XtendPoint™

KVM-over-IP
**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 an XtendPoint Transmitter with an 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.

**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 a signal to view on their receiver via an onscreen display or hot keys.

- 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 XtendPoint 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.

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, eliminate the need for custom software.

Receivers with KlickSimple™ Cursor Navigation

With a single keyboard and mouse, an 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 Specifications

### XP 104 TX - 4-Signal Transmitter

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<th>XP 102 TX - 2-Signal Transmitter</th>
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<td>Video</td>
<td>1x DisplayPort 1.2</td>
<td>1x DisplayPort 1.1</td>
</tr>
<tr>
<td></td>
<td>3x DisplayPort 1.1</td>
<td>2x DisplayPort 1.1</td>
</tr>
<tr>
<td>USB</td>
<td>1x USB 2.0 Type B</td>
<td>6x USB 2.0 Type A</td>
</tr>
<tr>
<td>Serial</td>
<td>RS-232</td>
<td>DisplayPort (embedded)</td>
</tr>
<tr>
<td>Audio</td>
<td>Line in 3.5 mm, line out 3.5 mm</td>
<td>1x RJ45 (1 GigE)</td>
</tr>
<tr>
<td>Network</td>
<td>1x RJ45 (1 GigE)</td>
<td>1x SFP cage</td>
</tr>
<tr>
<td>Outputs to Local Devices</td>
<td>(for future use)</td>
<td></td>
</tr>
<tr>
<td>Video</td>
<td>1x DisplayPort 1.1</td>
<td></td>
</tr>
<tr>
<td>USB</td>
<td>2x USB 2.0 Type A</td>
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</table>

### XP 104 RX - 4-Signal Receiver

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

### 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 2560x1600 @60Hz, 2x 1920x1200 @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.)
- OM5 (50/125μm) single-mode cable type – 5 km (3.10 mi.)
- Cat5e, Cat6 – 100 m (328 ft.)

Learn More
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