CONNECTION DIAGRAM

Camcoder   DSLR Camera   PS4

HDMI CABLE

USB 3.0

LIVE

Laptop

USB PIN DEFINITION

P1   P2

	P1		P2
VBUS	1	⟷	1
D-	2	⟷	2
D+	3	⟷	3
GND	4	⟷	4
SSRX-	5	⟷	5
SSRX+	6	⟷	6
GND	7	⟷	7
SSTX-	8	⟷	8
SSRX+	9	⟷	9
Shield	SHELL	⟷	SHELL

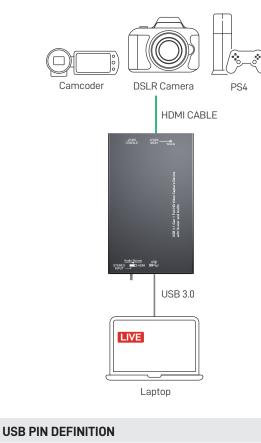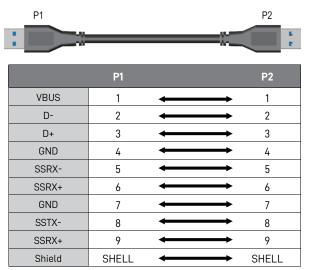## WARRANTY

BZBGEAR wants to assure you peace of mind. We're so confident in the quality of our products that along with the manufacturer's one-year limited warranty, we are offering free second-year warranty coverage upon registration*.

Taking advantage of this program is simple, just follow the steps below:

1. Register your product within 90 days of purchase by visiting BZBGEAR.com/warranty.

2. Complete the registration form. Provide all necessary proof of purchase details, including serial number and a copy of your sales receipt.

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

For complete warranty information, please visit BZBGEAR.com/warranty or scan the QR code below.

*Terms and conditions apply. Registration is required.

BG-CHA

USB 3.1 Gen 1 Full HD Video Capture Device with Scaler and Audio

User Manual

INTRODUCTION

The **BG-CHA USB 3.1 Gen 1 Full HD Video Capture Device with Scaler and Audio** provides a professional way to capture HDMI video signals. It adopts USB 3.1 Gen 1 (USB 3.0) interface, which can realize high-speed transmission. Users can capture Full HD (1080p60) video by this capture device. Besides, BG-CHA can capture and display original uncompressed HDMI video with more realistic color rendition. BG-CHA also uses large volume image buffer technology which effectively avoids the video tearing. The high sampling rate and high sampling accuracy assure images with high sharpness, rich details, and less color edges.

FEATURES

- Supports HDMI output resolution scaler with audio embedding
- HDMI video and audio streams over USB 3.1 Gen 1
- Supports UVC1.0
- Supports input and output video resolution up to 1080p 60Hz
- Auto-detection on video format to ensure plug-play operations
- Recording Video Format: H.264 (Software Compression)
- Works on multiple operating system platforms (Windows 7/8.1/10, Mac and Linux OS)
- Compatible with most 3rd party software such as OBS Studio and AMCap
- Supports USB 3.1 (MJPG/YUY2) and USB 2.0 (MJPG)
- Low Lattency
- System Requirements (Recommanded)
    - Windows® 7(SP1) / Windows 8.1 / Windows 10
    - PC: Intel® CoreTM i5-4440 3.10GHz + NVIDIA® GeForce® GTX 660 or higher
    - Laptop: Intel® Core i7-4810MQ + NVIDIA GeForce GTX 870M or higher
    - 4GB RAM or higher

> ℹ 1. Video quality is apparently related to the capability of computer and software setting.
> 2. Please use the included USB 3.1 cable in the box to protect the device and avoid furthur compatible issues.

PACKAGE CONTENTS

- 1x BG-CHA
- 1x USB 3.1 Gen 1 A to A Cable (host to device)
- 1x User Manual

SPECIFICATIONS

Model Name		BG-CHA
Technical		
Role of usage		Video Capture Device
Input Video bandwidth		150MHz
Output Video bandwidth		Up to 350MBps (USB)
Video support		Up to 1080p60
Audio Input		SDI Embedded Audio & Stereo audio Input
Audio Format		2 Channel, 44.1 and 48KHz sample rate, up to 16bit PCM
Recording Mode		Software Compression
Recording Video Format		YUY2 (USB3.1 Gen 1), MJPG (USB2.0/3.1 Gen 1)
ESD protection		Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]
PCB stack-up		6-layer board [impedance control — differential 100Ω; single 50Ω]
Firmware update		Feasible via USB Port
Input		1x HDMI + 1x 3.5mm
Output		1x USB
HDMI connector		Type A [19-pin female]
USB connector		USB 3.1 Type A (SuperSpeed USB)
Software compatibility (not complete list)		OBS Studio (Windows, Linux), AMCap (Windows), Potplayer (Windows), Skype (Windows, OS X), Hangout (Windows), TeamViewer (Windows)
OS Support		Windows 7 /8.1 /10, Mac and Linux OS
Mechanical		
Housing		Metal enclosure
Dimensions [L x W x H]	Model	102 x 62 x 17mm [4" x 2.4" x 0.6"]
	Package	140 x 113 x 24mm [5.5" x 4.4" x 0.9"]
	Carton	405 x 275 x 255mm [1'3" x 10.8" x 10"]
Weight	Model	144g[5 oz]
	Package	227g[8 oz]
Fixedness		Wall-mounting case with screws
Power supply		Via USB
Power consumption		3 Watts [max]
Operation temperature		0~40°C [32~104°F]
Storage temperature		-20~60°C [-4~140°F]
Relative humidity		20~90% RH [no condensation]

PANEL DESCRIPTIONS

1. AUDIO SWITCH: [left] Audio from stereo audio in, [right] Audio from HDMI
2. USB OUT: Connect to a USB host (PC, NB, MAC...)
3. LED INDICATOR: Input signal indicator LED
4. HDMI IN: Connect to a HDMI source
5. STEREO AUDIO IN: Connect to analog stereo audio source

TROUBLESHOOTING

Our USB device has done comprehensive tests before shipment. Most of the incompatibilities we have experienced are not from the USB capture device itself, but from the sophisticated software and hardware combination of PC or laptop. Please follow the following suggestions to see any helps.

1. OBS is popular USB capture freeware and has excellent compatibility. Please download it and start with OBS if users are not familiar with USB capture device.

   https://obsproject.com/download

2. The USB device supports HDCP mechanism to protect legal content from pirates. If any HDMI input with HDCP protection, OSD will display a message to indicate HDCP existence. No capture will be legally allowed if HDCP is detected. Please use non-HDCP protected HDMI sources or disable HDCP in order to get USB device work. Device like PS4 supports such a feature to turn HDCP off.

3. Due to the complexities of OS and computer hardware, different USB ports on PC or laptop may have different performance or limitation. Please try all USB ports to see if there are any differences.

4. Please must use the USB cable in box. We do not guarantee the overall performance when the USB capture box works with some other USB cables.

5. HDMI cable quality may also play an essential role when capturing. Please be sure of that HDMI cable can do 1080P@60 HDMI signal transmission or better. Try different cables when the device is not able to work as expected.

6. If audio has noise, please adjust sampling frequency setting on PC or laptop. If the default sampling rate is 48000 Hz, please select 44100 Hz and vice versa. The path of setting sampling frequency on windows 10 is:

   Start → Setting → System → Sound → Device properties → Additional device properties → Advanced