

## User Manual

### CV-K101 4K HDMI KVM Extender



Designed and manufactured by Austin Hughes



## Legal Information

First English printing, January 2023

Information in this document has been carefully checked for accuracy; however, no guarantee is given to the correctness of the contents. The information in this document is subject to change without notice. We are not liable for any injury or loss that results from the use of this equipment.

## Safety Instructions

**Please read all of these instructions carefully before you use the device. Save this manual for future reference.**

- Unplug equipment before cleaning. Don't use liquid or spray detergent; use a moist cloth.
- Keep equipment away from excessive humidity and heat. Preferably, keep it in an air-conditioned environment with temperatures not exceeding 40° Celsius (104° Fahrenheit).
- When installing, place the equipment on a sturdy, level surface to prevent it from accidentally falling and causing damage to other equipment or injury to persons nearby.
- When the equipment is in an open position, do not cover, block or in any way obstruct the gap between it and the power supply. Proper air convection is necessary to keep it from overheating.
- Arrange the equipment's power cord in such a way that others won't trip or fall over it.
- If you are using a power cord that didn't ship with the equipment, ensure that it is rated for the voltage and current labelled on the equipment's electrical ratings label. The voltage rating on the cord should be higher than the one listed on the equipment's ratings label.
- Observe all precautions and warnings attached to the equipment.
- If you don't intend on using the equipment for a long time, disconnect it from the power outlet to prevent being damaged by transient over-voltage.
- Keep all liquids away from the equipment to minimize the risk of accidental spillage. Liquid spilled on to the power supply or on other hardware may cause damage, fire or electrical shock.
- Only qualified service personnel should open the chassis. Opening it yourself could damage the equipment and invalidate its warranty.
- If any part of the equipment becomes damaged or stops functioning, have it checked by qualified service personnel.

## What the warranty does not cover

- Any product, on which the serial number has been defaced, modified or removed.
- Damage, deterioration or malfunction resulting from:
  - ☐ Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
  - ☐ Repair or attempted repair by anyone not authorized by us.
  - ☐ Any damage of the product due to shipment.
  - ☐ Removal or installation of the product.
  - ☐ Causes external to the product, such as electric power fluctuation or failure.
  - ☐ Use of supplies or parts not meeting our specifications.
  - ☐ Normal wear and tear.
  - ☐ Any other causes which does not relate to a product defect.
- Removal, installation, and set-up service charges.

## Regulatory Notices Federal Communications Commission (FCC)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in business, industrial and commercial environments.

Any changes or modifications made to this equipment may void the user's authority to operate this equipment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-position or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

# Contents

## < Part. 1 > CV-K101

|     |                 |     |
|-----|-----------------|-----|
| 1.1 | Package Content | P.1 |
| 1.2 | Transmitter     | P.2 |
| 1.3 | Receiver        | P.4 |

## < Part. 2 > Installation

|     |                        |     |
|-----|------------------------|-----|
| 2.1 | Connection Diagram     | P.6 |
| 2.2 | Connection Instruction | P.6 |

|             |     |     |
|-------------|-----|-----|
| < Part. 3 > | FAQ | P.7 |
|-------------|-----|-----|

# Intentionally Left Blank

# Before Installation

CV-K101

- It is very important to mount the equipment in a suitable cabinet or on a stable surface.
- Make sure the place has a good ventilation, is out of direct sunlight, away from sources of excessive dust, dirt, heat, water, moisture and vibration.

## Unpacking

The equipment comes with the standard parts shown in package content. Check and make sure they are included and in good condition. If anything is missing, or damaged, contact the supplier immediately.

### < Part 1 >

CV-K101

#### < 1.1 > Package Content



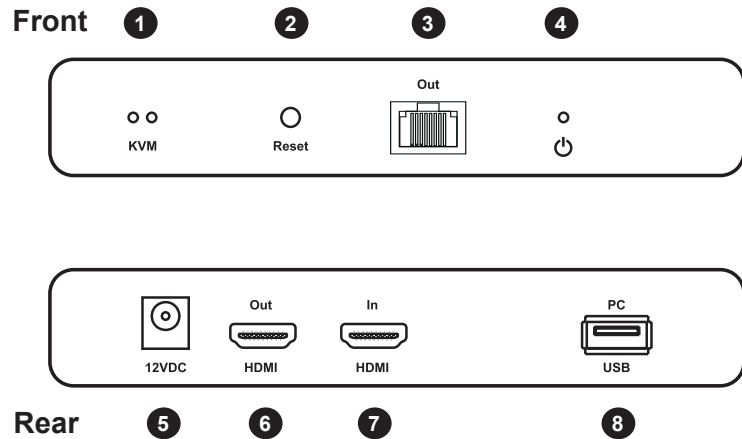
Transmitter x 1



Receiver x 1

- Transmitter CV-K101T x 1
- Receiver CV-K101R x 1
- Power adapter x 2
- USB cable x 1
- Pack of mounting brackets & screws x 1

| Model   | Packing Dimension<br>(W x D x H)              | Gross Weight       |
|---------|---|--------------------|
| CV-K101 | 362 x 154 x 86 mm<br>14.25 x 6.06 x 3.39 inch | 1.09 kg<br>2.40 lb |



|   |                            |  |
|---|----------------------------|--|
| ① | <b>KVM LED</b>             | a). When the host computer is not connected, the indicator light is off.<br>b). When connect to the host computer, the indicator light is on.<br>c). When there is signal transmission, the indicator light flashes. |
| ② | <b>Reset</b>               | Press the button to restart the device.  |
| ③ | <b>Cat6/ 7 Output</b>      | Connect with network cable   |
| ④ | <b>Power LED</b>           | a). When power is on but no HDMI signal, the indicator flashes.<br>b). When power is on and there is HDMI signal, the indicator is always on.  |
| ⑤ | <b>12V DC Power Input</b>  | Connect to the 12V DC power adapter.   |
| ⑥ | <b>HDMI Output</b>         | Connect to a local HDMI display device.  |
| ⑦ | <b>HDMI Input</b>          | Connect to a HDMI source device.   |
| ⑧ | <b>USB-A to Server/ PC</b> | Connect to the computer/ server.   |

## Product Specification

| Technical                     | Transmitter                               |
|-------------------------------|---|
| <b>HDMI compliance</b>        | HDMI2.0, compatible to HDMI1.4            |
| <b>HDCP compliance</b>        | HDCP2.2                                   |
| <b>Transmission medium</b>    | Cat6/ 7                                   |
| <b>Transmission distance</b>  | ≤70 meters                                |
| <b>Audio formats</b>          | LPCM/DTS-HD/DTS-Audio/Dolby Digital 5.1CH |
| <b>HDR10 (YUV4:4:4)</b>       | support                                   |
| <b>HDMI Loop-out</b>          | support                                   |
| <b>S/DPDIF out</b>            | support                                   |
| <b>EDID through</b>           | support                                   |
| <b>KVM function</b>           | support                                   |
| <b>Input TMDS signal</b>      | 0.7~1.2Vp-p (TMDS)                        |
| <b>Input DDC signal</b>       | 5Vp-p (TTL)                               |
| <b>HDMI connector</b>         | Type A 19 Pins,Female                     |
| <b>Network cable standard</b> | Cat6/ 7, follow IEEE-5688 standard        |

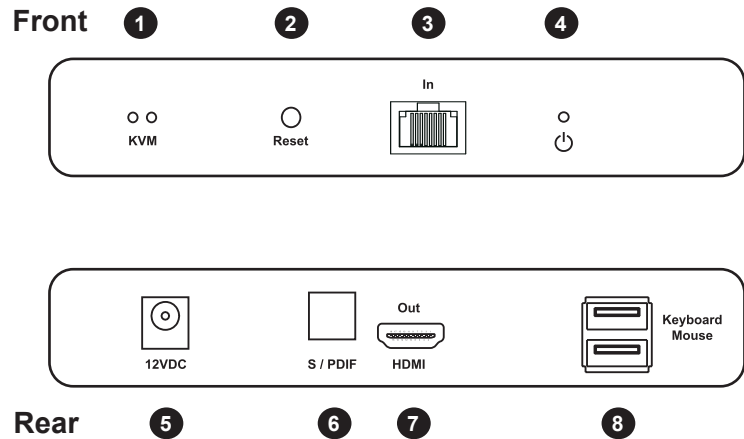
| TV Video Supported | PC Video Supported |             |            |
|--------------------|--------------------|-------------|------------|
|                    | 16:9               | 16:10       | 4:3        |
| 24 /25 / 30 Hz     | 60Hz               |             |            |
| 4K ( 4096 x 2160 ) | 3840 x 2160        | 1680 x 1050 | 1280 x 960 |
| 4K ( 3840 x 2160 ) | 1920 x 1080        | 1280 x 800  | 1024 x 768 |
| 1080p, 720p        | 1600 x 900         | /           | 800 x 600  |
| 576p, 480p         | 1280 x 720         | /           | /          |
| 576i, 480i         | 1366 x 768         | /           | /          |

| Physical            | Transmitter             |
|---------------------|-------------------------|
| Product (W x D x H) | 150 x 107 x 26 mm       |
|                     | 5.91 x 4.21 x 1.03 Inch |
| Net Weight          | 290 g                   |
|                     | 0.64 lb                 |
| Chassis color       | Black                   |
| Chassis materials   | Aluminium alloy         |

| Power                    | Transmitter   |
|--------------------------|---|
| Power supply             | 12V   |
| Power consumption        | 4W  |
| Electrostatic protection | Implementation of the standard:<br>IEC61000-4-2<br>1a Contract discharge level 4 (8KV)<br>1b Air discharge level 4 (15KV) |

| Compliance  |               |
|-------------|---------------|
| Safety      | FCC / CE      |
| Environment | RoHS3 / REACH |

| Environmental         |                           |
|-----------------------|---------------------------|
| Operation temperature | -20 ~ 60°C                |
| Storage temperature   | -30 ~ 70°C                |
| Relative humidity     | 0 ~ 90% (no condensation) |



|   |                            |  |
|---|----------------------------|--|
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| ⑧ | <b>USB-A to Server/ PC</b> | Connect to the computer/ server.   |

## Product Specification

| Technical                     | Receiver                                  |
|-------------------------------|---|
| <b>HDMI compliance</b>        | HDMI2.0, compatible to HDMI1.4            |
| <b>HDCP compliance</b>        | HDCP2.2                                   |
| <b>Transmission medium</b>    | Cat6/ 7                                   |
| <b>Transmission distance</b>  | ≤70 meters                                |
| <b>Audio formats</b>          | LPCM/DTS-HD/DTS-Audio/Dolby Digital 5.1CH |
| <b>HDR10 (YUV4:4:4)</b>       | support                                   |
| <b>HDMI Loop-out</b>          | support                                   |
| <b>S/DPDIF out</b>            | support                                   |
| <b>EDID through</b>           | support                                   |
| <b>KVM function</b>           | support                                   |
| <b>Input TMDS signal</b>      | 0.7~1.2Vp-p (TMDS)                        |
| <b>Input DDC signal</b>       | 5Vp-p (TTL)                               |
| <b>HDMI connector</b>         | Type A 19 Pins,Female                     |
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|--------------------|--------------------|-------------|------------|
|                    | 16:9               | 16:10       | 4:3        |
| 24 /25 / 30 Hz     | 60Hz               |             |            |
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| 1080p, 720p        | 1600 x 900         | /           | 800 x 600  |
| 576p, 480p         | 1280 x 720         | /           | /          |
| 576i, 480i         | 1366 x 768         | /           | /          |

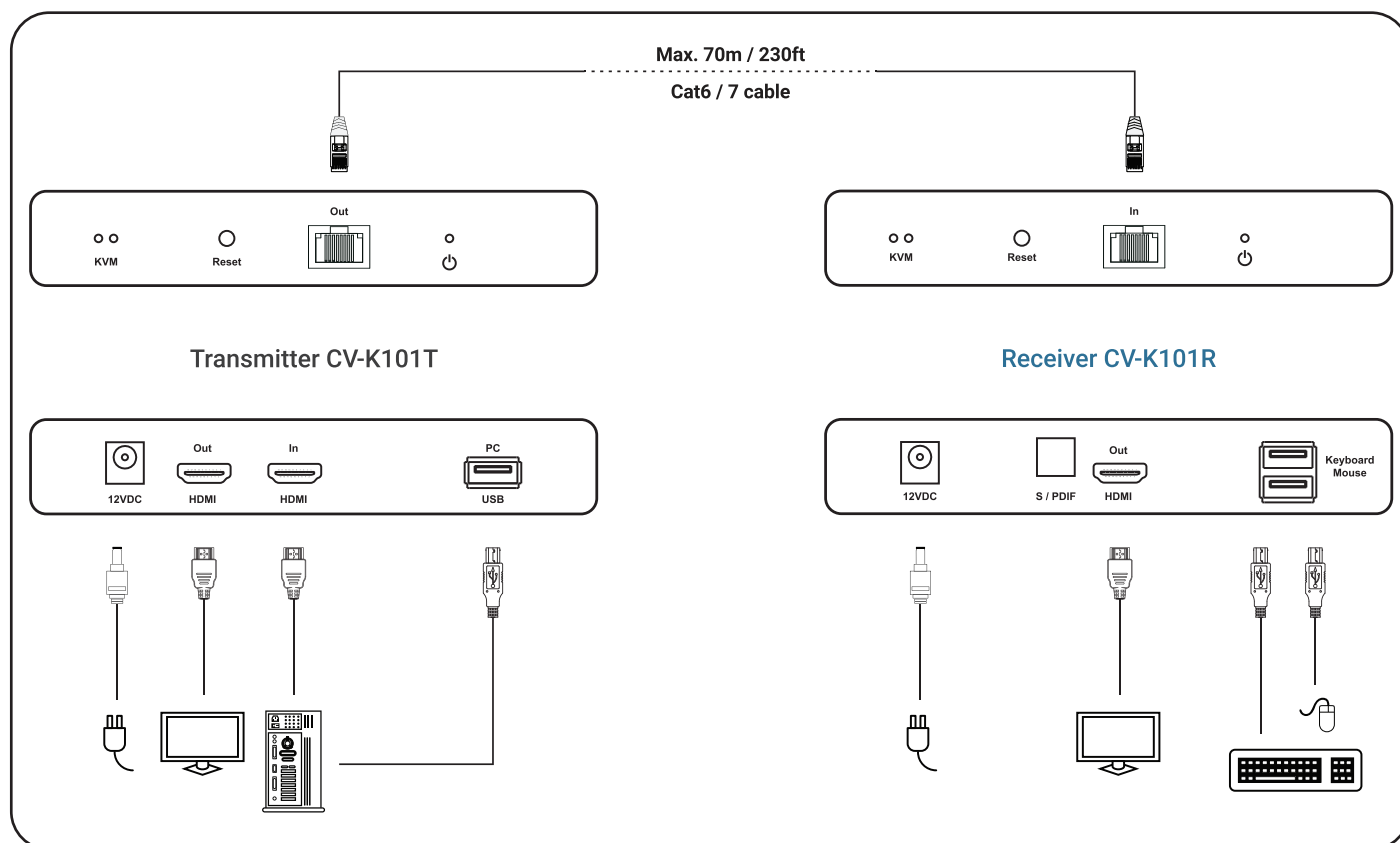
| Physical            | Receiver                |
|---------------------|-------------------------|
| Product (W x D x H) | 150 x 107 x 26 mm       |
|                     | 5.91 x 4.21 x 1.03 Inch |
| Net Weight          | 292 g                   |
|                     | 0.64 lb                 |
| Chassis color       | Black                   |
| Chassis materials   | Aluminium alloy         |

| Power                    | Receiver  |
|--------------------------|---|
| Power supply             | 12V   |
| Power consumption        | 4W  |
| Electrostatic protection | Implementation of the standard:<br>IEC61000-4-2<br>1a Contract discharge level 4 (8KV)<br>1b Air discharge level 4 (15KV) |

| Compliance  |               |
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| Safety      | FCC / CE      |
| Environment | RoHS3 / REACH |

| Environmental        |                           |
|----------------------|---------------------------|
| Operation temperaure | -20 ~ 60°C                |
| Storage temperature  | -30 ~ 70°C                |
| Relative humidity    | 0 ~ 90% (no condensation) |

### < 2.1 > Connection Diagram



### < 2.2 > Connection Instruction

- Connect the source devices to the Transmitter HDMI-In port with a HDMI cable, and connect the Receiver HDMI-Out port with another HDMI cable.
- Connect the Transmitter RJ-45 Out port to the Receiver RJ-45 In port via a network cable ( Cat6/ 7 ).
- If using HDMI loop out, connect the display device to the Transmitter HDMI-Out port.
- It is recommended to use a length range within 2 ~ 70M network cable. If the cable is too short, it may cause no display output because of too strong signal. If the cable is too long, it may cause poor output quality.

**1). No output on screen even when all connections are correct.**

- Please make sure that the HDMI cables support the resolution of the output signal from the source device.
- Please double check again and make sure the network cable is well-inserted to the RJ-45 ports of transmitter and receiver.
- Restart the transmitter or receiver by pressing the reset button.

**2). Black screen happened on the display/ monitor.**

- Double check the length of the cable and make sure it is within the specified range.
- Reset the transmitter to re-build the connection.

**3). The display shows unusual color or no sound.**

- Reset the transmitter or receiver to re-build the connection.
- Double check if the HDMI cables are connection well.
- Reconnect the network cable.

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