

# 4K HDMI KVM over IP Extender

## KE8950 / KE8952

ATEN is well known for delivering innovative technologies that drive connectivity and access management solutions. As such, we introduce the new ATEN KE8950 / KE8952 4K HDMI KVM over IP Extender that brings together a unique blend of features and new technologies that offer the ultimate solution for extending computers to consoles on or off your IT infrastructure.

Utilizing expertise in over IP KVM solutions, KE8950 and KE8952 are IP-based HDMI KVM extenders that allow access to a computer system from a remote USB console to anywhere over an intranet. The KE8950 and KE8952 KVM over IP Extenders support one HDMI monitor at each end, providing a greatly improved video display image with 4K x 2K video resolution (up to 3840 x 2160). KE8950 and KE8952 also support 1Gbps SFP fiber module expansions, enabling connections via fiber optic network to extend distances in transmission. Furthermore, the KE8952 features Power over Ethernet (PoE) function, and its power can be supplied through a PoE Network Switch; therefore, eliminating the need for a power adapter and effectively reduces the power configuration cost.

The 4K HDMI KVM over IP Extender consists of a Transmitter unit that connects to the computer and a Receiver unit that provides console access from a separate location. The computer is accessed from the remote console over a standard TCP / IP network via Cat 5e / 6 cable that allows point-to-point, point-to-multipoint, multipoint-to-point, and multipoint-to-multipoint administration. KE8950 and KE8952 can be connected either directly to each other or via a high-speed network, over a copper-based or fiber-based LAN.

Implementing the KVM over IP Matrix Manager (CCKM) with KE8950 / KE8952, IT administrators receive advanced features functioning as auto detection of all KE Series Extenders on the same subnet for the sake of fast installation or configuration, username / password authentication and authorization, and the ability to define different types of connections that can be switched and shared. Security features also provide extra protection, supporting AES encryption for secured data transmissions, while RADIUS, LDAP, AD or remote user authentication provides an added layer of connection security; moreover, with an OSD, RS-232 support, and Auto MDIX, the KE series is the most cost-effective and convenient way to get a full digital extension from anywhere on the intranet.

More flexible and efficient operations can be achieved in the KVM over IP Matrix System, which integrates KE Series Extenders with the KVM over IP Matrix Manager (CCKM), such as multi-display setups, video grouping, video profile scheduling and enhancements that give greater access to quick and easy control tools to configure KE devices over a network. Whether you're configuring, monitoring, administering, controlling or extending computer access, the KVM over IP Matrix System is made adaptable, to fit an endless variety of working environments and workstation settings, as well as to provide solutions in broadcasting, control center, multimedia, manufacturing and many other industries where matrix extending is required.

Front View



Front View



KE8950T / KE8952T Rear View



KE8950R / KE8952R Rear View



## Features

### Advanced Features\*

- KE Link app — allows you to instantly link Transmitters and Receivers, and perform real-time port and profile switching on an iPad
- Boundless Switching — simply move the mouse cursor across screen boundaries to switch between different Receivers (Rx)
- Fast Switching — switch between different remote video resolutions on a local display within 0.3 seconds
- Unlimited Video Walls — creates multiple video walls with up to 8 x 8 (64 displays max.) in each layout
- Advanced Scheduling — improves efficiency and saves costs by allowing media playback to be set based on time and date
- Channel connections allow Rx devices to connect to multiple Tx devices — to stream video, audio, USB and serial sources independently
- Supports both internal and external authentication — external authentication supports LDAP, Active Directory, RADIUS and TACACS+
- Advanced User Authorization Settings — administrators can set four access modes of permissions on Tx devices for collaboration or to avoid interference among users
- Configurable user and group permissions for access and control of KE devices
- Supports industry standard Transport Layer Security (TLS) protocol
- Video grouping of up to 4 sets of KE series devices to support Multi-Display applications

\* These advanced functions are supported when the KE devices are managed by KVM over IP Matrix Manager (CCKM)

## Hardware

- Ultra High Definition (UHD) video quality — up to 3840 x 2160 @ 60Hz (4:2:0), 3840 x 2160 @ 30 Hz (4:4:4); 24-bit color depth
- Supports standard HDMI resolutions from 640 x 480 up to 3840 x 2160 @ 60Hz (4:2:0), 3840 x 2160 @ 30 Hz (4:4:4); 24-bit color depth
- Supports interlaced video (1080i)
- Supports stereo speakers and stereo microphone
- High speed USB Storage Transmission support
- Compliant with HDMI and HDCP 1.4
- Auto-MDIX — automatically detects cable type
- Built-in 8KV / 15KV ESD protection and 1KV surge protection
- Fanless design for silent operations that are energy efficient
- Hot pluggable
- Upgradeable firmware
- Rack Mountable — Mounting options:
  - 2X-021G Dual Rack Mount Kit
  - 2X-031G Single Rack Mount Kit
- Supports connection via Gigabit Ethernet port
- Supports SFP module
- Supports Power over Ethernet (PoE) function — compliant with the IEEE 802.3at standard (KE8952 only)
- An industrial-grade power adapter included — supports operating temperature of 0°C~ 50°C to ensure durability and adaptability under harsh environmental conditions (KE8950 only)

## Management

- Remotely access computers on user's KVM installation via intranet
- Dual console operation — controls user's system from both the Transmitter's and Receiver's keyboard, monitor, and mouse consoles
- OSD (On Screen Display) on the Receiver configures both units
- Supports GUI operation
- EDID Expert™ — selects optimum EDID settings to prevent video compatibility issue caused by different monitors
- On-screen Preview — allows users to view the video of up to 36 displays on one screen
- Command Line Interface — administrators can control all KE devices via RS-232 or TCP / IP using a CLI or 3rd party application
- RS-232 serial ports — allows you to connect to a serial terminal for configuration, and serial devices such as touchscreens and barcode scanners
- Flashing LED and beeping features help locate and identify devices

## Security

- Dedicated LAN port for KE direct connections — can be isolated from the corporate network
- Secure data transmission — 128-bit AES encryption to secure all data before it's transmitted over a network and decrypts the data on the receiver
- Remote login security

## Virtual Media

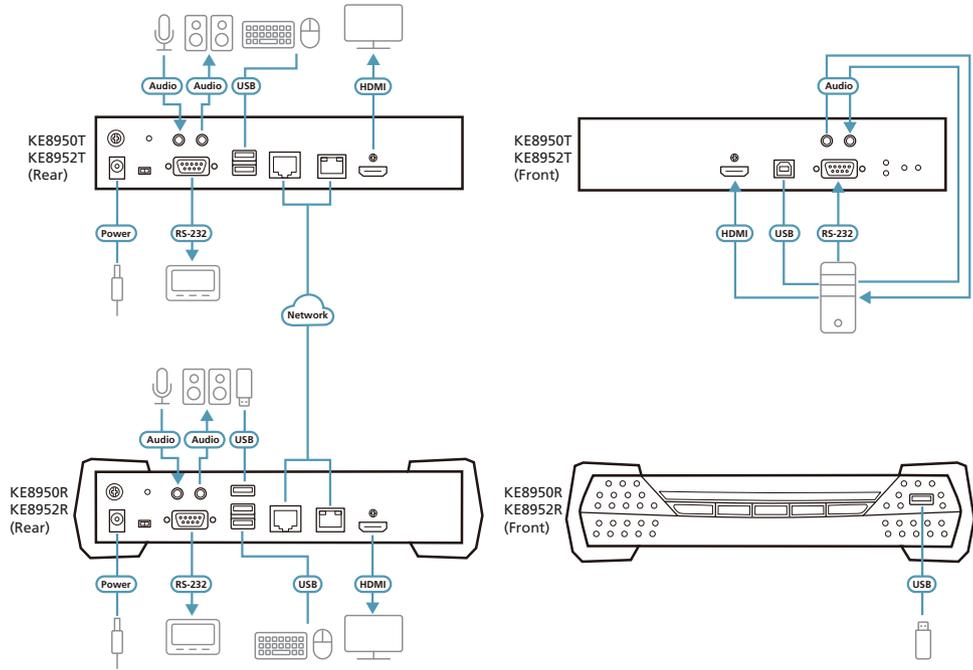
- USB Storage Transmission mode enhances data transmission performance, ideally for file transfers, OS patching, software installations and diagnostic testing
- Supports USB 2.0 DVD / CD drives, USB mass storage devices, PC hard drives and ISO images
- Supports Smart Card / CAC Reader

## Highlights

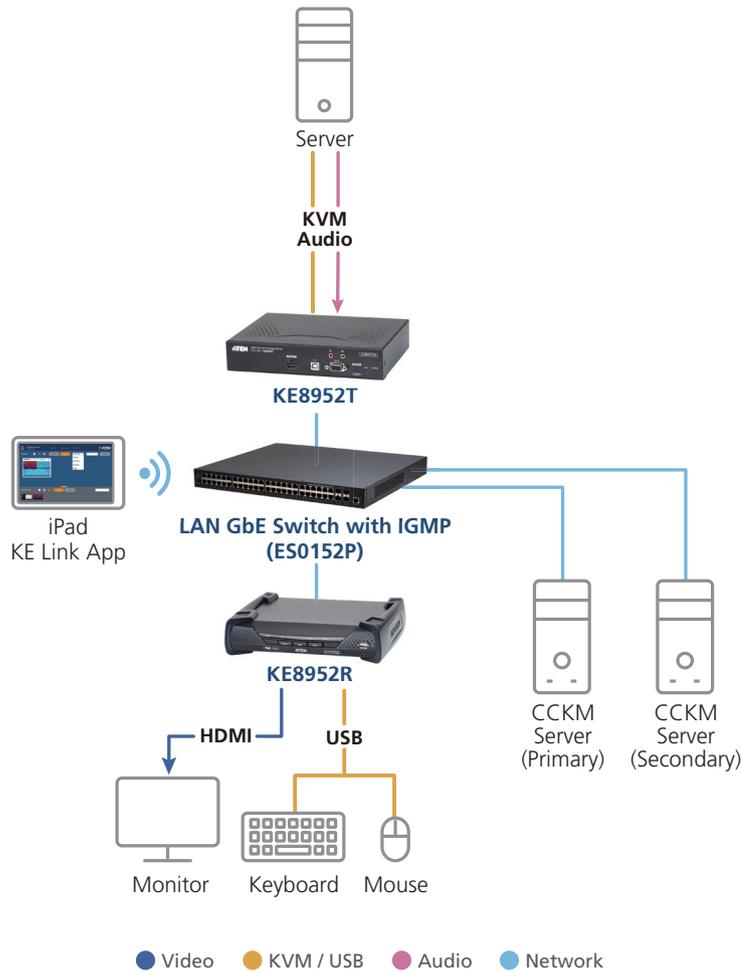
<b>Over IP</b>	<p>KE8950 / KE8952 extends a computer's KVM console any distance over a LAN by connecting the Tx and Rx units to the network. It also extends a computer's KVM console up to 100 meters by directly connecting the Tx and Rx units with a single Cat 5e 6 cable.</p>
<b>SFP Module</b>	<p>KE8950 / KE8952 supports 1Gbps SFP fiber module expansions, enabling connections with network switch which allow inserting either an optical Fiber Channel SFP module or Active Copper SFP module. The single-mode SFP module provides 1GbE connectivity up to 10 kilometers while the multi-mode SFP module provides 1GbE connectivity up to 550 meters.*</p>
<b>Unprecedented Video Quality</b>	<p>ATEN's advanced graphics processor delivers video that ensures users to experience the same vivid and sharp image quality on the remote monitor no matter how far away the console is located. Remarkably, KE8950 / KE8952 offers Ultra High Definition (UHD) video quality — up to 3840 x 2160 @ 60Hz (4:2:0), 3840 x 2160 @ 30 Hz (4:4:4); 24-bit color depth.</p>
<b>Flexibility</b>	<p>KE8950 / KE8952 allows users to access, share, and switch full control of Tx connected computers - from any Rx (KVM console) on the network. Flexibly allows One-to-One, One-to-Many, Many-to-One, or Many-to-Many computer to KVM console connections.</p>
<b>Advanced Management System</b>	<p>The KVM over IP Matrix Manager (CCKM) allows users to easily administer all KE8950 / KE8952 devices over a network, using an intuitive user-friendly web based GUI.</p>
<b>Fast Switching</b>	<p>Fast switching feature allows switching between the Tx devices within 0.3 second. Users can operate keyboard / mouse immediately without waiting for the process of USB enumeration. This is ideally for control center application, which has strong demand for the seamless operation.</p>

\* The SFP module is sold separately. Contact your ATEN dealer for product information.

**KE8950 / KE8952 Diagram**



**Reference Installation Diagram**



## Specifications

		KE8950T	KE8952T	KE8950R	KE8952R	
Connectors	USB Storage Transmission	N/A		2 x USB Type-A Female (White)		
	Console Ports	Keyboard	1 x USB Type-A Female (White)			
		Mouse	1 x USB Type-A Female (White)			
		Video	1 x HDMI Female (Black)			
		Speaker	1 x Mini Stereo Jack Female (Green)			
		MIC	1 x Mini Stereo Jack Female (Pink)			
		RS-232	1 x DB-9 Male (Black)			
	KVM Ports	Keyboard / Mouse	1 x USB Type-B Female (White)		N/A	
		Video	1 x HDMI Female (Black)		N/A	
		Speaker	1 x Mini Stereo Jack Female (Green)		N/A	
		MIC	1 x Mini Stereo Jack Female (Pink)		N/A	
		RS-232	1 x DB-9 Female (Black)		N/A	
	Power	1 x DC Jack (Black)				
	LAN		1 x RJ45 Female (Black)	1 x RJ45 Female (Black, PoE)	1 x RJ45 Female (Black)	1 x RJ45 Female (Black, PoE)
			1 x SFP slot			
LEDs	LAN Status	1 (Orange / Green)				
	Power	1 (Blue)				
	Local	1 (Green)				
	Remote	1 (Green)				
Switches	OSD Mode	1 x Pushbutton				
	Video Mode	1 x Pushbutton				
	Graphics Mode	1 x Pushbutton				
	RS-232 Function Selection	1 x Slide Switch				
	Reset	1 x Semi-recessed Pushbutton				
Emulation	Keyboard / Mouse	USB				
Power Consumption		DC5V:6.56W:35BTU	DC48V:9.02W:47BTU	DC5V:5.65W:52BTU	DC48V:7.06W:59BTU	
Video Resolution		Up to 3840 x 2160 @ 60Hz				
Environmental	Operating Temperature	0 - 50 °C				
	Storage Temperature	-20 - 60 °C				
	Humidity	0 - 95% RH, Non-condensing				
Physical Properties	Housing	Metal				
	Weight	1.10 kg	1.13 kg	1.23 kg	1.26 kg	
	Dimensions (L x W x H)	21.50 x 16.29 x 4.18 cm	21.50 x 16.29 x 4.18 cm	22.75 x 17.16 x 5.48 cm	22.75 x 17.16 x 5.48 cm	

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