

## legrand C5R-DVI-HD-TX USB KVM Extender User Guide

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## Legrand C5R-DVI-HD-TX USB KVM Extender



The Cat5 Reach DVI HD KVM extender by Raritan allows users to locate themselves up to 3,300 feet (1,000 meters) away from a computer, server, KVM switch, or an audio/video device such as a TV or DVD player. This is achieved by cascading Gigabit Ethernet switches with IGMP v2 and 8K Jumbo Frames functions.

## **Package Contents**

- C5R-DVI-HD-TX transmitter Quantity: 1
- C5R-DVI-HD-RX receiver Quantity: 1
- DC 5V 3A power adapter Quantity: 2
- DVI-I to VGA adapter Quantity: 2
- 1.8-meter audio/microphone cable Quantity: 1
- USB-B to USB-A adapter cable Quantity: 1
- DVI cable Quantity: 2
- Rackmount kit Quantity: 1
- Quick Setup Guide Quantity: 1
- Warranty card Quantity: 1

#### **Product Overview**

## Cat5 Reach DVI HD Transmitter (C5R-DVI-HD-TX)

## **Front View**

- Remote/Local button (for switching between different console modes)
- 2. LEDs (PWR, TX, and RX)
- 3. Reset button
- 4. Microphone in (connected to a PC)
- 5. Audio in (connected to a PC)
- 6. USB keyboard/mouse/device ports
- 7. Serial over IP port

## **Rear View**

- 1. Ground screw
- 2. RJ-45 LINK port
- 3. USB-B port (connected to a PC)
- 4. DVI-I IN port (connected to a PC)
- 5. DVI-I OUT port (connected to a monitor)
- 6. Power input port

## Cat5 Reach DVI HD Receiver (C5R-DVI-HD-RX)

#### **Front View**

- 1. EDID button
- 2. LEDs (PWR, TX, and RX)
- 3. Reset button
- 4. Serial over IP port

#### **Rear View**

- 1. Ground screw
- 2. RJ-45 LINK port
- 3. USB keyboard/mouse/device ports
- 4. DVI-I OUT port
- 5. Microphone in
- 6. Audio out
- 7. Power input port

## **Product Usage Instructions**

#### **Rackmount**

You can attach the rackmount bracket to either side of the Cat5 Reach DVI HD device, depending on your need.

#### To connect a computer:

- 1. Turn off all devices, except for the computer. The computer must be turned ON first for proper video detection.
- 2. (Optional) To set up a local console, connect a VGA or DVI monitor, a USB keyboard, and a USB mouse to the transmitter.

**Note:** If a VGA monitor is wanted, use the DVI-to-VGA adapters included in the package. Note that you must connect two DVI-to-VGA adapters to the transmitter for proper video transmission instead of using only one adapter.

- 1. (Optional) If the audio feature is needed, connect one end of the Raritan-provided audio/microphone cable to the transmitter.
- 2. Fasten the Cat5 Reach DVI HD device to the rack via the rackmount bracket.

#### **Basic Installation**

1. To set up a remote console, connect a VGA or DVI monitor, a USB keyboard, and a USB mouse to the receiver.

**Note:** A DVI-I to VGA adapter is needed for the VGA monitor attached to the receiver. You can use the DVI-to-VGA adapter included in the package or purchase it from Raritan if insufficient.

 Thank you for purchasing Raritan's Cat5 Reach DVI HD KVM extender. This product can locate the user up to 3,300 feet (1,000 meters) apart from a computer, server, KVM switch, or an audio/video device like a TV or DVD player, by cascading Gigabit

- Ethernet switches with "IGMP v2 and 8K Jumbo Frames" functions.
- This Quick Setup Guide explains how to install and configure the Cat5 Reach DVI HD. For further details on using this product, access its Online Help or User Guide on the Support page (<a href="https://www.raritan.com/support">https://www.raritan.com/support</a>).

## **Package Contents**

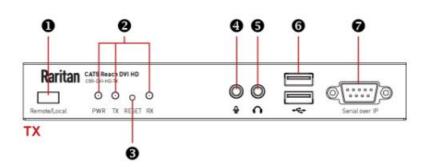
Unpack the components. If anything is missing or damaged, contact the local dealer or Raritan Technical Support for help.

Items	Quantity
C5R-DVI-HD-TX transmitter	1
C5R-DVI-HD-RX receiver	1
DC 5V 3A power adapter	2
DVI-I to VGA adapter	2
1.8-meter audio/microphone cable	1
USB-B to USB-A adapter cable	1
DVI cable	1
Rackmount kit	2
Quick Setup Guide	1
Warranty card	1

#### **Product Overview**

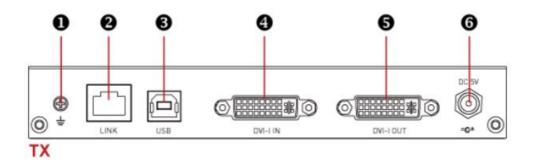
- This section describes the ports or components implemented on the Cat5 Reach DVI HD transmitter and receiver.
- Cat5 Reach DVI HD Transmitter (C5R-DVI-HD-TX)

## **Front View**



- 1. Remote/Local button (for switching between different console modes)
- 2. LEDs (PWR, TX, and RX)
- 3. Reset button
- 4. Microphone in (connected to a PC)
- 5. Audio in (connected to a PC)
- 6. USB keyboard/mouse/device ports
- 7. Serial over IP port

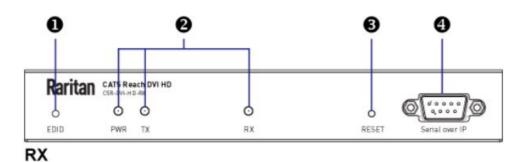
#### **Rear View**



- 1. Ground screw
- 2. RJ-45 LINK port
- 3. USB-B port (connected to a PC)
- 4. DVI-I IN port (connected to a PC)
- 5. DVI-I OUT port (connected to a monitor)
- 6. Power input port

## Cat5 Reach DVI HD Receiver (C5R-DVI-HD-RX)

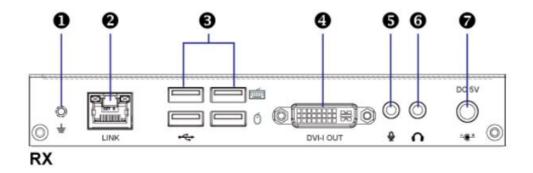
#### **Front View**



- 1. EDID button
- 2. LEDs (PWR, TX, and RX)
- 3. Reset button
- 4. Serial over IP port

**Note:** The EDID button copies EDID in the "Broadcast" mode. Refer to the User Guide or Online Help for information on this mode.

#### **Rear View**



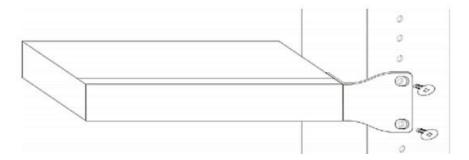
- 1. Ground screw
- 2. RJ-45 LINK port
- 3. USB keyboard/mouse/device ports
- 4. DVI-I OUT port
- 5. Microphone in
- 6. Audio out
- 7. Power input port

#### **Rackmount**

1. You can attach the rackmount bracket to either side of the Cat5 Reach DVI HD device, depending on your need.



2. Fasten the Cat5 Reach DVI HD device to the rack via the rackmount bracket.



#### **Basic Installation**

- This section illustrates the basic connection to a computer via a pair of transmitters and receivers.
- Refer to the User Guide or Online Help if you want to:
- Increase the distance between the transmitter and receiver up to 3,300 feet (1,000 meters).
- Connect multiple receivers to one transmitter (Broadcast mode).
- Connect non-computer devices, such as a KVM switch.

**Important:** All monitors that you will connect to the transmitter and receiver(s) must have the same "maximum" video resolution no matter if they are VGA or DVI monitors.

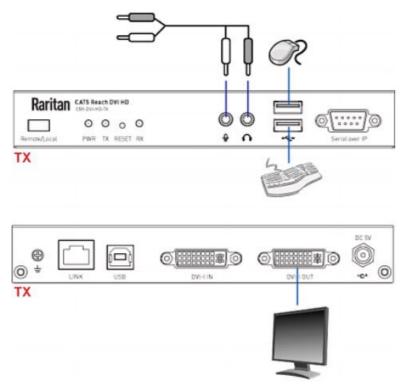
## To connect a computer:

- 1. Turn off all devices, except for the computer.
  - The computer must be turned ON first for proper video detection.
- 2. (Optional) To set up a local console, connect a VGA or DVI monitor, a USB keyboard, and a USB mouse to the transmitter.

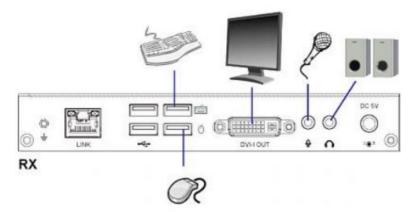
Note: If a VGA monitor is wanted, use the DVI-to-VGA adapters included in the package.

**Note** that you must connect "two" DVI-to-VGA adapters to the transmitter for proper video transmission instead of using only one adapter.

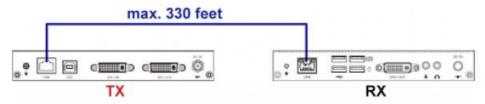
• (Optional) If the audio feature is needed, connect one end of the Raritan-provided audio/microphone cable to the transmitter.



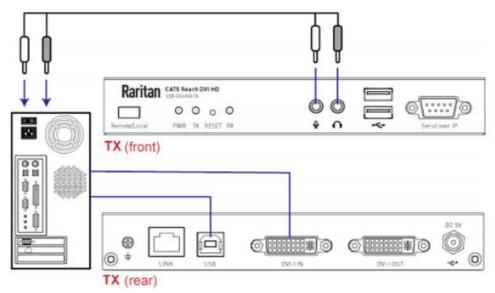
- To set up a remote console, connect a VGA or DVI monitor, a USB keyboard and a USB mouse to the receiver.
- Note: A DVI-I to VGA adapter is needed for the VGA monitor attached with the receiver. You can use the DVI-to-VGA adapter included in the package or purchase it from Raritan if insufficient.



Use a Cat5e/6 cable up to 330 feet (100 meters) long to connect the transmitter and receiver. Plug either end
of the cable into the RJ-45 LINK ports.



- Connect the computer to the transmitter using the Raritan-provided DVI and USB-B to USB-A cables.
- **Note:** If the computer only provides the VGA port, use the DVI-to-VGA adapter that is included in the package. Note that you must connect "two" DVI-to-VGA adapters to the transmitter for proper video transmission instead of using only one adapter.
- (Optional) If the Raritan-provided audio/microphone cable has been connected to the transmitter in Step 2, connect the other end to the computer.



- Connect the transmitter and receiver to a power source respectively. Each device's PWR LED is then lit.
- **Note** that TX and RX LEDs on both the transmitter and receiver should be also lit per factory default because the default console mode is dual console mode. See Three Types of Console Modes.

#### (Optional) Making an RS-232 Connection

- If your computer (or any appropriate device) must communicate with another peripheral device via RS-232 interface, then make an RS-232 connection among Cat5 Reach DVI HD, the computer and that peripheral device.
- In the following illustration, it is assumed that your peripheral device is Raritan's PDU. Then you can have the computer access that PDU's command line interface by making an RS-232 connection.

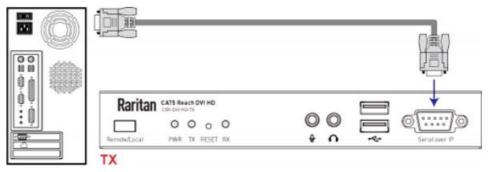
#### To make an RS-232 connection:

1. By default, "Serial over IP" (RS-232) ports of both Cat5 Reach DVI HD devices are configured as below.

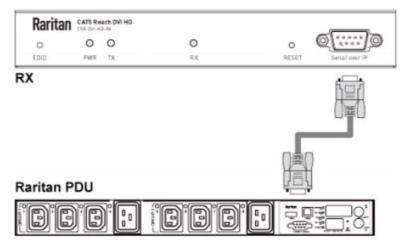
• Baud rate: 115,200 bps

Data bits: 8Parity: NoneStop bits: 1

- To change the default setting, refer to this product's User Guide or Online Help for instructions.
- 2. Connect an RS-232 cable between the computer's RS-232 port and the transmitter's "Serial over IP" port.



- 3. Connect an RS-232 cable between the receiver's "Serial over IP" port and the Raritan PDU's RS-232 port.
  - **Note:** Depending on the Raritan PDU model you purchased, an RJ-45 to RS-232 adapter cable may be required.



4. Make sure the transmitter and receiver are connected to each other via a Cat5e/6 cable. See Basic Installation.

#### **Three Types of Console Modes**

- The factory default is to enable both consoles remote and local. In this mode, users of both remote and local consoles are able to control the connected device, such as a computer or KVM switch, based on the first-come-first-served basis.
- You can choose to enable only one console to prevent that console's operation from being disturbed by users
  of the other console.

#### 3 types of console modes:

• To switch among 3 types of console modes, press the Remote/Local button on the transmitter, and the console mode changes in the following sequence:

## dual console (default) > remote console > local console

- **Dual console:** Both remote and local users can control the device at the same time. To avoid conflicts, designate one user as primary to operate. The second user should not operate keyboard and mouse but remain as viewer.
- Remote console: Only remote users can view and control the connected device.
- Local console: Only local users can view and control the connected device.

## To identify the 3 console modes:

 The current console mode can be indicated by the status of TX and RX LEDs on both the transmitter and receiver.

#### Dual console (default):

. Both TX and RX LEDs are lit.

#### Remote console:

• Only the RX LED is lit. Besides, the local console's monitor becomes dark.

#### Local console:

Only the TX LED is lit. Besides, the remote console's monitor shows this message "Local Only".

#### **Additional Information**

- For more information about Cat5 Reach DVI HD and the entire Raritan product line, see Raritan's website (www.raritan.com).
- For technical issues, contact Raritan Technical Support. See the Contact Support page in the Support section on Raritan's website for technical support contact information worldwide.
- Cat5 Reach DVI HD Quick Setup Guide
- QSG-C5RdviHD-0B-v1.0.0-E 255-80-0057-00 RoHS

#### **Documents / Resources**



<u>legrand C5R-DVI-HD-TX USB KVM Extender</u> [pdf] User Guide C5R-DVI-HD-TX, C5R-DVI-HD-RX, C5R-DVI-HD-TX USB KVM Extender, USB KVM Extender, KVM Extender

#### References

- ■ Data Center Power Management, DCIM Software, and KVM-over-IP Raritan
- <u>Data Center Product Support Data Center Solutions Raritan</u>

Manuals+,