

# IP KVM Matrix Extender (KFH286K)



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## Introduction

The KFH286K IP KVM matrix extenders are highly optimized KVM extenders. The point-to-point connection supports transmission distance of 120m, and resolution up to 3840x2160@60Hz. This series of extenders can be connected to an 1G network switch to form a matrix switching system, which supports point-to-point (P2P) mode and matrix (Matrix) mode. The matrix switching system composed of extenders supports up to 9999 nodes by using a centralized management software, and it can support up to 40 nodes without using a centralized management software. It can connect multiple signal sources (such as servers, workstations, cameras and video walls).

With the matrix switching system, computers and servers can be located in the central server room far from the workstation to improve security, reduce the temperature and noise of the working environment, and achieve a quiet and friendly human-computer interaction environment.

The video compression algorithm of KFH286K matrix extender is a perfect combination of high-quality image and low latency (<8ms). The USB and video signals are transmitted through CAT5e/6/7 network cable.

It supports USB devices such as touch screen, USB sound card, printer, etc., it can also support USB storage devices.

## Function

This product is intended to be used as a device to increase the distance that a keyboard, monitor and mouse can be placed from a computer. This product is intended for professional use. The product should not be used in potentially explosive environments.

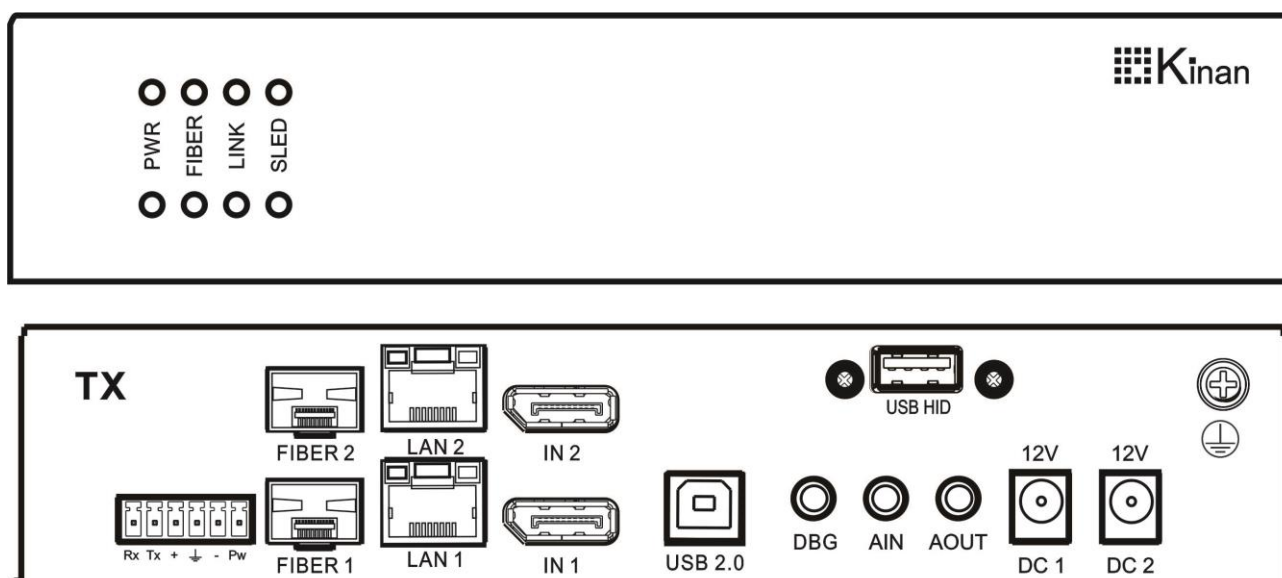
The product may only be used according to the instructions as described in this manual. All use, other than that described in this manual, is seen as unintended use. In this product, the product connected to the host end is called the transmitter (TX), and the product connected to the display end is called the receiver (RX).

## Product Feature

- HDMI / USB2.0/Audio - IP KVM Matrix Extender
- Dual screen version
- Point-to-point connection supports maximum extension distance 120m/394ft
- Support seamless switching
- Freeze the last image after the disconnection of transmitter and receiver
- Support resolution up to 3840x2160@60Hz (4:4:4)
- USB transmission rate up to 480Mbit/s
- HDMI lossless real-time full HD transmission
- Support transmission through fiber optic and network (CAT5e/6/7)
- Support one Administrator account and one User account
- Support remote computer power on and off

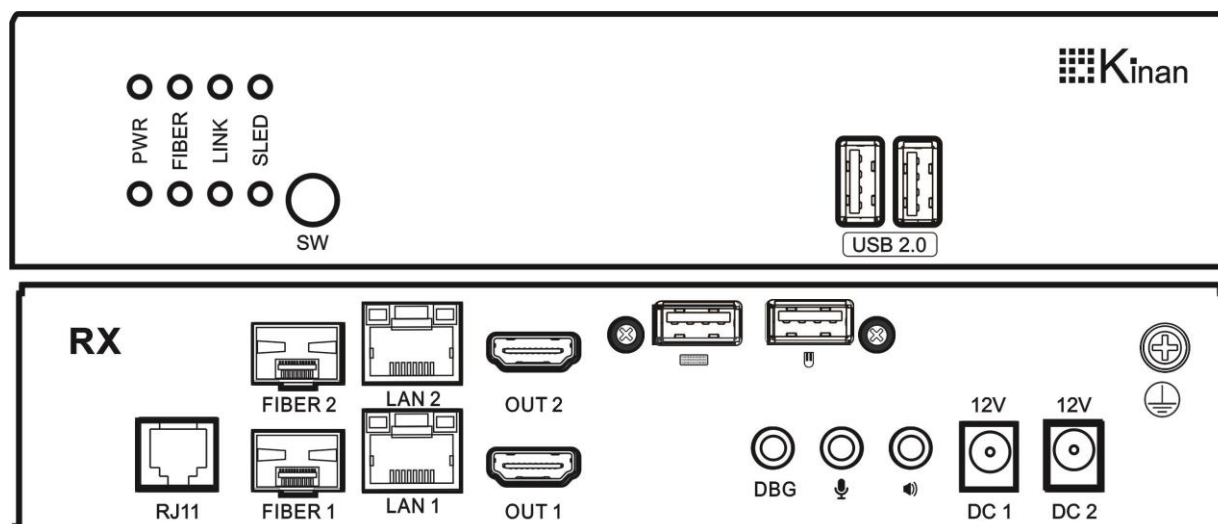
## Product Overview

### KFH286K Transmitter (TX)



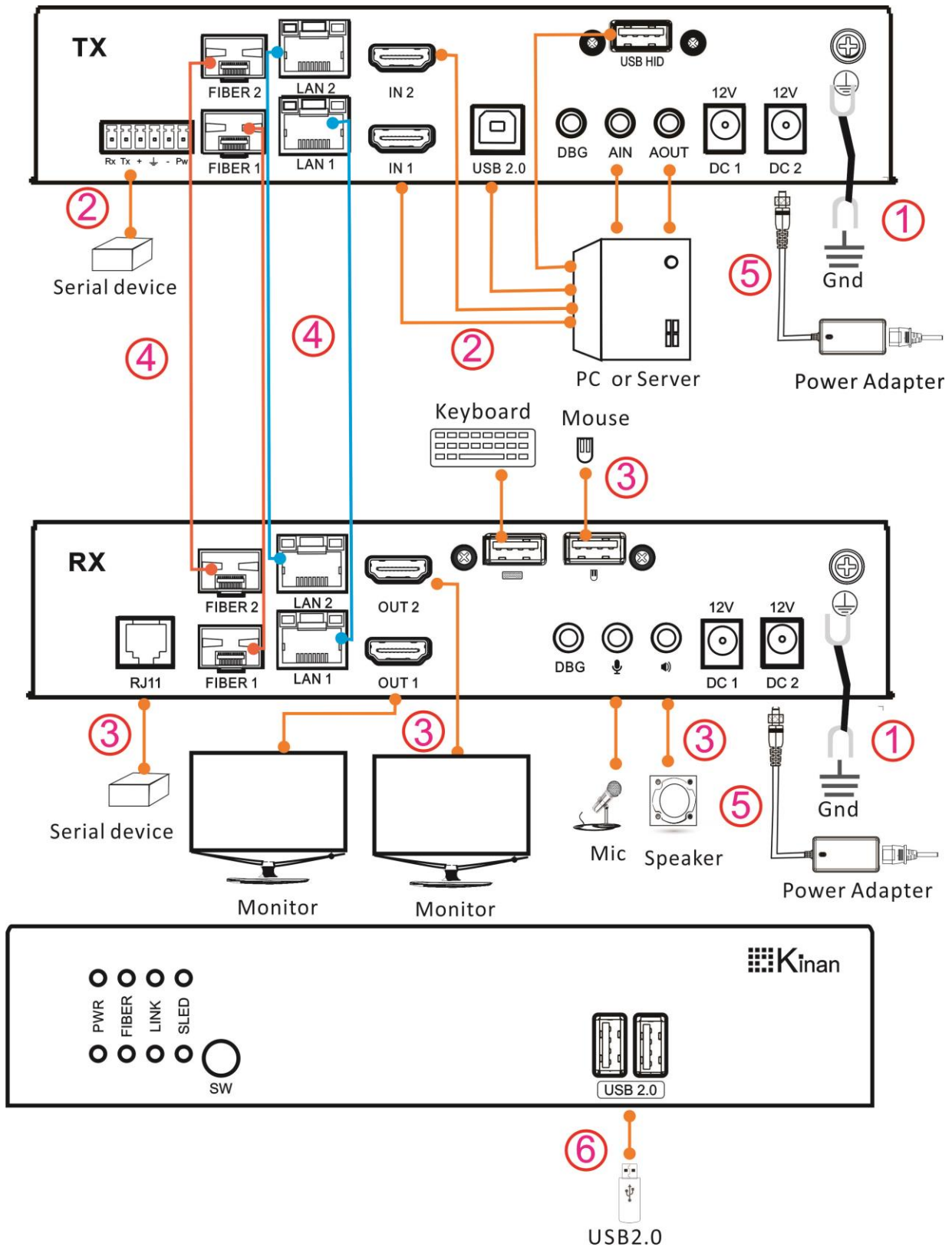
| No. | Components                                                                                     |       | Description                     |
|-----|------------------------------------------------------------------------------------------------|-------|---------------------------------|
| 1   | LED                                                                                            | POWER | Power indicator                 |
|     |                                                                                                | FIBER | Connection indicator of FIBER   |
|     |                                                                                                | LINK  | Connection indicator            |
|     |                                                                                                | SLED  | System indicator                |
| 2   | USB HID                                                                                        |       | connect to PC or server         |
| 3   | Rx Tx +  - Pw |       | Reserved interfaces             |
| 4   | FIBER2, FIBER1                                                                                 |       | Fiber interface                 |
| 5   | LAN2,LAN1                                                                                      |       | LAN interface                   |
| 6   | IN2, IN1                                                                                       |       | HDMI video input                |
| 7   | USB2.0                                                                                         |       | USB-B, connect to PC or server  |
| 8   | DBG                                                                                            |       | Debug interface                 |
| 9   | AIN                                                                                            |       | Audio input                     |
| 10  | AOUT                                                                                           |       | MIC output                      |
| 11  | DC1, DC2                                                                                       |       | Connect to the 12V power supply |
| 12  |             |       | Ground the device               |

## KFH286K Receiver (RX)

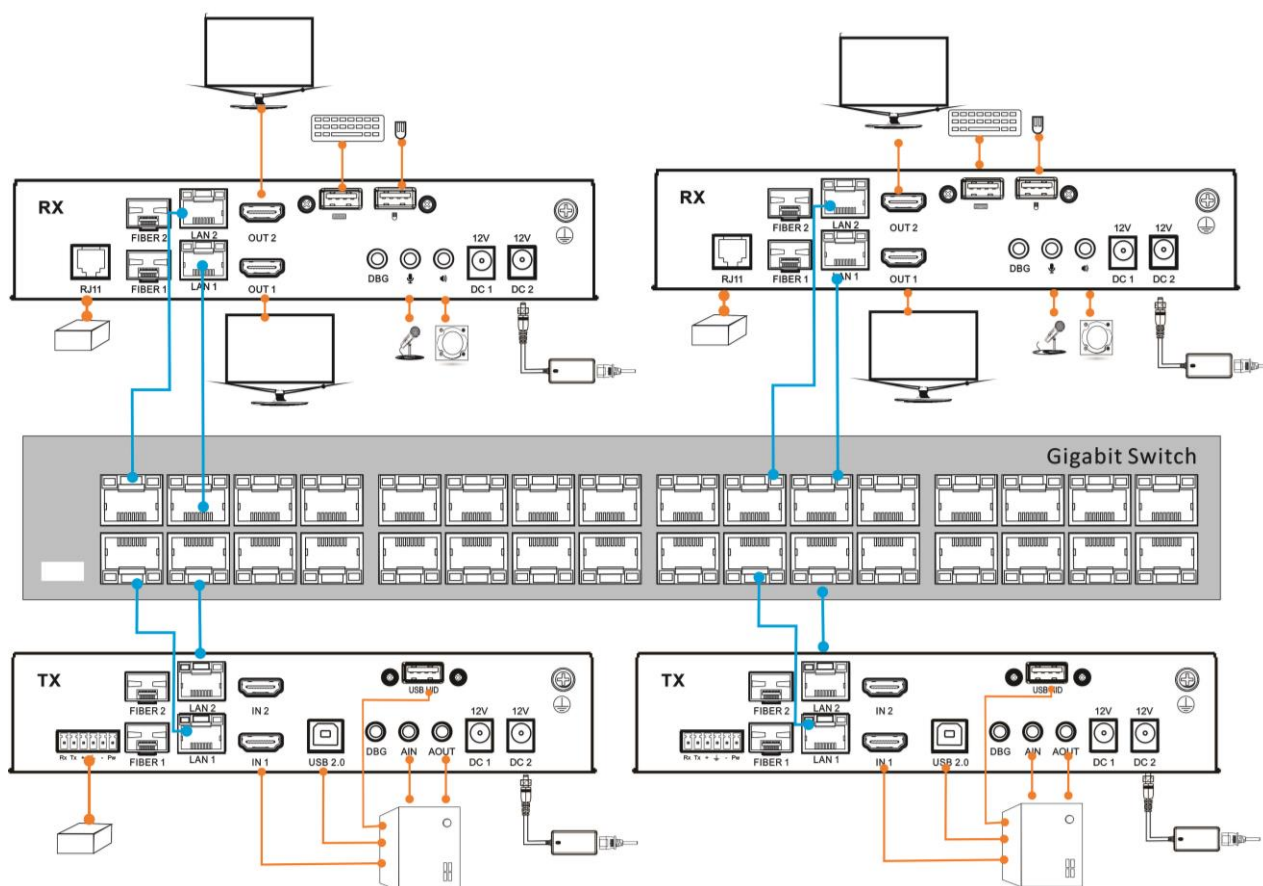


| No. | Components                                                                          |       | Description                     |
|-----|-------------------------------------------------------------------------------------|-------|---------------------------------|
| 1   | LED                                                                                 | POWER | Power indicator                 |
|     |                                                                                     | FIBER | Connection indicator of FIBER   |
|     |                                                                                     | LINK  | Connection indicator            |
|     |                                                                                     | SLED  | System indicator                |
| 2   | SW                                                                                  |       | Remote power on/off button      |
| 3   | USB2.0                                                                              |       | Connect to USB2.0 peripherals   |
| 4   |    |       | Connect to a USB keyboard       |
| 5   |    |       | Connect to a USB mouse          |
| 6   | RJ11                                                                                |       | Reserved interfaces             |
| 7   | FIBER2, FIBER1                                                                      |       | Fiber interface                 |
| 8   | LAN2, LAN1                                                                          |       | LAN interface                   |
| 9   | OUT2, OUT1                                                                          |       | HDMI video output               |
| 10  | DBG                                                                                 |       | Debug interface                 |
| 11  |  |       | MIC input                       |
| 12  |  |       | Audio output                    |
| 13  | DC1, DC2                                                                            |       | Connect to the 12V power supply |
| 14  |  |       | Ground the device               |

## Connection Diagram



## Matrix Connection Diagram



## Specifications

| Specifications                |                | KFH286K_TX                       | KFH286K_RX                |
|-------------------------------|----------------|----------------------------------|---------------------------|
| Connections                   | HDMI input     | 2                                | N/A                       |
|                               | HDMI output    | N/A                              | 2                         |
|                               | Power          | 2x 12V                           | 2x 12V                    |
|                               | LAN port       | 2x RJ45                          | 2x RJ45                   |
|                               | Optical Module | 2x SFP+                          | 2x SFP+                   |
|                               | Mic            | 3.5MM Stereo Jack (Green)        | 3.5MM Stereo Jack (Pink)  |
|                               | Speaker        | 3.5MM Stereo Jack (Pink)         | 3.5MM Stereo Jack (Green) |
|                               | Square USB     | 1                                | N/A                       |
|                               | USB            | 1                                | 4                         |
| Resolution                    |                | 3840x2160@60Hz                   |                           |
| Cable                         |                | CAT5e/6/7 or Optical Fiber Cable |                           |
| I/R Value                     |                | DC12V / 3A                       | DC12V / 3A                |
| Power consumption             |                | 15W                              | 16W                       |
| Operating temperature         |                | 0—50 °C                          |                           |
| Storage temperature           |                | -20—60 °C                        |                           |
| Humidity                      |                | 0—80% RH, non-condensing         |                           |
| Material                      |                | Metal                            |                           |
| Net weight(kg)                |                | 0.88 kg                          | 0.88 kg                   |
| Product dimension (W × D × H) |                | 212mm x 114.3 mm x 44mm          |                           |
| Package dimension (W × D × H) |                | 243mmx 209mm x 98mm              | 243mmx 209mm x 98mm       |