HDMI KVM EXTENDER OVER CAT6

HDMI KVM Extender over CAT6 (120m)

Where every Moment comes Alive

ER2861KVM

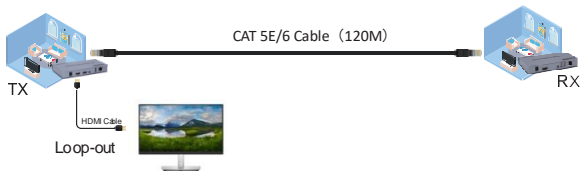**HDMI** ®
HIGH-DEFINITION MULTIMEDIA INTERFACE

Introduction

The **HDMI KVM Extender over CAT6 (120m) 4K@30Hz** is a high-performance device that allows users to extend HDMI video and USB keyboard/mouse signals over a **single CAT6 cable** up to **120 meters**. It is designed for applications requiring long-distance HDMI transmission with seamless KVM (Keyboard, Video, and Mouse) control, making it ideal for **remote workstations, security monitoring, server management, and home entertainment setups**.

This extender supports **4K resolution at 30Hz**, ensuring high-definition video quality with minimal signal loss. With **plug-and-play functionality**, it requires no additional drivers or software, providing a simple and efficient solution for extending video and control signals in various professional and industrial environments.
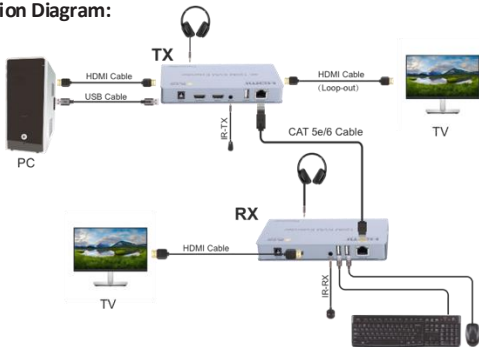
Features

• **Supports HDCP 1.4** for secure content transmission.
• **Local HDMI loop-out** for monitoring at the transmitter side.
• **Long-distance transmission up to 120m** over a single **CAT6 cable**.
• **Low power consumption** with **low-temperature operation** for enhanced safety and durability.
• **3.5mm audio output** on both **TX (Transmitter) and RX (Receiver)** for external audio connectivity.
• **IR control support** for remote operation of the source device.
• **USB keyboard and mouse extension**, allowing remote workstation control.

Specifications:

- **CAT5e/CAT6 Cable Length (Between TX & RX): Up to 120 meters.**
- **HDMI Input Resolutions Supported: 4K, 1080p, 720p, 576p, 576i, 480p, 480i.**
- **HDMI Output Resolutions Supported: 4K, 1080p, 720p, 576p, 576i, 480p, 480i.**
- **Max Bandwidth: 340MHz.**
- **Max Baud Rate: 3 × 3.4Gbps.**
- **Input Video Signal: 0.5~1.5 Volts p-p.**
- **Output DDC Signal: 5 Volts p-p (TTL).**
- **Input HDMI Cable Distance: ≤10m (AWG26 HDMI standard cable).**
- **Output HDMI Cable Distance: ≤10m (AWG26 HDMI standard cable).**
- **TX Max Working Current: 350mA.**
- **RX Max Working Current: 200mA.**
- **Power Adapter: Input: AC (50Hz, 60Hz) 100V-240V; Output: DC 5V/1A.**
- **Operating Temperature Range: -15℃ to +55℃.**
- **Operating Humidity Range: 5% to 90% RH (No Condensation).**
- **Dimensions (L x W x H): 163 x 87 x 24 mm.**
- **Weight: TX Unit: 499g / RX Unit: 494g.**

Connection Diagram:

Connecting & Operating Instructions

1. **Connect the Source Device:**
• Use an **HDMI cable (max 10 meters)** to connect the **source device** (e.g., PC, DVD player, set-top box) to the **TX Extender**.

2. **Connect the Display Device:**
• Use an **HDMI cable (max 10 meters)** to connect the **RX Extender** to the **display device** (e.g., TV, monitor, projector).

3. **Connect TX and RX Extenders:**
• Use a **single CAT-5e or CAT-6 cable** (**CAT-6 recommended**) to connect the **TX Extender to the RX Extender**.
• **Maximum cable distance: 120 meters**.

4. **Power Connection:**
• Connect the **5V power adapter** to both the **TX and RX Extenders**.

5. **KVM Function Setup (Keyboard & Mouse Control):**
• **Plug the USB mouse and keyboard** into the **USB ports of the RX Extender**.
• **Connect the USB port of the TX Extender** to the **computer** for KVM control.

6. **LED Indicator Lights:**
• **TX LED Indicator:**
• **Green light:** Power ON.
• **Yellow light flashing:** Signal input detected.
• **RX LED Indicator:**
• **Green light:** Power ON.
• **Yellow light flashing:** Signal input detected.
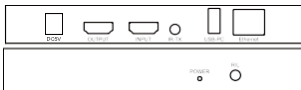
7. **IR Control Setup (Optional):**
• Connect the **IR RX cable** to the **3.5mm IR RX port** of the **Receiver (RX)**.
• Connect the **IR TX cable** to the **3.5mm IR TX port** of the **Transmitter (TX)**.
• This connection is only needed **if IR control is required**.
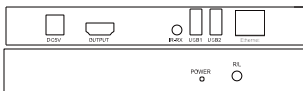
Application Industries:

Home Theatre

Conference System

Bank Trading Centres

Physical interface diagram

TX:

Port	Function description
DC/5V	5V DC Power input port
OUTPUT	HDMI Loop-out port
INPUT	HDMI Input port
IR-TX	IR-TX port
USB-PC	USB port, connect with the usb of device (PC)
Ethernet	Cat5e / 6 cable connection port
POWER	Power indicator light
R/L	Stereo output

RX:

Port	Function description
DC/5V	5V DC Power input port
OUTPUT	HDMI Output port
IR-RX	IR-RX port
USB1-2	USB port, connect the Touch screen display/mouse/keyboard
Ethernet	Cat5e / 6 cable connection port
POWER	Power indicator light
R/L	Stereo output

The Package includes:

1. TX Extender   1PC   4. 5V/1A DC Power adapter   2PCS
2. RX Extender   1PC   5. User Manual   1PC
3. IR cable   1 Pair