HDMI FHD Digital KVM Extender over Fiber/Cat5

(KFH168S)

User Manual

www.kinankvm.com

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User Notification

All information, documentation, and specifications contained in this manual are subject to change without prior notice. The manufacturer does not make any explicit or implied statement or guarantee about the contents of this document, especially for merchantability or fitness for any specific purpose. Any manufacturer's equipment described in this manual is sold or licensed as it is.

If the equipment is damaged artificially after purchase, the buyer (not the manufacturer) shall bear all costs for necessary repair and any losses caused by equipment defects.

If the correct operating voltage setting is not selected before operation, the manufacturer will not be responsible for any damage caused by system operation. **Please make sure the voltage has been set correctly before use**.

Product Description

KFH168S HDMI high-definition digital KVM extender is a KVM signal extension device that can transmit 1-channel video, mouse, keyboard, USB2.0 and other signals of the PC host through optical fiber or network cable.

A complete set of KFH168S equipment consists of two parts, namely the transmitter (KFH168S_TX) and the receiver (KFH168S_RX). The transmitter can be connected to the signal source that needs to be transmitted, such as PC or Blu-ray device, and the receiver can be connected to the display, keyboard, mouse, U disk, audio player and other devices.

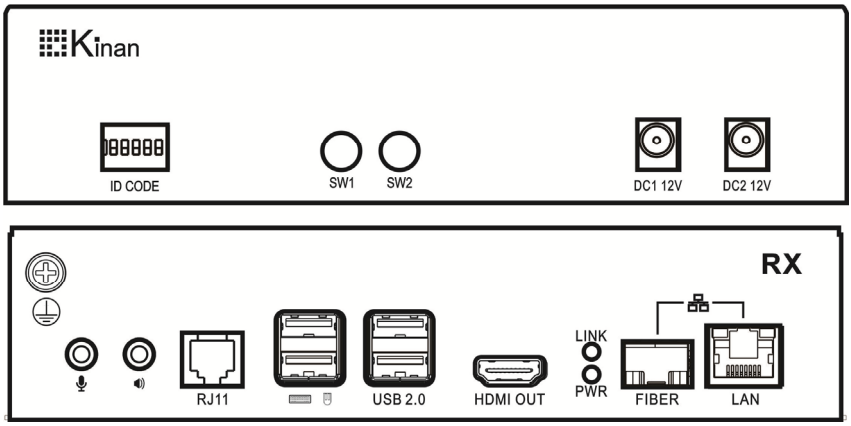
KFH168S HDMI high-definition digital KVM extender uses optical fiber or network cable for connection, supports single-mode and multi-mode optical fiber, the maximum transmission distance of single-mode is 80km , the maximum transmission distance of multi-mode is 300m, and the maximum transmission distance of network cable is 150m. It supports the transmission of 1-channel high-quality HDMI signal and has a wide range of applications.

Note: The bandwidth of the optical module must reach 1.25Gbit/sec.

Product Features

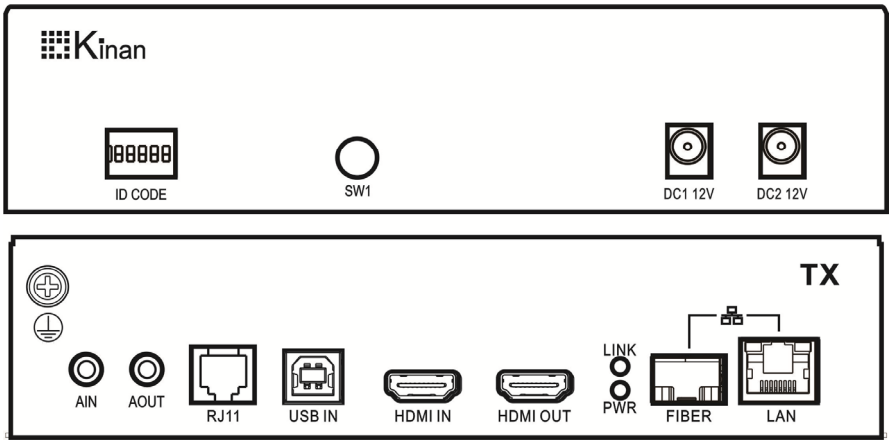
- Using private video encoding protocol (similar to JPEG) for lossless compression, the transmission quality is visually lossless
- Ultra-low latency, 1 frame delay (16ms @ 60fps)
- HDMI high-definition video transmission, supports up to 3840x2160@30Hz , recommended 1920*1080@60 Hz
- Typical transmission bandwidth : 200M ~ 300Mbit/s
- Support 1000M LAN interface
- Support optical fiber transmission Optical interface SFP (LC) optical attenuation -3db, (optional FC interface) -3db
- When using a network cable directly, the length can reach 150m
- Supports USB 2.0 transparent transmission and can connect 4 USB peripherals , such as: U disk, USB printer, fingerprint recognition module, face recognition module, etc.
- Support 1-channel asynchronous serial port transmission
- Support local (TX) HDMI interface loop-out, identify RX end EDID (RX must be connected to a monitor)
- Supports analog audio microphone
- Support Gigabit network switch point-to-point dial-up connection
- Built-in ESD protection circuit can effectively prevent static electricity

KFH168S_RX



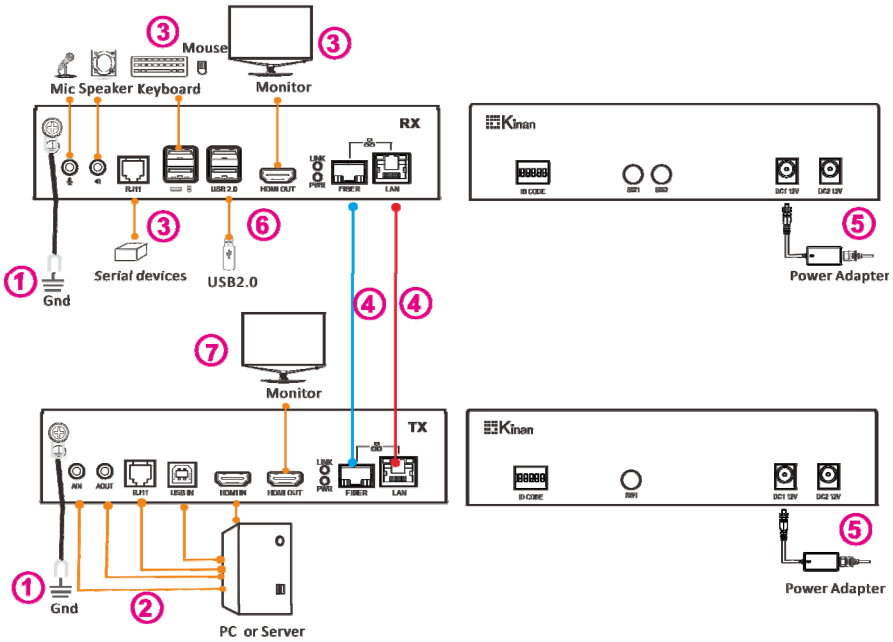
NO.	Part		Function Description
1	ID CODE		Dip switch for point-to-point dip connection
2	SW1,SW2		Buttons
3	DC1 12V, DC2 12V		12V power supply connectors
4	⏚		For equipment grounding
5	🎤		MIC input
6	🔊		Audio Output
7	RJ11		Serial Port
8	⌨ 🖱		Connect USB keyboard and mouse
9	USB2.0		Connect USB2.0 peripherals
10	HDMI OUT		HDMI video signal output
11	LED	LINK	Connection Instructions
		PWR	Power indicator
12	FIBER		Optical network interface
13	LAN		LAN network interface

KFH168S_TX



NO.	Part		Function Description
1	ID CODE		Dip switch for point-to-point dip connection
2	SW1		Buttons
3	DC1 12V, DC2 12V		12V power supply connector
4	⏚		For equipment grounding
5	AIN		Audio Input
6	AOUT		MIC output
7	RJ11		Serial Port
8	USB IN		Connect to host or server
9	HDMI IN		HDMI video signal input
10	HDMI OUT		HDMI video signal output
11	LED	LINK	Connection Instructions
		PWR	Power indicator
12	FIBER		Optical network interface
13	LAN		LAN network interface

Connection Diagram



1. Before connecting the cables, ground the transmitter (TX) and receiver (RX) (see Figure ①)
2. The transmitter (TX) is connected to video interface, USB interface, audio microphone interface, and serial port interface of the PC (Figure ②).
3. The receiver (RX) connects to the keyboard, mouse, monitor, audio, and serial port devices (Figure ③).
4. Connect the transmitter (TX) and receiver (RX) interfaces respectively through optical fiber or network cable (Figure ④)
   Note that the ID CODE switch keys on TX and RX must be in the same section.
5. Connect the power cords to the transmitter and receiver respectively (Figure ⑤)
6. Connect the USB peripheral to the receiving end (RX) (Figure ⑥)
7. If TX needs an external monitor (Figure ⑦)

Specifications

Function		KFH168S_TX	KFH168S_RX
Interfaces	HDMI in	1	NA
	HDMI out	1	1
	Power	12V	12V
	SFP	SFP x 1	SFP x 1
	Microphone	3.5mm Stereo Jack (Pink)	3.5mm Stereo Jack (Pink)
	Speaker	3.5mm Stereo Jack (Green)	3.5mm Stereo Jack (Green)
	LAN	RJ45	RJ45
	USB Type B	1	N/A
	USB 2.0	N/A	USB x 4
Resolution		3840x2160@30Hz	
Connection Cable		Fiber optical cable or Cat5/6 cable	
Power Input		DC12V /2A	DC12V / 2A
Power Consumption		5W	5W
Operating Temperature		0–50 ℃	
Storage Temperature		-20–60 ℃	
Humidity		0–80% RH, Non-condensing	
Material		Metal	
Net Weight (kg)		0.81kg	0.81kg
Product Dimension (W × D × H)		189 mm×144 mm×44mm	
Package Dimension (W × D × H)		395 mm ×274 mm×110mm	