



# CA-USBST & CA-USBS100R

USB over CAT5e/6 Extender



Operation Manual



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## SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply.

Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

## REVISION HISTORY

VERSION NO.	DATE DD/MM/YY	SUMMARY OF CHANGE
VR0	04/02/12	Preliminary release
VS1	30/01/13	Changed front and rear panel diagrams





## CONTENTS

<b>1. Introduction</b> .....	<b>1</b>
<b>2. Applications</b> .....	<b>1</b>
<b>3. Package Contents</b> .....	<b>1</b>
<b>4. System Requirements</b> .....	<b>1</b>
<b>5. Features</b> .....	<b>2</b>
<b>6. Operation Controls and Functions</b> .....	<b>2</b>
6.1 Transmitter Front and Rear Panels.....	2
6.2 Receiver Front and Rear Panels .....	3
<b>7. Connection Diagram</b> .....	<b>5</b>
<b>8. Specifications</b> .....	<b>7</b>
<b>9. Acronyms</b> .....	<b>8</b>



## 1. INTRODUCTION

With USB being the standard connection for consumer electronic products, there has long been a need for something to let us operate our many devices over long distances. The USB over CAT5e/6 transmitter and receiver boxes developed for this purpose as they can operate in both the home and commercial markets. These devices allow most of the USB host to send data bidirectional within a 100-meter distance while offering up to 4 USB outputs, giving this product the ability to act like a USB hub. In addition, this product can also access data from the output port devices even when there's 100 meters separating the devices or using Ethernet hub in between to extend the distance double up to 200 meters. The USB over CAT5e/6 transmitter and receiver boxes are the ideal choice for your USB extension needs.

## 2. APPLICATIONS

- USB Extension over CAT5/6 up to 100m or 200m through Hub
- Control devices from far away
- Host device information sharing and control

## 3. PACKAGE CONTENTS

- 1×USB over CAT5e/6 Transmitter
- 1×USB over CAT5e/6 Receiver
- 2× 5 V/3 A DC Power Adaptors
- Operation Manual

## 4. SYSTEM REQUIREMENTS

USB controllable host (e.g. PC or laptop), USB controllable devices (e.g. keyboard, mouse or flash driver), USB cables with A-type and B-type connectors and CAT5e/6 cables.

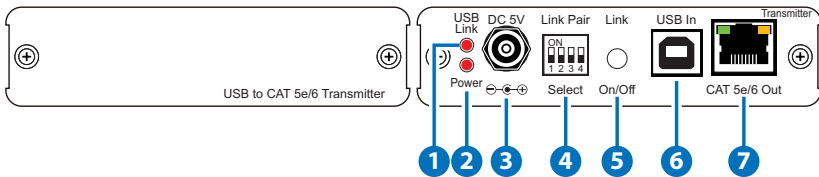


## 5. FEATURES

- Supports USB 2.0 (High Speed) devices
- Operates at USB 2.0 (High Speed) host controllers
- True plug and play without any driver installation
- Supports all major operating systems including Windows®, MAC OS®, and Linux
- CAT5e/6 cable distance is up to 100 meters
- LED indicators for easy viewing
- Each USB output carries 500 mA of power

## 6. OPERATION CONTROLS AND FUNCTIONS

### 6.1 Transmitter Front and Rear Panels



#### 1 USB Link LED

This LED will illuminate when the transmitter has linked with receiver's USB signal.

#### 2 Power LED

This LED will illuminate when the device is plugged with power supply.

#### 3 DC 5V

Plug the 5V DC power supply into the unit and connect the adaptor to an AC outlet.

#### 4 Link Pair Select

This dip switch allows user with multi-pairs setting for link up to 16 pairs of the devices with single IP router. Each pair must have the same dip switch setting in order to pair to the right device setting. The factory default setting is at 0000.

**Note:** To activate the setting a re-power on is required after

each new setting.

### 5 Link On/Off Button

Press this button to allow the receiver to be link up or unlink with the transmitter's USB input.

**Note:** To activate the link a re-power on is required after each button pressed.

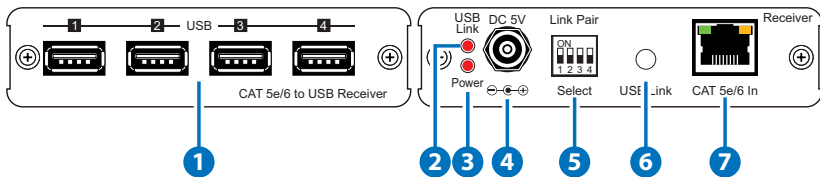
### 6 USB In

This slot is to connect with PC/Laptop for input source signal with USB B type cable.

### 7 CAT5e/6 Out

This slot is to connect with CAT5e/6 cable with receiver side's CAT5e/6 input. When both transmitter and receiver is connected the green LED will illuminate. When the data is sending the yellow LED will be blinking.

## 6.2 Receiver Front and Rear Panels



### 1 USB 1/2/3/4

These slots are where you connect your devices, such as keyboard, mouse, USB storage device or etc with USB cables.

### 2 USB Link LED

This LED will illuminate when the transmitter has linked with receiver's USB signal. User are only able to control the USB in (the source device) when this LED is not illuminated.

### 3 Power LED

This LED will illuminate when the device is plugged with power supply.



#### 4 DC 5V

Plug the 5V DC power supply into the unit and connect the adaptor to an AC outlet.

#### 5 Link Pair Select

This dip switch allows user with multi-pair setting for link up to 16 pairs of the devices with single IP router. Each pair must have the same dip switch setting in order to pair to the right device setting. The factory default setting is at 0000. (This function is not available yet with the first generation of the product)

**Note:** To activate the setting a re-power on is required after each new setting.

#### 6 USB Link Button

Press this button to allow the transmitter to be link up or unlink with the transmitter's USB input.

**Note:** To activate the link a re-power on is required after each button pressed.

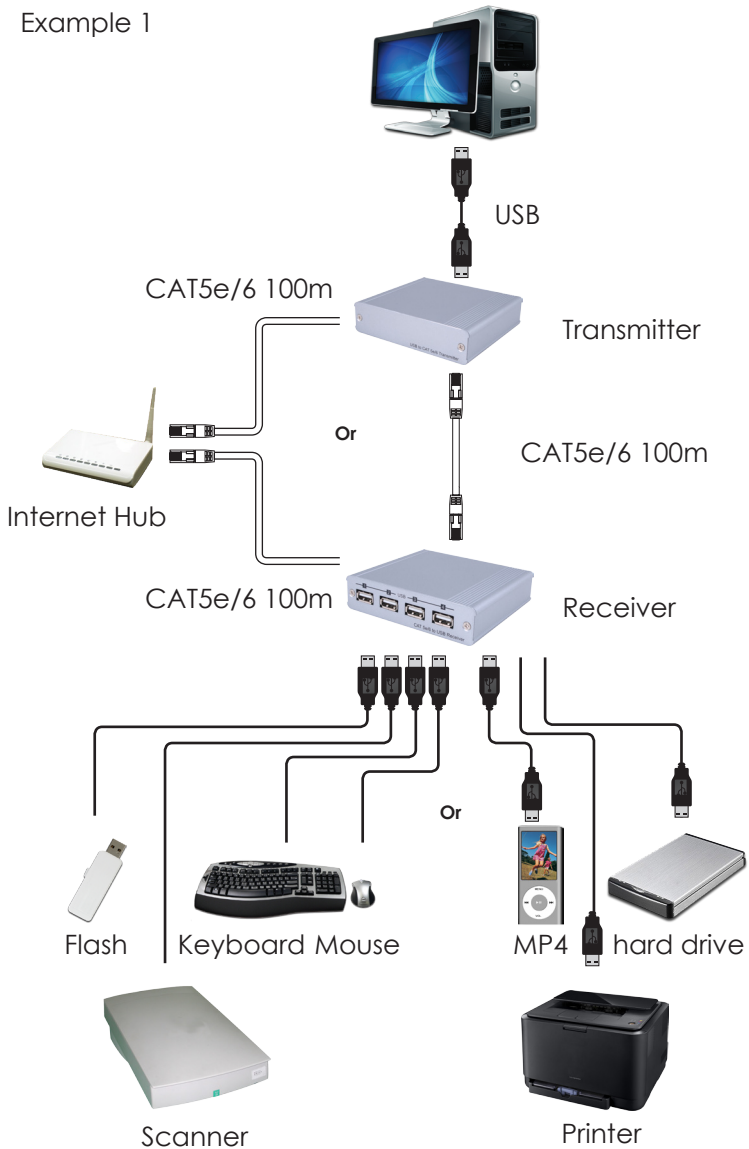
#### 7 CAT5e/6 In

This slot is to connect with CAT5e/6 cable with receiver side's CAT5e/6 input. When both transmitter and receiver is connected the green LED will illuminate. When the data is sending the yellow LED will be blinking.

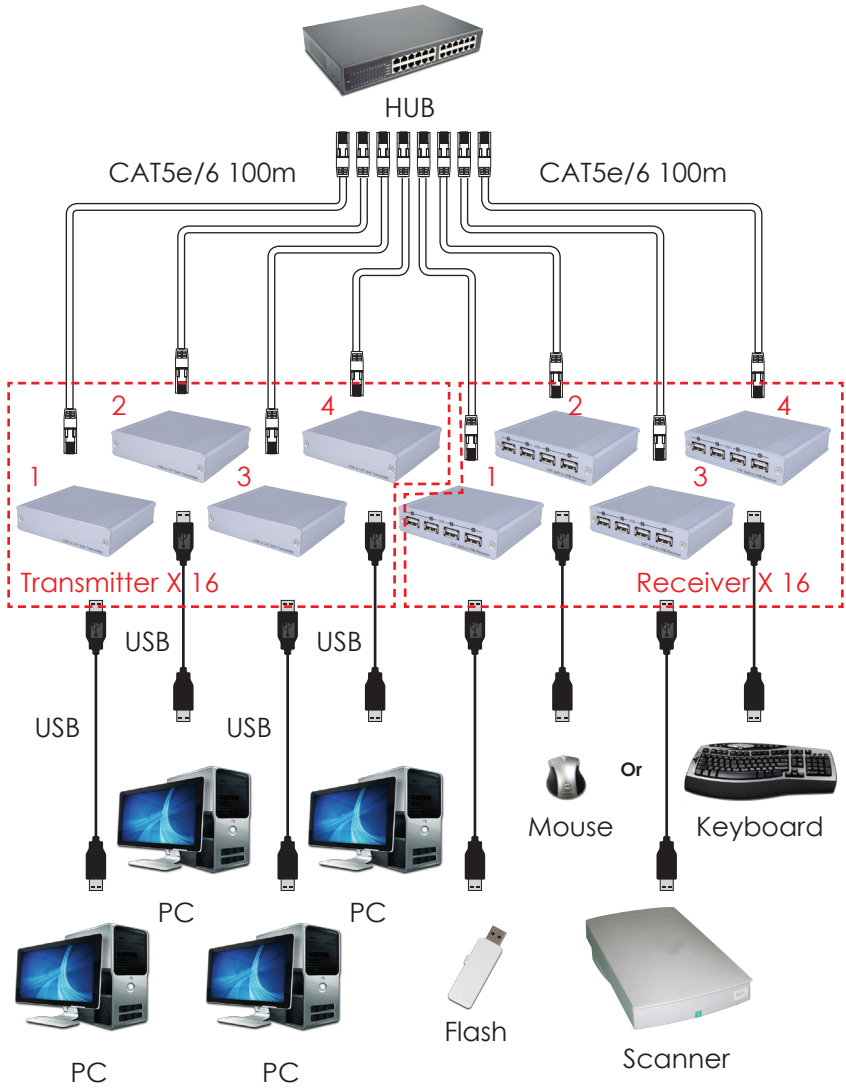


## 7. CONNECTION DIAGRAM

Example 1



Example 2



## 8. SPECIFICATIONS

### Transmitter

**Input Port** 1×USB (B-type plug)

**Output Port** 1×RJ45

### Receiver

**Input Port** 1×RJ45

**Output Ports** 4×USB (A-type plug)

**ESD Protection** Human Body Model:  
± 10kV (air-gap discharge)  
± 6kV (contact discharge)

**Power Supply** 5V / 3A DC (US/EU standards, CE/FCC/  
UL certified)

**Dimensions** 102 mm (W)×90 mm (D) ×25 mm (H)

**Weight** 206 g/TX, 214 g/RX

**Chassis Material** Aluminum

**Silkscreen Color** Silver

**Operating Temperature** 0°C ~ 40°C / 32°F ~ 104°F

**Storage Temperature** -20°C ~ 60°C / -4°F ~ 140°F

**Power Consumption** 5.5 W/TX, 12 W/RX

**Relative Humidity** 20~90% RH (non condensing)



## 9. ACRONYMS

ACRONYM	COMPLETE TERM
<b>CAT5</b>	Category 5 Cable
<b>CAT6</b>	Category 6 Cable
<b>RJ45</b>	Registered Jack 45
<b>LED</b>	Light-emitting Diode
<b>USB</b>	Universal Serial Bus









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