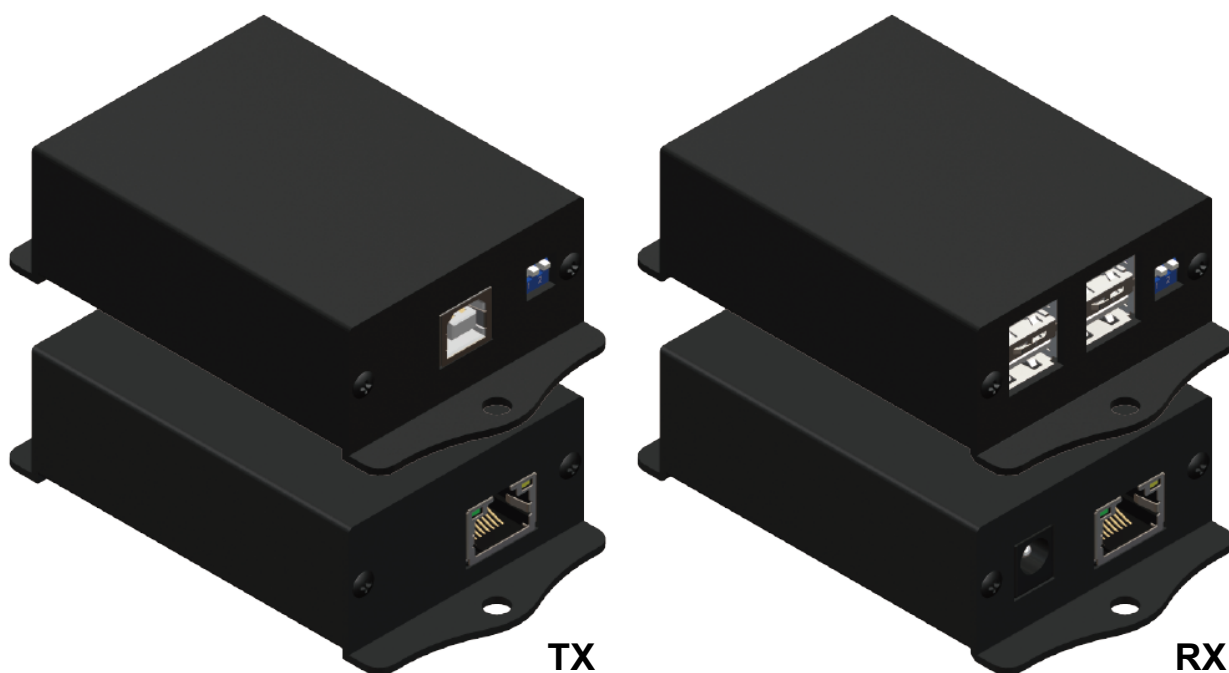# BG-USB-MR80

USB 2.0 Extender over Single Cat.X

User Manual

TX   RX

Warnings

The **BG-USB-MR80** **USB 2.0 Extender over Single Cat.X** has been tested for conformity to safety regulations/requirements and has been certified for international use. However, like all electronic equipment, the **BG-USB-MR80** should be used with care. Please read and follow the safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

● Follow all instructions and warnings marked on this unit.

● Do not attempt to service this unit yourself, except where explained in this manual.

● Provide proper ventilation and air circulation and do not use near water.

● Keep away from objects that might damage the device and assure that the placement of this unit is on a stable surface.

● Use only the power adapter and power cords and connection cables designed for this unit.

● Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.

TABLE OF CONTENTS

INTRODUCTION

The **BG-USB-MR80** **USB 2.0 Extender over Single Cat.X** extends USB devices up to 264 feet (80 meters) over a single Cat.X cable. The extender consists of two units, a transmitter and a receiver. The transmitter connects to the PC and the receiver connects to the peripheral device, such as USB printers, cameras, Storage devices, Card-Readers, and more. BG-USB-MR80 offers the most convenient solution for long distance USB 2.0 transmission.

FEATURES

- Supports four USB peripheral devices
- Extends the transmission up to 264feet (80 meters
- Supports USB 1.0 (low-speed), USB 1.1 (full-speed), and USB 2.0 (high-speed)
- Supports suspend/resume detection
- Does not require additional drivers
- Supports hot plug function
- Easy to setup

PACKAGE CONTENTS

- 1x BG-USB-MR80 [TX & RX]
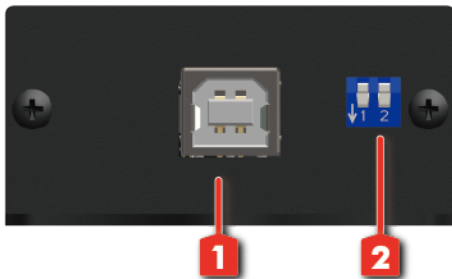- 1x 5V power adapter
- 1x User Manual

SPECIFICATIONS

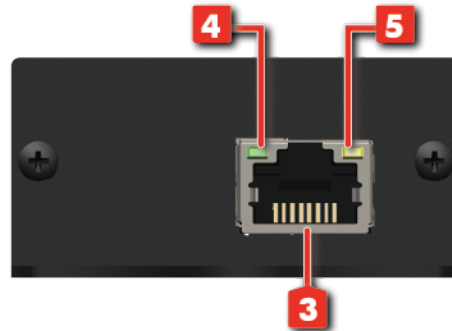| Model Name	BG-USB-MR80	
Technical	BG-USB-MR80-T	BG-USB-MR80-R
Role of usage	Transmitter [TX]	Receiver [RX]
USB compliance	USB 2.0 high speed compliant	
Bandwidth	Up to 480 Mbit/s	
USB over UTP transmission	Up to 264feet (80 meters)	
Signal Equalization	2-pin dip switch at TX & RX	
ESD protection	[1] Human body model — ±19kV [air-gap discharge] & ±12kV [contact discharge] [2] Core chipset — ±8kV	
PCB Stack-up	4-layer board [impedance control — differential 100Ω; single 50Ω]	
Input	1x USB (Type B)	1x RJ-45
Output	1x RJ-45	4x USB (Type A)
USB connector	USB 2.0 Type A & B (High-Speed USB)	
RJ-45 connector	WE/SS 8P8C with 2 LED indicators	
Dip Switch	Signal level equalization	Signal level equalization
Mechanical		
Housing	Metal case	
Dimensions [L x W x H] — Model	97 x 54 x 27mm [3.8" x 2.1" x 1"]	97 x 54 x 27mm [3.8" x 2.1" x 1"]
Dimensions [L x W x H] — Package	264 x 170 x 77mm [10.3" x 6.7" x 3"]	
Dimensions [L x W x H] — Carton	430 x 358 x 291mm [1'4" x 1'2" x 11.5"]	
Weight — Model	108g [3.8oz]	99g [3.5oz]
Weight — Package	226g [8oz]	217g [7.6oz]
Power supply	Via USB	5V 2A DC
Power consumption	2 Watts [max]	4 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 DESCRIPTION

Transmitting unit ▶ BG-USB-MR80-T

Front Panel   **Rear Panel**

1. **USB:** Connect to USB Host
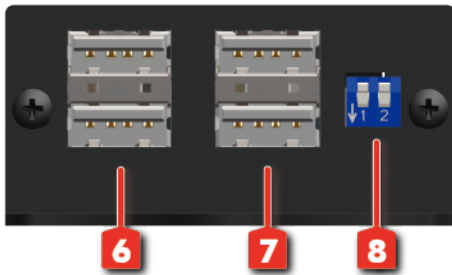
2. **2-Pin Dip Switch for Equalization Selection:**

   Use the dip switch (please refer to below table) to adjust equalization level. The equalization level varies from EQ#1 (MAX or strongest) to EQ#3 (MIN or weakest) for respective transmission length from longest possible range to short distance

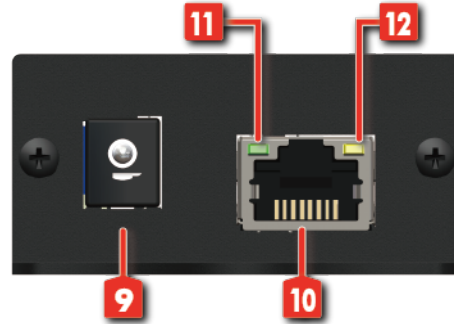| DIP Switch Position				Description
PIN#1	PIN#2	ON [⬇]	OFF [⬆]	*EQ#1 (MAX or Strongest)*
		OFF [⬆]	ON [⬇]	*EQ#2*
		OFF [⬆]	OFF [⬆]	*EQ#3 (MIN or Weakest)*
		ON [⬇]	ON [⬇]	*Reserved*

3. **RJ-45**: Plug in a CAT-5/5e/6 cable that needs to be linked to the RJ-45 connector of the matched unit

4. **Power indicator**

5. **Signal indicator**

Receiving unit ► BG-USB-MR80-R

Front Panel   **Rear Panel**

6. USB: Connect to USB Device

7. USB: Connect to USB Device

8. 2-Pin Dip Switch for Equalization Selection

Use the dip switch (please refer to below table) to adjust equalization level. The equalization level varies from EQ#1 (MAX or strongest) to EQ#3 (MIN or weakest) for respective transmission length from longest possible range to short distance

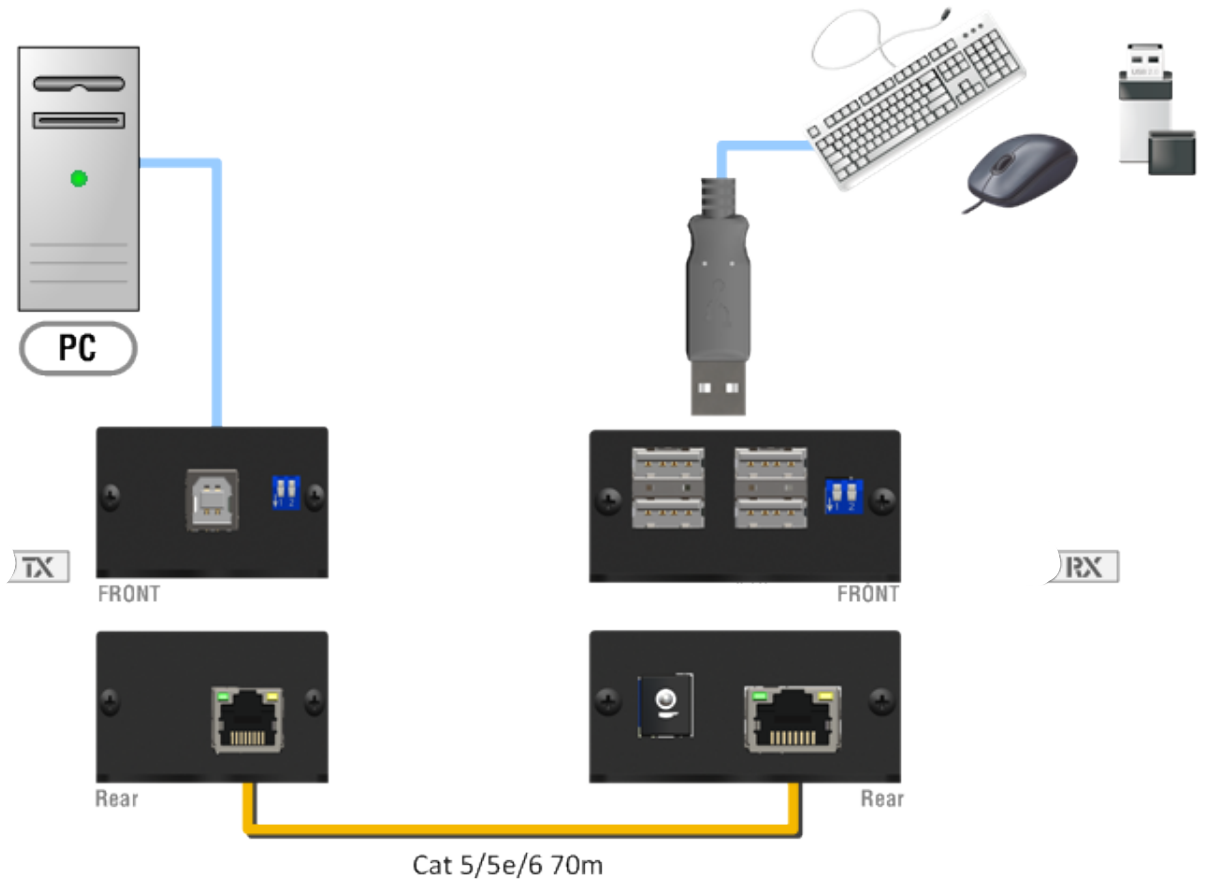| DIP Switch Position				Description
PIN#1	**PIN#2**	ON [⬇]	OFF [⬆]	*EQ#1 (MAX or Strongest)*
		OFF [⬆]	ON [⬇]	*EQ#2*
		OFF [⬆]	OFF [⬆]	*EQ#3 (MIN or Weakest)*
		ON [⬇]	ON [⬇]	*Reserved*

9. 5V DC power jack

10. RJ-45: Plug in a CAT-5/5e/6 cable that needs to be linked to the RJ-45 connector of the matched unit

11. Power indicator

12. Signal indicator

CONNECTION DIAGRAM

➡ CAT5/5e/6
➡ USB

PC

TX

FRONT

RX

FRONT

Rear

Rear

Cat 5/5e/6 70m

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.

MISSION STATEMENT

BZBGEAR 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. BZBGEAR 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 BZBGEAR catalog. You'll notice comparably lower prices with BZBGEAR 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, BZBGEAR offers the solutions to allow you to focus on your project and not your budget.