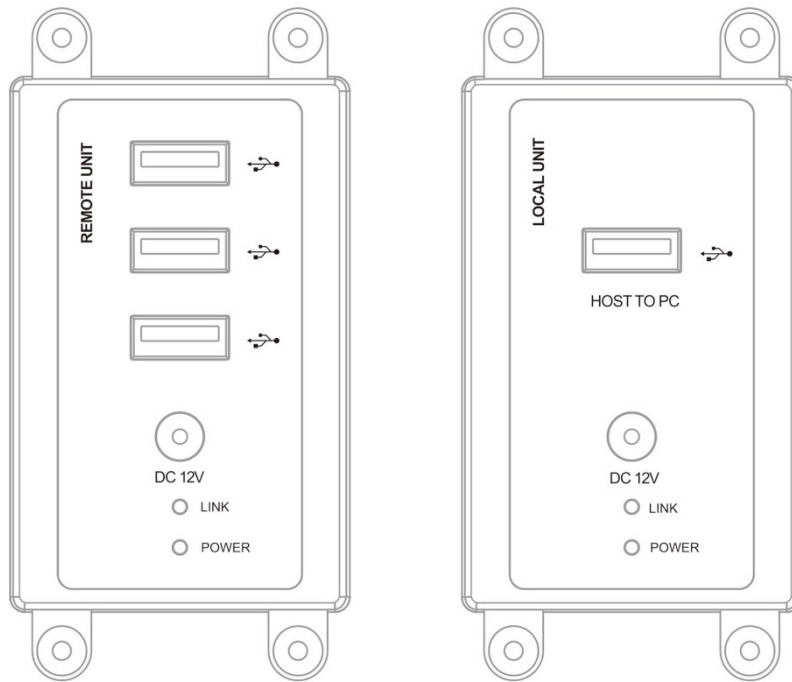


# USB 2.0 Wall-plate Extender over 50m Cat5e/6 with Single Side Power Supply (HLHC050L)



**User manual**

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## Preface

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Thanks for purchasing our USB 2.0 Wall-plate Extender. Before using this product, read this user manual carefully please. Follow the instruction to keep your safety and avoid products damage.

This user manual might be modified irregularly because of updated products. And the manual is for instruction only; we do not guarantee the information and the suggestions.

## 1. Cautions

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### Logo and meaning

 Careful, warning, dangerous, Pay attend to following items.

### Cautions

- Do not use this product in the extreme hot, cold, dusty or humid environments.
- Prevent friction with hard objects.
- Avoid the product falling down from a high place, or it may damage the hardware.
- The product is not water proofed. So do not get any liquid into the unit please.
- Do not dismantle, assemble or alter the product arbitrarily.

 Warning

**The CAT5e/6 cable can NOT be placed underground, outdoor, and between buildings. It must be placed with extenders indoor.**

## 2. About

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### Product model and standard:

HLHC050L, the USB 2.0 wall-plate extender over maximum 50m Cat5e/6 with single side power supply includes USB extender local unit and USB extender remote unit, supports high speed USB 2.0 high speed extension through single CAT5e/6 cable without delays, no driver installment, and true plug and play. It also supports single 12V DC power supply input from any side of host and device, and transmits the power over CAT5e/6 to another side.

### Main features

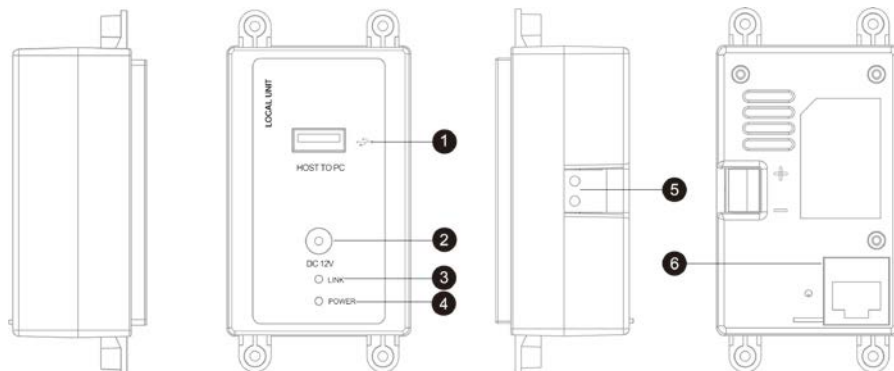
- Extending USB 2.0 distance for up to 50 meters at the true USB 2.0 high speed of 480Mbit/s
- Transparent to USB hosts and devices, no driver needed
- Support hot plug, plug and play
- Ideal for extending the reach of USB2.0 I/O devices such as USB2.0 cameras, display cards, network adapters, hard drives, flash drives, mp3 players, CD/DVD ROMs, printers, scanners, etc.
- ESD protection level to HBM  $\pm 4$  kV (Contact Discharge)
- North America, Europe (optional), UK (optional) standard wall plate outline, easy to install.

### Parameters

|                            |   |   |
|----------------------------|---|---|
| Interface                  | Local Unit  | USB host port (USB type A), RJ45 port, 12V DC in      |
|                            | Remote Unit   | 3 USB device ports (USB type A), RJ45 port, 12V DC in |
| Power                      | <0.5W TX and <1W RX (no USB device connected)               |   |
| Dimension                  | (L x W x H): 108 x 46 x 35mm                                |   |
| Net weight                 | 0.1kg per unit  |   |
| USB standard compatibility | USB 2.0 high speed, USB 1.1 and USB 1.0 downward compatible |   |
| Extender distance          | Maximum 50m CAT5e or CAT6                                   |   |
| Data Rate                  | High speed 480Mbps  |   |
| Operating Environment      | Plug and Play, no additional Driver                         |   |
| Delay                      | No delay  |   |
| Indicator                  | Power-green, Link-yellow                                    |   |
| ESD level                  | HBM $\pm 4$ kV (Contact Discharge)                          |   |
| Temperature range          | 0 ~ 40°C (operation), -20~60°C(stock)                       |   |
| Compliance                 | FCC; CE; RoHS   |   |

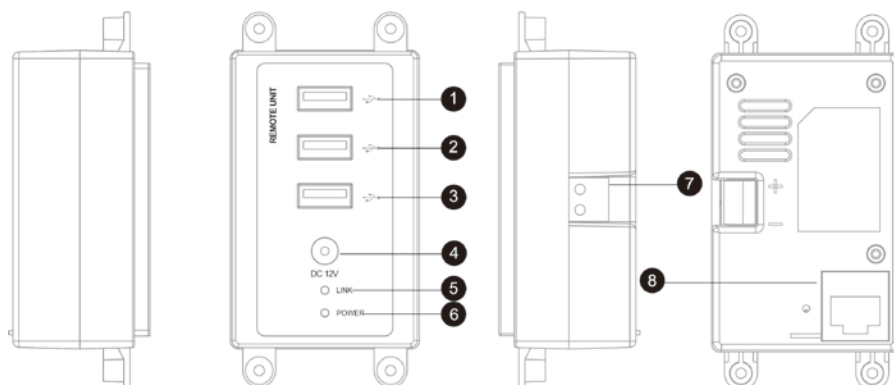
## Product introduction

### USB Extender Local Unit:



- 1 USB A type female connector to PC
- 2 DC 12V adapter power input
- 3 USB link status indicator
- 4 Power on status indicator
- 5 12V DC internal power input
- 6 CAT5e cable RJ45 port

### USB Extender Remote Unit:



- 1 USB A type female connector 1 to USB device input
- 2 USB A type female connector 2 to USB device input
- 3 USB A type female connector 3 to USB device input
- 4 12V DC power input
- 5 USB link status indicator
- 6 Power on status indicator
- 7 12V DC power input
- 8 CAT5e cable RJ45 port

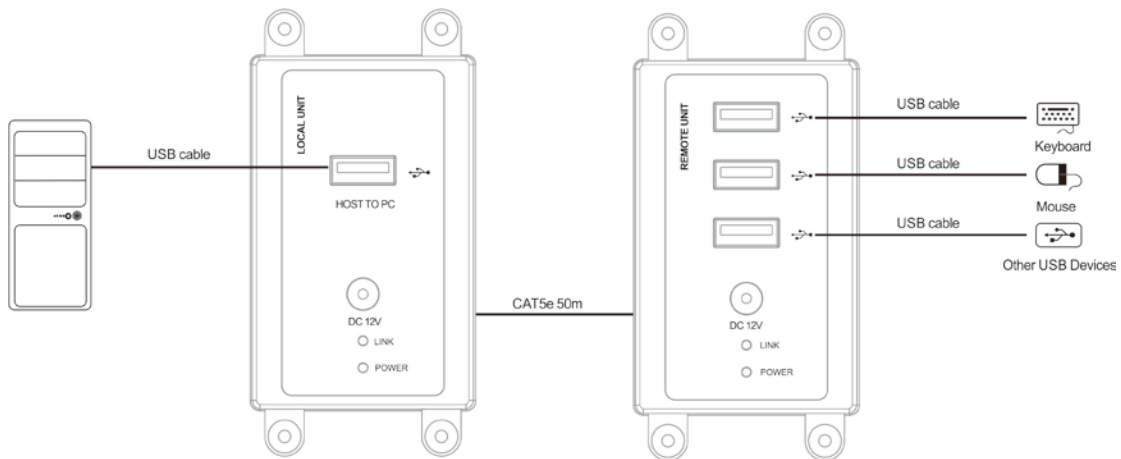
## Packing list

- 1 local unit, 1 remote unit.
- 1 1m USB A male to USB A male cable
- 1 unit of DC 12V 1A adapter
- 1 user manual
- 240\*155\*65mm carton packing

### 3. Installation

#### Installation details and cautions

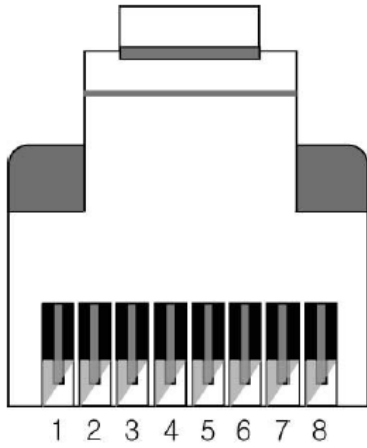
- Before installation
  - a) Basing on real request, make CAT5e/6 cables for connecting the local unit and the remote unit. The length can NOT be more than distance of parameters.
  - b) CAT5e/6 cables should be far away from electromagnetic disturbance sources. Such as AC motors, electro soldering, fluorescents, microwave ovens, etc. These disturbance sources might affect extending distance or USB speed.
  - c) Ensure the length of cable is suitable, no external tensions.
  - d) Ensure reliable DC adapter or other DC source.
  
- Typical installation instruction  
Connect USB devices to remote unit and connect PC to local unit, the CAT5e cable length can be maximum 50m:



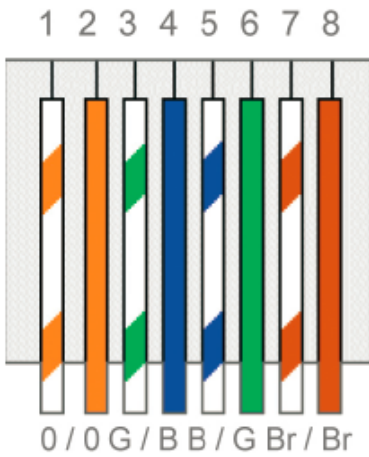
- Local unit connection
  - a) Connect your PC USB port to USB extender local unit USB port.
  - b) Insert CAT5e/6 cable to CAT5e/6 port.
  - c) Connect power adapter or provide DC input from rear DC input port. If remote unit side has connected DC adapter, local unit can get the DC power over UTP cable, so can leave DC input port empty.
  
- Remote unit connection
  - a) Connect your USB devices to remote unit USB ports.
  - b) Insert CAT5e/6 cable to CAT5e/6 port.
  - c) Connect power adapter or provide DC input from rear DC input port. If local unit side has connected DC adapter, remote unit can get the DC power over UTP cable, so can leave DC input port empty.

#### How to make Cat5e/6 cable

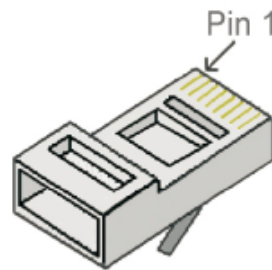
Products request normal CAT5e or CAT6 Ethernet cables, which must meet standard-TIA/EIA-568B, refer to below pin definition.



T-568B



| Pin | TIA/EIA-568B<br>Wire color |
|-----|----------------------------|
| 1   | Orange/ White              |
| 2   | Orange                     |
| 3   | Green/ White               |
| 4   | Blue                       |
| 5   | Blue/ White                |
| 6   | Green                      |
| 7   | Brown/ White               |
| 8   | Brown                      |



RJ-45 Plug

#### 4. Maintenance

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##### Storage conditions

Products storage temperature should be -20°C~60°C. For long time storage requirement, please use original carbon boxes, and avoid from high humid, acid base or dusty place.

##### Maintenance

###### ⚠ Warning

To ensure your safety, please choose original adapters. And provide stable AC input according to this manual.

## 5. Trouble shooting

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### Normal problems

USB devices are not workable

Check local and remote power indicators first, this system need just one adapter, local unit side or remote unit side. Then check link indicator to ensure local and remote units are linked. If link indicator does not light, check CAT5e/6 cable or check if your PC is power on.

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