

# 4K HDMI IP KVM Matrix Extender Over Cat5/Fiber

(KFH188S)



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## Introduction

IP HD Digital KVM Matrix Extender is a highly optimized KVM extender. The transmission distance can reach 150m for point-to-point connection with an Ethernet cable, and the resolution is up to 3840x2160@30Hz. This series of extenders can be connected to a Gigabit network switch to form a matrix switching system, which can be networked independently without using a centralized management platform, supporting up to 40 nodes; when using a centralized management platform, it can support up to 9999 nodes according to the network bandwidth. It supports fast non-black screen switching. The matrix switching system can connect various kinds of signal sources, such as servers, workstations, cameras, video TV walls, etc.

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

The video compression algorithm of the IP HD digital KVM matrix extender is a perfect combination of high image quality and low latency (8ms/1080P@60Hz). USB and video signals are transmitted via CAT5e/6/7 network cables or optical fibers. USB2.0 supports USB devices such as touch screens, USB sound cards, printers, and also USB storage devices.

UI managing system initial administrator account: admin Password: admin

## Function

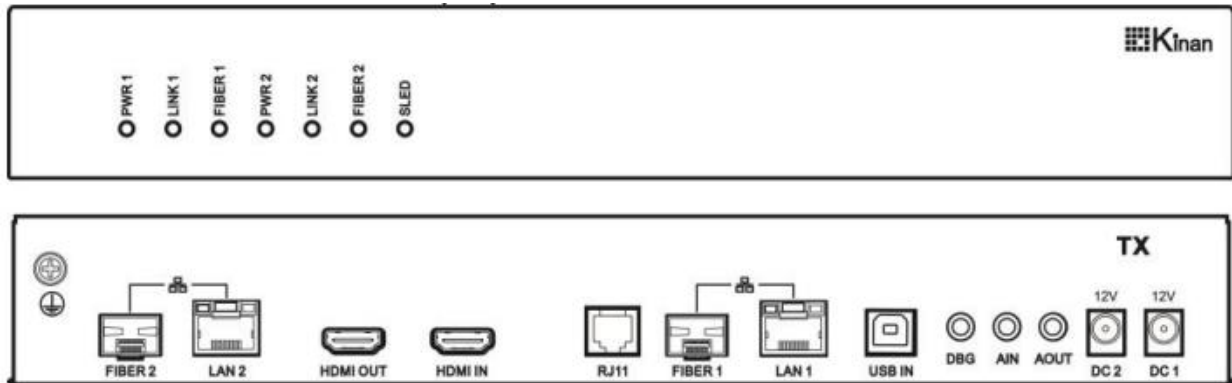
This product is designed to extend and switch USB peripherals such as keyboards, mice, U disks, and video signals. As a professional product, this product should not be used in any occasion with potential explosion risks. Please use this product in accordance with the instructions in this manual. Any use not in accordance with the instructions in this manual is considered abnormal use. The device connected to the source input end is called the transmitter (TX), and the device connected to the display end is called the receiver (RX).


## Product Features

- HDMI / Audio/USB2.0 / Serial Port IP KVM Matrix Extender
- Supports hot backup function with master and backup connections (dual optical or dual network connections or 1 optical /1 network connections)
- Supports local (TX) HDMI interface loop-out
- Visual lossless compression transmission, ultra-low latency ( $\approx 8\text{ms}@60\text{Hz}$ ). Typical transmission bandwidth: 50~450Mbps
- Graphical UI interface, intuitive and convenient port switching and other operations
- Supports seamless switching between hosts without any black screen
- USB transmission rate up to 480Mbit/s
- Supports analog audio and microphone, supports digital audio
- Maximum resolution 3840x2160@30Hz (YCbCr 4:4:4)
- Supports optical fiber transmission in single-mode or multi-model; the maximum transmission distance depends on the SFP type. Supports CAT5e/6/7 transmission, and the maximum point-to-point extension distance is 150m
- Up to 9999 devices networked with a centralized management platform for a matrix switching system :
- Supports screen lock.
- Supports one Administrator account and one User account.
- Supports collaborative sharing Push & Get.
- Supports remotely turn on/off the computers.

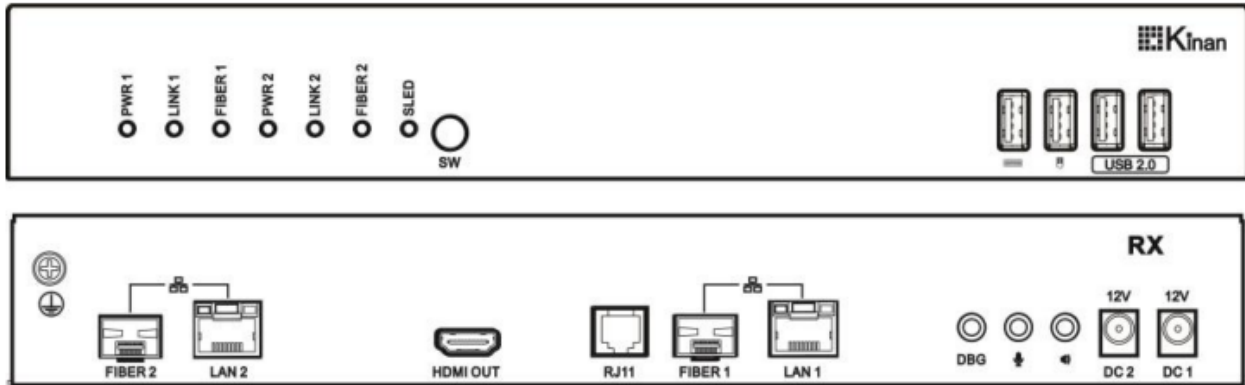
## Product Overview






### KFH188S Transmitter (TX)



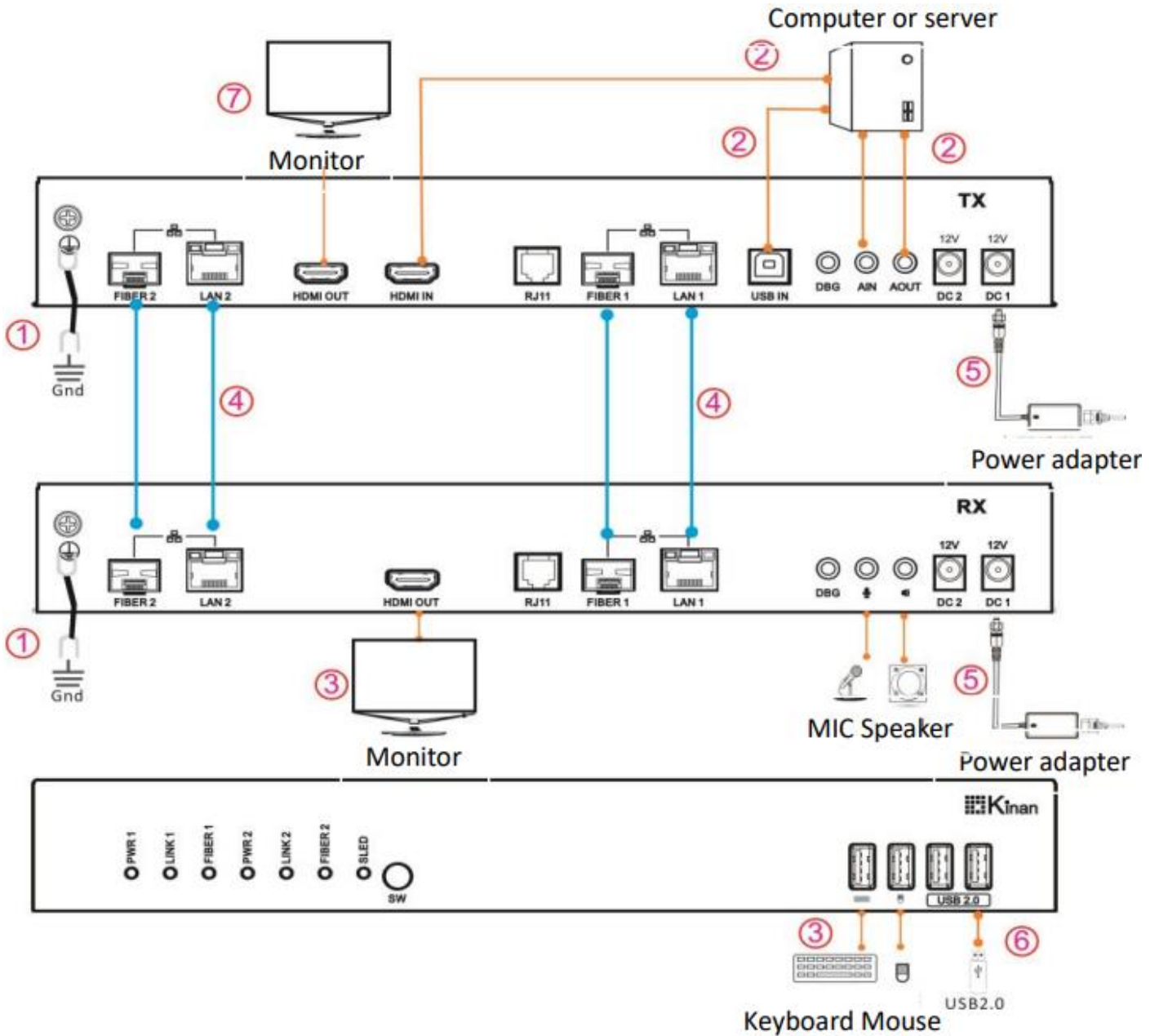
No.	Interface	Description	
1	LED	PWR1, PWR2	Power indicator
		LINK1, LINK2	Connection indicator
		FIBER1, FIBER2	Connection indicator of FIBER
		SLED	System indicator
2		Ground the device	
3	FIBER2, FIBER1	Fiber interfaces	
4	LAN2, LAN1	LAN interfaces	
5	HDMI OUT	HDMI video loop out	
6	HDMI IN	HDMI video input	
7	RJ11	Serial Port	
8	USB IN	USB-B,connect to PC or server	
9	DBG	Debug interface	
10	AIN	Audio input	
11	AOUT	MIC output	
12	DC2, DC1	Connect to the 12V power supply	

## KFH188S Receiver (RX)



No.	Interface	Description	
1	LED	PWR1, PWR2	Power indicator
		LINK1, LINK2	Connection indicator
		FIBER1, FIBER2	Connection indicator of FIBER
		SLED	System indicator
2	SW	Button	
3		Connect to a USB keyboard	
4		Connect to a USB mouse	
5	USB2.0	Connect to a USB2.0 peripherals	
6		Ground the device	
7	FIBER2, FIBER1	Fiber interfaces	
8	LAN2, LAN1	LAN interfaces	
9	HDMI OUT	HDMI video output	
10	RJ11	Serial Port	
11	DBG	Debug interface	
12		MIC input	
13		Audio output	
14	DC2, DC1	Connect to the 12V power supply	

### Connection Diagram



## Specifications

Specification		KFH188S_TX	KFH188S_RX
Interfaces	HDMI Input	1	N/A
	HDMI Output	1	1
	Power	12V x 2	12V x 2
	LAN Port	RJ45 x 2	RJ45 x 2
	Fiber Optic Module	SFP+ x 2	SFP+ x 2
	Microphone	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	N/A	4
Max Resolution	3840*2160@30Hz		
Connected Cables	CAT5e/6/7 or Fiber(Depends on the fiber optic module)		
Power Input	DC12V / 3A	DC12V / 3A	
Power Consumption	15W	15W	
Operating Temperature	0—50 °C		
Storage Temperature	-20—60 °C		
Humidity	0—80% RH, non-condensing		
Material	Metal		
Net Weight(kg)	1.78 kg	1.8kg	
Product Dimension (W × D × H)	317mm x 216.1 mm x 44mm		
Package Dimension (W × D × H)	395 mm x 274 mm x110 mm	395 mm x 274 mm x110 mm	