

## KE8950R

4K HDMI Single Display KVM over IP Receiver – TAA



ATEN is well known for delivering innovative technologies that drive connectivity and access management solutions. As such, we introduce the new ATEN [KE8950](#) 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](#) 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](#) 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](#) also support 1Gbps SFP fiber module expansions, enabling connections via fiber optic network to extend distances in transmission.

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](#) 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](#), 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.

Note: Refer to [www.aten.com](http://www.aten.com) for more about the KE Series extenders. For the latest list of compatible network switches, please visit: [ATEN Support Center](#) for more information.



## Features

### • Advanced Features<sup>1</sup>

- **ATEN Matrix Link** – allows users instant 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
- **"Push" and "Pull"** – shares content instantly to / from a single Rx or video wall by just one click
- **Video Walls** – create multiple video walls with up to 12 x 12 (144 displays max.) in each layout
- **Flexible connections** – allows multiple extender and matrix connections for multi-display installations and video wall applications
- **On-screen Preview (Panel Array™ Mode)** – allow users to view the video of up to 36 displays on one screen
- **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
- **Virtual transmitter** – independently streams video, audio, USB, and serial sources from different Tx
- **Internal and external authentication support** – supports LDAP, Active Directory, RADIUS and TACACS+ external authentications
- **Advanced User Authorization Settings** – administrators can set four access modes of permissions on TX devices for collaboration or to avoid interference among users
- **Video grouping** of up to 4 sets of KE series devices to support Multi-Display applications
- **Configurable user and group permissions** for access and control of KVM over IP extenders
- **Rx access control** – users at the Tx local console can enable / disable Rx access by simply pressing a control button <sup>2</sup>

Note:

1. These advanced functions are supported when the KE transmitters are paired with KE receivers and managed by [CCKM](#).
2. The KVM over IP Access Control Box ([2XRT-0015G](#)) is sold separately. Contact your ATEN dealer for product information.

### • Hardware

- The housing meets IEC 60945 standards for maritime control room use and has passed environmental tests
- **Network failover** – 1 RJ-45 & 1 SFP fiber ports for network failover to ensure constant availability for mission-critical applications
- **Supports 1Gbps SFP fiber module expansions** up to 10 km<sup>1</sup>
- **Advance processor** provides lossless and zero latency video transmissions up to 3840 x 2160 @ 60 Hz (4:2:0), 3840 x 2160 @ 30 Hz (4:4:4); 8-bit RGB (24-bit total color)
- **Support 32:9 ultra-wide resolution**
- **Audio Enabled** – supports stereo speakers and microphone
- **High speed USB Storage Transmission support**
- **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
- **Rack Mountable** – Mounting options:
  - [2X-021G](#) Dual Rack Mount Kit
  - [2X-031G](#) Single Rack Mount Kit
- Includes an industrial-grade power adapter – supports operating temperature of 0°C- 50°C to ensure durability and adaptability under harsh environmental conditions

Note:

1. The SFP module ([2A-136G](#) / [2A-137G](#)) is sold separately. Contact your ATEN dealer for product information.

### • Management

- **Centralized management software** – KVM over IP Matrix Manager ([CCKM](#)) allows users to easily administrator all KE devices with an intuitive web-based GUI
- **Dual console operation** – controls the 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
- **EDID Expert™** – selects optimum EDID settings for smooth power-up and highest quality display
- **Four selectable access modes** for multiple simultaneous access(Exclusive/Occupy/Share/ View only mode) – administrators can select access modes of permissions on Tx devices to boost collaboration or to avoid interference among users
- **Command line interface** – administrators can control all KVM over IP extenders via RS-232 or TCP/IP using a CLI or 3rd party application
- **RS-232 serial ports** – allow users to connect to a serial terminal for TextMenu, CLI, or serial devices such as touch screens and barcode scanners
- **Supports Hotkey Commands**
- **Flashing LED and beeping features** help locate and identify devices
- **Video Compression Level** – allow users to increase / decrease the video quality to adjust for appropriate network bandwidth
- **Compatible with all KE devices**

### • Security

- **Dedicated LAN port** for KE direct connections – can be isolated from the corporate network
- **Secure data transmission** – AES 128-bit encryption to secure all data before transmitted over a network and decrypts the data on the receiver
- **Supports industry standard Transport Layer Security (TLS) protocol**

### • 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**

# Specification

|                        |                                                                                                                                                                                                                                                    |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Connectors             |                                                                                                                                                                                                                                                    |
| USB Port               | 2 x USB Type A Female (White)                                                                                                                                                                                                                      |
| Console Ports          | 2 x USB Type A Female (White)<br>1 x HDMI Female (Black)<br>1 x Mini Stereo Jack (Green)<br>1 x Mini Stereo Jack (Pink)<br>1 x DB-9 Male (Black)                                                                                                   |
| KVM Ports              | N/A                                                                                                                                                                                                                                                |
| Power                  | 1 x DC Jack (Black)                                                                                                                                                                                                                                |
| LAN Ports              | 1 x RJ-45 (Black)<br>1 x SFP Slot                                                                                                                                                                                                                  |
| Switches               |                                                                                                                                                                                                                                                    |
| OSD                    | 1 x Pushbutton                                                                                                                                                                                                                                     |
| Video                  | 1 x Pushbutton                                                                                                                                                                                                                                     |
| Graphics               | 1 x Pushbutton                                                                                                                                                                                                                                     |
| Reset                  | 1 x Semi-recessed Pushbutton                                                                                                                                                                                                                       |
| LEDs                   |                                                                                                                                                                                                                                                    |
| 10/100/1000 Mbps       | 1 (10: Orange / 100: Orange & Green / 1000: Green)                                                                                                                                                                                                 |
| Power                  | 1 (Blue)                                                                                                                                                                                                                                           |
| Local                  | 1 (Green)                                                                                                                                                                                                                                          |
| Remote                 | 1 (Green)                                                                                                                                                                                                                                          |
| Emulation              |                                                                                                                                                                                                                                                    |
| Keyboard / Mouse       | USB                                                                                                                                                                                                                                                |
| Power Consumption      | DC5V:5.65W:52BTU/h<br><br>Note:<br>● The measurement in Watts indicates the typical power consumption of the device with no external loading.<br>● The measurement in BTU/h indicates the power consumption of the device when it is fully loaded. |
| Video Resolution       | 3840 x 2160 @ 60Hz (4:2:0), 3840 x 2160 @ 30 Hz (4:4:4)                                                                                                                                                                                            |
| Latency                | < 5ms                                                                                                                                                                                                                                              |
| Environmental          |                                                                                                                                                                                                                                                    |
| Operating Temperature  | 0–50°C                                                                                                                                                                                                                                             |
| Storage Temperature    | -20–60°C                                                                                                                                                                                                                                           |
| Humidity               | 0–95% RH, Non-condensing                                                                                                                                                                                                                           |
| Physical Properties    |                                                                                                                                                                                                                                                    |
| Housing                | Metal                                                                                                                                                                                                                                              |
| Weight                 | 1.23 kg ( 2.71 lb )                                                                                                                                                                                                                                |
| Dimensions (L x W x H) | 22.75 x 17.16 x 5.48 cm<br>(8.96 x 6.76 x 2.16 in.)                                                                                                                                                                                                |
| Note                   | For some of rack mount products, please note that the standard physical dimensions of WxDxH are expressed using a LxWxH format.                                                                                                                    |

# Diagram

## Diagram

KE8950T  
Rear View



