

# BG-EXH-50UWP-W

**18Gbps CAT 164ft Wall Plate Kit with USB-C/HDMI Transmitter &  
CAT6 to HDMI Receiver**

## User Manual







## TABLE OF CONTENTS

Statement	4
Safety Precaution	4
Surge protection device recommended	4
Introduction	5
Features	5
Packing List	5
Specifications	6
Product Dimensions	7
Operation Controls and Functions	8
Connection Diagram	10
Troubleshooting	11
Tech Support	12
Limited Product Warranty Terms	12
Mission Statement	12
Copyright	12



## 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-50UWP-W 18Gbps CAT 164ft Wall Plate Kit, a comprehensive solution for seamless signal transmission and distribution. This kit comprises a USB-C/HDMI Transmitter and a CAT6 to HDMI Receiver, designed to meet the demands of modern AV installations. Enclosed within a sleek one-gang Decora-style enclosure, the wall plate transmitter serves as a versatile 2x1 switcher and CAT transmitter, accommodating HDMI and USB-C inputs.

With support for resolutions up to 4K2K@50/60Hz 4:4:4 and a transmission distance of up to 164ft / 50m via CAT6 output, this kit ensures exceptional visual fidelity and flexibility. Additionally, the BG-EXH-50UWP-W kit supports various HDMI audio formats, HDR, and features a user-friendly interface with automatic/manual input signal selection. Its compatibility with Power Over Cable (POC) further enhances convenience, allowing remote powering from the receiver or other CAT-equipped devices.

## Features

---

- Compliant with HDMI 2.0b, HDCP 2.2, and Display Port 1.2a standards (Adapter required for Display Port)
- HDMI input supports 18Gbps video bandwidth; USB-C input supports 5.4Gbps video bandwidth
- Supports video resolutions up to 4K2K@50/60Hz 4:4:4
- CAT6 output extends video transmission distance up to 164ft / 50m for 4K@24 or 115ft / 35m for 4K@60 444 via a single CAT5e/6 cable
- Compatible with 3D, HDR10, and Dolby Vision
- Supports various HDMI audio formats including LPCM, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, and DSD
- Features HDMI and USB-C input
- Includes USB-C charging port
- Designed with a one-gang enclosure for Decora-style wall plate openings in the US
- Input signal selection supports automatic and manual modes
- Supports Power Over Cable (POC) function (only from Receiver to Transmitter)

## Packing List

---

- 1× 18Gbps CAT 50M with USB-C/HDMI Wall Plate Transmitter
- 1x CAT6 to HDMI receiver
- 1× User Manual

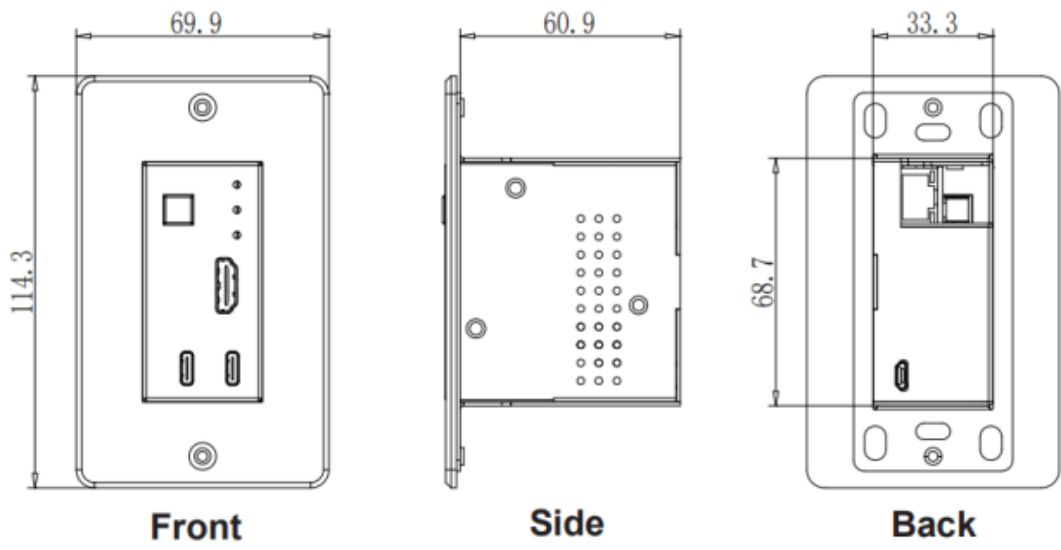


## Specifications

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 (4K@24) : 164ft / 50m over CAT5e/6 Max distance (4K@60) : 115ft / 35m over CAT5e/6
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 CAT6 OUT [RJ45, 8-pin female] 1x USB-C (only for charging) Control: 1x FW [Micro USB, Update port]
Receiver	Input: 1x CAT IN [RJ45, 8-pin female] Output: 1x HDMI OUT [Type A, 19-pin female] Controls: 1x IR IN [3.5mm Stereo Mini-jack] 1x SERVICE [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: 3.5in x 2.4in x 0.71in [88mm x 61mm x 18mm]
Weight	Wall plate: 0.43 lbs [195g], Receiver: 0.34 lbs [155g]
Power Supply	POC (only from Receiver to Transmitter)
Power Consumption	Wall plate: 3W (Max), Receiver: 3.72W (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

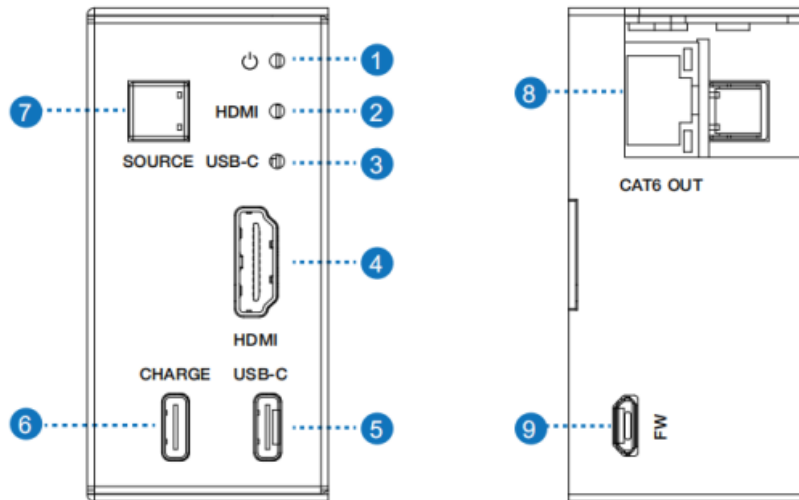




## Operation Controls and Functions

### Front and Rear Panel

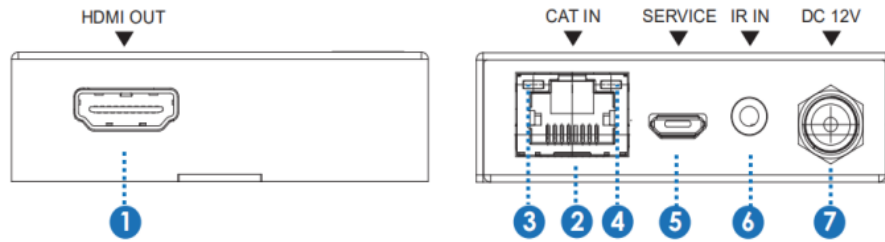
#### Transmitter Panel



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	SOURCE button	Used to switch HDMI / USB-C input signal.
8	CAT6 OUT	Connect to the CAT IN port of Receiver with a CAT5e/6 cable.
9	Service Port	Used for firmware updates



**Receiver Panel**



No.	Name	Function Description
1	HDMI OUT	HDMI output port, connect to HDMI display device such as TV or Projector with an HDMI cable.
2	CAT IN	Connect to the CAT6 OUT port on the transmitter with a CAT cable.
3	Power Indicator Lamp (Green)	When the receiver is powered on, the power indicator lamp will be on.
4	Data signal Indicator Lamp (Orange)	When there is signal transmission between the transmitter and the receiver, the lamp will be on.
5	SERVICE port	Used for firmware update.
6	IR IN	IR signal input port. Connect to the IR Receiver cable.
7	DC 12V	Plug DC 12V/1A power supply into the unit and connect the adapter to an AC outlet. (Note: The CAT receiver provides power for the transmitter via a CAT cable.)

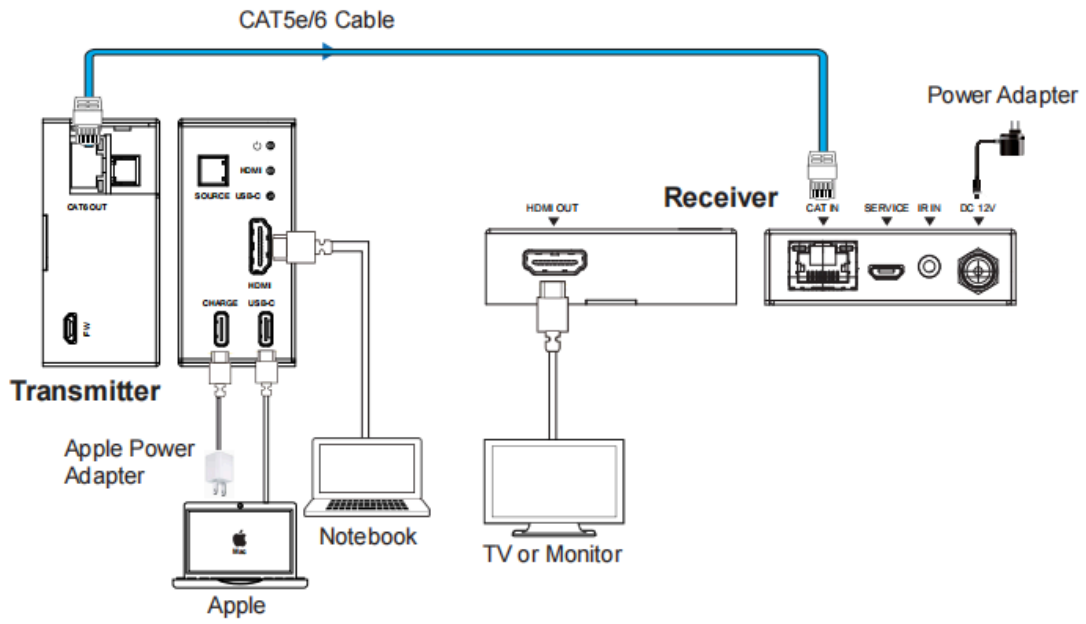
**Note:**

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 currently connected source signal will be selected automatically; When both HDMI and USB-C ports are connected to the active signal, HDMI signal input is preferred.



# 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](https://bzbgear.com/support)) for helpful information and tips regarding our products. Here you will find our Knowledge Base ([bzbgear.com/knowledge-base](https://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](https://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:

<b>Phone</b>	<b>Email</b>	<b>Live Chat</b>
1.888.499.9906	<a href="mailto:support@bzbgear.com">support@bzbgear.com</a>	<a href="https://bzbgear.com">bzbgear.com</a>

## 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](https://bzbgear.com/warranty).

For questions, please call 1.888.499.9906 or email [support@bzbgear.com](mailto: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.

## Copyright

---

All the contents in this manual and its copyright are owned by BZBGear. No one is allowed to imitate, copy, or translate this manual without BZBGear's permission. This manual contains no guarantee, standpoint expression or other implies in any form. Product specification and information in this manual is for reference only and subject to change without notice.

**All rights reserved.** No reproducing is allowed without acknowledgement.