% - 80% (relative humidity, non-condensing)
Storage Humidity	10% - 90% (relative humidity, non-condensing)

* All available input/output resolutions:

HDMI™ Resolutions	640x480p60Hz, 800x600p60Hz, 1024x768p60Hz, 1280x1024p60Hz, 1360x768p60Hz, 1440x900p60Hz, 1440x1050p60Hz, 1600x1200p60Hz, 720x480i59.94Hz(480i59), 720x480p59.94Hz(480p59), 720x576i50Hz(576i50), 720x576p50Hz(576p50), 1280x720p50Hz(720p50), 1280x720p59.94Hz(720p59), 1280x720p60Hz(720p60), 1920x1080i50Hz(1080i50), 1920x1080i59.94Hz(1080i59), 1920x1080i60Hz(1080i60), 1920x1080p23.98Hz(1080p23), 1920x1080p24Hz(1080p24), 1920x1080p25Hz(1080p25), 1920x1080p29.97Hz(1080p29), 1920x1080p30Hz(1080p30), 1920x1080p50Hz(1080p50), 1920x1080p59.94Hz(1080p59), 1920x1080p60Hz(1080p60), 3840x2160p23.98Hz(2160p23), 3840x2160p24Hz(2160p24), 3840x2160p25Hz(2160p25), 3840x2160p29.97Hz(2160p29), 3840x2160p30Hz(2160p30), 3840x2160p50Hz(2160p50), 3840x2160p59.94Hz(2160p59), 3840x2160p60Hz(2160p60), 3840x2160p100Hz(2160p100), 3840x2160p120Hz(2160p120), 4096x2160p23.98Hz, 4096x2160p24Hz, 4096x2160p25Hz, 4096x2160p29.97Hz, 4096x2160p30Hz, 4096x2160p50Hz, 4096x2160p59.94Hz, 4096x2160p60Hz, 4096x2160p100Hz, 4096x2160p120Hz 5120x2160p50Hz, 5120x2160p60Hz, 7680x4320p23.98Hz, 7680x4320p24Hz, 7680x4320p25Hz, 7680x4320p29.97Hz, 7680x4320p30Hz, 7680x4320p50Hz, 7680x4320p60Hz	
UVC Resolutions	**NV12/I420**	3840x2160@30 and lower FPS, 2560x1440@60 and lower FPS, 1920x1080@120 and lower FPS, 1280x720@120 and lower FPS, 720x576@50 and lower FPS, 720x480@60 and lower FPS, 640x480@60 and lower FPS
	YUY2	2560x1440@60 and lower FPS, 1920x1080@60 and lower FPS, 1280x720@120 and lower FPS, 720x576@50 and lower FPS, 720x480@60 and lower FPS, 640x480@60 and lower FPS
	MJPG	3840x2160@60 and lower FPS, 2560x1440@120 and lower FPS, 1920x1080@120 and lower FPS, 1280x720@120 and lower FPS, 720x576@50 and lower FPS, 720x480@60 and lower FPS, 640x480@60 and lower FPS

Requirements for capture equipment:

1. Requirements for computer configuration of Windows (supporting UVC protocol)

MJPEG 4K60:

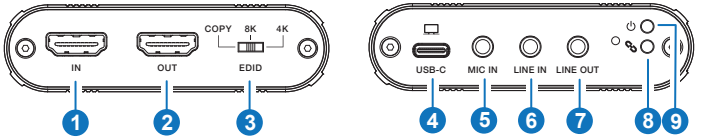
	Desktop Computer	Laptop Computer
CPU	Intel Core i7-10xxx or above	Intel Core i9-9xxx or above
GPU	NVIDIA GeForce GTX 1650 or above	NVIDIA GeForce GTX 1650 or above
RAM	8G (two-channel)	8G (two-channel)

NV12/I420 4K30:

	Desktop Computer	Laptop Computer
CPU	Intel Core i5-6xxx or above	Intel Core i7-7700HQ or above
GPU	NVIDIA GeForce GTX 1060 or above	NVIDIA GeForce GTX 1050Ti or above
RAM	8G (two-channel)	8G (two-channel)

2. Apple MacOS: System Software 10.12 or above

5. Operation Controls and Functions

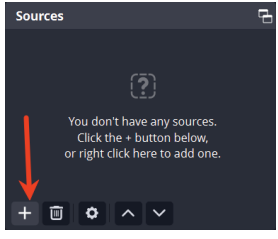


No.	Name	Function Description
1	HDMI IN	HDMI signal input port, connected to a source device such as DVD or PC with HDMI cable.
2	HDMI OUT	HDMI signal loopout port, connected to a display device such as TV or monitor with HDMI cable.
3	EDID dial switch	Used for EDID setting. **COPY:** Copy video EDID from HDMI loop out port and 2.0CH audio. **8K:** FRL10G_8K_HDR, 2.0CH **4K:** 4K60(444), 2.0CH
4	USB-C	USB 3.2 Gen 1 port, connected to a PC for video capture. Besides, the unit can be powered via the connected PC.
5	MIC IN	Microphone input port, supporting 2pin connector only.
6	LINE IN	Analog audio input port, supporting 3pin-3.5mm connector only.
7	LINE OUT	Analog audio output port, supporting 3pin-3.5mm connector only.
8	Link LED	**Light On:** The capture software is recognized. **Light Flashing:** The capture software is working. **Light Off:** The capture software is not recognized.
9	Power LED	The LED will light up, when the device is powered on.

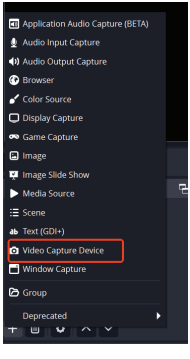
6. Software Instruction

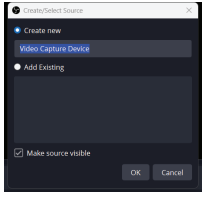
Take OBS (Open Broadcaster Software) software, windows10 system for example:

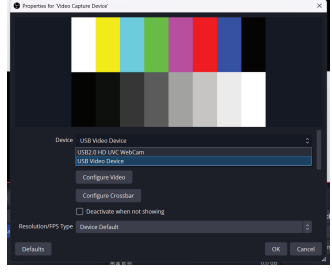
1. Install “OBS” application software on the computer.
2. Double click “OBS Studio” shortcut to start the application.
3. Clicking the “+”, a up-down menu is displayed.



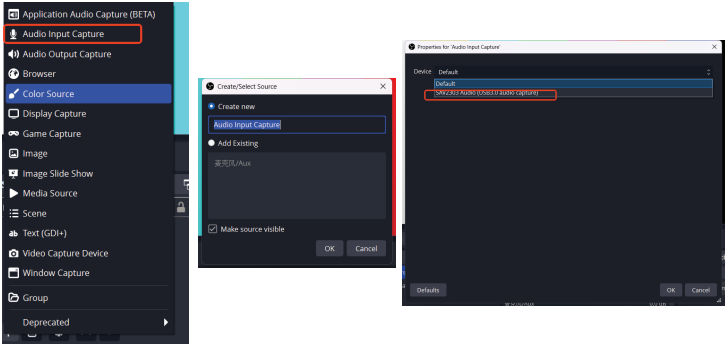
4. Select "Video Capture Device" on the operation interface to create a new video capture device. You can set the properties for the new capture device.



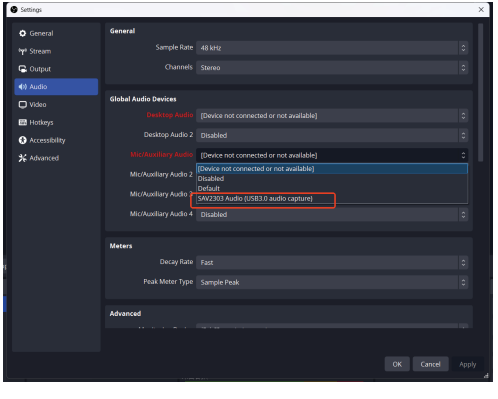




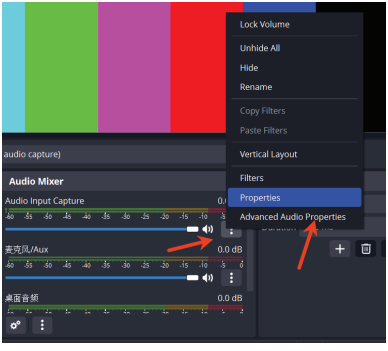
Go on to select "Audio Input Capture" on the operation interface to create a new audio capture. You can set the properties for the new capture.

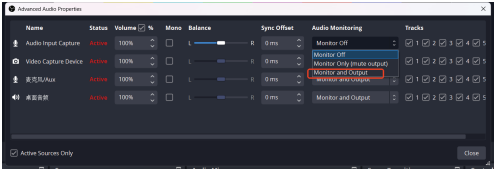


5. On the Setting page, select “Audio” option. On this page, you need select “Sample Rate” and “Mic/Auxiliary Audio Device” (such as “USB3.0 Audio Capture”). Then click “Apply” and “OK” button.

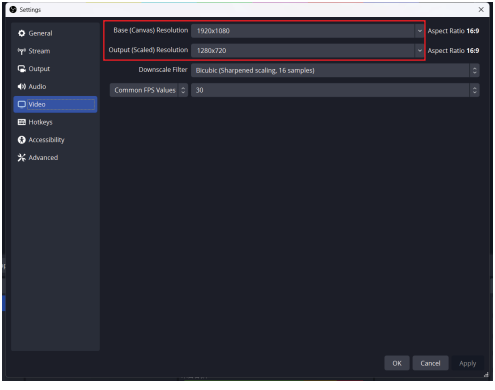


6. Click the Setting icon, and select “Advanced Audio Properties” option. On the Advanced Audio Properties page, select “Monitor and Output” option, and then click “Close” button.

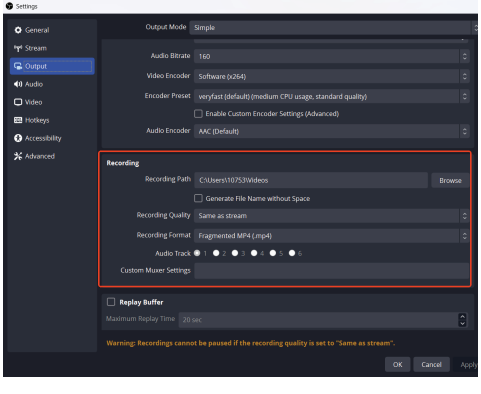




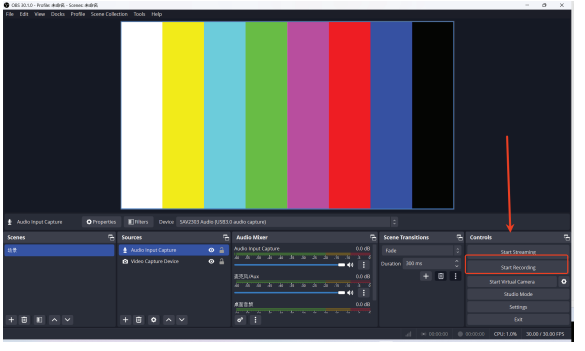
7. On the Setting page, select “Video” option. Then select “Base Resolution” and “Output Resolution”, and click “Apply” and “OK” button.



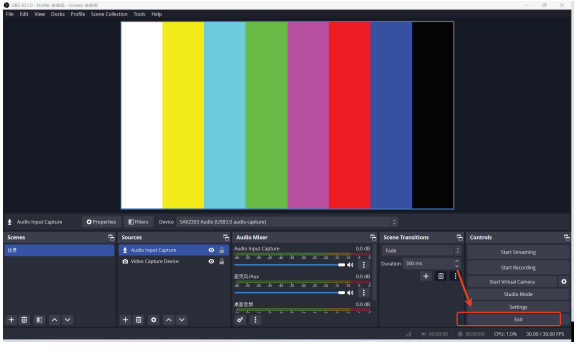
8. On the Setting page, select “Output” option. In this page, you can browse recording path for capturing video. Select the recording quality, recording format and other options. Then click “Apply” and “OK” button.



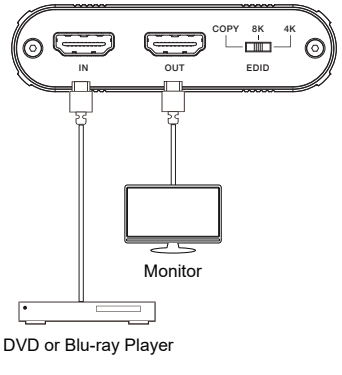
9. When all settings are finished, click the “Start Recording” button to start video capture. Click this button again to stop if needed.

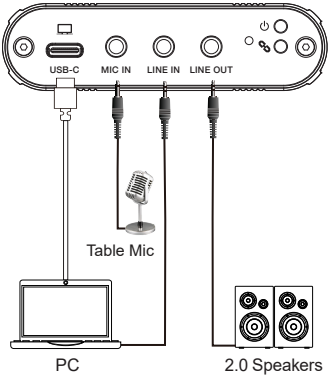


10. When the video capture is over, click the “Exit” button to exit the software.



7. Application Example





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