

## KE9950

4K DisplayPort Single Display KVM over IP Extender



The KE9950 4K DisplayPort Single Display KVM over IP Extender consists of a high performance IP-based transmitter KE9950T that connects to the computer and receiver KE9950R that provides console access from a separate location. The KE9950 allows access to a computer system from a remote USB console (USB keyboard, USB mouse, DisplayPort monitor) over an intranet, enabling users to locate computers in a secure and temperature controlled environment, which is isolated from users' workstation.

The KE9950 supports one DisplayPort display at each end, providing video resolutions up to 3840 x 2160 @30Hz (4:4:4) as well as flawless and lossless video compression quality with minimal latency.

The KE9950 supports connections via an RJ-45 port or a SFP slot, as well as provides dual power supplies for redundancy. The transmitter and receiver can be connected either directly to each other or via a high-speed network, over a copper-based or fiber-based LAN, ensuring 24/7 availability of remote access to servers. To connect via the SFP slot, the extender supports 1Gbps SFP fiber module\* expansions, enabling connections via fiber optic network to extend transmission distances up to 10km.

The KE9950 can be set on a desk, mounted on a wall or at the rear of a rack with its space-saving 0U rack-mount design. As an IP-based matrix extender, the KE9950 can be used as a point-to-point / point-to-multipoint / multipoint-to-point / multipoint-to-multipoint extender, or integrated into a KVM over IP Matrix System (multipoint-to-multipoint) when combined with the KVM over IP Matrix Manager ([CCKM](#)), providing more flexible applications in different working environments.

When integrated with the KVM over IP Matrix Manager ([CCKM](#)), the KE9950 supports more advanced features such as boundless switching, "Push" and "Pull", video wall and multi-display setups, and profile scheduling that provide uninterrupted access with quick and easy control tools to use the KE9950 over a network.

More functions include auto detection of all KE Series extenders\*\* in 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 KE9950 is the most cost-effective and convenient way to get a full digital extension from anywhere on the intranet.

Whether you're monitoring, operating, 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, to provide solutions in traffic management centers, retail surveillance centers, facility situation rooms, command control centers, utilities process control centers, broadcasting distribution monitoring systems, network operations centers (NOC), and many other industries where matrix extending is required.

### Note:

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

\*\*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\*

- [ATEN Matrix Link](#) – allows you 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)
- "Push" and "Pull" – share content instantly to/from a single Rx or video wall by just one click
- Video Walls – create multiple video walls with up to 8 x 8 (64 displays max.) in each layout
- Advanced Scheduling – improves efficiency and saves costs by allowing connections to be set based on time and date
- Virtual Transmitter – independently streams video, audio, USB, and serial sources from different Tx
- Support 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
- Tx grouping of up to 4 sets of KE transmitters to support multi-display applications
- Rx access control – users at the Tx local console can enable / disable Rx access by simply pressing a control button\*\*
- \* These advanced functions are supported when the KE transmitters are paired with KE receivers and managed by KVM over IP Matrix Manager ([CCKM](#))
- \*\*The KVM over IP Access Control Box ([2XRT-0015G](#)) is sold separately. Contact your ATEN dealer for product information.

### Hardware

- Supports DisplayPort video resolutions up to 3840 x 2160 @ 30Hz (4:4:4) ; 24-bit color depth
- Supports digital video output
- Compliant with DP 1.2
- Supports stereo speakers and stereo microphone
- High speed USB Storage Transmission support
- Auto-MDIX – automatically detects cable type
- Built-in 8KV/15KV ESD protection and 2KV surge protection
- Fanless design for silent operations that are energy efficient
- Supports connection via Gigabit Ethernet port (RJ-45) or SFP port for failover
- Support 1Gbps SFP fiber module expansions\*\*\*up to 10 km
- Power Redundancy – Dual DC Jack
- Rack Mountable – Mounting options:
  - [2X-021G](#) Dual Rack Mount Kit
  - [2X-031G](#) Single Rack Mount Kit
- An industrial-grade power adapter included - supports operating temperature of 0°C – 50°C to ensure durability and adaptability under harsh environmental conditions
- \*\*\*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 your system from both the transmitter's and receiver's keyboard, monitor, and mouse consoles
- Local console for emergency operation
- OSD (On Screen Display) on the Receiver configures both Tx / Rx devices
- 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
- Video Compression Level – allows you to increase/decrease the video quality to adjust for appropriate network bandwidth
- CLI – administrators can control all KE devices via RS-232 or Telnet by issuing commands
- RS-232 serial ports – allow you to connect to a serial terminal for TextMenu, CLI, or serial devices such as touch screens and barcode scanners
- Compatible with all KE 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
- Supports industry standard Transport Layer Security (TLS) protocol

### Virtual Media

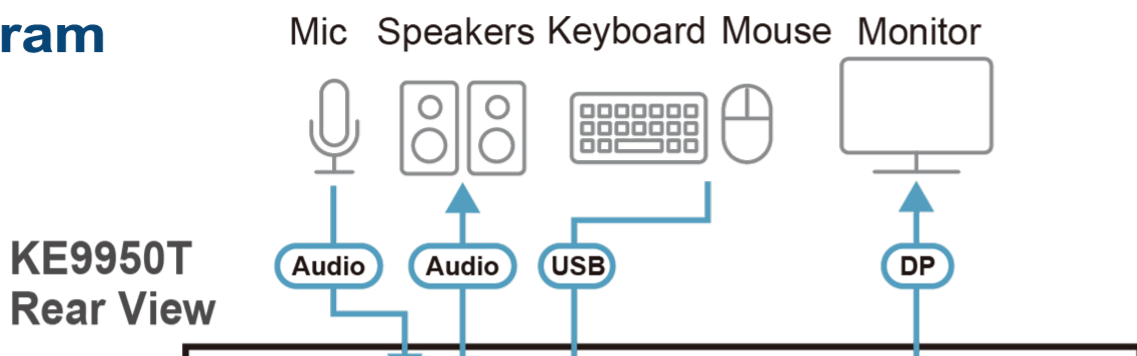
- USB Storage Transmission mode enhances data transmission performance, ideally for file transfers, OS patching, software installations and diagnostic testing
- Supports USB 2.0 DVD/CD drives, USB mass storage devices, PC hard drives and ISO images
- Supports Smart Card/CAC Reader

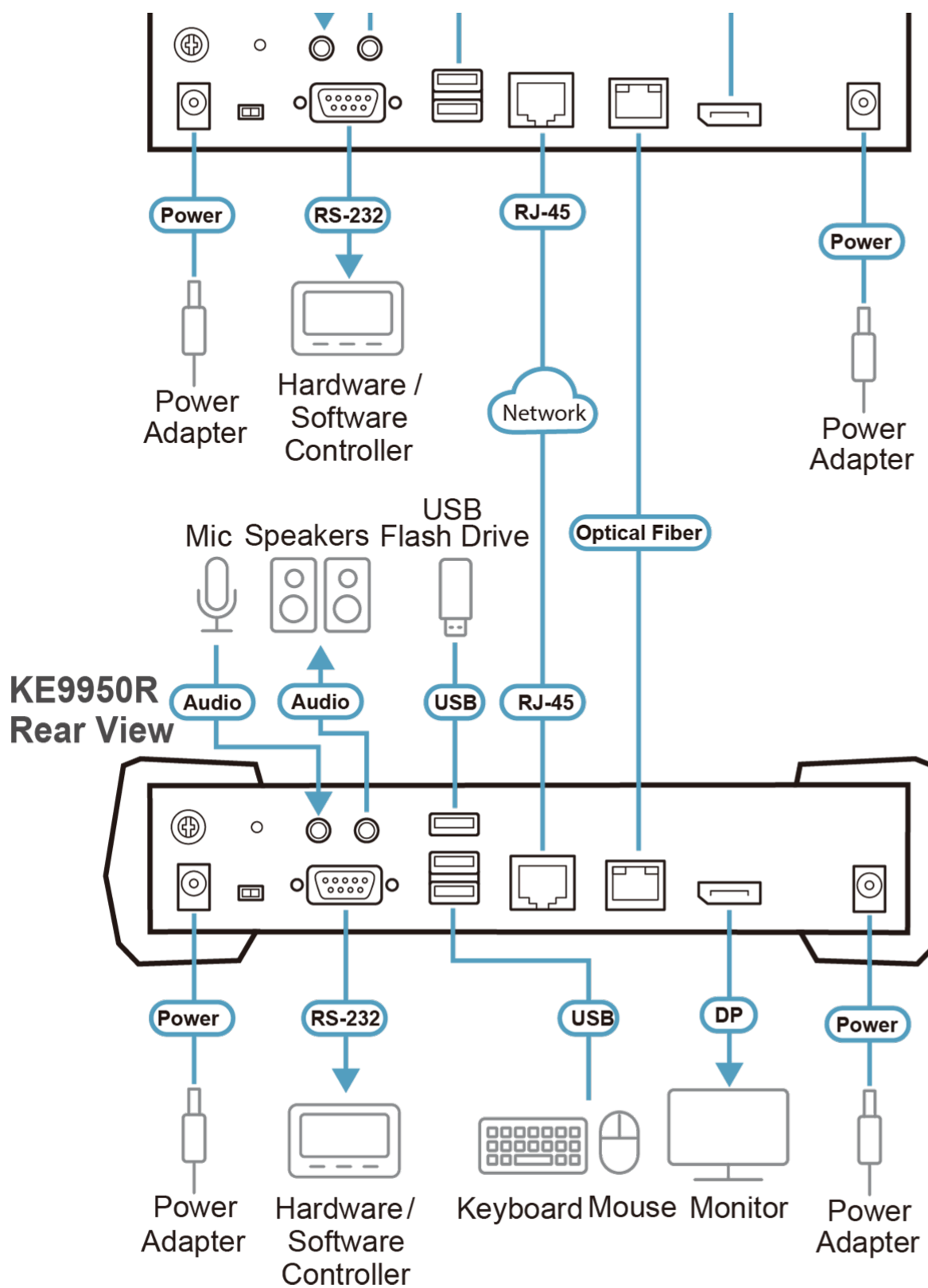
# Specification

| Function               | KE9950R                                                                                                                                                                                                                                          | KE9950T                                                                                                                                                                                                                                          |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Connectors             |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                  |
| USB Port               | 2 x USB Type A Female (White)                                                                                                                                                                                                                    | N/A                                                                                                                                                                                                                                              |
| Console Ports          | 2 x USB Type A Female (White)<br>1 x DisplayPort Female (Black)<br>1 x Mini Stereo Jack (Green)<br>1 x Mini Stereo Jack (Pink)<br>1 x DB-9 Male (Black)                                                                                          | 2 x USB Type A Female (White)<br>1 x DisplayPort 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                                                                                                                                                                                                                                              | 1 x USB Type B Female (White)<br>1 x DisplayPort Female (Black)<br>1 x Mini Stereo Jack (Green)<br>1 x Mini Stereo Jack (Pink)<br>1 x DB-9 Female (Black)                                                                                        |
| Power                  | 2 x DC Jack (Black)                                                                                                                                                                                                                              | 2 x DC Jack (Black)                                                                                                                                                                                                                              |
| LAN Ports              | 1 x RJ-45 (Black)<br>1 x SFP Slot                                                                                                                                                                                                                | 1 x RJ-45 (Black)<br>1 x SFP Slot                                                                                                                                                                                                                |
| Switches               |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                  |
| OSD                    | 1 x Pushbutton                                                                                                                                                                                                                                   | N/A                                                                                                                                                                                                                                              |
| Video                  | 1 x Pushbutton                                                                                                                                                                                                                                   | N/A                                                                                                                                                                                                                                              |
| Graphics               | 1 x Pushbutton                                                                                                                                                                                                                                   | N/A                                                                                                                                                                                                                                              |
| Reset                  | 1 x Semi-recessed Pushbutton                                                                                                                                                                                                                     | 1 x Semi-recessed Pushbutton                                                                                                                                                                                                                     |
| LEDs                   |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                  |
| 10/100/1000 Mbps       | 1 (10: Orange / 100: Orange & Green / 1000: Green)                                                                                                                                                                                               | 1 (10: Orange / 100: Orange & Green / 1000: Green)                                                                                                                                                                                               |
| Power                  | 1 (Blue)                                                                                                                                                                                                                                         | 1 (Blue)                                                                                                                                                                                                                                         |
| Local                  | 1 (Green)                                                                                                                                                                                                                                        | 1 (Green)                                                                                                                                                                                                                                        |
| Remote                 | 1 (Green)                                                                                                                                                                                                                                        | 1 (Green)                                                                                                                                                                                                                                        |
| Emulation              |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                  |
| Keyboard / Mouse       | USB                                                                                                                                                                                                                                              | USB                                                                                                                                                                                                                                              |
| Power Consumption      | DC5V:8.03W:63BTU<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. | DC5V:9.51W:49BTU<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       | Up to 3840 x 2160 @ 30Hz                                                                                                                                                                                                                         | Up to 3840 x 2160 @ 30Hz                                                                                                                                                                                                                         |
| Environmental          |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                  |
| Operating Temperature  | 0-50°C                                                                                                                                                                                                                                           | 0-50°C                                                                                                                                                                                                                                           |
| Storage Temperature    | -20-60°C                                                                                                                                                                                                                                         | -20-60°C                                                                                                                                                                                                                                         |
| Humidity               | 0-95% RH, Non-condensing                                                                                                                                                                                                                         | 0-95% RH, Non-condensing                                                                                                                                                                                                                         |
| Physical Properties    |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                  |
| Housing                | Metal                                                                                                                                                                                                                                            | Metal                                                                                                                                                                                                                                            |
| Weight                 | 1.24 kg ( 2.73 lb )                                                                                                                                                                                                                              | 1.12 kg ( 2.47 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.)                                                                                                                                                                                              | 21.50 x 16.29 x 4.18 cm<br>(8.46 x 6.41 x 1.65 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







Simply Better Connections

**ATEN International Co., Ltd.**

3F., No.125, Sec. 2, Datong Rd., Sijhih District., New Taipei City 221, Taiwan  
Phone: 886-2-8692-6789 Fax: 886-2-8692-6767  
www.aten.com E-mail: marketing@aten.com



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