

MultiPoint KvM™

Designed for the Needs of Modern Control Centers

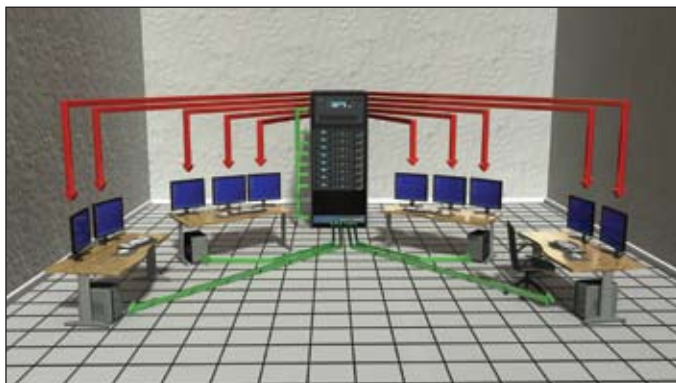


The only KVM solution combining:

- Multi-screen display
- Modular control station architecture
- KlickSimple™ navigation
- High resolution, uncompressed graphics & video
- Hybrid IP and DVI architecture

RGB Spectrum's **MultiPoint KvM** solution surpasses capabilities of traditional KVM systems. It is the only KVM solution combining high-resolution, uncompressed graphics, multi-screen displays, ease of navigation, and a flexible control station architecture. Its modular architecture provides much-needed flexibility while its navigational features increase work flow efficiencies. **MultiPoint KvM** meets the demanding requirements of control centers in a variety of industries, including oil and gas, utilities, security, government, military, and broadcast.

The solution's control station architecture is extremely flexible. Control stations are computers providing KVM functionality for each operations desk, which is comprised of a **multi-screen display**, a keyboard and a mouse. Control stations can be run in exclusive or collaborative mode, the latter to allow multiple users to display and act on the same content simultaneously. **MultiPoint KvM** also supports the notion of a **control station user**, individually authorized to access the system at any or all physical control stations. When an authorized user is identified and verified at a control station, it is reconfigured with the user's default configuration and assigned permissions.



- DVI / RGB Video
- Ethernet

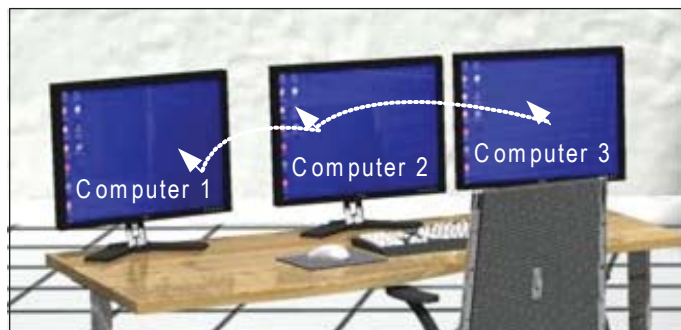
Applications:

- Network operations centers (NOCs)
- Tactical operations centers (TOCs)
- Emergency operations centers (EOCs)

Markets:

- Oil & gas
- Utilities
- Security / surveillance
- Government & military
- Broadcast / production

KlickSimple™ navigation goes beyond controlling one computer at a time, typical of traditional KVM systems. It offers a seamless method of controlling multiple computers with a single mouse and keyboard, using only the mouse for selecting computers and providing control.



**KlickSimple Navigation –
Seamless Control of Multiple Computers**

The **MultiPoint KVM** solution supports switching and display of **uncompressed, high-resolution, digitized graphics** and video at resolutions of up to 2048 by 1200 pixels, enabled by the integrated **RGB Linx™** switcher. This makes it ideal for applications requiring visualization of details, such as two- and three-dimensional representation of soil strata for identification of oil and gas deposits, missile launch depictions, or utility maps.

MultiPoint KVM uses an innovative **hybrid approach** for display and control. A high-performance DVI or **Linx** switcher is used to route the video and graphics displays, while keyboard and mouse control signals are switched over IP. This architecture allows administrators to take advantage of the intelligence inherent to IP, provides high resolution video and graphics, and keeps network bandwidth demands to a minimum.

MultiPoint KVM Solution Components

The **MultiPoint KVM** solution is comprised of the following key components:

- (1) Control stations with one or more monitors,
- (2) hardware or software keyboard and mouse emulators, and (3) DVI or RGB switchers, and optional fiber extenders.

Control stations are comprised of computers performing operations desk specific functions, an operations desk being defined as a panel of monitors, keyboard, and mouse, operated by a dedicated user. Control stations communicate with controlled computers over a LAN infrastructure and manage correct positioning of the mouse cursor on the screen. They also provide a navigation panel, which supports switching of inputs, collaboration of several operations desks, user authentication, and the display of pertinent information, such as IP address or computer name.

Two **keyboard and mouse emulation** alternatives are offered: Remote Desktop Agent (RDA) software or external Ethernet-to-USB converter. The RDA is software installed on controlled computers and emulates mouse and keyboard commands sent from the control station, using AES 128 encryption for maximum security. Microsoft and Linux operating systems are currently supported. The RDA is also available as "open source", so that network operators can evaluate software compliance with corporate standards.

Where installing software on a controlled computer is not desirable, an Ethernet-to-USB converter is offered. It functions as a computer-external RDA and emulates keyboard and mouse signals. The converter connects to the existing LAN and the controlled computer's USB port performing Layer 2 conversion from Ethernet to USB protocols. It also supports AES 128 encryption and is in compliance with FIPS PUB 140-2, the most recent and most stringent government standard for network security.

RGB Spectrum's **MultiPoint KVM** solution uses the **Linx™** family of high-performance DVI and **CrossXFormat™** video switchers, which support switching and routing of DVI and RGB signals. Three system sizes are offered, with up to 8, 16, and 32 inputs and outputs. Linx switchers feature a high-performance, non-blocking switch matrix and robust construction for mission-critical applications. They support resolutions of up to 2048 by 1200 pixels, for high-quality graphics, digital cinema or HD video.

RGB Spectrum offers **XtendView® FiberDVI™** extenders to bridge distances up to 2,000 feet, as well as to increase security. The extender is a compact, single-fiber DVI cabling solution, consisting of transmit and receive plug-in modules. This "all-in-the-headshell" solution uses miniaturized electronics that fit entirely within the DVI connector housing, eliminating the need for external boxes and interface cables, and greatly simplifying installation.

Technical Specifications

MultiPoint KvM

- Number of controlled computers (switcher inputs): ≤ 32
- Number of individually switchable monitors (switcher outputs): ≤ 32
- Number of control stations: ≤ 32
- Number of users: ≤ 100
- Number of administrators: 1
- KlickSimple technology with seamless, multi-screen navigation
- "Real-time" mouse movement response ($\leq 5\text{ms}$)*
- Any contiguous monitor geometry supported
- Quick routing of inputs ($\leq 200\text{ms}$)*
- Easy MultiPoint KvM setup via control application
- "Desktop" navigation panel for intuitive navigation and display of pertinent information
- Advanced user management, including access rights and default settings
- Mouse and keyboard emulation via RDA software or external Ethernet to USB converter
- Windows (2000, XP and Vista XP) and Linux support

* While the advertised performance has been demonstrated, actual performance depends on the performance of the customer's network.



Linx 1600 DVI Matrix Switcher

Linx Switcher Support**

The following Linx switcher models are supported:

- Linx 8x8: up to 8 inputs x 8 outputs (DVI)
- Linx 800: up to 8 inputs by 8 outputs (DVI)
- Linx 1600: up to 16 inputs by 16 outputs (DVI)
- Linx 3200: up to 32 inputs by 32 outputs (DVI)
- Linx 900: up to 8 inputs by 8 outputs (DVI/RGB)
- Linx 1700: up to 16 inputs by 16 outputs (DVI/RGB)
- Linx 3300: up to 32 inputs by 32 outputs (DVI/RGB)

Linx switcher feature and performance overview:

- Switching of uncompressed video and graphics
- DVI or RGB inputs, DVI outputs
- Resolutions up to 1920 x 1200 and 2048 x 1152
- Non-blocking architecture
- No dropped frames
- Cable equalization
- HDCP support
- Exclusive Total EDID Manager™ : Eliminates system rebooting when changing displays, simplifies setup, and provides priority arbitration
- Full pixel reclocking for optimal signal quality
- Robust 24/7 operation

XtendView FiberDVI

- Mounts directly to chassis
- Supports HDCP
- Video and EDID on single fiber
- Plenum rated fiber available
- Up to 2000 ft (600m)

**For additional information on RGB Spectrum's CrossXFormat switcher offerings, please visit our web page at www.rgb.com/products.

Please note that some features or functions described in this document may be available in a future release. Specifications and release timelines are subject to change without notice.



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