BZB2GEAR®

Solutions to Amplify Your World™

BG-EXH-70UCWP-W

18Gbps HDBaseT 230ft Wall Plate Kit with USB-C/HDMI Wall Plate Transmitter & HDBaseT to HDMI Receiver

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.

Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shocks, lightning strikes, etc. Use of surge protection systems is highly recommended to protect and extend the life of your equipment.

Introduction

Introducing the BG-EXH-70UCWP-W 18Gbps HDBaseT 230ft Wall Plate Kit, a comprehensive solution for advanced signal transmission and distribution. This kit features a USB-C/HDMI Wall Plate Transmitter and an HDBaseT to HDMI Receiver, delivering exceptional performance and versatility for professional AV installations. Enclosed within a sleek US one-gang enclosure compatible with Decora-style wall plate openings, the transmitter functions as a 2x1 switcher and HDBaseT transmitter, supporting HDMI and USB-C inputs.

With support for video resolutions up to 4K2K@50/60Hz 4:4:4 and bidirectional RS-232 pass-through functionality, this kit ensures seamless integration and reliable control signal transmission. Furthermore, the transmitter can be remotely powered via Power Over Ethernet (POE) from the receiver or other HDBaseT-equipped devices, enhancing convenience and flexibility in installation.

Features

- Supports high resolutions up to 4K@120Hz YUV 4:4:4 with DSC function, extending up to 40m (132 feet)
- Compatible with HDCP 2.3, HDCP 2.2, and HDCP 1.4
- Capable of displaying High Dynamic Range (HDR) video
- Offers EDID and HDCP bypass functionalities
- Features Digital Stream Conversion (DSC) function, compatible with DSC 1.2a
- Supports the highest data transfer rate of up to 8 Gbps per channel (32Gbps for all channels)
- TMDS clock reaches up to 800MHz
- Provides 12-bit per channel (36-bit for all channels) deep color support
- Supports uncompressed audio formats such as LPCM
- Compatible with compressed audio formats including DTS, Dolby Digital (including DTS-HD Master Audio™ and Dolby TrueHD)

Packing List

- 1 × 18Gbps HDBaseT 70M with USB-C/HDMI Wall Plate Transmitter
- 1 x HDBaseT to HDMI receiver
- 1 × 3pin-3.81mm Phoenix Connector (male)
- 1 × User Manual

Specifications

| Technical	
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2
DP Compliance	Display Port 1.2a (Adapter required for Display Port)
Video Bandwidth	USB-C: 5.4 Gbps
	HDMI: 18 Gbps
Video Resolution	480i~1080p50/60Hz, 4Kx2K@24/30Hz, 4K2K@60Hz
Color Space	RGB, YCbCr 4:4:4 / 4:2:2, YUV 4:2:0
Color Depth	8/10/12-bit (1080P@60Hz)
	8-bit (4K@60Hz)
HDR	Support
HDMI Audio Formats	LPCM, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD
Transmission Distance	Max distance (1080P) : 230ft / 70m over CAT6/6a/7
	Max distance (4K): 131ft / 40m over CAT6/6a/7
ESD Protection	Human body model — ±8kV (Air-gap discharge) & ±4kV (Contact discharge)
Connection	
Transmitter	Inputs: 1 x HDMI Type A [19-pin female] 1 x USB-C Outputs: 1 x HDBaseT Out [RJ45, 8-pin female] 1x USB-C (only for charging) Controls: 1x RS-232 [3-pin phoenix connector] 1x FW [Micro USB, Update port]
Receiver	Inputs: 1x HDMI IN [Type A, 19-pin female] 1x HDBaseT IN [RJ45, 8-pin female] Outputs: 1x HDMI OUT [Type A, 19-pin female] 1x AUDIO OUT [Phoenix jack] Controls: 1x RS-232 [3-pin phoenix connector] 1x FW [Micro USB, Update port]
Mechanical	
Housing	Metal Enclosure
Color	White
Dimensions (W x D x H)	Wall plate: 1.31in x 2.6in x 2.7in [33.3mm x 65.7mm x 68.7mm] Faceplate: 2.8in x 0.12in x 4.5in [69.9mm x 3mm x 114.3mm] Receiver: 7.9in x 4.0in x 0.87inin [200mm x 102.8mm x 22mm]
Weight	Wall plate: 0.43 lbs [197g], Receiver: 1.1 lbs [517g]
Power Supply	POE (only from Receiver to Transmitter)
Power Consumption	Wall plate: 7.92W (Max), Receiver: 6W (Max)
Operating Temperature	32 - 104°F / 0 - 40°C
Storage Temperature	-4 - 140°F / -20 - 60°C
Relative Humidity	20 - 90% RH (no condensation)

Product Dimensions

Front   Side   Back

Unit: mm
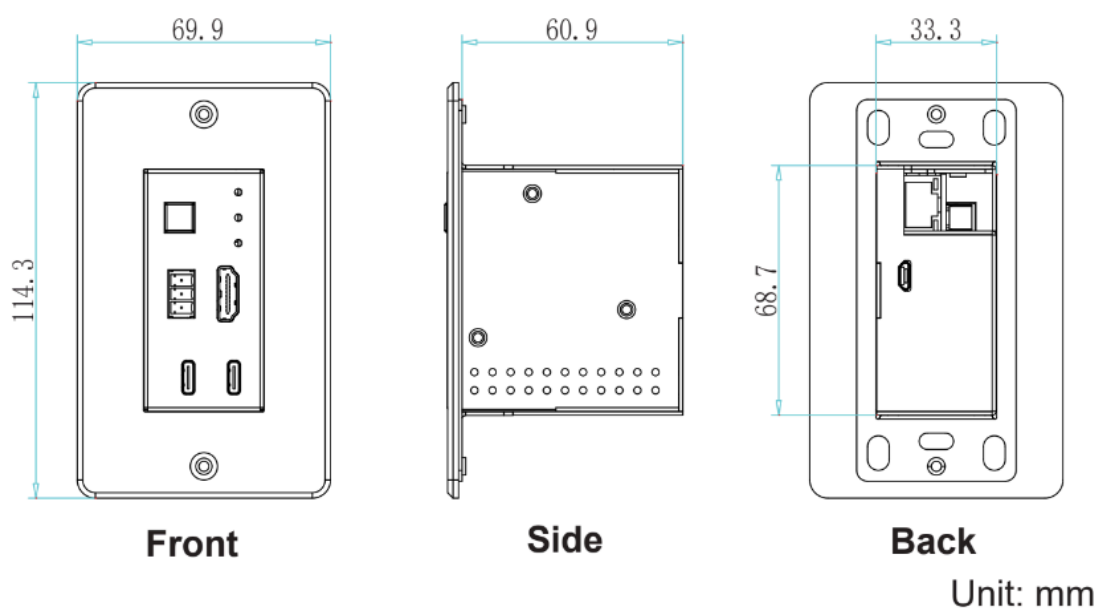
Operation Controls and Functions

Front and Rear Panel

Transmitter Panel
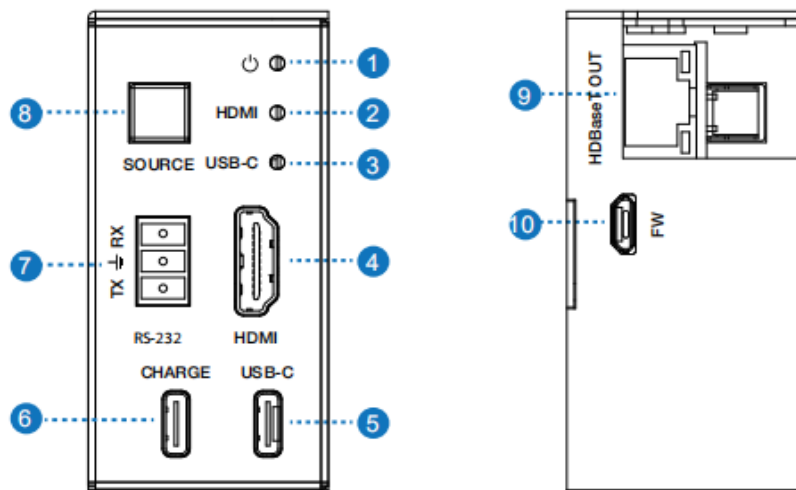
No.	Name	Function Description
1	Power LED	The power LED indicator will illuminate in green when the product is powered on, and red when the product is on standby.
2	HDMI LED	When the HDMI input port is active and the HDMI signal is detected, the green LED will be on.
3	USB-C LED	When the USB-C input port is active and USB-C signal is detected, the green LED will be on.
4	HDMI port	HDMI input port, connect to HDMI source device.
5	USB-C port	(1) USB-C signal input port. (2) Charging port for devices with USB-C port.
6	CHARGE port	Connect this port to power supply, then the USB-C port will power the connected device.
7	RS-232 port	Connect to PC or control system for bidirectional RS-232 control signal passthrough.
8	SOURCE button	Used to switch HDMI / USB-C input signal.
9	HDBaseT OUT	Connect to the HDBaseT IN port of Receiver with a CAT6/6a/7 cable.
10	FW port	Firmware update port.

Receiver Panel
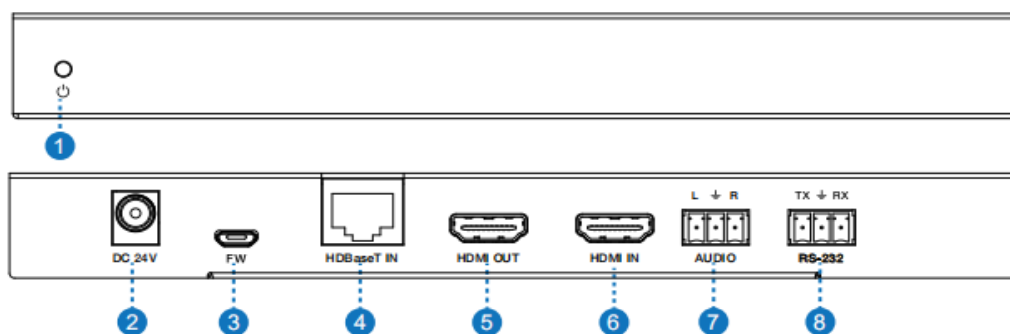
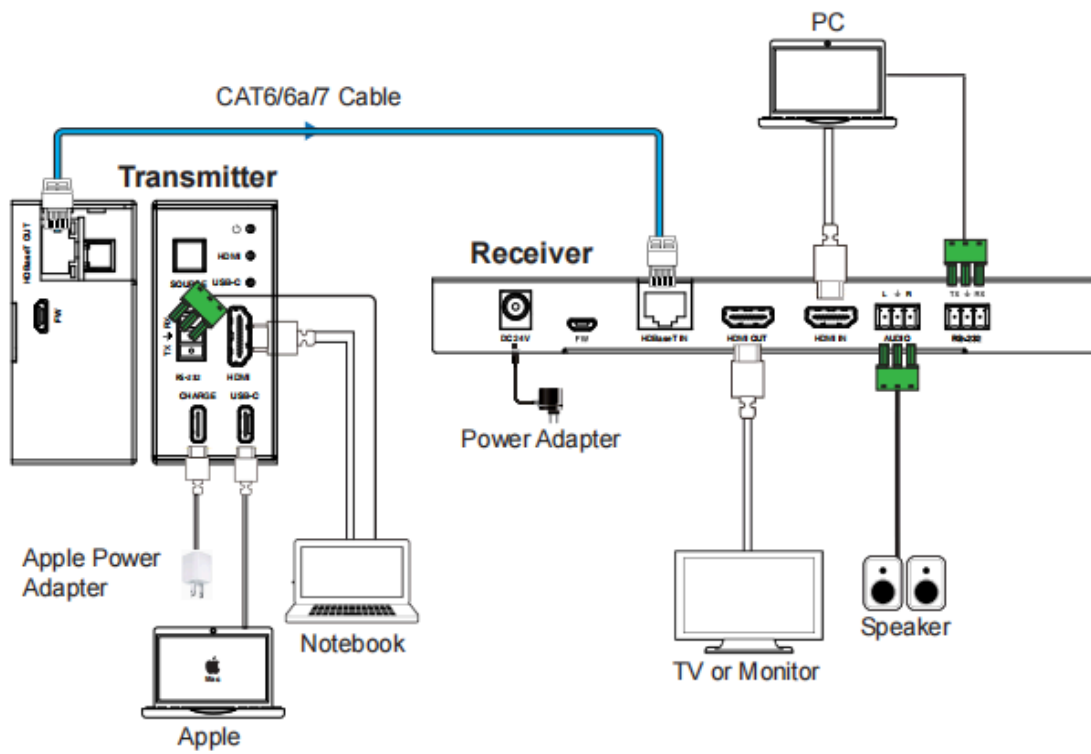| No.	Name	Function Description
1	Power LED	When the product is powered on, the red LED indicator will be on.
2	DC 24V	DC 24V power supply port.
3	FW	Firmware update port.
4	HDBaseT IN	Connect to the HDBaseT OUT port of Transmitter with a CAT6/6a/7 cable.
5	HDMI OUT	HDMI output port, connect to HDMI display device.
6	HDMI IN	HDMI input port, connect to HDMI source device.
7	AUDIO OUT	Analog audio output port.
8	RS-232 port	Connect to PC or control system for bidirectional RS-232 control signal pass-through.

Note:

This transmitter supports automatic/manual mode for source signal input. In manual switching mode, press the SOURCE button to select HDMI/ USB-C input source.

In automatic switching mode, the last connected or the currentlly connected source signal will be selected automatically; When both HDMI and USB-C ports are connected to active signal, HDMI signal input is preferred; When both HDMI and USB-C ports are not connected to active signal, it will switch to the source signal of the Receiver.

Connection Diagram

Troubleshooting

Problems	Causes	Solutions
No Power / All LED off	Power supply not connected, connected fully, or wrong power supply.	Check if the power supply is connected correctly and the output voltage value is within recommended specifications.
No sound or sound issues	The HDMI connection is faulty, the audio format is not supported by the displays, or the source player is set to another port for audio output	Check if the HDMI cables are connected correctly. Check if the audio format is supported by the display and that a user has not changed the supported audio format on the player`s audio output. Ensure output settings from the HDMI source device as set correctly.
No picture or picture flickers	The HDMI cable may be faulty or the category cable quality is faulty.	Check if the HDMI and category cable connections are correct and undamaged. Change to another good working HDMI cable or category cable (CAT6 or better cable is recommended).

Tech Support

Have technical questions? We may have answered them already!

Please visit BZBGEAR's support page (bzbgear.com/support) for helpful information and tips regarding our products. Here you will find our Knowledge Base (bzbgear.com/knowledge-base) with detailed tutorials, quick start guides, and step-by-step troubleshooting instructions. Or explore our YouTube channel, BZB TV (youtube.com/c/BZBTVchannel), 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:

Phone	**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 bzbgear.com/warranty.

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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