

IP KVM Matrix Extender (KFH186K)



Introduction

The KFH186K 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 KFH186K 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.

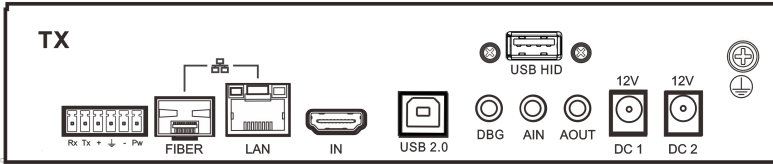
The product may only be used according to the instructions as described in this manual. All use, other than that described in this manual, is seen as unintended use. In this product, the product connected to the host end is called the transmitter (TX), and the product connected to the display end is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

Features

- HDMI / USB2.0/Audio - IP KVM Matrix Extender
- Single and Dual screen version
- Point-to-point connection supports maximum extension distance 120m/394ft
- Can be connected to a standard network switch to form a matrix switching system
- 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 local (TX) HDMI interface loop-out
- 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

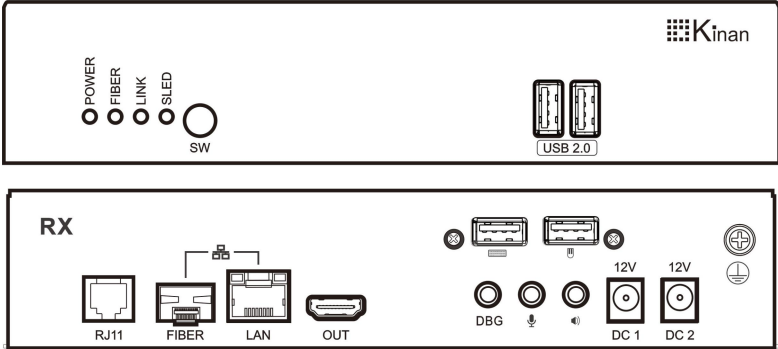
Product Overview






KFH186K receiver (TX)



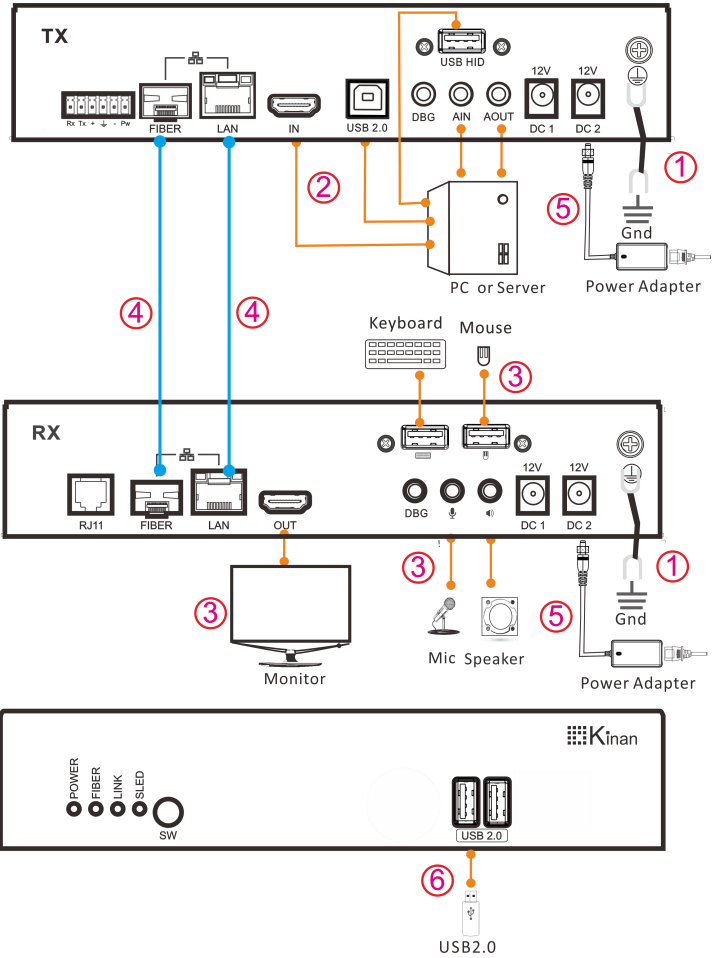
No.	Components		Description
1	LED	POWER	Power indicator
		FIBER	Connection indicator of FIBER
		LINK	Connection indicator
		SLED	System indicator
2	USB HID		connect to PC or server
3	Rx Tx + \perp - Pw		Reserved interfaces
4	FIBER		Fiber interface
5	LAN		LAN interface
6	IN		HDMI video input
7	USB IN		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	\perp		Ground the device

KFH186K sender (RX)

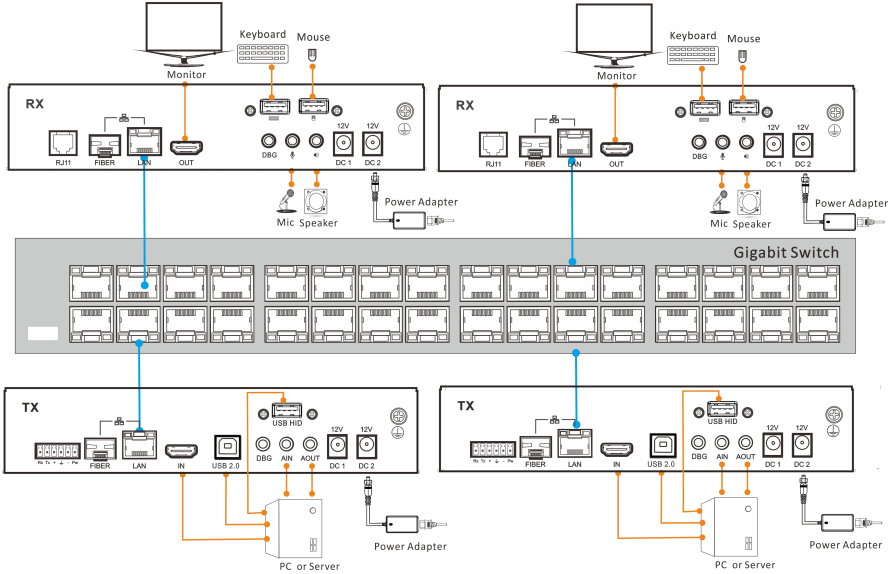


No.	Components	Description	
1	LED	POWER	Power indicator
		FIBER	Connection indicator of FIBER
		LINK	Connection indicator
		SLED	System indicator
2	SW	Remote power on/off button	
3	USB2.0	Connect to USB2.0 peripherals	
4		Connect to a USB keyboard	
5		Connect to a USB mouse	
6	RJ11	Reserved interfaces	
7	FIBER	Fiber interface	
8	LAN	LAN interface	
9	OUT	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



Configuration requirements: The electrical port of the network switch must reach a gigabit rate and support IGMP multicast.

Specifications

Model		KFH186K_TX	KFH186K_RX
Connections	HDMI input	1	N/A
	HDMI output	N/A	1
	Power	2x 12V	2x 12V
	LAN port	1x RJ45	1x RJ45
	Optical Module	1x SFP+	1x 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		9W	10W
Operating temperature		0—50 °C	
Storage temperature		-20—60 °C	
Humidity		0—80% RH, non-condensing	
Material		Metal	
Net weight(kg)		0.8 kg	0.8kg
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