



## **BG-18HBT-B100**

HDMI 18Gbps Over HDBaseT™ 2.0  
with ARC

User Manual

## Thank you for purchasing this product

For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

## Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lightning 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

The BG-18HBT-B100 HDBaseT extender enables transmission of video resolutions up to 4K2K@60Hz(YUV 4:4:4), along with HD audio, dedicated optical audio pathways, 100BaseT Ethernet, Two-Way IR, RS-232, 24V power over 5e/6/7 and ARC signals up to 330ft/100m. ARC (Audio Return Channel) function enables audio from a compatible display to be routed back from the receiver unit to the transmitter. Using the latest HDBaseT 2.0 technology can make your home or office set-up more efficient and easy to use.

## 2. Features

- ✧ HDMI 2.0b, HDCP 2.2 and HDCP 1.4 compliant
- ✧ Video resolutions up to 4K2K@60Hz(4:4:4), 4K2K@30Hz, 1080p@120Hz
- ✧ Audio up to 7.1 channels of High Definition audio pass through (LPCM, Dolby TrueHD, and DTS-HD Master Audio)
- ✧ HDBaseT 2.0 over a single CAT5e/6/7 cable up to 330ft/100m distance
- ✧ 5-Play™ convergence: HD video & audio, IR/RS-232/Ethernet/power over 5e/6/7
- ✧ Two-Way power over 5e/6/7 supports either TX or RX powered by 24V@1A, the other one doesn't need power supply
- ✧ ARC and CEC supported

## 3. Package Contents

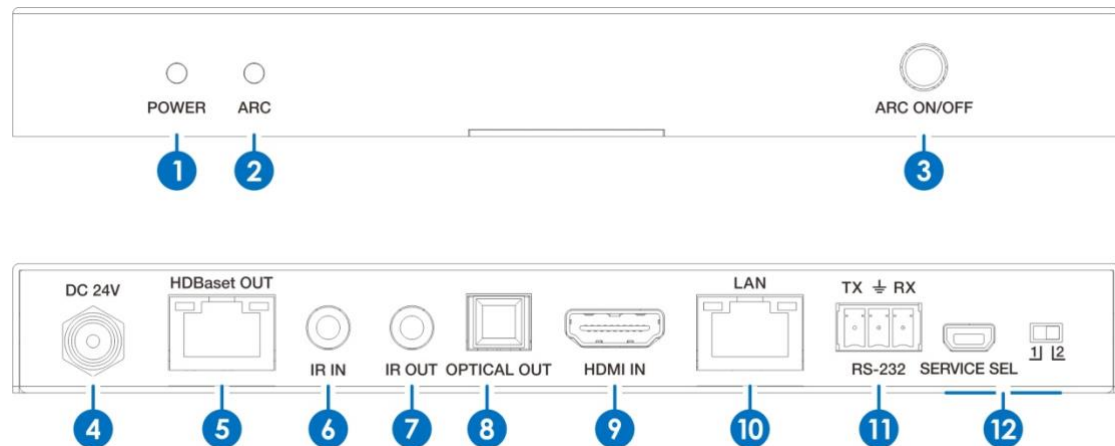
- ✧ 1 x HDMI Extender Transmitter
- ✧ 1 x HDMI Extender Receiver
- ✧ 2 x Wideband IR TX
- ✧ 2 x Wideband IR RX
- ✧ 1 x 24V1A DC Power Supply
- ✧ 4 x Mounting ears
- ✧ 1 x User Manual

## 4. Specifications

Technical	
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2 and HDCP 1.4
Video Bandwidth	18 Gbps
Video Resolutions	up to 4K2K@50/60Hz(4:4:4),4K2K@30Hz,1080P@120Hz, and 1080P 3D@60Hz
Color Space	RGB, YCbCr 4:4:4, YCbCr 4:2:2
Color Depth	8-bit,10-bit, 12-bit
HDMI Audio Formats (Pass-through)	LPCM 2/5.1/7.1CH, Dolby Digital, DTS 5.1, Dolby Digital+, Dolby TrueHD, DTS-HD Master Audio, Dolby Atmos, DTS:X
ESD Protection	Human body model — ±8kV (air-gap discharge) & ±4kV (contact discharge)
Connections	
Transmitter	
Inputs	1x HDMI Type A [19-pin female] 1x IR In [3.5mm Stereo Mini-jack] 1x LAN [RJ45]
Outputs	1x HDBaseT Out [RJ45] 1x IR Out [3.5mm Stereo Mini-jack] 1x Optical Out [S/PDIF]
Receiver	
Inputs	1x HDBaseT In [RJ45] 1x IR In [3.5mm Stereo Mini-jack] 1x Optical In [S/PDIF]
Outputs	1 x HDMI Type A [19-pin female] 1x IR Out [3.5mm Stereo Mini-jack] 1 x LAN [RJ45]
Mechanical	
Housing	Metal Enclosure
Color	Black
Dimensions	172mm [W] x 97.5mm [D] x 20mm [H]
Weight	Tx:420g, Rx:425g
Power Supply	Input: AC100 - 240V 50/60Hz Output: DC 24V/1A (US/EU standards, CE/FCC/UL certified)
Power Consumption	11W (Max)
Operation Temperature	32 - 104°F / 0 - 40°C
Storage temperature	-4 - 140°F / -20 - 60°C
Relative Humidity	20 - 90% RH (no condensation)

## 5. Operation Controls and Functions

### 5.1 Transmitter Front and Rear Panel



1. **POWER LED:** System power indicator.
2. **ARC LED:** ARC status indicator.
3. **ARC Button:** Press the button will enable or disable the ARC function.  
**Enable ARC:** LED ON  
**Disable ARC:** LED OFF  
ARC function: If you need use ARC, your HDTV must support this function, when you open the ARC function, the transmitter optical out port will output the HDTV current display content audio signal, otherwise the transmitter optical out port signal comes from Receiver's Optical In.
4. **DC 24V:** Connects 24V/1A adaptor to AC wall outlet for power supply.
5. **HDBaset OUT:** Connects to HDBaset Receiver with a Cat5e/6/7 cable.
6. **IR IN:** Connects to a Wideband IR RX cable.
7. **IR OUT:** Connects to a Wideband IR TX cable.
8. **OPTICAL OUT:** Connects to speaker with coaxial input for audio signal output from Receiver's Optical In or ARC.
9. **HDMI IN:** Connects to HDMI source device.
10. **LAN:** Connects to an active network for LAN sharing of a total transmission rate up to 100Mbps. Or when a compatible LAN equipped Transmitter is connected to an active network, this allows the network

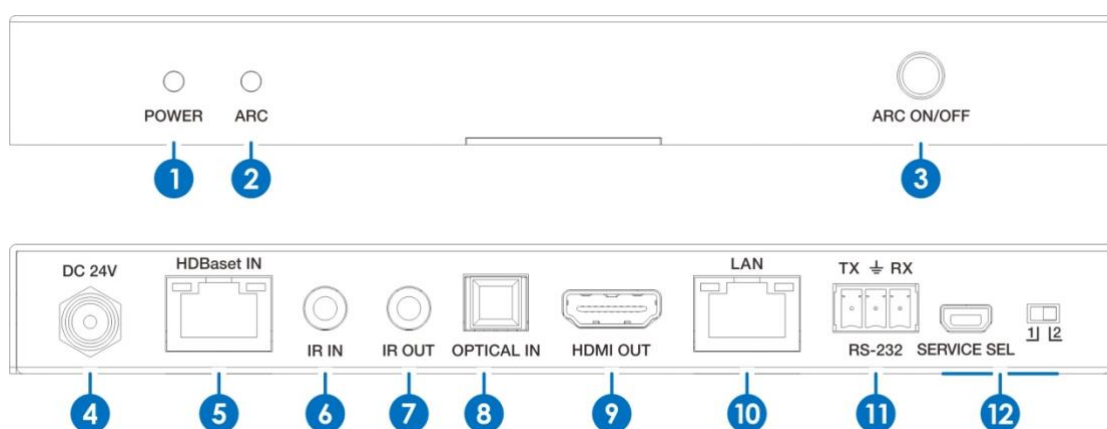
access (including internet access if available) to be shared between the Transmitter and Receiver.

**Note:** Does not connect this RJ45 port to any of the HDBaseT port.

Such behavior may damage this port or whole device.

11. **RS-232:** Connects to any devices with RS-232 port for RS-232 commands transmission.
12. **SERVICE SEL 1/2:** Reserved for manufacturer use only.

## 5.2 Receiver Front and Rear Panel



1. **POWER LED:** System power indicator.
2. **ARC LED:** ARC status indicator.
3. **ARC Button:** Press the button will enable or disable the ARC function.

**Enable ARC:** LED ON

**Disable ARC:** LED OFF

4. **DC 24V:** Connects 24V/1A adaptor to AC wall outlet for power supply.
5. **HDBaseT IN:** Connects to HDBaseT Transmitter with a Cat5e/6/7 cable.
6. **IR IN:** Connects to a Wideband IR RX cable.
7. **IR OUT:** Connects to a Wideband IR TX cable.
8. **OPTICAL IN:** Connects to audio source device such as DVD or Blu-ray player for sending audio signal to Transmitter.
9. **HDMI OUT:** Connects to a HDMI display device.

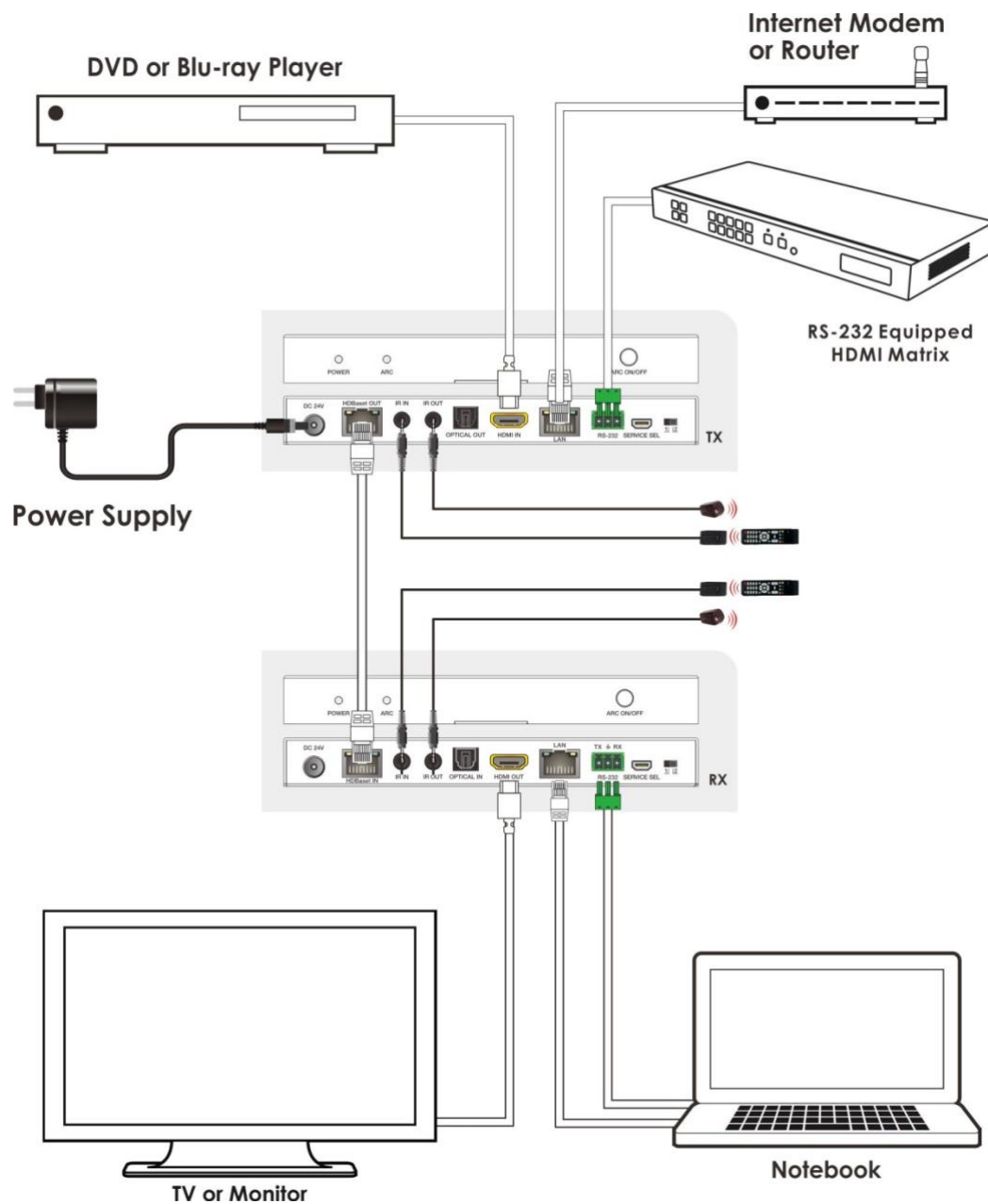
10. **LAN:** Connects to an active network for LAN sharing of a total transmission rate up to 100Mbps. Or when a compatible LAN equipped Transmitter is connected to an active network, this allows the network access (including internet access if available) to be shared between the Transmitter and Receiver.

**Note:** Does not connect this RJ45 port to any of the HDBaseT port.

**Such behavior may damage this port or whole device.**

11. **RS-232:** Connects to any devices with RS-232 port for RS-232 commands transmission.
12. **SERVICE SEL 1/2:** Reserved for manufacturer use only.

## 6. Connection Diagram





## 7. Mission Statement

BZB Gear manifests from the competitive nature of the audiovisual industry to innovate while keeping the customer in mind. AV solutions can cost a pretty penny, and new technology only adds to it. We believe everyone deserves to see, hear, and feel the advancements made in today's AV world without having to break the bank. BZB Gear is the solution for small to medium-sized applications requiring the latest professional products in AV.

We live in a DIY era where resources are abundant on the internet. With that in mind, our team offers system design consultation and expert tech support seven days a week for the products in our BZB Gear catalog. You'll notice comparably lower prices with BZB Gear solutions, but the quality of the products is on par with the top brands in the industry. The unparalleled support from our team is our way of showing we care for every one of our customers. Whether you're an integrator, home theater enthusiast, or a do-it-yourselfer, BZB Gear offers the solutions to allow you to focus on your project and not your budget.

## 8. Warranty Information

BZB Gear | Second Year Assurance

BZB Gear 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](https://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 1.888.660.2962 or email [support@bzbgear.com](mailto:support@bzbgear.com).

For complete warranty information, please visit [BZBGear.com/warranty](http://BZBGear.com/warranty) or scan the QR code below.



\*Terms and conditions apply. Registration is required.