

# **BG-CAP-HA**

# 1080P Full HD USB 3.0 powered HDMI Capture Device

# **User Manual**





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#### Statement

Please read these instructions carefully before connecting, operating, or configuring this product. Please save this manual for future reference.

#### **Safety Precaution**

- To prevent damaging this product, avoid heavy pressure, strong vibration, or immersion during transportation, storage, and installation.
- The housing of this product is made of organic materials. Do not expose to any liquid, gas, or solids which may corrode the shell.
- Do not expose the product to rain or moisture.
- To prevent the risk of electric shock, do not open the case. Installation and maintenance should only be carried out by qualified technicians.
- Do not use the product beyond the specified temperature, humidity, or power supply specifications.
- This product does not contain parts that can be maintained or repaired by users. Damage caused by dismantling the product without authorization from BZBGEAR is not covered under the warranty policy.
- Installation and use of this product must strictly comply with local electrical safety standards.
- Disconnect power cord by connector only. Do not pull on cable portion.
- Do not place or drop heavy or sharp-edged objects on power cord. A damaged cord can cause fire or electrical shock hazards. Regularly check power cord for excessive wear or damage to avoid possible fire / electrical hazards.
- Ensure unit is always properly grounded to prevent electrical shock hazard.
- Do not operate unit in hazardous or potentially explosive atmospheres. Doing so could result in fire, explosion, or other dangerous results.
- Handle with care to avoid shocks in transit. Shocks may cause malfunction. When you need to transport the unit, use the original packing materials, or alternate adequate packing.
- Turn off the unit if an abnormality or malfunction occurs. Disconnect everything before moving the unit.

**Note**: due to constant efforts to improve products and product features, specifications may change without notice.

#### Introduction

The BG-CAP-HA is an HDMI to USB video capture device. The product is designed to capture video and audio signals from 4K source devices and convert the signal to 1080p. The content captured can be saved to the connected PC/Laptop using recording software such as OBS Studios, the Camera app, VLC, etc or streamed to various services such as YouTube, Twitch, Zoom, etc. The unit also features an HDMI loopout to connect and passthrough signal up to 4K@60Hz 4:4:4 to a compatible display device.

# Features

- Capture video and audio from HDMI sources.
- HDMI video resolution is up to 4K@60Hz 4:4:4, HDR10
- Supports HDMI loop output for display device connection.
- Capture resolutions up to 1080p@60 fps through the USB port.
- Compatible with multiple third-party applications, such as OBS, VLC, PotPlayer, Twitch, YouTube, Facebook
- Audio embedding and extraction through 3.5mm stereo mini ports.
- No external power supply required (powered via USB).

# **Packing List**

- 1x BG-CAP-HA
- 1x USB 3.0 HDMI Capture Device
- 1x User Manual
- 1x Quick Start Guide

# **Technical Specifications**

Model	BG-CAP-HA		
Description	HDMI to USB Video Capture Device		
Input	(1) HDMI In, (1) Audio In		
Input Connector	(1) Type-A HDMI, (1) 3.5mm jack		
Output	(1) HDMI Out, (1) USB, (1) Audio Out		
Output Connector	(1) Type-A HDMI, (1) Type-A USB, (1) 3.5mm jack		
HDMI Standard	2.0		
HDMI Input Resolution	Up to 4K@60Hz 4:4:4, HDR10		
HDMI Output Resolution	Up to 4K@60Hz 4:4:4, HDR10		
USB Output Color Space	YUV2, RGB		
HDMI Audio Format	LPCM 7.1 audio, Dolby Atmos®, Dolby® TrueHD, Dolby Digital® Plus, DTS:X™, and DTS-HD® Master Audio™ pass-through		
Microphone Audio Format	PCM 2.0		
Headphone Audio Format	PCM 2.0		
OS Support	Windows, Mac OS X, Linux		
Compatible Media Player	OBS, PotPlayer, VLC and so on		
Video Capture Format	HDMI Source	Captured Video by USB	
	4K@60Hz 4:4:4	1080p@60Hz/720p	
	1080p@60Hz 4:4:4	1080p@60Hz/720p	
	720p	720p	
	480	480	
	576	576	
General			
Operation Temperature	=+23° to +131°F / -5° to +55°C		
Storage Temperature	-13° to +158°F / -25° to +70°C		
Relative Humidity	10% to 90%, Non-condensing		
Dimension (W*H*D)	102 x 13 x 61mm		
Net Weight	0.17 lbs [75g]		

# **Operation Controls and Functions**

#### **Front panel**



- 1. HDMI Out: HDMI loop output for HDMI display device connection.
- 2. HDMI In: Connects to HDMI source device.

#### **Rear panel**



- 3. USB: Connects to laptop, PC or other recording device.
- 4. Audio Out: Extract HDMI source audio using a 3.5mm stereo mini cable.
- 5. Audio In: Embed audio using a 3.5mm stereo mini cable.

#### **System Connection**

#### **System Requirement**

- A recording device with an available Type-A USB port.
- Microsoft Windows, Mac OS X, or Linux.
- HDMI audio/video source connected with an HDMI Cable (Camera, Xbox, PS4, DVD player, etc.).

#### **Recording in Windows using OBS**

**Note**: The OBS Studio is the recommended software to be used for video capturing. Please visit https://obsproject.com/ to download the software for Windows, Mac OS X, or Linux.

1. Click the "+" icon under "Sources" and then click "Video Capture Device"



2. Type in a desired device name and then click "OK" to create a new source.

Screate/Select Source	$\times$
• Create new	
Video Capture Device	
Add Existing	
✓ Make source visible	
ОК	Cancel

**3.** In the next pop-up window select the video capture device and configure the video parameters as desired and then click "OK".

Properties for 'Video	o Capture Device'	×
	営業 赤市 地要保护它们	
Device	USB3.0 HD Video Capture	•
	Deactivate	
	Configure Video	
	Configure Crossbar	
	Deactivate when not showing	
Resolution/FPS Type	Device Default	
Resolution		9
		<b>a</b>
Color Space	Default	
Defaults	OK Canc	e1

**4.** Click "Start Recording" in the "Controls" zone in the bottom right and the video and audio recording will start.



**6.** Select "File", and then click "Show Recordings" in the drop down menu. The saved recordings will be shown in their folder location.



7. To configure audio and video parameters, click "Settings" in the "Controls" section.







#### **Recording for Mac using QuickTime**

The QuickTime Player is software that comes preinstalled in Mac OS and it can also be used for video recording.

1. Launch QuickTime Player and then click "File" in the top menu bar. Select "New Movie Recording".

CuickTime Player	File Edit View Wir	dow Help
and the second	New Movie Recording New Audio Recording New Screen Recording	て第N へて第N へまN
	Open File Open Location Open Recent	#O #L
	Close Save Duplicate Rename Move To	策W 米S 企米S
	Export Revert To	*
	Share	•

**2.** The recording control panel will appear on the screen. Click the " $\vee$ " symbol for the drop down menu.

DY I		
(→ ● → →)) ●	✓ USB3.0 HD Video Capture FaceTime HD Camera	
	Microphone Built-in Microphone: Internal Microphone VISB3.0 HD Audio Capture	
6 CALL	Quality ✔ High Maximum	

**3.** Select "USB3.0 HD Video Capture" under "Camera", and select "USB3.0 HD Audio Capture" under "Microphone". Then adjust to the desired volume for the speaker.



4. Click the "Record" button to start recording.

P-4	A REALING	
	Camera ✓ USB3.0 HD Video Capture FaceTime HD Camera	
	Microphone Built-in Microphone: Internal Microphone ✓ USB3.0 HD Audio Capture	
6 CALL	Quality ✔ High Maximum	

5. To stop recording, simply click the square "Stop" button.



6. Enter the recording file name and select where to save the file.

	•	Untitled			
	ocument "Untit	save the change led"? lost if you don't sa			
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	Tags:				
	Where: 🛅 D	esktop	0		10/10
	Don't Save		Cancel Sa	ve	
LIT		1= 1	Reve.		1: 1

#### **Recording for Windows using VLC**

#### • VLC Media Player Initial Setting

VLC Media Player also can be used for video capturing. Please visit www.videolan.org/vlc/ to download the VLC Media Player for Windows, Mac OS X, or Linux.

On initial use, the hardware accelerated decoding must be set at "Automatic" to ensure the best performance. Please use the following instructions to set the hardware accelerated decoding.

1. Select "Tools", and then click on "Preferences" in the drop down menu.

dio	Video	Subtitle	Тос	ls View Help		
			†4†	Effects and Filters	Ctrl+E	
				Track Synchronization		
			0	Media Information	Ctrl+I	
			0	Codec Information Ctrl+J		
				VLM Configuration Ctrl+Shift+W		
				Program Guide		
				Messages Ctrl+M		
				Plugins and extensions		
			عر	Customize Interface		
		$\langle$	ع	Preferences	Ctrl+P	

**2.** Click "Input/Codecs", select "Automatic" in the drop down for Hardware-accelerated decoding, and then "Save" to finish changing VLC settings.

Simple Preferences		
Interface Audio Video	Subtitles / OSD	
Codecs		
Mardware-accelerated decoding	Automatic	•
Tast seek		
Video quality post-processing level	6 🔹	
Skip H.264 in-loop deblocking filter	Fone	•
x264 preset and tuning selection	ultrafest • film	•
x264 profile and level selection	high • 0	
Optical drive		
Default optical device		•
Files		
Record directory or filename		Browse
Preload MEV files in the same director	y	
Danaged or incomplete AVI file	Ask for action	•
Network		
Default caching policy	Custon	•
HTTP promy URL		
Live555 stream transport	HITP (default)     O HIP over HI	SP (TCP)
Show settings Simple O All Reset Preferences		Save Cancel

#### **VLC Media Player Direct Show**

1. Select "Media" and then select "Open Capture Device" in the drop down menu.



2. Click the dropdown for "Video device name" and select "USB3.0 HD Video Capture".

🔒 Open Media	
🕞 File 🔗 Disc 🚏 Network	🖽 Capture Device
Capture mode	DirectShow 🔻
Device Selection	
Video device name	Default 🔻
Audio device name	Default Default Integrated Comerce USB3.0 HD Viceo Capture
Options	obb. O ill vi eo cap cut e
Video size	
	Advanced options
Show more options	
	Play - Cancel

3. For audio device name, select "Microphone (USB3.0 HD Audio Capture)".

🛓 Open Media	
🕞 File 🕙 Disc 🚏 Network	🥶 Capture Device
Capture mode	DirectShow 🔻
Device Selection	
Video device name	USB3.0 HD Video Capture 🔻
Audio device name	Default 🔻
Options	Default None Microphone (Realtek Kigh Definition Au
Video size	Microphone (USB3.0 HD Audio Capture)
	Advanced options
Show more options	
	Play - Cancel

🛓 Open Media	
🕞 File 💊 Disc 🚏 Network	🖽 Capture Device
Capture mode	DirectShow 🔻
Device Selection	
Video device name	USB3.0 HD Video Capture 💌
Audio device name	Microphone (USB3.0 HD Audio Capture) 🔻
Options	
Video size	
	Advanced options
Show more options	
	Play V Cancel

- 5. Enter the aspect ratio for the video source (e.g. 16:9).
- 6. Click "OK" to exit the "Advanced options" menu.

🛓 Open Me	dia	
▶ Fil	Advanced Options	8 ×
Captur	Picture aspect-ratio n:m	
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Video	Video input frame rate	0.00 荣
Audio	Device properties Tuner properties	E
-Opti	Tuner TV Channel	0 🗢
Video	Tuner Frequency	0 🗢
	Tuner country code	0 🜩
	Video standard	Default 🔻
	Tuner input type	Default -
	Video input pin	-1 🜩 🕌
Show		OK Cancel
		IIN Cancel

7. Click "Play", the source screen will show in approximately several seconds.

🛓 Open Media	
🕞 File 🔗 Disc 🚏 Network	🖽 Capture Device
Capture mode	DirectShow 🔻
Device Selection	
Video device name	USB3.0 HD Video Capture 🔻
Audio device name	Microphone (USB3. 0 HD Audio Capture) 🔻
Options	
Video size	
	Advanced options
Show more options	Play Cancel

#### • VLC Media Player Recording

**Note**: We recommend using the "Convert/Save" method to record a video from the device for best performance.

1. Select "Media", and then select "Convert / Save" at the dropdown menu.



🛓 Open Media	
🕞 File 🔗 Disc	🚏 Network 🖾 Capture Device
Capture mode	DirectShow 🔻
Device Selection	
Video device name	USB3.0 HD Video Capture 🔻
Audio device name	Microphone(USB3.0 HD Audio Capture) 🔻
Options	
Video size	
	Advanced options
Show more options	
	Play - Cancel

- **3.** Video device name should be "USB3.0 HD Video Capture" and the audio device name should be "Microphone (USB3.0 HD Audio Capture)".
- **4.** To set the video resolution, type the resolution (e.g. 1920\*1080) at "Video size" textbox.

🚊 Open Media	
🕞 File 🐟 Disc 🚏 Network	🖽 Capture Device
Capture mode	DirectShow 🔻
Device Selection	
Video device name	USB3.0 HD Video Capture 🔻
Audio device name	Microphone(USB3.0 HD Audio Capture) 🔻
Options	
Video size	1920*1080
	Advanced options
🕅 Show more options	Play Cancel

🔒 Open Media	
🕞 File 📎 Disc 🚏 Network	🖽 Capture Device
Capture mode	DirectShow 🔻
Device Selection	
Video device name	USB3.0 HD Video Capture 🔻
Audio device name	Microphone (USB3.0 HD Audio Capture) 🔻
Options	
Video size	
	Advanced options
Show more options	
	Play Cancel

- 6. Enter the aspect ratio for the video source (e.g. 16:9).
- 7. Click "OK" to exit the "Advanced options" menu.

🛓 Open Me	edia	
Fil	Advanced Options	8 ×
Captur Devi Video	Picture aspect-ratio n:m Video input chroma format Video input frame rate	
Audic - Optic	Device properties Tuner properties Tuner TV Channel	
Video	Tuner Frequency Tuner country code	
	Video standard Tuner input type	Default
Show	Video input pin	OK Cancel

🛓 Open Media	
🕞 File 🔸 Disc 🚏 Network	🖽 Capture Device
Capture mode	DirectShow ▼
Device Selection	
Video device name	USB3.0 HD Video Capture 💌
Audio device name	Microphone(USB3.0 HD Audio Capture) 🔻
Options	
Video size	
	Advanced options
Show more options	
	Convert / Save 🔻 Cancel

9. Select "Display the output" check-box, and set the video format.

🛓 Convert	x
Source	
Source: dshow:\\	
Type: dshow	
Settings	
Onvert	
Visplay the output	
Deinterlace	
Settings © Convert Visplay the output Deinterlace Profile Video - H. 264 + MP3 (MP4) New X	
🔘 Dump raw input	
Destination	
Destination file: C:\Users\Administrator\Desktop\Movie=2.mp4 Browse	
Start Cance	1

10. Then click "Browse" to choose where to save the file and enter the file name.

🔒 Convert	:		
Source			
Source:	dshow:\\		
Type:	dshow		
Setting: © Conve	ert		
	play the output nterlace		
Profi	ile	Video - H.264 + MP3 (MP4) 🔹 🔍 🔀	
🔘 Dump	raw input	<i>b</i> <sup>3</sup>	
Destination			
Destination file: C:\Users\Administrator\Desktop\Movie=2.mp4 Browse			
		Start Cancel	

**11.** Click "Start", and the video and audio recording will start.

**12.** To stop recording, simply click the square "Stop" button in the bottom control panel.

00:07		
	C₂-	

# **Application Example**





Have technical questions? We may have answered them already!

Please visit BZBGEAR's support page (<u>bzbgear.com/support</u>) for helpful information and tips regarding our products. Here you will find our Knowledge Base (<u>bzbgear.com/knowledge-base</u>) with detailed tutorials, quick start guides, and step-by-step troubleshooting instructions. Or explore our YouTube channel, BZB TV (<u>youtube.com/c/BZBTVchannel</u>), for help setting up, configuring, and other helpful how-to videos about our gear.

Need more in-depth support? Connect with one of our technical specialists directly:

<b>Phone</b>	Email	Live Chat
1.888.499.9906	support@bzbgear.com	bzbgear.com

# **Limited Product Warranty Terms**

Pro Line: 5-year warranty from the date of purchase for AV/Broadcasting products bought on or after August 1, 2024.

Essential Line: 3-year warranty from the date of purchase for AV/Broadcasting products bought on or after August 1, 2024.

Cables: Lifetime Limited Product Warranty.

For complete warranty information, please visit <u>bzbgear.com/warranty.</u>

For questions, please call 1.888.499.9906 or email support@bzbgear.com.

#### **Mission Statement**

BZBGEAR is a breakthrough manufacturer of high-quality, innovative audiovisual equipment ranging from AVoIP, professional broadcasting, conferencing, home theater, to live streaming solutions. We pride ourselves on unparalleled customer support and services. Our team offers system design consultation, and highly reviewed technical support for all the products in our catalog. BZBGEAR delivers quality products designed with users in mind.

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