2K DVI-D Dual Link KVM over IP Extender
KE6910 / KE6912

● The KE6910 / KE6912 2K DVI-D Dual Link KVM over IP Extender consists of a high performance IP-based transmitter (KE6910T / KE6912T) that connects to the computer and receiver (KE6910R / KE6912R) that provides console access from a separate location. The KE6910 / KE6912 allows access to a computer system from a remote USB console (USB keyboard, USB mouse, DVI monitor) over an intranet, enabling users to locate computers in a secure and temperature controlled environment, which is isolated from users' workstation.

The KE6910 / KE6912 supports one DVI display at each end, providing video resolutions up to 2560 x 2048 @ 50Hz and flawless and lossless video compression quality with minimal latency. The extender also supports 2K x 2K video resolution (2048 x 2048 @ 60Hz), which is used widely in the Air Traffic Control (ATC) industry.

Both KE6910 and KE6912 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 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 KE6910 also provides dual power supplies for redundancy. Meanwhile, the KE6912 features Power over Ethernet (PoE) function, the power can be supplied through a PoE Network Switch; therefore, eliminating the need for a power adapter and effectively reducing the power configuration cost.

The KE6910 / KE6912 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 KE6910 / KE6912 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 KE Matrix Management Software (CCKM), providing more flexible applications in different working environments.

When integrated with the KE Matrix Management Software, the KE6910 / KE6912 supports more advanced features such as authentication lock, adaptive fast switching, connection redundancy, disconnection alert, 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 KE6910 / KE6912 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 KE6910 / KE6912 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.

*The SFP module (2A-136G / 2A-137G) is sold separately. Contact your ATEN dealer for product information.
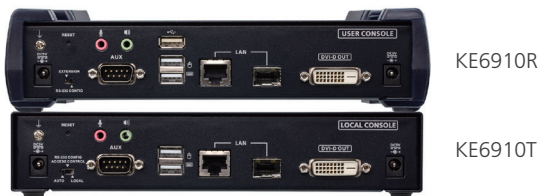**Refer to www.aten.com for a list of the KE Series extenders.

KE6910R / KE6910T Front View

KE6910R

KE6910T

KE6912R / KE6912T Front View

KE6912R

KE6912T

KE6910R / KE6910T Rear View

KE6910R

KE6910T

KE6912R / KE6912T Rear View

KE6912R

KE6912T

Features

Exclusive Features for ATC Industry*

- Supports 2K x 2K video resolution (2048 x 2048 @ 60Hz)
- Adaptive Fast Switching – automatically fast switches between different Tx video resolutions on a Rx display within 0.3 second
- 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
- Authentication Lock – automatically logs in when the power of the system is resumed after power off
- Connection Redundancy – automatically connects to another transmitter (Tx) after disconnection with the original Tx, ensuring constant access to servers
- Disconnection Alert – Pop-up warning message and looping alarm beeping notify users the disconnection status

Advanced Features*

- 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
- 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
- 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 devices are managed by KE Matrix Management Software (CCKM)
**The KVM over IP Access Control Box (2XRT-0015G) is sold separately. Contact your ATEN dealer for product information.

Hardware
- Supports DVI-D Dual Link video resolutions up to 2560 x 1600 @60Hz and 2560 x 2048 @50Hz
- Supports stereo speakers and stereo microphone
- Supports Virtual Media or vUSB
- 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 1Gbps SFP fiber module expansions*** for failover
- Support 1Gbps SFP fiber module expansions*** up to 10 km
- Power Redundancy – Dual DC Jack (KE6910 only) or 1 DC Jack + PoE (KE6912 only)
- Support Power over Ethernet (PoE) function – compliant with the IEEE 802.3at standard (KE6912 only)
- Rack Mountable – Mounting options:
    - -2X-021G Dual Rack Mount Kit
    - -2X-031G Single Rack Mount Kit

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

Management
- Centralized KE Series management software – KE Matrix Management Software (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 – AES encryption to secure Video / Keyboard / Mouse / Data transmission
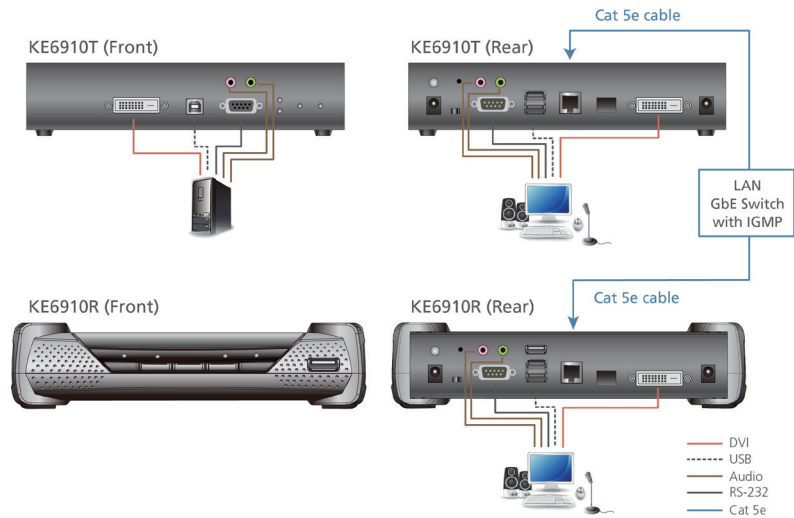- Supports industry standard Transport Layer Security (TLS) protocol

Virtual Media
- Virtual Media 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
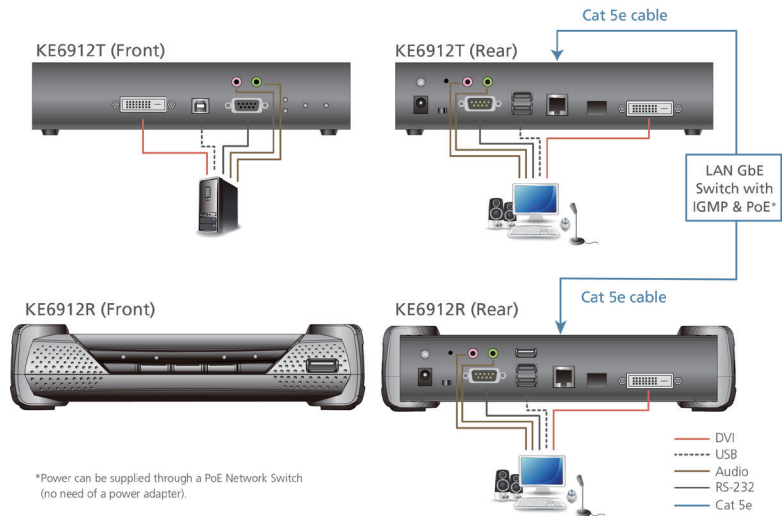- Supports Smart Card/CAC Reader

Highlights

Over IP	Extend a computer's KVM console any distance over a LAN by connecting the Tx and Rx units to your network. Extend a computer's KVM console up to 100 meters 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.
Superior Video Quality	ATEN's advanced graphics processor delivers video that ensures you to experience the same vivid and sharp image quality on the remote monitor no matter how far away the console is located. The KE6910 / KE6912 supports DVI-D Dual Link video resolutions up to 2560 x 2048 @50Hz, including resolutions of 2560 x 1600 @60Hz and 2K x 2K (2048 x 2048 @60Hz).
Redundancy	The KE6910 / KE6912 supports connection via Gigabit Ethernet port (RJ-45) or SFP slot for failover or for dual IP addresses access. Besides, the KE6910 supports dual power and the KE6912 features Power over Ethernet (PoE) for redundant power supply. For KE6912, the power can be supplied through a PoE Network Switch; therefore, eliminating the need for a power adapter and effectively reducing the power configuration cost.
SFP Module	KE6910 / KE6912 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 10km while the multi-mode SFP module provides 1GbE connectivity up to 550m. **Note:** The SFP module (2A-136G / 2A-137G) is sold separately. Contact your ATEN dealer for product information.
Advanced Management System	The KE Matrix Management Software (CCKM) allows you to easily administer all KE devices over a network, using an intuitive user-friendly web based GUI.
Adaptive Fast Switching*	Automatically fast switches between different Tx video resolutions on a Rx display within 0.3 second, without the need to set video resolution for Fast Switching function.
Boundless Switching*	Simply move 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.
Flexibility	The KE extender allows you 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.
Enhanced Security Features	Compliant with universal enterprise grade security standards (AES encryption to secure Video/Keyboard/Mouse/Data transmission and Transport Layer Security (TLS) protocol). The KE extender provides different levels of username / password authentication and authorization.

*These advanced functions are supported when the KE devices are managed by KE Matrix Management Software (CCKM)
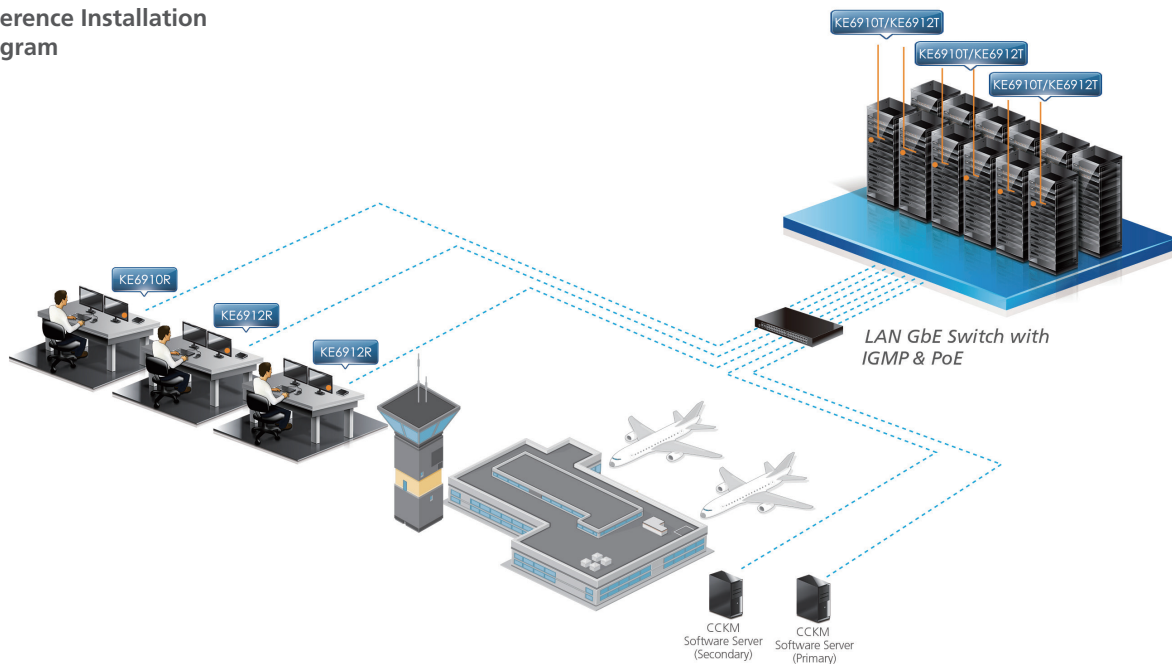
KE6910 Diagram

KE6910T (Front)

Cat 5e cable

KE6910T (Rear)

LAN
GbE Switch
with IGMP

Cat 5e cable

KE6910R (Front)

KE6910R (Rear)

- DVI
- USB
- Audio
- RS-232
- Cat 5e

KE6912 Diagram

KE6912T (Front)

Cat 5e cable

KE6912T (Rear)

LAN GbE
Switch with
IGMP & PoE*

Cat 5e cable

KE6912R (Front)

KE6912R (Rear)

*Power can be supplied through a PoE Network Switch
(no need of a power adapter).

- DVI
- USB
- Audio
- RS-232
- Cat 5e

**Reference Installation
Diagram**

KE6910T/KE6912T

KE6910T/KE6912T

KE6910T/KE6912T

KE6910R

KE6912R

KE6912R

LAN GbE Switch with
IGMP & PoE

CCKM
Software Server
(Secondary)

CCKM
Software Server
(Primary)

Specifications

Functions	KE6910R	KE6912R	KE6910T	KE6912T
Connectors				
Virtual Media	2 x USB Type A Female (White)		N/A	
Console Ports	2 x USB Type A Female (White)			
	1 x DVI-D 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)	
	N/A		1 x DVI-D Female (White)	
	N/A		1 x Mini Stereo Jack (Green)	
	N/A		1 x Mini Stereo Jack (Pink)	
	N/A		1 x DB-9 Female (Black)	
Power	2 x DC Jack (Black)	1 x DC Jack (Black)	2 x DC Jack (Black)	1 x DC Jack (Black)
LAN Ports	1 x RJ-45 (Black)	1 x RJ-45 (Black, PoE)	1 x RJ-45 (Black)	1 x RJ-45 (Black, PoE)
	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			
LEDs				
10 / 100 / 1000 Mbps	1 (10: Orange / 100: Orange & Green / 1000: Green)			
Power	1 (Blue)			
Local	1 (Green)			
Remote	1 (Green)			
Video Resolution	Up to 2560 x 2048 @ 50Hz			
Emulation				
Keyboard / Mouse	USB			
Power Consumption	DC5V / 9.02W	DC48V / 11.27W	DC5V / 10.02W	DC48V / 12.53W
Environmental				
Operating Temperature	0-50°C			
Storage Temperature	-20-60°C			
Humidity	0-95% RH, Non-condensing			
Physical Properties				
Housing	Metal			
Weight	1.26 kg	1.28 kg	1.13 kg	1.17 kg
Dimensions (L x W x H)	22.75 x 17.16 x 5.48 cm		21.5 x 16.33 x 4.18 cm	

Product information is subject to change without prior notice.