DTP CrossPoint 4K Series

4K PRESENTATION MATRIX SWITCHERS WITH SEAMLESS SWITCHING









Pro**DSP)**



Complete AV System Integration in One Box

- All-in-one matrix switcher, scaler, audio DSP with AEC, audio power amplifier, and control processor
- 4K matrix switching
- Available in four sizes: 8x2, 8x4, 8x6, and 10x8
- Extron-exclusive Vector[™] 4K scaling with seamless switching and logo keying
- DTP® and XTP® signal extension
- Advanced DSP with AEC and expansion capabilities
- Integrated IPCP Pro xi control processor and audio amplifier with professional audio performance



DTP CrossPoint 4K Series

The industry-leading Extron DTP CrossPoint[®] 4K Series is a definitive game-changer. These highly versatile presentation matrix switchers deliver all of the technologically enhanced capabilities needed to design and integrate advanced AV systems in one box. They include 4K inputs and outputs, Extron Vector 4K scaling technology, seamless switching, integrated DTP and XTP signal extension, plus full audio DSP and AEC capabilities unmatched in the industry. The internal audio DSP can be linked to another Extron DSP for unprecedented audio system scalability. A robust mono or stereo amplifier and an advanced control processor complete the AV system. The DTP CrossPoint 4K Series sets the industry standard for fully integrated AV systems, greatly simplifying system design and installation, and dramatically reducing total cost of ownership.





ProDSP utilizes studio grade 24-bit audio converters with 48 kHz sampling to maintain audio signal transparency. DTP CrossPoint 4K with ProDSP has comprehensive capabilities to control audio embedding/de-embedding, mic/line mixing feedback suppression, equalization, and delay.



DTP CrossPoint 4K IPCP Q models feature a built-in Extron IP Link[®] Pro xi quad core control processor with a secure, dedicated three-port AV LAN switch designed to control local AV devices and safeguard them from outside intrusion or interference. The DTP CrossPoint 4K IPCP Q delivers high-speed processing and abundant control port capacity.



DTP CrossPoint 4K IPCP Q models feature stereo or mono 100-watt Class D power amplifiers with patented CDRS[™] - Class D Ripple Suppression technology that provides a smooth, clean audio waveform and an improvement in signal fidelity over conventional Class D amplifier designs.



The DTP CrossPoint 4K Series is designed for a variety of spaces where reliability and superior quality presentations are crucial. These can include corporate boardrooms, lecture halls in higher education, government facilities, and performance venues. In addition to pristine video performance, these presentation matrix switchers provide logo keying and seamless switching transition effects to enhance the user experience. For large installations, the DTP CrossPoint 4K IPCP Q Series, with a Class D amplifier and a control processor, is your all-in-one solution.

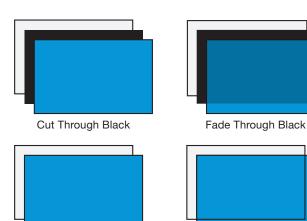
SEAMLESS SWITCHING AND LOGO KEYING

The high performance video scaling within the DTP CrossPoint 4K allows for uncompromised image quality. Driven by Vector 4K scaling technology, the DTP video outputs of these matrix switchers provide powerful processing capabilities, including selectable seamless switching transition effects and logo keying. These capabilities serve the needs of environments where superior quality presentations are crucial.

Seamless Switching Transitions

Critical presentations do not tolerate video glitches. To ensure glitch-free, professional quality presentations, several transition effects can be selected when switching between video sources. These transition effects are available for each of the scaled DTP video outputs:

- Cut through black Instantly cut the current input to black, then cut to the newly selected input.
- Fade through black Fade the current input to black, then fade to the new input.
- Seamless cut Freeze the current input video frame, then cut to the newly selected input.
- Seamless fade Freeze the current input video frame, then fade to the new input.



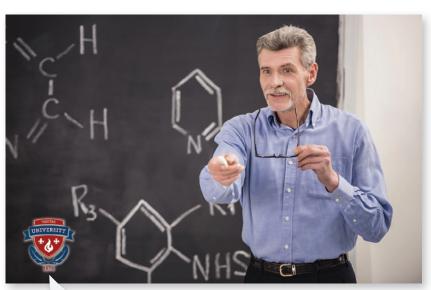
Seamless Cut

Seamless Fade

Logo Keying

A graphic image such as a company or school logo can be uploaded and inserted on the output video signal to enhance branding and to identify the source of valuable video content. Logo keying is available for each of the scaled DTP video outputs. Custom images up to 4096x2400 resolution are supported and can be used at any point in the presentation.

- Logos can be placed anywhere on the active video.
- Uploaded logos can be inserted above live video using either level keying, RGB color keying, or an alpha channel when supported by the graphic file format.
- Logo images in BMP, JPG, PNG, or TIFF graphic file formats are supported.
- 16 logo presets are available to store the logo filename, position, and key settings for quick recall and switching between multiple logo images.





Images up to 4096x2400 resolution can be uploaded.

VECTOR 4K

Extron Vector 4K Scaling Technology

For over 20 years, Extron has been engineering scaling and signal processing solutions that deliver uncompromised image quality and performance. As a result, we have become an industry leader in scaling technology, designing best-in-class products renowned for their quality, reliability, and ease of use. We have continually refined our technology to keep pace with evolving video formats – from standard definition to high definition signals, and now, 4K.

Engineered by Extron from the Ground Up

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 4:4:4 chroma sampling

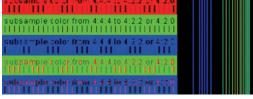


and bicubic scaling ensure very high image quality and preserve detail present in the original source material.

4:4:4 Chroma Sampling

Vector 4K processing is always performed in the RGB domain with full 4:4:4 color bandwidth, which is critical for processing fine image details. Competing 4K scalers commonly process in the component domain, employing 4:2:2 or 4:2:0 chroma subsampling. This decreases the bandwidth required to process the signal, at the expense of reduced color detail. Chroma subsampling may be acceptable when processing full-motion video content, but with computer-generated content, subsampled color negatively impacts the clarity of the image. Vector 4K 4:4:4 color processing retains the fine color details present in the original source.

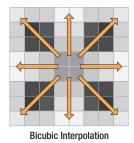




4:2:2 Chroma Subsampling

Bicubic Interpolation

The Vector 4K scaling engine incorporates Extron-patented, multi-tap, bicubic interpolation, which creates a new pixel by averaging adjacent pixels above, below, to the sides, and diagonally of the new pixel. This produces sharp, accurate output, preserving single-pixel detail that other scaling methods lack. Vector 4K algorithms continually and dynamically adapt, ensuring optimal processing for upscaling, downscaling, or 1:1 pass-through applications.



Dynamic Digital Input Detection

Today's computer video standards allow for signal customization to suit the needs of a particular application or display. Such sources can present a challenge for signal processors that rely solely on fixed lookup tables of common resolutions, which are typically incomplete and quickly become obsolete. Vector 4K goes beyond conventional lookup tables, incorporating dynamic input detection which analyzes incoming digital video signals and accurately identifies the signal parameters before processing them for precise conversion and scaling.



Integration Features

Vector 4K technology also provides features that aid in system integration, such as aspect ratio control, auto-memory and user presets, advanced HDCP management, and more.

Learn More

To learn more about Vector 4K scaling, visit **www.extron.com/vector4k**, where you can see interactive demonstrations of Vector 4K technology, view an informational video highlighting key features, and download the Vector 4K brochure.

MODEL SUMMARY

Extron DTP CrossPoint 4K models are all-in-one products featuring 4K matrix switching, scaling, audio DSP with AEC, integrated audio power amplification, and a built-in IPCP Pro xi quad core control processor. Each model also offers additional integration-friendly features, such as seamless transitions between sources, logo insertion on the scaled video outputs, and mirrored HDMI connections for local monitoring of the same digital video that is delivered via shielded CATx cable.





DTP CrossPoint 108 4K

10x8 Seamless 4K Scaling Presentation Matrix Switcher

- 10x8+2 matrix configuration
- · Four DTP inputs and six HDMI inputs
- Four HDMI outputs
- Four independently scaled DTP outputs with two mirrored HDMI outputs
- 3U, full rack width metal enclosure

DTP CrossPoint 86 4K

8x6 Seamless 4K Scaling Presentation Matrix Switcher

- 8x6+2 matrix configuration
- Two DTP inputs and six HDMI inputs
- Two HDMI outputs
- Four independently scaled DTP outputs with two mirrored HDMI outputs
- 3U, full rack width metal enclosure

Model	Version Description	Part Number	Model	Version Description	Part Number
DTP CrossPoint 108 4K	Preamp Output, w/o Amplifier and Control Processor	60-1381-01	DTP CrossPoint 86 4K	Preamp Output, w/o Amplifier and Control Processor	60-1382-01
DTP CrossPoint 108 4K IPCP Q SA	2 x 50 Watt Stereo Power Amplifier	60-1381-92	DTP CrossPoint 86 4K IPCP Q SA	2 x 50 Watt Stereo Power Amplifier	60-1382-92
DTP CrossPoint 108 4K IPCP Q SA	2 x 50 Watt Stereo Power Amplifier, LL UI Upgrade	60-1381-92A	DTP CrossPoint 86 4K IPCP Q SA	2 x 50 Watt Stereo Power Amplifier, LL UI Upgrade	60-1382-92A
DTP CrossPoint 108 4K IPCP Q MA 70	100 Watt 70 V Mono Power Amplifier	60-1381-93	DTP CrossPoint 86 4K IPCP Q MA 70	100 Watt 70 V Mono Power Amplifier	60-1382-93
DTP CrossPoint 108 4K IPCP Q MA 70	100 Watt 70 V Mono Power Amplifier, LL UI Upgrade	60-1381-93A	DTP CrossPoint 86 4K IPCP Q MA 70	100 Watt 70 V Mono Power Amplifier, LL UI Upgrade	60-1382-93A



1 2 3 4 5 6 7 8 1234

DTP CrossPoint 84 4K

8x4 Seamless 4K Scaling Presentation Matrix Switcher

- 8x4+2 matrix configuration
- Two DTP inputs and six HDMI inputs
- Two HDMI outputs
- Two independently scaled DTP outputs with mirrored HDMI outputs
- 2U, full rack width metal enclosure



DTP CrossPoint 82 4K

8x2 Seamless 4K Scaling Presentation Matrix Switcher

- 8x2+2 matrix configuration
- Two DTP inputs and six HDMI inputs
- Two independently scaled DTP outputs with mirrored HDMI outputs
- 2U, full rack width metal enclosure

Model	Version Description	Part Number	Model	Version Description	Part Number
DTP CrossPoint 84 4K	Preamp Output, w/o Amplifier and Control Processor	60-1515-01	DTP CrossPoint 82 4K	Preamp Output, w/o Amplifier and Control Processor	60-1583-01
DTP CrossPoint 84 4K IPCP Q SA	2 x 50 Watt Stereo Power Amplifier	60-1515-92	DTP CrossPoint 82 4K IPCP Q SA	2 x 50 Watt Stereo Power Amplifier	60-1583-92
DTP CrossPoint 84 4K IPCP Q SA	2 x 50 Watt Stereo Power Amplifier, LL UI Upgrade	60-1515-92A	DTP CrossPoint 82 4K IPCP Q SA	2 x 50 Watt Stereo Power Amplifier, LL UI Upgrade	60-1583-92A
DTP CrossPoint 84 4K IPCP Q MA 70	100 Watt 70 V Mono Power Amplifier	60-1515-93	DTP CrossPoint 82 4K IPCP Q MA 70	100 Watt 70 V Mono Power Amplifier	60-1583-93
DTP CrossPoint 84 4K IPCP Q MA 70	100 Watt 70 V Mono Power Amplifier, LL UI Upgrade	60-1515-93A	DTP CrossPoint 82 4K IPCP Q MA 70	100 Watt 70 V Mono Power Amplifier, LL UI Upgrade	60-1583-93A

OVERVIEW

Tri-color, backlit buttons

The QS-FPC - QuickSwitch Front Panel Controller allows for simple, intuitive matrix switcher operation

Extron Vector 4K scaling engine

The exclusive 4K scaling engine is specifically designed for critical-quality 4K imagery, with bestin-class image upscaling and downscaling. Scaling and video format conversion are performed at 30-bit precision for signals up to 4K to provide enhanced color accuracy and picture detail

Flexible video and audio routing options

audio signals

AV signals can be routed together or independently, including embedded HDMI stereo

Complete AV system integration in one box

The DTP CrossPoint 4K IPCP Q is an all-in-one matrix switcher, scaler, audio DSP with AEC, audio amplifier, and control processor



HDCP compliant

The DTP CrossPoint 4K is fully HDCP compliant at all inputs and outputs.

USB configuration port

Provides convenient user access for configuring, controlling, and monitoring the matrix switcher

Volume controls

Allow for adjustment of master volume and microphone level, with accompanying LEDs to indicate volume level

Powerful IPCP Pro xi control processor

DTP CrossPoint 4K IPCP Q models are available with an integrated IP Link Pro xi quad core control processor for complete and secure AV system control

Built-in three-port AV LAN switch

Enables local control of AV devices while isolating the AV LAN network traffic from outside interference or intrusion

DMP digital audio expansion port

Allows the matrix switcher and an Extron DMP 128 Plus DSP to be linked together via a shielded CAT 6 cable for system expansion

Mic/line inputs with 48 volt phantom power and ducking

Four mic/line inputs are available for mixing microphones or line level sources into the audio outputs

Scaled DTP outputs The DTP CrossPoint 4K provides individual scaling up to

2560x1600 and 4K for each DTP output

Integrated **XTRA Series** audio amplifier technologies DTP CrossPoint

4K IPCP Q models are available with an integrated stereo or mono amplifier

HDMI inputs and HDMI outputs Enable easy integration with HDMI

sources and displays

DTP CrossPoint 108 4K IPCP Q SA - Back

Two DTP outputs with mirrored HDMI connections Two DTP outputs on the DTP CrossPoint 4K feature mirrored HDMI connections to support local monitoring

DTP inputs and DTP outputs

The DTP inputs and outputs are compatible with DTP Systems, including DTP 230 and DTP 330 products, or XTP CrossPoint matrix switchers. They support digital signal transmission up to 330 feet (100 meters) over a single shielded CATx cable

Extron ProDSP

Provides full control of audio input and output levels, plus a wide array of audio processing tools and matrix mixing options for program and microphone signals

Compatible with HDBaseTenabled displays

The DTP outputs can be configured to send video and embedded audio, plus bidirectional RS-232 and IR signals to projectors and flatpanel displays equipped with HDBaseT inputs

FEATURES

All-in-one matrix switcher, scaler, audio DSP with AEC, audio power amplifier, and control processor

Choose from 10x8, 8x6, 8x4, and 8x2 matrix switcher configurations

Independently scaled DTP outputs

Two DTP outputs feature mirrored HDMI connections to support local monitoring.

4K matrix switching and scaling with logo keying

The DTP CrossPoint 4K supports 4K signals at all video inputs and outputs. Each DTP output features a built-in high performance Vector 4K video scaler, with the ability to insert a logo image.

Integrated DTP inputs and outputs support transmission of video, control, and audio up to 330 feet (100 m) over a shielded CATx cable

Select DTP endpoints can be remotely powered over each twisted pair connection.

Advanced Extron Vector 4K scaling engine

The Vector 4K scaling engine is specifically designed for critical-quality 4K imagery, with best-in-class image upscaling and downscaling. Scaling and video format conversion are performed at 30-bit precision for signals up to 4K to provide enhanced color accuracy and picture detail.

Selectable scaled DTP output rates from 640x480 to 4K

The output rate can be individually selected for each of the scaled DTP outputs. Available output rates include computer and video up to 4K.

Compatible with DTP 230, DTP 330, DTP2 Series, plus XTP CrossPoint Matrix Switchers

This enables mixing and matching with desktop and wallplate transmitters and receivers, as well as other DTP-enabled products. The DTP CrossPoint 4K can also be integrated with an XTP CrossPoint matrix switcher to provide connectivity between presentation spaces and a larger, facilitywide system.

DTP outputs are compatible with HDBaseT-enabled devices

The DTP outputs can be configured to send video and embedded audio, plus bidirectional RS-232 and IR signals to HDBaseT-enabled displays.

Extron XTP DTP 24 shielded twisted pair cable is strongly recommended for optimal performance

Bidirectional RS-232 and IR insertion for AV device control

Bidirectional RS-232 and IR signals can be inserted from a control system via dedicated control ports on the matrix switcher. Bidirectional RS-232 signals can also be inserted via Ethernet.

HDMI audio embedding and deembedding

Two-channel audio signals can be embedded onto the HDMI and DTP outputs. Embedded HDMI two-channel PCM audio can be extracted for routing and further processing. Embedded multichannel bitstream formats are routed with the video to the HDMI and DTP outputs.

Output volume control

Master volume control is provided for the variable line level and amplified audio outputs. A separate control is provided for mic volume.

Audio input gain and attenuation, plus audio breakaway

Gain or attenuation can be adjusted for each two-channel audio input to eliminate noticeable differences when switching between sources. Audio breakaway provides the capability to break the two-channel audio away from its corresponding video signal and route to the audio outputs.

Integrated audio digital signal processor with ProDSP 32/64-bit floating point signal processing

The DTP CrossPoint 4K features 32/64-bit floating point audio DSP processing, which maintains very

wide dynamic range and audio signal transparency, to simplify management of gain staging while reducing the possibility of DSP signal clipping.

Four channels of AEC

The matrix switcher includes four independent channels of high performance AEC, and selectable noise cancellation. Extron AEC features advanced algorithms that deliver fast echo canceler convergence for optimal intelligibility in situations that challenge AEC performance, including double talk and the use of wireless microphones.

Automixer with eight groups

The matrix switcher features an automixer with gated and gain sharing modes for managing up to eight groups of microphone signals. Gating threshold, signal level reduction, and timing parameters are user adjustable per channel, allowing for fine tuning to avoid the "chopped" sound characteristic of a traditional automixer when a mic is gated off.

Digital audio expansion port provides interfacing to an Extron DMP 128 Plus processor for audio system scalability

An expansion port allows the DTP CrossPoint 4K and any DMP 128 Plus model to be linked together via a single shielded CAT 6 cable for 16x16 I/O channel transport between devices. This allows for audio system scalability with expanded audio processing and signal routing capabilities.

Four mic/line inputs with 48 volt phantom power

Four mic or line level audio sources can be independently mixed with program audio.

Mic ducking

Automatically reduces program audio when a microphone or other incoming audio signal is detected, eliminating the need for a separate audio ducking processor.













Studio grade 24-bit/48 kHz analogto-digital and digital-to-analog converters

Professional converters fully preserve the integrity of the original audio signal.

Low latency DSP processing

The DTP CrossPoint 4K features very low, deterministic latency from input to output, regardless of the number of active channels or processes. While latency increases marginally in channels with AEC enabled, overall latency remains extremely low. This keeps audio in sync with video, and prevents distractions resulting from delayed live audio.

DSP Configurator Software

DSP Configurator Software is a powerful yet user-friendly PC-based software tool for managing all audio operations of the DTP CrossPoint 4K. It enables complete setup and configuration of digital audio processing tools on the ProDSP platform, as well as routing and mixing.

Flexible matrix design provides output, virtual, and expansion routing options

The DSP architecture employs an intuitive matrix design that offers substantial flexibility in routing, mixing, and processing audio input sources.

Available with integrated energyefficient Class D audio amplifier

IPCP Q models include a stereo power amplifier with 50 watts rms per channel into 4 ohms and 25 watts rms per channel into 8 ohms, or a mono 70 volt amplifier with 100 watts rms output.

Professional grade audio performance

The integrated amplifier delivers professional grade signal-to-noise ratio and THD+N performance.

Extron Patented CDRS - Class D Ripple Suppression

CDRS technology provides a smooth, clean audio waveform and an improvement in signal fidelity over conventional Class D amplifier designs. It eliminates the high frequency switching ripple characteristic of Class D amplifiers, a source of RF emissions which can interfere with sensitive AV equipment such as wireless microphones. Supported HDMI specification features include data rates up to 10.2 Gbps, Deep Color up to 12-bit, 3D, and HD lossless audio formats

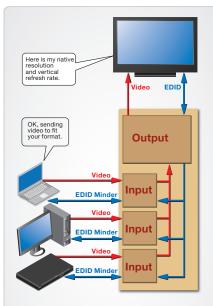
HDCP compliant

User-selectable HDCP authorization

Allows individual inputs to appear HDCP compliant or non-HDCP compliant to a source that encrypts content by default. Protected material is not passed in non-HDCP mode.

Logo image keying and display

A logo graphic may be placed at any position on any scaled video output as a foreground image. Logo graphics in BMP, JPG, PNG, or TIFF format may be uploaded to the unit. Full screen images up to 4096x2400 resolution can also be displayed to eliminate blank screens between presentations.



EDID Minder automatically manages EDID communications between the display and video sources, ensuring that all sources power up correctly and reliably output content to the display.

Seamless switching

Seamless freeze/fade, cut through black, and fade through black transition effects are available at the scaled video outputs.

Extron digital video technologies

EDID Minder, Key Minder, and SpeedSwitch simplify integration of HDMI devices and help ensure optimal system performance and dependability.

HDCP Visual Confirmation

When processing HDCP-encrypted content, the DTP CrossPoint 4K outputs a full-screen green signal on any video output connected to a non-HDCP compliant display, providing immediate visual confirmation that protected content cannot be viewed.

QS-FPC[™] - QuickSwitch Front Panel Controller

Provides a discrete button for each input and output, allowing for simple, intuitive operation. Buttons can be custom labeled for easy identification. The buttons illuminate red, green, or amber depending on function, for ease of use in low-light environments.

View I/O mode

Users can easily view which inputs and outputs are actively connected.

Global presets

Frequently used I/O configurations may be recalled from the QuickSwitch Front Panel Controller, Ethernet, USB, or RS-232.

Output muting control

One or all outputs can be muted at any time. This allows, for example, content to be viewed on a local monitor prior to appearing on the main display.

Aspect ratio control

For the scaled DTP outputs, the aspect ratio of the video can be controlled by selecting a FILL mode, which provides a full screen output, or a FOLLOW mode, which preserves the original aspect ratio of the input signal.

Available with integrated quad core control processor

DTP CrossPoint 4K IPCP Q models include a built-in IPCP Pro xi control processor for full AV system control.

Easy setup and commissioning with Extron's PCS - Product Configuration Software

Conveniently configure multiple products, including the DTP CrossPoint 4K, using a single software application.

INTEGRATED CONTROL PROCESSOR



Built-in IP Link Pro xi Quad Core Control Processor

The integrated IPCP Pro xi control processor includes all of the same advanced features, processing power, and breakthrough technologies found in standalone Extron Pro xi Series control systems. It enables the DTP CrossPoint 4K IPCP Q to provide powerful AV and room control capabilities, including control of all sources and displays, lighting, window shades, projection screens, occupancy sensing, and much more. The DTP CrossPoint 4K IPCP Q can also be grouped with up to three additional IPCP Pro xi control processors using Global Configurator Professional software to create large, sophisticated control systems. This is ideal for controlling multiple systems, rooms, or even remote locations around the world.

Two bidirectional RS-232 serial ports with software handshaking

One bidirectional RS-232/RS-422/ RS-485 serial port with hardware and software handshaking

Two IR/serial ports for one-way control of external devices

Four digital I/O ports and four relays Provide control of various room functions

Quad-core processor and four times more memory with 2 GB of RAM and 8 GB of Flash

For increased project upload speeds, faster runtime performance, and more sophisticated projects

Integrated three-port AV LAN switch allows AV devices to be isolated from the corporate network

Supports secure industry standard communications protocols

Supports LinkLicense

Enhances the capabilities of Extron Pro Series control systems

Multi-level password protection Allows security to be set based on user roles

Fully customizable using Extron control system software

GUI Designer combined with Global Configurator Plus or Global Configurator Professional

Pair with TouchLink Pro Touchpanels for a Powerful AV Control System

The DTP CrossPoint 4K IPCP Q supports direct connectivity with Extron TouchLink[®] Pro touchpanels through the Gigabit switch on the presentation matrix switcher. TouchLink Pro touchpanels feature enhanced processing and memory, plus capacitive touchscreens for select models. These touchpanels are available in a variety of form factors and sizes to suit a wide range of applications.

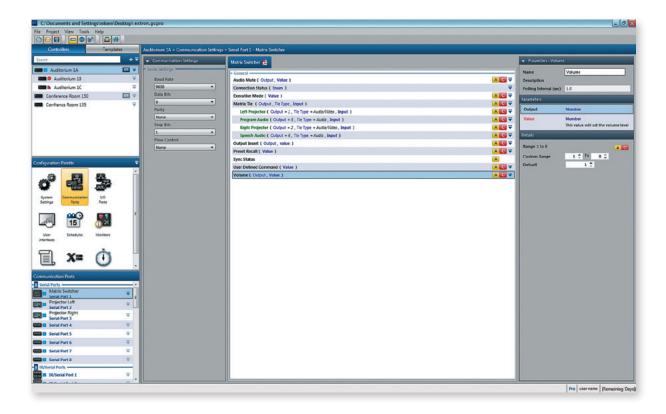


ADVANCED CONTROL SYSTEM CONFIGURATION

Powerful Configuration Software

Global Configurator is Extron's most powerful and versatile control system configuration software. It is ideal for a wide variety of control systems and applications, and helps streamline integration within today's demanding AV control environments. Within this latest version, powerful features, such as conditional logic, variables, and macros provide even greater flexibility for more elaborate control system designs. Global Configurator has two modes. Global Configurator Plus is ideal for smaller scale applications requiring one control processor and one control interface. Global Configurator Professional duplicates all of the powerful features within Global Configurator Plus but is especially suited for applications requiring multiple control processors, enhanced functionality, and advanced configuration.

One of the many features of Global Configurator Professional is the ability to create controller groups. Multiple control processors can be grouped together with the DTP CrossPoint 4K IPCP Q to function as one. This provides unique control system scalability, and is beneficial when more control ports are needed than offered on a single control processor, especially in larger-scale projects spanning multiple rooms.



GUI Designer

Extron GUI Designer is a software application used for the design, creation, and maintenance of Extron TouchLink Pro user interfaces. Begin with ready-to-use design templates and resource kits, or start from scratch and build your own layout using our comprehensive software. The available design elements are fully customizable and matched carefully to popular AV system applications. In many cases, all of the input sources, display control, and environmental settings are already in place. These resources are fully developed and include complete, detailed documentation.



ADD POWERFUL CAPABILITIES WITH LINKLICENSE

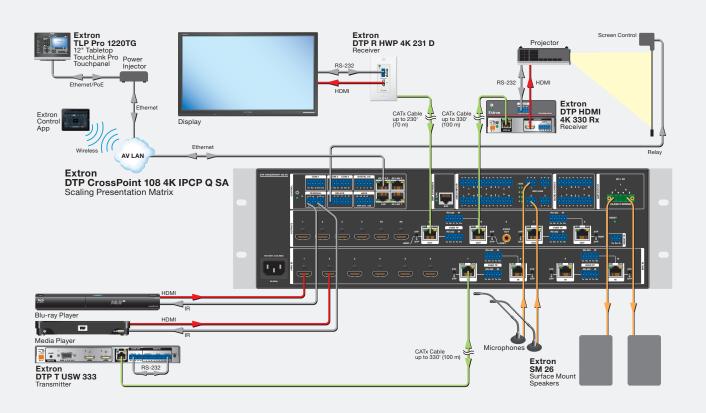




Extron LinkLicense[®] is an easy, cost-effective way to add even more powerful capabilities to Extron products. Purchasing a LinkLicense for User Interfaces upgrade for the DTP CrossPoint 4K IPCP Q will enable people to use a mobile device or computer as the primary control interface for the AV system. With the purchase of a LinkLicense with the DTP CrossPoint 4K IPCP Q, integrators can create custom user interfaces for tablets or laptops, and duplicate them to additional devices with no per-user fees.



- Purchase LinkLicense and activate it with a single click to take immediate advantage of all the benefits
- Unlock features that add convenience, expand system options, and enhance the capabilities of your Extron products
- No central management of licenses required
- Use a mobile device or computer as the primary control interface in an Extron control system
- Simplify deployment of BYOD Bring Your Own Device control designs
- Streamlines support by standardizing on a consistent BYOD control approach across your organization
- Operates seamlessly with the Extron Control App



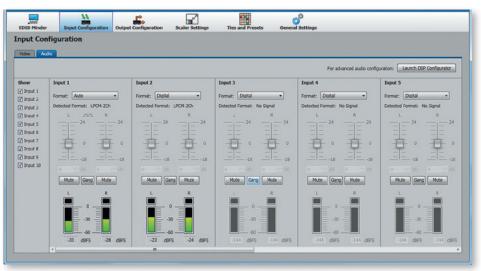
Intuitive System Setup and Operation

The DTP CrossPoint 4K Series can be easily configured using Extron's PCS - Product Configuration Software via the front panel USB port or over Ethernet. The user-friendly GUI of the configuration software allows for expedited audio and video setup. You are able to use the DTP CrossPoint 4K out of the box, in just a few steps. Users can view details about the current input and output, such as video signal presence, HDCP status, and audio format. In addition to creating AV matrix switching ties, picture settings are available for the four independently scaled DTP outputs. These include resolution selection, image brightness, contrast, positioning, sizing, and more. PCS offers preset management and provides the ability to configure multiple DTP CrossPoint 4K units in the same session, making it easy for AV integrators to quickly set up systems across different rooms in a facility.

AV integrators and technicians can adjust audio levels in PCS using the graphical sliders available for each input. Real-time meters are available at all inputs and outputs to set proper gain structure for the audio system. For full audio system optimization and finetuning, integrators can take advantage of the DSP Configurator Software which is conveniently accessible from PCS.



The intuitive user interface makes it easy to independently apply EDID settings to each input, allowing the user to select from EDID captured from connected output devices, factory default EDID, or custom EDID uploaded to the unit.



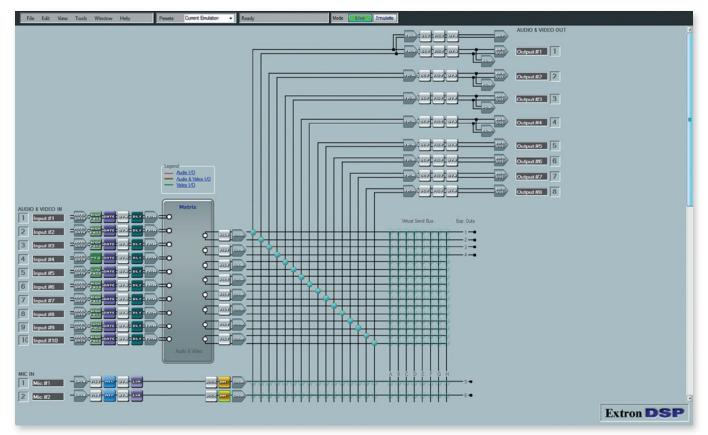
PCS enables expedited audio system setup with convenient audio input format selection, level adjustment, and real-time meters for each input and output.

DSP CONFIGURATOR SOFTWARE

Easy-To-Use DSP Configurator Software for Fast Setup

The DSP Configurator Software allows AV integrators and technicians to take advantage of the professional grade DSP in the DTP CrossPoint 4K for full audio system design, precise optimization and fine tuning, and proper gain structure. The intuitive Graphical User Environment offers fast access to all digital audio signal processing tools for the matrix switcher, including level control, dynamics, filters, delay, loudness, feedback suppression, and matrix mixing. The DSP Configurator Software is also used to configure and manage AEC and automixing, providing real-time metering for echo return or echo reduction levels. Designers can quickly get a snapshot of the entire audio system, including all processing blocks, AV matrix switching ties, and audio matrix mixing, without having to access multiple windows or menus.

Using the DSP Configurator Software, users can matrix mix any of the mic/line inputs into any of the eight stereo output buses to create finely tuned audio zones for the corresponding outputs. With virtual buses, the inputs can be processed together as a group, before routing into the output buses. These flexible routing and mixing capabilities allow designers to create simple or complex signal management schemes to accommodate a wide variety of system application requirements. For added convenience, the DSP Configurator Software offers an Emulate mode, in addition to a Live mode, so that settings can be configured and saved offline. The configuration file can then be uploaded to the DTP CrossPoint 4K when you are ready to install the unit into a system. Available Building Blocks processor settings and the ability to save presets of any or all DSP parameters provide additional ease when setting up a fully optimized audio system.

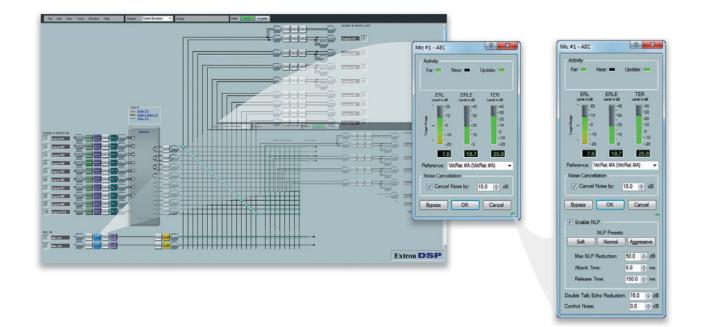


The DSP Configurator Software provides a convenient snapshot of the entire audio system, including all processing blocks, AV matrix switching ties, and audio matrix mixing.

DSP CONFIGURATOR SOFTWARE

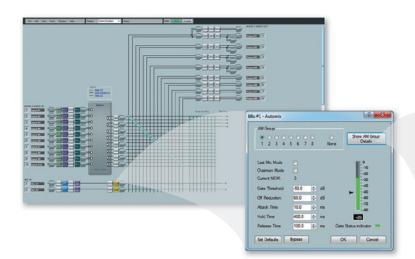
Acoustic Echo Cancellation

In conferencing applications, hearing the talker's voice returned as an echo is disruptive to natural communication. AEC processing prevents far end audio, as reproduced in the near end, from being returned back to the remote talker as echo, ensuring clear, natural conversations. However, AEC processing can be challenged by conditions such as double-talk, when talkers from both ends are speaking simultaneously, and when near end talkers use wireless microphones. Extron AEC delivers fast echo cancelling optimized for these challenging conditions.



Automixer

The DTP CrossPoint 4K offers an automixer with gated and gain sharing modes, and includes several advanced features for optimizing microphone management. Multiple trigger protection allows only the microphone with the highest signal to be active while the rest are gated off. The NOM - number of open microphones can be specified to limit the number of active microphones at one time. For a natural sounding mic mix, the automixer also offers a gain sharing mode when the NOM is bypassed, allowing all mics to gate on. A global automixer configuration screen in the DSP Configurator Software enables fast, intuitive management of all microphones and groups in a centralized user interface.





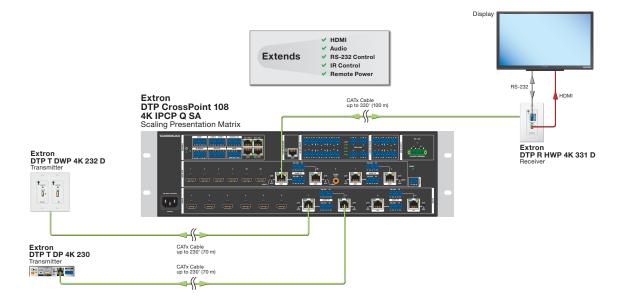
COMPATIBLE WITH ALL DTP PRODUCTS



The DTP CrossPoint 4K works in conjunction with all Extron DTP 230 and DTP 330 transmitters and receivers to extend video, audio, and control signals in AV switching applications. When the DTP CrossPoint 4K is paired with a DTP 330 transmitter or receiver, HDMI, DisplayPort, DVI, or VGA, plus control and analog audio signals can be extended up to 330 feet (100 meters). With a DTP 230 endpoint, signals can be extended up to 230 feet (70 meters). The ability to extend these signals and provide remote power to select DTP endpoints with just one shielded CATx cable greatly streamlines system designs and installation.

Designed for rack mount and architectural applications, the DTP transmitters and receivers provide convenient connection points at remote source and display locations. Decorator-style models are available for placement in walls, lecterns, floor boxes, or behind flat-panel displays. Compact, low-profile versions can be discreetly installed beneath tables, in lecterns, above ceiling-mounted projectors, or behind flat-panel displays.

DTP transmitters and receivers are HDCP compliant and support computer and video resolutions up to 2560x1600, including 1080p/60 and 2K. Single input transmitters and receivers, as well as select multi-input transmitters, also support 4K resolutions. In addition, DDC communication of EDID and HDCP is continuously maintained between a source and display, ensuring direct compatibility and optimal signal transmission between devices. Multi-input transmitter models allow convenient sub-switching at a wall location, in a lectern, or under a conference room table. In addition, the multi-input transmitters offer auto-switching between inputs, plus contact closure and RS-232 control, for simplified operation. DTP 230 and DTP 330 transmitters also accept direct analog stereo audio connections from laptops, Blu-ray Disc players, or other devices for simultaneous transmission over the shielded CATx cable to the DTP CrossPoint 4K, eliminating the need for separate cable runs.



DTP2 PRODUCTS



DTP Family Enhancements

DTP2 products build upon the extensive DTP platform to reach new heights in professional AV integration. They incorporate advanced features and functions to let you create the sophisticated, yet simple to use systems that customers demand.

Advanced 18 Gbps Performance

All DTP2 products accommodate the full 18 Gbps data rate of HDMI 2.0 and support video signals up to 4K/60 with 4:4:4 chroma sampling. They are HDCP 2.3 compliant and select models support distribution of 4K HDR. All extend video, audio, and control up to 330 feet (100 meters) at every video resolution.

Designed to Simplify Integration

DTP2 products add unique capabilities to enable innovative professional AV systems.

- Analog audio inputs on all DTP2 products support audio embedding
- Audio de-embedding is supported on analog audio outputs of all DTP2 products
- DTP2 T 212 transmitters feature an independently assignable HDMI output for local monitoring in addition to a long distance DTP2 output
- DTP2 R 212 receivers have a local HDMI input to support BYOD in collaboration spaces and an integrated audio power amplifier for premium sound quality

Compatibility

Even as they offer enhanced performance and increased capability, DTP2 products retain backward compatibility with existing DTP products. Any DTP or DTP2 transmit port can be connected to any DTP or DTP2 receive port to extend video, audio, and control signals. This maintains the simple format conversion functionality of DTP Systems and allows use of unique DTP2 product features. While DTP and DTP2 products can be intermixed, DTP2 transmit and receive ports must be connected directly to each other to support remote power and transmission of signals with data rates above 10.2 Gbps.



DTP2 T 211

HDMI 4K/60 DTP2 Transmitter with Audio Embedding

- Transmits HDMI plus control and analog audio up to 330 feet (100 meters) over a shielded CATx cable
- Supports computer and video resolutions up to 4K/60 @ 4:4:4
- Analog stereo audio embedding
- Supported HDMI 2.0 specification features include data rates up to 18 Gbps, Deep Color up to 12-bit, 3D, and HD lossless audio formats
- · Remote power capability with DTP2 products
- HDCP 2.3 compliant

Extro 0

DTP2 T 201 D

4K/60 HDMI DTP2 Transmitter Decorator Style Wallplate

- Mounts in an included one gang decorator style wallplate
- ٠ Transmits HDMI plus control and analog audio up to 330 feet (100 meters) over a shielded CATx cable
- Supports computer and video resolutions up to 4K/60 @ 4:4:4
- Supported HDMI 2.0 specification features include data rates up to 18 Gbps, Deep Color up to 12 bit, 3D, and HD lossless audio Formats
- · Remote power capability with DTP2 products
- HDCP 2.3 compliant

Model	Version Description	Part Number	Model	Version Description	Part Number
DTP2 T 211	HDMI 4K/60 Tx - 330 feet (100 m)	60-1631-52	DTP2 T 201 D	HDMI Wallplate Tx, Black 330 feet (100 m)	60-1741-52
			DTP2 T 201 D	HDMI Wallplate Tx, White 330 feet (100 m)	60-1741-53





DTP2 T 212

Two Input 4K/60 HDMI Switcher with Integrated DTP2 Transmitter and HDMI Output

- Transmits HDMI plus control and analog audio up to 330 feet (100 meters) over a shielded CATx cable
- Two HDMI inputs

Model

DTP2 T 212

- DTP2 and HDMI outputs
- Supports computer and video resolutions up to 4K/60 @ 4:4:4

Two Input 4K/60 HDMI Switcher 330 feet (100 m)

- Auto switching between inputs
- Analog stereo audio embedding
- · Remote power capability with DTP2 products
- Support for HDR High Dynamic Range video

· Remote power capability with DTP2 products • Support for HDR - High Dynamic Range video Version Description Part Number Model Version Description Part Number

DTP2 T 202 FB

60-1587-52

DTP2 T 202 FB

Two Input 4K/60 DTP2 Transmitter for Floor Boxes • Designed to mount in a variety of floor boxes

(100 meters) over a shielded CATx cable

• DisplayPort and HDMI inputs

• Auto switching between inputs

· Analog stereo audio embedding

• Transmits DisplayPort, HDMI, control, and analog audio up to 330 feet

Two Input 4K/60 Floor Box Tx - 330 feet (100 m)

60-1586-52

• Supports computer and video resolutions up to 4K/60 @ 4:4:4

DTP2 RECEIVERS





DTP2 R 212



HDMI 4K/60 DTP2 Receiver and Switcher with Audio De-Embedding

• Supports computer and video resolutions up to 4K/60 @ 4:4:4

2 x 15 watts @ 4 ohms; 2 x 8 watts @ 8 ohms

• Support for HDR - High Dynamic Range video

• Receives HDMI plus control and analog audio up to 330 feet (100 meters)

• DTP2 R 212 SA model features energy efficient Class D stereo amplifier:

DTP2 R 212 SA

over a shielded CATx cable

One DTP2 and one HDMI inputAuto switching between inputs

• Stereo audio de-embedding

DTP2 R 212

DTP2 R 211

HDMI 4K/60 DTP2 Receiver with Audio De-Embedding

- Receives HDMI plus control and analog audio up to 330 feet (100 meters) over a shielded CATx cable
- Supports computer and video resolutions up to 4K/60 @ 4:4:4
- Stereo audio de-embedding
- Supported HDMI 2.0 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
- Remote power capability with DTP2 products
- Support for HDR High Dynamic Range video

Model	Version Description	Part Number	Model	Version Description	Part Number
DTP2 R 211	HDMI 4K/60 Rx - 330 feet (100 m)	60-1631-53	DTP2 T 212	HDMI 4K/60 Rx Switcher - 330 feet (100 m)	60-1588-52
			DTP2 T 212 SA	HDMI 4K/60 Rx Switcher w/ Amp - 330 feet (100 m)	60-1588-53

DTP TRANSMITTERS

Extron DTP twisted pair transmitters are HDCP compliant and enable reliable digital transmission of video, audio, and bidirectional control signals up to 230 feet (70 meters) or 330 feet (100 meters) over a shielded twisted pair cable. DTP transmitters can also be remotely powered by a DTP-enabled product over the same shielded CATx cable. Designed for rack mount and architectural applications, the DTP transmitters provide convenient connection points for local and remote source locations. These transmitters work in conjunction with DTP receivers and DTP-enabled products to extend video, audio, and control over a shielded CATx cable to destinations within an Extron DTP System.

DTP HDMI TP HDMI 4K 330 Tx	ROTP	[CONFIG	PUTS 2 EDID THD2 4K 330 PHD2
 DTP HDMI 4K 230 Tx and DTP HDMI 4 DTP Transmitter for HDMI Inputs: HDMI, 3.5 mm stereo mini jack for audio pass Output: One DTP twisted pair output Supports computer and video resolutions up to 4K Supported HDMI specification features include data in Deep Color up to 12-bit, 3D, HD lossless audio forma pass-through 	DTP Transmitte Input: HDMI Output: One Supports cor Buffered HDI DTP output i Supported H	2 4K 230 and DTP T HD2 er for HDMI with Input Loop-Thr with buffered input loop-through DTP twisted pair output mputer and video resolutions up to MI input loop-through s compatible with HDBaseT-enabl IDMI specification features include up to 12-bit, 3D, and HD lossless a	o 4K ed deviced data rates up to 10.2 Gbps,	
ModelVersion DescriptionDTP HDMI 4K 230 TxHDMI Tx - 230 feet (70 m)DTP HDMI 4K 330 TxHDMI Tx - 330 feet (100 m)	Part Number 60-1271-12 60-1331-12	Model DTP T HD2 4K 230 DTP T HD2 4K 330	Version Description HDMI Tx - 230 feet (70 m) HDMI Tx - 330 feet (100 m)	Part Number 60-1491-12 60-1491-52





Extron OVER DTP 12V -Ö RS-232 0 ----DTP DVI 4K 330 Tx

DTP T DP 4K 230 and DTP T DP 4K 330

DTP Transmitter for DisplayPort

- Inputs: One DisplayPort, 3.5 mm stereo mini jack for audio pass-through
- Output: One DTP twisted pair output
- Supports computer and video resolutions up to 4K, including 2560x1600
- DTP output is compatible with HDBaseT-enabled devices
- Supports DisplayPort SST Single Stream Transport data rates up to 10.8 Gbps

DTP DVI 4K 230 Tx and DTP DVI 4K 330 Tx **DTP Transmitter for DVI**

- Inputs: DVI-D with loop-through, 3.5 mm stereo mini jack for audio pass-through
- Output: One DTP twisted pair output
- Supports computer and video resolutions up to 4K
- Supported HDMI specification features include data rates up to 10.2 Gbps, Deep Color up to 12-bit, 3D, HD lossless audio formats, and CEC pass-through

Model	Version Description	Part Number	Model	Version Description	Part Number
DTP T DP 4K 230	DisplayPort Tx - 230 feet (70 m)	60-1076-12	DTP DVI 4K 230 Tx	DVI Tx - 230 feet (70 m)	60-1272-12
DTP T DP 4K 330	DisplayPort Tx - 330 feet (100 m)	60-1076-52	DTP DVI 4K 330 Tx	DVI Tx - 330 feet (100 m)	60-1360-12

DTP TRANSMITTERS

TTP T HWP 4K 331 D			DTP T EU 4K 331	
 DTP T HWP 4K 231 D and DTP T HWP 4K 3 DTP Transmitter for HDMI – Decorator-Style Wallplate Inputs: HDMI, 3.5 mm stereo mini jack for audio pass-throug Output: One DTP twisted pair output Supports computer and video resolutions up to 4K DTP output is compatible with HDBaseT-enabled devices Supported HDMI specification features include data rates up Deep Color up to 12-bit, 3D, HD lossless audio formats, and pass-through 	gh 9 to 10.2 Gbps,	DTP Transmitter Input: one HDI Output: One D Supports com DTP output is Supported HD	TP twisted pair output puter and video resolutions up to 4K compatible with HDBaseT-enabled pu MI specification features include data eep Color up to 12-bit, 3D, HD lossles	roducts i rates up to
ModelVersion DescriptionDTP T HWP 4K 231 DHDMI Decorator-Style Tx, Black - 230 feet (70 m)DTP T HWP 4K 231 DHDMI Decorator-Style Tx, White - 230 feet (70 m)DTP T HWP 4K 331 DHDMI Decorator-Style Tx, Black - 330 feet (100 m)DTP T HWP 4K 331 DHDMI Decorator-Style Tx, White - 330 feet (100 m)	Part Number 60-1421-12 60-1421-13 60-1421-52 60-1421-53	Model DTP T EU 4K 231 DTP T EU 4K 331 DTP T MK 4K 231	Version Description HDMI EU Tx - 230 feet (70 m) HDMI EU Tx - 330 feet (100 m) HDMI MK Tx - 230 feet (70 m)	Part Number 60-1532-12 60-1532-52 60-1533-12



DTP DVI 4K 230 D Tx

DTP DVI 4K 230 D Tx

DTP Transmitter for DVI – Decorator-Style Wallplate

- Inputs: DVI-D with loop-through, 3.5 mm stereo mini jack for audio pass-through
- Output: One DTP twisted pair output
- Supports computer and video resolutions up to 4K
- DVI input loop-through
- Supported HDMI specification features include data rates up to 10.2 Gbps, Deep Color up to 12-bit, 3D, HD lossless audio formats, and CEC pass-through

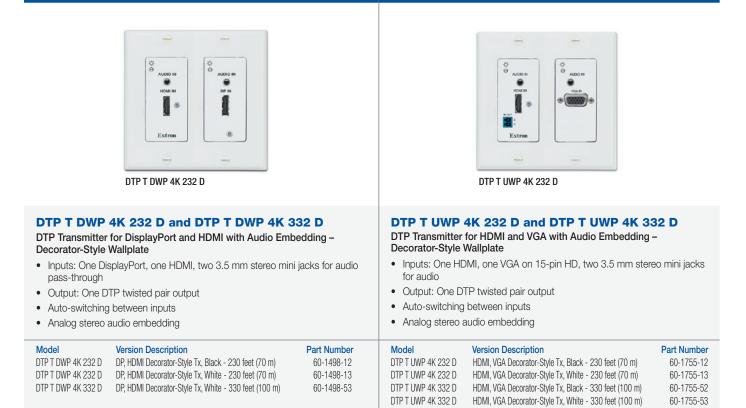
Part Number 60-1442-13

• Mounts in an included two-gang decorator-style wallplate

Model	Version Description
DTP DVI 4K 230 D Tx	Decorator-Style Tx, White - 230 feet (70 m)

DTP SWITCHING TRANSMITTERS

Extron DTP switching transmitters provide high performance input switching between multiple source devices for transmission of video, audio, and bidirectional control over a shielded CATx cable to destinations within a DTP System. DTP switching transmitters can also be remotely powered by a DTP-enabled product over the same shielded CATx cable. These transmitters offer convenient features such as automatic switching between inputs and Extron-exclusive EDID Minder technology. DTP switching transmitters are available in a variety of form factors for convenient sub-switching at a wall location, in a lectern, in a floor box, or under a conference room table.





DTP T HWP 232 D



DTP T HWP 232 D DTP T FB 232 and DTP T FB 332 Two Input DTP Transmitter for HDMI with Audio Embedding -Two Input DTP Transmitter with Audio Embedding for Floor Boxes Decorator-Style Wallplate Inputs: One HDMI, one VGA on 15-pin HD, one 3.5 mm stereo mini jack Inputs: Two HDMI, two 3.5 mm stereo mini jacks for audio for audio • Output: One DTP twisted pair output • Output: One DTP twisted pair output • Auto-switching between inputs • Auto-switching between inputs • Analog stereo audio embedding • Analog stereo audio embedding Part Number Model Version Description Model Version Description Part Number DTP T HWP 232 D 2 HDMI Decorator-Style Tx, White - 230 feet (70 m) 60-1365-13 DTP T FB 232 Two Input Floor Box Tx - 230 feet (70 m) 60-1568-12 60-1568-52 DTP T FB 332 Two Input Floor Box Tx - 330 feet (100 m)



DTP T EU 232



DTP T MK 232

DTP T EU and DTP T MK

Two Input DTP Transmitter with Audio Embedding for EU and MK Junction Boxes

- Inputs: One HDMI, one VGA on 15-pin HD, two 3.5 mm stereo mini jacks for audio
- Output: One DTP twisted pair output
- Designed to mount in a standard two-gang EU and MK electrical junction box
- Analog stereo audio embedding



DTP T SW4 HD 4K

DTP T SW4 HD 4K

Four Input HDMI Switcher with Integrated DTP Transmitter

- Inputs: Four HDMI
- Output: One DTP twisted pair output
- Auto-switching between inputs
- Supports computer and video resolutions up to 4K

Model	Version Description	Part Number	Model	Version Description	Part Number
DTP T EU 232	Two Input EU Tx - 230 feet (70 m)	60-1569-12	DTP T SW4 HD 4K	Four Input HDMI Switcher with DTP Tx	60-1625-01
DTP T MK 232	Two Input MK Tx - 230 feet (70 m)	60-1567-12			



DTP T USW 233 and DTP T USW 333

Three Input Switcher with Integrated DTP Transmitter and Audio Embedding

- Inputs: Two HDMI, one VGA on 15-pin HD, one 3.5 mm stereo mini jack for audio
- Output: One DTP twisted pair output
- Auto-switching between inputs
- Analog stereo audio embedding



DTP T DSW 4K 333

DTP T DSW 4K 233 and DTP T DSW 4K 333

Three Input Multi-Format Switcher with Integrated DTP Transmitter and Audio Embedding

- Inputs: One DisplayPort, one HDMI, one VGA on 15-pin HD, one 3.5 mm stereo mini jack for audio
- Output: One DTP twisted pair output
- Auto-switching between inputs
- Analog stereo audio embedding

Model	Version Description	Part Number	Model	Version Description	Part Number
DTP T USW 233	2 HDMI, VGA Switcher - 230 feet (70 m)	60-1551-12	DTP T DSW 4K 233	DisplayPort, HDMI, VGA Switcher - 230 feet (70 m)	60-1487-12
DTP T USW 333	2 HDMI, VGA Switcher - 330 feet (100 m)	60-1551-52	DTP T DSW 4K 333	DisplayPort, HDMI, VGA Switcher - 330 feet (100 m)	60-1487-52

DTP DISTRIBUTION AMPLIFIERS

Extron distribution amplifiers with DTP twisted pair outputs are engineered for reliable operation in commercial AV applications. They provide digital transmission of video, audio, and bidirectional control signals up to 230 feet (70 meters) or 330 feet (100 meters) over shielded CATx cable to destinations within a DTP System. They are HDCP compliant and include integrator-friendly features such as EDID Minder, Key Minder, remote power capability, and selectable output muting.



DTP Receivers

A wide selection of HDCP-compliant DTP twisted pair receivers are also available for extending AV and control signals over a shielded CATx cable to destinations within a DTP System. Designed for rack mount and architectural applications, the DTP receivers provide convenient connection points at remote display locations.

TTP R HWP 4K 331 D			DTP DVI 4K 230 D Rx			
DTP Receiver forInput: One DTFOutputs: HDM	4K 231 D & DTP R HWP 4K 33 r HDMI – Decorator-Style Wallplate ^D twisted pair input I, captive screw for audio pass-through pouter and video resolutions up to 4K	31 D	Input: One DTOutputs: DVI-I	230 D Rx or DVI – Decorator-Style Wallplate P twisted pair input D, 3.5 mm stereo mini jack for audio pass- puter and video resolutions up to 4K	through	
Model DTP R HWP 4K 231 D DTP R HWP 4K 231 D DTP R HWP 4K 331 D DTP R HWP 4K 331 D	Version Description HDMI Decorator-Style Rx, Black - 230 feet (70 m) HDMI Decorator-Style Rx, White - 230 feet (70 m) HDMI Decorator-Style Rx, Black - 330 feet (100 m) HDMI Decorator-Style Rx, White - 330 feet (100 m)	Part Number 60-1531-12 60-1531-13 60-1531-52 60-1531-53	Model DTP DVI 4K 230 D Rx	Version Description DVI Decorator-Style Rx, Black - 230 feet (70 m)	Part Number 60-1214-22	

DTP RECEIVERS





DTP DVI 4K 330 Rx

DTP HDMI 4K 230 Rx and DTP HDMI 4K 330 Rx

- DTP Receiver for HDMI
- Input: One DTP twisted pair input
- Outputs: HDMI, captive screw connector for audio pass-through
- Supports computer and video resolutions up to 4K



- Input: One DTP twisted pair input
- Outputs: One DVI-D, captive screw connector for audio pass-through
- Supports computer and video resolutions up to 4K

Model	Version Description	Part Number	Model	Version Description	Part Number
DTP HDMI 4K 230 Rx	HDMI Rx - 230 feet (70 m)	60-1271-13	DTP DVI 4K 230 Rx	DVI Rx - 230 feet (70 m)	60-1272-13
DTP HDMI 4K 330 Rx	HDMI Rx - 330 feet (100 m)	60-1331-13	DTP DVI 4K 330 Rx	DVI Rx - 330 feet (100 m)	60-1360-13



DTP R DP 4K 330

DTP R DP 4K 230 and DTP R DP 4K 330

DTP Receiver for DisplayPort

- Input: One DTP twisted pair input
- Outputs: DisplayPort, captive screw connector for audio pass-through
- Supports computer and video resolutions up to 4K, including 2560x1600

230 feet (70 m)

330 feet (100 m)

Model	Version Description
DTP R DP 4K 230	DisplayPort Rx - 230 feet
DTP R DP 4K 330	DisplayPort Rx - 330 feet

Part Number 60-1076-23 60-1076-63

DTP CABLE & ACCESSORIES

Extron XTP DTP 24 shielded twisted pair cable is specifically engineered for optimum signal transmission and signal path reliability in Extron DTP Systems. XTP DTP 24 cable has been independently tested in an HDBaseT[™] Alliance Recognized Testing Facility, and verified to meet performance requirements for recommendation by the Alliance. To ensure an end-to-end cable infrastructure with maximum performance and integrity, Extron strongly recommends XTP DTP 24 shielded RJ-45 plugs, punch down jacks, and couplers when installing XTP DTP 24 cable.



DTP CABLE AND ACCESSORIES





XTP DTP 24 Punch Down Jack

Shielded RJ-45 Punch Down Jack Kit for Extron XTP DTP 24 Shielded Twisted Pair Cable

- Engineered for use with XTP DTP 24 Shielded Twisted Pair Cable
- Keystone style snap-in design for ease of installation in wallplates, AAP™ AV Connectivity Modules, and similar mounting frames
- Metal strain relief and ground bonding

XTP DTP 24 Coupler

Shielded RJ-45 Plug Kit for Extron XTP DTP 24 Shielded Twisted Pair Cable

- Engineered for use with XTP DTP 24 Shielded Twisted Pair Cable
- Fully shielded design reduces noise due to high EMI/RFI interference
- Compatible with TIA/EIA 568A/B wiring standards

Model	Version Description	Part Number	Model	Version Description	Part Number
XTP DTP 24 Jack	XTP DTP 24 Jack, Package of 10	101-023-01	XTP DTP 24 Coupler	XTP DTP 24 Coupler, Package of 10	101-022-02





CTU 45

Universal RJ-45 Termination Tool

 Designed for use with Extron XTP DTP 24 shielded twisted pair cables and XTP DTP 24 Plugs

- Also compatible with other modular, shielded or unshielded RJ-45 plug types
- Compatible with keyed and non-keyed modular plugs

WPD 100 Series

Pass-Through Wallplates - Decorator-Style for XTP DTP 24 Cable

- Designed for use with Extron XTP DTP 24 Cables, Non-Plenum part #22-236-03 and Plenum part #22-235-03
- Fully shielded design reduces noise due to high EMI/RFI interference
- Metal strain relief and ground bonding

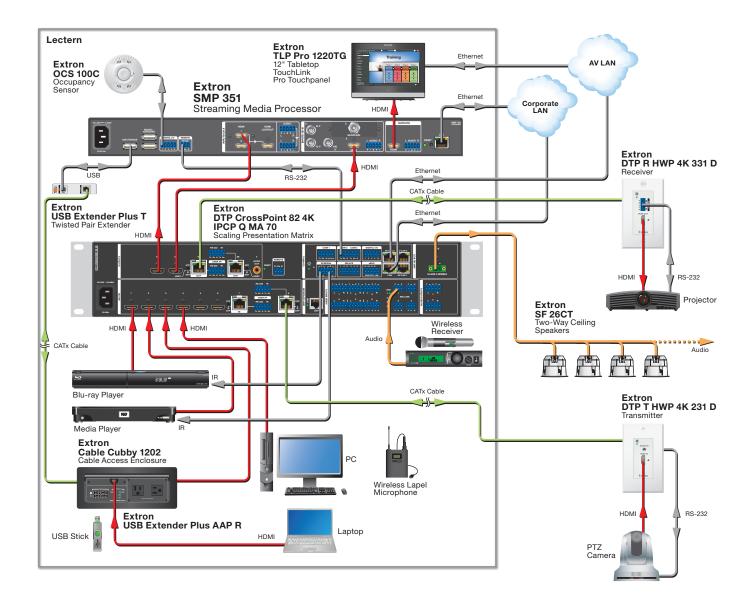
Model CTU 45	Version Description RJ-45 Crimp Tool	Part Number 101-024-01	Model WPD 101 C	Version Description One XTP DTP 24 Coupler	Part Number 70-1053-03
			WPD 102 C	Two XTP DTP 24 Couplers	70-1055-03
			WPD 101 P	One XTP DTP 24 Punch Down Jack	70-1054-03
			WPD 102 P	Two XTP DTP 24 Punch Down Jacks	70-1056-03

APPLICATIONS

Classroom Presentation and Streaming System

The DTP CrossPoint 82 4K IPCP Q MA 70 can be integrated with an Extron SMP 351 streaming media processor to manage live streaming and on-demand playback of recorded presentations and courses, for local participants and distant observers. Presenters can select from a variety of source devices, including a Blu-ray player, media player, PC, or personal device at the lectern. A high-definition PTZ camera provides a visual of the presenter and an Extron DTP T HWP 4K 231 D twisted pair transmitter is used to extend the camera video signal to the DTP CrossPoint 82 4K IPCP Q MA 70 matrix swticher. Any source can be routed to the classroom projector through the matrix swticher using an Extron DTP R HWP 4K 331 D receiver.

Source video signals are routed from the matrix switcher to the SMP 351 to be processed, recorded, and streamed. The DTP CrossPoint 82 4K IPCP Q MA 70 provides audio integration capabilities, including managing and processing audio from presentation sources and wireless microphones. The 100-watt mono amplifier built into the matrix switcher feeds a 70-volt speaker system for ample sound reinforcement. The audio signal is also embedded into one of the output signals fed to the SMP 351. For additional convenience, a TouchLink Pro touchpanel is connected to the matrix switcher's built-in control processor and provides intuitive controls for source selection, audio system operation, and for presenting a live preview of the encoded source layout. The built-in control processor allows AV network control to be dedicated to an AV LAN for enhanced security and convenient management.

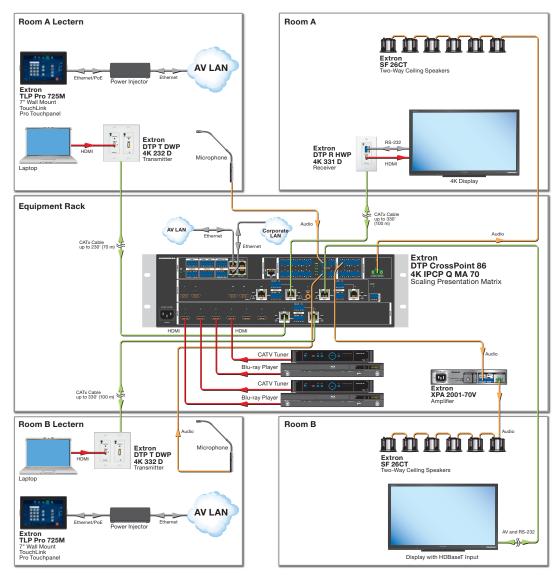


APPLICATIONS

Divisible Room

Many divisible room applications require an AV system that keeps the AV resources of two rooms exclusive to each other when the rooms are used for separate meetings, and supports sharing AV when both sections are combined into a single room. The DTP CrossPoint 86 4K IPCP Q MA 70 provides highly reliable matrix switching and distribution to accommodate either room configuration. The independent outputs on the DTP CrossPoint 86 4K IPCP Q MA 70 matrix switcher provide users with the flexibility to view a separate source at each room's display. Users can also view the same signal at both displays when the rooms are tied together. Video content can be viewed at 4K resolution on a compatible display that is connected to one of the matrix switcher's DTP outputs via a DTP receiver. Each DTP output can also be configured for viewing content on an HDBaseT-enabled display. The DTP transmission capabilities of the DTP CrossPoint 86 4K IPCP Q MA 70 are ideal for reaching sources at the lectern, and the wall mounted displays.

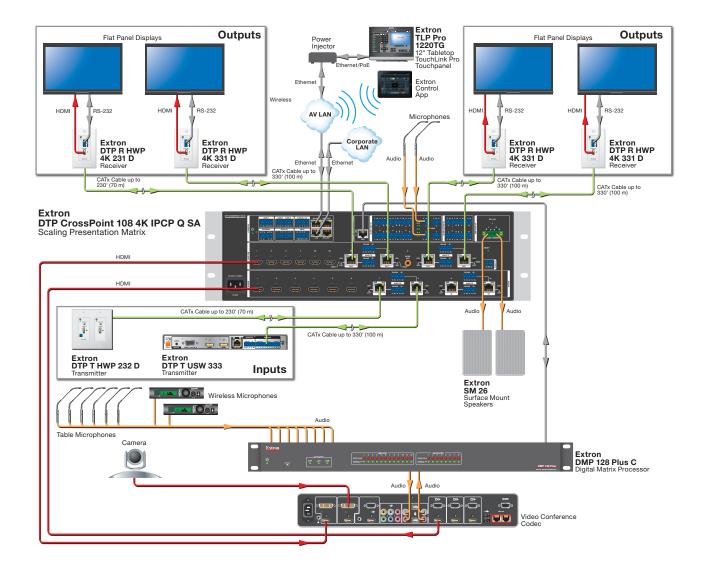
Serving as the central component for full audio system integration, the DTP CrossPoint 86 4K IPCP Q MA 70 features powerful DSP to support distributed audio systems that can function independently or together, depending on room configuration. It provides audio signal switching and processing for each of the source inputs and room microphones. The DTP CrossPoint 86 4K IPCP Q MA 70 includes an integrated 100 watt mono amplifier that can feed a 70 volt speaker system to provide ample sound reinforcement. As an additional integration convenience, source selection, transport control for a Blu-ray player and CATV tuner, and audio system control are easily accessible with TouchLink Pro touchpanels that are connected to the matrix switcher's built-in control processor. This allows AV network control to be dedicated to an AV LAN for enhanced security and convenient management.



Integrated AEC and Audio System Expansion for Scalability

The DTP CrossPoint 108 4K IPCP Q SA enables complete audio system integration in one box. It accepts mic/line inputs, analog stereo inputs, additional analog stereo inputs from DTP transmitters, and HDMI embedded audio. The comprehensive selection of outputs includes analog stereo, S/PDIF digital audio, HDMI embedded audio, stereo outputs transmitted to DTP receivers, and amplified mono or stereo audio. The matrix switcher features Extron 64-bit ProDSP technology with fully configurable EQ, filters, dynamics, delay, ducking, feedback suppression, mic/line matrix mixing options, and much more. It also includes AEC - acoustic echo cancellation and automixing for conferencing applications.

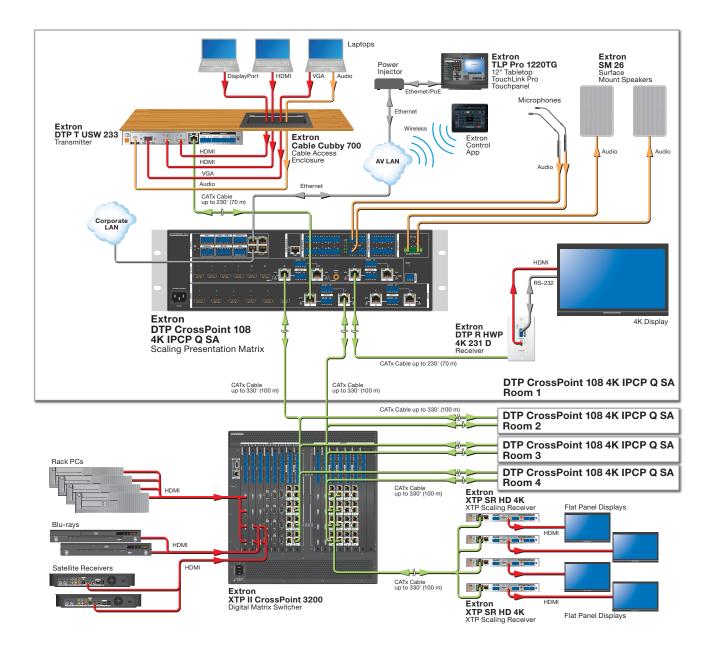
The DTP CrossPoint 108 4K IPCP Q SA matrix switcher is easily scalable for integrating large system applications with numerous microphones or audio destinations. An Extron-exclusive audio expansion port is provided for linking the internal DSP of the DTP CrossPoint 108 4K IPCP Q SA to an Extron DMP 128 Plus ProDSP audio matrix processor. This allows audio channels to be exchanged between the two audio processors, with the DMP 128 Plus providing an additional 12 input channels and eight output channels. Several DMP 128 Plus models are available, including the DMP 128 Plus C with eight channels of AEC processing for additional microphones. Even greater system scalability is possible when linked to a DMP 128 Plus AT processor on a Dante network.



Integrate with Extron XTP System in Facility-Wide Applications

Many large-scale applications call for centralized AV distribution plus several localized AV systems in presentation spaces such as meeting rooms, training rooms, or classrooms. A facility-wide AV infrastructure may be needed for sharing resources such as videoconferencing codecs and digital signage players, and to broadcast a local AV presentation to common areas. At the same time, a dedicated AV system for each presentation space allows switching and processing functions specific to the devices in the room, including guest laptops and tablets.

A DTP CrossPoint 108 4K IPCP Q SA can easily be integrated into an XTP II CrossPoint matrix switcher system with the ability to extend video and embedded audio, plus bidirectional RS-232 and IR signals. A DTP input or output is connected over shielded CATx cable into an XTP II CrossPoint 1600, XTP II CrossPoint 3200, or XTP II CrossPoint 6400 matrix switcher at the central rack location. Each DTP output includes a dedicated scaler powered by the advanced Extron 4K scaling engine, so that graphics or video can be optimized as necessary for a codec, or a specific display resolution or aspect ratio.



SPECIFICATIONS

M	lax 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	8 bit
4096 x 2160 at 60 Hz 3840 x 2160 at 60 Hz	4:2:0	8 bit
rame rate ¹	24, 25, 30, 50, or 60	fps
Chroma sampling ¹	4:4:4, 4:2:2, or 4:2:0	
Color bit depth ¹	8 bits per color	
Signal type	HDMI 1.4, HDCP 1.4	
Aax, video data rate	10.2 Gbps (3.4 Gbps	nor color)

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Resolution range	
	640x480 to 1600x1200 and 1920x1200* 480i, 480p,
	576i, 576p, 720p, 1080i, 1080p, and 2K through 4K @
	30Hz
	*reduced blanking
Scaled resolutions	640x480 ^s , 800x600 ^s , 852x480 ^s , 1024x768 ^s , 1024x852
Scaleu lesolutions	
	1024x1024 ⁸ ,1280x768 ⁸ , 1280x800 ⁸ , 1280x1024 ⁸ ,
	1360x765 ⁸ , 1360x768 ⁸ , 1365x768 ⁸ , 1366x768 ⁸ ,
	1365x1024 ⁸ , 1400x1050 ⁸ , 1440x900 ⁸ , 1600x900 ⁸ ,
	1600x12008, 1680x10508, 1920x12008 HDTV 480p7.8,
	576p ⁶ , 720p ^{3,4,5,6,7,8} , 1080i ^{6,7,8} , 1080p ^{1,2,3,4,5,6,7,8} ,
	2048x1080 ^{1,2,3,4,5,6,7,8,,} 1920x2160 ^{1,2,3,4,5,6,7,8} ,
	1920x2400 ^{2,3,5,8} , 2048x1200 ⁸ , 2048x1536 ⁸ ,
	2048x2160 ^{1,2,3,4,5,6,7,8} , 2048x2400 ^{2,3,5,8} , 2560x1080 ⁸ ,
	2560x14408, 2560x16008, 3840x21601,2,3,4,5,
	3840x2400 ⁵ , 4096x2160 ^{1,2,3,4,5}
	¹ = at 23.98 Hz, ² = at 24 Hz, ³ = at 25 Hz,
	⁴ = at 29.97 Hz, ⁵ = at 30 Hz, ⁶ = at 50 Hz,
	⁷ = at 59.94 Hz, ⁸ = at 60 Hz
LOGOS	
Logo effects	Transparency, RGB key, level key, alpha key
SHIELDED TWISTED PAIR INTER	
Connectors	Female RJ-45
Signal transmission distance	
Resolutions up to 1920x1200 and 1080p	
DTP 330	In to 220' (100 m) using abialded twisted pair achieves
DIE 200	Up to 330' (100 m) using shielded twisted pair cable or XTP DTP 24 TP cable
000 010	
DTP 230	Up to 230' (70 m) using shielded twisted pair cable or
	XTP DTP 24 TP cable 2560x1600* and 4K @ 30 Hz
	(*reduced blanking)
DTP 330	Up to 330' (100 m) using shielded twisted pair cable or
	XTP DTP 24 TP cable
DTP 230	Up to 130' (40 m) using shielded twisted pair cable or
	XTP DTP 24 TP cable
Cable requirements	Solid conductor, 24 AWG or better
Cable recommendations	400 MHz bandwidth, STP (shielded twisted pair)
NOTE: Extron XTP DTP 24 shielded twisted	
NOTE: Extron XTP DTP 24 shielded twisted NOTE: Input and output mode signaling:	pair cable is strongly recommended for optimal performance
NOTE: Extron XTP DTP 24 shielded twisted NOTE: Input and output mode signaling: DTP: HDMI with embedded audio, analog aud	pair cable is strongly recommended for optimal performanc dio, RS-232 and IR, and remote power
NOTE: Extron XTP DTP 24 shielded twisted NOTE: Input and output mode signaling:	pair cable is strongly recommended for optimal performanc dio, RS-232 and IR, and remote power
NOTE: Extron XTP DTP 24 shielded twisted NOTE: Input and output mode signaling: DTP: HDMI with embedded audio, analog aud	pair cable is strongly recommended for optimal performanc dio, RS-232 and IR, and remote power 32 and IR
NOTE: Extron XTP DTP 24 shielded twisted NOTE: Input and output mode signaling: DTP: HDMI with embedded audio, analog auc XTP: HDMI with embedded audio plus RS-23	pair cable is strongly recommended for optimal performanc dio, RS-232 and IR, and remote power ½ and IR 232 and IR
NOTE: Extron XTP DTP 24 shielded twisted NOTE: Input and output mode signaling: DTP: HDMI with embedded audio, analog auc XTP: HDMI with embedded audio plus RS-23 HDBT: HDMI with embedded audio plus RS-2	pair cable is strongly recommended for optimal performanc dio, RS-232 and IR, and remote power ½ and IR 232 and IR
NOTE: Extron XTP DTP 24 shielded twisted NOTE: Input and output mode signaling: DTP: HDMI with embedded audio, analog auc XTP: HDMI with embedded audio plus RS-23 HDBT: HDMI with embedded audio plus RS-2 IDDIO SYSTEM (MIC/LINE INPU	pair cable is strongly recommended for optimal performanc dio, RS-232 and IR, and remote power 22 and IR 232 and IR IT TO LINE OUTPUT)
NOTE: Extron XTP DTP 24 shielded twisted NOTE: Input and output mode signaling: DTP: HDMI with embedded audio, analog auc XTP: HDMI with embedded audio plus RS-23 HDBT: HDMI with embedded audio plus RS-2 AUDIO SYSTEM (MIC/LINE INPU Frequency response	pair cable is strongly recommended for optimal performanc dio, RS-232 and IR, and remote power 22 and IR 232 and IR IT TO LINE OUTPUT) 20 Hz to 20 kHz, ±0.2 dB
NOTE: Extron XTP DTP 24 shielded twisted NOTE: Input and output mode signaling: DTP: HDMI with embedded audio, analog auc XTP: HDMI with embedded audio plus RS-23 HDBT: HDMI with embedded audio plus RS-2 AUDIO SYSTEM (MIC/LINE INPU Frequency response THD + Noise	pair cable is strongly recommended for optimal performanc dio, RS-232 and IR, and remote power 32 and IR 232 and IR IT TO LINE OUTPUT) 20 Hz to 20 kHz, ±0.2 dB 0.01% at 1 kHz nominal level
NOTE: Extron XTP DTP 24 shielded twisted NOTE: Input and output mode signaling: DTP: HDMI with embedded audio, analog auc XTP: HDMI with embedded audio plus RS-23 HDBT: HDMI with embedded audio plus RS-2 AUDIO SYSTEM (MIC/LINE INPU Frequency response THD + Noise S/N	pair cable is strongly recommended for optimal performanc dio, RS-232 and IR, and remote power 32 and IR 232 and IR IT TO LINE OUTPUT) 20 Hz to 20 kHz, ±0.2 dB 0.01% at 1 kHz nominal level
NOTE: Extron XTP DTP 24 shielded twisted NOTE: Input and output mode signaling: DTP: HDMI with embedded audio, analog auc XTP: HDMI with embedded audio plus RS-23 HDBT: HDMI with embedded audio plus RS-23 AUDIO SYSTEM (MIC/LINE INPU Frequency response THD + Noise S/N AUDIO	pair cable is strongly recommended for optimal performance dio, RS-232 and IR, and remote power 32 and IR 232 and IR IT TO LINE OUTPUT) 20 Hz to 20 kHz, ±0.2 dB 0.01% at 1 kHz nominal level
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NOTE: Extron XTP DTP 24 shielded twisted NOTE: Input and output mode signaling: DTP: HDMI with embedded audio, analog auc XTP: HDMI with embedded audio plus RS-23 HDBT: HDMI with embedded audio plus RS-23 AUDIO SYSTEM (MIC/LINE INPU Frequency response THD + Noise S/N AUDIO Supported formats – Pass through	pair cable is strongly recommended for optimal performanc dio, RS-232 and IR, and remote power 32 and IR 232 and IR IT TO LINE OUTPUT) 20 Hz to 20 kHz, ±0.2 dB 0.01% at 1 kHz nominal level 105 dB at maximum balanced output (unweighted) LPCM up to 7.1/24-bit/192kHz, Dolby Atmos, Dolby TrueHD, Dolby Digital Plus, Dolby Digital EX, Dolby Digital
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NOTE: Extron XTP DTP 24 shielded twisted NOTE: Input and output mode signaling: DTP: HDMI with embedded audio, analog auc XTP: HDMI with embedded audio plus RS-23 HDBT: HDMI with embedded audio plus RS-23 AUDIO SYSTEM (MIC/LINE INPU Frequency response THD + Noise S/N AUDIO Supported formats – Pass through	pair cable is strongly recommended for optimal performanc dio, RS-232 and IR, and remote power 32 and IR 232 and IR IT TO LINE OUTPUT) 20 Hz to 20 kHz, ±0.2 dB 0.01% at 1 kHz nominal level 105 dB at maximum balanced output (unweighted) LPCM up to 7.1/24-bit/192kHz, Dolby Atmos, Dolby TrueHD, Dolby Digital Plus, Dolby Digital EX, Dolby Digita 5.1, Dolby Digital 2/0 Surround, Dolby Digital 2/0, DTS- HD Master Audio, DTS-HD, DTS ES Discrete 6.1, DTS ES
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NOTE: Extron XTP DTP 24 shielded twisted NOTE: Input and output mode signaling: DTP: HDMI with embedded audio, analog auc XTP: HDMI with embedded audio plus RS-23 HDBT: HDMI with embedded audio plus RS-23 AUDIO SYSTEM (MIC/LINE INPU Frequency response THD + Noise S/N AUDIO Supported formats – Pass through HDMI connectors	pair cable is strongly recommended for optimal performanc dio, RS-232 and IR, and remote power 22 and IR 232 and IR IT TO LINE OUTPUT) 20 Hz to 20 kHz, ±0.2 dB 0.01% at 1 kHz nominal level 105 dB at maximum balanced output (unweighted) LPCM up to 7.1/24-bit/192kHz, Dolby Atmos, Dolby TrueHD, Dolby Digital Plus, Dolby Digital EX, Dolby Digita 5.1, Dolby Digital 2/0 Surround, Dolby Digital 2/0, DTS- HD Master Audio, DTS-HD, DTS ES Discrete 6.1, DTS ES Matrix 6.1, DTS Digital Surround 5.1, DTS 2 Channel
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NOTE: Extron XTP DTP 24 shielded twisted NOTE: Input and output mode signaling: DTP: HDMI with embedded audio, analog auc XTP: HDMI with embedded audio plus RS-23 HDBT: HDMI with embedded audio plus RS-23 AUDIO SYSTEM (MIC/LINE INPU Frequency response THD + Noise S/N AUDIO Supported formats – Pass through HDMI connectors	pair cable is strongly recommended for optimal performance dio, RS-232 and IR, and remote power 22 and IR 232 and IR 232 and IR IT TO LINE OUTPUT) 20 Hz to 20 kHz, ±0.2 dB 0.01% at 1 kHz nominal level 105 dB at maximum balanced output (unweighted) LPCM up to 7.1/24-bit/192kHz, Dolby Atmos, Dolby TrueHD, Dolby Digital Plus, Dolby Digital EX, Dolby Digital 5.1, Dolby Digital 2/0 Surround, Dolby Digital 2/0, DTS- HD Master Audio, DTS-HD, DTS ES Discrete 6.1, DTS ES Matrix 6.1, DTS Digital Surround 5.1, DTS 2 Channel De-embedded from HDMI [PCM only] or remote balance
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NOTE: Extron XTP DTP 24 shielded twisted NOTE: Input and output mode signaling: DTP: HDMI with embedded audio, analog auc XTP: HDMI with embedded audio plus RS-23 HDBT: HDMI with embedded audio plus RS-23 AUDIO SYSTEM (MIC/LINE INPU Frequency response THD + Noise S/N AUDIO Supported formats – Pass through HDMI connectors DTP connectors AUDIO INPUT Connectors	pair cable is strongly recommended for optimal performance dio, RS-232 and IR, and remote power 22 and IR 232 and IR 232 and IR 20 Hz to 20 kHz, ±0.2 dB 0.01% at 1 kHz nominal level 105 dB at maximum balanced output (unweighted) LPCM up to 7.1/24-bit/192kHz, Dolby Atmos, Dolby TrueHD, Dolby Digital Plus, Dolby Digital EX, Dolby Digital 5.1, Dolby Digital Plus, Dolby Digital Z/0, DTS- HD Master Audio, DTS-HD, DTS ES Discrete 6.1, DTS ES Matrix 6.1, DTS Digital Surround, Dolby Digital 2/0, DTS- HD Master Audio, DTS-HD, DTS ES Discrete 6.1, DTS ES Matrix 6.1, DTS Digital Surround 5.1, DTS 2 Channel De-embedded from HDMI (PCM only] or remote balance unbalanced analog
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NOTE: Extron XTP DTP 24 shielded twisted NOTE: Input and output mode signaling: DTP: HDMI with embedded audio, analog auc XTP: HDMI with embedded audio plus RS-23 AUDIO SYSTEM (MIC/LINE INPU Frequency response THD + Noise S/N AUDIO Supported formats – Pass through HDMI connectors DTP connectors AUDIO INPUT Connectors DTP CrossPoint 108 4K	pair cable is strongly recommended for optimal performanc dio, RS-232 and IR, and remote power 22 and IR 232 and IR 232 and IR TTO LINE OUTPUT) 20 Hz to 20 kHz, ±0.2 dB 0.01% at 1 kHz nominal level 105 dB at maximum balanced output (unweighted) 105 dB at maximum balanced output (unweighted) LPCM up to 7.1/24-bit/192kHz, Dolby Atmos, Dolby TrueHD, Dolby Digital Plus, Dolby Digital EX, Dolby Digital 5.1, Dolby Digital Plus, Dolby Digital EX, Dolby Digital 5.1, Dolby Digital 2/0 Surround, Dolby Digital 2/0, DTS- HD Master Audio, DTS-HD, DTS ES Discrete 6.1, DTS ES Matrix 6.1, DTS Digital Surround 5.1, DTS 2 Channel De-embedded from HDMI (PCM only] or remote balance unbalanced analog (6) 3.5 mm captive screw connectors, 5-pole for analog line level inputs 6 female HDMI type A 4 female RJ-45
NOTE: Extron XTP DTP 24 shielded twisted NOTE: Input and output mode signaling: DTP: HDMI with embedded audio, analog auc XTP: HDMI with embedded audio plus RS-23 HDBT: HDMI with embedded audio plus RS-23 AUDIO SYSTEM (MIC/LINE INPU Frequency response THD + Noise S/N AUDIO Supported formats – Pass through HDMI connectors DTP connectors AUDIO INPUT Connectors	pair cable is strongly recommended for optimal performanc dio, RS-232 and IR, and remote power 22 and IR 232 and IR 232 and IR TTO LINE OUTPUT) 20 Hz to 20 kHz, ±0.2 dB 0.01% at 1 kHz nominal level 105 dB at maximum balanced output (unweighted) 105 dB at maximum balanced output (unweighted) LPCM up to 7.1/24-bit/192kHz, Dolby Atmos, Dolby TrueHD, Dolby Digital Plus, Dolby Digital EX, Dolby Digital 5.1, Dolby Digital Plus, Dolby Digital EX, Dolby Digital 5.1, Dolby Digital 2/0 Surround, Dolby Digital 2/0, DTS- HD Master Audio, DTS-HD, DTS ES Discrete 6.1, DTS ES Matrix 6.1, DTS Digital Surround 5.1, DTS 2 Channel De-embedded from HDMI (PCM only] or remote balance unbalanced analog (6) 3.5 mm captive screw connectors, 5-pole for analog line level inputs 6 female HDMI type A 4 female RJ-45 (6) 3.5 mm captive screw connectors, 5-pole for analog
NOTE: Extron XTP DTP 24 shielded twisted NOTE: Input and output mode signaling: DTP: HDMI with embedded audio, analog auc XTP: HDMI with embedded audio plus RS-23 AUDIO SYSTEM (MIC/LINE INPU Frequency response THD + Noise S/N AUDIO Supported formats – Pass through HDMI connectors DTP connectors AUDIO INPUT Connectors DTP CrossPoint 108 4K	pair cable is strongly recommended for optimal performanc dio, RS-232 and IR, and remote power 22 and IR 232 and IR 232 and IR TTO LINE OUTPUT) 20 Hz to 20 kHz, ±0.2 dB 0.01% at 1 kHz nominal level 105 dB at maximum balanced output (unweighted) 105 dB at maximum balanced output (unweighted) LPCM up to 7.1/24-bit/192kHz, Dolby Atmos, Dolby TrueHD, Dolby Digital Plus, Dolby Digital EX, Dolby Digital 5.1, Dolby Digital Plus, Dolby Digital EX, Dolby Digital 5.1, Dolby Digital 2/0 Surround, Dolby Digital 2/0, DTS- HD Master Audio, DTS-HD, DTS ES Discrete 6.1, DTS ES Matrix 6.1, DTS Digital Surround 5.1, DTS 2 Channel De-embedded from HDMI (PCM only] or remote balance unbalanced analog (6) 3.5 mm captive screw connectors, 5-pole for analog line level inputs 6 female HDMI type A 4 female RJ-45

SPECIFICATIONS

DTP CrossPoint 84 4K	(6) 3.5 mm captive screw connectors, 5-pole for analog line level inputs
	6 female HDMI type A
DTP CrossPoint 82 4K	2 female RJ-45 (6) 3.5 mm captive screw connectors, 5-pole for analog
	line level inputs
	6 female HDMI type A
	2 female RJ-45
MIC/LINE INPUT	
Number/signal type	4 mono, mic/line, balanced/unbalanced
	(with phantom power)
DC phantom power	+48 VDC, $\pm 10\%$ (inputs 1-4) switched on or off
AUDIO OUTPUT	
Connectors	
DTP CrossPoint 108 4K	6 female HDMI
	4 RJ-45
	(4) 3.5 mm captive screw, 5-pole 1 RCA
DTP CrossPoint 86 4K	1 RCA 4 female HDMI
DIT GLOSSE UITE OU 4IV	4 Iemaie muni 4 R.I-45
	(4) 3.5 mm captive screw, 5-pole
	1 RCA
DTP CrossPoint 84 4K	4 female HDMI
	2 RJ-45
	(4) 3.5 mm captive screw, 5-pole
	1 RCA
DTP CrossPoint 82 4K	2 female HDMI
	2 RJ-45
	(2) 3.5 mm captive screw, 5-pole 1 RCA
EXP PORT	
Connectors	1 RJ-45
Inputs	16 channels Rx
Outputs	16 channels Tx
EXP cable	Shielded CAT 6 up to 10 meters
AUDIO OUTPUT	
	IPCP SA and DTP CrossPoint 4K IPCP MA models)
Number/signal type SA models	1 storeg or mang (2 shappeds total)
MA models	1 stereo or mono (2 channels total) 1 mono, 70 V
Connector	1 mono, 7 o v
NOTE: This connector accepts wires of	of 22 AWG to 12 AWG.
	(1) 5 mm screw lock captive screw connector, 4-pole
SA models	
MA models	(1) 5 mm screw lock captive screw connector, 2-pole
MA models Load impedance	
MA models Load impedance SA models	 (1) 5 mm screw lock captive screw connector, 2-pole 4 ohms minimum
MA models Load impedance SA models MA models	 (1) 5 mm screw lock captive screw connector, 2-pole 4 ohms minimum 50 ohms minimum
MA models Load impedance SA models MA models High pass filter (MA models)	 (1) 5 mm screw lock captive screw connector, 2-pole 4 ohms minimum
MA models Load impedance SA models MA models High pass filter (MA models) Output power	 (1) 5 mm screw lock captive screw connector, 2-pole 4 ohms minimum 50 ohms minimum 80 Hz, 12 dB/octave roll off
MA models Load impedance SA models MA models High pass filter (MA models)	 (1) 5 mm screw lock captive screw connector, 2-pole 4 ohms minimum 50 ohms minimum 80 Hz, 12 dB/octave roll off 25 watts (rms) per channel, 8 ohms, 1 kHz, 0.1% THD
MA models Load impedance SA models MA models High pass filter (MA models) Output power	 (1) 5 mm screw lock captive screw connector, 2-pole 4 ohms minimum 50 ohms minimum 80 Hz, 12 dB/octave roll off

Frequency response	
SA models	20 Hz to 20 kHz, +1/3 dB @ 1 watt
MA models	80 Hz to 20 kHz, +1/3 dB @ 1 watt
THD + Noise	<0.1%, 1 kHz, 3 dB below clipping
S/N	>90 dB, 20 Hz to 20 kHz, unweighted
COMMUNICATIONS - SWITCHER	3
Serial control port	1 bidirectional RS-232, 3.5 mm captive screw connector,
	3-pole (rear panel)
USB control port	1 front panel female USB mini-B
Ethernet control port	1 female RJ-45 connector
CONTROL PROCESSOR - DTP C	ROSSPOINT 4K IPCP Q MODELS
Memory	
SDRAM	
IPCP Q models	2 GB
Flash	
IPCP Q models	8 GB
Software and control options	
Software	Extron Global Configurator Plus and Professional for
Control ontiono	Windows [®] GlobalViewer [®] , TouchLink [®] for Web, TouchLink for iPad [®] ,
Control options	Giobalviewer [®] , IouchLink [®] for web, IouchLink for IPad [®] , or TouchLink Pro touchpanels
Ethernet control	
Network switch	1 unmanaged 3 port switch
Data rate	10/100/1000Base-T, half/full duplex with autodetect
Serial control	
Quantity/type	1 bidirectional RS-232, RS-422, RS-485 (port 1)
	2 bidirectional RS-232 (ports 2 and 3)
	Pin configurations, serial, 3-pole captive screw
	Pin 1 = Tx, 2 = Rx, 3 = Gnd
Digital I/O control	
Quantity/type	4 digital input/output (configurable)
IR/serial control	
Quantity/type	2 programmable: unidirectional RS-232 (\pm 5 V), TTL level
Relay control	(0 to 5 V) infrared (carrier and non-carrier) up to 300 kHz
Quantity/type	4 normanlly open relays
	4 normanily open relays
GENERAL	
Power supply	Internal Input: 100-240 VAC, 50-60 Hz
Enclosure dimensions	input. 100-240 WO, 30-00 Hz
	5.25" H x 17.4" W x 16" D (3U high, full rack wide)
	(13.3 cm H x 44.2 cm W x 40.6 cm D)
	(Depth excludes connectors and knobs. Width excludes
	rack ears.)
DTP CrossPoint 84 4K, DTP CrossPoint 82 4K	3.5" H x 17.4" W x 15.3" D (2U high, full rack wide)
	(8.9 cm H x 44.2 cm W x 38.9 cm D)
	(Depth exludes connectors and knobs. Width excludes
	rack ears.)
	CE, C-tick, c-UL, FCC Class A, ICES, UL, VCCI
Regulatory compliance	
Regulatory compliance	Complies with the appropriate requirements of RoHS,
Regulatory compliance Everlast power supply warranty	Complies with the appropriate requirements of RoHS, WEEE 7 years parts and labor

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