

DTP3 CrossPoint 42

4X2 4K/60 SEAMLESS SCALING MATRIX SWITCHER



DTP3
SYSTEMS

18 Gbps
4K/60 4:4:4

21.6 Gbps
DP Alt Mode

VECTOR 4K
SCALING

USB
60W

Advanced AV Switching, Processing, and Extension

- ▶ Integrates USB-C® and HDMI into presentation systems
- ▶ Advanced Extron Vector™ 4K scaling engine
- ▶ Selectable scaled output rates from 640x480 to 4K/60 with 4:4:4 color sampling
- ▶ DTP3 output supports transmission of 4K/60 video, audio, and control up to 330' (100 m) over a shielded CAT 6A cable
- ▶ Provides up to 60 watts of power to the USB-C source
- ▶ Selectable seamless switching transitions
- ▶ Logo image keying and display
- ▶ Remote powering of DTP3 and DTP receivers

Extron

DTP3 CrossPoint 42

Extron DTP3 CrossPoint 42 is a compact 4x2 matrix switcher that incorporates the Extron-exclusive Vector™ 4K scaling engine capable of 4K/60 4:4:4 video resolution. It features USB-C® and HDMI inputs, HDMI outputs, along with a DTP3 output. It provides advanced capabilities such as 60 watt USB-C power delivery, audio de-embedding, seamless transition effects, and logo keying. Loaded with these features and more, the DTP3 CrossPoint 42 delivers fast and reliable AV switching in professional environments.



DTP3
SYSTEMS

The DTP3 CrossPoint 42 features a twisted pair output supporting 4K/60 @ 4:4:4 signal extension up to 330 feet (100 meters) over a shielded CAT 6A cable when paired with DTP3 receivers. It's also compatible with first-generation DTP products and XTP CrossPoint matrix switchers, enabling additional design options within the AV industry's most comprehensive integration platform.

18 Gbps
4K/60 4:4:4

With a maximum data rate of 18 Gbps, the DTP3 CrossPoint 42 supports computer and video resolutions up to 4K/60 with full 4:4:4 chroma sampling. The Extron-exclusive Vector 4K scaling engine applies precision 30-bit processing and maintains 4:4:4 color sampling to ensure pristine image quality at the output.



DTP3 CrossPoint 42 is built to serve the needs of environments where reliability, ease of use, and superior quality presentations are crucial – these include corporate meeting rooms, lecture rooms in higher education, and government facilities. In addition to exceptional video performance, the logo keying and seamless switching transition effects enhance the user experience.

SEAMLESS SWITCHING AND LOGO KEYING

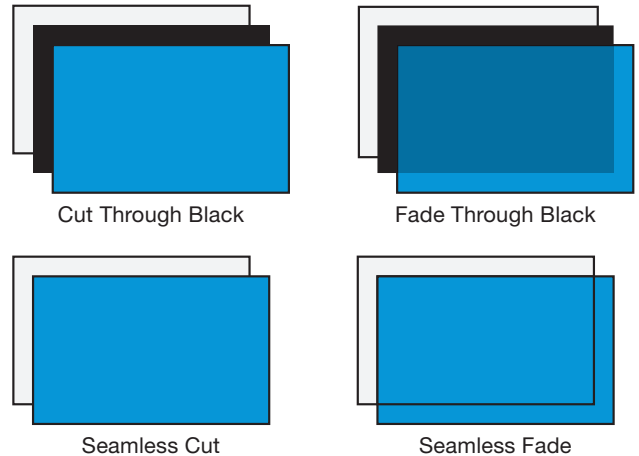
The DTP3 CrossPoint 42 incorporates Extron Vector 4K scaling technology. Developed in-house, and engineered to deliver best-in-class image upscaling and downscaling. Advanced capabilities include seamless transition effects and logo keying to serve environments that demand a superior presentation experience.

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.

Effects include:

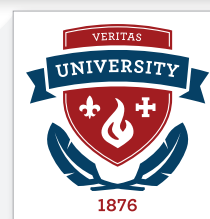
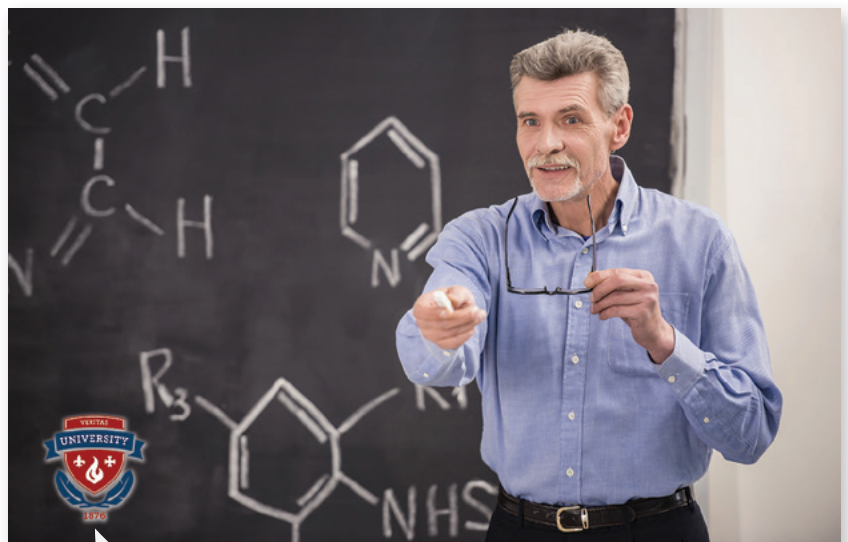
- **Cut through black** – Instantly cut the current input to black, then cut to the newly selected input.
- **Fade through black** – Fade the current input to black, then fade to the new input.
- **Seamless cut** – Freeze the current input video frame, then cut to the newly selected input.
- **Seamless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



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. Custom images up to 4K 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 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.

DTP3 SERIES



Pure 4K/60 4:4:4 Transmission. Uncompressed. Zero Latency.

DTP3 is Extron's third-generation, digital twisted pair solution. For maximum image quality and minimal latency, all video signals up to 18 Gbps are transported without compression. The DTP3 line incorporates advanced features such as 4K/60 @ 4:4:4, HDCP 2.3, and HDR video support to let you create the sophisticated, yet simple to use systems that customers demand. All products extend video, audio, and control up to 330 feet (100 meters) at every video resolution.

DTP3 Endpoint Features

DTP3 SYSTEMS

Transmits video, bidirectional control, and audio up to 330 feet (100 meters) over a shielded CAT 6A cable

DTP3 transmitters and receivers provide high reliability and maximum performance on an economical and easily installed cable infrastructure.

18 Gbps 4K/60 4:4:4

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

DTP3 endpoints support HDMI 2.0b specification features including data rates up to 18 Gbps and HDR video. Support of 4K/60 at 4:4:4 color sampling requires connection to a matching DTP3 product.

HDCP 2.3

HDCP 2.3 compliant

Ensures display of content-protected 4K video media and interoperability with other HDCP-compliant devices.

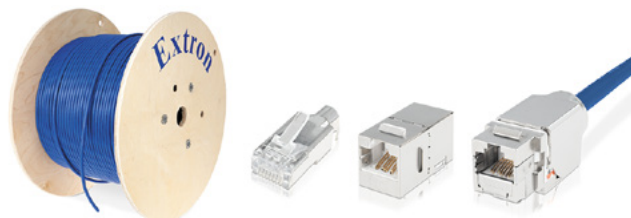


USB Support

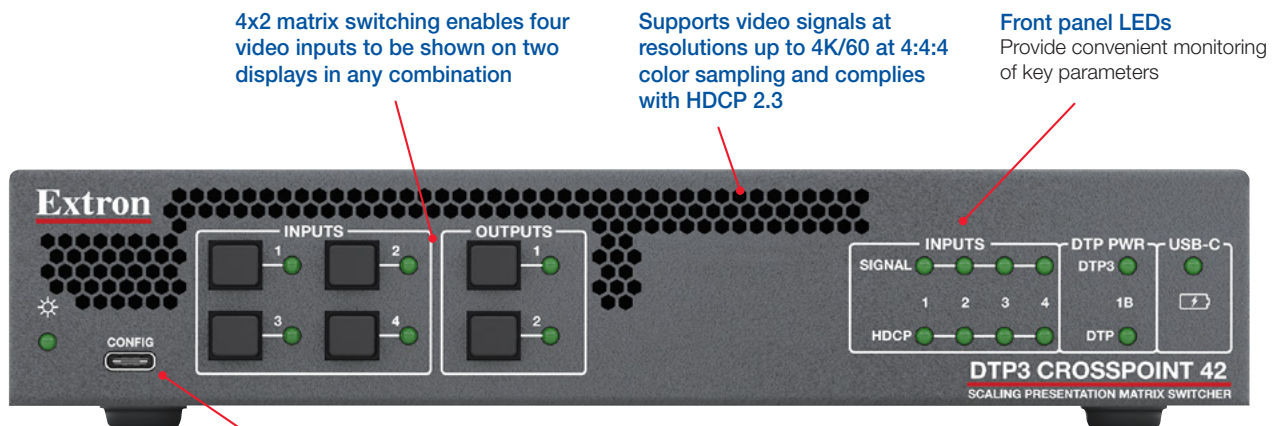
Select DTP3 products support USB data, USB-C®, DisplayPort Alt Mode video, and power delivery.

Ensure Success with Extron Cable

Extron XTP DTP 22 twisted pair cables are designed and constructed to excel at high-speed transport and go the distance. Advanced shielding design and precise manufacturing tolerances maintain signal integrity and reliable performance in the professional arena.

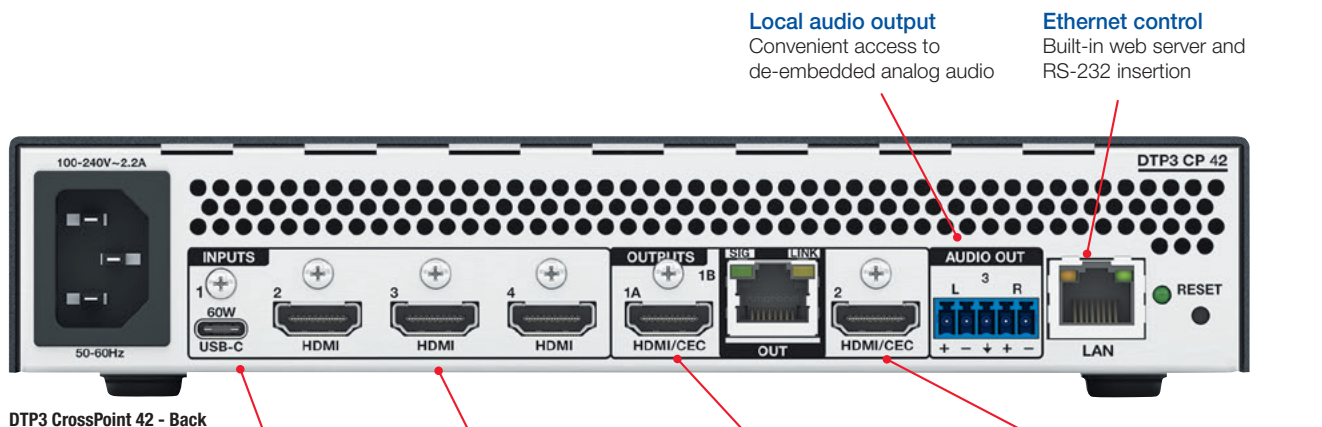


OVERVIEW



Front panel USB-C configuration port

Provides convenient access for information and firmware updates



Backward Compatible with First-Generation DTP-Enabled Products

DTP3 CrossPoint 42 is compatible with all first-generation DTP-enabled products. The Extron DTP Systems product line is the AV industry's most comprehensive integration platform for small to mid-sized AV systems supporting video resolutions up to 4K over shielded CATx cable. This family includes numerous extender models in a wide variety of form factors and video formats, plus a broad offering of distribution amplifiers, switchers, and matrix switchers with essential AV signal processing and control features.



FEATURES

Integrates USB-C® and HDMI sources into presentation systems

Selectable scaled output rates from 640x480 to 4K/60 with 4:4:4 color sampling

Maintains optimal output video resolution independent of input resolution.

Advanced Extron Vector™ 4K scaling engine

Specifically designed for critical-quality 4K imagery, with best-in-class image upscaling and downscaling.

Connects USB-C sources that support DisplayPort Alt Mode

Provides up to 60 watts of power to the USB-C source

Supported HDMI 2.0b specification features include data rates up to 18 Gbps, Deep Color up to 12-bit, and HD lossless audio formats

Integrated DTP3 extension supports transmission of video, audio, and control up to 330' (100 m) over a shielded CAT 6A cable

Compatible with DTP3 and first-generation DTP endpoints

Remote powering of DTP3 and DTP receivers

For simplified installation, the DTP3 output can provide power to select DTP3 enabled and first-generation DTP enabled endpoints over the twisted pair connection.

Compatible with HDBaseT™-enabled displays

The DTP3 output can be configured to send video and embedded audio, plus bidirectional RS-232 signals to HDBaseT-enabled displays.

RS-232 insertion from the Ethernet control port

Saves system resources and simplifies installation by enabling a control processor to access remote RS-232 devices over Ethernet.

Compatible with CAT 6A shielded twisted pair cable

Extron XTP DTP 22 shielded twisted pair cable is strongly recommended for optimal performance

HDCP 2.3 compliant

Ensures display of content-protected 4K video media and maintains interoperability with earlier versions of HDCP.

User-selectable HDCP authorization

Allows inputs to appear HDCP compliant or non-HDCP compliant to the connected source, which is beneficial if the source automatically encrypts all content when connected to an HDCP-compliant device. Protected material is not passed in non-HDCP mode.

Selectable seamless switching transitions

Logo image keying and display

SpeedSwitch® Technology delivers virtually instantaneous switching speeds for HDCP-encrypted content

Stereo audio de-embedding

Embedded HDMI two-channel PCM audio can be extracted to the receiver's analog audio output, or multi-channel bitstream formats can be passed to the HDMI output.

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

EDID Minder® automatically manages EDID communication between connected devices

Displays user-supplied images for screen saver, corporate branding, logo insertion, and HDCP notification

Custom, user-loaded images can be displayed as a screen saver after a predefined duration of inactivity at the video input, or whenever the input is disconnected between presentations. User-supplied images can also be displayed for HDCP Visual Confirmation, whenever HDCP-encrypted content is transmitted to a non-HDCP compliant display.

Aspect ratio control

The aspect ratio of a source window can be controlled by selecting a FILL mode, which provides a full screen output, or FOLLOW mode, which preserves the aspect ratio.

Motion-adaptive deinterlacing for signals up to 1080i

Advanced deinterlacing for all interlaced signals up to 1080i delivers optimized image quality.

Automatic 3:2 and 2:2 pulldown detection

Advanced film mode processing techniques that help maximize image quality for content sources that originated from film.

Output muting control

Provides the capability to mute one or both video outputs at any time. This allows content to be viewed on a local monitor prior to appearing on the main presentation display.

Image freeze control

A live image can be frozen using RS-232, USB, or Ethernet control.

Internal video test patterns and pink noise generator for calibration and setup

Offers several video test patterns and audio pink noise to facilitate proper system setup and calibration of display devices.

Supports multiple embedded audio formats

Compatible with a broad range of multi-channel audio signals, providing reliable operation with HDMI sources.

Power Save Mode

Can be placed in a low-power standby state to conserve energy when not in use.

Front panel security lockout

Allows security lockout of front panel buttons.

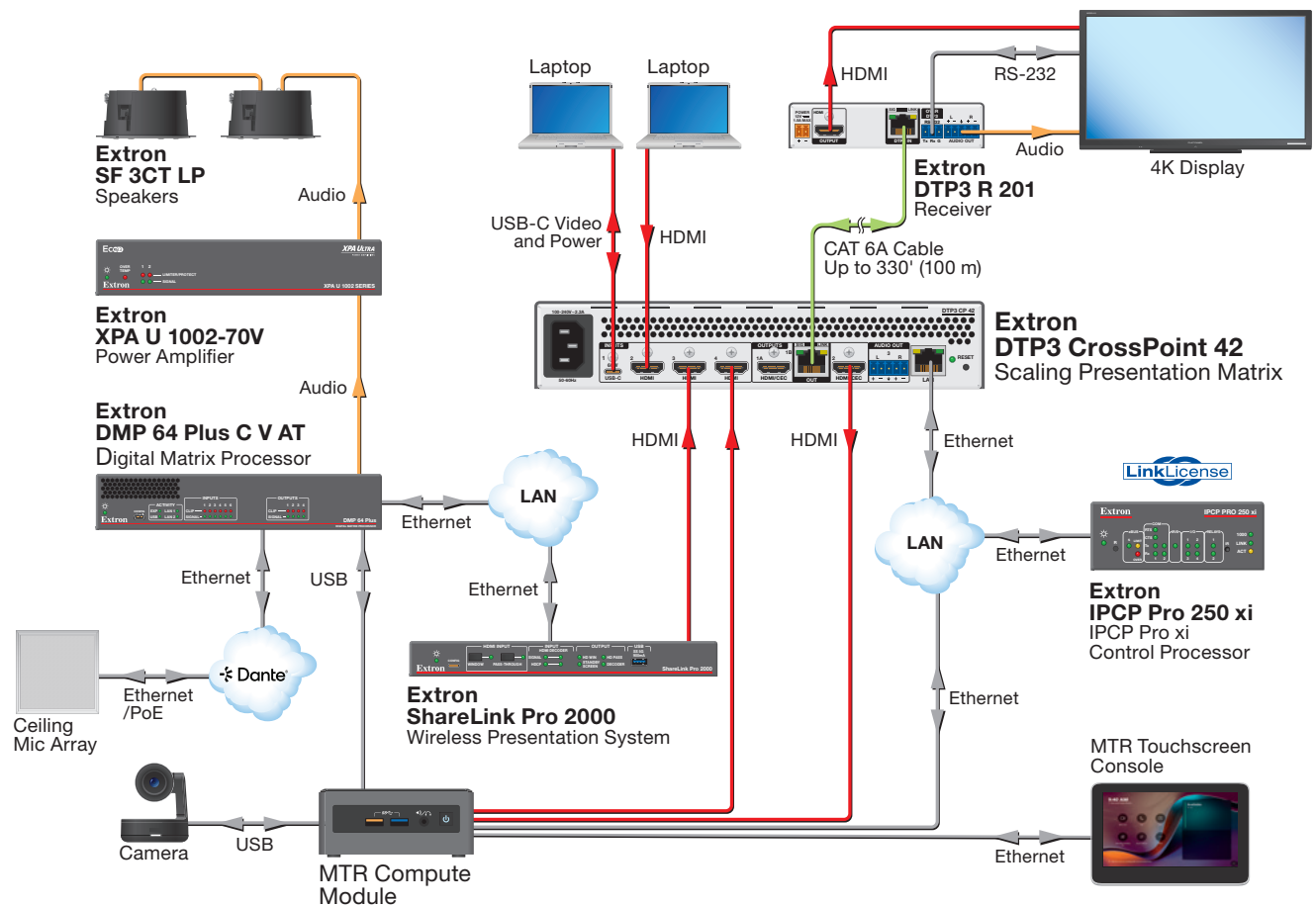
Ethernet monitoring and control

Enables control and proactive monitoring over a LAN or WAN.

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

Enhanced Microsoft Teams Room

This room provides excellent audio and video performance for videoconferencing and local meetings. Installed video equipment such as the display, the wireless collaboration system, and the Microsoft Teams Room Compute Module are capable of 4K video resolution, with the Teams-certified audio components providing advanced DSP and enhanced sound quality. Meeting participants sitting at the table can share content from their devices wirelessly or over video cables, with the USB-C connection delivering up to 60 watts of charging power. For general presentations, all inputs on the DTP3 CrossPoint 42 are transmitted to the display via the long distance DTP3 output. In videoconferencing mode, output 2 is routed to the ingest connection of the MTR compute module and available for sharing over Teams. The MTR touchscreen enables users to control the entire AV system as well as Teams conferencing by way of the IPCP Pro 250 xi control processor with LinkLicense for User Interfaces.



SPECIFICATIONS

TRUE 4K SPECIFICATION		
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 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	12 bit
Frame 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, 10, and 12 bits per color		
Signal TypeDVI 1.0, Up to HDMI 2.0b and HDCP 2.3, DisplayPort 1.4		
Max. video data rate18 Gbps (6 Gbps Per Color)		
NOTE: ¹ Subject to the maximum data rate limit. Use our calculator at www.extron.com/8Kdata to determine video parameters supported by this data rate.		

VIDEO	
DisplayPort video	DisplayPort Alt Mode, DP 1.2 supports up to HBR2/5.4 Gbps, HBR3/8.2 Gbps per lane
Maximum pixel clock	600 MHz
Resolution range	
VESA	640x480 up to 4K (4096x2160) @ 60 Hz or UHD (3840x2160) @ 60 Hz
SMPTE	480i, 576i, 480p, 576p, 720p, 1080i, 1080p, 2K, 3840x2160 (up to 60 Hz), 4096x2160 (up to 60 Hz)
Ultra Wide	2560x1080, 3440x1440, 3840x1080, 3840x1440, 3840x1600
Standards	DVI 1.0, Up to HDMI 2.0, DisplayPort 1.2, and HDCP 2.3
VIDEO INPUT	
Number/signal type	3 HDMI 2.0 link inputs 1 USB-C input (DisplayPort 1.2 Alt Mode (2 or 4 lanes) RBR/1.62 Gbps, HBR/2.7 Gbps, HBR2/5.4 Gbp)
VIDEO PROCESSING	
Colors	1.07 billion colors (10 bit 4:4:4 processing)
VIDEO OUTPUT	
Number/signal type	
Outputs 1A and 1B	1 HDMI 2.0 link output 1 DTP3/XTP/HDBT scaled buffered output (configurable)
Output 2	1 HDMI 2.0 link output
NOTE: Both selectable HDMI and DTP3/XTP/HDBT outputs are simultaneously active and HDCP Compliant.	
Scaled resolutions	
VESA	640x480 ⁸ , 800x600 ⁸ , 1024x768 ⁸ , 1280x768 ⁸ , 1280x800 ⁸ , 1280x1024 ⁸ , 1360x768 ⁸ , 1366x768 ⁸ , 1440x900 ⁸ , 1400x1050 ⁸ , 1600x900 ⁸ , 1600x1200 ⁸ , 1920x1200 ⁸ , 2048x1200 ⁸ , 2048x1536 ⁸ , 2560x1080 ⁸ , 2560x1440 ⁸ , 2560x1600 ⁸ 4096x2160 column, 3840x2160 column, and custom 1-10
SMPTE	480p ^{7,8} , 576p ⁸ , 720p ^{3,4,5,6,7,8} , 1080i ^{6,7,8} , 1080p ^{1,2,3,4,5,6,7,8} , 2K ^{1,2,3,4,5,6,7,8} , 3840x2160 ^{1,2,3,4,5,6,7,8} , 4096x2160 ^{1,2,3,4,5,6,7,8}

Ultra Wide	2560x1080 ⁸ ¹ 23.98 Hz, ² 24 Hz, ³ 25 Hz, ⁴ 29.97 Hz, ⁵ 30 Hz, ⁶ 50 Hz, ⁷ 59.94 Hz, ⁸ 60 Hz	
*Available only over HDMI or DTP3 outputs **Available only over HDMI outputs NOTE: Custom output rates with standard and Ultra Wide aspect ratios are supported up to 4088x2400 @ 60 Hz and 600 MHz.		
INTERCONNECTION BETWEEN TRANSMITTER AND RECEIVER		
Connector	1 female RJ-45 per unit	
Signal Transmission Distance (using XTP DTP 22 cable)		
4K/UHD @ 60 Hz	Up to 330' (100 m) using XTP DTP 22 cable Using 1 coupler with 3'-16' patch cable Using 2 coupler with two 4' patch cables (each patch cable cannot exceed 4') Using two punch downs with 3'-8' patch cables	
AUDIO		
Frequency response	20 Hz to 20 kHz, ±0.5 dB	
THD + Noise	<0.1%, 20 Hz - 20 kHz nominal level	
S/N	>90 dB at maximum balanced output (unweighted)	
AUDIO OUTPUT		
Number/signal type	1 balanced or unbalanced stereo. Can be configured as stereo or dual mono channels. 1 digital audio from HDMI inputs (2-Ch LPCM only) (DTP3) 1 digital audio embedded, from DTP3/XTP inputs (2-Ch LPCM only) (Embedded digital and remote balanced or unbalanced analog)* *Available only in DTP mode	
COMMUNICATIONS		
USB configuration port		
Number/type	1 front panel female USB-C	
Ethernet control port		
Number/type	1 rear panel female RJ-45	
Data rate	10/100/1000Base-T, half/full duplex with auto detect	
GENERAL		
Power supply	Internal Input: 100-240 VAC, 50-60 Hz	
Rack mount	Yes, with included, pre-installed beackets	
Enclosure dimensions	1.66" H x 8.69" W x 11.5" D (4.22 cm H x 22 cm W x 29 cm D) (Depth excludes connectors and knobs. Width excludes rack ears.)	
USB-C power delivery	Up to 60 watts power delivery at the following power profiles: 5 VDC @ up to 3 A 9 VDC @ up to 3 A 12 VDC @ up to 3 A 15 VDC @ up to 3 A 20 VDC @ up to 3 A	
Regulatory compliance	UL, CUL, CE, FCC Class A, VCCI, AS/NZS, ICES, RoHS, WEEE	
Warranty	3 years parts and labor	
NOTE: All Nominal levels are at ±10%		
Model	Version Description	Part number
DTP3 CrossPoint 42	4x2 Scaling Matrix Switcher	60-1925-01

For complete specifications, please go to www.extron.com
Specifications are subject to change without notice.

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