AV Infrastructure for an 8K Future

- 50 Gbps digital backplane supports 8K video
- I/O sizes from 4x4 up to 64x64
- Wide selection of XTP I/O matrix boards and extenders for 4K twisted pair and fiber optic cable infrastructures
- Easy to set up and configure
- Dependable signal switching and robust system reliability
- SpeedSwitch® Technology provides exceptional switching speed for HDCP-encrypted content
- Advanced 24/7 system monitoring and hot-swappable modular components

Extron Electronics
INTERFACING, SWITCHING AND CONTROL
Extron XTP Systems® provide a completely integrated switching and distribution solution for multiple digital and analog formats. They support 4K local connectivity, as well as extended transmission capability to send video, audio, bidirectional RS-232 and IR, and Ethernet up to 330 feet (100 m) over a shielded CATx cable, and even greater distances over fiber optic cabling.

The Extron XTP II CrossPoint® modular matrix switchers are the first in the AV industry to offer a 50 Gbps digital switching backplane. Representing a monumental leap in engineering and product design, XTP II enables design and deployment of AV systems with switching bandwidth that exceeds the requirements of HDMI 2.0b and DisplayPort 1.4 signals. The 50 Gbps digital switching backplane provides more than enough bandwidth to switch 4K/60 at 4:4:4 with 16 bits per color, and anticipates future video standards. The XTP II CrossPoint is the only AV technology platform that supports uncompromised 4K video while providing additional bandwidth to support AV standards and formats for an 8K future.

High Performance Matrix Switching

XTP Systems are HDCP compliant, and deliver ultra-fast, highly reliable switching of digital signals with Extron's SpeedSwitch® Technology. Additional Extron technologies standard with XTP Systems are EDID Minder® and Key Minder®, EDID Minder automatically manages EDID communications between sources and display devices, allowing all sources to power up properly and reliably provide content for display. Key Minder authenticates and maintains continuous HDCP encryption to ensure quick and reliable switching in professional AV environments. XTP Systems also accept and digitize a variety of analog video and audio formats for exceptional system versatility and performance. The XTP matrix switchers are expandable from 4x4 up to 16x16, 32x32, or 64x64, depending on frame selection, and can be configured with a variety of XTP input and output boards. The XTP II CrossPoint 1600 is configurable from 4x4 to 16x16, while the XTP II CrossPoint 3200 supports I/O sizes from 4x4 to 32x32. The XTP II CrossPoint 6400 is configurable to 64x64 for large installations. The modular design of the XTP® matrix switchers allow systems to be customized for each application.

To configure, operate, and monitor the system in real time, user-friendly control software offers a complete view of all XTP devices from a computer. With hot-swappable components, a wide selection of XTP transmitters and receivers, and advanced 24/7 system monitoring, XTP Systems are designed to provide continuous, trouble-free operation in the most critical applications.

Input and Output Board Options

The wide offering of XTP I/O boards provides flexible switching and distribution of HDMI, DVI, 3G-SDI, analog video, stereo audio, and control signals over twisted pair and fiber optic cabling. XTP 4K twisted pair boards provide video, audio, RS-232 and IR control signal extension, plus Ethernet and power to remotely located transmitters and receivers. The family of multimode and singlenode XTP 4K fiber optic boards and endpoints enable long-haul extension of 4K video with embedded audio, bidirectional RS-232 and IR control, as well as Ethernet over one fiber optic cable. For the highest level of HDMI 2.0b performance, the XTP II HDMI 4K PLUS input and output boards are HDCP 2.2 compliant and support specification features that include data rates up to 18 Gbps, HDR,12-bit Deep Color, 3D, and HD lossless audio formats. The XTP CP 4i 3G-SDI input board automatically recognizes incoming 3G-SDI, HD-SDI, and SDI signals, converting it to an XTP signal. This board also features four, buffered input loop-throughs and analog stereo audio inputs for streamlined integration. The VGA input board features universal analog video inputs that can automatically detect a wide range of incoming analog formats, which are then digitized. Extron SD Pro processing deinterlaces 480i and 576i signals for compatibility with digital displays, without needing additional scalers.

The various output boards enable signal transmission over shielded CATx or fiber optic cable to remote XTP receivers or provide HDMI, DVI, and analog audio output connections to support local display devices and sound systems. The wide range of XTP boards provide direct HDMI, DVI, analog video, and audio connections to support local sources and display devices and signal extension to remote endpoints when using XTP transmitters and receivers.
XTP Transmitters and Receivers

XTP Systems include a wide variety of XTP transmitters and receivers for sending and receiving video, audio, RS-232 and IR control, and Ethernet from the XTP matrix switcher. They are available in twisted pair and fiber optic versions for extending 4K signals up to 330 feet (100 meters) over shielded CATx cable, and up to 10 km (6.21 miles) transmission distances over fiber. XTP twisted pair devices can also be remotely powered over the same CATx cable by the matrix switcher, speeding up and simplifying installation by eliminating the need to provide AC power at remote endpoints. For extension over extreme distances, the XTP CP Fiber 4K I/O boards, as well as the fiber optic transmitters and receivers, are available in multimode and singlenode versions.

XTP transmitters are available in desktop, wall mount, and floor box models. Select models also offer SD Pro processing or can accept multiple inputs and feature automatic input switching.

XTP receivers are available in desktop and wallplate models, each with HDMI output and HDMI audio de-embedding with analog stereo audio outputs. The XTP R HWP 201 4K Decora®-style wallplate features an HDMI output connector oriented upward at a 90° angle and side-mounted LEDs for power, XTP signal presence, and embedded audio indication. This unique, low-profile wallplate design requires only 1" (2.5 cm) spacing from the wall to the flat panel display. The XTP SR HD 4K twisted pair and XTP SFR HD 4K fiber optic scaling receivers feature Extron Vector™ 4K scaling technology with best-in-class image upscaling and downscaling using exclusive, high-precision processing algorithms for exceptional 4K scaling performance with uncompromised image quality.

Enhance AV Device Control with RS-232 and IR Insertion

XTP Systems provide the capability to transmit control signals over the same cabling used for AV, which provides considerable flexibility to control the entire system. Bidirectional RS-232 signals can be inserted from a control system into the Ethernet port on the matrix switcher, enabling RS-232 control of devices attached to XTP transmitters and receivers. Direct RS-232 and IR insertion ports are included on XTP twisted pair and fiber I/O boards and extenders. For example, this allows a control system to insert IR signals into the XTP System in order to control a remote Blu-ray™ player or display that is connected to an XTP extender.

All of this flexible system control capability is available using the same cable to send control signals alongside video, audio, Ethernet, and, when using CATx cable, power. The end result is a simplified wiring infrastructure that reduces costs and labor.

Extend Ethernet to Expand Network Access & AV Control

An Ethernet port accompanies each XTP port. These ports can be used to extend Ethernet access from the XTP matrix switcher to the remote endpoint over the one CATx or fiber optic cable, without the need to provide additional network drops or IP addresses. The Ethernet ports on XTP I/O boards can be connected into a shared house LAN for both system control and network access. This also allows control system devices to be situated at remote endpoints. These capabilities provide substantial design flexibility, enabling LAN access to be set in accordance with user requirements and IT policy.

Integration Convenience Features

XTP Systems provide numerous integrator-friendly features to simplify system configuration and operation, such as I/O memory presets and the QS-FPC™ - QuickSwitch Front Panel Controller with tri-color backlit buttons for ease of use in dim lighting. They also provide extensive audio management features, integrating analog stereo audio alongside digital HDMI audio. Extensive signal routing and management options are available, such as HDMI audio embedding and de-embedding as well as audio breakaway.

Designed for Continuous Reliability

XTP Systems are designed for optimum performance and 24/7 reliability. A real-time monitoring system continuously provides self-diagnostics of the XTP boards, XTP links, power supplies, internal fans, and general system functions. Each XTP board is hot-swappable so that the matrix switcher can be serviced or reconfigured without being powered down. XTP Systems also feature available redundant power supplies to ensure continuous, uninterrupted power.

XTP II CrossPoint frames along with the latest boards, transmitters, and receivers are compatible with all products in the XTP Systems family. This compatibility enables complete end-to-end system solutions, and provides a wide range of possibilities for future system upgrades that go well beyond 4K.
Features

50 Gbps digital backplane
XTP II CrossPoint matrix switchers are engineered to exceed the bandwidth required by HDMI 2.0b and DisplayPort 1.4 signals. The 50 Gbps digital switching backplane provides more than enough bandwidth to switch 4K/60 at 4:4:4 with 16 bits per color, and anticipates future video standards, such as 8K.

I/O sizes from 4x4 up to 64x64
XTP II CrossPoint 1600 can be configured up to 16x16, and the XTP II CrossPoint 3200 supports I/O sizes up to 32x32. The XTP II CrossPoint 6400 supports configurations up to 64x64. Each matrix switcher can be populated with XTP input and output boards to create customized system configurations starting from 4x4, with available I/O sizes in four-input and four-output increments.

Extension of digital video, audio, bidirectional control, & Ethernet over fiber optic cable
XTP Fiber I/O boards, transmitters, and receivers allow long-haul transmission over OM4 multimode or singlemode cable.

Supports transmission of video, audio, bidirectional RS-232 and IR, Ethernet, and remote power over one shielded CATx cable
XTP Systems support digital signal transmission up to 330 feet (100 meters) over one shielded twisted pair cable, providing high reliability and maximum performance on an economical and easily installed cable infrastructure.

Extron XTP DTP 24 Shielded Twisted Pair cable provides added protection from outside interference and ensures high quality signal transmission

Fully digital signal routing
Incoming analog signals are digitized so that a reliable, high quality digital video signal is sent to the output destination.

SD Pro processing
Baseband 480i and 576i input video is deinterlaced to ensure compatibility with HDMI and DVI-equipped display devices, without the need for scalers.

Wide selection of input and output boards
A family of XTP input and output boards provide integration for a variety of signal types and formats, enabling system customization for the specific application.

RS-232 control via Ethernet insertion
RS-232 control signals can be inserted, via Ethernet from a control system, into the Ethernet control port on the XTP matrix switcher. These signals can then be transmitted to remote endpoints to allow total system control without additional cabling.

Bidirectional RS-232 and IR insertion for AV device control
Control signals can be inserted into RS-232 and IR ports on an XTP I/O board or extender. Inserting RS-232 and IR control signals into XTP Systems allows a control system to interface with devices at remote endpoints via the matrix switcher.

SD/Pro processing
Baseband 480i and 576i input video is deinterlaced to ensure compatibility with HDMI and DVI-equipped display devices, without the need for scalers.
Remote power over CATx cabling to XTP transmitters and receivers
XTP matrix switchers can power remote XTP transmitters and receivers over the same twisted pair cable for sending AV signals. This avoids the need to separately power XTP devices at remote endpoints.

HDCP compliant
XTP Systems are HDCP-compliant, including the matrix switcher, remote endpoints, and XTP 4K twisted pair products, along with XTP II I/O boards support HDCP 2.2 compliance.

SpeedSwitch® Technology
Provides exceptional switching speed for HDCP-encrypted content.

EDID Minder® automatically manages EDID communication between connected devices
EDID Minder ensures that all sources power up properly and reliably provide content for display.

Key Minder® continuously verifies HDCP compliance for quick, reliable switching

Audio breakaway
Provides the capability to separate audio signals from their corresponding video signals within the matrix switcher, including HDMI embedded audio. This allows the audio and video signals from one source to be switched to different destinations.

Modular, field-upgradeable and hot-swappable design
XTP matrix switchers provide substantial flexibility, expandability, and affordability by allowing users to select the configuration required for a system. Additional input and output boards may be added at any time for quick and easy upgradeability or expansion. Hot-swappable components allow the user to replace an input or output board at any time without the need to power down the unit. This is especially useful for mission-critical applications that require continuous system operation.

Ethernet extension
Ethernet access can be extended to remote endpoints over the same cable used for AV transmission, avoiding the need to install additional network drops or switches. This provides convenient Internet access for remote devices as well as integration into Ethernet-based control systems.

HDMI to DVI Interface Format Correction
Automatically reformats HDMI source signals for output to a DVI display.

HDCP authentication and signal presence confirmation via RS-232 or Ethernet
Provide real-time verification of HDCP status for each digital video input and output. This allows for simple, quick, and easy signal and HDCP verification through RS-232/RS-422 or Ethernet, providing valuable feedback to a system operator or helpdesk support staff.

HDCP Visual Confirmation provides a green signal when HDCP-encrypted content is transmitted to a non-compliant display
A full-screen green signal is sent when HDCP-encrypted content is transmitted to a non-HDCP compliant display, providing immediate visual confirmation that protected content cannot be viewed on the display.

Automatic color bit depth management
The matrix switcher automatically adjusts color bit depth based on the display EDID, preventing color compatibility conflicts between source and display.

Automatic cable equalization
Automatic equalization is provided for each digital input to optimize signal performance.

Automatic output reclocking
Reshapes and restores timing of digital video signals at each output, eliminating high frequency jitter to ensure reliable transmission over long cables.

Ethernet monitoring and control
Engineered to meet the needs of professional AV environments, Ethernet control provides proactive monitoring and system management over a LAN, WAN, or the Internet, using standard TCP/IP protocols. Ethernet control provides for remote selection of input and output ties, adjustment and control of audio input and output levels, and advanced system diagnostics.

Redundant power supply
XTP matrix switcher frames configurable to 32x32 or 64x64 include a redundant power supply for continuous, mission-critical applications where power reliability is crucial. Optional versions of the 16x16 frames feature a redundant power supply.

Global presets
Frequently used I/O configurations may be saved and recalled either from the front panel, serial, USB, or Ethernet control. This time-saving feature allows I/O configurations to be set up and stored in memory for future use.

Advanced computer-aided diagnostics
Provide 24-hour self-diagnostics of input/output boards, primary and redundant power supply voltages, XTP links, and overall functional status of the matrix. Using the Ethernet or RS-232/RS-422 communications port, status monitoring is possible for off-site or unmanned locations, such as government, military, medical, and other sensitive 24/7 environments.

Front panel security lockout
Prevents unauthorized use in non-secure environments.

Compatible with all XTP products
XTP Systems provide flexible, reliable signal switching and distribution in an integrated solution for multiple digital and analog formats.
Overview

**Completely integrated solution**
XTP Systems feature fully digital signal routing with digital conversion of analog signals.

**Configurable from 4x4 to 64x64**
The modular XTP matrix switchers can be appropriately sized to application requirements while allowing for future expansion and formats.

**Tri-color, backlit buttons and Front Panel Controller**
The QS-FPC™ - QuickSwitch Front Panel Controller allows for simple, intuitive matrix switcher operation.

**AV routing options**
AV signals can be routed together or independently, including embedded HDMI audio signals.

**USB configuration port**
Provides convenient user access for setting up, operating, and monitoring XTP Systems.

**Advanced system monitoring**
Provides continuous self-diagnostics of the matrix switcher and its essential components, including the primary and redundant power supplies.

**Hot-Swappable primary and redundant power supplies**
Provides reliability for mission-critical operations.

**Complete integration solution for digital and analog video**
XTP Systems feature fully digital signal routing with digital conversion of analog signals.

**RS-232 and IR insertion**
Bidirectional control signals can be inserted to control devices at remote endpoints.

**Ethernet extension**
Ethernet can be extended to remote endpoints for network access or system control.

**Audio signal routing and management**
XTP Systems integrate analog audio alongside digital HDMI audio, with extensive signal routing and management options.

**Remote powering over CATx cabling**
XTP matrix switchers can power remote XTP transmitters and receivers over the same twisted pair cable for AV.

**50 Gbps ultra performance backplane**
XTP II CrossPoint matrix switchers are engineered to exceed the bandwidth required by HDMI 2.0 and DisplayPort 1.4 signals. The 50 Gbps digital switching backplane provides more than enough bandwidth to switch 4K/60 at 4:4:4 with 16 bits per color, and anticipates future video standards.

**RS-232 insertion for system control**
The entire XTP System, including the matrix switcher and devices at remote endpoints, can be controlled via RS-232 commands inserted into the Ethernet control port.

**Wide variety of input and output boards**
XTP I/O boards connect to XTP transmitters and receivers installed in remote locations, while HDMI, DVI, 3G-SDI, analog video, and audio I/O boards support local connections.

**Hot-swappable, modular, field-upgradeable design**
Ensures flexibility and minimizes system downtime.
XTP II CrossPoint Series
Modular Digital Matrix Switchers with SpeedSwitch Technology

The Extron XTP II CrossPoint modular matrix switchers are the first in the AV industry to offer a 50 Gbps digital switching backplane. Representing a monumental leap in engineering and product design, XTP II lets you design and deploy AV systems with switching bandwidth that exceeds the data rate required to distribute 4K/60 video with 4:4:4 chroma sampling at 16 bits per color. The XTP II CrossPoint is the only AV technology platform that supports uncompromised 4K video while providing additional bandwidth to accommodate anticipated video resolutions and formats, such as 8K. These matrix switchers can be configured with a variety of boards, including the XTP II HDMI input and output boards that support HDMI 2.0b, HDR, and HDCP 2.2, a complete family of XTP 4K twisted pair boards and endpoints, plus all existing XTP Systems family products. XTP II CrossPoint is the definitive AV industry standard you can depend on now and in the future to meet the challenges of an 8K future.

COMMON FEATURES
• Ultra performance 50 Gbps data-rate digital backplane
• Modular, field-upgradeable and hot-swappable design
• Compatible with all XTP input and output boards
• RS-232 insertion from the Ethernet control port
• Remote powering of XTP twisted pair transmitters and receivers
• SpeedSwitch® Technology provides exceptional switching speed for HDCP-encrypted content
• EDID Minder® automatically manages EDID communication between connected devices
• Key Minder® continuously verifies HDCP compliance for quick, reliable switching
• Audio breakaway
• Ethernet extension
• Ethernet monitoring and control

XTP II CrossPoint 1600
Modular Digital Matrix Switchers from 4x4 to 16x16

UNIQUE FEATURES
• Available in I/O sizes from 4x4 to 16x16
• Optional redundant power supply
• Rack-mountable 5U, full rack width metal enclosure

<table>
<thead>
<tr>
<th>Model</th>
<th>Version Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTP II CrossPoint 1600 Frame</td>
<td>5U, 8-slot Frame</td>
<td>Call</td>
</tr>
<tr>
<td>XTP II CrossPoint 1600 Frame w/ RPS</td>
<td>5U, 8-slot Frame w/ redundant power</td>
<td>Call</td>
</tr>
</tbody>
</table>

XTP II CrossPoint 3200
Modular Digital Matrix Switchers from 4x4 to 32x32

UNIQUE FEATURES
• Available in I/O sizes from 4x4 to 32x32
• Redundant power supply
• Rack-mountable 10U, full rack width metal enclosure

<table>
<thead>
<tr>
<th>Model</th>
<th>Version Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTP II CrossPoint 3200 Frame</td>
<td>10U, 16-slot Frame</td>
<td>Call</td>
</tr>
</tbody>
</table>

XTP II CrossPoint 6400
Modular Digital Matrix Switchers from 4x4 to 64x64

UNIQUE FEATURES
• Available in I/O sizes from 4x4 to 64x64
• Redundant power supply
• Rack-mountable 20U, full rack width metal enclosure

<table>
<thead>
<tr>
<th>Model</th>
<th>Version Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTP II CrossPoint 6400 Frame</td>
<td>20U, 32-slot Frame</td>
<td>Call</td>
</tr>
</tbody>
</table>
The Extron XTP CrossPoint input and output boards enable long distance signal transmission between the XTP matrix switchers and XTP transmitters and receivers. In a twisted pair cable infrastructure, video, audio, bidirectional RS-232 and IR control, power plus Ethernet can be sent up to 330 feet (100 meters) over Extron XTP DTP 24 or shielded CATx cable. XTP 4K fiber optic I/O boards enable long-haul signal extension of AV, bidirectional control, and Ethernet over OM4 multimode or singlemode cable. Boards also support direct HDMI, DVI, analog video, and audio connections to local sources and displays. The input and output boards can be mixed and matched to meet application requirements for supporting sources and displays in local and remote locations, and integrating various digital and analog video formats into a single system.

### XTP CP 4K Twisted Pair I/O Boards
Twisted Pair Input and Output Boards with RS-232 and IR Insertion
- Four XTP inputs or four XTP outputs with RS-232 and IR insertion
- Extends video, audio, bidirectional RS-232 and IR, and Ethernet up to 330 feet (100 meters) over a shielded CATx cable
- Supports computer and video resolutions up to 4K
- HDCP 2.2 compliant
- Remote power to XTP transmitters and receivers

<table>
<thead>
<tr>
<th>Model</th>
<th>Version Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTP CP 4i 4K</td>
<td>Four Input Board, XTP</td>
<td>70-940-21</td>
</tr>
<tr>
<td>XTP CP 4o 4K</td>
<td>For Output Board, XTP</td>
<td>70-943-21</td>
</tr>
</tbody>
</table>

### XTP CP 4K Fiber I/O Boards
Fiber Optic Input and Output Boards with RS-232 and IR Insertion
- Four fiber optic inputs or outputs with RS-232 and IR insertion
- Extends video, audio, bidirectional RS-232 and IR, and Ethernet over one fiber optic cable
- Supports computer and video resolutions up to 4K
- HDCP compliant
- Bidirectional RS-232 and IR insertion for AV device control
- Ethernet extension

<table>
<thead>
<tr>
<th>Model</th>
<th>Version Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTP CP 4i Fiber 4K MM</td>
<td>Four Input Board, Fiber 4K - Multimode</td>
<td>70-985-01</td>
</tr>
<tr>
<td>XTP CP 4i Fiber 4K SM</td>
<td>Four Input Board, Fiber 4K - Singlemode</td>
<td>70-985-02</td>
</tr>
<tr>
<td>XTP CP 4o Fiber 4K MM</td>
<td>Four Output Board, Fiber 4K - Multimode</td>
<td>70-986-01</td>
</tr>
<tr>
<td>XTP CP 4o Fiber 4K SM</td>
<td>Four Output Board, Fiber 4K - Singlemode</td>
<td>70-986-02</td>
</tr>
</tbody>
</table>

### XTP II CP HD PLUS I/O Boards
HDMI 4K/60 Input and Output Boards with Analog Stereo Audio
- Four HDMI inputs or outputs with analog stereo audio
- Supports computer and video resolutions up to 4K
- Supported HDMI 2.0b specification features include data rates up to 18 Gbps, HDR, Deep Color up to 12-bit, 3D, and HD lossless audio formats
- HDCP 2.2 compliant
- Automatic cable equalization
- Automatic output reclocking
- Audio breakaway enables independent audio and video switching

<table>
<thead>
<tr>
<th>Model</th>
<th>Version Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTP II CP 4i HD 4K PLUS</td>
<td>Four Input, XTP</td>
<td>70-1112-01</td>
</tr>
<tr>
<td>XTP II CP 4o HD 4K PLUS</td>
<td>Four Output, XTP</td>
<td>70-1113-01</td>
</tr>
</tbody>
</table>

### XTP CP DVI Pro I/O Boards
HDCP-Compliant DVI Input and Output boards with Analog Stereo Audio
- Four DVI inputs or four DVI outputs with stereo audio
- Supports computer and video resolutions up to 1920x1200, including 1080p/60 Deep Color and 2K
- HDCP compliant
- Automatic cable equalization
- Automatic output reclocking
- Audio breakaway enables independent audio and video switching

<table>
<thead>
<tr>
<th>Model</th>
<th>Version Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTP CP 4i DVI Pro</td>
<td>Four Input, DVI with Stereo Audio</td>
<td>70-684-11</td>
</tr>
<tr>
<td>XTP CP 4o DVI Pro</td>
<td>Four Output, DVI with Stereo Audio</td>
<td>70-686-11</td>
</tr>
</tbody>
</table>
## XTP CP I/O Boards

### XTP CP 4i 3G-SDI Board
**3G-SDI Input Board with Analog Stereo Audio**
- Four 3G-SDI inputs with stereo audio
- Converts 3G-SDI, HD-SDI, and SDI signals for long distance transmission within XTP Systems®
- Supports 3G-SDI/HD-SDI/SDI signals up to 2.97 Gbps
- Automatically adapts to SMPTE and ITU digital video standards for 3G-SDI, HD-SDI, and SDI
- Buffered 3G-SDI/HD-SDI/SDI input loop-throughs
- Input equalization and reclocking on buffered loop-throughs

<table>
<thead>
<tr>
<th>Model</th>
<th>Version Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTP CP 4i 3G-SDI</td>
<td>Four Input Board, 3G-SDI w/ Stereo Audio</td>
<td>70-1050-01</td>
</tr>
</tbody>
</table>

### XTP PI 100
**Single Port XTP Power Injector**
- Supplies power to one XTP twisted pair extender
- Designed specifically for the high data rates of XTP Systems
- Patented ZipClip™ 200 mounting kit included
- Real-time status LEDs for troubleshooting and monitoring
- UL/c-UL listed and CE compliant

<table>
<thead>
<tr>
<th>Model</th>
<th>Version Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTP PI 100</td>
<td>Single Port XTP Power Injector</td>
<td>60-1233-01</td>
</tr>
</tbody>
</table>

### XTP CP 4i VGA Board
**Universal Input Board with Analog Stereo Audio**
- Four universal inputs with stereo audio
- Supports computer and video up to 1920x1200, including 1080p/60
- Accepts RGBHV, HD component video, S-video, and composite video
- Auto input format detection
- Analog-to-digital signal conversion
- SD Pro processing provides deinterlacing of standard definition video

<table>
<thead>
<tr>
<th>Model</th>
<th>Version Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTP CP 4i VGA</td>
<td>Four Input, Universal VGA with Stereo Audio</td>
<td>70-941-01</td>
</tr>
</tbody>
</table>

### XTP PI 400
**Four Port XTP Power Injector**
- Supplies power for up to four XTP twisted pair extenders
- Designed specifically for the high data rates of XTP Systems
- No impact on signal quality
- Real-time status LEDs for troubleshooting and monitoring
- UL/c-UL listed and CE compliant
- 1U, half rack width enclosure

<table>
<thead>
<tr>
<th>Model</th>
<th>Version Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTP PI 400</td>
<td>Four Port XTP Power Injector</td>
<td>60-1299-01</td>
</tr>
</tbody>
</table>

### XTP CP 4o SA Board
**Analog Stereo Audio Board**
- Four stereo audio outputs
- Balanced or unbalanced audio outputs
- Audio output volume adjustment and muting
- Audio breakaway enables independent audio and video switching
- Compatible with all XTP II CrossPoint and XTP CrossPoint matrix switchers

<table>
<thead>
<tr>
<th>Model</th>
<th>Version Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTP CP 4o SA</td>
<td>Four Output, Analog Stereo Audio</td>
<td>70-944-01</td>
</tr>
</tbody>
</table>
Extron XTP transmitters and receivers are used to interface with remote sources and displays via long distance transmission of AV and control signals as well as Ethernet over a shielded CATx or fiber optic cable. XTP transmitters and receivers are fully compatible with XTP matrix switchers as part of a fully integrated switching and distribution system for local and remote sources and display devices. They support HDMI, DVI, analog video, and audio signals. Specific XTP transmitters feature automatic multi-input switching to streamline integration of multiple remote sources into XTP Systems. Note: Extron XTP DTP 24 Shielded Twisted Pair cable provides added protection from outside interference and ensures high quality signal transmission.

**XTP FT HD 4K**

**XTP 4K Fiber Optic Transmitter for HDMI**

**FEATURES**
- Transmits video, audio, bidirectional RS-232 and IR control, and Ethernet over one fiber optic cable
- Supports computer and video resolutions up to 4K
- HDMI loop-through with selectable audio control
- HDCP compliant
- Bidirectional RS-232 and IR insertion for AV device control
- Ethernet extension
- Supported HDMI specification features include data rates up to 10.2 Gbps, Deep Color up to 12-bit, 3D, and HD lossless audio formats
- EDID Minder and Key Minder
- Supports multiple embedded audio formats
- Selectable analog stereo audio input embedding
- Industry standard LC connector provides reliable physical connectivity and precise fiber core alignment
- Multimode and singlenode models available

<table>
<thead>
<tr>
<th>Model</th>
<th>Version Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTP FT HD 4K MM</td>
<td>HDMI Transmitter - Multimode</td>
<td>60-1276-11</td>
</tr>
<tr>
<td>XTP FT HD 4K SM</td>
<td>HDMI Transmitter - Singlemode</td>
<td>60-1276-12</td>
</tr>
</tbody>
</table>

**XTP T HD 4K**

**XTP 4K Twisted Pair Transmitter for HDMI**

**FEATURES**
- Transmits video, audio, bidirectional RS-232 and IR, and Ethernet up to 330 feet (100 meters) over a shielded CATx cable
- Supports computer and video resolutions up to 4K
- HDMI loop-through with selectable audio control
- HDCP 2.2 compliant
- Remote power capability
- Extron XTP DTP 24 shielded twisted pair cable is strongly recommended for optimal performance
- Bidirectional RS-232 and IR insertion for AV device control
- Supported HDMI 2.0 specification features include data rates up to 10.2 Gbps, Deep Color up to 12-bit, 3D, and HD lossless audio formats
- EDID Minder and Key Minder
- Ethernet extension
- Supports multiple embedded audio formats
- Selectable analog stereo audio input embedding

<table>
<thead>
<tr>
<th>Model</th>
<th>Version Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTP T HD 4K</td>
<td>XTP HDMI Transmitter</td>
<td>60-1524-12</td>
</tr>
</tbody>
</table>
**XTP T USW 103 4K**
Three Input XTP Switcher with Integrated XTP 4K Twisted Pair Transmitter

**FEATURES**
- Transmits DisplayPort, HDMI or VGA video, audio, bidirectional RS-232 and IR, along with Ethernet up to 330 feet (100 meters) over a shielded CATx cable
- Supports computer and video resolutions up to 4K
- Buffered HDMI input loop-through
- HDCP 2.2 compliant
- Remote power capability
- Extron XTP DTP 24 shielded twisted pair cable is strongly recommended for optimal performance
- Auto-switching between inputs
- Bidirectional RS-232 and IR insertion for AV device control
- EDID Minder and Key Minder
- Ethernet extension
- RS-232 control

<table>
<thead>
<tr>
<th>Model</th>
<th>Version Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTP T USW 103 4K</td>
<td>DisplayPort, HDMI, VGA Switcher</td>
<td>60-1550-12</td>
</tr>
</tbody>
</table>

**XTP T HWP 101 4K**
XTP 4K Twisted Pair Transmitter for HDMI - Decora®-style Wallplate

**FEATURES**
- Transmits HDMI with embedded audio up to 330 feet (100 meters) over a shielded CATx cable
- Supports computer and video resolutions up to 4K
- HDCP 2.2 compliant
- Remote power capability
- Supported HDMI specification features include data rates up to 10.2 Gbps, Deep Color up to 12-bit, 3D, and HD lossless audio formats
- Extron XTP DTP 24 shielded twisted pair cable is strongly recommended for optimal performance
- EDID Minder and Key Minder

<table>
<thead>
<tr>
<th>Model</th>
<th>Version Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTP T HWP 101 4K</td>
<td>XTP HDMI Decora Transmitter - Black</td>
<td>60-1611-12</td>
</tr>
<tr>
<td>XTP T HWP 101 4K</td>
<td>XTP HDMI Decora Transmitter - White</td>
<td>60-1611-13</td>
</tr>
</tbody>
</table>

**XTP T UWP 202 4K**
Two Input XTP 4K Twisted Pair Transmitter - Decora®-style Wallplate

**FEATURES**
- Transmits HDMI or analog video, audio, bidirectional RS-232 and IR, and Ethernet up to 330 feet (100 meters) over a shielded CATx cable
- Supports computer and video resolutions up to 4K
- HDCP 2.2 compliant
- Remote power capability
- Bidirectional RS-232 and IR insertion for AV device control
- Extron XTP DTP 24 shielded twisted pair cable is strongly recommended for optimal performance
- Auto-switching between inputs
- EDID Minder and Key Minder
- Ethernet extension - XTP T UWP 202 4K model only
- RS-232 control

<table>
<thead>
<tr>
<th>Model</th>
<th>Version Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTP T UWP 202 4K</td>
<td>HDMI, VGA Decora Transmitter - Black</td>
<td>60-1529-12</td>
</tr>
<tr>
<td>XTP T UWP 202 4K</td>
<td>HDMI, VGA Decora Transmitter - White</td>
<td>60-1529-13</td>
</tr>
<tr>
<td>XTP T UWP 202 4K NL</td>
<td>HDMI, VGA Decora Transmitter No LAN - Black</td>
<td>60-1530-12</td>
</tr>
<tr>
<td>XTP T UWP 202 4K NL</td>
<td>HDMI, VGA Decora Transmitter No LAN - White</td>
<td>60-1530-13</td>
</tr>
</tbody>
</table>
XTP Transmitters

XTP T FB 202 4K
Two Input XTP 4K Twisted Pair Transmitter for Floor Boxes

FEATURES
- Designed to mount in a variety of floor boxes
- Transmits HDMI or analog video, audio, bidirectional RS-232 and IR, and Ethernet up to 330 feet (100 meters) over a shielded CATx cable
- Supports computer and video resolutions up to 4K
- HDCP 2.2 compliant
- Remote power capability
- Extron XTP DTP 24 shielded twisted pair cable is strongly recommended for optimal performance
- Auto-switching between inputs
- Bidirectional RS-232 and IR insertion for AV device control
- EDID Minder and Key Minder
- RS-232 control

<table>
<thead>
<tr>
<th>Model</th>
<th>Version Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTP T FB 202 4K</td>
<td>Two Input XTP Transmitter for Floor Boxes</td>
<td>60-1582-12</td>
</tr>
</tbody>
</table>

XTP T VGA
Universal XTP Twisted Pair Transmitter for VGA

FEATURES
- Transmits analog video, audio, bidirectional RS-232 and IR, and Ethernet up to 330 feet (100 m) over a shielded CATx cable
- Supports computer and video resolutions up to 1920x1200, including 1080p/60
- Supports RGBHV, HD component video, S-video, and composite video signals
- Remote power capability
- Bidirectional RS-232 and IR insertion for AV device control
- Extron XTP DTP 24 shielded twisted pair cable is strongly recommended for optimal performance

<table>
<thead>
<tr>
<th>Model</th>
<th>Version Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTP T VGA</td>
<td>Universal XTP VGA Transmitter</td>
<td>60-1231-12</td>
</tr>
</tbody>
</table>


XTP Transmitters

**XTP T MK 202**
Two Input XTP Twisted Pair Transmitter for MK-type Junction Boxes

**FEATURES**
- Designed to mount into two-gang MK boxes and enclosures for use in the UK, Middle East, Singapore, and other regions using MK-type enclosure
- Transmits HDMI or analog video, audio, and bidirectional RS-232 and IR up to 330 feet (100 meters) over a shielded CATx cable
- Supports computer and video resolutions up to 1920x1200, including 1080p/60 Deep Color and 2K
- HDCP compliant
- Remote power capability
- Extron XTP DTP 24 shielded twisted pair cable is strongly recommended for optimal performance
- One HDMI and one VGA input
- Auto-switching between inputs
- Bidirectional RS-232 and IR insertion for AV device control
- EDID Minder and Key Minder

<table>
<thead>
<tr>
<th>Model</th>
<th>Version Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTP T MK 202</td>
<td>2 Input MK Transmitter</td>
<td>60-1358-23</td>
</tr>
</tbody>
</table>

---

**XTP T EU 202**
Two Input XTP Twisted Pair Transmitter for EU-type Junction Boxes

**FEATURES**
- Designed to mount into two-gang EU junction boxes and enclosures with 60 mm mounting centers
- Transmits HDMI or analog video, audio, and bidirectional RS-232 and IR up to 330 feet (100 meters) over a shielded CATx cable
- Supports computer and video resolutions up to 1920x1200, including 1080p/60 Deep Color and 2K
- HDCP compliant
- Remote power capability
- Extron XTP DTP 24 shielded twisted pair cable is strongly recommended for optimal performance
- One HDMI and one VGA input
- Auto-switching between inputs
- Bidirectional RS-232 and IR insertion for AV device control
- EDID Minder and Key Minder

<table>
<thead>
<tr>
<th>Model</th>
<th>Version Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTP T EU 202</td>
<td>2 Input EU Transmitter</td>
<td>60-1358-35</td>
</tr>
</tbody>
</table>
XTP Receivers

**XTP FR HD 4K**

**XTP 4K Fiber Optic Receiver for HDMI**

**FEATURES**
- Receives video with embedded audio, bidirectional RS-232 and IR control, and Ethernet over one fiber optic cable
- Supports computer and video resolutions up to 4K
- Bidirectional RS-232 and IR insertion for AV device control
- HDCP compliant
- HDMI audio de-embedding with multi-channel digital S/PDIF audio and analog stereo audio outputs
- Ethernet extension
- EDID Minder and Key Minder
- Audio output volume adjustment and muting
- Selectable HDMI audio pass-through
- Two relays for controlling room functions
- Compatible with all XTP products

**Model** | **Version Description** | **Part Number**
--- | --- | ---
XTP FR HD 4K MM | HDMI Receiver - Multimode | 60-1276-21
XTP FR HD 4K SM | HDMI Receiver - Singlemode | 60-1276-22

**XTP SFR HD 4K**

**XTP 4K Fiber Optic Scaling Receiver for HDMI**

**FEATURES**
- Receives video with embedded audio, bidirectional RS-232 and IR control, and Ethernet over one fiber optic cable
- Advanced Extron Vector™ 4K scaling technology
- Selectable output rates from 640x480 to 3840x2160
- HDCP compliant
- Bidirectional RS-232 and IR insertion for AV device control
- Ethernet extension
- Scales HDMI, DVI, RGB, HD component video, and standard definition video received from XTP devices
- EDID Minder and Key Minder
- HDMI audio de-embedding with multi-channel digital S/PDIF audio and analog stereo audio outputs
- Audio output volume adjustment and muting
- Selectable HDMI audio pass-through
- Two relays for controlling room functions
- On-screen menus
- RS-232 control

**Model** | **Version Description** | **Part Number**
--- | --- | ---
XTP SFR HD 4K MM | HDMI Scaling Receiver - Multimode | 60-1278-21
XTP SFR HD 4K SM | HDMI Scaling Receiver - Singlemode | 60-1278-22

**XTP R HD 4K**

**XTP 4K Twisted Pair Receiver for HDMI**

**FEATURES**
- Receives video with embedded audio, bidirectional RS-232 and IR, and Ethernet up to 330 feet (100 meters) over a shielded CATx cable
- Supports computer and video resolutions up to 4K
- Bidirectional RS-232 and IR insertion for AV device control
- HDCP 2.2 compliant
- Bidirectional RS-232 and IR insertion for AV device control
- Remote power capability
- Extron XTP DTP 24 shielded twisted pair cable is strongly recommended for optimal performance
- HDMI audio de-embedding with analog stereo and digital S/PDIF audio outputs
- Ethernet extension
- Two relays for controlling room functions

**Model** | **Version Description** | **Part Number**
--- | --- | ---
XTP R HD 4K | XTP HDMI Receiver | 60-1524-13
XTP Receivers

XTP SR HD 4K
XTP 4K Twisted Pair Scaling Receiver

FEATURES
- Receives video with embedded audio, bidirectional RS-232 and IR, and Ethernet up to 330 feet (100 meters) over a shielded CATx cable
- Advanced Extron Vector™ 4K scaling technology
- Selectable output rates from 640x480 to 3840x2160
- HDCP 2.2 compliant
- Remote power capability
- Extron XTP DTP 24 shielded twisted pair cable is strongly recommended for optimal performance
- Scales HDMI, DVI, RGB, HD component video, and standard definition video received from XTP devices
- Bidirectional RS-232 and IR insertion for AV device control
- EDID Minder and Key Minder
- Ethernet extension
- HDMI audio de-embedding with multi-channel digital S/PDIF audio and analog stereo audio outputs
- Selectable HDMI audio pass-through
- Two relays for controlling room functions
- Aspect ratio control
- Image freeze control
- On-screen menus
- RS-232 control

Model | Version Description | Part Number
--- | --- | ---
XTP SR HD 4K | XTP HDMI Scaling Receiver | 60-1524-01

XTP R HWP 201 4K
XTP 4K Twisted Pair Receiver with 90° HDMI Connector for Wall-Mounted Displays

FEATURES
- Unique low-profile wallplate design requires minimal space behind a flat panel display
- Receives video with embedded audio, bidirectional RS-232 and IR, and Ethernet up to 330 feet (100 meters) over a shielded CATx cable
- Supports computer and video resolutions up to 4K
- HDCP 2.2 compliant
- Remote power capability
- Extron XTP DTP 24 shielded twisted pair cable is strongly recommended for optimal performance
- Bidirectional RS-232 and IR insertion for AV device control
- EDID Minder and Key Minder
- Ethernet extension
- HDMI audio de-embedding with analog stereo audio outputs and volume control
- Mounts in an included two-gang Decorarstyle wallplate
- Selectable HDMI audio pass-through
- Two relays for controlling room functions
- Aspect ratio control
- Image freeze control
- On-screen menus
- RS-232 control

Model | Version Description | Part Number
--- | --- | ---
XTP R HWP 201 4K | XTP HDMI Decora Receiver - Black | 60-1629-22
XTP R HWP 201 4K | XTP HDMI Decora Receiver - White | 60-1629-23
Extron offers a wide variety of products to streamline the installation and integration of XTP Systems. XTP DTP 24 twisted pair cables, fiber optic bulk cable and cable assemblies, along with termination accessories are designed to provide optimal signal transmission over the XTP cable infrastructure. For discreet AV connectivity within a room, architectural connectivity products are available in various form factors.

**XTP DTP 24**

**Shielded Twisted Pair Cable for XTP Systems and DTP Systems**
- Engineered for superior performance with Extron XTP Systems and DTP Systems products
- Provides added protection from outside interference and ensures high quality signal transmission
- Certified to 475 MHz bandwidth at distances up to 330 feet (100 m)
- Independently tested and verified to meet performance requirements set by HDBaseT Alliance
- Engineered and tested to exceed HDMI error rate specifications of less than one pixel per billion at 100 meters
- 24 AWG solid copper construction
- Plenum and Non-Plenum rated versions available

<table>
<thead>
<tr>
<th>Model</th>
<th>Version Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTP DTP 24/1000</td>
<td>Non-Plenum 1000’ (305 m) spool</td>
<td>22-236-03</td>
</tr>
<tr>
<td>XTP DTP 24P/1000</td>
<td>Plenum 1000’ (305 m) spool</td>
<td>22-235-03</td>
</tr>
<tr>
<td>XTP DTP 24 Plug</td>
<td>XTP DTP 24 Plug, Package of 10</td>
<td>101-005-02</td>
</tr>
<tr>
<td>XTP DTP 24 Jack</td>
<td>XTP DTP 24 Jack, Package of 10</td>
<td>101-023-01</td>
</tr>
<tr>
<td>XTP DTP 24 Coupler</td>
<td>XTP DTP 24 Coupler, Package of 10</td>
<td>101-022-02</td>
</tr>
</tbody>
</table>

**XTP DTP 24 Series**

**Precision-terminated Shielded Twisted Pair Cables for XTP Systems and DTP Systems**
- Engineered for superior performance
- Provides added protection from outside interference and ensures high quality signal transmission
- Certified to 475 MHz bandwidth at distances up to 330 feet (100 m)
- Independently tested and verified to meet performance requirements set by HDBaseT Alliance
- Engineered and tested to exceed HDMI error rate specifications of less than one pixel per billion at 100 meters
- 24 AWG solid copper construction
- Plenum and Non-Plenum rated versions available
- Available in lengths from 3’ (90 cm) to 100’ (30.4 m)

<table>
<thead>
<tr>
<th>Model</th>
<th>Version Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTP DTP 24</td>
<td>Non-Plenum</td>
<td>26-702-xx</td>
</tr>
<tr>
<td>XTP DTP 24P</td>
<td>Plenum</td>
<td>26-695-xx</td>
</tr>
</tbody>
</table>

**Fiber Optic Bulk Cable and Cable Assemblies**

**Bend-Insensitive Duplex Multimode and Singlemode Fiber - Plenum**
- Laser-optimized OM4 multimode fiber
- Bend-insensitive
- OFNP plenum-rated jacket
- Durable duplex zip-cord cable construction
- Standard 2 mm duplex fiber optic cable for easy termination
- LC to LC Multimode and Singlemode Cable Assemblies also available
- Quick LC Fiber Optic Connectors also available

<table>
<thead>
<tr>
<th>Model</th>
<th>Version Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>OM4 MM P</td>
<td>Plenum 2 km (0.662’) Spool</td>
<td>22-225-02</td>
</tr>
<tr>
<td>SM P</td>
<td>Plenum 2 km (0.662’) Spool</td>
<td>22-225-03</td>
</tr>
</tbody>
</table>

**Fiber Optic Cable Assemblies**

**LC to LC Multimode and Singlemode Fiber Optic Cable Assemblies**
- Available in Laser-Optimized Multimode or low-loss Singlemode
- Bend-insensitive
- OFNP plenum-rated jacket
- Durable duplex zip-cord cable construction
- Terminated with industry standard LC connectors
- Available in lengths from 1 meter (3.3 feet) to 60 meters (197 feet)

<table>
<thead>
<tr>
<th>Model</th>
<th>Version Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2LC OM4 MM P</td>
<td>Multimode - Plenum</td>
<td>26-671-xx</td>
</tr>
<tr>
<td>2LC SM P</td>
<td>Singlemode - Plenum</td>
<td>26-670-xx</td>
</tr>
</tbody>
</table>
XTP Systems include convenient, user-friendly control software for configuring, operating, and monitoring the matrix switcher and remote XTP transmitters and receivers. Within a single window, the software provides a complete view of the system, allowing a user to manage input and output ties, monitor real-time signal and HDCP status for local and remote endpoints, and verify EDID communication as well as the audio format for any signal path. It also makes it easy to control remote XTP devices and manage power to XTP twisted pair devices. Additional features include tools for configuring EDID communication, creating I/O presets, and backing up or restoring system settings.
XTP System Configuration Software makes it easy to manage EDID communication between displays and sources. It allows a user to examine the EDID that is automatically captured from displays connected to the XTP matrix switcher or XTP receivers to determine a display's native or optimal resolution and refresh rate as well as audio format compatibility. The user can then assign this EDID to any local or remote input device connected to the system. Alternatively, several pre-stored EDID settings are available based on various resolutions, refresh rates, and audio formats. All EDID management options are accessible within a single window of the XTP Systems software.
ETHERNET EXTENSION

XTP Systems can extend Ethernet over the same CATx or fiber optic cable used for transmitting AV and control signals. This capability easily provides LAN access for remote endpoints via the XTP matrix switcher, without the need for dedicated network drops, additional Ethernet switches, or additional IP addresses. A house LAN and a separate AV control LAN can be connected into the matrix switcher, enabling Internet access for source devices and control of remote displays. A shared LAN can also be used to provide both Internet access and AV system control at remote endpoints, and also provides the flexibility to install touchpanels and other control devices anywhere in the system.
XTP SYSTEM CONTROL VIA BIDIRECTIONAL RS-232 INSERTION

Entire XTP Systems, including the matrix switcher, transmitters and receivers, and remote devices, can be operated from a single point of control. RS-232 signals delivered via Ethernet from a control system can be inserted into the XTP matrix switcher, which are then transmitted to remote endpoints. Using the same cable for AV, control, and Ethernet streamlines and simplifies system installation.

BIDIRECTIONAL RS-232 AND IR INSERTION

XTP Systems provide easy interfacing of control signals for devices at remote endpoints through bidirectional RS-232 and IR insertion ports on the matrix switcher I/O boards and the XTP extenders. A control processor or other device can directly insert RS-232 or IR commands into the matrix switcher. These commands are then sent out to the endpoints over the shared CATx or fiber optic cable, so that no additional cabling is required for system control.
REMOTE DEVICE POWERING OVER TWISTED PAIR CABLE

In twisted pair cable infrastructures, remote XTP transmitters and receivers can be powered by the XTP matrix switcher over the shared CATx cable. This simplifies installation of remote XTP devices, especially the wall-mount and floor box models, since external AC power is not necessary. The matrix switcher is capable of delivering power through its I/O ports to a set number of endpoints, depending on frame model, and automatically monitoring and managing power consumed by the remote XTP devices. The control software provides a convenient GUI to view and configure remote power distribution. Additional powering for endpoints can be provided by an optional XTP PI 100 or XTP PI 400 power injector, which injects supplemental voltage into a shielded CATx cable.

REMOTE POWER OF TRANSMITTERS

REMOTE POWER OF RECEIVERS
FULL CONFIGURATION CAPABILITY WITH ALL SYSTEM COMPONENTS

XTP System Builder steps you through designing your AV signal switching and distribution solution. With a few clicks of the mouse, your XTP System evolves from an empty frame to a complete design that includes extenders, accessories, and cabling. This online tool generates an as-configured custom part number for the XTP matrix switcher and compiles all selected components into a single equipment list. With convenient 24/7 access, the intuitive XTP System Builder is always available for system design, quote submittal, and pricing.

Configuration of the XTP System begins with selection of the appropriate XTP modular matrix switcher frame. The image of the frame in XTP System Builder automatically populates with each board selection or configuration change.

To complete your design, the online tool lists XTP transmitters and receivers as well as other XTP accessories. Selection of local or remote power for each XTP Twisted Pair device helps to streamline system integration and ensure power needs are met prior to going on site.

Power Tracker

Know at a glance how many XTP twisted pair devices can be and are being powered by the XTP matrix switcher in its current configuration. Power Tracker also lets you know when it is time to reassign an endpoint device to receive local power, or if adding an input or output board can provide the desired remote power capabilities.

Printable Bill of Materials

The complete BOM, including an image of the configured XTP matrix switcher, can be saved as a PDF file or Excel worksheet with optional pricing and project information. It is ideal for your project files and is also suitable for sharing with your client.
### XTP II CROSSPOINT 1600 – XTP II CROSSPOINT 3200 – XTP II CROSSPOINT 6400

#### XTP II CrossPoint 1600 / 3200 / 6400

<table>
<thead>
<tr>
<th>Specifications</th>
<th>XTP II CrossPoint 1600</th>
<th>XTP II CrossPoint 3200</th>
<th>XTP II CrossPoint 6400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of input slots</td>
<td>4</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>Input video signal format</td>
<td>HDMI, DVI, 3G-SDI, RGBHV, RGBS, RGbR, RGBa, YUV, S-video, composite video, XTP twisted pair, XTP fiber</td>
<td>HDMI, DVI, 3G-SDI, RGBHV, RGBS, RGbR, RGBa, YUV, S-video, composite video, XTP twisted pair, XTP fiber</td>
<td>HDMI, DVI, 3G-SDI, RGBHV, RGBS, RGbR, RGBa, YUV, S-video, composite video, XTP twisted pair, XTP fiber</td>
</tr>
<tr>
<td>Number of output slots</td>
<td>4</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>Output video signal format</td>
<td>HDMI, DVI, XTP twisted pair, XTP fiber</td>
<td>HDMI, DVI, XTP twisted pair, XTP fiber</td>
<td>HDMI, DVI, XTP twisted pair, XTP fiber</td>
</tr>
<tr>
<td>Enclosure dimensions</td>
<td>8.75&quot; H x 17.0&quot; W x 17.5&quot; D (5U high, full rack wide)</td>
<td>8.75&quot; H x 17.0&quot; W x 17.5&quot; D (5U high, full rack wide)</td>
<td>35.0&quot; H x 17.0&quot; W x 17.5&quot; D (20U high, full rack wide)</td>
</tr>
<tr>
<td>Power</td>
<td>Internal</td>
<td>Internal</td>
<td>Internal</td>
</tr>
<tr>
<td>Enclosure dimensions</td>
<td>Depth excludes connector, Width excludes rack ears.) 8.75&quot; H x 17.0&quot; W x 17.5&quot; D (5U high, full rack wide) (22.2 cm H x 43.2 cm W x 44.5 cm D)</td>
<td>Depth excludes connector, Width excludes rack ears.) 8.75&quot; H x 17.0&quot; W x 17.5&quot; D (5U high, full rack wide) (22.2 cm H x 43.2 cm W x 44.5 cm D)</td>
<td>Depth excludes connector, Width excludes rack ears.) 35.0&quot; H x 17.0&quot; W x 17.5&quot; D (20U high, full rack wide) (89.0 cm H x 43.2 cm W x 44.5 cm D)</td>
</tr>
</tbody>
</table>

#### XTP CP 4K Twisted Pair I/O Boards

<table>
<thead>
<tr>
<th>Specifications</th>
<th>XTP CP 4K 4I 4K, XTP CP 4O 4K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution range</td>
<td>Up to 2560x1600@60 Hz, or 4K (4096x2160)@30 Hz, UHD (3840x2160)@30 Hz, 4K/UHD @ 60 Hz with 4:2:0 chroma subsampling (* reduced blanking)</td>
</tr>
<tr>
<td>Maximum data rate</td>
<td>10.2 Gbps (3.4 Gbps per color)</td>
</tr>
<tr>
<td>Maximum pixel clock</td>
<td>300 MHz</td>
</tr>
<tr>
<td>Audio format</td>
<td>Analog stereo, Dolby® Digital®, Dolby Digital EX, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos®, DTSP, DTS-ES, DTS 96/24, DTS-HD Master Audio®, up to 8 ch PCM</td>
</tr>
<tr>
<td>Video transmission distance</td>
<td>4K/UHD @ 30 and 60 Hz: Up to 330' (100 m) using shielded twisted pair (STP) or STP DTP 24 cable</td>
</tr>
<tr>
<td>Fiber transmission distance</td>
<td>1080p @ 60 Hz: Up to 330' (100 m) using shielded twisted pair (STP) or STP DTP 24 cable</td>
</tr>
<tr>
<td>Cable recommendations</td>
<td>Solid conductor, 24 AWG or better</td>
</tr>
<tr>
<td>Connectors</td>
<td>4 female RJ-45 per board</td>
</tr>
</tbody>
</table>

---

### AV ROUTING CAPABILITIES

<table>
<thead>
<tr>
<th>Specifications</th>
<th>XTP II CrossPoint 1600</th>
<th>XTP II CrossPoint 3200</th>
<th>XTP II CrossPoint 6400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of input slots</td>
<td>4</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>Input video signal format</td>
<td>HDMI, DVI, 3G-SDI, RGBHV, RGBS, RGbR, RGBa, YUV, S-video, composite video, XTP twisted pair, XTP fiber</td>
<td>HDMI, DVI, 3G-SDI, RGBHV, RGBS, RGbR, RGBa, YUV, S-video, composite video, XTP twisted pair, XTP fiber</td>
<td>HDMI, DVI, 3G-SDI, RGBHV, RGBS, RGbR, RGBa, YUV, S-video, composite video, XTP twisted pair, XTP fiber</td>
</tr>
<tr>
<td>Input audio signal format</td>
<td>Analog stereo, Dolby® Digital®, Dolby Digital EX, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos®, DTSP, DTS-ES, DTS 96/24, DTS-HD Master Audio®, up to 8 ch PCM</td>
<td>Analog stereo, Dolby® Digital®, Dolby Digital EX, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos®, DTSP, DTS-ES, DTS 96/24, DTS-HD Master Audio®, up to 8 ch PCM</td>
<td>Analog stereo, Dolby® Digital®, Dolby Digital EX, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos®, DTSP, DTS-ES, DTS 96/24, DTS-HD Master Audio®, up to 8 ch PCM</td>
</tr>
<tr>
<td>Number of output slots</td>
<td>4</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>Output video signal format</td>
<td>HDMI, DVI, XTP twisted pair, XTP fiber</td>
<td>HDMI, DVI, XTP twisted pair, XTP fiber</td>
<td>HDMI, DVI, XTP twisted pair, XTP fiber</td>
</tr>
<tr>
<td>Output audio signal format</td>
<td>Analog stereo, Dolby® Digital®, Dolby Digital EX, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos®, DTSP, DTS-ES, DTS 96/24, DTS-HD Master Audio®, up to 8 ch PCM</td>
<td>Analog stereo, Dolby® Digital®, Dolby Digital EX, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos®, DTSP, DTS-ES, DTS 96/24, DTS-HD Master Audio®, up to 8 ch PCM</td>
<td>Analog stereo, Dolby® Digital®, Dolby Digital EX, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos®, DTSP, DTS-ES, DTS 96/24, DTS-HD Master Audio®, up to 8 ch PCM</td>
</tr>
<tr>
<td>Power</td>
<td>Internal</td>
<td>Internal</td>
<td>Internal</td>
</tr>
<tr>
<td>Enclosure dimensions</td>
<td>8.75&quot; H x 17.0&quot; W x 17.5&quot; D (5U high, full rack wide) (22.2 cm H x 43.2 cm W x 44.5 cm D)</td>
<td>8.75&quot; H x 17.0&quot; W x 17.5&quot; D (5U high, full rack wide) (22.2 cm H x 43.2 cm W x 44.5 cm D)</td>
<td>35.0&quot; H x 17.0&quot; W x 17.5&quot; D (20U high, full rack wide) (89.0 cm H x 43.2 cm W x 44.5 cm D)</td>
</tr>
<tr>
<td>Power</td>
<td>Internal</td>
<td>Internal</td>
<td>Internal</td>
</tr>
</tbody>
</table>

---

### POWER

<table>
<thead>
<tr>
<th>Specifications</th>
<th>XTP II CrossPoint 1600</th>
<th>XTP II CrossPoint 3200</th>
<th>XTP II CrossPoint 6400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>Internal</td>
<td>Internal</td>
<td>Internal</td>
</tr>
<tr>
<td>Enclosure dimensions</td>
<td>8.75&quot; H x 17.0&quot; W x 17.5&quot; D (5U high, full rack wide) (22.2 cm H x 43.2 cm W x 44.5 cm D)</td>
<td>8.75&quot; H x 17.0&quot; W x 17.5&quot; D (5U high, full rack wide) (22.2 cm H x 43.2 cm W x 44.5 cm D)</td>
<td>35.0&quot; H x 17.0&quot; W x 17.5&quot; D (20U high, full rack wide) (89.0 cm H x 43.2 cm W x 44.5 cm D)</td>
</tr>
<tr>
<td>Power</td>
<td>Internal</td>
<td>Internal</td>
<td>Internal</td>
</tr>
</tbody>
</table>
Specifications

**XTP II CrossPoint HD 4K Plus I/O Boards**

<table>
<thead>
<tr>
<th>Resolution and Frame Rate</th>
<th>Chroma Sampling</th>
<th>Max Bit Depth per Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>3840 x 2160 at 60 Hz</td>
<td>4:4:4</td>
<td>8 bit</td>
</tr>
<tr>
<td>3840 x 2160 at 60 Hz</td>
<td>4:2:0</td>
<td>12 bit</td>
</tr>
<tr>
<td>3840 x 2160 at 30 Hz</td>
<td>4:4:4</td>
<td>8 bit</td>
</tr>
<tr>
<td>3840 x 2160 at 30 Hz</td>
<td>4:2:0</td>
<td>12 bit</td>
</tr>
<tr>
<td>Frame Rate</td>
<td>24, 25, 30, 50, or 60 fps</td>
<td></td>
</tr>
<tr>
<td>Chroma Sampling</td>
<td>4:4:4, 4:2:2, or 4:2:0</td>
<td></td>
</tr>
<tr>
<td>Color Bit Depth</td>
<td>8, 10, or 12 bits per color</td>
<td></td>
</tr>
<tr>
<td>Signal Type</td>
<td>HDMI 2.0b, HDCP 2.2</td>
<td></td>
</tr>
<tr>
<td>Max Video Data Rate</td>
<td>18 Gbps (6 Gbps per color)</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Use our calculator at www.extron.com/4Kdatarate to determine video parameters supported by this data rate.

**XTP CP 4K Fiber I/O Boards**

<table>
<thead>
<tr>
<th>Resolution and Frame Rate</th>
<th>Chroma Sampling</th>
<th>Max Bit Depth per Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>4096 x 2160 at 24 Hz</td>
<td>4:4:4</td>
<td>8 bit</td>
</tr>
<tr>
<td>3840 x 2160 at 30 Hz</td>
<td>4:4:4</td>
<td>8 bit</td>
</tr>
<tr>
<td>3840 x 2160 at 60 Hz</td>
<td>4:2:0</td>
<td>8 bit</td>
</tr>
</tbody>
</table>

Frame Rate: 24, 25, 30, 50, or 60 fps
Chroma Sampling: 4:4:4, 4:2:2, or 4:2:0
Color Bit Depth: 8 bits per color
Signal Type: HDMI 1.4a, HDCP 1.4
Max Video Data Rate: 8.91 Gbps (2.97 Gbps per color)

NOTE: Subject to the maximum data rate limit. Use our calculator at www.extron.com/4Kdatarate to determine video parameters supported by this data rate.

**VIDEO — XTP II CP 4I HD 4K PLUS, XTP II CP 4O HD 4K PLUS**

NOTE: Support for 4K@60 at 4:4:4 color subsampling requires installation in an XTP II CrossPoint frame.

<table>
<thead>
<tr>
<th>Resolution</th>
<th>Up to 4K @ 60 Hz (4:4:4 color subsampling)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum pixel clock</td>
<td>600 MHz</td>
</tr>
<tr>
<td>Standards</td>
<td>DVI 1.0, HDMI 2.0b, HDCP 2.2</td>
</tr>
<tr>
<td>Audio format</td>
<td>Analog stereo, Dolby® Digital™, Dolby Digital Plus, Dolby TrueHD, DTS®, DTS-ES, DTS-HD Master Audio®, up to 8 ch PCM, Dolby Atmos</td>
</tr>
</tbody>
</table>

**VIDEO INPUT — XTP II CP 4I HD 4K PLUS**

| Number/signal type | 4 digital RGB single-link HDMI (or DVI-D®) |

**VIDEO OUTPUT — XTP II CP 4O HD 4K PLUS**

| Number/signal type | 4 digital RGB single-link HDMI (or DVI-D®) |

**AUDIO INPUT — XTP II CP 4I HD 4K PLUS**

| Number/signal type | 4 analog stereo, balanced/unbalanced or 4 digital audio, de-embedded from HDMI |

**AUDIO OUTPUT — XTP II CP 4O HD 4K PLUS**

| Number/signal type | 4 stereo, balanced/unbalanced or 4 digital audio, embedded with HDMI |

**Max. 4K Capabilities**

<table>
<thead>
<tr>
<th>Resolution and Frame Rate</th>
<th>Chroma Sampling</th>
<th>Max Bit Depth per Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>4096 x 2160 at 60 Hz</td>
<td>4:4:4</td>
<td>8 bit</td>
</tr>
<tr>
<td>3840 x 2160 at 30 Hz</td>
<td>4:4:4</td>
<td>8 bit</td>
</tr>
<tr>
<td>3840 x 2160 at 60 Hz</td>
<td>4:2:0</td>
<td>8 bit</td>
</tr>
</tbody>
</table>

Frame Rate: 24, 25, 30, 50, or 60 fps
Chroma Sampling: 4:4:4, 4:2:2, or 4:2:0
Color Bit Depth: 8 bits per color
Signal Type: HDMI 1.0, HDMI 1.4a, HDCP 1.4
Max Video Data Rate: 8.91 Gbps (2.97 Gbps per color)

**OPTIONAL FIBER INTERCONNECTION**

<table>
<thead>
<tr>
<th>Number/signal type</th>
<th>4 digital optic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connectors</td>
<td>4 LC fiber connector</td>
</tr>
</tbody>
</table>

**OPERATIONAL DISTANCE**

<table>
<thead>
<tr>
<th>Multimode</th>
<th>Laser optimized cable multimode cables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singlemode</td>
<td>700 m (2297') with 50 µm OM4 4700 MHz bandwidth</td>
</tr>
<tr>
<td>Multimode</td>
<td>400 m (1312') with 50 µm OM3 2000 MHz bandwidth</td>
</tr>
</tbody>
</table>

**COMMUNICATIONS — EXTERNAL DEVICE (PASS-THROUGH)**

| Serial control pass-through ports | (4) PS-232 via 3.5 mm, 5 pole captive screw connectors (shared with IR ports) |
| Ethernet pass-through ports      | 4 RJ-45, female |
| IR control port                  | (4) 3.5 mm, captive screw connector, 5 pole (shared with RS-232 ports) |
| Safety                            | CE, c-UL, UL, IEC 60825-1 |

**WORLDWIDE SALES OFFICES**

Anaheim • Raleigh • Silicon Valley • Dallas • New York • Washington, DC • Toronto • Mexico City • Paris • London • Frankfurt
Madrid • Stockholm • Amersfoort • Moscow • Dubai • Johannesburg • Tel Aviv • Sydney • Melbourne
New Delhi • Bangalore • Singapore • Seoul • Shanghai • Beijing • Hong Kong • Tokyo

www.extron.com

© 2016 Extron Electronics. All rights reserved. All trademarks mentioned are the property of their respective owners. Prices and specifications subject to change without notice.

©R-2016
68-2824-01
REV. E
Letter - English - NP