

AV INFRASTRUCTURE FOR 8K VIDEO SWITCHING AND DISTRIBUTION





The Only AV Platform for HDMI 2.1

- ▶ 50 Gbps ultra performance backplane supports resolutions up to 8K
- ▶ I/O sizes from 4x4 up to 64x64
- Twisted pair & fiber I/O boards
- 8K HDMI and fiber I/O boards support date rates up to 40.1 Gbps
- Transmitter and receiver endpoints available in a variety of form factors
- ▶ Easy to set up and configure
- Advanced 24/7 system monitoring and hot-swappable modular components



XTP Systems

The XTP II CrossPoint® Series modular matrix switchers represent a monumental leap in engineering and product design, providing unmatched, high performance routing of video, audio, bidirectional control, and Ethernet in a future-ready integrated solution. They feature a 50 Gbps ultra-performance backplane that exceeds the data rate required to distribute 8K HDR video. These matrix systems can be configured with a complete family of boards and endpoints, including XTP twisted pair, XTP fiber optic, and 8K HDMI input and output boards that support 8K/60. They are available in three modular frames for configurable I/O sizes from 4x4 to 16x16, 32x32, and 64x64. XTP II CrossPoint is the definitive AV industry standard you can depend on now and to meet the challenges of an 8K future.











Reliability and Performance by Design

Designed and engineered to the highest standards, the 50 Gbps backplane delivers bandwidth performance that exceeds HDMI 2.1 and DisplayPort 1.4 signal requirements to deliver a future-proof AV infrastructure that supports convenient growth and upgrade without needing to replace equipment.









Digital switching backplane performance exceeds the data rate requirements of today's most demanding signals



Twisted pair, fiber, and HDMI boards provide end-to-end 4K video switching and transmission

Modular, hot-swappable design supports I/O sizes up to 64×64 and upgrades to nextgeneration video boards

4 Power Supplies

Robust, hot-swappable, state-of-the-art power supplies are engineered to last

Highest quality metal fans







XTP II CP HD 8K I/O Boards An Industry First for 8K Switching and Distribution

The 8K HDMI input and output boards provide a significant leap in capabilities for the XTP platform. They accommodate HDMI 2.1 data rates up to 40.1 Gbps, enabling support of uncompressed 8K video with HDR. These HDCP 2.3-compliant boards provide input equalization and output reclocking and feature connections for powering active, Ultra High Speed HDMI cables. The XTP II CP HD 8K boards are the ideal choice for a professional and future-ready AV infrastructure.

The Only AV Platform for HDMI 2.1

The XTP II CrossPoint® Series matrix switchers deliver the highest level of performance in the industry, providing unmatched, high performance routing of video, audio, bidirectional control, and Ethernet in a future-ready integrated solution. The 50 Gbps backplane easily accommodates the combination of resolutions, frame rates, and color bit depths supported within the HDMI 2.1 specification, ensuring infrastructure that will last for years.



XTP II CrossPoint Series AV Infrastructure for 8K

XTP II 8K Fiber





Uncompromised 8K Switching and Extension

Our new XTP II 8K Fiber products deliver another leap forward with industry-leading capabilities for XTP Systems®. They support HDMI 2.1 data rates up to 40.1 Gbps for switching and extension of uncompressed 8K/60 video. The XTP II FT 402 8K transmitter supports HDMI and DisplayPort sources and the XTP II FR 401 8K receiver provides XTP® Fiber and HDMI inputs for added versatility. The XTP II CP 4i F 8K boards offer four selectable fiber or HDMI inputs and the XTP II CP 4o SF 8K boards feature four scaled fiber outputs with unscaled local HDMI ports. All XTP II 8K Fiber products support extension of 1 Gbps Ethernet signals. XTP II 8K Fiber products leverage the 50 Gbps backplane of XTP II CrossPoint® Series matrix switchers to deliver the highest level of performance and reliability in the industry. You are always future-ready with XTP Systems.

- Extends video, audio, bidirectional control, and 1 Gbps Ethernet over fiber optic cable
- Supports HDMI computer and video resolutions up to 8K/60
- Supports DisplayPort computer and video resolutions up to 4K/60 XTP II FT 402 8K
- Extend 1 Gbps Ethernet to expand network access and AV device control
- Available as multimode for moderate-range transmissions up to 400 meters (1,312 feet) and singlemode for extreme distances up to 10 km (6.21 miles)



50 Gbps Backplane

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 8K/30 at 4:4:4 with 10 bits per color.

I/O sizes from 4x4 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 video, audio, bidirectional control, & Ethernet over fiber optic cable

Provides long-haul transmission over OM4 multimode or singlemode fiber optic cable. Available in 4K and 8K options.

Supports transmission of video, audio, bidirectional RS-232 and IR, Ethernet, and remote power over one shielded CATx cable

Supports 4K signal transmission up to 330 feet (100 meters) over one shielded twisted pair cable.

Remote power over CATx cabling to XTP transmitters and receivers

Eliminates the need to separately power XTP devices at remote locations.

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

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 boards and extenders.

Wide selection of input and output boards

Supports a variety of signal types and formats for easy system customization.



Switching and Extension

Local HDMI I/O boards and Fiber optic transmission

HDCP compliant

XTP Systems products comply with HDCP 1.4 - 2.3 specifications.

SpeedSwitch® Technology

Provides exceptional switching speed for HDCP-encrypted content.



Comprehensive EDID management

Automatically manages EDID communication between connected devices.

Audio breakaway

Allows two-channel audio and video signals from one source to be routed to different destinations.

WindoWall® Mode supports videowall applications

Scaling receivers enable a mix of full screen and image magnification across multiple displays in up to 8x8 configurations.

HDCP authentication and signal presence confirmation via RS-232 or Ethernet

Provides real-time verification of HDCP status for each digital video input and output.



Key Minder

Continuously verifies HDCP compliance for quick, reliable switching.

HDCP Visual Confirmation

Provides a green signal when HDCPencrypted content is transmitted to a non compliant display.

Automatic color bit depth management

Modular, field-upgradeable and hot swappable design

Ethernet extension

Ethernet access can be extended to remote endpoints over the same cable used for AV transmission.

Ethernet monitoring and control

Ethernet control provides proactive monitoring and system management over a LAN, WAN, or the Internet using standard TCP/IP protocols.

RS-232 control via Ethernet insertion

RS-232 control signals can be inserted, via Ethernet from a control system.

Redundant power supply

DoDIN APL Approved Product available

Global presets











4K SWITCHING AND EXTENSION

Twisted pair and fiber optic I/O boards and endpoints deliver end-to-end capability for extending 4K video along with audio, control and Ethernet over a single cable. HDCP 2.3 compliant, XTP 4K Twisted Pair supports signal transmission up to 330 feet (100 meters) and supports remote powering of endpoints. XTP 4K Fiber offers a completely integrated solution that incorporates Extron exclusive, custom designed optical modules for signal extension up to 500 meters (1,640 feet) over OM4 multimode fiber optic cable and up to 10 km (6.21 miles) when using singlemode cable.

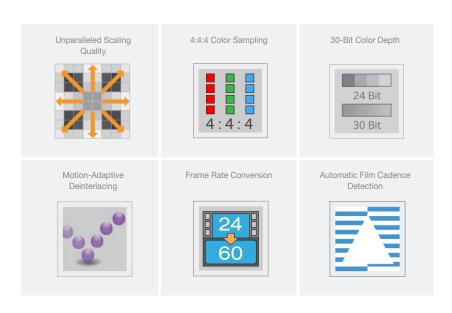


Extron Vector 4K Scaling Technology

Vector 4K was developed internally by Extron's expert team of signal processing engineers. Extron engineers have crafted patented image processing technologies that set the industry benchmark for visual performance. Features such as bicubic scaling, 30-bit color depth, and 4:4:4 color sampling ensure very high image quality while preserving detail present in the original source material.



XTP receivers and output boards with Vector 4K scaling offer a variety of convenient, user-friendly features. Best-in-class image upscaling and downscaling, aspect ratio control, and dynamic vector-based test patterns are just a few of the many standard product features that streamline integration and optimize system performance.





XTP II CrossPoint 6400 - Front

XTP III CROSSPOINT

Tri-color, backlit buttons and Front Panel Controller

AV routing options

AV signals can be routed together or independently, including embedded 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.

Configurable from 4x4 to 64x64

The modular XTP matrix switchers can be appropriately sized to application requirements while allowing for future expansion and formats.

Completely integrated solution for digital and analog video

XTP Systems feature fully digital signal routing with digital conversion of analog signals.

Hot-Swappable primary and redundant power supplies

Provides reliability for mission-critical operations.

50 Gbps ultra-performance backplane

XTP II CrossPoint matrix switchers are engineered to exceed the bandwidth required by HDMI 2.1 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 8K/30 at 4:4:4 with 10 bits per color.

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.

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.

Audio signal routing and management

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

Dante® audio output

Enables audio transport of up to four stereo audio signals over a network using standard Internet protocols.

Wide variety of input and output boards

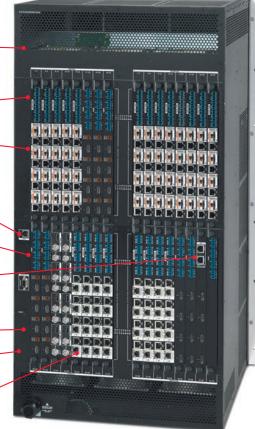
XTP I/O boards connect to XTP transmitters and receivers installed in remote locations, while HDMI, 12G-SDI, and audio I/O boards support local connections.

Hot-swappable, modular, field-upgradeable design

Ensures flexibility and minimizes system downtime.

Remote powering over CATx cabling

XTP matrix switchers can remotely power XTP transmitters and receivers over the same twisted pair cable for AV.



XTP II CrossPoint 6400 - Back

XTP CROSSPOINT MATRIX SWITCHERS

COMMON FEATURES

- Ultra performance 50 Gbps 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 Matrix Switchers from 4x4 to 16x16

UNIQUE FEATURES

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

Model
XTP II CrossPoint 1600 Frame
XTP II CrossPoint 1600 Frame w/ RPS

Version Description

5U, 8-slot Frame w/ redundant power

Part Number 5U, 8-slot Frame 60-2031-01 60-2031-11



XTP II CrossPoint 3200

Modular Matrix Switchers from 4x4 to 32x32

UNIQUE FEATURES

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

Model

XTP II CrossPoint 3200 Frame

Version Description

10U, 16-slot Frame, C20 Power Inlet

Part Number 60-1981-01





XTP II CrossPoint 6400

Modular Matrix Switchers from 4x4 to 64x64

UNIQUE FEATURES

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

Model

XTP II CrossPoint 6400 Frame

Version Description 20U, 32-slot Frame

Part Number 60-1386-01





XTP CP I/O BOARDS

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 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, 12G-SDI, 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 II CP HD 8K I/O Boards

8K HDMI Input and Output Boards with Stereo Audio

- Four HDMI inputs or four HDMI outputs with stereo audio
- Supports computer and video resolutions up to 8K/60
- HDCP 2.3 compliant
- Support for HDR High Dynamic Range video
- Supported HDMI 2.1 specification features include data rates up to 40.1 Gbps, HDR, Deep Color up to 12-bit, 3D & HD lossless audio formats
- Dante® audio output enables transport over a local area network using standard Internet protocols

XTP II CP Fiber 8K I/O Boards

8K XTP II Fiber Optic Input and Output Boards

- Four selectable XTP fiber or HDMI inputs
- Four Scaled XTP fiber with local, unscaled HDMI outputs
- Extends video, audio, bidirectional RS-232, and 1 Gbps Ethernet over two fiber optic cables
- Supports HDMI computer and video resolutions up to 8K/60
- Advanced Extron Vector[™] 4K scaling engine
- 1 Gbps Ethernet extension

Model	Version Description	Part Number
XTP II CP 4i HD 8K	Four Input Board, 8K HDMI w/ Stereo Audio	70-1262-01
XTP II CP 40 HD 8K	Four Output Board, 8K HDMI w/ Stereo Audio	70-1263-01
XTP II CP 4o HD AT 8K	Four Output Board, 8K HDMI w/ Dante Out	70-1302-01











XTP CP 4o Fiber 4K



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 2.3 compliant

XTP CP 4o 4K

· Remote power to XTP transmitters and receivers

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

Model	Version Description	Part Number	Model	Version Description	Part Number
XTP CP 4i 4K	Four Input Board, XTP - 26W Remote Power Capable	70-940-31	XTP CP 4i Fiber 4K MM	Four Input Board, Fiber 4K - Multimode	70-985-01
XTP CP 4o 4K	Four Output Board, XTP - 26W Remote Power Capable	70-943-31	XTP CP 4i Fiber 4K SM	Four Input Board, Fiber 4K - Singlemode	70-985-02
			XTP CP 4o Fiber 4K MM	Four Output Board, Fiber 4K - Multimode	70-986-01
			XTP CP 4o Fiber 4K SM	Four Output Board, Fiber 4K - Singlemode	70-986-02









XTP CP 4o 12G-SDI



XTP II CP HD 4K PLUS I/O Boards

4K/60 HDMI Input and Output Boards with Stereo Audio

- · Four HDMI inputs or outputs with stereo audio
- Supports computer and video resolutions up to 4K/60 @ 4:4:4
- 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 2.3 compliant
- Support for HDR High Dynamic Range video
- Dante® audio output enables transport over a local area network using standard Internet protocols

XTP CP 12G-SDI I/O Boards

12G-SDI Input and Output Boards

- Four 12G-SDI inputs
- Supports 12G-SDI, 6G-SDI, 3G-SDI, and HD-SDI signals
- Automatically adapts to SMPTE and ITU digital video standards
- Supports data rates from 1.49 Gbps to 11.88 Gbps
- Buffered SDI and HDMI input loop-throughs
- Support for HDR High Dynamic Range video
- Automatic input cable equalization

Model	Version Description	Part Number	Model	Version Description
XTP II CP 4i HD 4K PLUS	Four Input Board, HDMI 4K/60 w/ Stereo Audio	70-1112-01	XTP CP 4i 12G-SDI	Four Input Board, 12G-SI
XTP II CP 40 HD 4K PLUS	Four Output Board, HDMI 4K/60 w/ Stereo Audio	70-1113-01	XTP CP 4o 12G-SDI	Four Output Board, 12G-
XTP II CP 40 HD AT 4K PLUS	S Four Output Board, HDMI 4K/60 w/ Dante Out	70-1182-01		







XTP CP 4o SA Board

Stereo Audio Output Board

- · Four stereo audio outputs
- · Balanced or unbalanced audio outputs
- Audio output volume adjustment and muting
- Audio breakaway enables independent audio and video switching

PI 115

Power Injector for XTP and Pro Series Control Systems

- Supplies up to 15 watts of power to a single PoE 802.3af compatible product
- Designed specifically for the high data rates of XTP Systems
- No impact on signal quality
- Patented ZipClip™ 200 mounting kit included
- Real-time status LEDs for troubleshooting and monitoring
- UL/c-UL listed and CE compliant

Part Number Model Part Number Model Version Description Version Description XTP CP 40 SA Four Output Board, Stereo Audio 70-944-01 PI 115 Single Port Power Injector 60-1233-02



XTP PI 400

Four Port XTP power Injector

- Supplies 13 watts of 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

Model Version Description Part Number XTP PI 400 Four Port Power Injector 60-1298-01

XTP TRANSMITTERS

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 completely integrated switching and distribution system for local and remote sources and display devices. They support HDMI, DisplayPort, analog video, and audio signals. Select 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.

60-1779-12

XTP II FT 402 8K

8K Fiber Optic Transmitter for HDMI & DisplayPort

Features

- Transmits HDMI or DisplayPort, audio, bidirectional RS-232, and 1 Gbps Ethernet over two fiber optic cables
- Supports HDMI computer and video resolutions up to 8K/60
- Supports DisplayPort computer and video resolutions up to 4K/60
- HDMI output enables local display of the selected input
- · Auto-switching between inputs
- 1 Gbps Ethernet extension
- Multimode and singlemode models available



8K HDMI & DisplayPort Transmitter - Singlemode





XTP FT HD 4K

XTP II FT 402 8K SM

4K HDMI Fiber Optic Transmitter

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
- Bidirectional RS-232 and IR insertion for AV device control
- Supported HDMI 1.4 specification features include data rates up to 10.2 Gbps, Deep Color up to 12-bit, 3D, and HD lossless audio formats
- Selectable analog stereo audio input embedding
- Industry standard LC connector provides reliable physical connectivity and precise fiber core alignment

 Model
 Version Description
 Part Number

 XTP FT HD 4K MM
 HDMI Transmitter - Multimode
 60-1276-11

 XTP FT HD 4K SM
 HDMI Transmitter - Singlemode
 60-1276-12





XTP T HD 4K

4K HDMI Twisted Pair Transmitter

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
- · 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 1.4 specification features include data rates up to 10.2 Gbps, Deep Color up to 12-bit, 3D, and HD lossless audio formats
- Supports multiple embedded audio formats
- Selectable analog stereo audio input embedding







XTP T USW 103 4K

Three Input Switcher with HDMI Output and 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
- HDMI output enables local display of the selected input
- HDCP 2.3 compliant
- · 26W 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

Part Number **Version Description** Model XTP T USW 103 4K DP, HDMI, VGA Switcher - 26W Remote Power Capable 60-1717-12





XTP T HWP 101 4K

4K HDMI Twisted Pair Transmitter -**Decorator-Style Wallplate**

- 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 2.3 compliant
- · Remote power capability
- Supported HDMI 1.4 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

Model	Version Description	Part Number
XTP T HWP 101 4K	HDMI Decorator-Style Transmitter - Black	60-1611-12
XTP T HWP 101 4K	HDMI Decorator-Style Transmitter - White	60-1611-13







XTP T UWP 202 4K

Two Input 4K Twisted Pair Transmitter -**Decorator-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 2.3 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





XTP T UWP 202 4K NL



XTP T FB 202 4K

Two Input 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 2.3 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

 Model
 Version Description
 Part Number

 XTP T FB 202 4K
 HDMI & VGA Transmitter for Floor Boxes
 60-1582-12



XTP T EU 202

Two Input 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

 Model
 Version Description
 Part Number

 XTP T EU 202
 HDMI & VGA EU Transmitter
 60-1358-35



XTP II FR 401 8K

8K Fiber Optic Receiver with local HDMI Input

- Receives video with embedded audio, bidirectional RS-232, along with 1 Gbps Ethernet over two fiber optic cables
- Supports HDMI computer and video resolutions up to 8K/60
- HDMI input is ideal for connecting to a local source, such as a laptop or ShareLink® wireless collaboration gateway
- Supported HDMI 2.1 specification features include data rates up to 40.1 Gbps, HDR, Deep Color up to 12-bit, 3D, and HD lossless audio formats
- Auto-switching between inputs
- 1 Gbps Ethernet extension

Version Description Part Number Model XTP II FR 401 8K MM 8K HDMI Receiver - Multimode 60-1527-21 XTP II FR 401 8K SM 8K HDMI Receiver - Singlemode 60-1527-22





XTP SFR HD 4K

4K HDMI Fiber Optic Scaling Receiver

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
- WindoWall® Mode supports videowall applications
- HDCP compliant
- Bidirectional RS-232 and IR insertion for AV device control
- Ethernet extension
- Scales HDMI, 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
- Aspect ratio control
- Image freeze control
- · 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 RECEIVERS

XTP R HD 4K

4K HDMI Twisted Pair 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
- Supports computer and video resolutions up to 4K
- Bidirectional RS-232 and IR insertion for AV device control
- HDCP 2.3 compliant
- · 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
 HDMI Receiver
 60-1524-13





XTP SR HD 4K

4K HDMI 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
- WindoWall® Mode supports videowall applications
- HDCP 2.3 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 1.4 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
- HDMI audio de-embedding with multi-channel digital S/PDIF audio and analog stereo audio outputs
- Selectable HDMI audio pass-through
- RS-232 control and two relays for controlling room functions
- Aspect ratio control
- · Image freeze control
- On-screen menus

 Model
 Version Description
 Part Number

 XTP SR HD 4K
 HDMI Scaling Receiver
 60-1524-01







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.





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



XTP DTP 24 Series

Precision-terminated Shielded Twisted Pair Cables for XTP Systems and DTP Systems

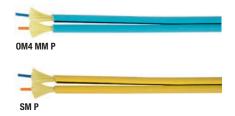
- Engineered for superior performance
- Provides added protection from outside interference and ensures high quality signal transmission
- Certified to 475 MHz bandwidth at distances up to 330 feet (100 m)
- Independently tested and verified to meet performance requirements set by HDBaseT Alliance
- 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 300' (91.4 m)

Model	Version Description	Part Number
XTP DTP 24/1000	Non-Plenum 1000' (305 m) spool	22-236-03
XTP DTP 24P/1000	Plenum 1000' (305 m) spool	22-235-03
XTP DTP 24 Plug	XTP DTP 24 Plug, Package of 10	101-005-02
XTP DTP Jack	XTP DTP 24 Jack, Package of 10	101-038-01
XTP DTP 24 Coupler	XTP DTP 24 Coupler, Package of 10	101-022-02

 Model
 Version Description
 Part Number

 XTP DTP 24
 Non-Plenum
 26-702-xx

 XTP DTP 24P
 Plenum
 26-695-xx



2LC OM4 MM P 2LC SM P

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
- Quick LC Fiber Optic Connectors also available

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)

Model	Version Description	Part Number	Model	Version Description	Part Number
OM4 MM P/2K	Plenum 2 km (6,562') Spool	22-225-02	2LC OM4 MM P	Multimode - Plenum	26-671-xx
SM P/2K	Plenum 2 km (6,562') Spool	22-223-02	2LC SM P	Singlemode - Plenum	26-670-xx

XTP WindoWall Delivers Powerful Capabilities for Videowall Applications

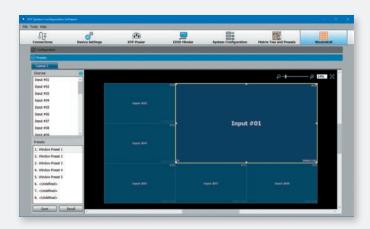
XTP WindoWall® supports videowalls of any aspect ratio. This mode expands capabilities and enables broader use in applications such as emergency operations centers. Images can be shown full screen, spread across displays, or a combination of both. It supports up to eight videowalls within an XTP system, with up to eight assignable presets per wall. Convenient software features such as drag and size layout configuration, mullion compensation, and preset creation expedite setup without need for expensive custom programming.





Simple Canvas Setup

Create up to eight canvases, regardless of frame size, with each display driven by a dedicated XTP scaling receiver. A guided approach for canvas layout, scaler parameters, and mullion compensation settings simplifies the setup process.



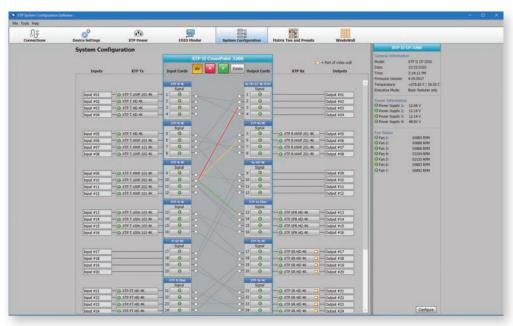
Flexible Preset Capabilities

Eight assignable presets expand capability and offer quick selection between layouts. The convenient drag and size configuration approach enables a mix of full screen and image magnification across multiple displays.

XTP SYSTEM CONFIGURATION SOFTWARE

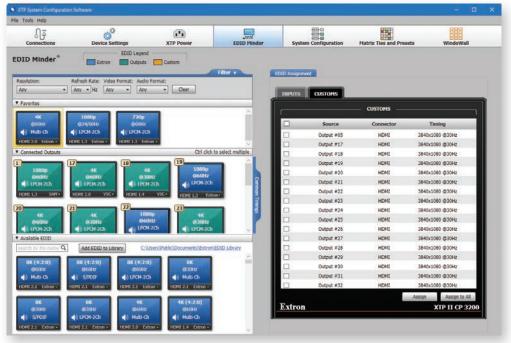
Software for the Complete Setup and Configuration of XTP Systems

XTP Systems include convenient, user-friendly control software for configuring, operating, and monitoring the matrix switcher and remote endpoints. It provides a complete view of the system within one window, enabling user management of EDID, I/O ties, and real-time monitoring of signal and HDCP status for all connections. The software also makes it easy to configure remote XTP devices and associate remote power settings to XTP twisted pair models. Additional features include tools for creating I/O presets, backing up or restoring system settings, and more.



System Control and Monitoring

Configure, operate, and monitor the entire system from a single window



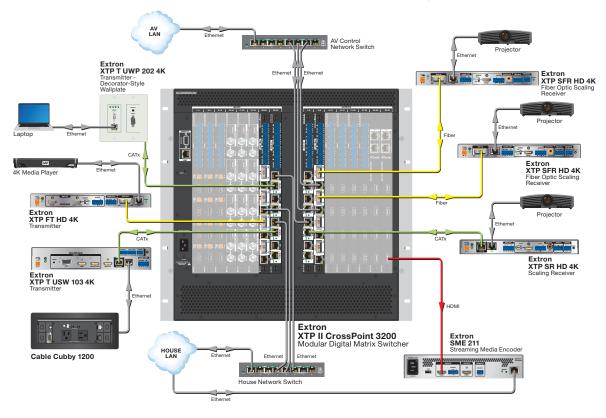
Comprehensive EDID Management

Easily implement system EDID strategies with powerful management too

XTP SYSTEMS ADVANCED FEATURES

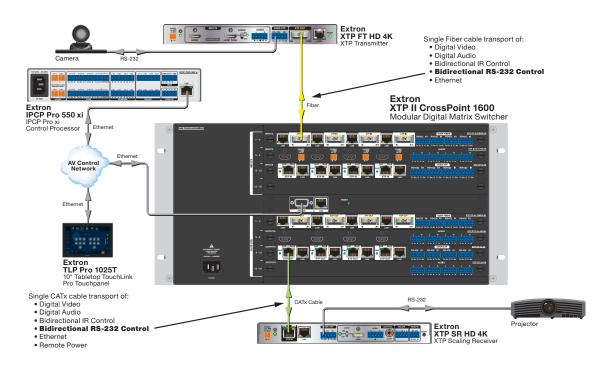
Ethernet Extension

XTP Systems can extend Ethernet over the same CATx or fiber optic cable used for transmitting AV and control signals. This capability supports use of house and AV control networks for Internet access and equipment management.



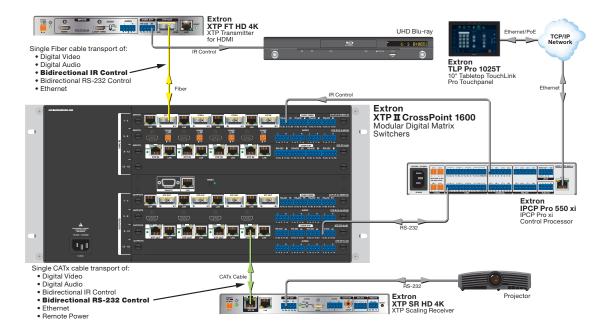
XTP System Control via Bidirectional RS-232 Insertion

RS-232 insertion via the matrix switcher's Ethernet port enables a single point of control for the entire system. Using the same cable for AV, control, and Ethernet streamlines and simplifies system installation.



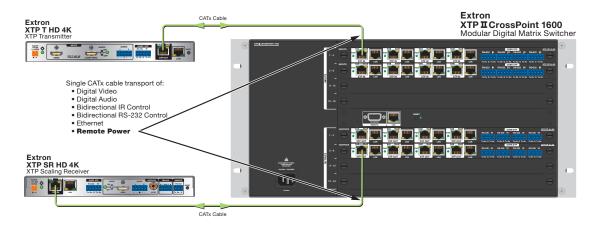
Bidirectional RS-232 and IR Insertion

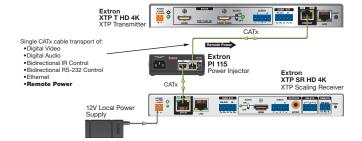
XTP Systems simplifies control of devices at remote endpoints through bidirectional RS-232 and IR insertion. These commands can be transmitted alongside the video signal, allowing the remote device to be controlled without the need for additional cabling.

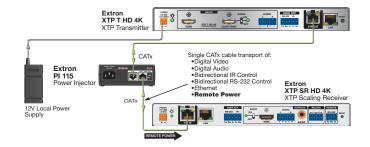


Remote Device Powering Over Twisted Pair Cable

XTP CrossPoint frames can remotely power a set number of twisted pair endpoints over the same cable used for sending AV signals. Additional powering of endpoints can be provided by an optional single port PI 115 or the four port XTP PI 400 power injector, which injects supplemental voltage into a shielded CATx cable.

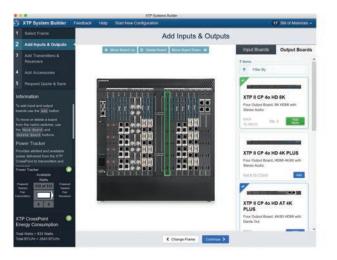






Full Configuration Capability with All System Components

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.

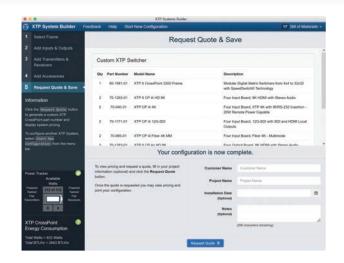
Power Tracker

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 / 3200 / 6400

TRUE BK SPECIFICATION

Max 8K Capabilities					
Resolution	Refresh Rate	Chroma Sampling	Max Bit Depth per Color		
7000 4000	60 Hz	4:2:0	40 %		
7680 x 4320	30 Hz	4:4:4	10 bit		

Max 4K Capabilities					
Resolution and Refresh Rate	Chroma Sampling	Max Bit Depth per Color			
4096 x 2160 at 60 Hz 3840 x 2160 at 60 Hz	4:4:4	16 bit			

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, 10, 12, or 16 bits per color **Backplane Throughput** 50 Gbps per input and output

NOTE: Use our calculator (http://www.extron.com/8Kdatarate) to determine video parameters supported by this data rate.

AV ROUTING CAPABILITIES

Number of input slots

XTP II CrossPoint 1600	4
XTP II CrossPoint 3200	8
XTP II CrossPoint 6400	16
Input video signal format	HDMI, DVI, 12G-SDI, RGBHV, RGBS, RGsB, RsGsBs, YUV,
	S-video, composite video, XTP twisted pair, XTP fiber
Input audio signal format	Analog stereo, Dolby® Digital® ,Dolby Digital EX, Dolby

XTP fiber al EX, Dolby Digital Plus, Dolby TrueHD, Dolby® Atmos™, DTS®, DTS-ES, DTS 96/24, DTS-HD High Res, DTS-HD Master Audio™, up to 8 ch PCM

Number of output slots

XTP II CrossPoint 1600 4 XTP II CrossPoint 3200 8 XTP II CrossPoint 6400 16

Output video signal format HDMI, DVI, XTP twisted pair, XTP fiber

Output audio signal format Analog stereo, Dolby® Digital® ,Dolby Digital EX, Dolby Digital Plus, Dolby TrueHD, Dolby® Atmos™, DTS®, DTS-ES, DTS 96/24, DTS-HD High Res, DTS-HD Master Audio™, up to 8 ch PCM

Backplane

Maximum throughput 50 Gbps XTP II CrossPoint 1600 16x16 matrix XTP II CrossPoint 3200 32x32 matrix XTP II CrossPoint 6400 64x64 matrix

COMMUNICATIONS - SWITCHER HOST PORTS

Serial host control port 1 bidirectional RS-232 or RS-422, rear panel female 9-pin D connector

Ethernet control port 1 female RJ-45

GENERAL

Power Internal XTP II CrossPoint 1600 Input: 100-240 VAC, 50-60 HZ

Redundant power supply is optional. XTP II CrossPoint 3200

Input: 100-240 VAC, 50-60 Hz (IEC 60320 C20 inlet)

Redundant power supply is standard. XTP II CrossPoint 6400 Input: 200-240 VAC, 50-60 Hz

Redundant power supply is standard.

XTP II CP HD 8K I/O Boards

Signal type

Max. video data rate

TRUE 8K SPECIFICATION

Max 8K Capabilities				
Resolution	Refresh Rate	Chroma Sampling	Max Bit Depth per Color	
7000 4000	60 Hz	4:2:0	4014	
7680 x 4320	30 Hz	4:4:4	10 bit	

Max 4K Capabilities			
Resolution	Refresh Rate	Chroma Sampling	Max Bit Depth per Color
4096 x 2160 3840 x 2160	60 Hz	4:4:4	12 bit
3840 x 2160	120 Hz		10 bit
Frame rate ¹ 24, 25, 30, 50, 60, or 120 fps			
Chroma sampling ¹	g ¹ 4:4:4, 4:2:2, or 4:2:0		
Color bit depth1	plor bit depth ¹ 8, 10, or 12 bits per color		

NOTE: 1Subject to the maximum data rate limit. Use our calculator at www.extron.com/8Kdatarate to determine video parameters supported by this data rate.

40.1 Gbps

HDMI 2.1, HDCP 2.3

VIDEO - XTP II CP 4i HD 8K, XTP II CP 4o HD 8K, XTP II CP 4o HD AT 8K

NOTE: Support for uncompressed 8K/30 at 4:4:4 color sampling requires installation in an XTP II CrossPoint frame.

Resolution range Up to 8K (7680x4320) @ 60 Hz, 5K (5120x2880) @ 60 Hz, 4K (4096x2160) @ 60 Hz, 4K (3840x2160) @ 120 Hz, UHD (3840x2160) @ 60 Hz Maximum data rate 40.1 Gbps Maximum pixel clock 1190 MHz Standards DVI 1.0, HDMI 2.1, HDCP 2.3

Video format HDMI and DVI HDR10, HDR10+, and Dolby Vision

VIDEO INPUT - XTP II CP 4i HD 8K, XTP II CP 4o HD 8K

Horizontal frequency 15 kHz to 270 kHz for resolutions up to 40.1 Gbps Vertical frequency 24 Hz to 240 Hz for resolutions up to 40.1 Gbps Peripheral device power 12 VDC, 125 mA per input

Connectors (4) 3.5 mm captive screw connectors, 2-pole

AUDIO INPUT - XTP II CP 4i HD 8K

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

AUDIO OUTPUT - XTP II CP 40 HD 8K

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

Supported formats — Pass through

HDMI Connector LPCM up to 7.1/24-bit/192 kHz, Dolby® Digital EX, Dolby Digital Plus™, Dolby Digital 5.1,

Dolby Digital 2.0 Surround, Dolby Digital 2.0, Dolby TrueHD, Dolby Atmos™, DTS-HD Master Audio, DTS-X, DTS-HD, DTS-ES Discrete 6.1, DTS-ES Matrix 6.1, DTS-

Digital Surround 5.1, DTS 2-Channel

AT PORTS - AUDIO TRANSPORT (XTP II CP 40 HD AT 8K ONLY)

Transmission type	Dante/AES-67, software selectable
Connectors	(2) RJ-45 to Dante interface
Outputs	Up to 8 channels (4 stereo channels)

XTP II CP Fiber 8K I/O Boards

TRUE 8K SPECIFICATION

Max 8K Capabilities			
Resolution	Refresh Rate	Chroma Sampling	Max Bit Depth per Color
7680 x 4320	60 Hz	4:2:0	40 54
	30 Hz	4:4:4	10 bit

Max 4K Capabilities			
Resolution	Refresh Rate	Chroma Sampling	Max Bit Depth per Color
4096 x 2160 3840 x 2160	60 Hz	4:4:4	12 bit
3840 x 2160	120 Hz		10 bit

Frame rate ¹	24, 25, 30, 50, 60, or 120 fps
Chroma sampling ¹	4:4:4, 4:2:2, or 4:2:0
Color bit depth ¹	8, 10, or 12 bits per color
Signal Type	HDMI 2.1, HDCP 2.3
Max. video data rate	40.1 Gbps

NOTE: 1Subject to the maximum data rate limit. Use our calculator at www.extron.com/8Kdatarate to determine video parameters supported by this data rate.

VIDEO - XTP II CP 4i F 8K, XTP II CP 4o SF 8K

Resolution range Up to 8K (7680x4320) @ 60 Hz, 5K (5120x2880)

4K (4096x2160) @ 60 Hz, 4K (3840x2160) @ 120 Hz,

4K (3840x2160) @ 60 Hz

NOTE: Support for uncompressed 8K/30 at 4:4:4 color sampling requires installation in an

XTP II CrossPoint frame.

Color bit depth 8, 10, or 12 bits subject to the maximum data rate limit

Maximum data rate 40.1 Gbps (10 Gbps per color)

VIDEO INPUT - XTP II CP 4i F 8K

Number/signal type 4 single link HDMI (or DVI-D*) or XTP (selectable)

VIDEO OUTPUT - XTP II CP 4o SF 8K

4 single link HDMI (or DVI-D*) Number/signal type

4 XTP (with scaling)

VIDEO PROCESSING - XTP II CP 4o SF 8K

Scaled resolution 1280x768, 1280x800, 1280x1024, 1360x768,

1366x768, 1440x900, 1400x1050, 1600x900, 1680x1050, 1600x1200, 1920x1200,

2048x1536, 2560x1440,

2560x1600

720p, 1080i, 1080p, 2048x1080, 3048x2160, 4096x2160,

Bypass

OPTICAL FIBER INTERCONNECTION

Connectors 8 LC fiber connector

Operating distance

Singlemode 10 km (6.21 miles) with singlemode (SM) cables Multimode 300 m (980') with 50 μm OM3 2000 MHz bandwidth

laser optimized multimode cable

400~m (1312') with 50 μm OM4 4700 MHz bandwidth

laser optimized multimode cable

(must use OM3/OM4 cable, not compatible with OM1/

OM2 cable)

XTP CP 4K Twisted Pair I/O Boards

TRUE 4K SPECIFICATION

Max 4K Capabilities		
Resolution and Refresh Rate	Chroma Sampling	Max Bit Depth per Color
4096 x 2160 at 30 Hz 3840 x 2160 at 30 Hz	4:4:4	
4096 x 2160 at 60 Hz	4:2:0	8 bit
3840 x 2160 at 60 Hz		
Frame rate ¹ 24, 25, 30, 50, or 60 fps		
Chroma sampling ¹ 4:4:4, 4:2:		
Color bit depth ¹	8 bits per color	
Signal type ¹	Refer to XTP endpoint	S
Max. video data rate ¹	10.2 Gbps (3.4 Gbps	per color)
NOTE: 1Subject to the maximum data rate limit. Use our calculator at www.extron.com/8Kdatarate to		
determine video parameters supported by this data rate.		

VIDEO — XTP CP 4i 4K, XTP C	P 4o 4K
Resolution range	Up to 2560x1600 @ 60 Hz*, 1080p @ 120 Hz or 4K (4096x2160) @ 30 Hz, UHD (3840x2160) @ 30 Hz, 4K/UHD @ 60 with 4:2:0 chroma subsampling * reduced blanking
Maximum data rate	10.2 Gbps (3.4 Gbps per color)
Maximum pixel clock	300 MHz
Standards	Refer to XTP endpoints
Audio format	Analog stereo, Dolby® Digital® Dolby Digital EX, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos™, DTS®, DTS-ES, DTS 96/24, DTS-HD High Res, DTS-HD Master Audio™, up to 8 ch PCM
SHIELDED TWISTED PAIR INTE	ERCONNECTION
Connectors	4 female RJ-45 per board
Signal transmission distance	330' (100 m) using shielded twisted pair or X TP DTP 24 cable
Cable requirements Cable recommendations	Solid conductor, 24 AWG or better 400 MHz bandwidth, STP (shielded twisted pair)
COMMUNICATIONS	
External device (pass-through, unidirec	tional or bidirectional)
Serial control pass-through ports	RS-232 (±5 V) via (4) 3.5 mm, 5-pole captive screw connectors (uses 3 poles) (connector is shared with IR control ports)
Ethernet pass-through ports	4 female RJ-45
Ethernet data rate	10/100Base-T, half/full duplex with autodetect
GENERAL	
Power	Supplied by XTP CrossPoint or XTP II CrossPoint enclosure
Regulatory compliance	Complies with the appropriate requirements of RoHS, WEEE.

NOTES

