



# Quick Installation Guide



## LKD-E415 CAT5 DVI KVM Extender over LAN w/ Audio&Mic 4 Ports USB 2.0 for Keyboard, Mouse and High Speed Devices Full HD 1080p Digital Video up to 100M

Thank you for purchasing the LKD-E415 CAT5 DVI KVM Extender! With our highly reliable and quality product, users can enjoy countless benefits from using this CAT5 DVI KVM Extender.

### Introduction

The LKD-E415 CAT5 DVI KVM Extender over LAN comprises two distinct units, the Transmitter (TX) and the Receiver (RX) unit. It allows fully access and control resources on TX unit from RX unit over a single standard Cat5 UTP Ethernet cable. The LKD-E415 is a LAN based DVI KVM Extender that allows user to access the computer from a remote console anywhere on your existing local area network infrastructure.

The LKD-E415 CAT5 DVI KVM Extender offers the extension of keyboard, mouse, digital video, audio, and USB 2.0 devices distances up to 328 feet (100m) away from your local computer using a single standard Cat5 UTP Ethernet cable.

The LKD-E415 CAT5 DVI KVM Extender supports digital video

resolution up to 1920 x 1080@60Hz Full HD 1080p through a maximum of 328 feet single standard Cat5 UTP Ethernet Cable, while satisfying the optimal video quality. Furthermore, the LKD-E415 CAT5 DVI KVM Extender supports Graphic Mode and Video Mode selection to fit your display requirements. Graphic Mode is optimized for graphic/text display viewing; while Video Mode is best for dynamically changing video stream playing.

### Package Contents

Please check whether you have the following items listed in the packaging box.

- 1 x Transmitter (TX) Unit
- 1 x Receiver (RX) Unit
- 1 x Video, USB, Audio, and Microphone Integrated Cable
- 2 x Power Adapter (DC 9V)
- 1 x Quick Installation Guide

**Note:** IR Remote Control Unit Pack (Wired Transmitter and Wired Receiver) is optional and sold separately.

### Panels Overview

#### Transmitter (TX) Unit:



Transmitter Front Panel Overview

#### TX Front Panel:

- a. Reset button (Press and hold for 1 second to completely power cycle the unit)
- b. Red Power LED (**Solid:** Power is on / **OFF:** Power is off / **Flashes:** Unit initializing)
- c. Green Link LED (**Solid:** Link established / **OFF:** No link or link deactivated on TX / **Flashes:** No digital video signal input, link not established, or link deactivated on RX)
- d. Link Push Button Sw 1 (Toggle between link activate and link

deactivate on TX)

- e. Mode Push Button Sw 2 (Press and hold for 1 second then release to toggle between the Video Mode and the Graphic Mode on both TX and RX units at the same time; Press and hold for 3 seconds then release to cycle between the Anti-Dither 1(1bit), 2(2bit), or OFF(off) modes on both TX and RX units at the same time)
- f. RJ45 Ethernet Port (Connect to the RJ45 Ethernet Port on the remote RX unit directly using a standard Cat5 UTP Ethernet cable up to 328 feet(100 meters) or via a Gigabit Ethernet switch)



Transmitter Back Panel Overview

#### TX Back Panel:

- g. Power Jack (DC 9V)
- h. USB Type B Port (Connect the USB cable from local computer)
- i. IR Remote Control Port Out (Connect the wired IR Remote Control Transmitter to local computer, optional)
- j. Microphone 3.5mm Jack (Connect the pink microphone cable to local computer)
- k. Audio 3.5mm Jack (Connect the green speaker cable to local computer)
- l. Monitor DVI-I Port Input (Connect the DVI-D video cable from digital video signal output on local computer)



Transmitter Side Panel Overview

#### TX Side Panel:

- m. Group Address 4-Position Dip Switch (Set the four switches position to match the Group Address of RX)



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### Receiver (RX) Unit:



Receiver Front Panel Overview

#### RX Front Panel:

1. Reset button (Press and hold for 1 second to completely power cycle the unit)
2. Red Power LED (**Solid:** Power is on / **OFF:** Power is off / **Flashes:** Unit initializing)
3. Green Link LED (**Solid:** Link established / **OFF:** No link or link deactivated on RX / **Flashes:** No digital video signal input on TX, link not established, or link deactivated on TX)
4. Link Push Button Sw 1 (Toggle between link activate and link deactivate on RX)
5. Mode Push Button Sw 2 (Press and hold for 1 second then release to toggle between the Video Mode and the Graphic Mode on both TX and RX units at the same time; Press and hold for 3 seconds then release to cycle between the Anti-Dither 1(1bit), 2(2bit), or OFF(off) modes on both TX and RX units at the same time)
6. USB Type A Port (For console keyboard)
7. USB Type A Port (For console mouse)
8. USB Type A Device Port (For USB 2.0 high speed device)
9. USB Type A Device Port (For USB 2.0 high speed device)
10. RJ45 Ethernet Port (Connect to the RJ45 Ethernet Port on the remote TX unit directly using a standard Cat5 UTP Ethernet cable up to 328 feet(100 meters) or via a Gigabit Ethernet switch)



Receiver Back Panel Overview

#### RX Back Panel:

11. Power Jack (DC 9V)

12. IR Remote Control Port In (Connect the wired IR Remote Control Receiver, optional)
13. Microphone 3.5mm Jack In (Connect the microphone)
14. Audio 3.5mm Jack Out (Connect the speaker)
15. Monitor DVI-I Port Output (Connect the DVI-D video cable from local monitor)



Receiver Side Panel Overview

#### RX Side Panel:

16. Group Address 4-Position Dip Switch (Set the four switches position to match the Group Address of TX)

### Pre-Installation

Before you install the two pieces of the CAT5 DVI KVM Extender, you might consider the following:

- The Cat5 UTP Ethernet cable lengths between the Transmitter and the Receiver you'll use.
- In case of need to extend the Cat5 UTP Ethernet cable lengths, install a Gigabit Ethernet Switch instead of Fast Ethernet Switch to avoid the signal degradation.
- The location of your CAT5 DVI KVM Extender.

#### Note:

1. A good quality Cat5 UTP Ethernet cable provides better quality of video transmission.
2. Avoid installing cables near fluorescent lights, air-conditioning equipment, power lines, or machines that create electrical noise.

### Installation

Take the package items out of the box and begin installation.

#### Note:

Before the installation, please check that the Group Address 4-Position Dip Switch of the Transmitter and Receiver units are set to the same position/group (the DIP Switch from 1 to 4 switches default position setting is ON/TOP).

### Installation:

1. Use the combo KVM cable provided with the unit, plug the connectors on one end of the combo KVM cable into the appropriate ports on the back panel of the Transmitter.
2. Plug the connectors on the other end of the combo KVM cable into the appropriate ports on the local computer.
3. Connect the Transmitter and Receiver by using a Cat5 UTP Ethernet cable via RJ45 Ethernet Port on the front panel of both units.
4. Connect the remote console keyboard, mouse, monitor, speaker, and microphone into the appropriate ports on the front and back panels of the Receiver unit.

Now, you have completed the installation and ready to operate.

### Q&A

Q: For some reason the display of my system reduced its 1080p resolution to lower, how do I fix it.

A: Please follow the firmware update process steps below to re-initialize the connected monitors EDID information saved in TX and RX units. Note that firmware update process is only available on Receiver (RX) unit.

- 1) Unplug the power from the RX unit.
- 2) Press and hold down the Sw 2 button then plug the power back to the RX unit.
- 3) Release the Sw 2 button when the red Power LED flashes.



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