XtendPoint™

KVM-over-IP

RGB SPECTRUM

XtendPoint™ KVM-over-IP

Remote KVM with Low Latency and Low Bitrates

Leveraging a standard 1 Gigabit Ethernet (GbE) network, the *XtendPoint* KVM-over-IP system delivers a scalable KVM matrix switching solution connecting multiple users with controllable systems, including multi-headed computers.

Outstanding Performance

The point-to-point configuration pairs a *XtendPoint* Transmitter with a *XtendPoint* Receiver to extend bandwidth-efficient KVM control of a multi-headed host system. *XtendPoint* drives up to four monitors over a single Ethernet port (RJ45 or SFP) to simplify operations for applications including control rooms, dispatch centers, government, healthcare and education. Plug-and-play installation requires no additional software on host systems.


XtendPoint
Transmitter

XtendPoint
Receiver

Networked Operation

XtendPoint KVM-over-IP provides a scalable KVM matrix over IP, supporting one-to-one, one-to-many, many-to-one, or many-to-many configurations. It allows operators to view multiple desktops on a multi-display or multiviewer operator station and take control of a system by simply moving the mouse to the target desktop using *KlickSimple*™ cursor navigation.

XtendPoint receivers accept the encoded video streams from *XtendPoint* transmitters for display on up to four monitors, depending on model. Keyboard and mouse signals are sent back over the network to a *XtendPoint* transmitter and then forwarded to the computer over a USB link.

Users select signal to view on their receiver via an onscreen display or hotkeys.

1GbE
network switch
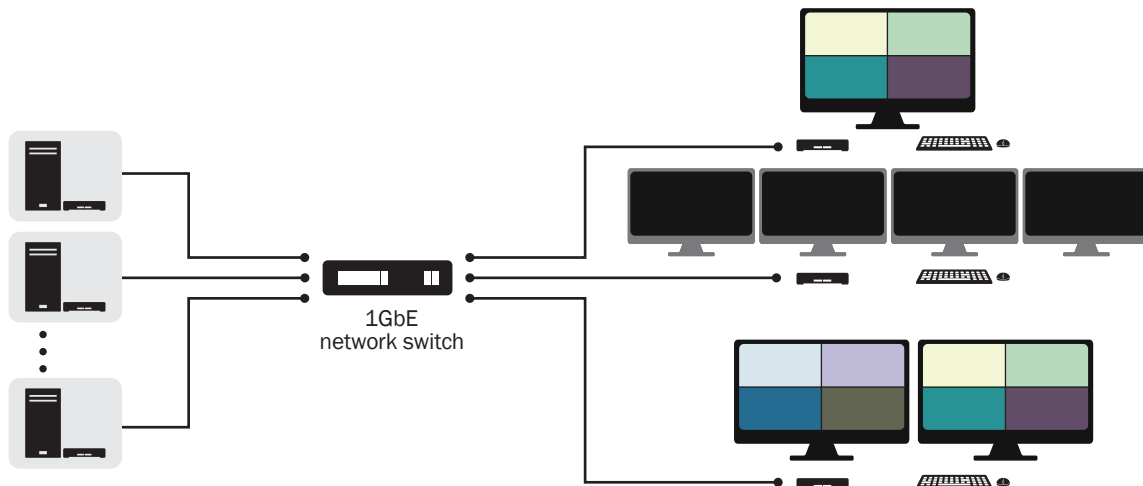
- Extend ultra-high resolution desktops (3840x2160 @60Hz) at unprecedented low bitrates.
- Support dual-monitor and quad-monitor configurations (2x and 4x 1920x1080 @60Hz) with a single transmitter and receiver pair.
- Deliver pristine image quality, smooth video playback, and excellent keyboard and mouse responsiveness over a LAN or WAN with latency as low as 40msec.

Control Software

Secure, centralized management of all networked *XtendPoint* KVM-over-IP endpoints is overseen through the *XendPoint* Central Manager, an easy-to-use software to configure, manage, and monitor *XtendPoint* transmitter and receiver endpoints.

Users can create and manage password protected user rights through *XtendPoint* Central Manager, or use Microsoft Active Directory Services to manage user authorization. The *XtendPoint* system uses HTTPS — a secure communication protocol for sending control commands over the network. It encrypts all audio, video, and USB signals and provides options for USB human interface devices (HID), such as keyboard and mouse, while blocking all USB 2.0 devices or whitelisting approved ones.

Connection Broker routes any host system to any remote user station, forming one-to-one, many-to-one, one-to-many, or many-to-many configurations. Users can monitor system functionality at a glance through a vibrant, color-coded visual interface. Log and monitor critical performance parameters, or use the Simple Network Management Protocol (SNMP) for monitoring units through third-party network management software.

XtendPoint Central Manager allows administrators to easily discover, configure and monitor *XtendPoint* endpoints on the network.

XtendPoint Central Manager provides a system-level view of all connections between transmitter and receiver units.

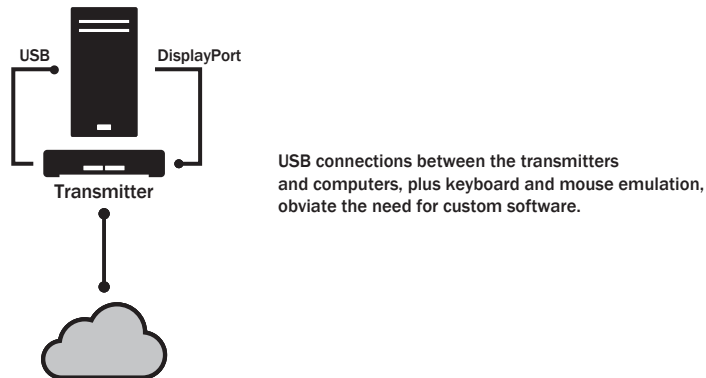## Integration with RGB Spectrum's *Zio*® AV-over-IP

- Combine *XtendPoint* KVM-over-IP with *Zio* AV-over-IP for added functionality.
- Add integration with full-function video walls.
- Provide access to a mobile workforce via a SmartPhone app.

Distributed Control

XPoint endpoints support a distributed model of operation — settings and parameters reside in each transmitter and receiver unit. If the central system running the control software gets disconnected, the *XtendPoint* endpoints will continue to operate on their own. The system's distributed mode of operation eliminates single point of failure.
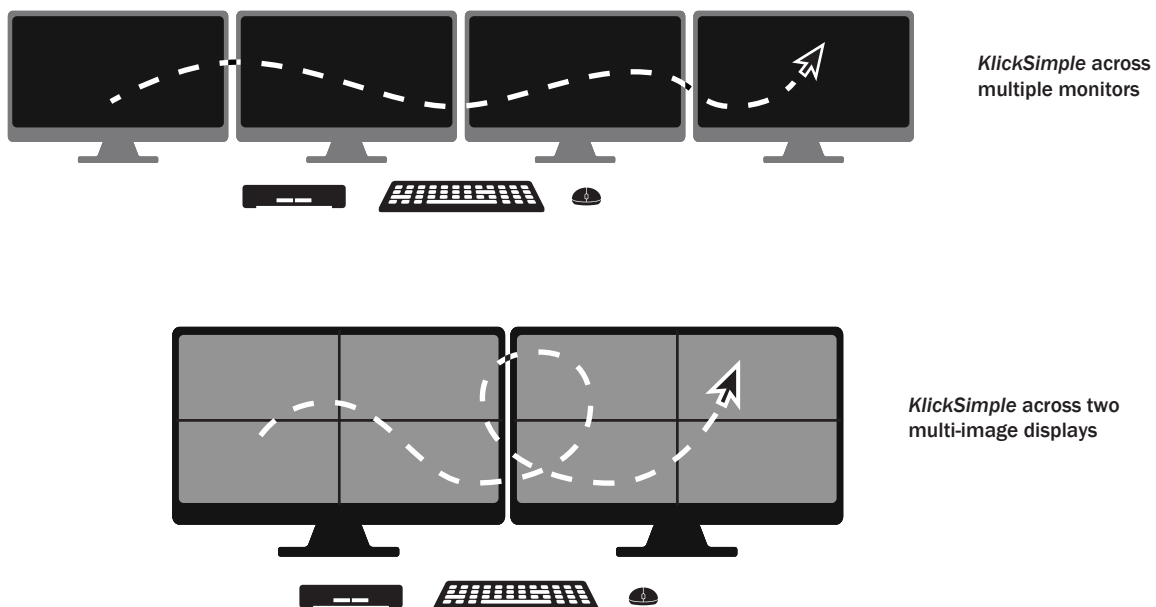
Transmitters with Ethernet and USB Connections

XtendPoint transmitters take video from a computer source via a DisplayPort connection, encode the stream using H.264 compression, and send it out over Ethernet to one or a multitude of *XtendPoint* receivers. Each transmitter, depending on model, can accept up to four video inputs from a computer. Multiheaded computer feeds are synchronized. Single inputs up to 4K60, two inputs up to 4K30, and four inputs at 1080p60 are accepted.

USB connections between the transmitters and computers, plus keyboard and mouse emulation, obviate the need for custom software.
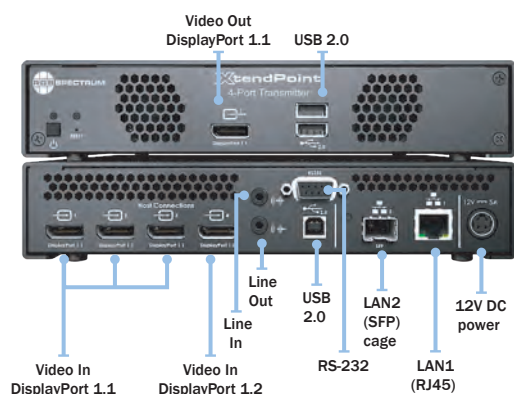
Receivers with *KlickSimple*™ Cursor Navigation

With a single keyboard and mouse, a *XtendPoint* receiver can display up to four video streams on separate monitors, up to four on a single multi-window monitor or up to eight on two multi-window monitors. Selection of a video stream for control is achieved simply by moving the cursor over the desired video stream. We call this feature *KlickSimple*.

KlickSimple across multiple monitors

KlickSimple across two multi-image displays

XtendPoint 104 TX
4-Port Transmitter

Video Out
DisplayPort 1.1   USB 2.0

Line Out
Line In
USB 2.0
RS-232
LAN2 (SFP) cage
LAN1 (RJ45)
12V DC power

Video In DisplayPort 1.1
Video In DisplayPort 1.2

XtendPoint 104 RX
4-Signal Receiver

USB 2.0
Micro-phone
Head-phone
Line In
Line Out

Video Out DisplayPort 1.1
Video Out DisplayPort 1.2
RS-232
LAN2 (SFP) cage
LAN1 (RJ45)
12V DC power
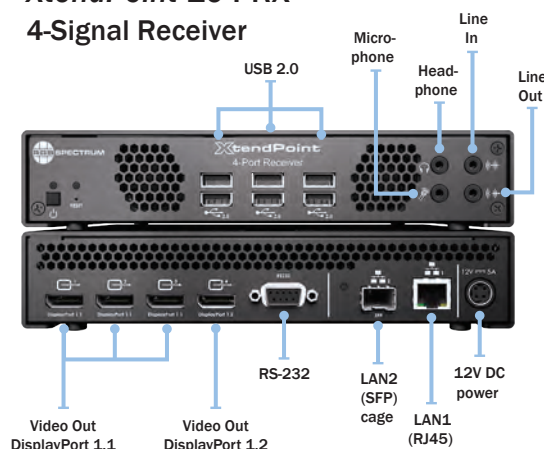
XtendPoint Specifications

	XP 104 TX - 4-Signal Transmitter	XP 102 TX - 2-Signal Transmitter
Connections to Host System		
Video	1x DisplayPort 1.2	—
	3x DisplayPort 1.1	2x DisplayPort 1.1
USB	1x USB 2.0 Type B	
Serial	RS-232	
Audio	DisplayPort (embedded)	
	Line in 3.5mm, line out 3.5 mm	
Network	1x RJ45 (1 GigE)	
	1x SFP cage	
Outputs to Local Devices (for future use)		
Video	1x DisplayPort 1.1	
USB	2x USB 2.0 Type A	

	XP 104 RX - 4-Signal Receiver	XP 102 RX - 2-Signal Receiver
Connections to Local Devices		
Video	1x DisplayPort 1.2	—
	3x DisplayPort 1.1	2x DisplayPort 1.1
USB	6x USB 2.0 Type A	4x USB 2.0 Type A
Serial	RS-232	
Audio	DisplayPort (embedded)	
	Line in 3.5 mm, line out 3.5 mm	
	Mic in 3.5 mm, headphone out 3.5 mm	
Network	1x RJ45 (1 GigE)	
	1x SFP cage	

All appliances	
Maximum resolutions	
XP 104 TX/RX	1x 3840x2160 @60Hz, 2x 2560x1600 @60Hz, 2x 3840x2160 @30Hz, 3x 1920x1200 @60Hz, 4x 1920x1080 @60Hz, 4x 1920x1200 @50Hz
XP 102 TX/RX	1x 3840x2160 @30Hz, 2x 2560x1600 @60Hz
Physical	
Size (H x W x D)	1.676 x 7.45 x 8.526 inches (42.6 x 189 x 216.6 mm), 1 RU
Power supply	+12 V DC, maximum 5 A
Power consumption	60W max

Distance in point-to-point
- OM2, OM3, OM4 (50/125µm) multi-mode cable type – 550 m (1804 ft.)
- OM1 (62.5/125µm) multi-mode cable type – 275 m (902 ft.)
- O S1,OS2 (9/125µm) single-mode cable type – 5 km (3.10 mi.)
- Cat5e, Cat6 – 100 m (328 ft.)

Learn More
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