Matrox® Video

Flexible, Efficient AVoIP Solutions for ATC/ATM Systems and Control Rooms

As traditional air traffic control towers are increasingly replaced with remotely monitored sites and airports migrated to remote operations, the need for real-time distribution, control, and visualization of data is crucial for safe operations. In many cases, multiple tower remote operations are managed by a single air traffic controller, who must monitor multiple feeds and screens.

From IP KVM extenders to video wall controllers, Matrox Video provides air traffic control integrators, vendors, consultants, and solutions developers with the AVoIP technologies needed for reliable, real-time ATC and ATM operations.

Matrox Video products are designed to:

- Extend 4K video signals between airports and area control centers
- Enable secure real-time remote operations
- Efficiently manage larger, multi-system workspaces with less peripheral devices

- Distribute visually lossless, zero latency video over 1G networks
- Integrate seamlessly into current infrastructure for highly scalable deployments
- Drive personal screens and panoramic video walls

Applications

| Air Traffic Control Towers | Airport Control Rooms | Remote and Virtual Towers (RVT) | Control Rooms & Situation Rooms | Training & Simulation |

4K Multi-Monitor IP KVM Extension & Switching for Air Traffic Management

From air traffic control towers to remote digital towers, IP KVM can provide seamless access to distributed systems and from one location, thereby improving operational efficiency and situational awareness. IP KVM systems securely transmit both data and peripheral signals over long distances, allowing crucial assets to be relocated away from the control room. This relocation not only reduces heat and noise in the control room but also saves space and eliminates unnecessary distractions.

With Extio 3, ATCOs can monitor four source systems from any Extio receiver unit and control them with a single keyboard and mouse set. With Aggregator Mode, you can shift from the current desktop to the next by moving the mouse freely across multiple desktops. For an even more efficient way to control multiple KVM systems, the Tile View feature enables ATCOs to display up to four separate 1080p60 systems (for example, video feeds, radar displays, and weather information remotely) on one 4K or FHD monitor.

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Extio 3 supports the extension of 4Kp60 or quad 1080p60 workstations over either a single fiber optic, with built-in redundancy options for added reliability, to securely transport data between airports and area control centers.

The benefits of **Matrox Extio 3 Series** include:

- 4K multi-monitor and Tile View (multiview) capabilities
- Scalable KVM matrix system over 1GbE networks
- Larger multi-monitor workspace when paired with Matrox KMLync to enhance productivity
- Support for touch panels
- Robust redundancy and failover mechanisms

- Hardware built for 24/7 reliability
- Enhanced security features, including 802.1x, IGMPv3, and Active Directory
- Support for fiber-optic or copper cable
- Remote access over WAN
- TAA compliant SKU available

Increased Multi-System Control with Less Peripherals

Managing multiple systems and screens can lead to distractions and inefficiencies. To address this, the Matrox KMLync 4-port keyboard and mouse switch gives ATCOs real-time access and control of multiple systems.

When paired with Matrox Extio 3 IP KVM receivers, KMLync allows controllers to operate a larger multi-monitor workspace with one keyboard and mouse set, further enhancing operational efficiency.

The benefits of **Matrox KMLync** include:

- Monitor sources on four 4K monitors or sixteen 1080p60 displays
- Use only one keyboard and mouse
- Access and connect to hundreds of sources over IP
- Free up valuable workspace and improve workstation ergonomics

- Work across a larger multi-monitor workspace when paired with Extio 3 IP KVM
- Fast setup and no additional installation necessary
- TAA compliant SKU available

Visually Lossless, Zero-latency Video over 1G Network

The ConvertIP Series of IPMX-ready converters and encoders/decoders delivers zero-latency 4K video over IP—compressed and uncompressed. Standards-based, ConvertIP makes it easy to integrate new technology into current infrastructure, and extend it over time, without getting locked into a single vendor solution. Designed for maximum flexibility and scalability, ConvertIP is optimized for 1G, 2.5G, 10G, or 25G networks and supports copper and fiber networks.

The benefits of **Matrox ConvertIP Series** include:

- Zero latency with exceptional 4K image quality
- Standards-based to enable interoperable, cost-efficient, and scalable networks
- Transmit or receive signals from a single device

- PoE+ with optional redundancy support
- Compact form factor mounts easily to the back of a monitor or in a rack
- TAA compliant SKUs available

Visualization & Panoramic Video Walls

Drive two 8K displays—or two 5Kp120 displays—or up to four synchronized high-resolution displays or projectors from a single Matrox LUMA Pro Series graphics card. Designed to provide high-density, resolution, and performance, LUMA Pro can support up to 16 synchronized displays, perfect for ensuring a panoramic view on the video wall.

The benefits of Matrox **LUMA Pro Series** include:

- Hardware encoding and decoding
- Single-slot PCIe® 4.0 x8 card with four native Mini DisplayPort™ 2.1 connectors
- Low power consumption

- Long product lifecycle and dedicated customer support
- Powered by Intel® Arc™ graphics.
- TAA compliant SKUs available

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