

IP KVM Matrix Extender (KFH251S)



Introduction

The KFH251S IP KVM matrix extenders are highly optimized KVM extenders. The point-to-point connection supports transmission distance of 120m, and resolution up to 3840x2160@30Hz. 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 KFH251S matrix extender is a perfect combination of high-quality image and low latency (<16ms). 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.

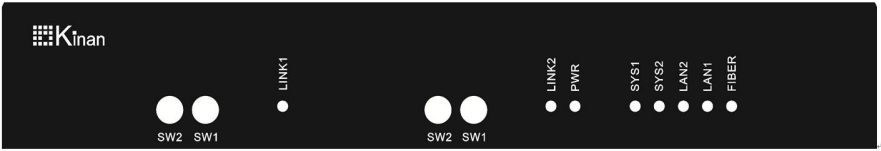
The product may only be used according to the instructions as described in this manual. All use, other than that described in this manual, is seen as unintended use. In this product, the product connected to the host end is called the transmitter (TX), and the product connected to the display end is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





Feature

- HDMI / USB2.0/Audio/Rs232 - IP KVM Matrix Extender
- 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@30Hz
- USB transmission rate up to 12MB/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

Product Overview


KFH251S receiver (RX)



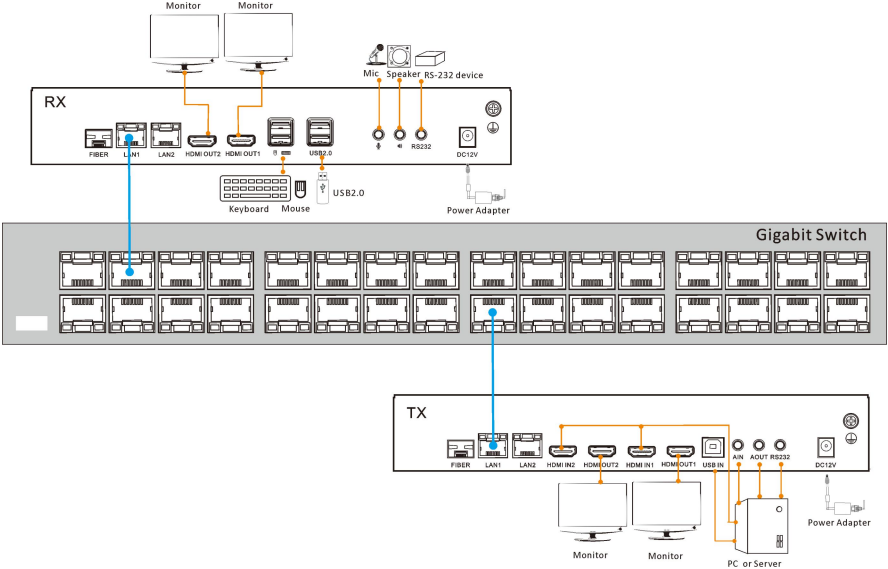
No	Name	Function
1	FIBER	Fiber interface
2	LAN1	LAN1 interface
3	LAN2	LAN2 interface
4	HDMI OUT2	HDMI2 video output
5	HDMI OUT1	HDMI1 video output
6		Connect to a USB keyboard and mouse
7	USB2.0	Connect to USB2.0 peripherals
8		MIC input
9		Audio output
10	RS232	Serial Port
11	DC12V	Connect to the 12V power supply
12		Ground the device

KFH251S sender (TX)



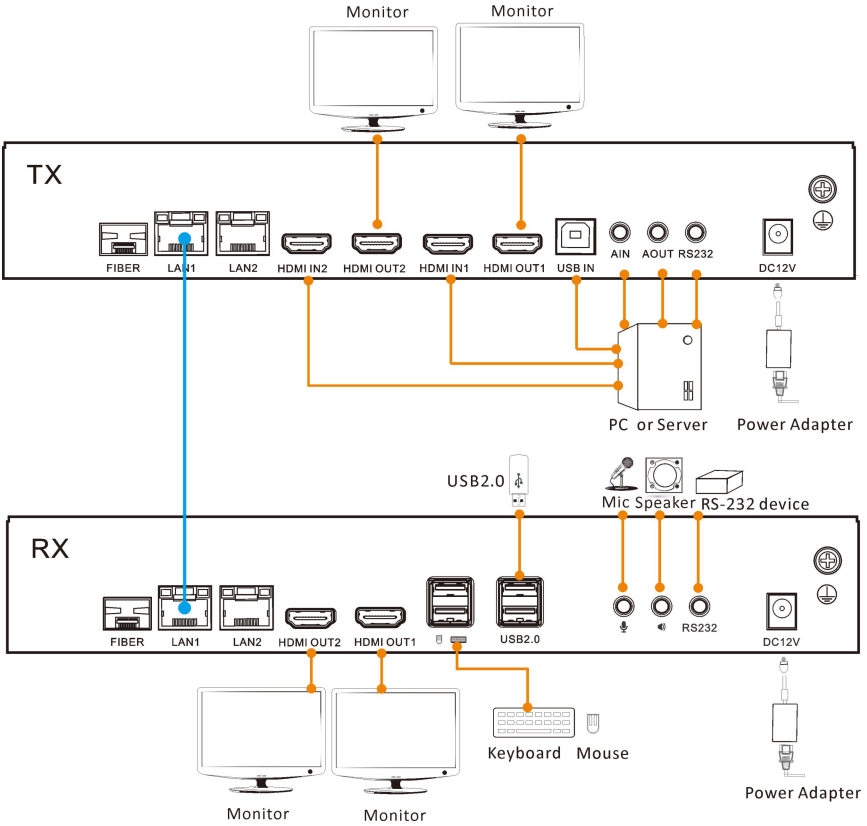
No	Name	Function
1	FIBER	Fiber interface
2	LAN1	LAN1 interface
3	LAN2	LAN2 interface
4	HDMI IN2	HDMI2 video input
5	HDMI OUT2	HDMI2 video loop out
6	HDMI IN1	HDMI1 video input
7	HDMI OUT1	HDMI1 video loop out
8	USB IN	USB Type-B, connect PC or server
9	AIN	Audio input
10	AOUT	MIC output
11	RS232	Serial port
12	DC12V	Connect to the 12V power supply
13		Ground the device

Matrix Connection Diagram

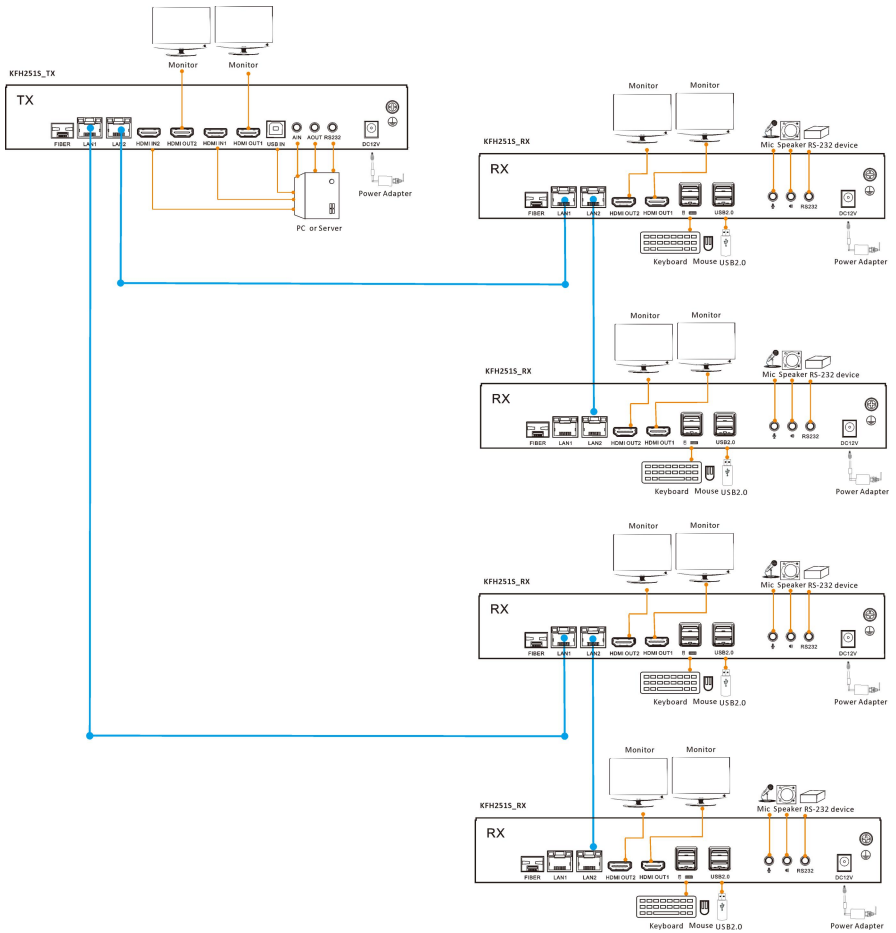


Configuration requirements: The electrical port of the network switch must reach a gigabit rate and support IGMP multicast.

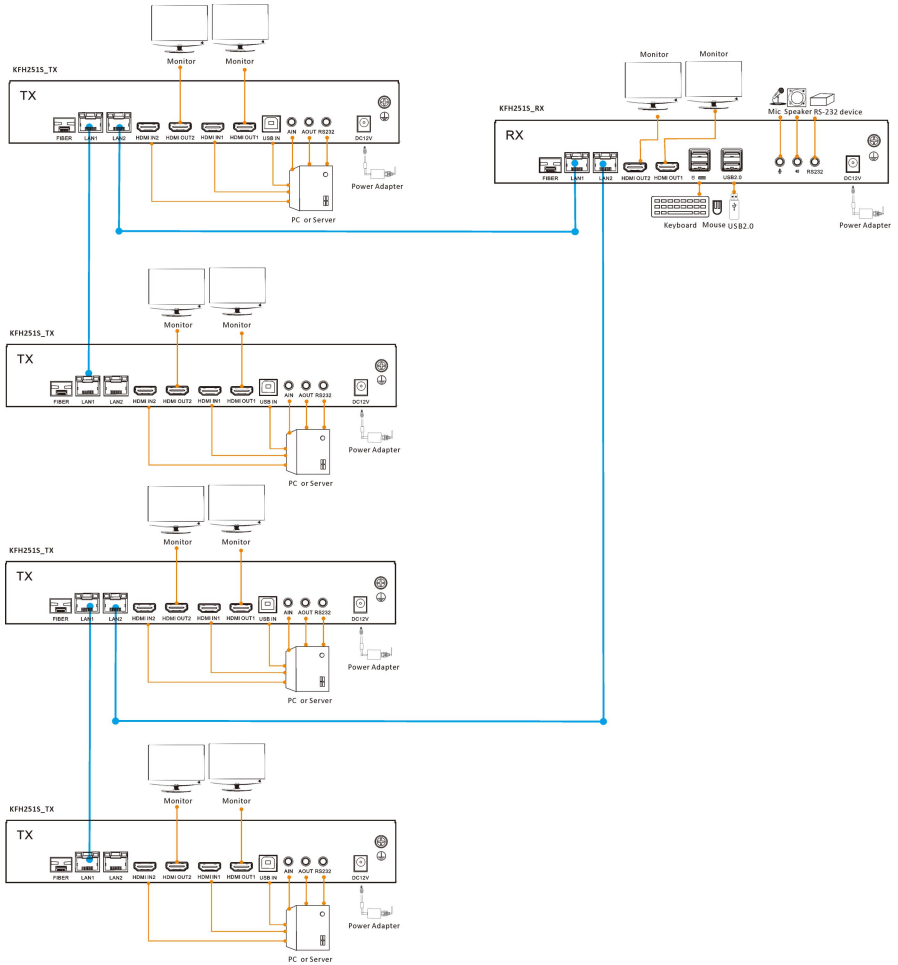
One to One Connection Diagram



One to Many Connection Diagram



Many to One Connection Diagram



Specifications

Model		KFH251S_TX	KFH251S_RX
Connections	HDMI input	2	N/A
	HDMI output	2	2
	Power	12V	12V
	LAN port	RJ45 x 2	RJ45 x 2
	Optical Module	SFP+ x 1	SFP+ x 1
	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 2.0	N/A	USB x 4
Resolution		3840x2160@30Hz	
Cable		CAT5e/6/7 or Optical Fiber Cable	
I/R value		DC12V / 2A	DC12V / 2A
Power consumption		12W	12W
Operating temperature		0—50 °C	
Storage temperature		-20—60 °C	
Humidity		0—80% RH, non-condensing	
Material		Metal	
Net weight(kg)		1 kg	1kg
Product dimension (W × D × H)		272 mm x 115.5 mm x 44mm	
Package dimension (W × D × H)		395 mm x 274 mm x 110mm	