

# DVI-I Single Display KVM over IP Extender / DVI-I Dual Display KVM over IP Extender

## KE6900A / KE6940A

The KE6900A / KE6940A extenders are consisted of a high performance IP-based transmitter (KE6900AT/ KE6940AT) that connects to the computer and a receiver (KE6900AR / KE6940AR) that provides console access from a separate location. The KE6900A / KE6940A allows extended access of computer systems remotely via USB consoles (USB keyboard, USB mouse, DVI monitor) over intranet, enabling users to place the computer system in secure and temperature controlled environments, which maybe isolated from users' workstation.

The KE6900A DVI-I Single Display KVM over IP Extender supports one DVI display at each end while the KE6940A DVI-I Dual Display KVM over IP Extender supports two — both the models provide lossless and low latency video transmissions up to 1920 x 1200 @ 60 Hz.

Both the KE6900A and KE6940A support connections via an RJ-45 port or a SFP slot. The transmitter and receiver can be connected either directly to each other, or via a high-speed network over a copper-based or fiberbased LAN. Connecting via the SFP slot with 1Gbps SFP fiber module\* expansions on fiber optic network, users can extend transmission distances up to 10 km. The KE6900A / KE6940A also features dual power supplies for redundancy to ensure dependable services.

As an IP-based matrix extender, the KE6900A / KE6940A can be used as a point-to-point / point-to-multipoint / multipoint-to-point extender, or integrated into a KVM over IP Matrix System (multipoint-to-multipoint) when combined with the CCKM, providing more flexible applications in different working environments.

Implementing the CCKM with KE6900A / KE6940A, IT administrators can benefit from advanced features such as auto-detection of all KE6900A / KE6940A devices 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 128-bits 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 KE6900A / KE6940A is the most cost-effective and convenient way to get a full digital extension from anywhere on the intranet.

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

KE6940AT Front View



KE6940AT Rear View



KE6940AR Front View



KE6940AR Rear View



## Features

### Advanced Features<sup>1</sup>

- ATEN Matrix Link – allow users instant link transmitters and receivers, and perform real-time port and profile switching on an iPad
- Boundless Switching – simply moves the mouse cursor across screen boundaries to switch between different receivers (Rx)
- Fast Switching – switches 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 – creates 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 connections 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

- Supports power / network failover – dual DC jacks for power redundancy and 1 RJ-45 & 1 SFP fiber ports for network failover to ensure constant availability for mission-critical applications
- Supports 1Gbps SFP fiber module expansions<sup>3</sup> up to 10 km
- Advance processor provides lossless and low latency video transmissions up to 1920 x 1200 @ 60 Hz
- Supports digital (DVI) or analog (VGA) video output<sup>4</sup>
- 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 2KV 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

3. The SFP module (2A-136G / 2A-137G) is sold separately. Contact your ATEN dealer for product information.
4. To convert a DVI to VGA signal, a DVI-I to VGA converter is required.

### 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
- 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

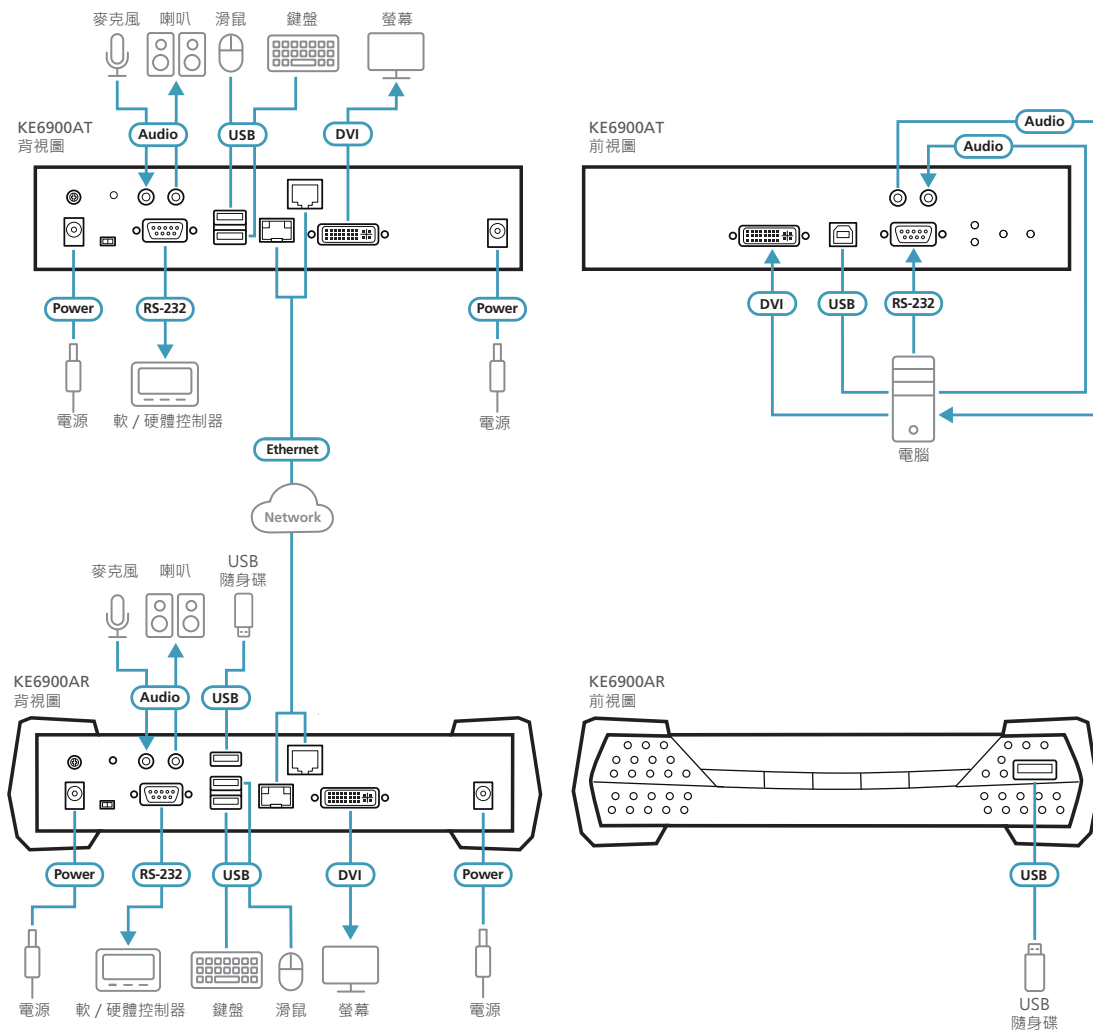
### Virtual Media

- 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

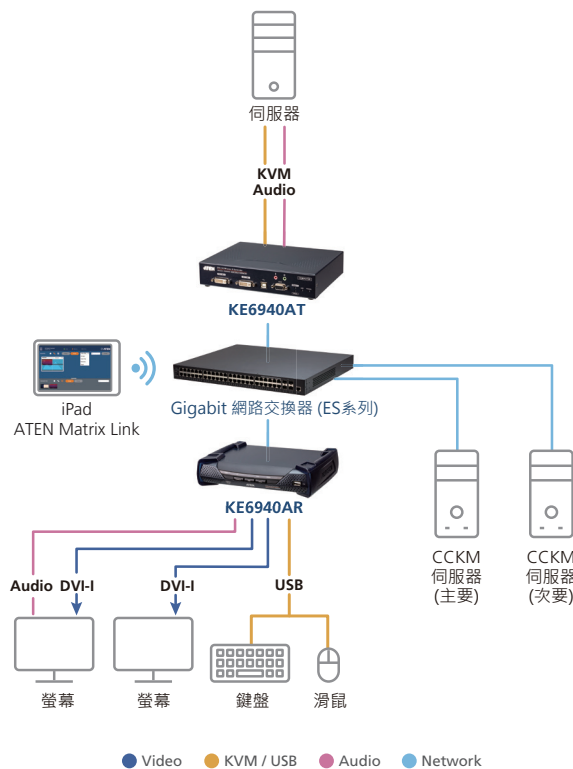
## Highlights

<b>Over IP</b>	The KE6900A / KE6940A extend a computer's KVM console to any distance over a LAN by connecting the Tx and Rx units to users network. The extender also extend a computer's KVM console up to 100 m by directly connecting the Tx and Rx units with a single Cat 5e / 6 cable. Standard IP protocols ensure maximum compatibility with your existing IT infrastructure and staff skill set.
<b>Redundancy</b>	The KE6900A / KE6940A supports connection via Gigabit Ethernet port (RJ-45) and SFP port for failover or for dual IP addresses access. Moreover, the KE6900A / KE6940A supports dual power for redundant power supply.
<b>SFP Module</b>	The KE6900A / KE6940A supports 1Gbps SFP fiber module expansions, enabling connections with network switch allowing either an optical Fiber Channel SFP module or Active Copper SFP module. The single-mode SFP module provides 1GbE connectivity up to 10 km while the multi-mode SFP module provides 1GbE connectivity up to 550 m. <b>Note:</b> The SFP module (2A-136G / 2A-137G) is sold separately. Contact your ATEN dealer for product information.
<b>Unprecedented Video Quality</b>	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.
<b>Advanced Management System</b>	The CCKM allows users to easily administer all KVM over IP extenders over a network, using an intuitive user-friendly web based GUI.
<b>Boundless Switching</b>	The extender simply moves the mouse cursor across screen boundaries to switch between different receivers. The function expedites the process of switching between receivers for a smooth and hassle-free user experience and enables immediate monitoring and management of receivers. <b>Note:</b> These advanced functions are supported when the KE transmitters are paired with KE receivers and managed by CCKM.
<b>Flexibility</b>	The KVM over IP extender allow users to access, share, and switch full control of Tx connected computers - from any Rx (KVM console) on the network. The extender flexibly allows One-to-One, One-to-Many, Many-to-One, or Many-to-Many computer to KVM console connections.
<b>Enhanced Security Features</b>	The KE6900A / KE6940A compliant with universal enterprise grade security standards (AES encryption to secure Video / Keyboard / Mouse / Data transmission and Transport Layer Security (TLS) protocol), and provides different levels of username / password authentication and authorization.

Diagram



Scenario Diagram



## Specifications

	KE6900AR	KE6940AR	KE6900AT	KE6940AT
<b>Connectors</b>				
Console Ports	2 x USB Type-A Female (White) 1 x DVI-I Female (White) 1 x Mini Stereo Jack (Green) 1 x Mini Stereo Jack (Pink) 1 x DB-9 Male (Black)	2 x USB Type-A Female (White) 2 x DVI-I Female (White) 1 x Mini Stereo Jack (Green) 1 x Mini Stereo Jack (Pink) 1 x DB-9 Male (Black)	2 x USB Type-A Female (White) 1 x DVI-I Female (White) 1 x Mini Stereo Jack (Green) 1 x Mini Stereo Jack (Pink) 1 x DB-9 Male (Black)	2 x USB Type-A Female (White) 2 x DVI-I Female (White) 1 x Mini Stereo Jack (Green) 1 x Mini Stereo Jack (Pink) 1 x DB-9 Male (Black)
KVM Ports	N/A		1 x USB Type-B Female (White) 1 x DVI-I Female (White) 1 x Mini Stereo Jack (Green) 1 x Mini Stereo Jack (Pink) 1 x DB-9 Female (Black)	1 x USB Type-B Female (White) 2 x DVI-I Female (White) 1 x Mini Stereo Jack (Green) 1 x Mini Stereo Jack (Pink) 1 x DB-9 Female (Black)
Power	2 x DC Jack (Black)			
LAN Ports	1 x RJ-45 (Black) 1 x SFP Slot			
USB Port	2 x USB Type-A Female (White)		N/A	
<b>Switches</b>				
OSD	1 x Pushbutton		N/A	
Video	1 x Pushbutton		N/A	
Graphics	1 x Pushbutton		N/A	
Reset	1 x Semi-recessed Pushbutton			
Mode Selection	1 x Slide Switch (Extension, RS-232 Config)		1 x Slide Switch (Auto, RS-232 Config / Access Control, Local)	
<b>LEDs</b>				
10 / 100 / 1000 Mbps	1 (10: Orange / 100: Orange & Green / 1000: Green)			
Power	1 (Blue)			
Local	1 (Green)			
Remote	1 (Green)			
<b>Emulation</b>				
Keyboard / Mouse	USB			
<b>Power Consumption</b>	DC5 V : 6.35 W	DC 5 V : 8.51 W	DC 5 V : 8.51 W	DC 5 V : 12.2 W
<b>Video Resolution</b>	Up to 1920 x 1200 @ 60 Hz			
<b>Environmental</b>				
Operating Temperature	0 – 50 °C			
Storage Temperature	-20 – 60 °C			
Humidity	0 – 95% RH, Non-condensing			
<b>Physical Properties</b>				
Housing	Metal			
Weight	1.30 kg	1.31 kg	1.15 kg	1.17 kg
Dimensions (L x W x H)	22.75 x 17.16 x 5.48 cm		21.50 x 16.33 x 4.18 cm	

