IP KVM Matrix Extender
(KFH151S)

Introduction

The KFH151S 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 KFH151S 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).

Product Features

- HDMI / USB2.0/Audio/Rs232 - IP KVM Matrix Extender
- 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

KFH151S sender (TX)
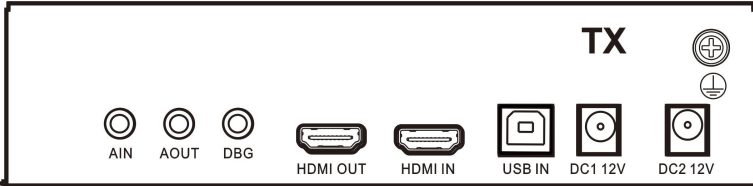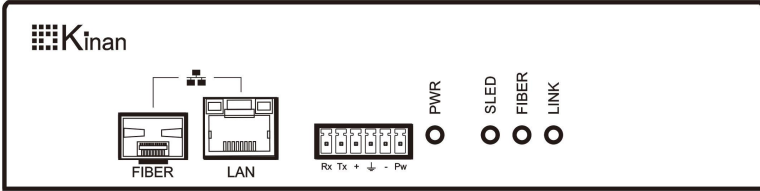
No.	Components		Description
1	FIBER		Fiber interface
2	LAN		LAN interface
3	Rx Tx + ⏚ - Pw		Serial Port
4	LED	PWR	Power indicator
		SLED	System indicator
		FIBER	Connection indicator of FIBER
		LINK	Connection indicator
5	AIN		Audio input
6	AOUT		MIC output
7	DBG		Debug interface
8	HDMI OUT		HDMI video loop out
9	HDMI IN		HDMI video input
10	USB IN		USB-B, connect to PC or server
11	DC1, DC2		Connect to the 12V power supply
12	⏚		Ground the device

KFH151S receiver (RX)
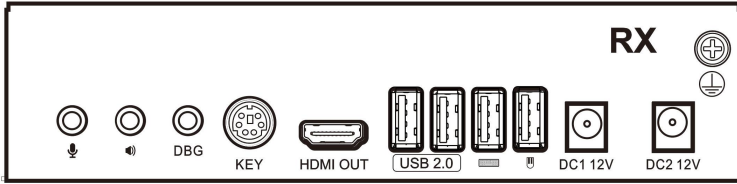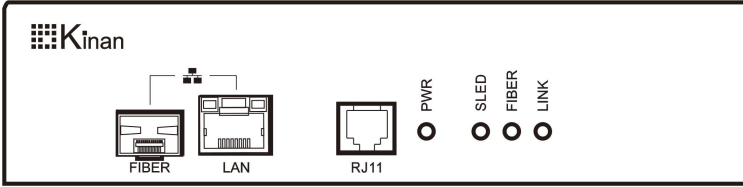
No.	Components		Description
1	FIBER		Connection indicator
2	LAN		Power indicator
3	RJ11		Serial Port
4	LED	PWR	Power indicator
		SLED	System indicator
		FIBER	Connection indicator of FIBER
		LINK	Connection indicator
5	🎤		MIC input
6	🔊		Audio output
7	DBG		Debug interface
8	KEY		Reserved interfaces
9	HDMI OUT		HDMI video output
10	USB2.0		Connect to USB2.0 peripherals
11	⌨		Connect to a USB keyboard
12	🖱		Connect to a USB mouse
13	DC1, DC2		Connect to the 12V power supply
14	⏚		Ground the device

Connection Diagram
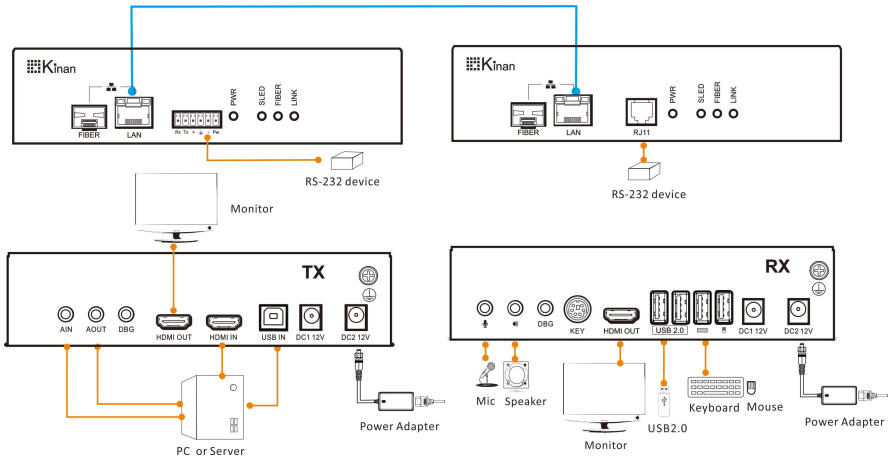
Matrix Connection Diagram
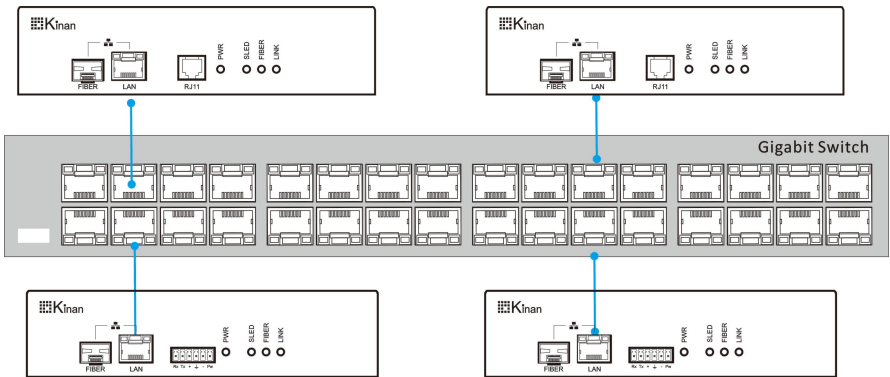
Specifications

Specifications		KFH151S _TX	KFH151S_RX
Connections	HDMI input	1	N/A
	HDMI output	1	1
	Power	12V	12V
	LAN port	RJ45 x 1	RJ45 x 1
	Optical Module	SFP+ x 1	SFP+ x 1
	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	N/A	USB x 4
Resolution		3840x2160@30Hz	
Cable		CAT5e/6/7 or Optical Fiber Cable	
I/R Value		DC12V / 3A	DC12V / 3A
Power consumption		6W	6W
Operating temperature		0—50 ℃	
Storage temperature		-20—60 ℃	
Humidity		0—80% RH, non-condensing	
Material		Metal	
Net weight(kg)		0.7 kg	0.7kg
Product dimension (W × D × H)		180mm x 123.5 mm x 44mm	
Package dimension (W × D × H)		243mmx 209mm x 98mm	243mmx 209mm x 98mm