



DTP3 CrossPoint Series

Scaling Presentation Matrix Switchers



User Guide Matrix Switchers

Safety Instructions

Safety Instructions • English

WARNING: This symbol, , when used on the product, is intended to alert the user of the presence of uninsulated dangerous voltage within the product's enclosure that may present a risk of electric shock.

ATTENTION: This symbol, , when used on the product, is intended to alert the user of important operating and maintenance (servicing) instructions in the literature provided with the equipment.

For information on safety guidelines, regulatory compliances, EMI/EMF compatibility, accessibility, and related topics, see the Extron Safety and Regulatory Compliance Guide, part number 68-290-01, on the Extron website, www.extron.com.

تعليمات السلامة • العربية

، عند استخدامه على المنتج، مخصص لتنبيه المستخدم فيما يتعلق بوجود جهد  تحذير: هذا الرمز، كهربائي غير معزول على الغلاف الخارجي للمنتج وهو ما قد ينطوي على مخاطر حدوث صدمة كهربائية.

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Sicherheitsanweisungen • Deutsch

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Weitere Informationen über die Sicherheitsrichtlinien, Produkthandhabung, EMI/EMF-Kompatibilität, Zugänglichkeit und verwandte Themen finden Sie in den Extron-Richtlinien für Sicherheit und Handhabung (Artikelnummer 68-290-01) auf der Extron-Website, www.extron.com.

Instrucciones de seguridad • Español

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ATENCIÓN: Este símbolo, , cuando se utiliza en el producto, avisa al usuario de la presencia de importantes instrucciones de uso y mantenimiento estas están incluidas en la documentación proporcionada con el equipo.

Para obtener información sobre directrices de seguridad, cumplimiento de normativas, compatibilidad electromagnética, accesibilidad y temas relacionados, consulte la Guía de cumplimiento de normativas y seguridad de Extron, referencia 68-290-01, en el sitio Web de Extron, www.extron.com.

Instructions de sécurité • Français

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ATTENTION : Ce pictogramme, , lorsqu'il est utilisé sur le produit, signale à l'utilisateur des instructions d'utilisation ou de maintenance importantes qui se trouvent dans la documentation fournie avec l'équipement.

Pour en savoir plus sur les règles de sécurité, la conformité à la réglementation, la compatibilité EMI/EMF, l'accessibilité, et autres sujets connexes, lisez les informations de sécurité et de conformité Extron, réf. 68-290-01, sur le site Extron, www.extron.com.

Istruzioni di sicurezza • Italiano

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ATTENZIONE: Il simbolo, , se usato sul prodotto, serve ad avvertire l'utente della presenza di importanti istruzioni di funzionamento e manutenzione nella documentazione fornita con l'apparecchio.

Per informazioni su parametri di sicurezza, conformità alle normative, compatibilità EMI/EMF, accessibilità e argomenti simili, fare riferimento alla Guida alla conformità normativa e di sicurezza di Extron, cod. articolo 68-290-01, sul sito web di Extron, www.extron.com.

Instrukcje bezpieczeństwa • Polska

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UWAGI: Ten symbol, , gdy używany na produkt, jest przeznaczony do ostrzeżenia użytkownika ważne operacyjne oraz instrukcje konserwacji (obsługi) w literaturze, wyposażone w sprzęt.

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ВНИМАНИЕ: Данный символ, , если указан на продукте, предупреждает пользователя о наличии важных инструкций по эксплуатации и обслуживанию в руководстве, прилагаемом к данному оборудованию.

Для получения информации о правилах техники безопасности, соблюдении нормативных требований, электромагнитной совместимости (ЭМП/ЭДС), возможности доступа и других вопросах см. руководство по безопасности и соблюдению нормативных требований Extron на сайте Extron: www.extron.com, номер по каталогу - 68-290-01.

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注意: 产品上的这个标志意在提示用户, 设备随附的用户手册中有重要的操作和维护(维修)说明。

关于我们产品的安全指南、遵循的规范、EMI/EMF 的兼容性、无障碍使用的特性等相关内容, 敬请访问 Extron 网站, www.extron.com 参见 Extron 安全规范指南, 产品编号 68-290-01。

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安全上のご注意 • 日本語

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安全上のご注意、法規厳守、EMI/EMF適合性、その他の関連項目については、エクストロンのウェブサイト www.extron.com より『Extron Safety and Regulatory Compliance Guide』(P/N 68-290-01) をご覧ください。

안전 지침 • 한국어

경고: 이 기호 가 제품에 사용될 경우, 제품의 인클로저 내에 있는 접지되지 않은 위험한 전류로 인해 사용자가 감전될 위험이 있음을 경고합니다.

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안전 가이드라인, 규제 준수, EMI/EMF 호환성, 접근성, 그리고 관련 항목에 대한 자세한 내용은 Extron 웹 사이트(www.extron.com)의 Extron 안전 및 규제 준수 안내서, 68-290-01 조항을 참조하십시오.

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FCC Class A Notice

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. The Class A limits provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause interference. This interference must be corrected at the expense of the user.

ATTENTION:

- The Twisted Pair Extension technology works with unshielded twisted pair (UTP) or shielded twisted pair (STP) cables; but to ensure FCC Class A and CE compliance, STP cables and STP Connectors are required.
- La technologie extension paires torsadées fonctionne avec les câbles paires torsadées blindées (UTP) ou non blindées (STP). Afin de s'assurer de la compatibilité entre FCC Classe A et CE, les câbles STP et les connecteurs STP sont nécessaires.

NOTES:

- This unit was tested with shielded I/O cables on the peripheral devices. Shielded cables must be used to ensure compliance with FCC emissions limits.
- For more information on safety guidelines, regulatory compliances, EMI/EMF compatibility, accessibility, and related topics, see the [Extron Safety and Regulatory Compliance Guide](#) on the Extron website.

Battery Notice

This product contains a battery. **Do not open the unit to replace the battery.** If the battery needs replacing, return the entire unit to Extron (for the correct address, see the [Extron Warranty](#) section on the last page of this guide).

CAUTION: Risk of explosion. Do not replace the battery with an incorrect type. Dispose of used batteries according to the instructions.

ATTENTION : Risque d'explosion. Ne pas remplacer la pile par le mauvais type de pile. Débarrassez-vous des piles usagées selon le mode d'emploi.

Conventions Used in this Guide

Notifications

The following notifications are used in this guide:



WARNING: Potential risk of severe injury or death.

AVERTISSEMENT : Risque potentiel de blessure grave ou de mort.

ATTENTION:

- Risk of property damage.
- Risque de dommages matériels.

NOTE: A note draws attention to important information.

TIP: A tip provides a suggestion to make working with the application easier.

Software Commands

Commands are written in the fonts shown here:

```
^AR Merge Scene,,0p1 scene 1,1 ^B 51 ^W^C.0  
[01] R 0004 00300 00400 00800 00600 [02] 35 [17] [03]  
[Esc][X1]*[X17]*[X20]*[X23]*[X21]CE ←
```

NOTE: For commands and examples of computer or device responses used in this guide, the character “0” is the number zero and “O” is the capital letter “o.”

Computer responses and directory paths that do not have variables are written in the font shown here:

```
Reply from 208.132.180.48: bytes=32 times=2ms TTL=32  
C:\Program Files\Extron
```

Variables are written in italics as shown here:

```
ping xxx.xxx.xxx.xxx -t  
SOH R Data STX Command ETB ETX
```

Selectable items, such as menu names, menu options, buttons, tabs, and field names are written in the font shown here:

```
From the File menu, select New.  
Click the OK button.
```

Specifications Availability

Product specifications are available on the Extron website, www.extron.com.

Extron Glossary of Terms

A glossary of terms is available at <https://www.extron.com/technology/glossary.aspx>.

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Introduction

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- [Definitions](#)
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About this Guide

This guide contains installation, configuration, and operating information for the Extron DTP3 CrossPoint Matrix Switchers.

About the DTP3 CrossPoint Matrix Switchers

The Extron DTP3 CrossPoint matrix switchers (see [figure 1](#) on page 2) are configurable with HDMI and DTP3 twisted pair inputs and HDMI and DTP3 twisted pair outputs, reversible DTP3 I/O ports, audio DSP with AEC, 4K scaling, a power amplifier, and a built-in IPCP Pro control processor, which distribute HDCP-compliant HDMI and Extron proprietary DTP3, DTP, or XTP video and audio signals. The DTP3 CrossPoint is compatible with all DTP and DTP3 transmitters and receivers. The DTP3 CrossPoint inputs can also be configured to accept XTP signals and the DTP3 outputs can be configured to XTP and HDBaseT (HDBT) modes via PCS.

The DTP3 CrossPoint matrix switcher provides complete system integration for large AV systems in a 2U or 3U enclosure, supporting applications requiring several displays, sound reinforcement, and AV system control. All inputs and outputs support video resolutions up to 4K/60 4:4:4.

The matrix switcher routes any input signal to any combination of outputs. It can route multiple input and output configurations simultaneously.

The DTP3 matrix outputs are powered by Extron Vector 4K scaling technology, capable of seamless switching and scaled resolutions up to 4K. DTP extension allows connection to DTP and DTP3 endpoints and XTP matrix switchers. Full audio optimization is provided by a built-in Extron DSP Pro audio digital signal processor that can connect to a Dante® network and be linked to a second Extron DMP EXP Bus device for I/O expansion.

Additionally, the DTP3 CrossPoint SL models have an integrated ShareLink Pro wireless presentation system for sharing content from computers, tablets, and smartphones.

The switchers are available in four matrix sizes (the number of inputs, outputs, and configurable DTP3 I/Os) and three equipment configurations (differentiated by their audio, control, and ShareLink Pro [662/642/622 models only] capabilities) for a total of 11 models:

Matrix sizes —

- DTP3 CrossPoint 884 — 8x8x4 DTP3 matrix switcher
- DTP3 CrossPoint 662 — 6x6x2 DTP3 matrix switcher
- DTP3 CrossPoint 642 — 6x4x2 DTP3 matrix switcher
- DTP3 CrossPoint 622 — 6x2x2 DTP3 matrix switcher

Equipment configurations —

DTP3 CrossPoint base models — Includes unamplified audio outputs only, with no IPCP Pro 360MQ xi control processor.

DTP3 CrossPoint IPCP A models — Includes a built-in Extron IPCP Pro control processor and a Class D power convertible amplifier.

DTP3 CrossPoint IPCP A SL models (662/642/622 models only) — Includes a built-in Extron IPCP Pro control processor, a Class D power convertible amplifier, and a ShareLink Pro module.

- DTP3 CrossPoint 884
- DTP3 CrossPoint 884 IPCP A
- DTP3 CrossPoint 662
- DTP3 CrossPoint 662 IPCP A
- DTP3 CrossPoint 662 IPCP A SL
- DTP3 CrossPoint 642
- DTP3 CrossPoint 642 IPCP A
- DTP3 CrossPoint 642 IPCP A SL
- DTP3 CrossPoint 622
- DTP3 CrossPoint 622 IPCP A
- DTP3 CrossPoint 622 IPCP A SL

DTP3 CrossPoint Application Diagrams

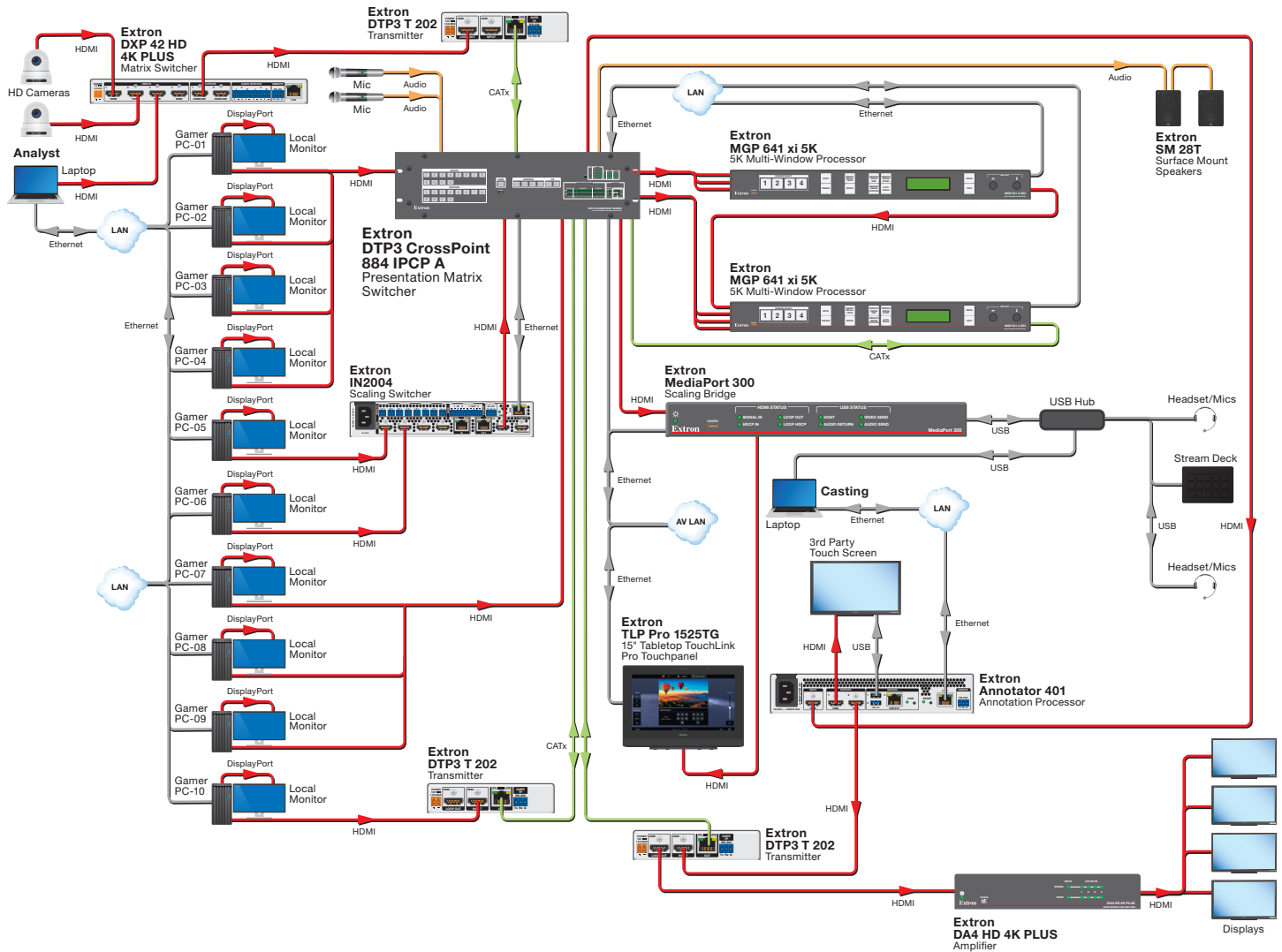


Figure 1. Typical DTP3 CrossPoint 884 IPCP A Application

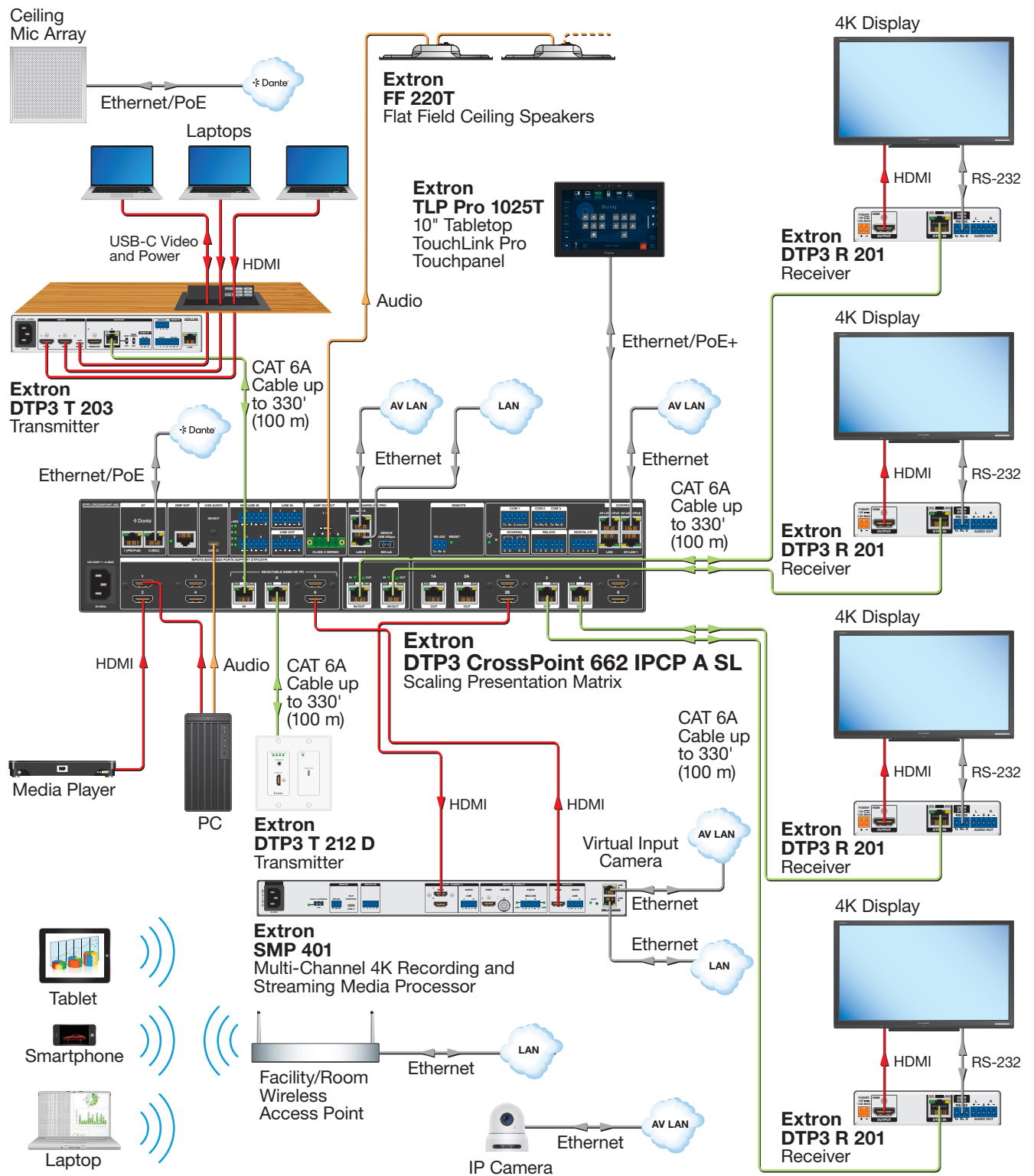


Figure 2. Typical DTP3 CrossPoint 662 IPCP A SL Application

DTP3 Input and Output Signals

The DTP3 inputs and outputs are proprietary signals that are created within an Extron DTP3 Extender system and transmitted over a single shielded twisted pair (STP) cable. In addition, the DTP3 CrossPoint has reversible DTP3 I/O ports that can be configured as inputs or outputs as the system configuration needs.

The DTP3 CrossPoint accepts DTP3 inputs from transmitting devices such as the DTP3 T 212. Depending on the connected transmitting model, it generates the DTP3 signal from a variety of video and audio inputs, including HDMI, DVI, and embedded and analog audio. The DTP3 signal can also include bidirectional RS-232 and IR control signals from the connected transmitting and receiving devices, on the DTP3 CrossPoint switcher.

Each input and output is individually isolated and buffered; switching is accomplished with virtually no crosstalk or signal noise between channels. Audio that is switched through the DSP Pro can either be linked with the video (audio follow) or independent of the video (audio breakaway). Embedded digital audio always follows the video.

Depending on the transmitting or receiving device, the DTP3 inputs and outputs can travel up to 330 feet (100 meters) or 230 feet (70 meters) without a loss of signal integrity.

Audio I/O Board

The DTP3 CrossPoint switchers have an audio board that provides two Dante network ports, an Extron DMP EXP expansion port, a configurable USB audio port, and six mono analog inputs, four accommodate mic/line sources and two accommodate line-level sources that can be mixed with one or all audio outputs.

All inputs support a dynamic ducking feature that automatically reduces the program audio group when mic/line input is present. When the mic/line input is not present, the program audio group is restored to the set volume level. Adjustable mic input audio gain and attenuation compensates for level differences among audio inputs.

The USB audio port is used for connectivity to computer based soft codecs and program playback sources.

The DTP3 CrossPoint Series also includes a built-in digital signal processor (DSP Pro) that provides a wide variety of microphone pre-amplifier controls, mixers, filters, dynamics processors, and feedback suppressors (see [DSP Configurator Pro](#) on page 86). Extron DSP Pro audio digital signal processor can connect to a Dante network and be linked to a second Extron DMP EXP Bus device (see [Dante Controller](#) on page 95).

Controller Board

The CrossPoints have a rear panel serial port and a front panel USB-C port for remote control and reporting. The IPCP model also features the built-in Extron IPCP Pro 360MQ xi control processor, which has three rear panel local area network (LAN) Ethernet ports. The non-IPCP model has one Ethernet port. The matrix switcher is programmed with the Extron Simple Instruction Set (SIS), a set of basic ASCII code commands that provide simple control through a control system or PC without programming long, obscure strings of code. SIS commands can be entered via the RS-232 port, USB port, or the LAN ports.

The LAN ports can be connected through a local area network (LAN) or wide area network (WAN).

The DTP3 CrossPoint can be operated by connecting the following to the serial port, USB-C port, or a LAN port:

- A control system
- A PC and any of the following:
 - Extron SIS Commands ([SIS Configuration and Control](#) starting on page 36)
 - Extron Windows-based PCS ([Product Configuration Software](#) starting on page 76)
 - Extron Windows-based [DSP Configurator Pro](#)
 - Extron device [Internal Web Pages](#) starting on page 102

Setup of the IPCP control processor, built in IPCP models, requires Extron Global Configurator Plus or Global Configurator Professional, available at www.extron.com. The IPCP offers Ethernet control of external devices and provides RS-232 and IR-based control, relays, and digital I/O controls that can control and monitor a variety of external devices, such as projectors and lights (see the *IPCP Pro Q xi and xi Series User Guide* available at www.extron.com).

The switcher is housed in a full rack width, rack-mountable, metal enclosure with mounting flanges for a standard 19-inch rack. The appropriate rack mounting kit is included with the switcher. The switcher has an internal 100 VAC to 240 VAC, 50-60 Hz, 180 watts power supply that provides worldwide power compatibility.

ShareLink Pro Module

The DTP3 CrossPoint SL models have an integrated ShareLink Pro module with multiple inputs from network streams via the conventional RJ-45, 10/100/1000 Base T network ports. Users can present content from a variety of sources such as a laptop, smartphone, and tablet via the Ethernet network to transmit streams, and the ShareLink Pro Module treats each source as an input stream. The inputs are decoded, scaled, and outputted to the DTP3 CrossPoint MUX. The ShareLink Pro output can show multiple windows using any combination of streams. For example, four input streams can be displayed simultaneously in a Quad View (2x2 tile). For details on operating the ShareLink Pro module, see the *ShareLink Pro 2500 User Guide* available at www.extron.com.

Definitions

The following terms apply to all Extron matrix switchers and are used throughout this guide:

- **Selectable inputs** — Inputs that include two ports: HDMI port (5A and 6A) and RJ-45 (twisted pair [TP]) port (5B and 6B). The desired port must be selected, either TP or HDMI. By default the ports are configured as TP inputs.
- **Paired outputs** — Outputs that include two ports: HDMI port (1A, 2A, 3A, 4A, 5A, and 6A) and RJ-45 (TP) port (1B, 2B, 3B, 4B, 5B, and 6B). The signal outputs simultaneously on the HDMI (A) and TP (B) ports.
- **DTP3 I/O** — RJ-45 (TP) port that can be configured as either an input or an output. By default these ports are configured as DTP3 inputs.

NOTE: Remote power is disabled when changing the I/O port from input to output or output to input. Reconfigure remote power after the change.

- **Tie** — An input-to-output video and/or line audio connection.
- **Set of ties** — An input tied to two or more outputs. (An output can never be tied to more than one input).
- **Configuration** — One or more ties, one or more sets of ties. The configuration also can include some or all of the signal processor settings that can be made in DSP Configurator Pro.
- **Current configuration** — The configuration that is currently active in the switcher.
- **Preset** — A full or partial configuration (a subset of ties, sets of ties, or signal processor settings) with accompanying audio settings that has been stored.

NOTES:

- Presets can be created only by using DSP Configurator Pro or PCS.
- When a preset is recalled from memory, it becomes the current configuration.
- Up to 16 partial or full presets can be stored in memory. Preset locations are assigned to the input buttons and output buttons. Fourteen preset locations can be recalled from the front panel via eight inputs (presets 1 through 8) and six outputs (presets 9 through 14).
- Presets can also be recalled using SIS commands, PCS, or DSP Configurator PRO.
- When a preset consisting of full configurations is recalled, it completely overwrites the current configuration.
- When a preset consisting of one or more partial configurations is recalled, it overwrites only a portion of the current configuration, leaving other ties and settings unchanged.

Features

- **All-in-one configurable 4K/60 matrix switcher, scaler, audio DSP with AEC, audio power amplifier, and control processor** — The DTP3 CrossPoint delivers all of the core functionality of a large AV system. Advanced technological capabilities from Extron allow complete system design and integration from a single 2U or 3U device.
- **Inputs:**
 - **DTP3 CrossPoint 884** — Eight dedicated inputs: Six HDMI and two selectable HDMI/DTP3
 - **DTP3 CrossPoint 662** — Six dedicated inputs: Four HDMI and two selectable HDMI/DTP3
 - **DTP3 CrossPoint 642** — Six dedicated inputs: Four HDMI and two selectable HDMI/DTP3
 - **DTP3 CrossPoint 622** — Six dedicated inputs: Four HDMI and two selectable HDMI/DTP3
- **Outputs:**
 - **DTP3 CrossPoint 884** — Eight dedicated outputs: Six mirrored HDMI/DTP3 and two HDMI
 - **DTP3 CrossPoint 662** — Six dedicated outputs: Two mirrored HDMI/DTP3, two DTP3, and two HDMI
 - **DTP3 CrossPoint 642** — Four dedicated outputs: Two mirrored HDMI/DTP3 and two HDMI
 - **DTP3 CrossPoint 622** — Two dedicated outputs: Two mirrored HDMI/DTP3
- **Reversible DTP3 I/O: Selectable in any combination of inputs and/or outputs**
 - **DTP3 CrossPoint 884** — Four selectable in any combination of inputs and/or outputs
 - **DTP3 CrossPoint 662** — Two selectable in any combination of inputs and/or outputs
 - **DTP3 CrossPoint 642** — Two selectable in any combination of inputs and/or outputs
 - **DTP3 CrossPoint 622** — Two selectable in any combination of inputs and/or outputs
- **Integrated DTP3 inputs and outputs support transmission of uncompressed video, audio, power, and control up to 330' (100 m) over a shielded CAT 6A cable** — DTP3 inputs and outputs support digital transmission of uncompressed video, audio, DC power, and RS-232 signals up to 330 feet (100 m) over a shielded CAT 6A cable, providing high reliability and ultimate performance on an easily installed cable infrastructure.
- **Advanced Extron Vector 4K scaling engine** — All video outputs are driven by the Vector 4K scaling engine specifically designed for critical-quality 4K imagery, with best-in-class image upscaling and downscaling.
- **Supports video resolutions up to 4K/60 with 4:4:4 color sampling** — Signal extension of 4K/60 at 4:4:4 color sampling requires connection to matching DTP3 products.
- **Supported HDMI 2.0b specification features include data rates up to 18 Gbps, Deep Color up to 12-bit, 3D, and HD lossless audio formats.**
- **HDCP 2.3 compliant** — Ensures display of content-protected 4K video media and maintains interoperability with earlier versions of HDCP.
- **Compatible with DTP3 and DTP-enabled products, plus XTP II CrossPoint matrix switchers** — Enables mixing and matching with transmitters and receivers in a wide range of video formats and physical form factors. The DTP3 CrossPoint can also be integrated with an XTP CrossPoint matrix switcher to provide connectivity between presentation spaces and a larger, facility-wide system.
- **Compatible with HDBaseT™-enabled displays** — The DTP3 outputs can be configured to send video and embedded audio, plus bidirectional RS-232 signals to HDBaseT-enabled displays.
- **Extron XTP DTP 22 shielded twisted pair cable is strongly recommended for optimal performance.**
- **Compatible with CAT 6A shielded twisted pair cable** — CAT 6A shielded twisted pair cabling is recommended for optimal performance.
- **Remote powering of DTP3 and DTP transmitters and receivers** — For simplified installation, the DTP3 CrossPoint can provide power to select DTP3-enabled and first-generation DTP-enabled endpoints over the twisted pair connection.

- **Dante audio networking with Dante Domain Manager and AES67 support provides a wide range of expansion capabilities** — Provides scalability for creating larger audio matrixes over a local area network using standard Internet protocols. DTP3 CrossPoint provides 32 inputs and 32 outputs via the redundant Dante gigabit Ethernet ports.
- **Configurable USB Audio Interface** — Easy connectivity to computer based soft codecs and program playback sources. The input/output configuration of the USB Audio Interface can be set to 0x6, 2x4, 4x2, 6x0 or 2x2. This allows for more input or output streams, as required by the system application.
- **Available with energy efficient Class D amplifier with selectable output power modes:**
 - **Two 100 watt channels into 4 or 8 ohms**
 - **One 200 watt bridged channel into 8 ohms**
 - **One 200 watt 70 V or 100 V channel**

— The DTP3 CrossPoint IPCP A power amplifier features an Extron-exclusive, highly efficient, advanced Class D design with flexible channel pairs that can drive 8-ohm, 4-ohm, 70-volt, or 100-volt loads. It features CDRS – Class D Ripple Suppression, an Extron patented technology that provides a smooth, clean audio waveform and an improvement in signal fidelity over conventional Class D amplifier designs.

- **Available with integrated IPCP Pro 360MQ xi control processor** — DTP3 CrossPoint IPCP A models includes a built-in IPCP Pro Q xi Series control processor for complete AV system control.
 - **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.
 - **Supports LinkLicense for user interfaces** — Extron LinkLicense unlocks features that add convenience, expand system functionality, and enhance the capabilities of Extron products. The User Interfaces version of LinkLicense is required for control operations within Zoom Rooms.
 - **Integrated three-port AV LAN switch allows AV devices to be isolated from the corporate network** — Enables local control of AV devices connected to the AV LAN switch, while securing this equipment from outside interference or intrusion.
 - **LAN port permits discovery, setup, and firmware updates for Extron devices connected to the AV LAN switch** — Extron PCS, DSP, and XTP Configurator allow customers to discover, manage and update Extron devices from the LAN to the AV LAN.
 - **Supports TouchLink Pro touchpanels, Network Button Panels, and IPL EXP I/O expansion interfaces.**
 - **Supports PoE+** — Two AV LAN ports provide PoE+ for Extron control systems and any other PoE+ compatible product, eliminating the need for a local power supply.
 - **Supports secure industry standard communications protocols** — Uses industry standard communication protocols, including HTTP-insecure, HTTPS, SSH, SFTP, SMTP, NTP, Discovery Service, DHCP, DNS, ICMP, and IPv4.
 - **Two bidirectional RS-232 ports with software handshaking** — Captive screw serial ports that can control two RS-232 devices.
 - **One bidirectional RS-232/RS-422/RS-485 port with hardware and software handshaking** — Captive screw serial port that can communicate with RS-232/RS-422/RS-485 serially controlled device.
 - **Two IR/Serial ports for one-way control of external devices.**
 - **Four Digital I/O ports** — Allows for interfacing with other systems within the room.
 - **Four relays for controlling room functions** — Enables control of lighting, screen settings, and other device functions.
 - **Ethernet monitoring and control on each Ethernet port** — Manage, monitor, and control AV devices using a standard Ethernet network.
 - **DHCP server for AV LAN** — Automatically distributes IP addresses and network configuration parameters for AV devices connected to the local AV LAN, which streamlines system setup and management.

- **Supports popular Building Management System (BMS) protocols, such as BACnet, KNX, and DALI** — These protocols allow for centralized monitoring and control of mechanical and electrical systems that include HVAC, lighting, power, fire, and security.
- **Supports 10/100/1000Base-T.**
- **Supports Ethernet-controllable devices** — Allows for control of multiple Ethernet-enabled AV devices such as displays, switchers, and sources.
- **Automatic clock synchronization allows touchpanel to display the accurate time and date.**
- **Supports control system synchronization** — Synchronization will allow users to retain and recover the state of their configured endpoints in case of network or power failure.
- **Front panel port status indicators.**
- **Multi-level password protection** — Allows security to be set based on user roles.
- **Fully customizable using Extron control system software** — GUI Designer can be combined with Global Configurator Plus or Global Configurator Professional.
- **Create controller groups** — Allows multiple IP Link Pro xi control processors to be grouped together to function as one when configured with Global Configurator Professional.
- **Library of enhanced Extron Certified device drivers** — Device drivers allow Extron products to control various display and source devices, such as projectors, displays, and Blu-ray® players. Extron has produced fully tested Ethernet, serial, and IR device drivers.
- **Selectable seamless switching transitions** — Seamless freeze/cut, freeze/fade, cut through black, and fade through black transition effects are available at the scaled video outputs.
- **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.
- **Supports EDID and HDCP transmission** — DDC channels are actively buffered, allowing continuous communication between source and display.
- **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.
- **Key Minder continuously verifies HDCP compliance for quick, reliable switching** — Key Minder authenticates and maintains continuous HDCP encryption between input and output devices to ensure quick and reliable switching in professional AV environments, while enabling simultaneous distribution of a single source signal to one or more displays.
- **Comprehensive EDID management** — Use PCS software to access EDID Minder for setting video input EDID, capturing EDID from connected displays, or uploading EDID files. Proper EDID management ensures that sources and displays are easily integrated into a system resulting in optimized system operation.
- **EDID Minder automatically manages EDID communication between connected devices** — EDID Minder ensures that the source powers up properly and reliably outputs content for display.
- **SpeedSwitch Technology provides exceptional switching speed for HDCP-encrypted content.**
- **HDCP authentication and signal presence confirmation** — Provides real-time verification of HDCP status for each digital video input and output. This allows for simple, quick, and easy signal and HDCP verification through RS-232, USB, or Ethernet, providing valuable feedback to a system operator or helpdesk support staff.
- **HDCP Visual Confirmation** — When HDCP-encrypted content is transmitted to a non-HDCP compliant display, a full screen green signal is sent to the display for immediate visual confirmation that protected content cannot be viewed on that display.
- **Aspect ratio control** — The aspect ratio of the video output 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.

- **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** — The video and audio output may be muted independently.
- **Image freeze control** — A live image can be frozen using RS-232, USB, or Ethernet control.
- **Input presets** — Memory presets are available to store and recall optimized image settings.
- **Internal video test patterns for calibration and setup** — Selectable video test patterns facilitate proper system setup and calibration of display devices.
- **ProDSP 64-bit floating point signal processing** — DTP3 CrossPoint features 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.
- **Eight channels of AEC - acoustic echo cancellation** — The DTP3 CrossPoint includes eight independent channels of high-performance AEC, as well as selectable noise cancellation. Extron AEC features advanced algorithms that deliver fast echo canceler convergence for optimal intelligibility in situations that challenge AEC performance.
- **Macros allow the sequencing of commands that can be sent to the local device or external devices via the LAN port** — The DTP3 CrossPoint IPCP A models can act as the central interface from a control system, sending commands to other compatible hardware.
- **Advanced audio processing on all AV digital ports, two analog outputs, and 32 Dante/Expansion outputs** — Up to 32 speaker zones can be implemented with full processing for each zone, making it ideal for full mix-minus implementations. This can create unique audio feeds to any speaker in the same acoustical space.
- **An extensive mix matrix allows all inputs to be discretely routed to any or all outputs** — The mix matrix allows all inputs, Dante inputs and virtual bus returns to be discretely routed to any or all of the digital outputs, analog outputs, Dante outputs, and the virtual bus sends.
- **16 virtual processing loops allow for great flexibility in sub-mixing and processing** — Processing common to many inputs can be applied using a single virtual channel.
- **Low latency** — Powerful DSP chips maximize performance, resulting in latency that is very low, from input to output, regardless of the number of active channels or processes. While latency increases in channels with AEC enabled, and marginally with the automixer, overall latency remains low. This keeps audio in sync with video and prevents distractions to presenters or performers resulting from delayed live audio.
- **Adaptive Gain Processing** — An adaptive gain processor block allows a specified microphone input to affect levels on any one or all other inputs and virtual returns.
- **FlexInput capability on all Dante, USB, analog, and virtual inputs** — All audio inputs offer FlexInput source selection to route a Dante channel, expansion input, or a local mic/line input to a channel with the desired DSP. This allows incorporating the full range of DSP capabilities, including AEC or feedback suppression, for any incoming channel.
- **Digital audio expansion port for linking Extron DSP units** — An expansion port allows the DTP3 CrossPoint and other Extron hardware equipped with an EXP bus to be linked via a single shielded CAT 6 cable. This creates a 16-channel bidirectional 24-bit/48 kHz high-resolution digital audio expansion bus between the two units. This facilitates expanded input and output signal management and routing capabilities.
- **Supports PoE** — The primary Dante LAN port provides power for compatible Extron audio products and other PoE compatible products, eliminating the need for a local power supply.
- **Automixer with eight groups** — The DTP3 CrossPoint 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 microphone is gated off.

- **Four mic/line inputs with 48-volt phantom power** — Four mic or line-level audio sources can be independently mixed with program audio. Selectable 48-volt phantom power allows the use of condenser microphones.
- **Studio grade 24-bit/48 kHz analog-to-digital and digital-to-analog converters** — Fully preserve the integrity of the original audio signal.
- **DSP Configurator Pro provides an intuitive graphical user environment** — A powerful yet user-friendly PC-based software tool for managing all audio operations. It enables complete setup and configuration of digital audio processing tools on the ProDSP platform, as well as routing and mixing.
- **Copy and paste for processing blocks** — To help speed audio system design and setup, parameter settings can be quickly copied between individual processing blocks or identical groups of blocks within the Graphical User Environment, using conventional cut-and-paste commands.
- **Building Blocks for channel processor settings** — A collection of pre-designed processor settings optimized for a specific type of input and output devices, such as microphones and speakers. Flexible Building Blocks are available on each input strip and allow system designers to fully customize and save their own Building Blocks, further streamlining audio system design and integration.
- **Live and Emulate operation modes with configuration file saving** — Live mode allows integrators to connect to the DTP3 CrossPoint and make live parameter adjustments while hearing or metering them in real-time. This avoids the need to compile and upload a configuration file to the DSP. Emulate mode allows settings to be configured offline, then uploaded to the DTP3 CrossPoint. Additionally, current settings can be backed up to a configuration file for archiving.
- **64 DSP Configurator Pro presets** — Using DSP Configurator Pro, any parameters for DSP processing, levels, or audio routing can be saved as presets. These settings can be saved for the entire system, or any selected group of inputs, outputs, mix points, and DSP blocks.
- **Triple-matrix design provides output, virtual, and expansion routing options** — The DTP3 CrossPoint employs a triple-matrix design that offers substantial flexibility in routing, mixing, and processing audio input sources. The primary output matrix allows any of the inputs to be matrix-mixed to any or all outputs. Also, any of the inputs can be directed into the virtual matrix, which routes the inputs to eight virtual buses first. Then, they are mixed back into the output matrix. Virtual buses allow inputs to be processed together as a group. The expansion matrix provides signal routing between the DTP3 CrossPoint and other Extron hardware equipped with an EXP bus. The expansion matrix is also used to distribute and receive audio from the Dante network.
- **Group Controls** — The DTP3 CrossPoint provides the capability to consolidate gain or mute control throughout the system. Gain or mute controls can be selected and added to a group, which can then be controlled by a single control fader or mute control. Loudness filters can also be added to a group control, which enables the loudness curve to track with the program volume. Additionally, Bass and Treble filters can be configured in a group to provide boost and cut as user controls.
- **Software-defined limits provide optimal group adjustment range** — The group control volume adjustment range can be limited to maintain optimal minimum and maximum levels when using external volume control. This prevents operators from over or under-adjusting levels. DSP Configurator Pro provides quick adjustment of limits from the Group Controls screen.
- **Output volume control** — Group controls can be configured in DSP Configurator Pro.
- **Audio breakaway** — Provides the capability to break two-channel audio away from its corresponding video signal and route to the audio outputs, allowing the audio and video signals from one source to be switched to different destinations.
- **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.
- **QS-FPC - QuickSwitch Front Panel Controller with backlit buttons** — 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 either from the QuickSwitch Front Panel Controller, Ethernet, USB, or RS-232 serial control.
- **Ethernet monitoring and control** — Enables control and proactive monitoring over a LAN or WAN.
- **RS-232 insertion from the Ethernet control ports** — System level device control to all remote locations via the matrix switcher Ethernet ports, providing comprehensive control of endpoints and attached devices without needing additional equipment.
- **Bidirectional RS-232 pass-through for AV device control** — Bidirectional RS-232 control signals can be transmitted alongside the video signal, allowing remote AV devices to be controlled without the need for additional cabling.
- **Built-in Web pages** — Enables the use of a standard browser for device monitoring and troubleshooting over an intuitive Web interface.
- **Output Standby Mode** — Configurable to automatically mute video and sync output to the display device when no active input signal is detected. This allows the projector or display to automatically enter into standby mode to save energy and enhance lamp or panel life.
- **RS-232 control port** — Enables the use of serial commands for integration into a control system. Extron products use the SIS - Simple Instruction Set command protocol, a set of basic ASCII commands that allow for quick and easy programming.
- **Front panel USB-C® configuration port** — Provides convenient access for information and firmware updates.
- **RJ-45 signal and link LED indicators for DTP3 ports** — Provide a means for validating signal flow and operation, allowing quick identification of connectivity issues.
- **Easy setup and commissioning with Extron PCS - Product Configuration Software** — Conveniently configure multiple products using a single software application.
- **Rack-mountable, full rack width metal enclosure** —
 - DTP3 CrossPoint 884 models are 3U
 - DTP3 CrossPoint 662 models are 2U
 - DTP3 CrossPoint 642 models are 2U
 - DTP3 CrossPoint 622 models are 2U
- **Includes LockIt cable lacing brackets** — Securely fastens HDMI or USB C cables to a device, eliminating risk of disconnection.
- **Internal Extron Everlast power supply** — Provides worldwide power compatibility with high demonstrated reliability and low power consumption.
- **Extron Everlast Power Supply is covered by a 7-year parts and labor warranty.**

Additional Features of the DTP3 CrossPoint SL Models

- **Integrated ShareLink Pro Wireless Presentation System on select models** — DTP3 CrossPoint IPCP A SL features built-in ShareLink Pro for sharing content from computers, tablets, and smartphones.
- **ConferenceShare enables wireless use of room cameras for UC meetings** — Facilitates wireless sharing of content from USB meeting room devices, such as cameras or microphones, for use in Microsoft Teams, Zoom, or other UC meetings.
- **ShareNext suggests the ShareLink Pro unit next to you** — Improves the connection to ShareLink Pro units by using Bluetooth technology to locate the optional ShareLink Pro WFA 100 Wi-Fi and Bluetooth adapter connected to the ShareLink Pro unit next to you. This enables ShareLink Pro deployments using AirPlay® or with the ShareLink Pro software already installed to quickly connect to the ShareLink Pro units closest to you without entering the IP address.

- **Updated Version 2.0 software makes it easier to add, remove, and change shared content** — For users sharing content via ShareLink Pro software, the Version 2.0 user interface makes it easier to share content quickly, remove individual shared items, and maximize an item size for greater visibility.
- **Share Windows content via Miracast** — Enables content sharing from Windows 11 laptops without the need to download software. This is ideal for users who want to share content quickly without installing anything on their computer. Requires optional ShareLink Pro WFA 100 Wi-Fi and Bluetooth adapter connected to a ShareLink Pro unit.
- **WebShare shares content via a Web browser** — Enables content sharing via a standard web browser, without the need to download software. This is ideal for users who want to share content quickly without installing anything on their computer. Works with Chrome browser supported on Windows, macOS, and Chrome operating systems.
- **Wirelessly share content from mobile devices** — Connects a wide variety of devices to the system wirelessly or through a wired LAN connection.
- **Provides full screen mirroring for all devices** — Display the entire screen of your device through the wireless presentation system for more fluid and easy collaboration sessions.
- **Supports 802.1X Authentication** — Provides support for IEEE 802.1X authentication standard for port-based Network Access Control.
- **Supports Mac® and Windows® computers as well as Apple® and Android™ tablets and smartphones.**
- **ShareConnect shares content with a simple Display Code** — Enables quick content sharing with ShareLink Pro software, using a simple four-digit code displayed onscreen. This allows users in large ShareLink Pro deployments, where ShareLink Pro software is already installed, to quickly connect to the display by simply entering a Display Code to select content for sharing.
- **ShareLink Pro Enterprise Discovery Service** — Streamlines discovery of ShareLink Pro units across an Enterprise or Campus network. This service, running on ShareLink Pro devices, allows large deployments in which ShareLink Pro software is already installed to quickly find ShareLink Pro units on other subnets. This eliminates the need to manually enter IP addresses or hostnames in order to connect and share content.
- **View up to four pieces of content simultaneously from any connected user** — Fosters effective collaboration and discussion by comparing multiple sources concurrently and by reducing or eliminating the need to switch between sources.
- **Extron ShareLink Pro macOS app** — Supports sharing multiple images, application windows or acting as a moderator for a ShareLink Pro. User-friendly software allows sharing from Apple mac computers and laptops.
- **Dedicated app provides consistent user experience across platforms** — Similar interface for all platforms makes it easy for users to assist one another or move between devices regardless of how they connect and share content.
- **Wired and wireless sources can collaborate simultaneously** — Matrix switcher input enables wired users or sources to collaborate simultaneously with wireless users in the same session.
- **Collaboration mode allows any attendee to display content and control the presentation** — Enables content display from any connected device to enhance interactivity in brainstorming sessions, team meetings, and other collaborative environments.
- **Moderator mode ensures only approved user content is displayed** — Enables the moderator to select which users can access the display and how the content is displayed.
- **Display codes ensure content is delivered only to the selected display devices** — Randomly generated or user-defined display authentication codes prevent unintentional sharing or display of content to an adjacent space.
- **WebView technology displays slide images on attendees' personal devices via a Web browser** — Enables meeting content to display on a participant's mobile device. This is ideal for attendees who cannot easily view the main display.
- **128-bit data encryption** — A variety of security protocols ensure that all content transmitted between devices and the ShareLink Pro is fully encrypted and secure.

- **Fully customizable welcome screen** — Multiple configuration options to show, hide, or customize information on the welcome screen, so users can quickly connect and begin sharing their content.
- **Connects to an existing wireless network** — Leverages the existing wireless network infrastructure, providing easy wireless connection for a variety of mobile devices.
- **Includes user-friendly software for screen mirroring, sharing, and advanced control** — Provides both an executable that does not require administrator access rights and a version that can be deployed by IT administrators.

Installation

This section describes the installation of the DTP3 CrossPoint, including:

- [Setup and Installation](#)
- [Rear Panels, Wiring, and Features](#)
- [Connecting through the AV LAN and LAN Ports \(IPCP Models only\)](#)
- [Detailed Pin Assignments and Wiring](#)
- [Power](#)

Setup and Installation

Preparation — Obtain IP setting information for the matrix switcher from the local network administrator.

Physical installation —

- (Optional) Install the matrix switcher in a rack (see [Mounting the Switcher](#) on page 109).
- Cable input and output devices (see [Video Input and Output Connections](#) on page 16 and [Audio Input and Output Connections](#) on page 17).
- (Optional) Connect computers or control systems to any of the remote control ports (see [Control Connections](#) starting on page 19) and front panel USB-C port (see [figure 17](#),  on page 25).
- Connect power (see [Reset and Power](#) on page 20).
- Test the switcher by creating a tie (see [Making and Breaking Ties](#) on page 29).

Configuration — Install Product Configuration Software (PCS) and DSP Configurator PRO on a PC (see [Software/Firmware Installation](#) on page 77).

Rear Panels, Wiring, and Features

Figure 3 on page 15 shows the rear panel of a DTP3 CrossPoint 884 IPCP A model, featuring an IPCP control card and an Amp Output. **Figure 4** on page 15 shows the rear panel of a DTP3 CrossPoint 662 IPCP A SL, featuring an IPCP control card, a ShareLink Pro module, and an Amp Output. The DTP3 CrossPoint base models have most of the same ports and features with a single Ethernet port, without the IPCP control card and the Amp Output.

The sections to follow provide information on the specific ports and features.

ATTENTION:

- Use electrostatic discharge (ESD) precautions (be electrically grounded) when making connections. Electrostatic discharge can damage equipment, even if you cannot feel, see, or hear it.
- Prenez des précautions contre les décharges électrostatiques (soyez électriquement relié à la terre) lorsque vous effectuez des connexions. Les décharges électrostatiques (ESD) peuvent endommager l'équipement, même si vous ne pouvez pas le sentir, le voir ou l'entendre.
- Remove system power before making all connections.
- Débranchez l'alimentation du système avant de faire n'importe quelle connexion.

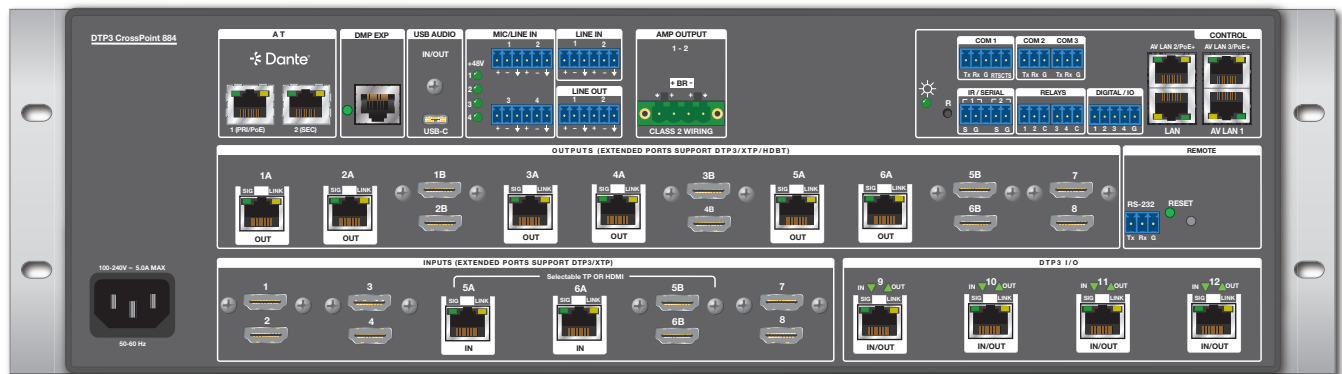


Figure 3. DTP3 CrossPoint 884 IPCP A Matrix Switcher Rear Panel

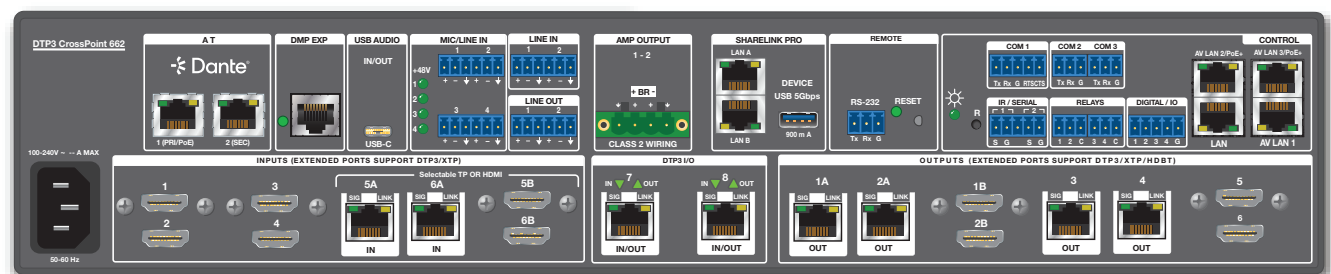


Figure 4. DTP3 CrossPoint 662 IPCP A SL Matrix Switcher Rear Panel

NOTES:

- Figure 3 shows the features of IPCP A models. Actual models have either a remote LAN port or an IPCP Pro 360MQ xi control card, but not both.
- Figure 4 shows the features of IPCP A SL models. Actual models have either a remote LAN port or an IPCP Pro 360MQ xi control card, but not both.
- The model with an amplified output has a 4-pole stereo port shown in figure 4.
- The number of inputs, outputs, and DTP3 I/O ports vary depending on the model.
- The models with ShareLink Pro have two additional LAN ports and a USB 5 Gbps port (see [figure 13](#) on page 20 for details on the ShareLink Pro ports).

Video Input and Output Connections

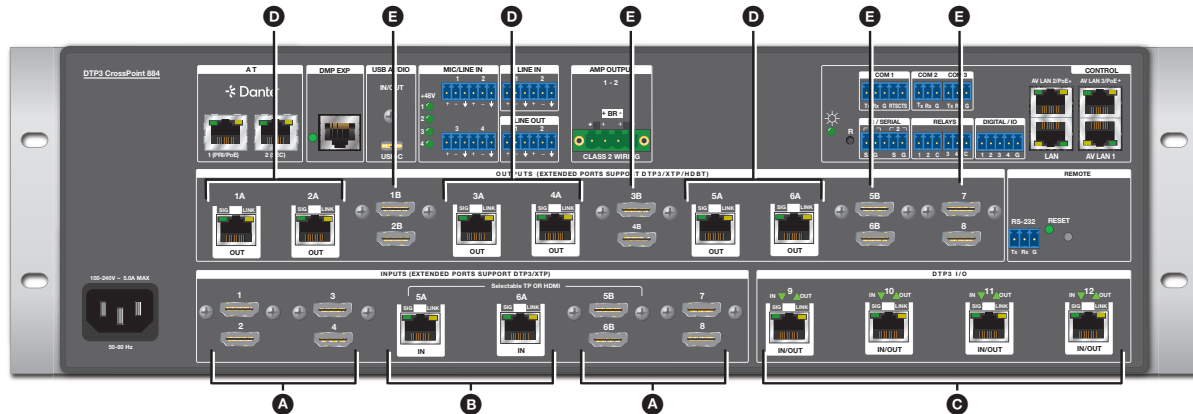


Figure 5. Video and TP Input and Output Connections

- A HDMI inputs** — Connect HDMI digital video sources into the matrix switcher via these HDMI inputs. These inputs can also accept DVI video with appropriate adapters (see [Secure HDMI Connectors](#) on page 24 to use the LockIt Cable Lacing Bracket to secure the connectors to the HDMI ports to the DTP3 CrossPoint).
- B TP inputs** — Connect STP cables between compatible Extron DTP3 or DTP transmitting devices or XTP matrix switchers and these RJ-45 ports. See [RJ-45 Connectors](#) on page 22 to wire the connectors.
- C DTP3 I/O ports and LEDs** — Connect STP cables between compatible Extron DTP3 or DTP transmitting devices or XTP matrix switchers and these RJ-45 ports can be configured as an input or an output. The default configuration is input. Configure these ports via PCS (see [Product Configuration Software](#) starting on page 76).

The LEDs above the port indicate whether the port is configured as an input or an output (IN or OUT). See [RJ-45 Connectors](#) to wire the connectors.

ATTENTION:

- Do not connect this port to a computer data or telecommunications network.
- Ne connectez pas cet appareil à un réseau de télécommunications ou de données informatiques.
- Preconfigure remote power on the unit via SIS commands BEFORE connecting the appropriate device to the TP connector. Failure to comply can damage the endpoint.
- Configurez préalablement l'alimentation à distance sur l'unité via des commandes SIS AVANT de connecter l'appareil adapté au connecteur paires torsadées. Le non-respect de cette procédure pourrait endommager le point de connexion.

NOTE: Remote power is disabled when changing the I/O port from input to output or output to input. Reconfigure remote power after the change.

- D TP outputs** — Connect STP cables between these RJ-45 ports and compatible Extron DTP or DTP3 receivers, XTP matrix switchers, or HDBaseT-enabled devices (see [RJ-45 Connectors](#) to wire the connector and the **Attention** above). The signal output on the TP (A) output is duplicated on HDMI (B) outputs.
- E HDMI outputs** — Connect HDMI cables between these ports and HDMI video displays (see [Secure HDMI Connectors](#) to use the LockIt HDMI Cable Lacing Bracket to secure the connectors to the DTP3 CrossPoint).

Audio Input and Output Connections

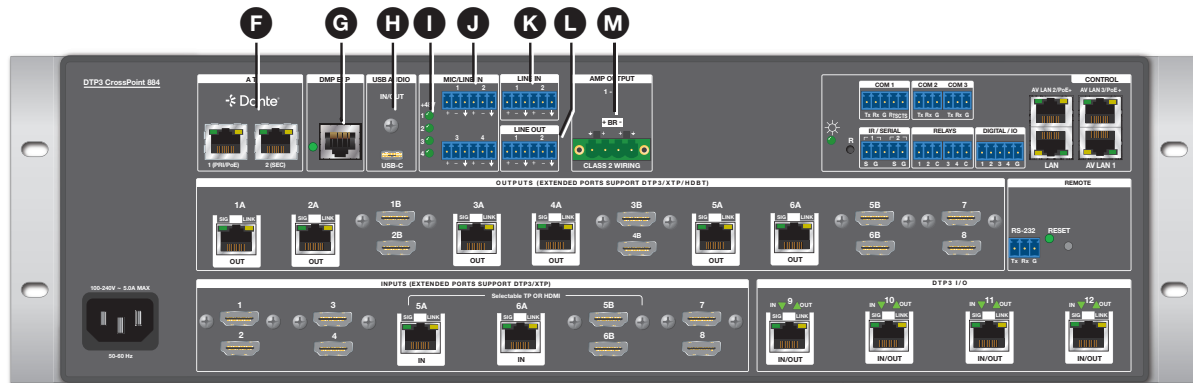


Figure 6. Audio Input and Output Connections and Indications

- F Dante AT ports** — The AT expansion bus uses Dante protocol for digital audio networking and allows DTP3 CrossPoints to connect with other Dante-enabled devices to form a larger matrix (see [RJ-45 Connectors](#) on page 22 to wire connectors and [Dante Controller](#) starting on page 95).

The 2-port switch can be configured for redundant Dante configuration. In redundant configuration, audio traffic is duplicated. Port 1 is the primary switch (PRI), and Port 2 is the secondary switch (SEC).

G DMP EXP port and LED —

- Expansion port** — Connect a DMP EXP-enabled device to this RJ-45 port for a digital audio connection using Extron proprietary protocol. A shielded 1-foot cable is included with DMP Plus Series processors. Just connect the two devices and see the selected DMP User Guide for configuration.
- Link LED** — Lights to indicate that the port is connected to a compatible device.

- H USB Audio input/output** — Connect a USB-C cable to deliver a maximum configuration of 3x3 (stereo) channel audio interface to a host PC, using either Mac or PC drivers. Installation of drivers not needed.

- I +48 V (phantom power) LEDs** — Light to indicate that +48 V phantom power is applied to the associated mic/line inputs.

- J Mic/Line inputs 1 through 4** — Connect mono balanced or unbalanced microphone or line level sources to these four 3-pole, 3.5 mm captive screw ports (see figure 7 for wiring).

- K Line In inputs 1 and 2** — Connect up to two balanced or unbalanced analog audio sources to these 6-pole, 3.5 mm captive screw ports.

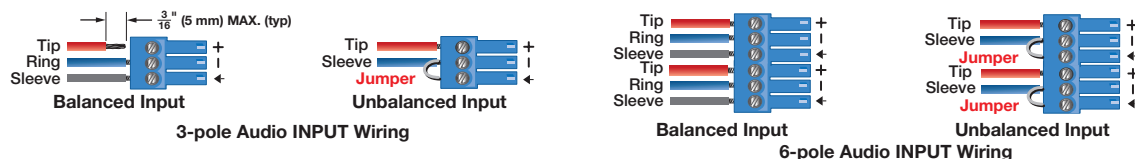


Figure 7. Audio Inputs Captive Screw Connector Wiring

ATTENTION:

- Condenser microphones require phantom power.
- Les microphones électrostatiques nécessitent une alimentation fantôme.
- Dynamic microphones do not need power.
- Les microphones dynamiques n'ont pas besoin d'alimentation.
- When a line level source is connected, be certain the +48 V phantom power is off (cleared).
- Lorsqu'une source de niveau ligne est connectée, soyez certain que l'alimentation fantôme +48 V est débranchée (enlevée).

- L Line Out outputs** (see [figure 6](#) on page 17) — Connect audio devices such as an audio amplifier or powered speakers to these 6-pole, 3.5 mm captive screw ports. These ports output unamplified, line level audio, whether it is tied from an analog input or de-embedded from an HDMI input (see figure 8 to wire the connectors).

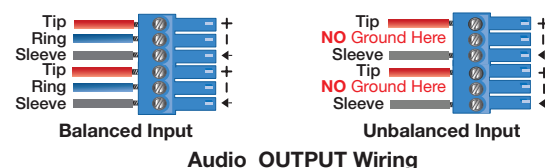


Figure 8. Audio Outputs Wiring

ATTENTION:

- For unbalanced audio, connect the sleeves to the ground contact. **DO NOT** connect the sleeves to the negative (-) contacts.
- Pour l'audio asymétrique, connectez les manchons au contact au sol. **NE PAS** connecter les manchons aux contacts négatifs (-).

By default, the audio ties follow the video ties. Audio breakaway allows you to select from any one of the audio input sources and route it separately from its corresponding video source. A tie with audio breakaway can only be performed **if**, in DSP Configurator PRO, the **Output Signal Source** is set to **From DSP** (see the selected DMP User Guide). Make Audio breakaway ties with PCS (see the *DTP3 CrossPoint Matrix Series PCS Help File*).

- M Amp Output (IPCP A models only)** — Connect passive speakers to this 4-pole, 5 mm captive screw port to play the amplified stereo audio routed to amplifier output 1-2.

- 2 x 100 watts @ 8Ω / 4Ω
- 1 x 200 watts @ 8Ω (Bridged)
- 1 x 200 watts @ 70 volts (Bridged)
- 1 x 200 watts @ 100 volts (Bridged)

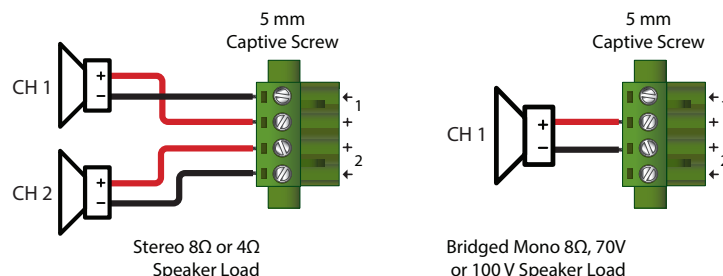


Figure 9. AMP Output Wiring

ATTENTION:

- Ensure the rated input voltage of the speakers matches the selected output voltage of the audio amplifier.
- Assurez-vous que la tension nominale d'entrée des enceintes correspond à la tension de sortie sélectionnée de l'amplificateur audio.

Control Connections

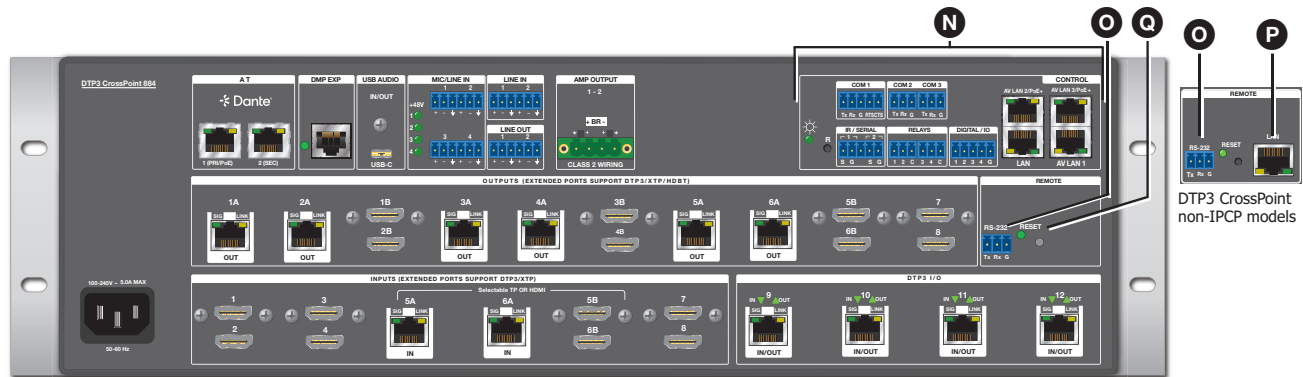


Figure 10. Control Connections

NOTE: Figure 10 shows features of all models. Actual models have either a LAN port (P) or a control processor (N), but not both.

- N IPCP Pro 360MQ xi control processor (IPCP A models only)** — The IPCP A models include a built-in IPCP control processor that can control and monitor a variety of external devices. The IPCP offers RS-232 and IR-based control, relays, and digital I/O controls. It also offers Ethernet-based control for some devices. Controllable devices include: Projectors or other displays, switchers, projector lifts, source devices, lights and screen motors.

NOTES:

- To connect to the IPCP Pro 360MQ xi via the rear panel LAN port, the default IP address is 192.168.253.250.
- To connect to the DTP3 CrossPoint via the rear panel AV LAN ports, the default IP address is 192.168.254.254.
- The default IP address for the AV LAN ports is 192.168.254.250.
- If the DTP3 Matrix IP address is changed, the AV LAN IP address (192.168.254.250) **MUST** be changed in Toolbelt to the same subnet as the DTP3 Matrix in order to connect through the LAN port.
- See [Connecting through the AV LAN and LAN Ports \(IPCP Models only\)](#) on page 21.

See the *IPCP Pro Q xi and xi Series User Guide* at www.extron.com to configure and operate the IPCP control processor.

- O Remote RS-232 port** — Connect a serial RS-232 device into the matrix switcher via this 3.5 mm, 3-pole captive screw port for remote control of the switcher (see figure 11 to wire the connector).

NOTES: The length of exposed wires is important. The ideal length is 3/16 inch (5 mm).

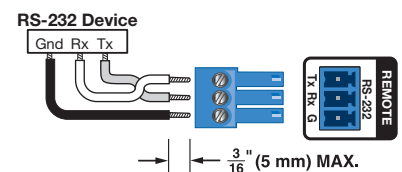


Figure 11. Remote RS-232 Connector Wiring

- P Remote LAN port (non-IPCP model)** — For IP control of the switcher, connect the matrix switcher to a PC or to an Ethernet LAN via this RJ-45 port (see [RJ-45 Connectors](#) on page 22 to wire the connector). Use a PC to control the networked switcher from anywhere in the world using any of the following methods:

- [SIS Configuration and Control](#) starting on page 36
- [Product Configuration Software](#) starting on page 76
- [DSP Configurator Pro](#) starting on page 86
- [Internal Web Pages](#) starting on page 102

Yellow Act LED — Blinks to indicate transmission of data packets on the RJ-45 port.

Green Link LED — Lights steadily to indicate that the switcher is properly connected to an Ethernet LAN.

NOTE: If it has not been changed, the default LAN port IP address is 192.168.253.250.

Reset and Power

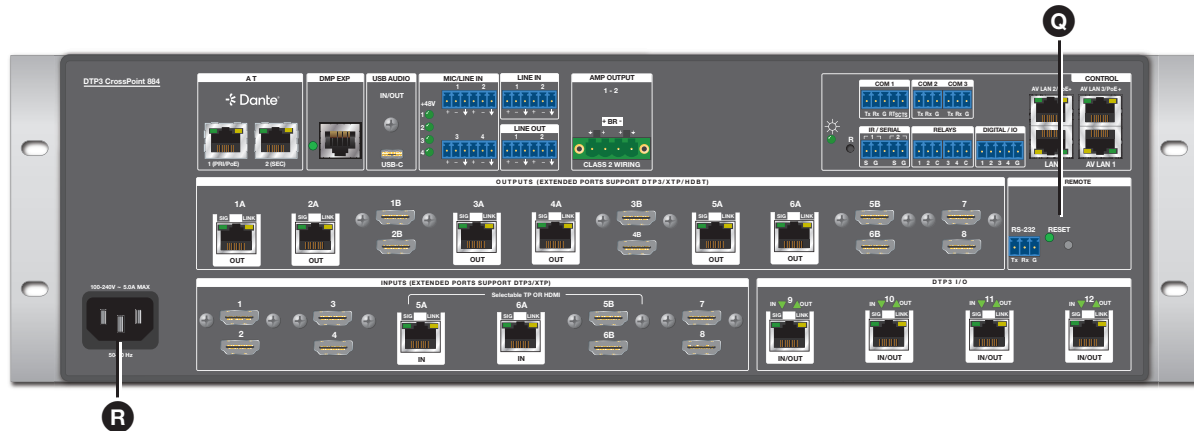


Figure 12. Switcher Reset Button and Power Inlet

Q CrossPoint switcher Reset button and LED —

NOTE: The factory configured passwords for all accounts on this switcher have been set to the serial number. In the event of a complete system reset, the password converts to the default, which is **extron**. New passwords must be configured to secure the device.

- **Reset button** — Initiates three levels of matrix switcher reset. For the different reset levels, press and hold the button while the switcher is running or while powering up the switcher (see [Resets](#) on page 33 for details).
- **Reset LED** — Indicates the level reset initiated on the matrix switcher.

- R Power inlet** — Insert a standard IEC power cord to connect the switcher to a 100 VAC to 240 VAC, 50-60 Hz power source.

ShareLink Pro Connections (SL Models Only)

- A LAN ports** — Use an Ethernet cable to connect a network switch, hub, router, or PC to these female RJ-45 ports.

NOTES:

- The ShareLink Pro LAN A port default setting is DHCP enabled, which uses the IP address provided by the DHCP server.
- If DHCP is disabled, and it has not been changed, the LAN A port default IP address is 192.168.253.249.
- If it has not been changed, the LAN B port default IP address is 192.168.252.249.
- If there is not a physical Ethernet connection on the LAN A when a reset is executed, the IP address and Subnet mask are 0.0.0.0.
- Default Subnet mask for both LAN ports is 255.255.255.0.
- Default Gateway IP address for both LAN ports is 0.0.0.0.

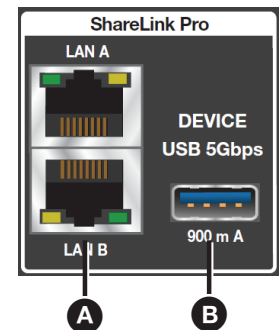


Figure 13. ShareLink Pro Connections

- B USB 5Gbps port** — Use a USB Type A cable to connect 3.0 speed devices such as cameras to this USB 3.0 SuperSpeed port.

See the *ShareLink Pro 2500 User Guide* at www.extron.com to configure and operate the ShareLink Pro module.

Connecting through the AV LAN and LAN Ports (IPCP Models only)

- The AV LAN and LAN ports on IPCP Pro 360M control card can be used to connect to the DTP3 CrossPoint, the ShareLink Pro module, and the IPCP Pro 360M control card itself.
- **To connect directly** to the DTP3 CrossPoint or ShareLink Pro module via the IPCP Pro 360M **AV LAN** ports use their IP addresses.
- **To connect indirectly** via the IPCP Pro 360M **LAN** port, for Extron software only, use the indirect connection in the software. For this connection the IP addresses and passwords are needed for the IPCP Pro 360M and the DTP3 CrossPoint or the ShareLink Pro module.

NOTES:

- If connected to the rear panel LAN port, the IPCP Pro 360M default IP address is 192.168.253.250.
- If connected to the rear panel AV LAN ports, the IPCP Pro 360M default IP address is 192.168.254.250.
- To connect to the DTP3 CrossPoint via the AV LAN ports, the default IP address is 192.168.254.254.
- To connect to the ShareLink Pro Module via the AV LAN ports, the default IP address is 192.168.254.248.
- To connect to the ShareLink Pro Module via the ShareLink Pro LAN A port, the default setting is DHCP enabled, which uses the IP address provided by the DHCP server. If DHCP is disabled, the default IP address is 192.168.253.249.
- To connect to the ShareLink Pro Module via the ShareLink Pro LAN B port, the default IP address is 192.168.252.249.
- The AV LAN IP address of the IPCP Pro 360M **MUST** be on the same subnet as the DTP3 CrossPoint and ShareLink Pro module in order to perform an indirect connection using Extron software through the **LAN** port. The subnet can be changed in Toolbelt.

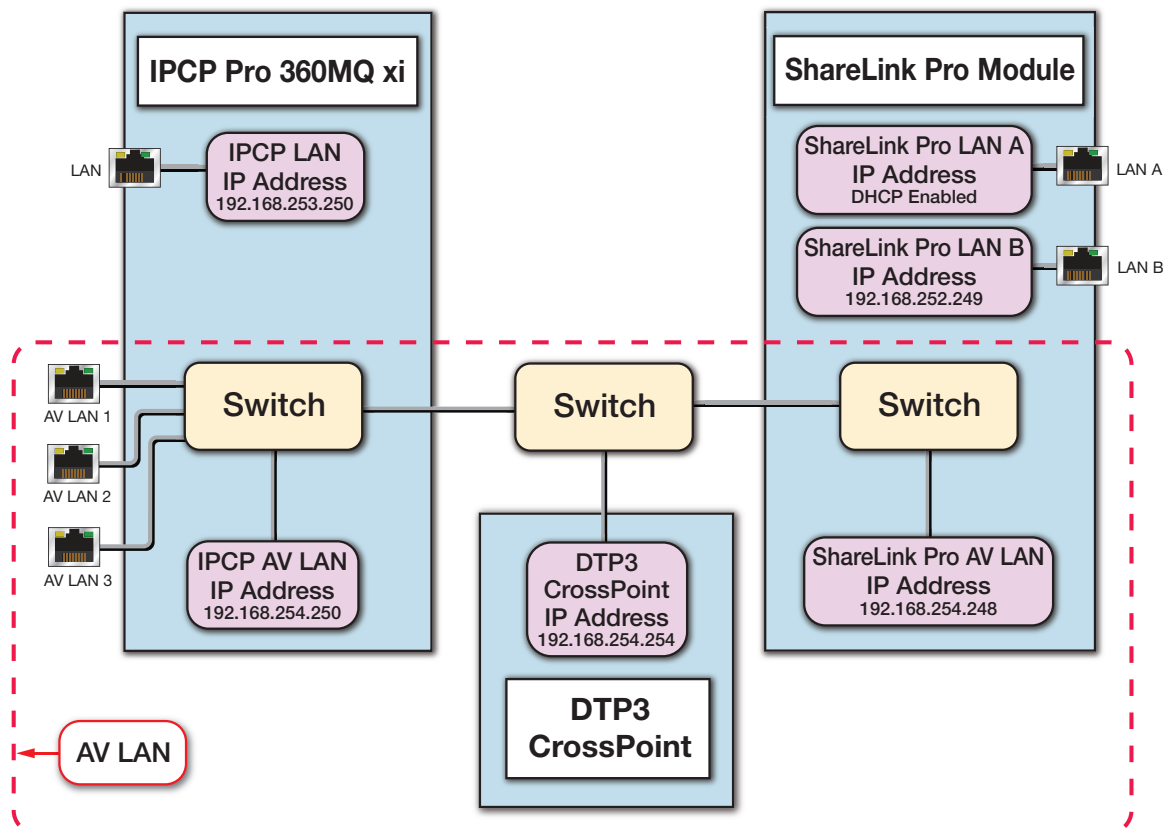


Figure 14. AV LAN and LAN Ports Connections

Detailed Pin Assignments and Wiring

RJ-45 Connectors

All of the RJ-45 ports; the TP input and output ports, the Expansion port, and the LAN (Ethernet) ports on the switcher or IPCP control processor use twisted pair cables. It is essential that the TP cables be the correct type and be properly terminated with the correct pinout. The TP cable can be terminated as a patch cable (straight-through) or a crossover cable (see figure 15). All these cables are terminated with RJ-45 connectors. All TP cables are limited to a length of 330 feet (100 m).

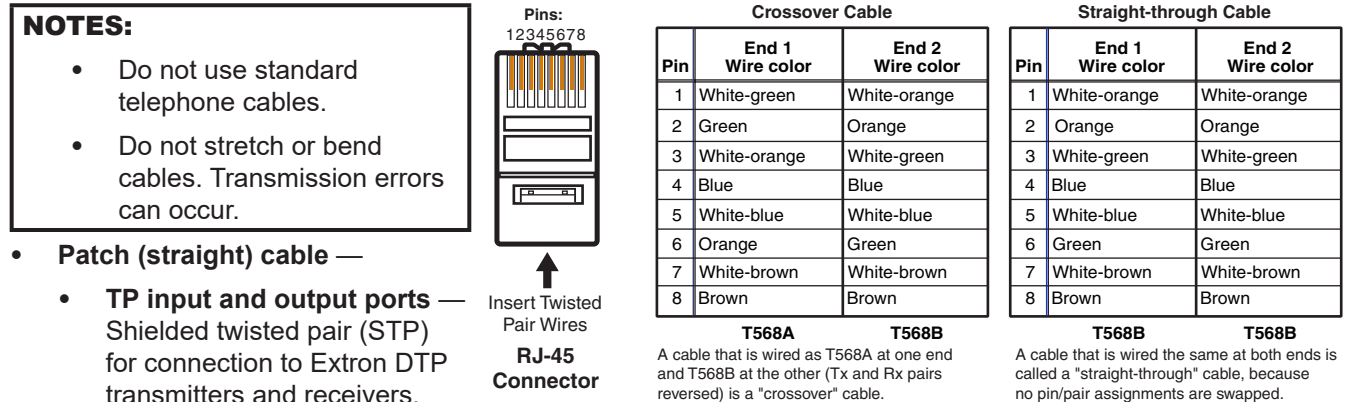


Figure 15. RJ-45 Connector and Pinout Tables

- **Patch (straight) cable** —
 - **TP input and output ports** — Shielded twisted pair (STP) for connection to Extron DTP transmitters and receivers, XTP matrix switchers, or HDBaseT-enabled devices.
 - **DMP EXP Expansion port** — STP for connection between the DTP3 CrossPoint matrix switcher and an Extron DMP 128 Plus. A shielded, terminated 1-foot cable is included with the DMP 128 Plus.
 - **LAN ports** — Unshielded twisted pair (UTP) or STP for connection of the LAN port to an Ethernet LAN or direct connection between the switcher and a computer.
- **Crossover cable** —
 - **LAN ports** — UTP or STP for direct connection between the DTP3 CrossPoint matrix switcher and a connected computer.

LAN ports

The LAN ports require CAT 3, CAT 5e, or CAT 6a, crossover or patch cables.

The cable used depends on network speed. The switcher LAN port supports both 10 Mbps (10Base-T — Ethernet) and 100 Mbps (100Base-T — Fast Ethernet), half-duplex and full-duplex Ethernet connections. TP inputs and outputs support 100Base-T only.

- **10Base-T** Ethernet requires CAT 3 UTP or STP cable at minimum.
- **100Base-T** (max. 155 Mbps) or 1000Base-T Fast Ethernet require CAT 5e UTP or STP cable at minimum.

For ports on an IPCP module, see the *IPCP Pro Q xi and xi Series User Guide* at www.extron.com to make all network connections and to configure and operate the control processor.

TP and Expansion ports

The TP input and output ports are compatible with Extron XTP DTP 22 SF/UTP cables, as well as CAT 5e, 6, 6a, and 7 shielded twisted pair (F/UTP, SF/UTP, and S/FTP) cable.

The Expansion port **requires** CAT 5e, 6, 6a, or 7 shielded twisted pair cable.

For the TP ports only —

ATTENTION:

- Do not connect these ports to a computer data or telecommunications network.
- Ne connectez pas cet appareil à un réseau de télécommunications ou de données informatiques.
- Do not use Extron UTP23SF-4 Enhanced Skew-Free AV UTP cable or STP201 cable to link the matrix switcher to Extron DTP or XTP products or HDBaseT-enabled devices.
- N'utilisez pas le câble audiovisuel Skew-Free UTP version améliorée UTP23SF-4 Extron ou le câble STP201 pour relier la grille de commutation à des produits XTP ou DTP, ou à des appareils équipés HDBaseT Extron.
- To ensure FCC Class A and CE compliance, STP cables and STP connectors are required.
- Afin de s'assurer de la compatibilité entre FCC Classe A et CE, les câbles STP et les connecteurs STP sont nécessaires.

Extron recommends using the following practices to achieve full transmission distances up to 330 feet (100 m) and reduce transmission errors.

- Use the following Extron XTP DTP 22 cables and connectors for the best performance:
 - **XTP DTP 22/1000** Non-Plenum 1000' (305 m) spool
 - **XTP DTP 22P/1000** Plenum 1000' (305 m) spool
 - **XTP DTP 22 Plug** Package of 10
- If you are not using XTP DTP 22 cable, Extron recommends using, at a minimum, 22 AWG, solid conductor, STP cable with a minimum bandwidth of 400 MHz.
- Terminate cables with shielded connectors to the TIA/EIA-T568B standard as straight-thru (patch) cables only (see [figure 15](#) on page 22).
- Limit the use of more than two pass-through points, which may include patch points, punch down connectors, couplers, and power injectors. If these pass-through points are required, use CAT 6 or 6a shielded couplers and punch down connectors.

NOTE: When using cable in bundles or conduits, consider the following:

- Do not exceed 40% fill capacity in conduits.
- Do not comb the cable for the first 65 feet (20 meters), where cables are straightened, aligned, and secured in tight bundles.
- Loosely place cables and limit the use of tie wraps or hook and loop fasteners.
- Separate twisted pair cables from AC power cables.

Secure HDMI Connectors

Follow these instructions to secure the HDMI and USB-C connectors to the unit with the LockIt Plus lacing brackets provided: (see figure 16).

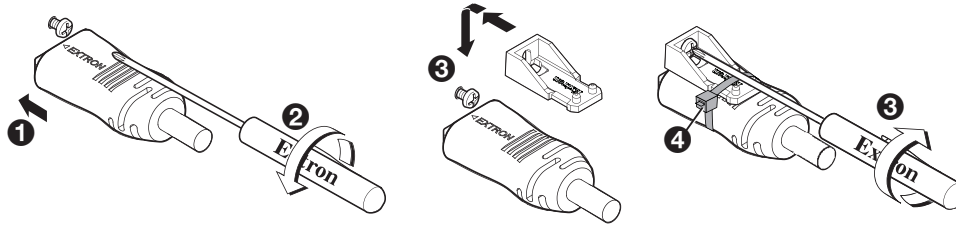


Figure 16. LockIt Lacing Bracket

1. **Plug in the Cable** – Connect the HDMI or USB-C cable to the port.
2. **Loosen the Screw** – Slightly loosen the mounting screw (do not remove it).
3. **Attach the Bracket** – Place the bracket over the screw and tighten it. Do not overtighten the connector mounting screw.
4. **Secure the Cable** – Tighten the tie wrap around the connector and bracket, and cut off the extra length.

Power

Apply power by connecting the power cord between the switcher and an AC source. The switcher performs a self-test that blinks the front panel button indicators red, green, and amber and then turns them off. An error-free power-up self-test sequence leaves all input, output, and control buttons either unlit or showing background illumination and the **I/O VIDEO** button and the **AUDIO** button lit.

When power is applied, the most recent configuration is retrieved. The previous presets remain intact.

If an error occurs during the self-test, the switcher locks up and does not operate. If the switcher locks up on power-up, call the Extron S3 Sales and Technical Support Hotline (see [contact information](#) on page 113 for the phone number in the regions of the world).

Enabling Power Save Mode

NOTE: The IPCP Pro 360MQ xi controller does not go into power save mode since it may be controlling things that are not AV related.

The DTP3 CrossPoint can be forced into a low power, standby mode to conserve power. The power save mode is enabled via PCS or SIS command (see [Power save](#) on page 44). In this mode, all non-essential hardware is shut down. Some of the non-essential hardware that is shut down includes:

- Front panel LEDs
- DTP3 and DTP remote power
- Scaler outputs
- Audio Amplifier

The DTP3 CrossPoint can be restored to full power mode via PCS or SIS command (see [Power save](#)), pressing any front panel button, or after a power cycle.

The average time it takes the DTP3 CrossPoint to wake up after a power save mode has been changed is as follows:

- From mode 1 — 50 to 60 seconds
- From mode 2 — 10 to 15 seconds

NOTE: The time can vary based on configuration, setup, source, and sink device connected.

Operation

This section describes the front panel operation of the DTP3 CrossPoint, including:

- [Front Panel Features](#)
- [Front Panel Operations](#)
- [RS-232 Insertion](#)
- [Remote Power](#)
- [Resets](#)
- [Troubleshooting](#)

Front Panel Features

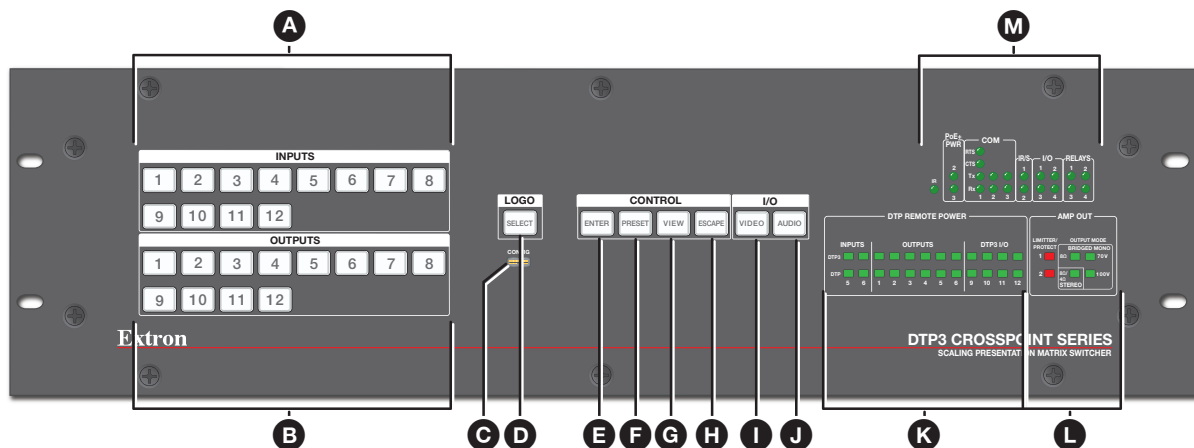


Figure 17. DTP3 CrossPoint 884 IPCP A Front Panel

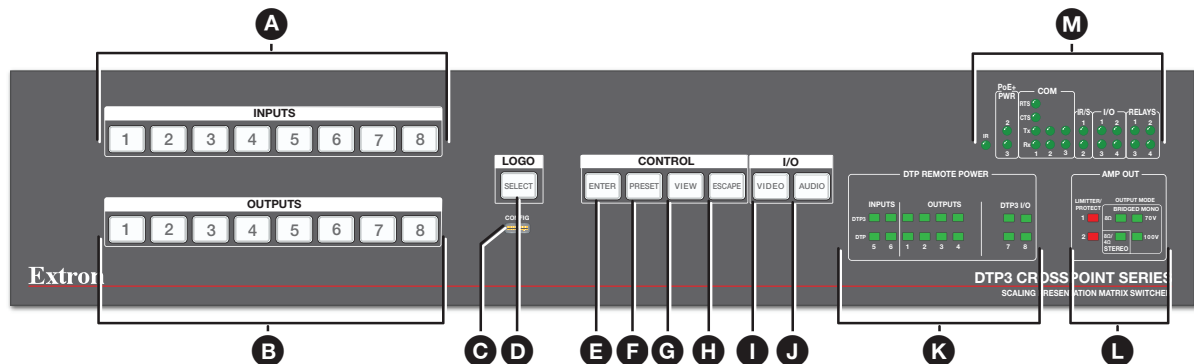


Figure 18. DTP3 CrossPoint 662 IPCP A SL Front Panel

- | | | |
|-----------------------------|------------------------|--|
| A Input buttons | F Preset button | K DTP3 Remote Power LEDs |
| B Output buttons | G View button | L AMP LEDs (ICP A models only) |
| C Configuration port | H Escape button | M IPCP LEDs (ICP A models only) |
| D Logo Select button | I Video button | |
| E Enter button | J Audio button | |

NOTE: The buttons blink or are fully lit when selected, depending on the operation.

Input and Output Buttons

- A Input buttons** (see [figure 17](#) and [figure 18](#) on page 25) — The input buttons have one primary function and five secondary functions.

Primary — Select and identify an input for creating ties or for audio level adjustment. The color of the button indicates the tie as follows:

- **Amber** — Video and audio tie
- **Green** — Video only tie
- **Red** — Audio only tie
- The button blinks to indicate it has been selected but not confirmed as a tie.
- The button lights steady to indicate a current tie.

Secondary —

- Select a preset to recall. The lit button indicates the saved preset.
- **Input 2 with Output 2 button** — Select input audio configuration mode. Display input audio configuration.
- **Input 4 with Output 4 button** — Select control insert configuration mode.
- **Input 7 and Input 8 only** — Display control insert configuration for input.
- **Input 1 and Input 2 only** — Toggle background button illumination on and off.

- B Output buttons** — The output buttons have one primary function and four secondary functions:

Primary — Select and identify an output for ties. The color of the button indicates the tie as follows:

- **Amber** — Video and audio tie
- **Green** — Video only tie
- **Red** — Audio only tie
- The button blinks to indicate it has been selected but not confirmed as a tie.
- The button lights steady to indicate a current tie.

Secondary —

- Select a preset.
- **Output 2 with Input 2 button** — Select input audio configuration mode.
- **Output 4 with Input 4 button** — Select control insert configuration mode.
- **Output 3 and Output 4 only** — Select and display control insert configuration for output.

Configuration Port

- C Configuration port** — This USB-C port is used for remote control of the switcher, similarly to the rear panel Remote RS-232 port. Connect to a host computer for configuration using SIS commands via an SSH client and IP address 203.0.113.22 and port 22023.

NOTE: The USB-C port connection and rear panel Remote port connection can both be active at the same time. If commands are sent simultaneously, the command that reaches the processor first is handled first.

Logo Button

- D Logo Select button** — The **LOGO SELECT** button has one function, to select and identify the Logo mode. A logo can be applied to or removed from one or more of outputs.

NOTES:

- The switcher has memory space for 16 logos.
- The name can be 16 characters (A to Z and 0 to 9) without spaces and no special characters.
- Logos can be formatted as PNG, BMP, JPEG, and GIF.
- Logos are created and saved using PCS (see the *DTP3 CrossPoint Series PCS Help File*).

Control Buttons

- E Enter button** (see [figure 17](#) and [figure 18](#) on page 25) — The **ENTER** button has two primary functions:
- Primary** —
- Saves a configuration or other changes made on the front panel.
To create a simple configuration:
 1. Specify video, audio, or both (see I/O buttons **I** and **J**).
 2. Press the desired input button (**A**).
 3. Press the desired output button or buttons (**B**).
 4. Press the **ENTER** button.
 - Before **ENTER** is pressed, it blinks to indicate that a potential tie or other change has been created but not saved. All buttons turn off after pressing **ENTER** to confirm the tie.
- F Preset button** — The **PRESET** button has one primary function and one secondary functions:
- Primary** — Initiates Recall Preset mode to activate a previously-defined preset and indicates the selection.
- Secondary** — With the **VIEW** and **ESCAPE** buttons, selects front panel security Lock mode 2 or toggles between mode 0 (unlocked) and mode 2.
- G View button** — The **VIEW** button has one primary function and three secondary functions:
- Primary** — Select and indicates View-only mode, to display the current configuration.
- Secondary** —
- With the **ESCAPE** button, blinks to indicate Input Audio Configuration mode.
 - With the **PRESET** button and **ESCAPE** button, selects between front panel locks (mode 2 and mode 0).
 - With the **ESCAPE** button, selects between front panel locks (mode 2 and mode 1).
- H Escape button** — The **ESCAPE** button has one primary function and three secondary functions:
- Primary** — Cancels operations or selections in progress and resets the front panel button indicators and blinks once to indicate that the escape function has been activated.
- Secondary** —
- With the **VIEW** button, indicates Input Audio Configuration mode.
 - With the **PRESET** button and **VIEW** button, selects between front panel locks (mode 2 and mode 0).
 - With the **VIEW** button, selects between front panel locks (mode 2 and mode 1).

I/O Buttons

- I Video button** — The **VIDEO** button has one primary function and one secondary function:
- Primary** — Selects and deselects video for a configuration that is being created or viewed and lights green to indicate that video is available for configuring or for viewing.
- Secondary** — With the **AUDIO** button, indicates Control Insert Configuration mode and blinks.
- J Audio button** — The **AUDIO** button has one primary function and one secondary function:
- Primary** — Selects and deselects audio for a configuration that is being created or viewed and lights red to indicate that audio is available for configuration or viewing.
- Secondary** — With the **VIDEO** button, blinks to indicate Control Insert Configuration mode.

Control Processor Indications

- K DTP3 Remote Power LEDs** (see [figure 17](#) and [figure 18](#) on page 25) — These LEDs indicate the DTP3 remote power select status of the DTP3 inputs and outputs.
- L AMP LEDs (IPCP A model only)** — These LEDs light under the following circumstances:
 - **Bridged mono status LEDs** — Light green to indicate bridged mono audio signal is present.
 - **Stereo status LED** — Lights green to indicate a stereo audio signal is present.
 - **Limiter and protector status LEDs** — Light red when the output wiring is shorted together, audio clipping occurs, the LED of the corresponding channel blinks once per clip occurrence, and an amplifier channel overheats, the corresponding LED lights. The LEDs do not light after the amplifier recovers from the overheated condition.
- M IPCP LEDs (IPCP A model only)** — The IPCP models include a built-in IPCP control processor that can control and monitor a variety of external devices. The IPCP control processor displays its operational status on the front panel (see the *IPCP Pro Q xi and xi Series User Guide* at www.extron.com to interpret the indications of the IPCP control processor).

Front Panel Operations

NOTE: The CrossPoint front panel must be in executive mode 0 (unlocked) to perform front panel operations. See **Setting Front Panel Security Lockouts** to unlock the front panel if needed.

The DTP3 CrossPoint can be configured and operated using the front panel buttons.

The following sections detail operations and some sample procedures for the following actions:

- **Setting Front Panel Security Lockouts**
- **Backlight Button Illumination** (see page 28)
- **Making and Breaking Ties** (see page 29)
- **Viewing Ties and the Configuration** (see page 30)
- **Recalling Presets** (see page 30)
- **Assigning and Unassigning Logos** (see page 31)

Setting Front Panel Security Lockouts

The front panel can be locked to stop any front panel configuration or unlocked to allow partial or full access. The following modes are available:

- **Unlock mode 0** — The front panel is completely unlocked.
- **Lock mode 1** — All changes are locked from the front panel (except for setting Lock mode 2). Some functions can be viewed.
- **Lock mode 2** — Advanced features are locked and can be viewed only. Basic functions are unlocked.

To toggle between 0 and 1:

Press and hold the **ENTER** and **ESCAPE** buttons for 3 seconds. The **PRESET** and **VIEW** LEDs flash two times to indicate the change.

NOTE: The switcher is shipped from the factory in Lock mode 2.

Backlight Button Illumination

The buttons on the front panel can be set to provide amber background illumination at all times or the background illumination can be turned off. To toggle the background illumination on or off, press and hold the **Input 1** and **Input 2** buttons for 3 seconds.

Making and Breaking Ties

NOTES:

- Only one video input and one audio input can be tied to an output.
- If a tie is made between an input and an output, and the selected output was previously tied to another input, the older tie is broken in favor of the newer tie.
- If an input with no tie is selected, only the button for the selected input lights.
- When the **VIDEO** button and the **AUDIO** button are lit, if an input with an audio tie but no video tie is selected, the button for the input and the button for the output light the appropriate color (amber, green, or red).
- As each input and output is selected, the associated output button blinks the appropriate color to indicate a tentative tie. Buttons for outputs that were already tied to the input light the appropriate color steadily. Outputs that are already tied can be left on, along with new blinking selections, or toggled off by pressing the associated output button.

To make ties using the front panel buttons:

1. Press the **ESCAPE** button to clear any input button indicators, output button indicators, or control button indicators that may be lit.
2. Press the **VIDEO** button and **AUDIO** button as necessary to select video, audio, or both for configuration.
3. Press the desired input and one or more outputs by pressing the input and output buttons.
 - Input buttons and output buttons light or blink:
 - **Amber** to indicate video and audio ties
 - **Green** to indicate video only ties
 - **Red** to indicate audio only ties
 - To indicate potential ties, output buttons blink the appropriate color when an input is selected.
 - To indicate current ties, output buttons light steadily the appropriate color when an input is selected.
 - To clear unwanted outputs, press and release the associated lit output buttons. To indicate potential unties, output buttons blink the appropriate color when an output is deselected but not untied from the input.
4. Press and release the **ENTER** button to accept the tie or to break an existing tie.
5. Repeat steps 1 through 4 to create or clear additional ties until the desired configuration is complete.

To remove ties using the front panel buttons:

1. Press **ESCAPE** to clear any pending **INPUT**, **OUTPUT**, or **CONTROL** buttons.
2. Press and release a desired **INPUT** button, and that button lights. The **OUTPUTS** tied to that **INPUT** light to show the current ties.
3. Press and release an **OUTPUT** button that indicates a connection, and that button turns off. The other **OUTPUTS** tied to that input remain lit.
4. Press and release the blinking **ENTER** button to save the new configuration. The **INPUT**, **OUTPUTS**, and **ENTER** buttons turn off.

Viewing Ties and the Configuration

The current configuration can be viewed using the front panel buttons. The View-only mode prevents inadvertent changes to the current configuration.

NOTES:

- To see all ties in the current configuration, press and release each input and output button, one at a time, for the I/O select button selected.
- When entering the view-only mode, the output buttons turn on for all outputs without ties. Alternatively, when an output button is pushed that has no tie, the output buttons turn on for all outputs without ties.
- In view mode, when an output is muted, the output button blinks continuously in green.

View the current configuration as follows:

1. Press the **ESCAPE** button to clear any input button indications, output button indications, the LOGO SELECT button, or control button LEDs that may be lit.
2. Press and release the **VIEW** button. **VIEW** lights green. All of the buttons light for outputs that are **not** tied as follows:
 - **Amber** — Indicates no video and audio ties.
 - **Green** — Indicates no video only ties (audio ties exist).
 - **Red** — Indicates no audio only ties (video ties exist).

If an output button that has no ties is pressed, the output buttons light for all outputs without ties.

3. Press the **VIDEO** button, **AUDIO** button, or both to select video, audio, or both to view.
4. Select the input or output buttons to view their ties.

Recalling Presets

A full or partial configuration, plus all signal processor settings can be saved as 1 of 16 presets. Presets are created via PCS or DSP Configurator PRO **only** (see the *DTP3 CrossPoint Matrix Series PCS Help File* and the *DSP Configurator PRO Help File*). When a preset is recalled from memory, it becomes either the current configuration or part of the current configuration, with all of the associated saved audio settings.

Fourteen presets are assigned to the input and output buttons and can be recalled from the front panel. A preset can also be recalled using SIS commands via Ethernet, USB, or RS-232 control.

NOTES:

- Presets **cannot** be viewed from the front panel unless they are recalled as the current configuration. Presets can be viewed using Extron PCS control program.
- The current configuration and all presets are stored in non-volatile memory. If power is removed and restored, the current configuration is still active and all presets are retained.
- When a preset is recalled, it replaces the current configuration, which is lost unless it is also stored as a preset. The recalled preset overwrites all of the current configuration ties in favor of the recalled preset configuration ties.
- When preset mode is active, the input and output buttons are lit for all previously saved presets.

Recalling a preset

Recall a preset to become the current configuration:

1. **Clear all selections** — Press and release the **ESCAPE** button.
2. **Select Recall Preset mode** — Press and release the **PRESET** button.
3. **Select the preset** — Press and release the input or output button for the desired preset.
4. **Recall the preset** — Press and release the **ENTER** button. The configuration stored in the selected memory location is now the current configuration and can be viewed in the View-only mode.

Assigning and Unassigning Logos

A logo is a bitmap image that can be superimposed on top of a scalable output.

NOTES:

- The switcher has memory space for 16 bitmap logos.
- See the *DTP3 CrossPoint Matrix Series PCS Help File* to create and save Logos.

Assigning logos

Display a logo on one or more scalable outputs as follows:

1. Press the **ESCAPE** button to clear any button indications that may be lit.
2. **Select Logo mode** — Press and release the **LOGO SELECT** button.
3. **Select the logo file** — Press and release the input button for the desired logo.
4. **Assign the logo** — Press and release one or more of the desired logo.

Muting and Unmuting an Output from the Front Panel

Video, audio, or both can be muted using the **Escape**, **View** and **I/O** buttons.

1. Press the **Escape** button.
2. Press and release the **View** button.
3. Select the I/O signal type by selecting the **Video** button, **Audio** button, or both the **Video** and **Audio** buttons.
 - **Mute an Output** — Press and hold the desired output button for two seconds. The button blinks indicating mute is active.
 - **Unmute an Output** — Press and hold a blinking output button until the button stops blinking.

NOTE: When outputs are mirrored, both outputs are muted when activating mute. Alternately, when outputs are mirrored, both outputs are unmuted together.

RS-232 Insertion

Open an associated UART port to send serial data to an endpoint captive screw port on an SSH connection. The control system connects via LAN port to the DTP3 CrossPoint Matrix LAN port. The device being controlled connects to the receiver RS-232 captive screw port. The user must configure the endpoint for Ethernet to Captive Screw RS-232 Insertion via PCS (see the *DTP3 CrossPoint Matrix Series PCS Help File*).

Example of an Ethernet to captive screw system (see [figure 19](#) on page 32):

- On the DTP3 CrossPoint, configure the RS-232 via PCS and assign the UART ports.
- On the DTP3 transmitter and receiver, configure the RS-232 Insertion via PCS.
- The TLP Pro 725M is connected to the DTP3 CrossPoint Ethernet AV LAN PoE+ port.
- The TLP Pro 725M then sends a control command through the receiver DTP port, to the receiver captive screw port, to the display to take some action.
- The response from the display is sent back to the control system.

Extron
DTP3 CrossPoint
Scaling Presentation
Matrix Switcher

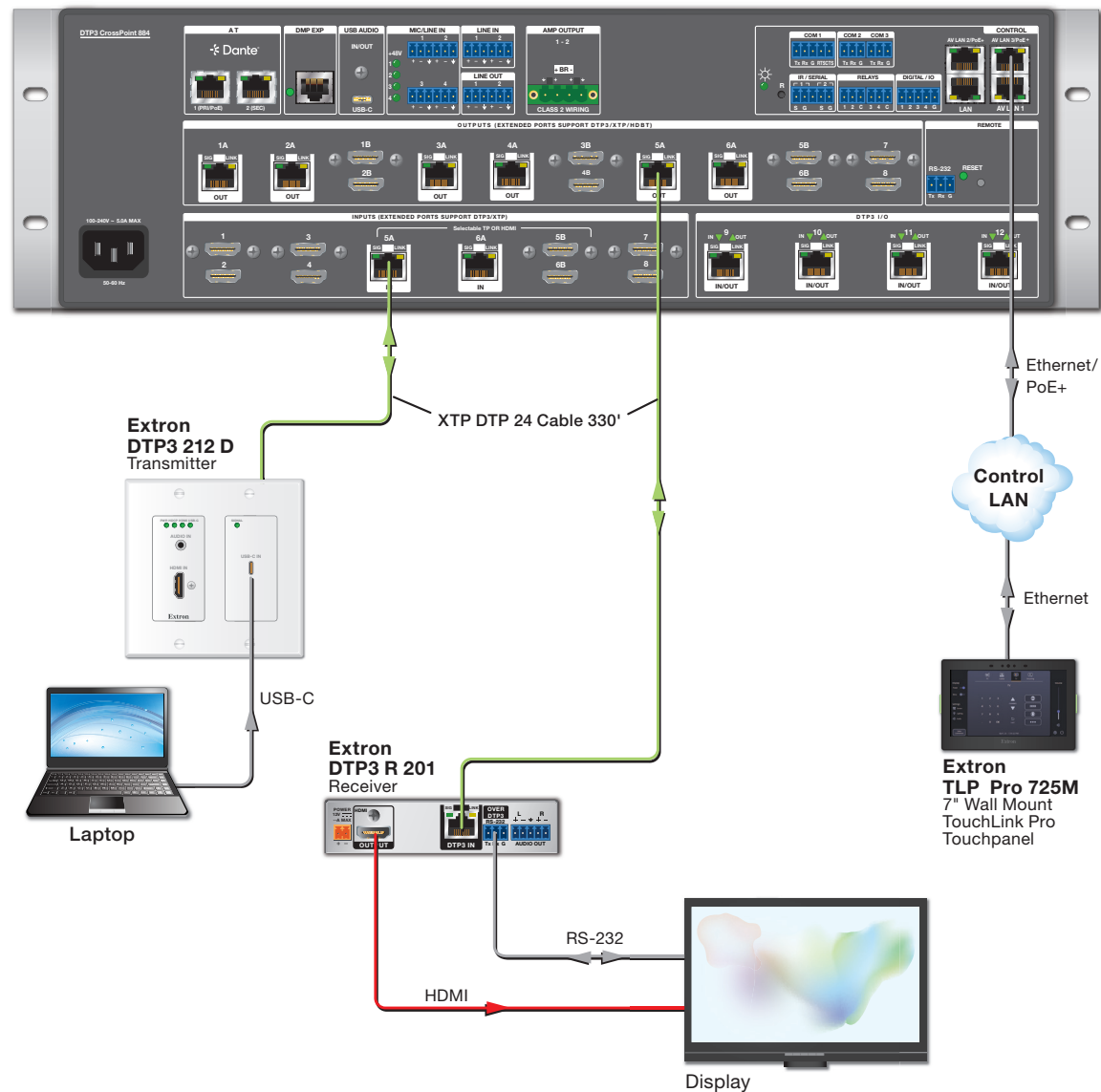


Figure 19. Typical Ethernet to RS-232 Insertion Configuration

Port number

For Ethernet to RS-232 insertion, the insertion port number must be stated from a specific starting point. This number is entered as the Telnet or SSH port number when you establish communication with the insertion port.

The user can change the starting point port number for the UART addressing via PCS. All other address numbers then follow in numerical order. Default start point is 2001.

DTP3 CrossPoint 884 Insert UARTs					
TCP Port # (SSH Port #)	Serial Port #	Port Description	TCP Port # (SSH Port #)	Serial Port #	Port Description
2001	01	Input 5	3001	07	Output 1A
2002	02	Input 6	3002	08	Output 2A
2003	03	DTP3 I/O input 9	3003	09	Output 3A
2004	04	DTP3 I/O input 10	3004	10	Output 4A
2005	05	DTP3 I/O input 11	3005	11	Output 5A
2006	06	DTP3 I/O input 12	3006	12	Output 6A
			3007	13	DTP3 I/O output 9
			3008	14	DTP3 I/O output 10
			3009	15	DTP3 I/O output 11
			3010	16	DTP3 I/O output 12

DTP3 CrossPoint 662/642/622 Insert UARTs					
TCP Port # (SSH Port #)	Serial Port #	Port Description	TCP Port # (SSH Port #)	Serial Port #	Port Description
2001	01	Input 5	3001	05	Output 1A
2002	02	Input 6	3002	06	Output 2A
2003	03	DTP3 I/O input 7	3003	07	Output 3 (DTP3 662 only)
2004	04	DTP3 I/O input 8	3004	08	Output 4 (DTP3 662 only)
			3005	09	DTP3 I/O output 7
			3006	10	DTP3 I/O output 8

Remote Power

NOTE: Remote power is disabled when changing the I/O port from input to output or output to input. Reconfigure remote power after the change.

The DTP3 ports can send power on the twisted pair cable and provide remote power to connected DTP3 endpoints. Remote power is configured via PCS as DTP (12V) or DTP3 (48V). The default is OFF.

The front panel LEDs indicate which power voltage is selected. When the DTP mode is set to XTP mode or HDBT mode, the remote power function is disabled and the front panel LEDs are not lit.

Resets

ATTENTION:

- Review the reset modes carefully. Using the wrong reset may result in unintended loss of flash memory programming, port reassignment, or a switcher reboot.
- Analysez minutieusement les différents modes de réinitialisation. Appliquer le mauvais mode de réinitialisation peut causer une perte inattendue de la programmation de la mémoire flash, une reconfiguration des ports ou un redémarrage de la grille de commutation.

The rear panel has a **Reset** button that initiates three resets. The **Reset** button is recessed, so use a small screwdriver, a pointed stylus, or a ballpoint pen.

NOTE: This section describes the functions of the switcher **Reset** button, **not** the IPCP control card **Reset** button. See the *IPCP Pro Q xi and xi Series User Guide* for reset details for the IPCP control card.

See the [Reset Modes](#) table on page 34 for a summary of the modes.

NOTES:

- The reset modes listed below close all open IP and Telnet connections and close all sockets. Also, the following modes are separate functions, not a continuation from mode to mode.
- In the event of a complete system reset, the password converts to the default, which is **extron**. New passwords must be configured to secure the device.

Reset Modes			
Mode	Activation	Result	Purpose and Notes
Run Factory Boot Code	Hold down the recessed Reset button while applying power to the switcher. The LED blinks once.	The switcher reverts to the factory default firmware. Event scripting will not start if the switcher is powered on in this mode. All user files and settings (such as drivers, adjustments, and IP settings) are maintained.	Use to revert to the factory default firmware version if incompatibility issues arise with user-loaded firmware.
	NOTES: • Do not operate with the firmware version that results from this reset. After this reset, update the switcher firmware to the latest version. To use the factory default firmware, upload that version again (see Firmware Panel on page 107 for details). • If a firmware update is not desired, or this reset was performed accidentally, cycle power to the switcher to return to the firmware version that was running before the reset.		
Reset Network Settings	Hold down the Reset button for about 6 seconds, until the Reset LED blinks once at 3 seconds and twice at 6 seconds. Then press and release Reset (<1 second) within 1 second. Nothing happens if the second momentary press does not occur within 1 second.	This reset: • Enables ARP capability. • Sets the IP address to the factory default. • Sets the subnet address to the factory default. • Sets the gateway address to the factory default. • Sets port mapping to the factory default. • Turns DHCP off. • Turn events off. The Reset LED blinks four times in quick succession during the reset.	Use to reset all IP settings back to factory default.
Full Factory Reset	Hold down the Reset button for about 9 seconds, until the Reset LED blinks once at 3 seconds, twice at 6 seconds, and three times at 9 seconds. Then press and release Reset (<1 second) within 1 second. Nothing happens if the second momentary press does not occur within 1 second.	Performs a complete reset to factory default (with the exception of the firmware): • Does everything Reset Network Settings does. • Resets all user modifiable configurations to default values, including real-time adjustments. • Resets all IP settings. • Deletes all user loaded files. The Reset LED blinks four times in quick succession during the reset.	Use to start over with configuration.

Performing a Run Factory Boot Code Reset

The hard reset function restores the switcher to the base firmware that it was shipped with. After a hard reset, events do not automatically start, but user settings and files are retained.

Perform a hard reset as follows:

NOTE: The hard reset restores the factory-installed firmware. The switcher reverts to the most recent firmware (the firmware that was running before the reset) the next time power is cycled **unless** a firmware update is performed before the power cycle.

1. If necessary, turn off power to the switcher.
2. Use a small screwdriver to press and **hold** the switcher (**not IPCP**) **Reset** button on the rear panel **while** applying AC power to the switcher.

Performing Network Settings Reset and Full Factory Reset

Perform a soft reset of the switcher as follows:

1. Use a small screwdriver to press and **hold** the switcher (**not IPCP**) **Reset** button on the rear panel until the Reset LED and the front panel **Video** and **Audio** buttons blink according to the selected reset: twice (network settings reset) or three times (full reset).
2. Release the **Reset** button and then immediately press and release the **Reset** button again. Nothing happens if the second momentary press does not occur within 1 second.

Troubleshooting

If problems occur while operating the switcher:

1. Ensure all devices are plugged in and powered on.
2. Check to see if one or more outputs are muted.
3. Ensure an active input is selected for output on the switcher.
4. Ensure the proper signal format is supplied.
5. Check the cabling and make corrections as necessary.
6. Call the Extron Sales and Technical Support Hotline if necessary (see the [contact information](#) on page 113 for the phone number in your region of the world).

SIS Configuration and Control

The matrix switcher can be remotely controlled, monitored, or configured with Simple Instruction Set (SIS) commands. This section describes the operation of the switcher via SIS commands, including:

- [Host Control Ports](#)
- [Host to Switcher Instructions](#)
- [Using the Command and Response Tables](#)
- [General SIS Command Symbol Definitions](#)
- [Command and Response Table for General SIS Commands](#)
- [DSP SIS Command Symbol Definitions](#)
- [Command and Response Table for DSP SIS Commands](#)
- [Object ID \(OID\) Number Tables](#)

Host Control Ports

Configure and control the DTP3 CrossPoint remotely via a host computer or other device (such as a control system) by connecting to the rear panel RS-232 port, LAN port, or the front panel USB Config port of the DTP3 CrossPoint via an SSH (Secure Shell) client on port 22023.

The rear panel Remote port and front panel Configuration port are independent of one another. A front panel USB port, rear panel RS-232 port, and all LAN ports can be active at the same time.

Rear Panel RS-232 Port

The DTP3 CrossPoint rear panel RS-232 port (see [figure 10](#), [C](#) on page 19) can be connected to a host device such as a computer running the DataViewer utility, or a control system. This port makes serial control of the switcher possible.

The default protocol for the port is as follows:

- 9600 baud
- No parity
- 8 data bits
- No flow control
- 1 stop bit

NOTE: The serial port can be configured to operate at the 9600, 19200, 38400, or 115200 baud rate, but Extron recommends leaving these ports at 9600 baud only.

Front Panel Configuration Port

The USB-C port is located on the front panel (see [figure 17](#) and [figure 18](#), [C](#) on page 25). Connect to a host computer for configuration using SIS commands via an SSH client and IP address 203.0.113.22 and port 22023 (see [Establishing a connection](#) on page 37 to connect to an SSH client).

NOTE: The IP address for the USB-C port cannot be changed.

Ethernet (LAN) Ports

The rear panel Ethernet ports (see [figure 10](#), [P](#) [non-IPCP model] or [N](#) [IPCP models]) on the CrossPoint can be connected to an Ethernet LAN or WAN. Communication between the switcher and the controlling device is via an SSH client using port 22023. The SIS commands and the actions of the switcher are identical to the commands and actions the switcher has when communicating with it via RS-232.

The Ethernet cable can be terminated as a straight-through cable or a crossover cable and must be properly terminated for the application (see [RJ-45 Connectors](#) on page 22).

Default IP addresses

To access the DTP3 CrossPoint switcher via the LAN port, or AV LAN port on the IPCP Pro 360MQ xi control card, the IP address for the unit is needed, as well as the subnet mask and the gateway address. If the addresses have not been changed, the defaults are:

	DTP3 CrossPoint	LAN 360 controller	AV LAN 360 controller
IP address	192.168.254.254	192.168.253.250	192.168.254.250
Subnet mask	255.255.255.0	255.255.255.0	255.255.255.0
Gateway address	0.0.0.0	0.0.0.0	0.0.0.0

NOTE: For IPCP models:

- The LAN port gives access to the built-in IPCP control processor.
- The AV LAN port gives access to the DTP3 CrossPoint.
- The additional AV LAN ports function as simple, multiport, unmanaged network switches to connect additional devices to the same network.
- For all control access information and other details for the IPCP Pro control processor, see the *IPCP Pro Q xi and xi Series User Guide* at www.extron.com.

ShareLink Pro IP addresses

To access the Sharelink Pro module via the ShareLink Pro LAN ports, the IP addresses for the unit are needed, as well as the subnet mask and the gateway address. If the addresses have not been changed, the defaults are:

	LAN A	LAN B	SL AV LAN
IP address	192.168.253.249	192.168.252.249	192.168.254.248
Subnet mask	255.255.255.0	255.255.255.0	255.255.255.0
Gateway address	0.0.0.0	0.0.0.0	0.0.0.0

NOTE: For IPCP SL models:

- The ShareLink Pro LAN ports give access to the built-in ShareLink Pro module.
- The ShareLink Pro LAN A port default setting is DHCP enabled, which uses the IP address provided by the DHCP server.
- The IPCP Pro 360MQ xi control card AV LAN ports give access to the ShareLink Pro module.

See the *ShareLink Pro 2500 User Guide* at www.extron.com to configure and operate via SIS commands.

Establishing a connection

Establish a network connection to a DTP3 CrossPoint matrix switcher via an SSH client:

1. Download the SSH client software to the PC connected to the LAN port of the base CrossPoint or the AV LAN port of the IPCP models.
2. Open the SSH software.
3. Enter the IP address of the matrix switcher in the **Host Name** or **IP address** field.

NOTES:

- If the local system administrators have not changed the value, see the table above for the factory-specified default IP addresses.
- If connecting via the front panel USB-C port, the IP address is 203.0.113.22.

4. Enter **22023** in the **Port** field.
5. The matrix switcher is password protected, so the appropriate administrator or user name and password must be entered.
 - a. Enter **admin** or user name.

b. Enter the password next to the **Password** prompt.

- If the login and password are correct, the matrix switcher responds with a copyright message including the copyright year, the name of the product, firmware version, part number, and the current date and time.
- If the login and password are incorrect, the login prompt returns. Enter the administrator or user name and password again.

NOTES:

- The matrix is shipped password-protected. The factory configured passwords for all accounts on this device have been set to the device serial number.
- In the event of a complete system reset, the passwords convert to the default, which is **extron**. New passwords must be configured to secure the device.
- On password-protected connections, there are two levels of protection: administrator and user. Administrators have full access to all switching capabilities and editing functions. Users can create ties, recall presets, set mutes, and view all settings with the exception of passwords.

Connection timeouts

The Ethernet link times out after a designated period of time of no communications. By default, this timeout value is set to 5 minutes.

NOTE: Extron recommends leaving the default timeout at 5 minutes and periodically issuing the SIS I command (see [Matrix status](#) on page 45) to keep the connection active. If there are long idle periods, Extron recommends disconnecting the socket and reopening the connection when another command must be sent.

Number of connections

A DTP3 CrossPoint switcher can have multiple TCP connections, including HTTP sockets and Telnet connections. When the connection limit is reached, the switcher accepts no new connections until some have been closed. No error message or indication is given that the connection limit has been reached. To maximize performance of an IP device, the number of connections should stay low and unnecessary open sockets should be closed.

Using Verbose Mode

SSH connections to a DTP3 CrossPoint switcher can be used to monitor for changes that occur on the switcher, such as SIS commands from other LAN sockets or a serial port. For a SSH session to receive change notices from the switcher, the session must be in verbose mode 2 or 3 (see SIS command [Verbose mode](#) on page 45). In verbose mode 2 and 3, the socket reports changes in messages that resemble SIS command responses.

Host to Switcher Instructions

The switcher accepts SIS commands through the serial port, USB-C config port, and the LAN port. SIS commands consist of one or more characters per command field. They do not require any special characters to begin or end the command character sequence. When a command is valid, the unit executes it and sends a response to the host device. Each switcher response to an SIS command ends with a carriage return and a line feed (CR/LF = ↵), which signals the end of the response character string. A string is one or more characters.

Switcher-Initiated Messages

When a local event such as a front panel operation occurs, the switcher responds by sending a message to the host. The switcher does not expect a response from the host, but the host program might request a new status.

The switcher initiates the following messages:

- (c) Copyright 20xx, Extron Electronics, DTP3 CrossPoint xxx, Vx.xx, 60-nnnn-nn␣ — On the Remote RS-232 port, or when it is first powered up on a newly connected Internet protocol (IP) port.
 - 20xx is the release year of the firmware.
 - xxx is the version number of the CrossPoint.
 - Vx.xx is the firmware version number.
 - 60-nnnn-nn is the switcher part number.
- Password:␣ — Immediately after the copyright message when connected using TCP/IP and the switcher is password protected. The switcher requires an administrator or user password before allowing commands to be entered. The password message response repeats until a valid password is entered.
- ␣Login Administrator␣ or ␣Login User␣ — When a correct password has been entered. If the user and administrator passwords are the same, the switcher defaults to administrator privileges.
- Qik␣ — When a front panel tie creation has occurred.
- Rprnn␣ — When a memory preset has been recalled from the front panel. nn is the preset number.
- Exen␣ — When the front panel security lockout (executive mode) is toggled on or off from the front panel. n is the executive mode: 0, 1, or 2.

Switcher Error Responses

When the DTP3 CrossPoint receives a valid SIS command, it performs the command and sends a response to the host device. If the DTP3 CrossPoint receives an invalid command or it contains invalid parameters, the switcher is unable to perform the command and returns an error response to the host. The error response codes are:

- E01 — Invalid input channel number (out of range)
- E10 — Invalid command
- E11 — Invalid preset number (out of range)
- E12 — Invalid output number (out of range)
- E13 — Invalid value (out of range)
- E14 — Invalid command for this configuration
- E17 — Invalid command for signal type
- E18 — System or command timed out
- E22 — Busy
- E24 — Privileges violation (Users have access to all view and read commands, and can create ties, recall presets, and set audio mutes)
- E25 — Device not present
- E26 — Maximum number of connections exceeded
- E28 — Bad filename or file not found
- E33 — Bad file type or size for logo assignment failure

NOTE: If the unit does not support or recognize the entered commands, no response is issued.

Using the Command and Response Tables

The [Command and Response Table for General SIS Commands](#) table starts on page 42. Symbols used in the table represent variables in the command and response fields. Command and response examples are shown throughout the table. The SIS commands are **not** case sensitive. The ASCII to HEX conversion table below is for use with the command and response table.

ASCII to Hex Conversion Table																Esc	1B	CR	0D	LF	0A
Space	20	!	21	"	22	#	23	\$	24	%	25	&	26	'	27						
(	28	)	29	*	2A	+	2B	,	2C	-	2D	.	2E	/	2F						
0	30	1	31	2	32	3	33	4	34	5	35	6	36	7	37						
8	38	9	39	:	3A	;	3B	<	3C	=	3D	>	3E	?	3F						
@	40	A	41	B	42	C	43	D	44	E	45	F	46	G	47						
H	48	I	49	J	4A	K	4B	L	4C	M	4D	N	4E	O	4F						
P	50	Q	51	R	52	S	53	T	54	U	55	V	56	W	57						
X	58	Y	59	Z	5A	[	5B	\	5C	]	5D	^	5E	_	5F						
`	60	a	61	b	62	c	63	d	64	e	65	f	66	g	67						
h	68	i	69	j	6A	k	6B	l	6C	m	6D	n	6E	o	6F						
p	70	q	71	r	72	s	73	t	74	u	75	v	76	w	77						
x	78	y	79	z	7A	{	7B		7C	}	7D	~	7E	DEL	7F						

Special Characters

The switcher accepts all alpha-numeric characters except | and “space”, as the name of the switcher, passwords, or locally created file names.

NOTES:

- For commands and examples of computer or device responses used in this guide, the character “0” is the number zero and “O” is the capital letter “o.”
- Only instances marked with a • character require a space. Any spaces between characters in the command and response tables are only inserted for ease of reading.
- Unless stated otherwise, SIS commands are not case sensitive.

General SIS Command Symbol Definitions

↵ = Carriage return and line feed

← = Carriage return (no line feed)

| = Pipe (can be used interchangeably with the ← character)

• = Space

Esc = Escape key

W = Can be used interchangeably with the Esc character

X1 = Input number 00 to max number of inputs (00 = untied input, valid for tie commands only)

X2 = Output number 00 to max number of outputs (00 = untied output, valid for tie commands only)

X3 = Audio input number See [Input Path OIDs](#) on page 58

X4 = Audio output number See [Output Path OIDs](#) starting on page 74

X5 = Video mute status 0 = Off (unmute) 1 = Mute video (A or B) 2 = Mute video and sync (A or B)

X6 = Mute status 0 = Unmute 1 = Mute

X10 = Analog audio input number 00 to max number of inputs

X13 = Analog audio output number A/V Outputs: 60100 thru 60123 Analog Outputs: 60124 thru 60127 USB1-3 : 60128 thru 60133
AT & EXP : 60136 thru 60151 AT : 60152 thru 60167

X15 = HDCP status (for inputs) 0 = No source connected 1 = Source is HDCP-compliant,
2 = Source is not HDCP-compliant

X16 = HDCP status (for outputs) 0 = No monitor connected,
1 = Monitor connected, not encrypted
2 = Monitor connected, HDCP encrypted

X17 = Off and On 0 = Off or disable 1 = On or enable (default)

X18 = Freeze video 0 = Off or disable (default) 1 = On or enable

X19 = Executive mode	0 = Unlock the front panel (default) 1 = Mode 1 (complete front panel lockout) 2 = Mode 2 (tie configuration and preset management only)
X20 = Set remote power	0 = Off (default) 1 = 12V 2 = 48V
X23 = Maximum video matrix size	Input x Output (Example: 8x12)
X24 = Scaler or global preset number	01 to 32
X25 = Video signal status	0 = No video signal at input 1 = Video input signal detected
X26 = Power supply voltage	Positive or negative voltage
X27 = Internal temperature	Degrees Fahrenheit and Celsius (Example: <i>xx.xxF • xx.xxC</i>)
X28 = Fan speed	Revolutions per Minute - RPM (Example: <i>xxx</i>)
X29 = Power supply status	0 = Power Supply inactive/not installed 1 = Power Supply active/installed 2 = Power Supply failed/installed
X30 = Power amplifier mode	0 = STANDBY 1 = 2 x 100W 4Ω or 8Ω stereo (default) 2 = 1 x 200W 8Ω bridged 3 = 1 x 200W @ 70V bridged 4 = 1 x 200W @ 100V bridged
X31 = Verbose mode	0 = Clear/None (Ethernet default) 1 = Verbose mode (RS-232 default) 2 = Tagged response for queries 3 = Verbose mode and tagged response for queries
X32 = Power save mode	0 = Power save OFF - device runs in full power mode (default) 1 = Power save ON - device enters a low power state that powers everything down including DTP remote power 2 = Power save ON (Partial) - device enters a partial low power state, maintaining DTP remote Power and Ethernet to RS-232 insert communication. 9 = Low power state due to over temp
X33 = Enable Telnet port 23	0 = Off (default) 23 = Telnet Port 23 enabled
X34 = Port number	Response is 5 digits with leading zeros (Example: 00000 or 00023)
X35 = Echo for SIS over SSH	0 = Off 1 = On (default)
X36 = Input port	5 and 6
X37 = Input connector type	1 = DTP3 (default) 2 = HDMI
X38 = DTP3 I/O port	9 to 12 (884) 7 and 8 (662/642/622)
X39 = DTP3 I/O port direction	1 = Assign input port type (default) 2 = Assign output port type

NOTE: Remote power is disabled when changing the I/O port from input to output or output to input. Reconfigure remote power after the change.

X41 = Subnet mask prefix	1 = Output is blocking HDCP video stream
X42 = IP address	Subnet is represented as a prefix value that represents the number of bits in the mask, such as 24. (<i>xxx.xxx.xxx.xxx</i>). Leading zeros in each field are optional in setting values and are suppressed in returned values.
X43 = Baud rate	300 – 15200 baud (9600 default)
X44 = Parity	Odd, even, none (default), Mark, Space (only the first letter required)
X45 = Data bits	7, 8 (default)
X46 = Stop bits	1 (default), 2
X47 = UARTs	1 = Endpoint 11 = DTP3 662/642/622 RS-232 Remote port 17 = DTP3 884 RS-232 Remote port
X48 = Input video signal status	0 = Not detected 1 = Detected
X49 = Scaler resolution	3-digit response with 0 padding (see Resolution table on page 48)
X50 = Aspect Ratio	1 = Fill (default) 2 = Follow
X51 = HDMI & DTP output audio select	0 = Original HDMI audio 1 = 2-CH Breakaway (default) 2 = None
X52 = Image reset	0 = Execute an image reset (Follows aspect setting) 1 = Image reset and fill the output raster 2 = Image reset and follow the input aspect ratio
X53 = Logo number	00 – 16 (00 = no logo, 0 = disable logo on selected output)
X54 = Input audio format	0 = None (audio input set to NONE, or set to LPCM-2Ch or Multi-Ch and no digital stream is present) 1 = LPCM-2CH (detected LPCM-2Ch audio in any "digital" or AUTO mode) 2 = LPCM-3CH+ or Bitstream (detected LPCM-3CH+ or Bitstream audio in "digital" or AUTO audio mode)

Command and Response Table for General SIS Commands

Command Function	SIS Command (Host to Unit)	Response (Unit to Host)	Additional description
NOTES: - Commands can be entered back-to-back in a string, with no spaces. For example: 1*1!02*03%02*03\$4*4!. - The quick multiple tie and tie input to all output commands activate all I/O switches simultaneously. - The matrix switchers support 1- and 2-digit numeric entries (1*1 or 02*02); responses are 2-digit.			
Output switching			
Tie input to output	X1 * X2 !	OutX2 • InX1 • All ←	Tie input X1 to output X2, all signals.
Tie input to output	X1 * X2 %	OutX2 • InX1 • Vid ←	Tie input X1 to output X2, video only.
Tie input to output	X3 * X4 \$	OutX4 • InX3 • Aud ←	Tie input X3 to output X4, audio.
Tie an input to all outputs			
Tie input to all outputs	X1 * !	InX1 • All ←	Tie video and audio input to all outputs.
Tie video input to all outputs	X1 * %	InX1 • Vid ←	
Tie audio input to all outputs	X1 * \$	InX1 • Aud ←	
Untie			
Untie all outputs	0 * !	In00 • All ←	
Untie input video and audio	0 * X2 !	OutX2 • In00 • All ←	Untie a particular output.
Untie an Input	X1 * 0 !	Out00 • InX1 • All ←	Untie an input from all outputs.
Quick tie			
Quick multiple tie	[Esc]+QX1 * X2 ! . . . X1 * X2 ! ←	Qik ← or Qik14 ←	Make multiple ties with one command. Qik14 responds back when part of the command is invalid or incorrect.
NOTE: The Quick tie applies to all I/O, audio expansion, Dante, or analog audio sections.			
View individual ties			
View follow-all tie	X2 ! Verbose mode 2/3	X1 ← OutX2 • InX1 • All ←	
NOTE: If the view follow-all tie command is sent to an output with a break-away tie, the switcher responds with an E13 error message.			
View video output tie	X2 % Verbose mode 2/3	X1 ← OutX2 • InX1 • Vid ←	Video input X1 is tied to output X2.
View audio output tie	X4 \$ Verbose mode 2/3	X3 ← OutX4 • InX3 • Aud ←	Audio input X1 is tied to output X2.
View ties			
View video current ties	[Esc]0*1*1VC ← Verbose mode 2/3	X1 ¹ • X1 ² • X1 ³ . . . X1 ¹² • Vid ← Vgp00 • OutX2 * X1 ¹ • X1 ² • X1 ³ . . . X1 ¹² • Vid ←	
View audio ties	[Esc]0*1*2VC ← Verbose mode 2/3	X3 ¹ • X3 ² • X3 ³ . . . X3 ¹² • Aud ← Vgp00 • OutX4 * X3 ¹ • X3 ² • X3 ³ . . . X3 ¹² • Aud ←	
KEY: X1 = Input number 00 to max number of inputs (00 = untied input, valid for tie commands only) X2 = Output number 00 to max number of outputs (00 = untied output, valid for tie commands only) X3 = Audio input number See Input Path OIDs on page 58 X4 = Audio output number See Output Path OIDs on page 74			
Set input connector type			
NOTE: When configuring the input connector type, the time for the new connection to take varies. The average time is around 8 seconds.			
Set input connector type	[Esc]X36 * X37 ITYP ←	ItypX36 * X37 ←	
View input connector type	[Esc]X36 ITYP ←	X37 ←	
KEY: X36 = Input port 5 and 6 X37 = Input connector type 1 = DTP3 (default) 2 = HDMI			

[illegible]

Command Function	SIS Command (Host to Unit)	Response (Unit to Host)	Additional description
DTP3 I/O configurable direction			
ATTENTION: - Remote power is disabled when changing the I/O port from input to output or output to input. Reconfigure after the change. - L'alimentation à distance est pas désactivée lors du changement de port d'E/S de l'entrée vers la sortie ou de la sortie vers l'entrée. Reconfiguration après ce changement.			
Set DTP3 I/O port direction mode	<code>[Esc]M[X38]*[X39]MPIO←</code>	<code>MpioM[X38]*[X39]←</code>	
View DTP3 I/O port direction mode	<code>[Esc]M[X38]MPIO←</code>	<code>[X39]←</code>	
View all	<code>[Esc]MPIO←</code>	<code>[X39]⁹[X39]¹⁰[X39]¹¹[X39]¹²←</code>	
	Verbose mode 2/3	<code>MpioM[X39]⁹[X39]¹⁰[X39]¹¹[X39]¹²←</code>	
KEY: <code>[X38]</code> = DTP3 I/O port 9 to 12 (884) 7 and 8 (662/642/622) <code>[X39]</code> = DTP3 I/O port direction 1 = Assign input port type (default) 2 = Assign output port type			
DTP remote power			
Set input remote power	<code>[Esc]I[X1]*[X20]RPWR←</code>	<code>RpwrI[X1]*[X20]←</code>	
View remote power setting	<code>[Esc]I[X1]RPWR←</code>	<code>[X20]←</code>	
Set output remote power	<code>[Esc]O[X2]*[X20]RPWR←</code>	<code>RpwrO[X2]*[X20]←</code>	
View remote power setting	<code>[Esc]O[X2]RPWR←</code>	<code>[X20]←</code>	
KEY: <code>[X1]</code> = Input number 01 to max number of inputs <code>[X2]</code> = Output number 00 to max number of outputs (00 = untied output, valid for tie commands only) <code>[X20]</code> = Set remote power 0 = Off (default) 1 = 12V 2 = 48V			
Power save			
Set power save mode	<code>[Esc]M[X32]PSAV←</code>	<code>PsavM[X32]←</code>	Set the power save mode to <code>[X32]</code> .
View power save setting	<code>[Esc]MPSAV←</code>	<code>[X32]←</code>	View the current power save mode.
KEY: <code>[X32]</code> = Power save modes 0 = Power save OFF - device runs in full power mode (default) 1 = Power save ON - device powers everything down including DTP remote power 2 = Power save ON (Partial) - partial low power state, maintaining DTP remote power, and Ethernet to RS-232 insert communication 9 = Low power state due to over temp (query/response only)			
Telnet port			
Set telnet port mode	<code>[Esc]Z[X33]PMAP←</code>	<code>PmapZ[X34]←</code>	
View telnet port mode	<code>[Esc]ZPMAP←</code>	<code>[X34]←</code>	
KEY: <code>[X33]</code> = Enable Telnet port 23 0 = Off (default) 23 = Telnet Port 23 enabled <code>[X34]</code> = Port number Response is 5 digits with leading zeros (Example: 00000 or 00023)			
Timeout Ethernet data port			
Set current port timeout	<code>[Esc]0*[X600]TC←</code>	<code>Pti0*[X600]←</code>	
View current port timeout	<code>[Esc]0TC←</code>	<code>[X600]←</code>	
KEY: <code>[X600]</code> = Timeout Number of seconds (each step = 10 seconds) before timeout on IP connections (1 to 65000) default = 30 (300 seconds)			
Echo for SIS over SSH (port 22023)			
NOTE: The echo setting is for the current connection only, and remains until the connection is closed. Apply after connection is established.			
Enable Echo	<code>[Esc]1ECHO←</code>	<code>Echo1←</code>	Returns command entered with response.
Disable Echo	<code>[Esc]0ECHO←</code>	<code>Echo0←</code>	Returns response only.
View	<code>[Esc]ECHO←</code>	<code>[X35]←</code>	
	Verbose mode 2/3	<code>Echo[X35]←</code>	
KEY: <code>[X35]</code> = Echo for SIS over SSH 0 = Off 1 = On (default)			

Command Function	SIS Command (Host to Unit)	Response (Unit to Host)	Additional description
IP address			
Set IP parameters all at once	[Esc]1*[X42]/[X41]*[X42]CISG ←	Cisg1*[X42]/[X41]*[X42]←	Set IP address, subnet mask, and gateway address to the default values and reboot with this single command.
View IP address	[Esc]1CISG ←	[X42]/[X41]*[X42]←	
KEY: [X41] = Subnet mask prefix Subnet is represented as a prefix value that represents the number of bits in the mask, such as 24. [X42] = IP address (xxx.xxx.xxx.xxx) Leading zeros are optional in setting values and are suppressed in returned values.			
Verbose mode			
NOTE: Verbose mode will revert back to default in the event of a power cycle or disconnecting from the Ethernet.			
Set verbose mode	[Esc][X31]CV ←	Vrb[X31]←	
View verbose mode	[Esc]CV ←	[X31]←	
KEY: [X31] = Verbose mode 0 = Clear/None (Ethernet default) 1 = Verbose mode (RS-232 default) 2 = Tagged response for queries 3 = Verbose mode and tagged response for queries			
Executive mode			
Set executive mode	[X19]X	Exe[X19]←	
View executive mode status	X	[X19]←	
KEY: [X19] = Executive mode 0 = Unlock the front panel (default) 1 = Mode 1 (complete front panel lockout) 2 = Mode 2 (tie configuration and preset management only)			
RS-232 comm settings			
Set serial port parameters	[Esc][X47]*[X43],[X44],[X45],[X46]CP ←	Cpn[X47]*Ccp[X43],[X44],[X45],[X46]←	
View Serial Port Parameters	[Esc][X47]CP ←	[X43],[X44],[X45],[X46]←	
KEY: [X43] = Baud rate 300 to 115200 (9600 default) [X44] = Parity odd even none (default) mark space (only the first letter required) [X45] = Data bits 7 8 (default) [X46] = Stop bits 1 (default) 2 [X47] = UARTS 1 = Endpoint 11 = DTP3 662/642/622 RS-232 Remote port 17 = DTP3 884 RS-232 Remote port			
Logo configuration			
NOTE: Logos and switch effects cannot be set independently on buffered outputs, so A and B outputs are not specified for these commands.			
Assign a logo to an output	[Esc]E[X2]*[X53]LOGO ←	LogoE[X2]*[X53]←	
Unassign a logo	[Esc]E[X2]*0LOGO ←	LogoE[X2]*0←	
View logo assignment	[Esc]E[X2]LOGO ←	[X53]←	
View all logo assignments	[Esc]ELOGO ←	[X53] ¹ •[X53] ² ...[X53] ¹² ←	
KEY: [X2] = Output number 1 to max number of outputs (00 = untied output, valid for tie commands only) [X53] = Logo number 00 - 16 (00 = no logo, 0 to disable logo on a selected output)			
Matrix status			
Information request	I	V[X23]X[X23]•A[X1]X[X3]←	
Verbose 2/3 mode		Info00•V[X23]X[X23]•A[X1]X[X3]←	
Request part number	N	60-nnnn-nn←	See the Extron website for numbers.
View Extron serial number	19I/i	Serial number←	
Verbose mode 2/3		Inf19*Serial number←	
View individual video input signal status	[Esc][X1]LS ←	[X25]←	
Verbose 2/3 mode		In[X1]•[X25]←	
View all video input signal status	[Esc]0LS ←	[X25] ¹ [X25] ² ...[X25] ⁿ ←	
Verbose 2/3 mode		In00•[X25] ¹ [X25] ² ...[X25] ⁿ ←	
KEY: [X1] = Input number 01 to max number of inputs [X3] = Audio input number See Input Path OIDs on page 58 [X23] = Maximum video matrix size 00 to max video matrix size (Input x Output [Example: 8x12]) [X25] = Video signal status 0 = No video signal at input 1 = Video input signal detected			

Command Function	SIS Command (Host to Unit)	Response (Unit to Host)	Additional description
Matrix status continued			
View power supply voltages, unit temperature, fan speeds, and power supply status	S Verbose 2/3 mode Example	$\boxed{X26} \bullet \boxed{X27} \bullet \boxed{X27} \bullet \boxed{X28}^1 \bullet \boxed{X28}^2 \bullet \boxed{X29} \leftarrow$ Sts00• $\boxed{X26} \bullet \boxed{X27} \bullet \boxed{X27} \bullet \boxed{X28}^1 \bullet \boxed{X28}^2 \bullet \boxed{X29} \leftarrow$ 12.06 104.00F 40.00C 750 750 1	
KEY: $\boxed{X26}$ = Power supply voltage Positive voltage $\boxed{X27}$ = Internal temperature Degrees Fahrenheit and Celsius (Example: xx.xxF • xx.xxC) $\boxed{X28}$ = Fan speed Revolutions per Minute - RPM (Example: xxx) $\boxed{X29}$ = Power supply status 0 = Power Supply inactive/not installed 1 = Power Supply active/installed 2 = Power Supply failed/installed			
DTP Scaler Functions — Output Configuration			
NOTE: For all scaler settings, the commands apply to output number only. For example, when issued to output 1, image resets output ports A and B simultaneously.			
Image reset			
NOTE: DTP3 I/O configurable ports are set to inputs by default. All reference to port A or B must be lower case. Input setting must use the following alphanumeric designation: 1, 2, 3, 4, 5a, 5b, 6a, 6b, 7, 8, 9, 10, 11, and 12.			
Execute	$\boxed{X2} \bullet \boxed{X52} \text{ A}$	Img $\boxed{X2} \bullet \boxed{X52} \leftarrow$	
KEY: $\boxed{X2}$ = Output number 1 to max number of outputs $\boxed{X52}$ = Image reset 0 = Execute an image reset (Follows aspect setting) 1 = Image reset and fill the output raster 2 = Image reset and follow the input aspect ratio			
Freeze video			
Enable	$\boxed{X2} \bullet 1\text{F}$	Frz $\boxed{X2} \bullet 1 \leftarrow$	Freeze the video.
Disable	$\boxed{X2} \bullet 0\text{F}$	Frz $\boxed{X2} \bullet 0 \leftarrow$	Freeze disabled (default).
View the freeze status	$\boxed{X2}\text{F}$ Verbose mode 2/3	$\boxed{X18} \leftarrow$ Frz $\boxed{X2} \bullet \boxed{X18} \leftarrow$	
KEY: $\boxed{X2}$ = Output number 1 to max number of outputs $\boxed{X18}$ = Freeze video 0 = Off or disable (default) 1 = On or enable			
Output scaler rate			
Set output rate	$\text{Esc} \boxed{X2} \bullet \boxed{X49} \text{ RATE} \leftarrow$	Rate $\boxed{X2} \bullet \boxed{X49} \leftarrow$	
View output rate	$\text{Esc} \boxed{X2} \text{ RATE} \leftarrow$ Verbose mode 2/3	$\boxed{X49} \leftarrow$ Rate $\boxed{X2} \bullet \boxed{X49} \leftarrow$	
KEY: $\boxed{X2}$ = Output number 1 to max number of outputs $\boxed{X49}$ = Resolution rate See Resolution table on page 48			
Global presets			
Recall global preset	$\boxed{X24} .$	Rpr $\boxed{X24} \leftarrow$	
KEY: $\boxed{X24}$ = Global preset 1 to 64			
Direct write presets			
NOTES: - Saving the direct write preset does not make it active. It is only active when recalled. - DTP3 I/O configurable ports are set to inputs by default. All reference to port A or B must be lower case. Input setting must use the following alphanumeric designation: 1, 2, 3, 4, 5a, 5b, 6a, 6b, 7, 8, 9, 10, 11, and 12. - Subsequently, when DTP3 I/O Configurable Ports are set as an output, all reference to port A or B must be lower case: 1a, 1b, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6a, 6b, 7, 8, 9, 10, 11, and 12 (Inputs 7 through 12 are for the DTP3 CrossPoint 884 only).			
Direct global preset	$\text{Esc} + \boxed{X24} \text{ P } \boxed{X1} \bullet \boxed{X2} \% . . . \boxed{X1} \bullet \boxed{X2} \% \leftarrow$	Spr $\boxed{X24} \leftarrow$	
KEY: $\boxed{X1}$ = Input number 01 to max number of inputs $\boxed{X2}$ = Output number 1 to max number of outputs $\boxed{X24}$ = Global preset 1 to 64			

Command Function	SIS Command (Host to Unit)	Response (Unit to Host)	Additional description
Global unsolicited response			
Front panel change		Qik←	There is a front panel tie operation.
Recall preset		Rprnn←	A preset has been recalled from the front panel. nn is the preset number.
Input video signal presence		SigI [X1] * [X48]←	Any change in input signal status.
Input HDCP		HdcpI [X1] * [X15]←	Any change in input HDCP status.
Output HDCP		HdcpO [X2] * [X16]←	Any change in output HDCP status.
Input audio status		Sts05 * [X3] * [X48]←	Displays input audio selection status.
Freeze		Frz [X2] * [X18]←	Any change in output freeze status.
KEY: [X1] = Input number [X2] = Output number [X3] = Audio input number [X15] = HDCP status (inputs) [X16] = HDCP status (outputs) [X18] = Freeze video [X48] = Input signal status 01 to max number of inputs 1 to max number of outputs See Input Path OIDs on page 58 0 = No source connected 2 = Source is not HDCP-compliant 0 = No monitor connected 2 = Monitor connected, HDCP encrypted 0 = Off or disable (default) 0 = Not detected 1 = Source is HDCP-compliant 1 = Monitor connected, not encrypted 1 = On or enable 1 = Detected			
Resets and Reboot			
Erase all files from flash memory	[Esc]ZFFF←	Zpf←	Removes files created in user space.
Reset unit settings	[Esc]ZXXX←	Zpx←	Resets unit back to factory default.
Absolute reset, including IP settings	[Esc]ZQQQ←	Zpq←	Absolute reset, resets IP address and subnet mask to default.
NOTE: The absolute reset ([Esc]ZQQQ←) command resets only the switcher, not any connected DTP endpoints.			
Reset IP system	[Esc]1ZQQQ←	Zpq1←	Resets IP address to 192.168.254.254 and subnet mask to 255.255.000.000.
Reboot system	[Esc]1B00T←	Boot1←	
NOTE: Firmware upgrade requires the [Esc]1B00T← command to complete.			
ShareLink Pro Module Mode 1 Reset			
ShareLink Pro module mode 1 reset	[Esc]S1*1RSTD←	RstdS1*1←	Resets the ShareLink Pro module via the DTP3 CrossPoint.
NOTE: If the ShareLink Pro Module not installed in the product, the DTP3 CrossPoint responds with E14 (Not Valid for Current Configuration).			

Resolution Rate Table for X49								
Resolution	23.98 Hz	24 Hz	25 Hz	29.97 Hz	30 Hz	50 Hz	59.94 Hz	60 Hz
640 x 480								10
800 x 600								11
1024 x 768								12
1280 x 768								13
1280 x 800								14
1280 x 1024								15
1360 x 768								16
1366 x 768								17
1440 x 900								18
1400 x 1050								19
1600 x 900								20
1680 x 1050								21
1600 x 1200								22
1920 x 1200								23
480p							24	25
576p						26		
720p								34
1080i								37
1080p								45*
2048 x 1080	46	47	48	49	50	51	52	53
2048 x 1200								54
2048 x 1536								55
2560 x 1080								56
2560 x 1440								57
2560 x 1600								58
3840 x 2160	59	60	61	62	63	64	65	66
4096 x 2160	69	70	71	72	73	74	75	76
* = Default output resolution (1080p)								

DSP SIS Command Symbol Definitions

Many DSP functions; such as gain (which includes the mix-points), trim, mutes, and some group master functions; can be controlled using SIS commands. These commands follow the same general rules as basic SIS commands, but the variables (Xns) tend to be more complex. Also, a comprehensive understanding of the audio signal flow of the DSP is helpful to understanding these commands (see the *DSP Configurator Help File* provided in the software).

Symbol Definitions

↵	= Carriage return and line feed
←	= Carriage return (no line feed)
	= Pipe (can be used interchangeably with the ← character)
•	= Space
Esc	= Escape key
W	= Can be used interchangeably with the Esc character
X01	= AV input number AV inputs = 1 to {9...12} (Input availability determined by user configuration)
X02	= AV input name (HDMI and DTP) 31 characters, excluding these characters: ~, @ = [] { } < > ' " ; : \ and ?
X03	= Preset number 1 to 64
X04	= Preset name 32 characters, excluding these characters: ~, @ = [] { } < > ' " ; : \ and ?
X05	= User defined USB name 32 characters, excluding these characters: ~, @ = [] { } < > ' " ; : \ and ?
X06	= Signal level monitoring 0 = Disabled, -01 to -2000 = Signal threshold to monitor (-0.1 to -200.0 dBFS); Automixer Gate Monitoring status: 0 = Disabled 1024 = Enabled
X07	= Meter status 0 = Meter Off 1 = Meter On
X08	= Meter value -2000 to 0000 = -200.0 dBFS to 0.0 dBFS
X09	= Meter value vs threshold 0 = Equal to or below threshold 1 = Above threshold
X10	= Meter level -150.0 dBFS to 0.0 dBFS = 1500 to 0000
X11	= AV output number (HDMI and DTP) AV outputs = 1 to max (Output availability determined by user configuration)
X12	= AV output name 31 characters, excluding these characters: ~, @ = [] { } < > ' " ; : \ and ?
X13	= Audio input (EXP) number 1 to 16
X14	= Audio input (EXP) name 31 characters. Illegal characters: ~, @ = [] { } < > ' " ; : \ and ?
X15	= Audio output number Analog = 1 to 2 Amplifier = 3-4 (Only valid for "A" models) USB = 5 to 7 AT&EXP = 9 to 24 AT = 25 to 40 (Output availability determined by user configuration)
X16	= Audio output name 31 characters. Illegal characters: ~, @ = [] { } < > ' " ; : \ and ?
X17	= Flex source number Mic/Line = 1 to 4 Line = 5 to 6 USB = 7 to 12 Virtual = 15 to 30 (Source availability determined by user configuration)
X18	= Flex source name 31 characters. Illegal characters: ~, @ = [] { } < > ' " ; : \ and ?
X61	= Object ID Gain control or mix-point (see the Object ID (OID) Number Tables starting on page 58)
X62	= Automixer gate monitoring status 0 = Disabled 1024 = Enabled
X64	= Group number 1 to 64
X65	= Parameter number 0 = A 1 = B 2 = C ... 6 = G 12 = M, and so on
X66	= Soft limit High value Maximum = Less than (or equal to) 100%
X67	= Soft limit Low value Minimum = Greater than (or equal to) 0%
X68	= Group master value Gain value with a resolution to 0.1, multiply by 10. For mute values, use 0 or 1.
X69	= Enable/disable 0 = Off 1 = On
X70	= Increment/decrement value Gain value with a resolution to 0.1, multiply by 10. For mute values, use 0 or 1.
X72	= Percentage 0 to 100, integer only. Returned values will be rounded up or down to the nearest integer, where levels have been set using the 'D' command
X73	= Unsolicited meter rate Integer, where levels 1 (default) to 10
X74	= Unsolicited meter group setting 0 disables unsolicited meter responses, 1 to 64 specifies and enables a meter group for unsolicited meter value responses; 0 at power-on
X75	= Digital input status 0 = Logic low 1 = Logic high
X76	= Digital I/O channel 1 to 4

X77 = Action type

Mutes

- 1 = Level trigger (low mutes)
- 2 = Level trigger (high mutes)
- 3 = Edge trigger (high to low mutes, low to high unmutes)
- 4 = Edge trigger (high to low unmutes, low to high mutes)
- 5 = Toggle trigger (high to low toggles mute)
- 6 = Toggle trigger (low to high toggles mute)

Group Mutes

- 7 = Level trigger (low mutes)
- 8 = Level trigger (high mutes)
- 9 = Edge trigger (high to low mutes, low to high unmutes)
- 10 = Edge trigger (high to low unmutes, low to high mutes)
- 11 = Toggle trigger (high to low toggles mute)
- 12 = Toggle trigger (low to high toggles mute)

Macros

- 13 = Edge trigger (high to low starts macro)
- 14 = Edge trigger (low to high starts macro)

Presets

- 15 = Edge trigger (high to low recalls preset)
- 16 = Edge trigger (low to high recalls preset)

X78 = Various according to action type

Mutes — Input number for muting. If **X77** is not specified, muting matches the input with the corresponding I/O channel number.

Group Mutes — Group member for muting. If **X77** is not specified, muting matches the group with the corresponding I/O channel number.

Macros — Macro number. If **X77** is not specified, the macro number defaults to the corresponding I/O channel number.

Presets — Preset number. If **X77** is not provided, the preset number defaults to the corresponding I/O channel number.

X79 = Digital output

X80 = Output mode

1 or 2

0 = Output always high

1 = Output always low

Mutes — 2 = Mute high

3 = Unmute high

Group Mutes — 4 = Group mute high

5 = Group unmute high

Macros — 6 = Macro started set high once (blink)

7 = Macro started set low once (blink)

Presets — 8 = Preset recalled set high once (blink)

9 = Preset recalled set low once (blink)

Automix Gate Status — 10 = Automix gate on (>1024) set high 11 = Automix gate on (>1024) set low

Signal Presence —

12 = Signal presence (>-40 dBFS) set high 13 = Signal presence (>-40 dBFS) set low

X81 = Various according to output mode

Mutes — Input number for monitoring. If **X80** is not specified, monitoring defaults to the input with the corresponding I/O channel number.

Group Mutes — Group member for monitoring. If **X80** is not specified, the macro number defaults to the corresponding I/O channel number.

Macros — Macro number. If **X80** is not specified, the macro number defaults to the corresponding I/O channel number.

Presets — Preset number. If **X80** is not provided, the preset number defaults to the corresponding I/O channel number.

Automix Gate Status — Input number for automix gate monitoring. If **X80** is not specified, the number defaults to the corresponding I/O channel number.

Signal Presence — Input number for signal presence monitoring. If **X80** is not specified, the input number defaults to the corresponding I/O channel number

X85 = Triggered macro number

0 = disable (default) 1 to 64

X86 = USB I/O number

1 = USB #1

2 = USB #2

3 = USB #3

X87 = Expansion bus device role

0 = Secondary

1 = Primary

X88 = DMP EXP connection status

0 = Not connected

1 = Connected

X89 = Call status

0 = Inactive

1 = Active

X90 = DMP EXP Bus Connection status

0 = Disable, Flex Sources 31-46 = AT 17-32 (default: "0" = Disabled)

1 = Enable; Flex Sources 31-46 = EXP 1-16

X91 = Macro number

1 to 64, in 0nn format (example 015, for macro number 15) or macro name enclosed in braces { }

X93 = Macro name

24 characters, excluding these characters: ~ , @ = [] { } < > ' " ; : | \ and ?

X94 = Status/macro step number

0 = Idle, macro is not running

1 to 32 = Macro step

X95 = Macro number assigned for

1 to 64, 0 clears current assignment (set) and indicates no current assignment **power on**

X107 = Dante device name

31 characters, DNS hostnaming rules apply (A-Z, a-z, 0-9, and '-')
Device names are not case sensitive.

X108 = Dante Redundancy mode

0 = Switched/off (default)

1 = Redundant/on

X116 = SIS command to be sent to remote Dante-controlled device.

X117 = SIS command response from remote Dante-controlled device, tagged by the DSP.

Command and Response Table for DSP SIS Commands

Command Function	SIS Command (Host to Unit)	Response (Unit to Host)	Additional description
Audio trim, gain, and mixing			
NOTES: - The command format is the same, regardless of the control or mix-point that is to be set; the acceptable adjustment range varies depending on the control or mix-point: - All X010 values are in 0.1 dB increments. Example: 56 = 5.6 dB. - The valid range of the level for a specific control depends on the control addressed: - The line audio input gain range is -18 dB to +24 dB (X010 = -180 to +240). - The mic input gain range is -18 dB to +80 dB (X010 = -180 to +800). - The line input trim and line output trim range is -12 to +12 dB (X010 = -120 to +120). - The mic pre-mixer gain, line out post-switcher gain, and pre-mixer gain range is -100 dB to +12 dB (X010 = -1000 to +120). - The mix-points (with their associated mixing controls) range is -35 dB to +25 dB (X010 = -350 to +250). - The line output gain range is -100 to 0 dB (X010 = -1000 to 0). - For attenuation, the negative sign (-) must be entered and is reported in the response. For gain, the positive sign (+) is optional and is not returned in the response.			
Set analog trim, gain, or mix-point	Esc G X61 * X010 AU ←	DsG X61 * X010 ←	
<i>Example 1</i>	Esc G30012*56AU ←	DsG30012*56 ←	Set the input 7 left gain to a value of 5.6 dB.
<i>Example 2</i>	Esc G20800*-125AU ←	DsG20800*-125 ←	Set the mic input 1 gain to a level of -12.5 dB.
View analog trim or mix-point	Esc G X61 AU ←	X010 ←	
<i>Example 1</i>	Esc G50005AU ←	105 ←	Post-switcher output 4 right is set to +10.5 dB.
<i>Example 2</i>	Esc G60301AU ←	-955 ←	Output 1 amplified audio output is set to -95.5 dB. This response is not possible on an A model switcher.
Set digital trim, gain, or mix-point	Esc H X61 * X010 AU ←	DsH X61 * X010 ←	
<i>Example</i>	Esc H60204* -780AU ←	DsH60204* -780 ←	Set the output 3 left digital DTP3 gain to a value of -78 dB.
View digital trim or mix-point	Esc H X61 AU ←	X010 ←	
<i>Example</i>	Esc G50005AU ←	75 ←	Line input 2 right trim is set to +7.5 dB.
View digital gain	Esc H X61 AU ←	X010 ←	
<i>Example</i>	Esc G50005AU ←	75 ←	Line input 2 right gain is set to +7.5 dB.
Audio mute			
Set audio mute	Esc M X61 * 1AU ←	DsM X61 * 1 ←	
<i>Example</i>	Esc M60006*1AU ←	DsM60006*1 ←	Mute output 4, left, analog volume.
Set audio unmute	Esc M X61 * 0AU ←	DsM X61 * 0 ←	
<i>Example</i>	Esc M40000*0AU ←	DsM40000*0 ←	Unmute mic input 1 gain (pass audio).
View audio mute status	Esc M X61 AU ←	X6 ←	
KEY: X6 = Mute status 0 = Unmute 1 = Mute X010 = Audio level See the NOTES above for levels X61 = Object ID See Object ID (OID) Number Tables starting on page 58			
Phantom power			
NOTE: The phantom power commands are valid only for the mic input gain object IDs.			
Set phantom power on	Esc Z X61 * 1AU ←	DsZ X61 * 1 ←	
<i>Example</i>	Esc Z40000*1AU ←	DsZ40000*1 ←	Turn phantom power on for mic 1.
Set phantom power off	Esc Z X61 * 0AU ←	DsZ X61 * 0 ←	
View phantom power status	Esc Z X61 AU ←	X17 ←	
KEY: X17 = Status 0 = Phantom power off 1 = Phantom power on X61 = Object ID See Object ID (OID) Number Tables			

Command Function	SIS Command (Host to Unit)	Response (Unit to Host)	Additional description																																																																				
Flex input sources																																																																							
Set flex source	[Esc] D [X61] * [X62] AU ←	DsD [X61] * [X62] ←																																																																					
Get flex source	[Esc] D [X61] AU ←	[X62] ←																																																																					
KEY: [X61] = Object ID See Object ID (OID) Number Tables starting on page 58 [X62] = Source 0 = No selection, mute																																																																							
<table> <tr> <td>Analog # 1-6</td><td>AT #1-16</td><td>AT #17-32 or EXP #1-16</td><td>Virtual Returns #A-P</td></tr> <tr> <td>1 = Mic/Line In #1</td><td>15 = AT #1</td><td>31 = AT #17 or EXP #1</td><td>47 = Virtual #A</td></tr> <tr> <td>2 = Mic/Line In #2</td><td>16 = AT #2</td><td>32 = AT #18 or EXP #2</td><td>48 = Virtual #B</td></tr> <tr> <td>3 = Mic/Line In #3</td><td>17 = AT #3</td><td>33 = AT #19 or EXP #3</td><td>49 = Virtual #C</td></tr> <tr> <td>4 = Mic/Line In #4</td><td>18 = AT #4</td><td>34 = AT #20 or EXP #4</td><td>50 = Virtual #D</td></tr> <tr> <td>5 = Line In #1</td><td>19 = AT #5</td><td>35 = AT #21 or EXP #5</td><td>51 = Virtual #E</td></tr> <tr> <td>6 = Line In #2</td><td>20 = AT #6</td><td>36 = AT #22 or EXP #6</td><td>52 = Virtual #F</td></tr> <tr> <td>USB #1L - 3R</td><td>21 = AT #7</td><td>37 = AT #23 or EXP #7</td><td>53 = Virtual #G</td></tr> <tr> <td>7 = USB #1L</td><td>22 = AT #8</td><td>38 = AT #24 or EXP #8</td><td>54 = Virtual #H</td></tr> <tr> <td>8 = USB #1R</td><td>23 = AT #9</td><td>39 = AT #25 or EXP #9</td><td>55 = Virtual #I</td></tr> <tr> <td>9 = USB #2L</td><td>24 = AT #10</td><td>40 = AT #26 or EXP #10</td><td>56 = Virtual #J</td></tr> <tr> <td>10 = USB #2R</td><td>25 = AT #11</td><td>41 = AT #27 or EXP #11</td><td>57 = Virtual #K</td></tr> <tr> <td>11 = USB #3L</td><td>26 = AT #12</td><td>42 = AT #28 or EXP #12</td><td>58 = Virtual #L</td></tr> <tr> <td>12 = USB #3R</td><td>27 = AT #13</td><td>43 = AT #29 or EXP #13</td><td>59 = Virtual #M</td></tr> <tr> <td></td><td>28 = AT #14</td><td>44 = AT #30 or EXP #14</td><td>60 = Virtual #N</td></tr> <tr> <td></td><td>29 = AT #15</td><td>45 = AT #31 or EXP #15</td><td>61 = Virtual #O</td></tr> <tr> <td></td><td>30 = AT #16</td><td>46 = AT #32 or EXP #16</td><td>62 = Virtual #P</td></tr> </table>				Analog # 1-6	AT #1-16	AT #17-32 or EXP #1-16	Virtual Returns #A-P	1 = Mic/Line In #1	15 = AT #1	31 = AT #17 or EXP #1	47 = Virtual #A	2 = Mic/Line In #2	16 = AT #2	32 = AT #18 or EXP #2	48 = Virtual #B	3 = Mic/Line In #3	17 = AT #3	33 = AT #19 or EXP #3	49 = Virtual #C	4 = Mic/Line In #4	18 = AT #4	34 = AT #20 or EXP #4	50 = Virtual #D	5 = Line In #1	19 = AT #5	35 = AT #21 or EXP #5	51 = Virtual #E	6 = Line In #2	20 = AT #6	36 = AT #22 or EXP #6	52 = Virtual #F	USB #1L - 3R	21 = AT #7	37 = AT #23 or EXP #7	53 = Virtual #G	7 = USB #1L	22 = AT #8	38 = AT #24 or EXP #8	54 = Virtual #H	8 = USB #1R	23 = AT #9	39 = AT #25 or EXP #9	55 = Virtual #I	9 = USB #2L	24 = AT #10	40 = AT #26 or EXP #10	56 = Virtual #J	10 = USB #2R	25 = AT #11	41 = AT #27 or EXP #11	57 = Virtual #K	11 = USB #3L	26 = AT #12	42 = AT #28 or EXP #12	58 = Virtual #L	12 = USB #3R	27 = AT #13	43 = AT #29 or EXP #13	59 = Virtual #M		28 = AT #14	44 = AT #30 or EXP #14	60 = Virtual #N		29 = AT #15	45 = AT #31 or EXP #15	61 = Virtual #O		30 = AT #16	46 = AT #32 or EXP #16	62 = Virtual #P
Analog # 1-6	AT #1-16	AT #17-32 or EXP #1-16	Virtual Returns #A-P																																																																				
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4 = Mic/Line In #4	18 = AT #4	34 = AT #20 or EXP #4	50 = Virtual #D																																																																				
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	30 = AT #16	46 = AT #32 or EXP #16	62 = Virtual #P																																																																				
NOTE: The availability of all flex sources is determined by the user I/O configuration.																																																																							
Flex source name (Analog, USB, Virtual)																																																																							
Set flex source name	[Esc] [X017], [X018] NX ←	Nex [X017], [X018] ←																																																																					
Get flex source name	[Esc] [X017] NX ←	[X018] ← Nex [X017], [X018] ←																																																																					
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AV input name (HDMI/DTP)																																																																							
Set A/V input name	[Esc] [X01], [X02] NI ←	Nmi [X01], [X02] ←																																																																					
Get A/V input name	[Esc] [X01] NI ← Verbose mode 2/3	[X02] ← Nmi [X01], [X02] ←																																																																					
KEY: [X01] = AV input number AV inputs = 1 to {9...12} (Input availability determined by user configuration) [X02] = AV input name 31 characters. Illegal characters: ~, @ = [] { } < > ' " ; : \ and ?																																																																							
AV output name (HDMI/DTP)																																																																							
Set A/V output name	[Esc] [X011], [X012] NO ←	Nmo [X011], [X012] ←																																																																					
Get A/V output name	[Esc] [X011] NO ← Verbose mode 2/3	[X012] ← Nmo [X011], [X012] ←																																																																					
KEY: [X011] = AV output number AV outputs = 1 to {9...12} (Input availability determined by user configuration) [X012] = AV output name 31 characters. Illegal characters: ~, @ = [] { } < > ' " ; : \ and ?																																																																							
Audio input name (EXP)																																																																							
Set audio input name	[Esc] [X013], [X014] NE ←	Nei [X013], [X014] ←																																																																					
Get audio input name	[Esc] [X013] NE ← Verbose mode 2/3	[X014] ← Nei [X013], [X014] ←																																																																					
KEY: [X013] = Audio input (EXP) number 1 to 16 [X014] = Audio input (EXP) name 31 characters. Illegal characters: ~, @ = [] { } < > ' " ; : \ and ?																																																																							

Command Function	SIS Command (Host to Unit)	Response (Unit to Host)	Additional description
Audio output name (Analog, USB, AT/EXP, AT)			
Set audio output name	[Esc] X015, X016 NL ←	Nm1X015, X016 ←	
Get audio output name	[Esc] X015 NL ← Verbose mode 2/3	X016 ← Nm1X015, X016 ←	
KEY: X015 = Audio output number Analog = 1 to 2 Amplifier = 3 to 4 (only for A models) USB= 5 to 7 AT&EXP = 9 to 24 AT = 25 to 40 (Output availability determined by user configuration) X016 = Audio output name 31 characters. Illegal characters: ~, @ = [] { } < > ' " ; : \ and ?			
USB audio device hostname			
Set USB device name	[Esc] D1 *X05 UNAM ←	UnamD1 *X05 ←	
Get USB device name	[Esc] D1 UNAM ← Verbose mode 2/3	X05 ← UnamD1 *X05 ←	
KEY: X05 = USB device name 32 characters. Illegal characters: ~, @ = [] { } < > ' " ; : \ and ?, default = DTP3•CrossPoint•xxx			
DSP preset names			
Set preset name	[Esc] X03, X04 NG ←	NmgX03, X04 ←	
Get preset name	[Esc] X03 NG ← Verbose mode 2/3	X04 ← NmgX03, X04 ←	
KEY: X03 = DSP preset number 1 to 64 X04 = DSP preset name 32 characters. Illegal characters: ~, @ = [] { } < > ' " ; : \ and ?, default = [unassigned]			
Automixer gate monitoring			
Get current threshold monitoring status	[Esc] J X61 AU ←	X62 ←	
Unsolicited automixer gate status update	This is enabled by selecting the Automix dialog Monitor Gate checkbox in DSP Configurator (see the <i>DSP Configurator Help File</i> for details).	DsV X61 *X07 *X63 *X09 ←	
KEY: X07 = Meter status 0 = Meter Off 1 = Meter On X09 = Meter value vs threshold 0 = Equal to or below threshold 1 = Above threshold X61 = Object ID See Object ID (OID) Number Tables starting on page 58 X62 = Automixer gate monitoring status 0 = Disabled 1024 = Enabled X63 = Signal level when gate is opened or closed 0000 to 1023 = Gate closed ≥1024 = Gate opened			
Signal level monitoring (SLM)			
NOTE: SLM tracks when the signal at a metered gain OID crosses a set threshold level. When SLM is enabled for an OID, an unsolicited message is sent when the threshold level is crossed. The response includes the OID, meter on and off status, level after the threshold was crossed, and if the level was going up or down when the threshold was crossed.			
Set SLM status	[Esc] J X61 *X06 AU ←	DsJ X61 *X06 ←	
Get current threshold monitoring status	[Esc] J X61 AU ← Verbose mode 2/3	X06 ← DsJ X61 *X06 ←	
Meter value		DsV X61 *X07 *X08 *X09 ←	
KEY: X06 = Signal level monitoring 0 = Disabled 0001 to 2000 = Signal threshold to monitor (-0.1 to -200.0 dBFS); X07 = Meter status 0 = Meter Off 1 = Meter On X08 = Meter value 00 to 2000 = 0.0 to -200.0 dBFS X09 = Meter value vs threshold 0 = Equal to or below threshold 1 = Above threshold X61 = Object ID See Object ID (OID) Number Tables			

Command Function	SIS Command (Host to Unit)	Response (Unit to Host)	Additional description
Group masters			
Set parameter	Esc P X64 * X65 GRPM ←	GrpmP X64 * X65 ←	
Add individual member	Esc O X64 * X61 GRPM ←	GrpmO X64 * X61 ←	
Remove individual member	Esc R X64 * X61 GRPM ←	GrpmR X64 * X61 ←	
Set soft limits	Esc L X64 * X66 * X67 GRPM ←	GrpmL X64 * X66 * X67 ←	
Remove all members	Esc Z X64 GRPM ←	GrpmZ X64 ←	
Get parameter	Esc P X64 GRPM ← Verbose mode 2/3	X65 ← GrpmP X64 * X65 ←	
Get group members	Esc O X64 GRPM ← Verbose mode 2/3	X61 ¹ * X61 ² ... * X61 ⁸ ← GrpmO X64 * X61 ¹ * X61 ² ... * X61 ⁸ ←	
Get member values + offset of entire group	Esc V X64 GRPM ← Verbose mode 2/3	X68 ¹ * X68 ² ... * X68 ⁸ ← GrpmV X64 * X68 ¹ * X68 ² ... * X68 ⁸ ←	
Get individual member value + offset	Esc A X61 * X65 GRPM ← Verbose mode 2/3	X68 ← GrpmA X61 * X65 * X68 ←	
Get soft limits	Esc L X64 GRPM ← Verbose mode 2/3	X66 * X67 ← GrpmL X64 * X66 * X67 ←	
KEY: X61 = Object ID See Object ID (OID) Number Tables starting on page 58 X64 = Group number 1 to 64 X65 = Parameter number 0 = A 1 = B 2 = C ... 6 = G 12 = M, and so on. (Currently, only G and M are used) X66 = Soft limit High value dB value, in 0.1 dB increments. Valid range depends on the type of gain block X67 = Soft limit Low value dB value, in 0.1 dB increments, to raise or lower a group fader X68 = Group master value Gain value with a resolution to 0.1, multiply by 10. For mute values, use 0 or 1			
Group master name			
Set name	Esc N X64 * X04 GRPM ←	GrpmN X64 * X04 ←	
Get name	Esc N X64 GRPM ← Verbose modes 2/3	X04 ← GrpmN X64 * X04 ←	
KEY: X04 = Group name 32 characters. Invalid characters: ~ , @ = [] { } < > ' " ; : \ and ? X64 = Group number 1 to 64			
Set master value			
Set +/- dB	Esc D X64 * + / - X68 GRPM ←	GrpmD X64 * X68 ←	
Set mute	Esc D X64 * X68 GRPM ←	GrpmD X64 * X68 ←	
Increment	Esc D X64 * X70 + GRPM ←	GrpmD X64 * X68 ←	
Decrement	Esc D X64 * X70 - GRPM ←	GrpmD X64 * X68 ←	
Get master value	Esc D X64 GRPM ← Verbose mode 2/3	X68 ← GrpmD X64 * X68 ←	
Mute a group mute control	Esc D X64 * 1 GRPM ←	GrpmD X64 * 1 ←	
Unmute a group mute control	Esc D X64 * 0 GRPM ←	GrpmD X64 * 0 ←	
Set % value	Esc T X64 * X72 GRPM ←	GrpmD X64 * X68 ←	
Get % value	Esc T X64 GRPM ← Verbose mode 2/3	X72 ← GrpmD X64 * X72 ←	
KEY: X64 = Group number 1 to 64 X68 = Group master value Gain value with a resolution to 0.1, multiply by 10. For mute values, use 0 or 1 X72 = Percentage 0 to 100, integer only. Returned values are rounded up or down to the nearest integer			

Command Function	SIS Command (Host to Unit)	Response (Unit to Host)	Additional description
Unsolicited meter groups			
Set global unsolicited meter response rate	[Esc] R[X64]GRPU ←	GrpuR[X64] ←	
Get global unsolicited meter response rate	[Esc] RGRPU ← Verbose mode 2/3	[X64] ← GrpuR[X64] ←	
Set unsolicited meter group	[Esc] G[X74]GRPU ←	GrpuG[X74] ←	
Get unsolicited meter group	[Esc] G[X64]GRPU ← Verbose mode 2/3	[X74] ← GrpuG[X74] ←	
Unsolicited meter group value response		GrpmV[X74]*<val ₁ >*<val ₂ >...*<val _n > ←	
KEY: [X64] = Group number 1 to 64 [X74] = Unsolicited meter group setting 0 disables unsolicited meter responses, 1 to 64 specifies and enables a meter group for unsolicited meter value responses; 0 at power-on			
Metering			
View meter level	[Esc] V[X61]AU ←	[X69]*[X010] ←	
Set meter update status	[Esc] V[X61]*[X69]AU ←	DsV[X61]*[X69] ←	
KEY: [X010] = Meter level -150.0 dBFS to 0.0 (dBFS = -1500 to 00) [X61] = Object ID See Object ID (OID) Number Tables starting on page 58 [X69] = Meter update status 1 = Disabled 2 = Enabled			
Presets			
NOTES: - If preset is unassigned, then name displays [unassigned]. - If a preset is saved, but not yet named then default name is Preset [X03] ([X03] = preset number). - If user tries to name when preset is unassigned unit will respond with E11. - If user tries to recall preset that is not saved then unit will respond with E11. - If a space is used as a name it will default to Preset [X03] ([X03] = preset number). Invalid or characters not recommended: ~, @ = [] { } < > ' " ; : \ and ? - Preset responses are in verbose mode 2/3.			
Recall preset	[X03].	Rpr [X03] ←	
KEY: [X03] = Preset number 1 to 64			
USB Audio			
USB device name			
Set USB device name	[Esc] D1*[X05]UNAM ←	UnamD1*[X05] ←	
Get USB device name	[Esc] D1 UNAM ← Verbose mode 2/3	[X05] ← UnamD1*[X05] ←	
Restore USB device name to factory default	[Esc] D1*• UNAM ←	UnamD1*Extron•DTP3•CrossPoint•XXX ←	
KEY: [X05] = USB device name 32 characters. Illegal characters: ~, @ = [] { } < > ' " ; : \ and ?, default = DTP3•CrossPoint•XXX			
USB call status			
Get USB call status	[Esc] H[X86]UPHN ← Verbose mode 2/3	[X89] ← UphnH[X86]*[X89] ←	
KEY: [X86] = USB I/O number 1 = USB 1 2 = USB 2 3 = USB 3 [X89] = Call status 0 = Inactive 1 = Active			

Command Function	SIS Command (Host to Unit)	Response (Unit to Host)	Additional description
Macro commands			
Run macro	[Esc]R [X91] MCRO ←	McroR [X91] ←	
Kill macro	[Esc]K [X91] MCRO ←	McroK [X91] ←	
Get macro status	[Esc]S [X91] MCRO ← Verbose mode 2/3	[X94] ← McroS [X91]*[X94] ←	
Set macro name	[Esc]A [X91]*[X93] MCRO ←	McroA [X91]*[X93] ←	
Get macro name	[Esc]A [X91] MCRO ← Verbose mode 2/3	[X93] ← McroA [X91]*[X93] ←	
Set power-on macro	[Esc]P [X91] MCRO ←	McroP [X95] ←	
Get power-on macro	[Esc]P MCRO ← Verbose mode 2/3	[X95] ← McroP [X95] ←	
KEY: [X91] = Macro number [X93] = Macro name [X94] = Status/macro step number [X95] = Macro number assigned for power on			
		1 to 64, in 0nn format (example 015, for macro number 15) 24 characters, excluding these characters: ~ , @ = ' [] { } < > ' " ; : \ and ? 0 = Idle, macro is not running 1 to 64, 0 clears current assignment and indicates no current assignment	
Asynchronous macro responses			
Macro started		McroSTARTED [X91] ←	
Macro finished		McroFINISHED [X91] ←	
Macro failed		McroFAILED [X91]*[X94] ←	
Macro killed*		McroKILLED [X91]*[X94] ←	
NOTE: * = Macro has been deliberately halted by user via the kill command.			
KEY: [X91] = Macro number [X94] = Status/macro step number			
		1 to 64, in 0nn format (example 015, for macro number 15) 0 = Idle, macro is not running , 1 to 32 = Macro step	
Dante setup and configuration			
Get available remote devices	[Esc]A EXPR ← Verbose mode 2/3	• [X107] [X107] . . . ← ExprA • [X107] [X107] . . . ←	
Enable remote connections for listening	[Esc]C [X107]*[X88] EXPR ←	ExprC [X107]*[X88] ←	
Read remote connection listening status	[Esc]C [X107] EXPR ← Verbose mode 2/3	[X88] ← ExprC [X107]*[X88] ←	
Get remote devices being listened to	[Esc]L EXPR ← Verbose mode 2/3	• [X107] [X107] . . . ← ExprL • [X107] [X107] . . . ←	
Send command to remote device	{dante@ [X107] : < [X116] >} ←	{dante@ [X107] : < [X117] >} ←	
KEY: [X88] = Extron remote connection mode [X107] = Dante device name [X116] = SIS command to be sent to remote Dante-controlled device. [X117] = SIS command response from remote Dante-controlled device, tagged by the DSP.			
		0 = Not connected Maximum 31 characters, DNS hostnaming rules apply (A-Z, a-z, 0-9, and '-') Device names are not case sensitive 1 = Connected	

Command Function	SIS Command (Host to Unit)	Response (Unit to Host)	Additional description
Digital I/O (IPCP models)			
Get input status	Esc X76 GPIT ←	X77 * X78 ←	
Get output status	Esc X76 * X79 GPOT ←	X80 * X81 ←	
Get state for input	Esc X76 GPI ←	Gp1 X75 * X75 ←	
KEY: X75 = Digital input status X76 = Digital I/O channel X77 = Action type X78 = Various according to action type X79 = Digital output X80 = Output mode X81 = Various according to output mode			
0 = Logic low 1 = Logic high 1 to 4 Mutes 1 = Level trigger (low mutes) 2 = Level trigger (high mutes) 3 = Edge trigger (high to low mutes, low to high unmutes) 4 = Edge trigger (high to low unmutes, low to high mutes) 5 = Toggle trigger (high to low toggles mute) 6 = Toggle trigger (low to high toggles mute) Group Mutes 7 = Level trigger (low mutes) 8 = Level trigger (high mutes) 9 = Edge trigger (high to low mutes, low to high unmutes) 10 = Edge trigger (high to low unmutes, low to high mutes) 11 = Toggle trigger (high to low toggles mute) 12 = Toggle trigger (low to high toggles mute) Macros 13 = Edge trigger (high to low starts macro) 14 = Edge trigger (low to high starts macro) Presets 15 = Edge trigger (high to low recalls preset) 16 = Edge trigger (low to high recalls preset) Mutes — Input number for muting. If X77 is not specified, muting matches the input with the corresponding I/O channel number. Group Mutes — Group member for muting. If X77 is not specified, muting matches the group with the corresponding I/O channel number. Macros — Macro number. If X77 is not specified, the macro number defaults to the corresponding I/O channel number. Presets — Preset number. If X77% is not provided, the preset number defaults to the corresponding I/O channel number. 1 or 2 0 = Output always high 1 = Output always low Mutes — 2 = Mute high 3 = Unmute high Group Mutes — 4 = Group mute high 5 = Group unmute high Macros — 6 = Macro started set high once (blink) 7 = Macro started set low once (blink) Presets — 8 = Preset recalled set high once (blink) 9 = Preset recalled set low once (blink) Automix Gate Status — 10 = Automix gate on (>1024) set high 11 = Automix gate on (>1024) set low Signal Presence — 12 = Signal presence (>-40 dBFS) set high 13 = Signal presence (>-40 dBFS) set low Mutes — Input number for monitoring. If X80 is not specified, monitoring defaults to the input with the corresponding I/O channel number. Group Mutes — Group member for monitoring. If X80 is not specified, the macro number defaults to the corresponding I/O channel number. Macros — Macro number. If X80 is not specified, the macro number defaults to the corresponding I/O channel number. Presets — Preset number. If X80 is not provided, the preset number defaults to the corresponding I/O channel number. Automix Gate Status — Input number for automix gate monitoring. If X80 is not specified, the number defaults to the corresponding I/O channel number. Signal Presence — Input number for signal presence monitoring. If X80 is not specified, the input number defaults to the corresponding I/O channel number.			

Object ID (OID) Number Tables

The following tables list input and output gain OIDs. For mix-point OID tables.

Input Path OIDs

Input Gain (Video Sources)								
Input	Gain 1	Gain 2	Input	Gain 1	Gain 2	Input	Gain 1	Gain 2
HDMI - 1			HDMI - 5			DTP 9		
Left	30000	30100	Left	30008	30108	Left	30016	30116
Right	30001	30101	Right	30009	30109	Right	30017	30117
HDMI - 2			HDMI - 6			DTP 10		
Left	30002	30102	Left	30010	30110	Left	30018	30118
Right	30003	30103	Right	30011	30111	Right	30019	30119
HDMI - 3			HDMI 7			DTP 11		
Left	30004	30104	Left	30012	30112	Left	30020	30120
Right	30005	30105	Right	30013	30113	Right	30021	30121
HDMI - 4			HDMI 8			DTP 12		
Left	30006	30106	Left	30014	30114	Left	30022	30122
Right	30007	30107	Right	30015	30115	Right	30023	30123

NOTE: The DTP3 I/O Channels can be input or output, but cannot be both.

Matrix Ties					
OID	Audio	Video	OID	Audio	Video
Matrix Switcher Tie 1	10000	19000	Matrix Switcher Tie 8	10014	19007
Matrix Switcher Tie 2	10002	19001	Matrix Switcher Tie 9	10016	19008
Matrix Switcher Tie 3	10004	19002	Matrix Switcher Tie 10	10018	19009
Matrix Switcher Tie 4	10006	19003	Matrix Switcher Tie 11	10020	19010
Matrix Switcher Tie 5	10008	19004	Matrix Switcher Tie 12	10022	19011
Matrix Switcher Tie 6	10010	19005	Matrix Switcher Audio Line Out Tie 13	10024	
Matrix Switcher Tie 7	10012	19006	Matrix Switcher Amplifier Out Tie 14	10026	

NOTES:

- The DTP3 I/O Channels can be input or output, but cannot be both.
- The OIDs are the same for all DTP3 CrossPoint models. Available OIDs are based on the size of the DTP3 CrossPoint.

Flex Inputs (AEC)					
Input	Input Gain	Pre-mixer Gain	Input	Input Gain	Pre-mixer Gain
Flex Input 1	40000	40100	Flex Input 5	40004	40104
Flex Input 2	40001	40101	Flex Input 6	40005	40105
Flex Input 3	40002	40102	Flex Input 7	40006	40106
Flex Input 4	40003	40103	Flex Input 8	40007	40107

Flex Inputs (FBS)					
Input	Input Gain	Pre-mixer Gain	Input	Input Gain	Pre-mixer Gain
Flex Input 9	40008	40108	Flex Input 13	40012	40112
Flex Input 10	40009	40109	Flex Input 14	40013	40113
Flex Input 11	40010	40110	Flex Input 15	40014	40114
Flex Input 12	40011	40111	Flex Input 16	40015	40115

Flex Inputs (BASIC)					
Input	Input Gain	Pre-mixer Gain	Input	Input Gain	Pre-mixer Gain
Flex Input 17	40016	40116	Flex Input 25	40024	40124
Flex Input 18	40017	40117	Flex Input 26	40025	40125
Flex Input 19	40018	40118	Flex Input 27	40026	40126
Flex Input 20	40019	40119	Flex Input 28	40027	40127
Flex Input 21	40020	40120	Flex Input 29	40028	40128
Flex Input 22	40021	40121	Flex Input 30	40029	40129
Flex Input 23	40022	40122	Flex Input 31	40030	40130
Flex Input 24	40023	40123	Flex Input 32	40031	40131

Flex Inputs (MINIMAL)					
Input	Input Gain	Pre-mixer Gain	Input	Input Gain	Pre-mixer Gain
Flex Input 33	40032	40132	Flex Input 41	40040	40140
Flex Input 34	40033	40133	Flex Input 42	40041	40141
Flex Input 35	40034	40134	Flex Input 43	40042	40142
Flex Input 36	40035	40135	Flex Input 44	40043	40143
Flex Input 37	40036	40136	Flex Input 45	40044	40144
Flex Input 38	40037	40137	Flex Input 46	40045	40145
Flex Input 39	40038	40138	Flex Input 47	40046	40146
Flex Input 40	40039	40139	Flex Input 48	40047	40147

	Dynamic Ducking Targets																			
	AV Matrix Out #1		AV Matrix Out #2		AV Matrix Out #3		AV Matrix Out #4		AV Matrix Out #5		AV Matrix Out #6		AV Matrix Out #7		AV Matrix Out #8		AV Matrix Out #9		AV Matrix Out #10	
	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
Flex In 1	55000	55001	55002	55003	55004	55005	55006	55007	55008	55009	55010	55011	55012	55013	55014	55015	55016	55017	55018	55019
Flex In 2	55100	55101	55102	55103	55104	55105	55106	55107	55108	55109	55110	55111	55112	55113	55114	55115	55116	55117	55118	55119
Flex In 3	55200	55201	55202	55203	55204	55205	55206	55207	55208	55209	55210	55211	55212	55213	55214	55215	55216	55217	55218	55219
Flex In 4	55300	55301	55302	55303	55304	55305	55306	55307	55308	55309	55310	55311	55312	55313	55314	55315	55316	55317	55318	55319
Flex In 5	55400	55401	55402	55403	55404	55405	55406	55407	55408	55409	55410	55411	55412	55413	55414	55415	55416	55417	55418	55419
Flex In 6	55500	55501	55502	55503	55504	55505	55506	55507	55508	55509	55510	55511	55512	55513	55514	55515	55516	55517	55518	55519
Flex In 7	55600	55601	55602	55603	55604	55605	55606	55607	55608	55609	55610	55611	55612	55613	55614	55615	55616	55617	55618	55619
Flex In 8	55700	55701	55702	55703	55704	55705	55706	55707	55708	55709	55710	55711	55712	55713	55714	55715	55716	55717	55718	55719
Flex In 9	55800	55801	55802	55803	55804	55805	55806	55807	55808	55809	55810	55811	55812	55813	55814	55815	55816	55817	55818	55819
Flex In 10	55900	55901	55902	55903	55904	55905	55906	55907	55908	55909	55910	55911	55912	55913	55914	55915	55916	55917	55918	55919
Flex In 11	56000	56001	56002	56003	56004	56005	56006	56007	56008	56009	56010	56011	56012	56013	56014	56015	56016	56017	56018	56019
Flex In 12	56100	56101	56102	56103	56104	56105	56106	56107	56108	56109	56110	56111	56112	56113	56114	56115	56116	56117	56118	56119
Flex In 13	56200	56201	56202	56203	56204	56205	56206	56207	56208	56209	56210	56211	56212	56213	56214	56215	56216	56217	56218	56219
Flex In 14	56300	56301	56302	56303	56304	56305	56306	56307	56308	56309	56310	56311	56312	56313	56314	56315	56316	56317	56318	56319
Flex In 15	56400	56401	56402	56403	56404	56405	56406	56407	56408	56409	56410	56411	56412	56413	56414	56415	56416	56417	56418	56419
Flex In 16	56500	56501	56502	56503	56504	56505	56506	56507	56508	56509	56510	56511	56512	56513	56514	56515	56516	56517	56518	56519
Flex In 17	56600	56601	56602	56603	56604	56605	56606	56607	56608	56609	56610	56611	56612	56613	56614	56615	56616	56617	56618	56619
Flex In 18	56700	56701	56702	56703	56704	56705	56706	56707	56708	56709	56710	56711	56712	56713	56714	56715	56716	56717	56718	56719
Flex In 19	56800	56801	56802	56803	56804	56805	56806	56807	56808	56809	56810	56811	56812	56813	56814	56815	56816	56817	56818	56819
Flex In 20	56900	56901	56902	56903	56904	56905	56906	56907	56908	56909	56910	56911	56912	56913	56914	56915	56916	56917	56918	56919
Flex In 21	57000	57001	57002	57003	57004	57005	57006	57007	57008	57009	57010	57011	57012	57013	57014	57015	57016	57017	57018	57019
Flex In 22	57100	57101	57102	57103	57104	57105	57106	57107	57108	57109	57110	57111	57112	57113	57114	57115	57116	57117	57118	57119
Flex In 23	57200	57201	57202	57203	57204	57205	57206	57207	57208	57209	57210	57211	57212	57213	57214	57215	57216	57217	57218	57219
Flex In 24	57300	57301	57302	57303	57304	57305	57306	57307	57308	57309	57310	57311	57312	57313	57314	57315	57316	57317	57318	57319
Flex In 25	57400	57401	57402	57403	57404	57405	57406	57407	57408	57409	57410	57411	57412	57413	57414	57415	57416	57417	57418	57419
Flex In 26	57500	57501	57502	57503	57504	57505	57506	57507	57508	57509	57510	57511	57512	57513	57514	57515	57516	57517	57518	57519
Flex In 27	57600	57601	57602	57603	57604	57605	57606	57607	57608	57609	57610	57611	57612	57613	57614	57615	57616	57617	57618	57619
Flex In 28	57700	57701	57702	57703	57704	57705	57706	57707	57708	57709	57710	57711	57712	57713	57714	57715	57716	57717	57718	57719
Flex In 29	57800	57801	57802	57803	57804	57805	57806	57807	57808	57809	57810	57811	57812	57813	57814	57815	57816	57817	57818	57819
Flex In 30	57900	57901	57902	57903	57904	57905	57906	57907	57908	57909	57910	57911	57912	57913	57914	57915	57916	57917	57918	57919
Flex In 31	58000	58001	58002	58003	58004	58005	58006	58007	58008	58009	58010	58011	58012	58013	58014	58015	58016	58017	58018	58019
Flex In 32	58100	58101	58102	58103	58104	58105	58106	58107	58108	58109	58110	58111	58112	58113	58114	58115	58116	58117	58118	58119

	Dynamic Ducking Targets								
		AV Matrix Out #11		AV Matrix Out #12		AV Matrix Out #13		AV Matrix Out #14	
		Left	Right	Left	Right	Left	Right	Left	Right
Dynamic Ducking Sources	Flex In 1	55020	55021	55022	55023	55024	55025	55026	55027
	Flex In 2	55120	55121	55122	55123	55124	55125	55126	55127
	Flex In 3	55220	55221	55222	55223	55224	55225	55226	55227
	Flex In 4	55320	55321	55322	55323	55324	55325	55326	55327
	Flex In 5	55420	55421	55422	55423	55424	55425	55426	55427
	Flex In 6	55520	55521	55522	55523	55524	55525	55526	55527
	Flex In 7	55620	55621	55622	55623	55624	55625	55626	55627
	Flex In 8	55720	55721	55722	55723	55724	55725	55726	55727
	Flex In 9	55820	55821	55822	55823	55824	55825	55826	55827
	Flex In 10	55920	55921	55922	55923	55924	55925	55926	55927
	Flex In 11	56020	56021	56022	56023	56024	56025	56026	56027
	Flex In 12	56120	56121	56122	56123	56124	56125	56126	56127
	Flex In 13	56220	56221	56222	56223	56224	56225	56226	56227
	Flex In 14	56320	56321	56322	56323	56324	56325	56326	56327
	Flex In 15	56420	56421	56422	56423	56424	56425	56426	56427
	Flex In 16	56520	56521	56522	56523	56524	56525	56526	56527
	Flex In 17	56620	56621	56622	56623	56624	56625	56626	56627
	Flex In 18	56720	56721	56722	56723	56724	56725	56726	56727
	Flex In 19	56820	56821	56822	56823	56824	56825	56826	56827
	Flex In 20	56920	56921	56922	56923	56924	56925	56926	56927
	Flex In 21	57020	57021	57022	57023	57024	57025	57026	57027
	Flex In 22	57120	57121	57122	57123	57124	57125	57126	57127
	Flex In 23	57220	57221	57222	57223	57224	57225	57226	57227
	Flex In 24	57320	57321	57322	57323	57324	57325	57326	57327
	Flex In 25	57420	57421	57422	57423	57424	57425	57426	57427
	Flex In 26	57520	57521	57522	57523	57524	57525	57526	57527
	Flex In 27	57620	57621	57622	57623	57624	57625	57626	57627
	Flex In 28	57720	57721	57722	57723	57724	57725	57726	57727
	Flex In 29	57820	57821	57822	57823	57824	57825	57826	57827
	Flex In 30	57920	57921	57922	57923	57924	57925	57926	57927
	Flex In 31	58020	58021	58022	58023	58024	58025	58026	58027
	Flex In 32	58120	58121	58122	58123	58124	58125	58126	58127

Dynamic Ducking Sources	Dynamic Ducking Targets																								
		Flex In 1	Flex In 2	Flex In 3	Flex In 4	Flex In 5	Flex In 6	Flex In 7	Flex In 8	Flex In 9	Flex In 10	Flex In 11	Flex In 12	Flex In 13	Flex In 14	Flex In 15	Flex In 16	Flex In 17	Flex In 18	Flex In 19	Flex In 20	Flex In 21	Flex In 22	Flex In 23	Flex In 24
	Flex In 1		55029	55030	55031	55032	55033	55034	55035	55036	55037	55038	55039	55040	55041	55042	55043	55044	55045	55046	55047	55048	55049	55050	55051
	Flex In 2	55128		55130	55131	55132	55133	55134	55135	55136	55137	55138	55139	55140	55141	55142	55143	55144	55145	55146	55147	55148	55149	55150	55151
	Flex In 3	55228	55229		55231	55232	55233	55234	55235	55236	55237	55238	55239	55240	55241	55242	55243	55244	55245	55246	55247	55248	55249	55250	55251
	Flex In 4	55328	55329	55330		55332	55333	55334	55335	55336	55337	55338	55339	55340	55341	55342	55343	55344	55345	55346	55347	55348	55349	55350	55351
	Flex In 5	55428	55429	55430	55431		55433	55434	55435	55436	55437	55438	55439	55440	55441	55442	55443	55444	55445	55446	55447	55448	55449	55450	55451
	Flex In 6	55528	55529	55530	55531	55532		55534	55535	55536	55537	55538	55539	55540	55541	55542	55543	55544	55545	55546	55547	55548	55549	55550	55551
	Flex In 7	55628	55628	55630	55631	55632	55633		55635	55636	55637	55638	55639	55640	55641	55642	55643	55644	55645	55646	55647	55648	55649	55650	55651
	Flex In 8	55728	55729	55730	55731	55732	55733	55734		55736	55737	55738	55739	55740	55741	55742	55743	55744	55745	55746	55747	55748	55749	55750	55751
	Flex In 9	55828	55829	55830	55831	55832	55833	55834	55835		55837	55838	55839	55840	55841	55842	55843	55844	55845	55846	55847	55848	55849	55850	55851
	Flex In 10	55928	55959	55930	55931	55932	55933	55934	55935	55936		55938	55939	55940	55941	55942	55943	55944	55945	55946	55947	55948	55949	55950	55951
	Flex In 11	56028	56029	56030	56031	56032	56033	56034	56035	56036	56037		56039	56040	56041	56042	56043	56044	56045	56046	56047	56048	56049	56050	56051
	Flex In 12	56128	56129	56130	56131	56132	56133	56134	56135	56136	56137	56138		56140	56141	56142	56143	56144	56145	56146	56147	56148	56149	56150	56151
	Flex In 13	56228	56229	56230	56231	56232	56233	56234	56235	56236	56237	56238	56239		56241	56242	56243	56244	56245	56246	56247	56248	56249	56250	56251
	Flex In 14	56328	56329	56330	56331	56332	56333	56334	56335	56336	56337	56338	56339	56340		56342	56343	56344	56345	56346	56347	56348	56349	56350	56351
	Flex In 15	56428	56429	56430	56431	56432	56433	56434	56435	56436	56437	56438	56439	56440	56441		56443	56444	56445	56446	56447	56448	56449	56450	56451
	Flex In 16	56528	56529	56530	56531	56532	56533	56534	56535	56536	56537	56538	56539	56540	56541	56542		56544	56545	56546	56547	56548	56549	56550	56551
	Flex In 17	56628	56629	56630	56631	56632	56633	56634	56635	56636	56637	56638	56639	56640	56641	56642	56643		56645	56646	56647	56648	56649	56650	56651
	Flex In 18	56728	56729	56730	56731	56732	56733	56734	56735	56736	56737	56738	56739	56740	56741	56742	56743	56744		56746	56747	56748	56749	56750	56751
	Flex In 19	56828	56829	56830	56831	56832	56833	56834	56835	56836	56837	56838	56839	56840	56841	56842	56843	56844	56845		56847	56848	56849	56850	56851
	Flex In 20	56928	56929	56930	56931	56932	56933	56934	56935	56936	56937	56938	56939	56940	56941	56942	56943	56944	56945	56946		56948	56949	56950	56951
	Flex In 21	57028	57029	57030	57031	57032	57033	57034	57035	57036	57037	57038	57039	57040	57041	57042	57043	57044	57045	57046	57047		57049	57050	57051
	Flex In 22	57128	57129	57130	57131	57132	57133	57134	57135	57136	57137	57138	57139	57140	57141	57142	57143	57144	57145	57146	57147	57148		57150	57151
	Flex In 23	57228	57229	57230	57231	57232	57233	57234	57235	57236	57237	57238	57239	57240	57241	57242	57243	57244	57245	57246	57247	57248	57249		57251
	Flex In 24	57328	57329	57330	57331	57332	57333	57334	57335	57336	57337	57338	57339	57340	57341	57342	57343	57344	57345	57346	57347	57348	57349	57350	
	Flex In 25	57428	57429	57430	57431	57432	57433	57434	57435	57436	57437	57438	57439	57440	57441	57442	57443	57444	57445	57446	57447	57448	57449	57450	57451
	Flex In 26	57528	57529	57530	57531	57532	57533	57534	57535	57536	57537	57538	57539	57540	57541	57542	57543	57544	57545	57546	57547	57548	57549	57550	57551
	Flex In 27	57628	57629	57630	57631	57632	57633	57634	57635	57636	57637	57638	57639	57640	57641	57642	57643	57644	57645	57646	57647	57648	57649	57650	57651
	Flex In 28	57728	57729	57730	57731	57732	57733	57734	57735	57736	57737	57738	57739	57740	57741	57742	57743	57744	57745	57746	57747	57748	57749	57750	57751
	Flex In 29	57828	57829	57830	57831	57832	57833	57834	57835	57836	57837	57838	57839	57840	57841	57842	57843	57844	57845	57846	57847	57848	57849	57850	57851
	Flex In 30	57928	57929	57930	57931	57932	57933	57934	57935	57936	57937	57938	57939	57940	57941	57942	57943	57944	57945	57946	57947	57948	57949	57950	57951
	Flex In 31	58028	58029	58030	58031	58032	58033	58034	58035	58036	58037	58038	58039	58040	58041	58042	58043	58044	58045	58046	58047	58048	58049	58050	58051
	Flex In 32	58128	58129	58130	58131	58132	58133	58134	58135	58136	58137	58138	58139	58140	58141	58142	58143	58144	58145	58146	58147	58148	58149	58150	58151

	Dynamic Ducking Targets																								
	Flex In 25	Flex In 26	Flex In 27	Flex In 28	Flex In 29	Flex In 30	Flex In 31	Flex In 32	Flex In 33	Flex In 34	Flex In 35	Flex In 36	Flex In 37	Flex In 38	Flex In 39	Flex In 40	Flex In 41	Flex In 42	Flex In 43	Flex In 44	Flex In 45	Flex In 46	Flex In 47	Flex In 48	
Dynamic Ducking Sources	Flex In 1	55052	55053	55054	55055	55056	55057	55058	55059	55060	55061	55062	55063	55064	55065	55066	55067	55068	55069	55070	55071	55072	55073	55074	55075
	Flex In 2	55152	55153	55154	55155	55156	55157	55158	55159	55160	55161	55162	55163	55164	55165	55166	55167	55168	55169	55170	55171	55172	55173	55174	55175
	Flex In 3	55252	55253	55254	55255	55256	55257	55258	55259	55260	55261	55262	55263	55264	55265	55266	55267	55268	55269	55270	55271	55272	55273	55274	55275
	Flex In 4	55352	55353	55354	55355	55356	55357	55358	55359	55360	55361	55362	55363	55364	55365	55366	55367	55368	55369	55370	55371	55372	55373	55374	55375
	Flex In 5	55452	55453	55454	55455	55456	55457	55458	55459	55460	55461	55462	55463	55464	55465	55466	55467	55468	55469	55470	55471	55472	55473	55474	55475
	Flex In 6	55552	55553	55554	55555	55556	55557	55558	55559	55560	55561	55562	55563	55564	55565	55566	55567	55568	55569	55570	55571	55572	55573	55574	55575
	Flex In 7	55652	55653	55654	55655	55656	55657	55658	55659	55660	55661	55662	55663	55664	55665	55666	55667	55668	55669	55670	55671	55672	55673	55674	55675
	Flex In 8	55752	55753	55754	55755	55756	55757	55758	55759	55760	55761	55762	55763	55764	55765	55766	55767	55768	55769	55770	55771	55772	55773	55774	55775
	Flex In 9	55852	55853	55854	55855	55856	55857	55858	55859	55860	55861	55862	55863	55864	55865	55866	55867	55868	55869	55870	55871	55872	55873	55874	55875
	Flex In 10	55952	55953	55954	55955	55956	55957	55958	55959	55960	55961	55962	55963	55964	55965	55966	55967	55968	55969	55970	55971	55972	55973	55974	55975
	Flex In 11	56052	56053	56054	56055	56056	56057	56058	56059	56060	56061	56062	56063	56064	56065	56066	56067	56068	56069	56070	56071	56072	56073	56074	56075
	Flex In 12	56152	56153	56154	56155	56156	56157	56158	56159	56160	56161	56162	56163	56164	56165	56166	56167	56168	56169	56170	56171	56172	56173	56174	56175
	Flex In 13	56252	56253	56254	56255	56256	56257	56258	56259	56260	56261	56262	56263	56264	56265	56266	56267	56268	56269	56270	56271	56272	56273	56274	56275
	Flex In 14	56352	56353	56354	56355	56356	56357	56358	56359	56360	56361	56362	56363	56364	56365	56366	56367	56368	56369	56370	56371	56372	56373	56374	56375
	Flex In 15	56452	56453	56454	56455	56456	56457	56458	56459	56460	56461	56462	56463	56464	56465	56466	56467	56468	56469	56470	56471	56472	56473	56474	56475
	Flex In 16	56552	56553	56554	56555	56556	56557	56558	56559	56560	56561	56562	56563	56564	56565	56566	56567	56568	56569	56570	56571	56572	56573	56574	56575
	Flex In 17	56652	56653	56654	56655	56656	56657	56658	56659	56660	56661	56662	56663	56664	56665	56666	56667	56668	56669	56670	56671	56672	56673	56674	56675
	Flex In 18	56752	56753	56754	56755	56756	56757	56758	56759	56760	56761	56762	56763	56764	56765	56766	56767	56768	56769	56770	56771	56772	56773	56774	56775
	Flex In 19	56852	56853	56854	56855	56856	56857	56858	56859	56860	56861	56862	56863	56864	56865	56866	56867	56868	56869	56870	56871	56872	56873	56874	56875
	Flex In 20	56952	56953	56954	56955	56956	56957	56958	56959	56960	56961	56962	56963	56964	56965	56966	56967	56968	56969	56970	56971	56972	56973	56974	56975
	Flex In 21	57052	57053	57054	57055	57056	57057	57058	57059	57060	57061	57062	57063	57064	57065	57066	57067	57068	57069	57070	57071	57072	57073	57074	57075
	Flex In 22	57152	57153	57154	57155	57156	57157	57158	57159	57160	57161	57162	57163	57164	57165	57166	57167	57168	57169	57170	57171	57172	57173	57174	57175
	Flex In 23	57252	57253	57254	57255	57256	57257	57258	57259	57260	57261	57262	57263	57264	57265	57266	57267	57268	57269	57270	57271	57272	57273	57274	57275
	Flex In 24	57352	57353	57354	57355	57356	57357	57358	57359	57360	57361	57362	57363	57364	57365	57366	57367	57368	57369	57370	57371	57372	57373	57374	57375
	Flex In 25		57453	57454	57455	57456	57457	57458	57459	57460	57461	57462	57463	57464	57465	57466	57467	57468	57469	57470	57471	57472	57473	57474	57475
	Flex In 26	57552		57554	57555	57556	57557	57558	57559	57560	57561	57562	57563	57564	57565	57566	57567	57568	57569	57570	57571	57572	57573	57574	57575
	Flex In 27	57652	57653		57655	57656	57657	57658	57659	57660	57661	57662	57663	57664	57665	57666	57667	57668	57669	57670	57671	57672	57673	57674	57675
	Flex In 28	57752	57753	57754		57756	57757	57758	57759	57760	57761	57762	57763	57764	57765	57766	57767	57768	57769	57770	57771	57772	57773	57774	57775
	Flex In 29	57852	57853	57854	57855		57857	57858	57859	57860	57861	57862	57863	57864	57865	57866	57867	57868	57869	57870	57871	57872	57873	57874	57875
	Flex In 30	57952	57953	57854	57955	57956		57958	57959	57960	57961	57962	57963	57964	57965	57966	57967	57968	57969	57970	57971	57972	57973	57974	57975
	Flex In 31	58052	58053	58054	58055	58056	58057		58059	58060	58061	58062	58063	58064	58065	58066	58067	58068	58069	58070	58071	58072	58073	58074	58075
	Flex In 32	58152	58153	58154	58155	58156	58157	58158		58160	58161	58162	58163	58164	58165	58166	58167	58168	58169	58170	58171	58172	58173	58174	58175

	Audio Visual Outputs																								
	Audio Mix Matrix	HDMI/DTP #1		HDMI/DTP #2		HDMI/DTP #3		HDMI/DTP #4		HDMI/DTP #5		HDMI/DTP #6		HDMI #7		HDMI #8		DTP #9		DTP #10		DTP #11		DTP #12	
		Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
Audio Visual 1-12	MTX Out 1 L			20002	20003	20004	20005	20006	20007	20008	20009	20010	20011	20012	20013	20014	20015	20016	20017	20018	20019	20020	20021	20022	20023
	MTX Out 1 R			20102	20103	20104	20105	20106	20107	20108	20109	20110	20111	20112	20113	20114	20115	20116	20117	20118	20119	20120	20121	20122	20123
	MTX Out 2 L	20200	20201			20204	20205	20206	20207	20208	20209	20210	20211	20212	20213	20214	20215	20216	20217	20218	20219	20220	20221	20222	20223
	MTX Out 2 R	20300	20301			20304	20305	20306	20307	20308	20309	20310	20311	20312	20313	20314	20315	20316	20317	20318	20319	20320	20321	20322	20323
	MTX Out 3 L	20400	20401	20402	20403			20406	20407	20408	20409	20410	20411	20412	20413	20414	20415	20416	20417	20418	20419	20420	20421	20422	20423
	MTX Out 3 R	20500	20501	20502	20503			20506	20507	20508	20509	20510	20511	20512	20513	20514	20515	20516	20517	20518	20519	20520	20521	20522	20523
	MTX Out 4 L	20600	20601	20602	20603	20604	20605			20608	20609	20610	20611	20612	20613	20614	20615	20616	20617	20618	20619	20620	20621	20622	20623
	MTX Out 4 R	20700	20701	20702	20703	20704	20705			20708	20709	20710	20711	20712	20713	20714	20715	20716	20717	20718	20719	20720	20721	20722	20723
	MTX Out 5 L	20800	20801	20802	20803	20804	20805	20806	20807			20810	20811	20812	20813	20814	20815	20816	20817	20818	20819	20820	20821	20822	20823
	MTX Out 5 R	20900	20901	20902	20903	20904	20905	20906	20907			20910	20911	20912	20913	20914	20915	20916	20917	20918	20919	20920	20921	20922	20923
	MTX Out 6 L	21000	21001	21002	21003	21004	21005	21006	21007	21008	21009			21012	21013	21014	21015	21016	21017	21018	21019	21020	21021	21022	21023
	MTX Out 6 R	21100	21101	21102	21103	21104	21105	21106	21107	21108	21109			21112	21113	21114	21115	21116	21117	21118	21119	21120	21121	21122	21123
	MTX Out 7 L	21200	21201	21202	21203	21204	21205	21206	21207	21208	21209	21210	21211			21214	21215	21216	21217	21218	21219	21220	21221	21222	21223
	MTX Out 7 R	21300	21301	21302	21303	21304	21305	21306	21307	21308	21309	21310	21311			21314	21315	21316	21317	21318	21319	21320	21321	21322	21323
	MTX Out 8 L	21400	21401	21402	21403	21404	21405	21406	21407	21408	21409	21410	21411	21412	21413			21416	21417	21418	21419	21420	21421	21422	21423
	MTX Out 8 R	21500	21501	21502	21503	21504	21505	21506	21507	21508	21509	21510	21511	21512	21513			21516	21517	21518	21519	21520	21521	21522	21523
	MTX Out 9 L	21600	21601	21602	21603	21604	21605	21606	21607	21608	21609	21610	21611	21612	21613	21614	21615			21618	21619	21620	21621	21622	21623
	MTX Out 9 R	21700	21701	21702	21703	21704	21705	21706	21707	21708	21709	21710	21711	21712	21713	21714	21715			21718	21719	21720	21721	21722	21723
	MTX Out 10 L	21800	21801	21802	21803	21804	21805	21806	21807	21808	21809	21810	21811	21812	21813	21814	21815	21816	21817			21820	21821	21822	21823
	MTX Out 10 R	21900	21901	21902	21903	21904	21905	21906	21907	21908	21909	21910	21911	21912	21913	21914	21915	21916	21917			21920	21921	21922	21923
	MTX Out 11 L	22000	22001	22002	22003	22004	22005	22006	22007	22008	22009	22010	22011	22012	22013	22014	22015	22016	22017	22018	22019			22022	22023
	MTX Out 11 R	22100	22101	22102	22103	22104	22105	22106	22107	22108	22109	22110	22111	22112	22113	22114	22115	22116	22117	22118	22119			22122	22123
	MTX Out 12 L	22200	22201	22202	22203	22204	22205	22206	22207	22208	22209	22210	22211	22212	22213	22214	22215	22216	22217	22218	22219	22220	22221		
	MTX Out 12 R	22300	22301	22302	22303	22304	22305	22306	22307	22308	22309	22310	22311	22312	22313	22314	22315	22316	22317	22318	22319	22320	22321		
Analog	MTX Out 13 L	22400	22401	22402	22403	22404	22405	22406	22407	22408	22409	22410	22411	22412	22413	22414	22415	22416	22417	22418	22419	22420	22421	22422	22423
	MTX Out 13 R	22500	22501	22502	22503	22504	22505	22506	22507	22508	22509	22510	22511	22512	22513	22514	22515	22516	22517	22518	22519	22520	22521	22522	22523
	MTX Out 14 L	22600	22601	22602	22603	22604	22605	22606	22607	22608	22609	22610	22611	22612	22613	22614	22615	22616	22617	22618	22619	22620	22621	22622	22623
	MTX Out 14 R	22700	22701	22702	22703	22704	22705	22706	22707	22708	22709	22710	22711	22712	22713	22714	22715	22716	22717	22718	22719	22720	22721	22722	22723
AEC	Flex In 1	22800	22801	22802	22803	22804	22805	22806	22807	22808	22809	22810	22811	22812	22813	22814	22815	22816	22817	22818	22819	22820	22821	22822	22823
	Flex In 2	22900	22901	22902	22903	22904	22905	22906	22907	22908	22909	22910	22911	22912	22913	22914	22915	22916	22917	22918	22919	22920	22921	22922	22923
	Flex In 3	23000	23001	23002	23003	23004	23005	23006	23007	23008	23009	23010	23011	23012	23013	23014	23015	23016	23017	23018	23019	23020	23021	23022	23023
	Flex In 4	23100	23101	23102	23103	23104	23105	23106	23107	23108	23109	23110	23111	23112	23113	23114	23115	23116	23117	23118	23119	23120	23121	23122	23123
	Flex In 5	23200	23201	23202	23203	23204	23205	23206	23207	23208	23209	23210	23211	23212	23213	23214	23215	23216	23217	23218	23219	23220	23221	23222	23223
	Flex In 6	23300	23301	23302	23303	23304	23305	23306	23307	23308	23309	23310	23311	23312	23313	23314	23315	23316	23317	23318	23319	23320	23321	23322	23323
	Flex In 7	23400	23401	23402	23403	23404	23405	23406	23407	23408	23409	23410	23411	23412	23413	23414	23415	23416	23417	23418	23419	23420	23421	23422	23423
	Flex In 8	23500	23501	23502	23503	23504	23505	23506	23507	23508	23509	23510	23511	23512	23513	23514	23515	23516	23517	23518	23519	23520	23521	23522	23523

Audio Visual Outputs																									
Audio Mix Matrix		HDMI/DTP #1		HDMI/DTP #2		HDMI/DTP #3		HDMI/DTP #4		HDMI/DTP #5		HDMI/DTP #6		HDMI #7		HDMI #8		DTP #9		DTP #10		DTP #11		DTP #12	
		Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
FBS	Flex In 9	23600	23601	23602	23603	23604	23605	23606	23607	23608	23609	23610	23611	23612	23613	23614	23615	23616	23617	23618	23619	23620	23621	23622	23623
	Flex In 10	23700	23701	23702	23703	23704	23705	23706	23707	23708	23709	23710	23711	23712	23713	23714	23715	23716	23717	23718	23719	23720	23721	23722	23723
	Flex In 11	23800	23801	23802	23803	23804	23805	23806	23807	23808	23809	23810	23811	23812	23813	23814	23815	23816	23817	23818	23819	23820	23821	23822	23823
	Flex In 12	23900	23901	23902	23903	23904	23905	23906	23907	23908	23909	23910	23911	23912	23913	23914	23915	23916	23917	23918	23919	23920	23921	23922	23923
	Flex In 13	24000	24001	24002	24003	24004	24005	24006	24007	24008	24009	24010	24011	24012	24013	24014	24015	24016	24017	24018	24019	24020	24021	24022	24023
	Flex In 14	24100	24101	24102	24103	24104	24105	24106	24107	24108	24109	24110	24111	24112	24113	24114	24115	24116	24117	24118	24119	24120	24121	24122	24123
	Flex In 15	24200	24201	24202	24203	24204	24205	24206	24207	24208	24209	24210	24211	24212	24213	24214	24215	24216	24217	24218	24219	24220	24221	24222	24223
	Flex In 16	24300	24301	24302	24303	24304	24305	24306	24307	24308	24309	24310	24311	24312	24313	24314	24315	24316	24317	24318	24319	24320	24321	24322	24323
Basic	Flex In 17	24400	24401	24402	24403	24404	24405	24406	24407	24408	24409	24410	24411	24412	24413	24414	24415	24416	24417	24418	24419	24420	24421	24422	24423
	Flex In 18	24500	24501	24502	24503	24504	24505	24506	24507	24508	24509	24510	24511	24512	24513	24514	24515	24516	24517	24518	24519	24520	24521	24522	24523
	Flex In 19	24600	24601	24602	24603	24604	24605	24606	24607	24608	24609	24610	24611	24612	24613	24614	24615	24616	24617	24618	24619	24620	24621	24622	24623
	Flex In 20	24700	24701	24702	24703	24704	24705	24706	24707	24708	24709	24710	24711	24712	24713	24714	24715	24716	24717	24718	24719	24720	24721	24722	24723
	Flex In 21	24800	24801	24802	24803	24804	24805	24806	24807	24808	24809	24810	24811	24812	24813	24814	24815	24816	24817	24818	24819	24820	24821	24822	24823
	Flex In 22	24900	24901	24902	24903	24904	24905	24906	24907	24908	24909	24910	24911	24912	24913	24914	24915	24916	24917	24918	24919	24920	24921	24922	24923
	Flex In 23	25000	25001	25002	25003	25004	25005	25006	25007	25008	25009	25010	25011	25012	25013	25014	25015	25016	25017	25018	25019	25020	25021	25022	25023
	Flex In 24	25100	25101	25102	25103	25104	25105	25106	25107	25108	25109	25110	25111	25112	25113	25114	25115	25116	25117	25118	25119	25120	25121	25122	25123
	Flex In 25	25200	25201	25202	25203	25204	25205	25206	25207	25208	25209	25210	25211	25212	25213	25214	25215	25216	25217	25218	25219	25220	25221	25222	25223
	Flex In 26	25300	25301	25302	25303	25304	25305	25306	25307	25308	25309	25310	25311	25312	25313	25314	25315	25316	25317	25318	25319	25320	25321	25322	25323
	Flex In 27	25400	25401	25402	25403	25404	25405	25406	25407	25408	25409	25410	25411	25412	25413	25414	25415	25416	25417	25418	25419	25420	25421	25422	25423
	Flex In 28	25500	25501	25502	25503	25504	25505	25506	25507	25508	25509	25510	25511	25512	25513	25514	25515	25516	25517	25518	25519	25520	25521	25522	25523
	Flex In 29	25600	25601	25602	25603	25604	25605	25606	25607	25608	25609	25610	25611	25612	25613	25614	25615	25616	25617	25618	25619	25620	25621	25622	25623
	Flex In 30	25700	25701	25702	25703	25704	25705	25706	25707	25708	25709	25710	25711	25712	25713	25714	25715	25716	25717	25718	25719	25720	25721	25722	25723
	Flex In 31	25800	25801	25802	25803	25804	25805	25806	25807	25808	25809	25810	25811	25812	25813	25814	25815	25816	25817	25818	25819	25820	25821	25822	25823
	Flex In 32	25900	25901	25902	25903	25904	25905	25906	25907	25908	25909	25910	25911	25912	25913	25914	25915	25916	25917	25918	25919	25920	25921	25922	25923
Minimal	Flex In 33	26000	26001	26002	26003	26004	26005	26006	26007	26008	26009	26010	26011	26012	26013	26014	26015	26016	26017	26018	26019	26020	26021	26022	26023
	Flex In 34	26100	26101	26102	26103	26104	26105	26106	26107	26108	26109	26110	26111	26112	26113	26114	26115	26116	26117	26118	26119	26120	26121	26122	26123
	Flex In 35	26200	26201	26203	26203	26204	26205	26206	26207	26208	26209	26210	26211	26212	26213	26214	26215	26216	26217	26218	26219	26220	26221	26222	26223
	Flex In 36	26300	26301	26302	26303	26304	26305	26306	26307	26308	26309	26310	26311	26312	26313	26314	26315	26316	26317	26318	26319	26320	26321	26322	26323
	Flex In 37	26400	26401	26402	26403	26404	26405	26406	26407	26408	26409	26410	26411	26412	26413	26414	26415	26416	26417	26418	26419	26420	26421	26422	26423
	Flex In 38	26500	26501	26502	26503	26504	26505	26506	26507	26508	26509	26510	26511	26512	26513	26514	26515	26516	26517	26518	26519	26520	26521	26522	26523
	Flex In 39	26600	26601	26602	26603	26604	26605	26606	26607	26608	26609	26610	26611	26612	26613	26614	26615	26616	26617	26618	26619	26620	26621	26622	26623
	Flex In 40	26700	26701	26702	26703	26704	26705	26706	26707	26708	26709	26710	26711	26712	26713	26714	26715	26716	26717	26718	26719	26720	26721	26722	26723
	Flex In 41	26800	26801	26802	26803	26804	26805	26806	26807	26808	26809	26810	26811	26812	26813	26814	26815	26816	26817	26818	26819	26820	26821	26822	26823
	Flex In 42	26900	26901	26902	26903	26904	26905	26906	26907	26908	26909	26910	26911	26912	26913	26914	26915	26916	26917	26918	26919	26920	26921	26922	26923
	Flex In 43	27000	27001	27002	27003	27004	27005	27006	27007	27008	27009	27010	27011	27012	27013	27014	27015	27016	27017	27018	27019	27020	27021	27022	27023
	Flex In 44	27100	27101	27102	27103	27104	27105	27106	27107	27108	27109	27110	27111	27112	27113	27114	27115	27116	27117	27118	27119	27120	27121	27122	27123
	Flex In 45	27200	27201	27202	27203	27204	27205	27206	27207	27208	27209	27210	27211	27212	27213	27214	27215	27216	27217	27218	27219	27220	27221	27222	27223
	Flex In 46	27300	27301	27302	27303	27304	27305	27306	27307	27308	27309	27310	27311	27312	27313	27314	27315	27316	27317	27318	27319	27320	27321	27322	27323
	Flex In 47	27400	27401	27402	27403	27404	27405	27406	27407	27408	27409	27410	27411	27412	27413	27414	27415	27416	27417	27418	27419	27420	27421	27422	27423
	Flex In 48	27500	27501	27502	27503	27504	27505	27506	27507	27508	27509	27510	27511	27512	27513	27514	27515	27516	27517	27518	27519	27520	27521	27522	27523

Analog Out																	
Audio Visual 1-12	Audio Mix Matrix	Line 1	Line 2	AMP 1	AMP 2	AEC	Audio Mix Matrix	Line 1	Line 2	AMP 1	AMP 2	Minimal	Audio Mix Matrix	Line 1	Line 2	AMP 1	AMP 2
	MTX Out 1L	20024	20025	20026	20027		Flex In 1	22824	22825	22826	22827		Flex In 33	26024	26025	26026	26027
	MTX Out 1R	20124	20125	20126	20127		Flex In 2	22924	22925	22926	22927		Flex In 34	26124	26125	26126	26127
	MTX Out 2L	20224	20225	20226	20227		Flex In 3	23024	23025	23026	23027		Flex In 35	26224	26225	26226	26227
	MTX Out 2R	20324	20325	20326	20327		Flex In 4	23124	23125	23126	23127		Flex In 36	26324	26325	26326	26327
	MTX Out 3L	20424	20425	20426	20427		Flex In 5	23224	23225	23226	23227		Flex In 37	26424	26425	26426	26427
	MTX Out 3R	20524	20525	20526	20527		Flex In 6	23324	23325	23326	23327		Flex In 38	26524	26525	26526	26527
	MTX Out 4L	20624	20625	20626	20627		Flex In 7	23424	23425	23426	23427		Flex In 39	26624	26625	26626	26627
	MTX Out 4R	20724	20725	20726	20727	Flex In 8	23524	23525	23526	23527	Flex In 40		26724	26725	26726	26727	
	MTX Out 5L	20824	20825	20826	20827	FBS	Flex In 9	23624	23625	23626	23627		Flex In 41	26824	26825	26826	26827
	MTX Out 5R	20924	20925	20926	20927		Flex In 10	23724	23725	23726	23727		Flex In 42	26924	26925	26926	26927
	MTX Out 6L	21024	21025	21026	21027		Flex In 11	23824	23825	23826	23827		Flex In 43	27024	27025	27026	27027
	MTX Out 6R	21124	21125	21126	21127		Flex In 12	23924	23925	23926	23927		Flex In 44	27124	27125	27126	27127
	MTX Out 7L	21224	21225	21226	21227		Flex In 13	24024	24025	24026	24027		Flex In 45	27224	27225	27226	27227
	MTX Out 7R	21324	21325	21326	21327		Flex In 14	24124	24125	24126	24127		Flex In 46	27324	27325	27326	27327
	MTX Out 8L	21424	21425	21426	21427		Flex In 15	24224	24225	24226	24227		Flex In 47	27424	27425	27426	27427
MTX Out 8R	21524	21525	21526	21527	Flex In 16		24324	24325	24326	24327	Flex In 48	27524	27525	27526	27527		
MTX Out 9L	21624	21625	21626	21627	Basic	Flex In 17	24424	24425	24426	24427							
MTX Out 9R	21724	21725	21726	21727		Flex In 18	24524	24525	24526	24527							
MTX Out 10L	21824	21825	21826	21827		Flex In 19	24624	24625	24626	24627							
MTX Out 10R	21924	21925	21926	21927		Flex In 20	24724	24725	24726	24727							
MTX Out 11L	22024	22025	22026	22027		Flex In 21	24824	24825	24826	24827							
MTX Out 11R	22124	22125	22126	22127		Flex In 22	24924	24925	24926	24927							
MTX Out 12L	22224	22225	22226	22227		Flex In 23	25024	25025	25026	25027							
MTX Out 12R	22324	22325	22326	22327		Flex In 24	25124	25125	25126	25127							
Analog	MTX Out 13L	22424	22425	22426		22427	Flex In 25	25224	25225	25226	25227						
	MTX Out 13R	22524	22525	22526		22527	Flex In 26	25324	25325	25326	25327						
	MTX Out 14L	22624	22625	22626		22627	Flex In 27	25424	25425	25426	25427						
	MTX Out 14R	22724	22725	22726		22727	Flex In 28	25524	25525	25526	25527						
							Flex In 29	25624	25625	25626	25627						
							Flex In 30	25724	25725	25726	25727						
							Flex In 31	25824	25825	25826	25827						
							Flex In 32	25924	25925	25926	25927						

		USB Out																					
		Audio Mix Matrix	USB 1L	USB 1R	USB 2L	USB 2R	USB 3L	USB 3R	Audio Mix Matrix	USB 1L	USB 1R	USB 2L	USB 2R	USB 3L	USB 3R								
Audio Visual 1-12	Audio Mix Matrix	USB 1L	USB 1R	USB 2L	USB 2R	USB 3L	USB 3R	AEC	Flex In 1	22828	22829	22830	22831	22832	22833	Minimal	Flex In 33	26028	26029	26030	26031	26032	26033
	MTX Out 1R	20128	20129	20130	20131	20132	20133		Flex In 2	22928	22929	22930	22931	22932	22933		Flex In 34	26128	26129	26130	26131	26132	26133
	MTX Out 2L	20228	20229	20230	20231	20232	20233		Flex In 3	23028	23029	23030	23031	23032	23033		Flex In 35	26228	26229	26230	26231	26232	26233
	MTX Out 2R	20328	20329	20330	20331	20332	20333		Flex In 4	23128	23129	23130	23131	23132	23133		Flex In 36	26328	26329	26330	26331	26332	26333
	MTX Out 3L	20428	20429	20430	20431	20432	20433		Flex In 5	23228	23229	23230	23231	23232	23233		Flex In 37	26428	26429	26430	26431	26432	26433
	MTX Out 3R	20528	20529	20530	20531	20532	20533		Flex In 6	23328	23329	23330	23331	23332	23333		Flex In 38	26528	26529	26530	26531	26532	26533
	MTX Out 4L	20628	20629	20630	20631	20632	20633		Flex In 7	23428	23429	23430	23431	23432	23433		Flex In 39	26628	26629	26630	26631	26632	26633
	MTX Out 4R	20728	20729	20730	20731	20732	20733		Flex In 8	23528	23529	23530	23531	23532	23533		Flex In 40	26728	26729	26730	26731	26732	26733
	MTX Out 5L	20828	20829	20830	20831	20832	20833	FBS	Flex In 9	23628	23629	23630	23631	23632	23633	Flex In 41	26828	26829	26830	26831	26832	26833	
	MTX Out 5R	20928	20929	20930	20931	20932	20933		Flex In 10	23728	23729	23730	23731	23732	23733	Flex In 42	26928	26929	26930	26931	26932	26933	
	MTX Out 6L	21028	21029	21030	21031	31032	21033		Flex In 11	23828	23829	23830	23831	23832	23833	Flex In 43	27028	27029	27030	27031	27032	27033	
	MTX Out 6R	21128	21129	21130	21131	21132	21133		Flex In 12	23928	23929	23930	23931	23932	23933	Flex In 44	27128	27129	27130	27131	27132	27133	
	MTX Out 7L	21228	21229	21230	21231	21232	21233		Flex In 13	24028	24029	24030	24031	24032	24033	Flex In 45	27228	27229	27230	27231	27232	27233	
	MTX Out 7R	21328	21329	21330	21331	21332	21333		Flex In 14	24128	24129	24130	24131	24132	24133	Flex In 46	27328	27329	27330	27331	27332	27333	
	MTX Out 8L	21428	21429	21430	21431	21432	21433		Flex In 15	24228	24229	24230	24231	24232	24233	Flex In 47	27428	27429	27430	27431	27432	27433	
	MTX Out 8R	21528	21529	21530	21531	21532	21533		Flex In 16	24328	24329	24330	24331	24332	24333	Flex In 48	27528	27529	27530	27531	27532	27533	
MTX Out 9L	21628	21629	21630	21631	21632	21633	Basic	Flex In 17	24428	24429	24430	24431	24432	24433									
MTX Out 9R	21728	21729	21730	21731	21732	21733		Flex In 18	24528	24529	24530	24531	24532	24533									
MTX Out 10L	21828	21829	21830	21831	21832	21833		Flex In 19	24628	24629	24630	24631	24632	24633									
MTX Out 10R	21928	21929	21930	21931	21932	21933		Flex In 20	24728	24729	24730	24731	24732	24733									
MTX Out 11L	22028	22029	22030	22031	22032	22033		Flex In 21	24828	24829	24830	24831	24832	24833									
MTX Out 11R	22128	22129	22130	22131	22132	22133		Flex In 22	24928	24929	24930	24931	24932	24933									
MTX Out 12L	22228	22229	22230	22231	22232	22233		Flex In 23	25028	25029	25030	25031	25032	25033									
MTX Out 12R	22328	22329	22330	22331	22332	22333		Flex In 24	25128	25129	25130	25131	25132	25133									
Analog	MTX Out 13L	22428	22429	22430	22431	22432	22433	Flex In 25	25228	25229	25230	25231	25232	25233									
	MTX Out 13R	22528	22529	22530	22531	22532	22533	Flex In 26	25328	25329	25330	25331	25332	25333									
	MTX Out 14L	22628	22629	22630	22631	22632	22633	Flex In 27	25428	25429	25430	25431	25432	25433									
	MTX Out 14R	22728	22729	22730	22731	22732	22733	Flex In 28	25528	25529	25530	25531	25532	25533									
								Flex In 29	25628	25629	25630	25631	25632	25633									
								Flex In 30	25728	25729	25730	25731	25732	25733									
								Flex In 31	25828	25829	25830	25831	25832	25833									
								Flex In 32	25928	25929	25930	25931	25932	25933									

AT & EXP OUT																	
	Audio Mix Matrix	AT & EXP #1	AT & EXP #2	AT & EXP #3	AT & EXP #4	AT & EXP #5	AT & EXP #6	AT & EXP #7	AT & EXP #8	AT & EXP #9	AT & EXP #10	AT & EXP #11	AT & EXP #12	AT & EXP #13	AT & EXP #14	AT & EXP #15	AT & EXP #16
Audio Vidual 1-12	MTX Out 1L	20036	20037	20038	20039	20040	20041	20042	20043	20044	20045	20046	20047	20048	20049	20050	20051
	MTX Out 1R	20136	20137	20138	20139	20140	20141	20142	20143	20144	20145	20146	20147	20148	20149	20150	20151
	MTX Out 2L	20236	20237	20238	20239	20240	20241	20242	20243	20244	20245	20246	20247	20248	20249	20250	20251
	MTX Out 2R	20336	20337	20338	20339	20340	20341	20342	20343	20344	20345	20346	20347	20348	20349	20350	20351
	MTX Out 3L	20436	20437	20438	20439	20440	20441	20442	20443	20444	20445	20446	20447	20448	20449	20450	20451
	MTX Out 3R	20536	20537	20538	20539	20540	20541	20542	20543	20544	20545	20546	20547	20548	20549	20550	20551
	MTX Out 4L	20636	20637	20638	20639	20640	20641	20642	20643	20644	20645	20646	20647	20648	20649	20650	20651
	MTX Out 4R	20736	20737	20738	20739	20740	20741	20742	20743	20744	20745	20746	20747	20748	20749	20750	20751
	MTX Out 5L	20836	20837	20838	20839	20840	20841	20842	20843	20844	20845	20846	20847	20848	20849	20850	20851
	MTX Out 5R	20936	20937	20938	20939	20940	20941	20942	20943	20944	20945	20946	20947	20948	20949	20950	20951
	MTX Out 6L	21036	21037	21038	21039	21040	21041	21042	21043	21044	21045	21046	21047	21048	21049	21050	21051
	MTX Out 6R	21136	21137	21138	21139	21140	21141	21142	21143	21144	21145	21146	21147	21148	21149	21150	21151
	MTX Out 7L	21236	21237	21238	21239	21240	21241	21242	21243	21244	21245	21246	21247	21248	21249	21250	21251
	MTX Out 7R	21336	21337	21338	21339	21340	21341	21342	21343	21344	21345	21346	21347	21348	21349	21350	21351
	MTX Out 8L	21436	21437	21438	21439	21440	21441	21442	21443	21444	21445	21446	21447	21448	21449	21450	21451
	MTX Out 8R	21536	21537	21538	21539	21540	21541	21542	21543	21544	21545	21546	21547	21548	21549	21550	21551
	MTX Out 9L	21636	21637	21638	21639	21640	21641	21642	21643	21644	21645	21646	21647	21648	21649	21650	21651
	MTX Out 9R	21736	21737	21738	21739	21740	21741	21742	21743	21744	21745	21746	21747	21748	21749	21750	21751
	MTX Out 10L	21836	21837	21838	21839	21840	21841	21842	21843	21844	21845	21846	21847	21848	21849	21850	21851
	MTX Out 10R	21936	21937	21938	21939	21940	21941	21942	21943	21944	21945	21946	21947	21948	21949	21950	21951
	MTX Out 11L	22036	22037	22038	22039	22040	22041	22042	22043	22044	22045	22046	22047	22048	22049	22050	22051
	MTX Out 11R	22136	22137	22138	22139	22140	22141	22142	22143	22144	22145	22146	22147	22148	22149	22150	22151
	MTX Out 12L	22236	22237	22238	22239	22240	22241	22242	22243	22244	22245	22246	22247	22248	22249	22250	22251
	MTX Out 12R	22336	22337	22338	22339	22340	22341	22342	22343	22344	22345	22346	22347	22348	22349	22350	22351
Analog	MTX Out 13L	22436	22437	22438	22439	22440	22441	22442	22443	22444	22445	22446	22447	22448	22449	22450	22451
	MTX Out 13R	22536	22537	22538	22539	22540	22541	22542	22543	22544	22545	22546	22547	22548	22549	22550	22551
	MTX Out 14L	22636	22637	22638	22639	22640	22641	22642	22643	22644	22645	22646	22647	22648	22649	22650	22651
	MTX Out 14R	22736	22737	22738	22739	22740	22741	22742	22743	22744	22745	22746	22747	22748	22749	22750	22751
AEC	Flex In 1	22836	22837	22838	22839	22840	22841	22842	22843	22844	22845	22846	22847	22848	22849	22850	22851
	Flex In 2	22936	22937	22938	22939	22940	22941	22942	22943	22944	22945	22946	22947	22948	22949	22950	22951
	Flex In 3	23036	23037	23038	23039	23040	23041	23042	23043	23044	23045	23046	23047	23048	23049	23050	23051
	Flex In 4	23136	23137	23138	23139	23140	23141	23142	23143	23144	23145	23146	23147	23148	23149	23150	23151
	Flex In 5	23236	23237	23238	23239	23240	23241	23242	23243	23244	23245	23246	23247	23248	23249	23250	23251
	Flex In 6	23336	23337	23338	23339	23340	23341	23342	23343	23344	23345	23346	23347	23348	23349	23350	23351
	Flex In 7	23436	23437	23438	23439	23440	23441	23442	23443	23444	23445	23446	23447	23448	23449	23450	23451
	Flex In 8	23536	23537	23538	23539	23540	23541	23542	23543	23544	23545	23546	23547	23548	23549	23550	23551

AT & EXP OUT																	
	Audio Mix Matrix	AT & EXP #1	AT & EXP #2	AT & EXP #3	AT & EXP #4	AT & EXP #5	AT & EXP #6	AT & EXP #7	AT & EXP #8	AT & EXP #9	AT & EXP #10	AT & EXP #11	AT & EXP #12	AT & EXP #13	AT & EXP #14	AT & EXP #15	AT & EXP #16
FBS	Flex In 9	23636	23637	23638	23639	23640	23641	23642	23643	23644	23645	23646	23647	23648	23649	23650	23651
	Flex In 10	23736	23737	23738	23739	23740	23741	23742	23743	23744	23745	23746	23747	23748	23749	23750	23751
	Flex In 11	23836	23837	23838	23839	23840	23841	23842	23843	23844	23845	23846	23847	23848	23849	23850	23851
	Flex In 12	23936	23937	23938	23939	23940	23941	23942	23943	23944	23945	23946	23947	23948	23949	23950	23951
	Flex In 13	24036	24037	24038	24039	24040	24041	24042	24043	24044	24045	24046	24047	24048	24049	24050	24051
	Flex In 14	24136	24137	24138	24139	24140	24141	24142	24143	24144	24145	24146	24147	24148	24149	24150	24151
	Flex In 15	24236	24237	24238	24239	24240	24241	24242	24243	24244	24245	24246	24247	24248	24249	24250	24251
	Flex In 16	24336	24337	24338	24339	24340	24341	24342	24343	24344	24345	24346	24347	24348	24349	24350	24351
Basic	Flex In 17	24436	24437	24438	24439	24440	24441	24442	24443	24444	24445	24446	24447	24448	24449	24450	24451
	Flex In 18	24536	24537	24538	24539	24540	24541	24542	24543	24544	24545	24546	24547	24548	24549	24550	24551
	Flex In 19	24636	24637	24638	24639	24640	24641	24642	24643	24644	24645	24646	24647	24648	24649	24650	24651
	Flex In 20	24736	24737	24738	24739	24740	24741	24742	24743	24744	24745	24746	24747	24748	24749	24750	24751
	Flex In 21	24836	24837	24838	24839	24840	24841	24842	24843	24844	24845	24846	24847	24848	24849	24850	24851
	Flex In 22	24936	24937	24938	24939	24940	24941	24942	24943	24944	24945	24946	24947	24948	24949	24950	24951
	Flex In 23	25036	25037	25038	25039	25040	25041	25042	25043	25044	25045	25046	25047	25048	25049	25050	25051
	Flex In 24	25136	25137	25138	25139	25140	25141	25142	25143	25144	25145	25146	25147	25148	25149	25150	25151
	Flex In 25	25236	25237	25238	25239	25240	25241	25242	25243	25244	25245	25246	25247	25248	25249	25250	25251
	Flex In 26	25336	25337	25338	25339	25340	25341	25342	25343	25344	25345	25346	25347	25348	25349	25350	25351
	Flex In 27	25436	25437	25438	25439	25440	25441	25442	25443	25444	25445	25446	25447	25448	25449	25450	25451
	Flex In 28	25536	25537	25538	25539	25540	25541	25542	25543	25544	25545	25546	25547	25548	25549	25550	25551
	Flex In 29	25636	25637	25638	25639	25640	25641	25642	25643	25644	25645	25646	25647	25648	25649	25650	25651
	Flex In 30	25736	25737	25738	25739	25740	25741	25742	25743	25744	25745	25746	25747	25748	25749	25750	25751
	Flex In 31	25836	25837	25838	25839	25840	25841	25842	25843	25844	25845	25846	25847	25848	25849	25850	25851
	Flex In 32	25936	25937	25938	25939	25940	25941	25942	25943	25944	25945	25946	25947	25948	25949	25950	25951
Minimal	Flex In 33	26036	26037	26038	26039	26040	26041	26042	26043	26044	26045	26046	26047	26048	26049	26050	26051
	Flex In 34	26136	26137	26138	26139	26140	26141	26142	26143	26144	26145	26146	26147	26148	26149	26150	26151
	Flex In 35	26236	26237	26238	26239	26240	26241	26242	26243	26244	26245	26246	26247	26248	26249	26250	26251
	Flex In 36	26336	26337	26338	26339	26340	26341	26342	26343	26344	26345	26346	26347	26348	26349	26350	26351
	Flex In 37	26436	26437	26438	26439	26440	26441	26442	26443	26444	26445	26446	26447	26448	26449	26450	26451
	Flex In 38	26536	26537	26538	26539	26540	26541	26542	26543	26544	26545	26546	26547	26548	26549	26550	26551
	Flex In 39	26636	26637	26638	26639	26640	26641	26642	26643	26644	26645	26646	26647	26648	26649	26650	26651
	Flex In 40	26736	26737	26738	26739	26740	26741	26742	26743	26744	26745	26746	26747	26748	26749	26750	26751
	Flex In 41	26836	26837	26838	26839	26840	26841	26842	26843	26844	26845	26846	26847	26848	26849	26850	26851
	Flex In 42	26936	26937	26938	26939	26940	26941	26942	26943	26944	26945	26946	26947	26948	26949	26950	26951
	Flex In 43	27036	27037	27038	27039	27040	27041	27042	27043	27044	27045	27046	27047	27048	27049	27050	27051
	Flex In 44	27136	27137	27138	27139	27140	27141	27142	27143	27144	27145	27146	27147	27148	27149	27150	27151
	Flex In 45	27236	27237	27238	27239	27240	27241	27242	27243	27244	27245	27246	27247	27248	27249	27250	27251
	Flex In 46	27336	27337	27338	27339	27340	27341	27342	27343	27344	27345	27346	27347	27348	27349	27350	27351
	Flex In 47	27436	27437	27438	27439	27440	27441	27442	27443	27444	27445	27446	27447	27448	27449	27450	27451
	Flex In 48	27536	27537	27538	27539	27540	27541	27542	27543	27544	27545	27546	27547	27548	27549	27550	27551

AT OUT																	
Audio Visual 1-12	Audio Mix Matrix	AT #17	AT #18	AT #19	AT #20	AT #21	AT #22	AT #23	AT #24	AT #25	AT #26	AT #27	AT #28	AT #29	AT #30	AT #31	AT #32
	AV MTX Out #1 L	20052	20053	20054	20055	20056	20057	20058	20059	20060	20061	20062	20063	20064	20065	20066	20067
	AV MTX Out #1 R	20152	20153	20154	20155	20156	20157	20158	20159	20160	20161	20162	20163	20164	20165	20166	20167
	AV MTX Out #2 L	20252	20253	20254	20255	20256	20257	20258	20259	20260	20261	20262	20263	20264	20265	20266	20267
	AV MTX Out #2 R	20352	20353	20354	20355	20356	20357	20358	20359	20360	20361	20362	20363	20364	20365	20366	20367
	AV MTX Out #3 L	20452	20453	20454	20455	20456	20457	20458	20459	20460	20461	20462	20463	20464	20465	20466	20467
	AV MTX Out #3 R	20552	20553	20554	20555	20556	20557	20558	20559	20560	20561	20562	20563	20564	20565	20566	20567
	AV MTX Out #4 L	20652	20653	20654	20655	20656	20657	20658	20659	20660	20661	20662	20663	20664	20665	20666	20667
	AV MTX Out #4 R	20752	20753	20754	20755	20756	20757	20758	20759	20760	20761	20762	20763	20764	20765	20766	20767
	AV MTX Out #5 L	20852	20853	20854	20855	20856	20857	20858	20859	20860	20861	20862	20863	20864	20865	20866	20867
	AV MTX Out #5 R	20952	20953	20954	20955	20956	20957	20958	20959	20960	20961	20962	20963	20964	20965	20966	20967
	AV MTX Out #6 L	21052	21053	21054	21055	21056	21057	21058	21059	21060	21061	21062	21063	21064	21065	21066	21067
	AV MTX Out #6 R	21152	21153	21154	21155	21156	21157	21158	21159	21160	21161	21162	21163	21164	21165	21166	21167
	AV MTX Out #7 L	21252	21253	21254	21255	21256	21257	21258	21259	21260	21261	21262	21263	21264	21265	21266	21267
	AV MTX Out #7 R	21352	21353	21354	21355	21356	21357	21358	21359	21360	21361	21362	21363	21364	21365	21366	21367
	AV MTX Out #8 L	21452	21453	21454	21455	21456	21457	21458	21459	21460	21461	21462	21463	21464	21465	21466	21467
	AV MTX Out #8 R	21552	21553	21554	21555	21556	21557	21558	21559	21560	21561	21562	21563	21564	21565	21566	21567
	AV MTX Out #9 L	21652	21653	21654	21655	21656	21657	21658	21659	21660	21661	21662	21663	21664	21665	21666	21667
	AV MTX Out #9 R	21752	21753	21754	21755	21756	21757	21758	21759	21760	21761	21762	21763	21764	21765	21766	21767
Analog	AV MTX Out #10 L	21852	21853	21854	21855	21856	21857	21858	21859	21860	21861	21862	21863	21864	21865	21866	21867
	AV MTX Out #10 R	21952	21953	21954	21955	21956	21957	21958	21959	21960	21961	21962	21963	21964	21965	21966	21967
	AV MTX Out #11 L	22052	22053	22054	22055	22056	22057	22058	22059	22060	22061	22062	22063	22064	22065	22066	22067
	AV MTX Out #11 R	22152	22153	22154	22155	22156	22157	22158	22159	22160	22161	22162	22163	22164	22165	22166	22167
AEC	AV MTX Out #12 L	22252	22253	22254	22255	22256	22257	22258	22259	22260	22261	22262	22263	22264	22265	22266	22267
	AV MTX Out #12 R	22352	22353	22354	22355	22356	22357	22358	22359	22360	22361	22362	22363	22364	22365	22366	22367
	AV MTX Out #13 L	22452	22453	22454	22455	22456	22457	22458	22459	22460	22461	22462	22463	22464	22465	22466	22467
	AV MTX Out #13 R	22552	22553	22554	22555	22556	22557	22558	22559	22560	22561	22562	22563	22564	22565	22566	22567
	AV MTX Out #14 L	22652	22653	22654	22655	22656	22657	22658	22659	22660	22661	22662	22663	22664	22665	22666	22667
	AV MTX Out #14 R	22752	22753	22754	22755	22756	22757	22758	22759	22760	22761	22762	22763	22764	22765	22766	22767
	Flex In 1	22852	22853	22854	22855	22856	22857	22858	22859	22860	22861	22862	22863	22864	22865	22866	22867
	Flex In 2	22952	22953	22954	22955	22956	22957	22958	22959	22960	22961	22962	22963	22964	22965	22966	22967
	Flex In 3	23052	23053	23054	23055	23056	23057	23058	23059	23060	23061	23062	23063	23064	23065	23066	23067
	Flex In 4	23152	23153	23154	23155	23156	23157	23158	23159	23160	23161	23162	23163	23164	23165	23166	23167
	Flex In 5	23252	23253	23254	23255	23256	23257	23258	23259	23260	23261	23262	23263	23264	23265	23266	23267
	Flex In 6	23352	23353	23354	23355	23356	23357	23358	23359	23360	23361	23362	23363	23364	23365	23366	23367
	Flex In 7	23452	23453	23454	23455	23456	23457	23458	23459	23460	23461	23462	23463	23464	23465	23466	23467
	Flex In 8	23552	23553	23554	23555	23556	23557	23558	23559	23560	23561	23562	23563	23564	23565	23566	23567

AT OUT																	
Audio Mix Matrix		AT 17	AT 18	AT 19	AT 20	AT 21	AT 22	AT 23	AT 24	AT 25	AT 26	AT 27	AT 28	AT 29	AT 30	AT 31	AT 32
FBS	Flex In 9	23652	23653	23654	23655	23656	23657	23658	23659	23660	23661	23662	23663	23664	23665	23666	23667
	Flex In 10	23752	23753	23754	23755	23756	23757	23758	23759	23760	23761	23762	23763	23764	23765	23766	23767
	Flex In 11	23852	23853	23854	23855	23856	23857	23858	23859	23860	23861	23862	23863	23864	23865	23866	23867
	Flex In 12	23952	23953	23954	23955	23956	23957	23958	23959	23960	23961	23962	23963	23964	23965	23966	23967
	Flex In 13	24052	24053	24054	24055	24056	24057	24058	24059	24060	24061	24062	24063	24064	24065	24066	24067
	Flex In 14	24152	24153	24154	24155	24156	24157	24158	24159	24160	24161	24162	24163	24164	24165	24166	24167
	Flex In 15	24252	24253	24254	24255	24256	24257	24258	24259	24260	24261	24262	24263	24264	24265	24266	24267
	Flex In 16	24352	24353	24354	24355	24356	24357	24358	24359	24360	24361	24362	24363	24364	24365	24366	24367
Basic	Flex In 17	24452	24453	24454	24455	24456	24457	24458	24459	24460	24461	24462	24463	24464	24465	24466	24467
	Flex In 18	24552	24553	24554	24555	24556	24557	24558	24559	24560	24561	24562	24563	24564	24565	24566	24567
	Flex In 19	24652	24653	24654	24655	24656	24657	24658	24659	24660	24661	24662	24663	24664	24665	24666	24667
	Flex In 20	24752	24753	24754	24755	24756	24757	24758	24759	24760	24761	24762	24763	24764	24765	24766	24767
	Flex In 21	24852	24853	24854	24855	24856	24857	24858	24859	24860	24861	24862	24863	24864	24865	24866	24867
	Flex In 22	24952	24953	24954	24955	24956	24957	24958	24959	24960	24961	24962	24963	24964	24965	24966	24967
	Flex In 23	25052	25053	25054	25055	25056	25057	25058	25059	25060	25061	25062	25063	25064	25065	25066	25067
	Flex In 24	25152	25153	25154	25155	25156	25157	25158	25159	25160	25161	25162	25163	25164	25165	25166	25167
	Flex In 25	25252	25253	25254	25255	25256	25257	25258	25259	25260	25261	25262	25263	25264	25265	25266	25267
	Flex In 26	25352	25353	25354	25355	25356	25357	25358	25359	25360	25361	25362	25363	25364	25365	25366	25367
	Flex In 27	25452	25453	25454	25455	25456	25457	25458	25459	25460	25461	25462	25463	25464	25465	25466	25467
	Flex In 28	25552	25553	25554	25555	25556	25557	25558	25559	25560	25561	25562	25563	25564	25565	25566	25567
	Flex In 29	25652	25653	25654	25655	25656	25657	25658	25659	25660	25661	25662	25663	25664	25665	25666	25667
	Flex In 30	25752	25753	25754	25755	25756	25757	25758	25759	25760	25761	25762	25763	25764	25765	25766	25767
	Flex In 31	25852	25853	25854	25855	25856	25857	25858	25859	25860	25861	25862	25863	25864	25865	25866	25867
	Flex In 32	25952	25953	25954	25955	25956	25957	25958	25959	25960	25961	25962	25963	25964	25965	25966	25967
Minimal	Flex In 33	26052	26053	26054	26055	26056	26057	26058	26059	26060	26061	26062	26063	26064	26065	26066	26067
	Flex In 34	26152	26153	26154	26155	26156	26157	26158	26159	26160	26161	26162	26163	26164	26165	26166	26167
	Flex In 35	26252	26253	26254	26255	26256	26257	26258	26259	26260	26261	26262	26263	26264	26265	26266	26267
	Flex In 36	26352	26353	26354	26355	26356	26357	26358	26359	26360	26361	26362	26363	26364	26365	26366	26367
	Flex In 37	26452	26453	26454	26455	26456	26457	26458	26459	26460	26461	26462	26463	26464	26465	26466	26467
	Flex In 38	26552	26553	26554	26555	26556	26557	26558	26559	26560	26561	26562	26563	26564	26565	26566	26567
	Flex In 39	26652	26653	26654	26655	26656	26657	26658	26659	26660	26661	26662	26663	26664	26665	26666	26667
	Flex In 40	26752	26753	26754	26755	26756	26757	26758	26759	26760	26761	26762	26763	26764	26765	26766	26767
	Flex In 41	26852	26853	26854	26855	26856	26857	26858	26859	26860	26861	26862	26863	26864	26865	26866	26867
	Flex In 42	26952	26953	26954	26955	26956	26957	26958	26959	26960	26961	26962	26963	26964	26965	26966	26967
	Flex In 43	27052	27053	27054	27055	27056	27057	27058	27059	27060	27061	27062	27063	27064	27065	27066	27067
	Flex In 44	27152	27153	27154	27155	27156	27157	27158	27159	27160	27161	27162	27163	27164	27165	27166	27167
	Flex In 45	27252	27253	27254	27255	27256	27257	27258	27259	27260	27261	27262	27263	27264	27265	27266	27267
	Flex In 46	27352	27353	27354	27355	27356	27357	27358	27359	27360	27361	27362	27363	27364	27365	27366	27367
	Flex In 47	27452	27453	27454	27455	27456	27457	27458	27459	27460	27461	27462	27463	27464	27465	27466	27467
	Flex In 48	27552	27553	27554	27555	27556	27557	27558	27559	27560	27561	27562	27563	27564	27565	27566	27567

Virtuals																	
Audio Virtual 1-12	Audio Mix Matrix	Virtual A	Virtual B	Virtual C	Virtual D	Virtual E	Virtual F	Virtual G	Virtual H	Virtual I	Virtual J	Virtual K	Virtual L	Virtual M	Virtual N	Virtual O	Virtual P
	AV MTX Out #1 L	20068	20069	20070	20071	20072	20073	20074	20075	20076	20077	20078	20079	20080	20081	20082	20083
	AV MTX Out #1 R	20168	20169	20170	20171	20172	20173	20174	20175	20176	20177	20178	20179	20180	20181	20182	20183
	AV MTX Out #2 L	20268	20269	20270	20271	20272	20273	20274	20275	20276	20277	20278	20279	20280	20281	20282	20283
	AV MTX Out #2 R	20368	20369	20370	20371	20372	20373	20374	20375	20376	20377	20378	20379	20380	20381	20382	20383
	AV MTX Out #3 L	20468	20469	20470	20471	20472	20473	20474	20475	20476	20477	20478	20479	20480	20481	20482	20483
	AV MTX Out #3 R	20568	20569	20570	20571	20572	20573	20574	20575	20576	20577	20578	20579	20580	20581	20582	20583
	AV MTX Out #4 L	20668	20669	20670	20671	20672	20673	20674	20675	20676	20677	20678	20679	20680	20681	20682	20683
	AV MTX Out #4 R	20768	20769	20770	20771	20772	20773	20774	20775	20776	20777	20778	20779	20780	20781	20782	20783
	AV MTX Out #5 L	20868	20869	20870	20871	20872	20873	20874	20875	20876	20877	20878	20879	20880	20881	20882	20883
	AV MTX Out #5 R	20968	20969	20970	20971	20972	20973	20974	20975	20976	20977	20978	20979	20980	20981	20982	20983
	AV MTX Out #6 L	21068	21069	21070	21071	21072	21073	21074	21075	21076	21077	21078	21079	21080	21081	21082	21083
	AV MTX Out #6 R	21168	21169	21170	21171	21172	21173	21174	21175	21176	21177	21178	21179	21180	21181	21182	21183
	AV MTX Out #7 L	21268	21269	21270	21271	21272	21273	21274	21275	21276	21277	21278	21279	21280	21281	21282	21283
	AV MTX Out #7 R	21368	21369	21370	21371	21372	21373	21374	21375	21376	21377	21378	21379	21380	21381	21382	21383
	AV MTX Out #8 L	21468	21469	21470	21471	21472	21473	21474	21475	21476	21477	21478	21479	21480	21481	21482	21483
	AV MTX Out #8 R	21568	21569	21570	21571	21572	21573	21574	21575	21576	21577	21578	21579	21580	21581	21582	21583
	AV MTX Out #9 L	21668	21669	21670	21671	21672	21673	21674	21675	21676	21677	21678	21679	21680	21681	21682	21683
	AV MTX Out #9 R	21768	21769	21770	21771	21772	21773	21774	21775	21776	21777	21778	21779	21780	21781	21782	21783
	AV MTX Out #10 L	21868	21869	21870	21871	21872	21873	21874	21875	21876	21877	21878	21879	21880	21881	21882	21883
	AV MTX Out #10 R	21968	21969	21970	21971	21972	21973	21974	21975	21976	21977	21978	21979	21980	21981	21982	21983
	AV MTX Out #11 L	22068	22069	22070	22071	22072	22073	22074	22075	22076	22077	22078	22079	22080	22081	22082	22083
	AV MTX Out #11 R	22168	22169	22170	22171	22172	22173	22174	22175	22176	22177	22178	22179	22180	22181	22182	22183
	AV MTX Out #12 L	22268	22269	22270	22271	22272	22273	22274	22275	22276	22277	22278	22279	22280	22281	22282	22283
	AV MTX Out #12 R	22368	22369	22370	22371	22372	22373	22374	22375	22376	22377	22378	22379	22380	22381	22382	22383
Analog	AV MTX Out #13 L	22468	22469	22470	22471	22472	22473	22474	22475	22476	22477	22478	22479	22480	22481	22482	22483
	AV MTX Out #13 R	22568	22569	22570	22571	22572	22573	22574	22575	22576	22577	22578	22579	22580	22581	22582	22583
	AV MTX Out #14 L	22668	22669	22670	22671	22672	22673	22674	22675	22676	22677	22678	22679	22680	22681	22682	22683
	AV MTX Out #14 R	22768	22769	22770	22771	22772	22773	22774	22775	22776	22777	22778	22779	22780	22781	22782	22783
AEC	Flex In 1	22868	22869	22870	22871	22872	22873	22874	22875	22876	22877	22878	22879	22880	22881	22882	22883
	Flex In 2	22968	22969	22970	22971	22972	22973	22974	22975	22976	22977	22978	22979	22980	22981	22982	22983
	Flex In 3	23068	23069	23070	23071	23072	23073	23074	23075	23076	23077	23078	23079	23080	23081	23082	23083
	Flex In 4	23168	23169	23170	23171	23172	23173	23174	23175	23176	23177	23178	23179	23180	23181	23182	23183
	Flex In 5	23268	23269	23270	23271	23272	23273	23274	23275	23276	23277	23278	23279	23280	23281	23282	23283
	Flex In 6	23368	23369	23370	23371	23372	23373	23374	23375	23376	23377	23378	23379	23380	23381	23382	23383
	Flex In 7	23468	23469	23470	23471	23472	23473	23474	23475	23476	23477	23478	23479	23480	23481	23482	23483
	Flex In 8	23568	23569	23570	23571	23572	23573	23574	23575	23576	23577	23578	23579	23580	23571	23582	23583

Virtuals																	
Audio Mix Matrix		Virtual #A	Virtual #B	Virtual #C	Virtual #D	Virtual #E	Virtual #F	Virtual #G	Virtual #H	Virtual #I	Virtual #J	Virtual #K	Virtual #L	Virtual #M	Virtual #N	Virtual #O	Virtual #P
FBS	Flex In 9	23668	23669	23670	23671	23672	23673	23674	23675	23676	23677	23678	23679	23680	23681	23682	23683
	Flex In 10	23768	23769	23770	23771	23772	23773	23774	23775	23776	23777	23778	23779	23780	23781	23782	23783
	Flex In 11	23868	23869	23870	23871	23872	23873	23874	23875	23876	23877	23878	23879	23880	23881	23882	23883
	Flex In 12	23968	23969	23970	23971	23972	23973	23974	23975	23976	23977	23978	23979	23980	23981	23982	23983
	Flex In 13	24068	24069	24070	24071	24072	24073	24074	24075	24076	24077	24078	24079	24080	24081	24082	24083
	Flex In 14	24168	24169	24170	24171	24172	24173	24174	24175	24176	24177	24178	24179	24180	24181	24182	24183
	Flex In 15	24268	24269	24270	24271	24272	24273	24274	24275	24276	24277	24278	24279	24280	24281	24282	24283
	Flex In 16	24368	24369	24370	24371	24372	24373	24374	24375	24376	24377	24378	24379	24380	24381	24382	24383
Basic	Flex In 17	24468	24469	24470	24471	24472	24473	24474	24475	24476	24477	24478	24479	24480	24481	24482	24483
	Flex In 18	24568	24569	24570	24571	24572	24573	24574	24575	24576	245777	24578	24579	24580	24581	24582	24583
	Flex In 19	24668	24669	24670	24671	24672	24673	24674	24675	24676	24677	24678	24679	24680	24681	24682	24683
	Flex In 20	24768	24769	24770	24771	24772	24773	24774	24775	24776	24777	24778	24779	24780	24781	24782	24783
	Flex In 21	24868	24869	24870	24871	24872	24873	24874	24875	24876	24877	24878	24879	24880	24881	24882	24883
	Flex In 22	24968	24969	24970	24971	24972	24973	24974	24975	24976	24977	24978	24979	24980	24981	24982	24983
	Flex In 23	25068	25069	25070	25071	25072	25073	25074	25075	25076	25077	25078	25079	25080	25081	25082	25083
	Flex In 24	25168	25169	25170	25171	25172	25173	25174	25175	25176	25177	25178	25179	25180	25181	25182	25183
	Flex In 25	25268	25269	25270	25271	25272	25273	25274	25275	25276	25277	25278	25279	25280	25281	25282	25283
	Flex In 26	25368	25369	25370	25371	25372	25373	25374	25375	25376	25377	25378	25379	25380	25381	25382	25383
	Flex In 27	25468	25469	25470	25471	25472	25473	25474	25475	25476	25477	25478	25479	25480	25481	25482	25483
	Flex In 28	25568	25569	25570	25571	25572	25573	25574	25575	25576	25577	25578	25579	25580	25581	25582	25583
	Flex In 29	25668	25669	25670	25671	25672	25673	25674	25675	25676	25677	25678	25679	25680	25681	25682	25683
	Flex In 30	25768	25769	25770	25771	25772	25773	25774	25775	25776	25777	25778	25779	25780	25781	25782	25783
	Flex In 31	25868	25869	25870	25871	25872	25873	25874	25875	25876	25877	25878	25879	25880	25881	25882	25883
	Flex In 32	25968	25969	25970	25971	25972	25973	25974	25975	25976	25977	25978	25979	25980	25981	25982	25983
Minimal	Flex In 33	26068	26069	26070	26071	26072	26073	26074	26075	26076	26077	26078	26079	26080	26081	26082	26083
	Flex In 34	26168	26169	26170	26171	26172	26173	26174	26175	26176	26177	26178	26179	26180	26181	26182	26183
	Flex In 35	26268	26269	26270	26271	26272	26273	26274	26275	26276	26277	26278	26279	26280	26281	26282	26283
	Flex In 36	26368	26369	26370	26371	26372	26373	26374	26375	26376	26377	26378	26379	26380	26381	26382	26383
	Flex In 37	26468	26469	26470	26471	26472	26473	26474	26475	26476	26477	26478	26479	26480	26481	26482	26473
	Flex In 38	26568	26569	26570	26571	26572	26573	26574	26575	26576	26577	26578	26579	26580	26581	26582	26583
	Flex In 39	26668	26669	26670	26671	26672	26673	26674	26675	26676	26677	26678	26679	26680	26681	26682	26683
	Flex In 40	26768	26769	26770	26771	26772	26773	26774	26775	26776	26777	26778	26779	26780	26781	26782	26783
	Flex In 41	26868	26869	26870	26871	26872	26873	26874	26875	26876	26877	26878	26879	26880	26881	26882	26883
	Flex In 42	26968	26969	26970	26971	26972	26973	26974	26975	26976	26977	26978	26979	26980	26981	26982	26983
	Flex In 43	27068	27069	27070	27071	27072	27073	27074	27075	27076	27077	27078	27079	27080	27081	27082	27083
	Flex In 44	27168	27169	27170	27171	27172	27173	27174	27175	27176	27177	27178	27179	27180	27181	27182	27183
	Flex In 45	27268	27269	27270	27271	27272	27273	27274	27275	27276	27277	27278	27279	27280	27281	27282	27283
	Flex In 46	27368	27369	27370	27371	27372	27373	27374	27375	27376	27377	27378	27379	27380	27381	27382	27383
	Flex In 47	27468	27469	27470	27471	27472	27473	27474	27475	27476	27477	27478	27479	27480	27481	27482	27483
	Flex In 48	27568	27569	27570	27571	27572	27573	27574	27575	27576	27577	27578	27579	27580	27581	27582	27583

Output Path OIDs

Internal A/V Matrix Audio Outputs			
Output	Gain (Pre-Mixer)	Output	Gain (Pre-Mixer)
AV Matrix Audio Out #1		AV Matrix Audio Out #8	
Left	50000	Left	50014
Right	50001	Right	50015
AV Matrix Audio Out #2		AV Matrix Audio Out #9	
Left	50002	Left	50016
Right	50003	Right	50017
AV Matrix Audio Out #3		AV Matrix Audio Out #10	
Left	50004	Left	50018
Right	50005	Right	50019
AV Matrix Audio Out #4		AV Matrix Audio Out #11	
Left	50006	Left	50020
Right	50007	Right	50021
AV Matrix Audio Out #5		AV Matrix Audio Out #12	
Left	50008	Left	50022
Right	50009	Right	50023
AV Matrix Audio Out #6		AV Matrix Audio Out #13	
Left	50010	Left	50024
Right	50011	Right	50025
AV Matrix Audio Out #7		AV Matrix Audio Out #14	
Left	50012	Left	50026
Right	50013	Right	50027

NOTE: The DTP3 I/O Channels can be input or output, but cannot be both.

Audio Visual Outputs					
Output	Trim	ATT	Output	Trim	ATT
AV #1			AV #7		
Left	60100	60000	Left	60112	60012
Right	60101	60001	Right	60113	60013
AV #2			AV #8		
Left	60102	60002	Left	60114	60014
Right	60103	60003	Right	60115	60015
AV #3			AV #9		
Left	60104	60004	Left	60116	60016
Right	60105	60005	Right	60117	60017
AV #4			AV #10		
Left	60106	60006	Left	60118	60018
Right	60107	60007	Right	60119	60019
AV #5			AV #11		
Left	60108	60008	Left	60120	60020
Right	60109	60009	Right	60121	60021
AV #6			AV #12		
Left	60110	60010	Left	60122	60022
Right	60111	60011	Right	60123	60023

Analog Audio Outputs					
Output	Trim	ATT	Output	Trim	ATT
Line #1	60124	60024	AMP #1	60126	60026
Line #2	60125	60025	AMP #2	60127	60027

USB Audio Outputs					
Output	Trim	ATT	Output	Trim	ATT
USB #1			USB #3		
Left	60128	60028	Left	60132	60032
Right	60129	60029	Right	60133	60033
USB #2					
Left	60130	60030			
Right	60131	60031			

AT & EXP Audio Outputs					
Output	Trim	ATT	Output	Trim	ATT
AT & EXP #1	60136	60036	AT & EXP #9	60144	60044
AT & EXP #2	60137	60037	AT & EXP #10	60145	60045
AT & EXP #3	60138	60038	AT & EXP #11	60146	60046
AT & EXP #4	60139	60039	AT & EXP #12	60147	60047
AT & EXP #5	60140	60040	AT & EXP #13	60148	60048
AT & EXP #6	60141	60041	AT & EXP #14	60149	60049
AT & EXP #7	60142	60042	AT & EXP #15	60150	60050
AT & EXP #8	60143	60043	AT & EXP #16	60151	60051

AT Audio Outputs					
Output	Trim	ATT	Output	Trim	ATT
AT #17	60152	60052	AT #25	60160	60061
AT #18	60153	60053	AT #26	60161	60061
AT #19	60154	60054	AT #27	60162	60062
AT #20	60155	60055	AT #28	60163	60063
AT #21	60156	60056	AT #29	60164	60064
AT #22	60157	60057	AT #30	60165	60065
AT #23	60158	60058	AT #31	60166	60066
AT #24	60159	60059	AT #32	60167	60067

Product Configuration Software

This section introduces Product Configuration Software and downloading software programs from the Extron website:

- [Product Configuration Software](#)
- [Software/Firmware Installation](#)
- [Connecting to PCS](#)
- [Software Overview](#)

Product Configuration Software

The DTP3 CrossPoint Matrix Switcher can be remotely controlled, monitored, or configured via Product Configuration Software. Updates to this program can be downloaded from www.extron.com.

PCS has an extensive help file available in the software for detailed information on how to use the program to configure the DTP3 CrossPoint (see the *DTP3 CrossPoint Matrix Series PCS Help File*).

Product Configuration Software communicates with the switcher via the following ports:

- **Rear panel LAN ports** — See **Software Operation via Ethernet**.
- **Front Panel USB Configuration port** — See **Ethernet protocol settings**.

Software Operation via Ethernet

When the matrix switcher is connected to an Ethernet WAN or LAN, multiple users can be connected to locally or remotely operate it, using PCS or DSP Configurator Pro.

Connection to the switcher via the Ethernet is password protected. There are two levels of password protection:

- **Administrators** have full access to all switching capabilities and editing functions.
- **Users** can only access the [Internal Web Pages](#) (see page 102).

If the same password is required for logging on as an **Admin** and **User**, all personnel log on with administrator privileges. Fields and functions that exceed user privileges are not available in PCS when the operator is logged on as a user.

NOTE: The factory configured passwords for all accounts on this device have been set to the device serial number. In the event of a complete system reset, the passwords convert to the default, which is extron (see [Passwords Panel](#) on page 106 to change a password).

Ethernet protocol settings

The [Network Panel](#) (see page 105) provides a location for viewing and, if connected via a serial port or if logged on via the LAN port as an administrator, editing settings unique to the Ethernet interface.

Software/Firmware Installation

Download and install PCS, DSP Configurator Pro, and Dante, available at www.extron.com:

NOTES:

- Download the latest versions of software and firmware for your product.
- An Extron Insider account is required to download either firmware or software. Contact an Extron support representative, to obtain an Insider Account.

1. Access the [Extron website](http://www.extron.com) and log in to your **Insider Account**.
2. Enter the name of the device or software in the **Power Search** field (see figure 20, ①). Or, mouse over the **Download** tab at the top of the page (②) and click the appropriate link on the drop-down list.

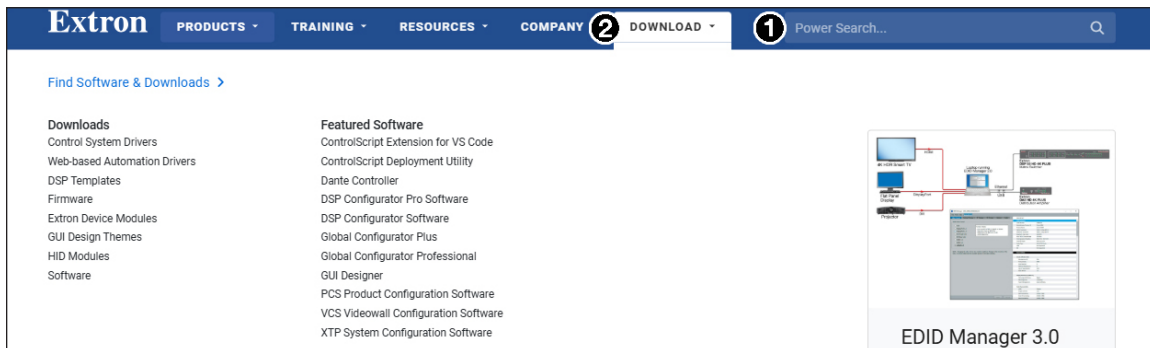


Figure 20. Search Bar and Links on Find Software and Download Screen

3. Click the **Downloads** tab on the product page.

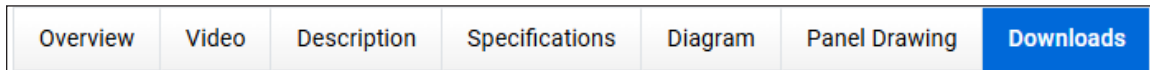


Figure 21. Product Page Downloads Tab

4. Click the product or software name, and the firmware or software executable (.exe) file is downloaded to the PC. Run this program to place the firmware or software on the PC for future use. Make a note of the folder where the firmware file was saved.

NOTE: The Firmware pane is not available unless there is a firmware update.

Firmware	Description	Version	Size	Format
DTP3 CrossPoint 600 Series	Firmware for DTP3 CrossPoint 600 Series Release Notes	2.00.0010-b001	78.8 MB	EXE

Figure 22. Firmware Download

Software	Description	Version	Size	Format
PCS	PCS Release Notes	4.11.3	350.8 MB	EXE

Also see our [Software Archives](#) >

Figure 23. Software Download

5. (Optional) Click **Release Notes** for more information about the firmware update.
6. (Optional) Click **Archives** to download previous versions of firmware or software.

NOTE: The **Archives** links are not listed unless there are prior firmware or software versions.

7. **Install the software.**
 - a. Navigate to the folder where the software file was downloaded.
 - b. Double-click the executable file and follow the on-screen directions to install the software.

For Firmware:

- a. To install via PCS, see **Update Firmware** in the [Device List](#) on page 84.
- b. To install via the internal web pages, see the [Firmware Panel](#) on page 107.

Connecting to PCS

The Extron Product Configuration Software window opens with the Device Discovery panel open. Connect to the switcher using the Device Discovery panel or the TCP/IP panel (see figure 24).

Device Discovery Panel

The Device Discovery panel displays accessible Extron devices connected directly to the PC or to a LAN or WAN. Devices are identified and sorted by model, IP address, device name, or connection method.

1. Open the **Product Configuration Software** program from the desktop shortcut.

The Extron PCS window opens to the Device Discovery screen (see [figure 24](#) on page 79).

NOTES:

- If connected to the front panel USB-C, the hardcoded IP address is 203.0.113.22.
- If connected to the rear panel LAN port, the IPCP Pro 360M default IP address is 192.168.253.250.
- If connected to the rear panel AV LAN ports, the IPCP Pro 360M default IP address is 192.168.254.250.
- To connect to the DTP3 CrossPoint via the AV LAN ports, the default IP address is 192.168.254.254 (to connect via the LAN port, see [TCP/IP Panel](#) on page 80).
- To connect to the ShareLink Pro Module via the AV LAN ports, the default IP address is 192.168.254.248 (to connect via the LAN port, see [TCP/IP Panel](#)).
- To connect to the ShareLink Pro Module via the ShareLink Pro LAN A port, default setting is DHCP enabled, which uses the IP address provided by the DHCP server.
- To connect to the ShareLink Pro Module via the ShareLink Pro LAN B port, the default IP address is 192.168.252.249.
- The AV LAN IP address of the IPCP Pro 360M **MUST** be on the same subnet as the DTP3 CrossPoint and ShareLink Pro module in order to perform an indirect connection using Extron software through the [LAN](#) port. The subnet can be changed in Toolbelt.

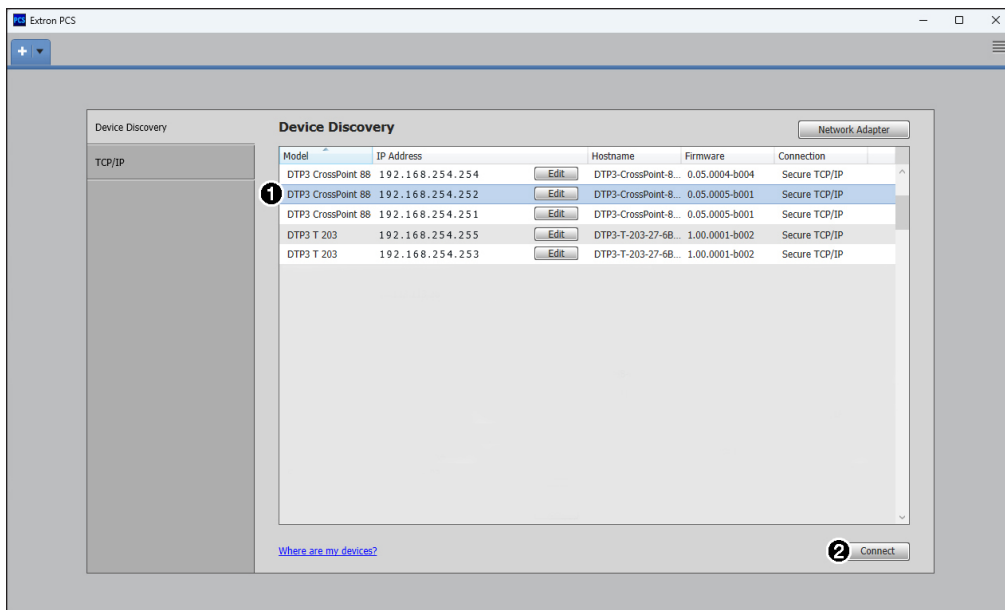


Figure 24. Device Discovery Screen

2. If connecting through the front panel USB-C port or the rear panel AV LAN port, select the DTP3 CrossPoint device by clicking on it to highlight it in the list (1) and click **Connect** (2).

If connecting through the rear panel IPCP LAN port:

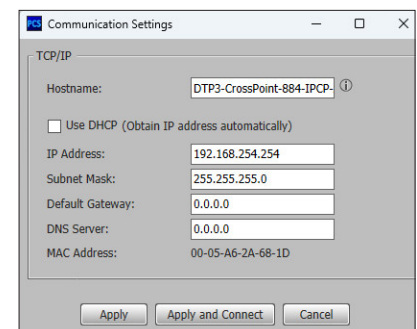
- a. Select the **IPCP Pro 360MQ xi** device by clicking on it to highlight it in the list and click **Connect**. After entering the password, the DTP3 CrossPoint device becomes available below the IPCP.
 - b. Select the DTP3 CrossPoint device by clicking on it to highlight it in the list and click **Connect**.
3. Enter the password in the pop-up window and click **Continue**. The DTP3 CrossPoint PCS main page opens.

To edit the IP address:

1. Click on the **Edit** button (see figure 24). The Communication Settings box opens.
2. Click in the field or fields to edit (see image on the right).
3. Click **Apply** to complete and close.

Alternatively, click **Apply and Connect** to complete and connect to the device.

Click **Cancel** to close the box without changes.



TCP/IP Panel

The TCP/IP panel connects PCS to a specific device through Ethernet.

Figure 25. TCP/IP Panel

To connect to an online device or re-establish a connection via the LAN port:

1. Click the TCP/IP tab (see figure 25, ①).
2. If connecting through the front panel USB-C port or the rear panel AV LAN port, enter the IP Address/Hostname and Password in the Target Device panel (②). Continue to step 3.

NOTES:

- To connect to the DTP3 CrossPoint via the front panel USB-C, the hardcoded IP address is 203.0.113.22.
- To connect to the DTP3 CrossPoint via the rear panel AV LAN ports, the default IP address is 192.168.254.254.
- To connect to the IPCP Pro 360MQ xi via the rear panel LAN port, the default IP address is 192.168.253.250.
- If the DTP3 Matrix IP address is changed, the AV LAN IP address (192.168.254.250) **MUST** be changed in Toolbelt to the same **subnet** as the DTP3 Matrix in order to connect through the LAN port.
- To connect to the ShareLink Pro Module via the ShareLink Pro LAN A port, default setting is DHCP enabled, which uses the IP address provided by the DHCP server.
- The factory configured passwords for all accounts on this device have been set to the device serial number. In the event of a complete system reset, the passwords convert to the default, which is **extron** (see [Passwords Panel](#) on page 106 to change a password).
- Select the **Show Characters** checkbox to display the password characters.

If connecting through the rear panel IPCP LAN port, enter the DTP3 Matrix IP Address/Hostname and Password in the Target Device panel (②).

- a. Select the **Enable Indirect Connection** checkbox (③). The IP Link Pro Control Processor with AV LAN panel (④) is enabled.
 - b. Enter the IPCP Pro 360MQ xi control card IP Address/Hostname and Password in the IP Link Pro Control Processor with AV LAN panel.
3. Leave the **Port** field empty (④) on page 80). The device searches for a port to connect.

NOTE: If the Telnet port number is not known, leave this field blank. PCS scans for the port.

4. Click the **Connect** button (⑤). The DTP3 Matrix PCS main page opens (see [figure 28](#) on page 82).

Offline Device Preview

Opening a new device tab for an offline device displays the interface and configuration options for the device without connecting to it. However, settings cannot be changed.

To open a device tab:

1. From the Configuration File drop-down list, select **New Configuration File** (see figure 26).
The New Configuration File dialog box opens (see figure 27).
2. Scroll through the list to select the desired device model from the **Device Models** list.
Or type the device model in the **Search by model** field to get a short list of only the desired device models.
3. Click the **Configure** button. A new offline device configuration tab opens.

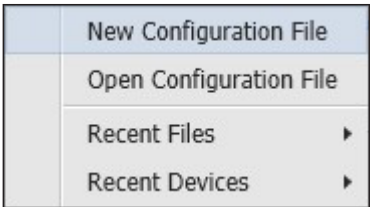


Figure 26. Configuration File Drop-Down List

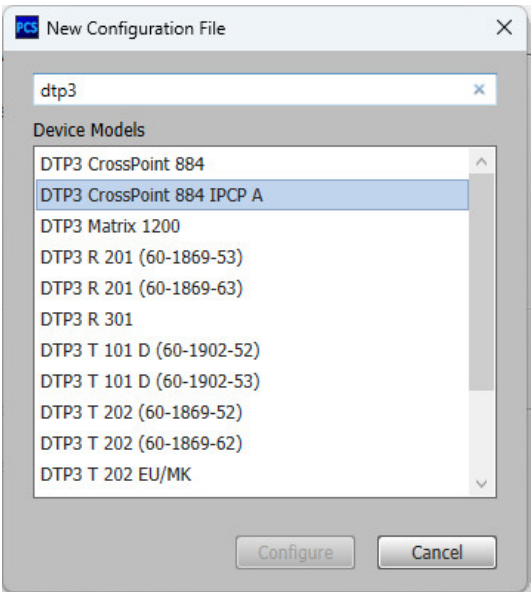


Figure 27. New Configuration File Dialog Box

Software Overview

NOTE: For details about specific software features, see the *DTP3 CrossPoint Matrix Series PCS Help File*.

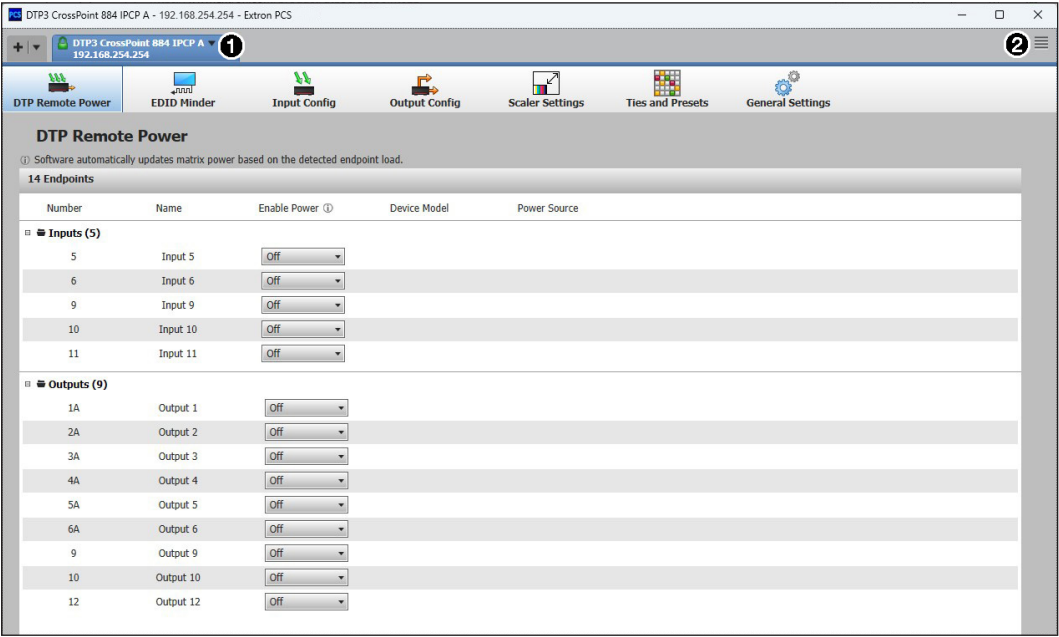


Figure 28. DTP Remote Power Page

Each PCS screen has a Device drop-down list (see figure 28, ❶) for device configuration options. The Software list (❷) contains software configuration and information options.

Product Configuration Software manages basic functions such as:

- Video and audio matrix (making ties)
- Video input and output configuration
- Scaler setup and picture controls
- EDID management
- Test patterns
- RS-232 insertion
- Line audio input level and output volume

Software List

The Software list (see figure 29) contains options pertaining to PCS settings.

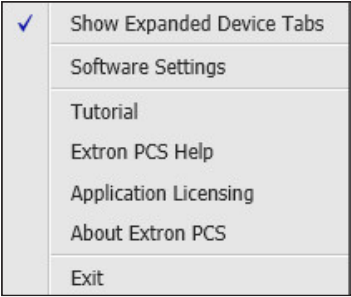


Figure 29. PCS Software List

Show Expanded Device Tabs

Selecting **Show Expanded** Device tabs from the Software list displays the device IP address or connection method in the **Device** tab.



Figure 30. Expanded Device Tab

Software Settings

This option resets all disabled confirmation dialogs to the default settings.

1. From the Software list, select **Software Settings**.
The Software Settings dialog box opens.
2. Click the **Re-enable Confirmation Dialogs** button (see figure 31). The dialog box closes and the reset is complete.
Alternatively, click the **Close** button to close the dialog box without re-enabling the confirmation dialogs.

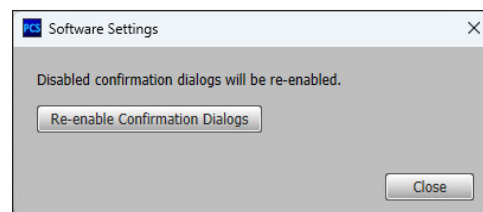


Figure 31. Software Settings Dialog Box

Tutorial

Display a general overview of where to find features in the PCS framework.

1. From the Software list, select **Tutorial**. The Tutorial dialog box opens.
2. Click the **OK** button to close the dialog box.

Extron PCS Help

Open the PCS help file for general PCS operations.

From the Software list, select **Extron PCS Help**.

Application Licensing

Log into PCS with your Extron Insider account or check licensing details.

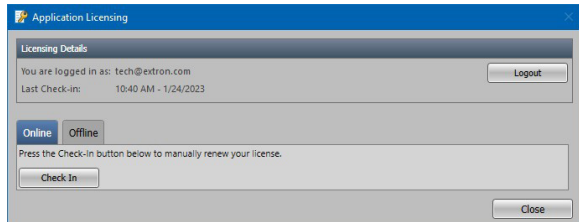


Figure 32. Application Licensing Dialog Box

About Extron PCS

Display information about the current PCS version.

1. From the Software list, select **About Extron PCS**.
The About - Extron PCS dialog box opens.
2. Click the **Details** button (see figure 33) for more information.
3. To display details about third-party software packages and associated licensing, click **Licenses**.
4. Click the **OK** button to close the dialog box.



Figure 33. About - Extron PCS Dialog Box

Exit

Disconnect connected devices and close the application

1. From the Software list, select **Exit**. If device tabs are open, the Exit dialog box opens (see figure 34).
2. Click the **Close Session(s) and Exit** button (❶) to disconnect the software from connected devices, close all offline device tabs, and close the software.

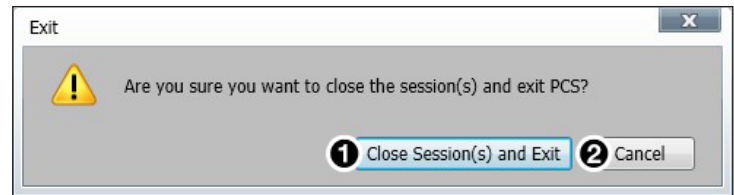


Figure 34. Exit Dialog Box

Alternatively, click the **Cancel** button (❷) to leave the software open.

Device List

The Device list (see figure 35) contains options for device connection, configuration, and information. For details, see the *DTP3 CrossPoint Matrix Series PCS Help File*.

- **Disconnect** — Disconnect the device from the PCS program and close the Device tab.
- **Settings** — Open the following options:
 - **Hardware Settings** — Display the Hardware Settings dialog box with device information and side tabs to change the device name, internal clock, and password of the connected device.
It also contains an **Edit Communication Settings** button, which provides an alternative method of accessing the Communication Settings dialog box.
 - **Communication Settings** — Open the Communication Settings dialog box to change IP settings of the connected device.
- **Reset Device** — Open the Reset Device dialog box, with selectable modes for resetting the connected device, as well as the Unit Information (also displayed in the Hardware Settings dialog box).

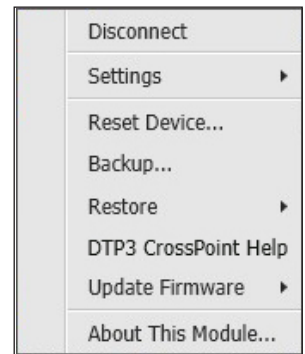


Figure 35. Device List

NOTE: The factory configured passwords for all accounts on this device have been set to the device serial number. In the event of a complete system reset, the passwords convert to the default, which is **extron** for the Admin and User (see [Passwords Panel](#) on page 106 to change a password).

- **Backup** — Export all audio, video, and communication settings of the connected device to the PC. This exported configuration can be saved as a backup file (with a .extz extension), or used to replicate settings from one device to other devices of the same model. When restoring a configuration, select specific device settings.
- **Restore** — Open restore options:
 - **Restore this Device** — Upload a saved configuration for an DTP3 CrossPoint Matrix to the connected device.
 - **Restore to Multiple Devices** — Upload a saved configuration file for a DTP3 CrossPoint Matrix to multiple devices on the network.

NOTE: The connected devices must be connected via LAN.

- **DTP3 CrossPoint Matrix Help** — Open the *DTP3 CrossPoint Matrix Series PCS Help File*.

- **Update Firmware** — Open to upload firmware from the host device to the connected device or to multiple devices.

NOTE: If necessary, download new firmware from the [Extron website](#) (see [Software/Firmware Installation](#) starting on page 77).

- **Update Firmware to this Device...** — Upload firmware from the host device to the connected device only.
- **Update Firmware to Multiple Devices...** — Upload firmware to multiple devices on the network.

NOTE: The connected devices must be connected via LAN.

- **About This Module** — Open the About This Module dialog box, with the module part number and firmware version of the connected device.

DSP Configurator Pro

Extron DSP Configurator Pro is the main user interface for control and management of the Extron device and all of its audio functions, including mixing, gain, dynamics, filtering, delay, microphone ducking, and monitoring. This section describes Extron DSP Configurator Pro and covers the following topics:

- [Software Installation](#)
- [Connecting to a Device in DSP Configurator Pro](#)
- [Accessing the DSP Configurator Pro Help File](#)
- [DSP Configurator Pro Main Workspace](#)
- [Menu Bar](#)
- [Icon References](#)

Software Installation

Visit www.extron.com to download and install DSP Configurator Pro.

NOTES:

- Download the latest versions of software for your product.
- An Extron Insider account is required to download and use the firmware or software.

1. Access the [Extron website](#) and log in to your **Insider Account**.
2. Mouse over the **Download** tab (see figure 36, ❶) at the top of the page.

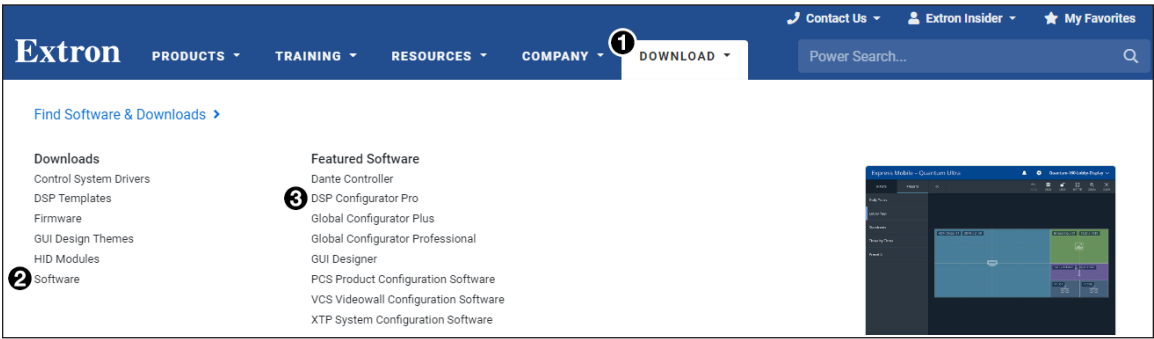


Figure 36. Software Links on Download Screen

3. Click the **DSP Configurator Pro** link (❸).
4. Click **Download** (see figure 37). The Download Center page of the selected software opens and an executable (.exe) file is downloaded to the PC. Make a note of the folder where the software was saved.

NOTE: (Optional) Click **Release Notes** for more information about the software update.

Version	Release Date	Size	Release Notes
1.0.0 (Edit)	Jul. 22, 2024	261.4 MB	• Initial Release • Support for DMP 44xi  0.4 MB (Edit) Download

Figure 37. DSP Configurator Pro Download

Connecting to a Device in DSP Configurator Pro

NOTE: This section provides information to connect or emulate to a device or emulate mode. For details about specific software features and device configurations, refer to the *DSP Configurator Pro Help File*.

When connected to a device, changes made in DSP Configurator Pro are directly applied to the device.

Discover Panel

1. Open the **DSP Configurator Pro** program from the desktop shortcut.

Alternatively, to run DSP Configurator Pro from the default install location, click **Start> Programs> Extron> DSPConfiguratorPro.exe**

The Extron DSP Configurator Pro window opens to the Discover page with login dialog on top (see figure 39).

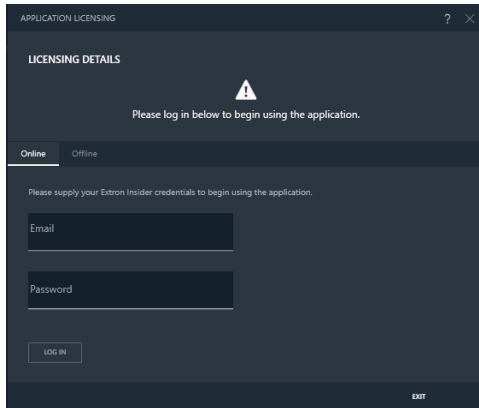


Figure 38. DSP Configurator Pro Login

2. Enter your Extron Insider credentials in the **Email** and **Password** fields and click **LOG IN**.
3. Click **Close** to close the login dialog and access the Discover page.

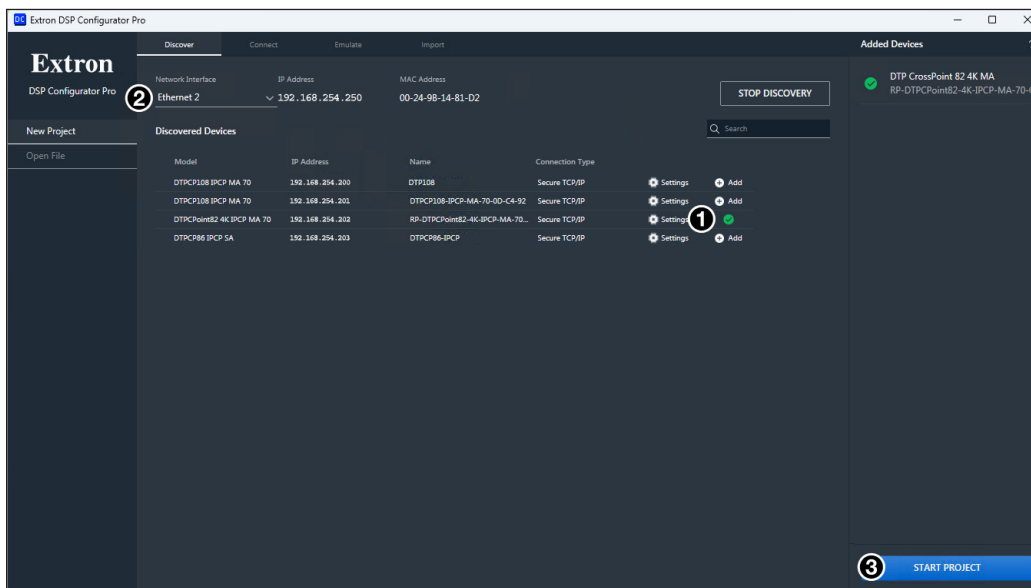


Figure 39. DSP Configurator Pro Main Discover Page

4. From the Discovered Devices panel, select the desired device by clicking the **ADD** button at the end of the device row (❶).
If the desired device is not found, select another network from the **Network Interface** drop-down list (❷).
5. Click **Start Project** at the bottom of the Added Devices column (❸).
The Device Manager panel opens with the selected device listed.
6. Double click the device in the Device Manager panel to open its configuration in the workspace (see [figure 40](#) on page 88).

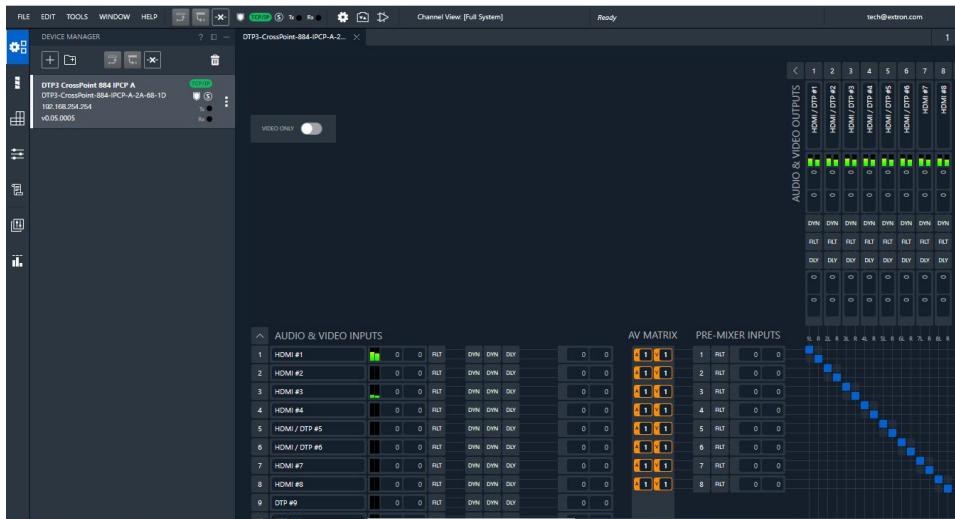


Figure 40. Device Manager

NOTE: To add additional devices, click the plus (+) icon in the Device Manager.

Connect Panel

The Connect panel allows the user to manually connect to any device that is supported by DSP Configurator Pro.

1. Click the **Connect** tab in the menu bar. The panel opens with the Connection Type menu on the left side.
2. Choose the desired connection method.

To connect via TCP/IP:

- a. Click the **TCP/IP** tab (see figure 41) in the Connection Type panel.
- b. Enter the IP address of the device in the **Hostname or IP Address** field (see figure 42). If necessary, enter the port in the **Telnet Port** field and device password in the **Password** field.
- c. Select the desired device by clicking the **ADD** button at the bottom of the page.
- d. Click **Start Project** at the bottom of the Added Devices column. The Device Manager panel opens with the selected device listed.
- e. Double click the device in the Device Manager panel to open it in the workspace.

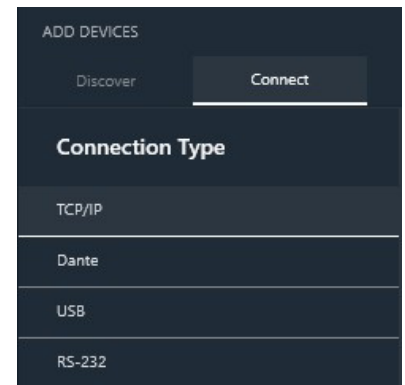


Figure 41. TCP/IP Tab

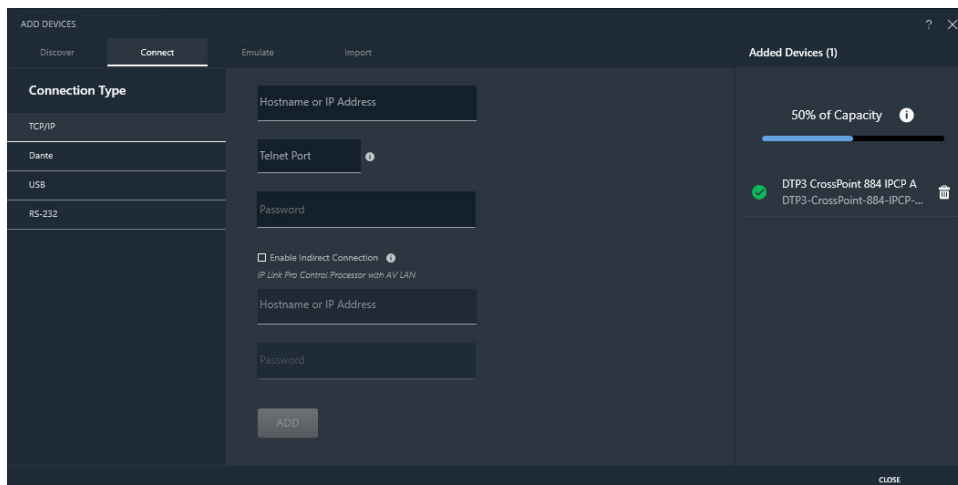


Figure 42. Connect to the Device via TCP/IP

To connect via Dante:

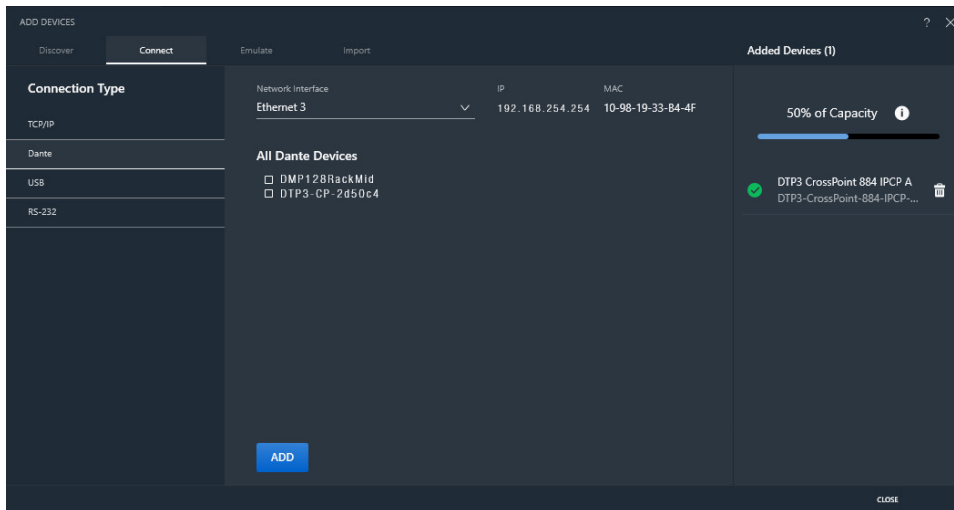


Figure 43. Connect to the Device via Dante

- Click the **Dante** tab (see figure 43) in the in the Connection Type panel.
- Select the **Network Interface** the device is connected to on the host PC from the **Network Adapters** drop-down list.
- Select the desired device or multiple devices from the list.
- Select the desired device by clicking the **ADD** button at the bottom of the page.
- Click **Start Project** at the bottom of the Added Devices column. The Device Manager panel opens with the selected device listed.
- Double click the device in the Device Manager panel to open it in the workspace.

To connect via USB:

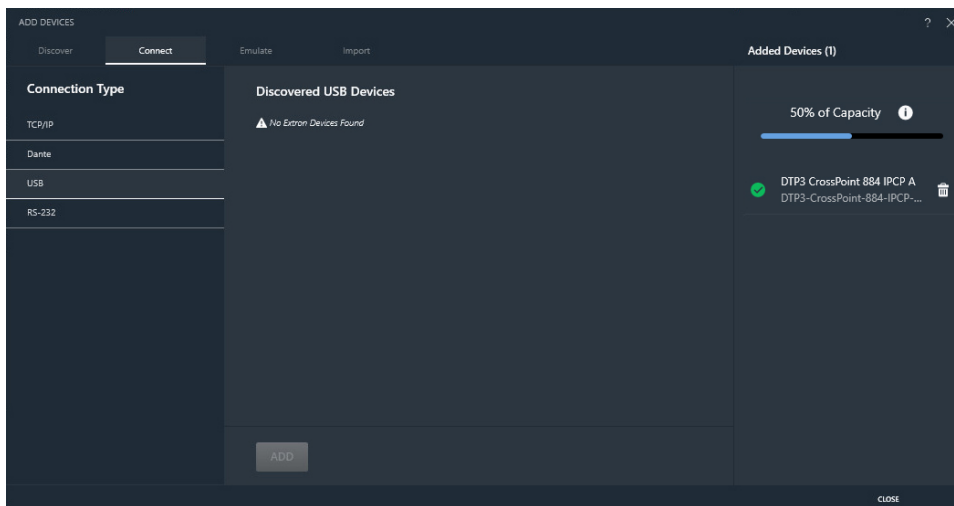


Figure 44. Connect to the Device via USB

- Click the **USB** tab (see figure 44) in the in the Connection Type panel.
- Select the device from the USB Devices list.
- Select the desired device by clicking the **ADD** button at the bottom of the page.
- Click **Start Project** at the bottom of the Added Devices column. The Device Manager panel opens with the selected device listed.
- Double click the device in the Device Manager panel to open it in the workspace.

To connect via RS-232:

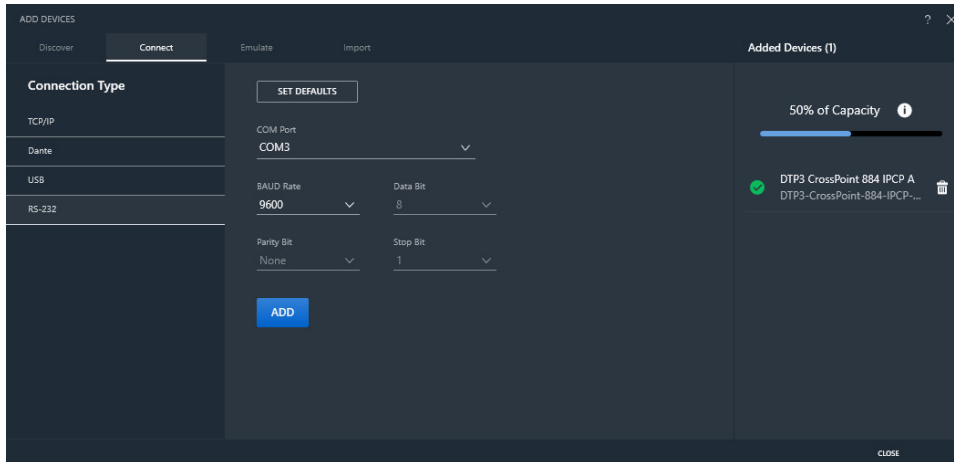


Figure 45. Connect to the Device via RS-232

- Click the **RS-232** tab (see figure 45) in the Connection Type panel.
- Select the com port the device is connected to on the host PC from the **COM Port** drop-down list.
- Select the **BAUD Rate** from the drop-down list: **9600**, **19200**, **38400**, or **115200**.
- Select the device from the **COM Port** list.
- Select the desired device by clicking the **ADD** button at the bottom of the page.
- Click **Start Project** at the bottom of the Added Devices column. The Device Manager panel opens with the selected device listed.
- Double click the device in the Device Manager panel to open it in the workspace.

Emulate Panel

The Emulate panel allows the user to add an offline device which can be configured, saved, and pushed to a device at a later time.

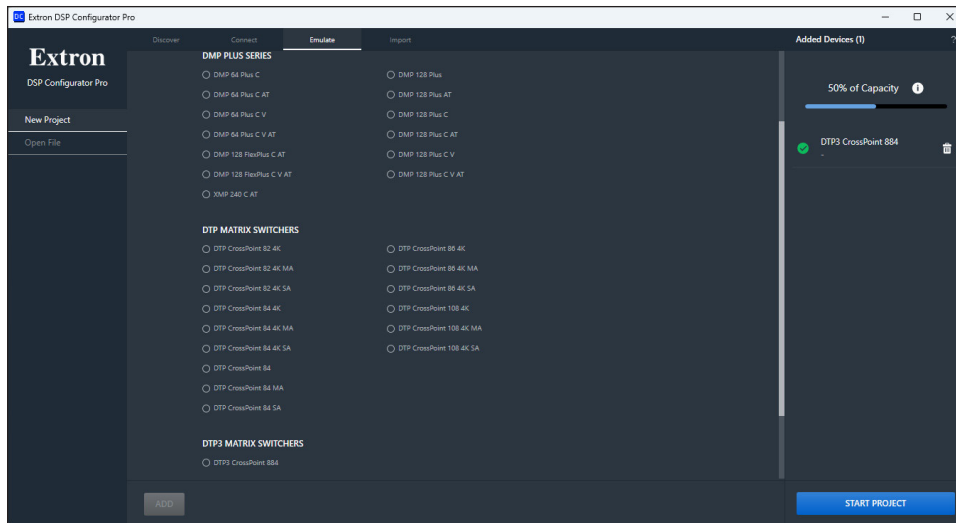


Figure 46. DSP Configurator Pro Emulate Page

- Click the **Emulate** tab (see figure 46).
- Select the checkbox of the desired device or devices.
- Click **ADD** at the bottom page.
- Click **Start Project** at the bottom of the Added Devices column. The Device Manager panel opens with the selected device or devices listed.
- Double click the desired device in the Device Manager panel to open it in the workspace.

Accessing the DSP Configurator Pro Help File

DSP Configurator Pro comes loaded with a context-sensitive help file that can be accessed by clicking the help icon (?) in the top right corner of any dialog box in DSP Configurator Pro.

Alternatively, click **Help > Contents** in the menu bar at the top of the main workspace, or press <F1> on the keyboard. This help file contains detailed procedures and further instruction on all DSP Configurator Pro features.

DSP Configurator Pro Main Workspace

NOTE: This section provides a brief overview of the DSP Configurator Pro main workspace. For details about specific software features and device configurations, refer to the *DSP Configurator Pro Help File*.

The DSP Configurator Pro main workspace contains various functions to configure the device (see figure 47). Open the **Channel Strip** to expose the controls of a selected channel, or double click on any block to expose the controls of a particular block. Right click on a selection of blocks to open a drop-down list of controls that can be applied to the entire selection of blocks simultaneously.

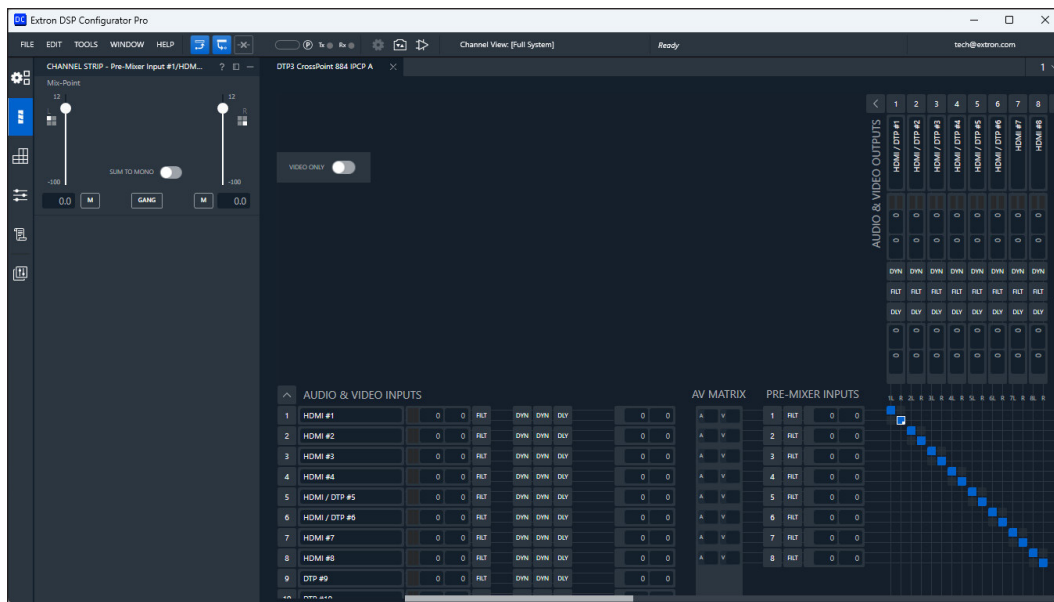
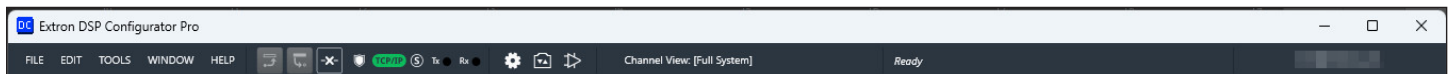


Figure 47. DSP Configurator Pro Main Workspace

Menu Bar



File

The **File** menu offers the standard Windows File menu options New, Open, Open Recent, Save, Save As, Export, Preferences, and Close.

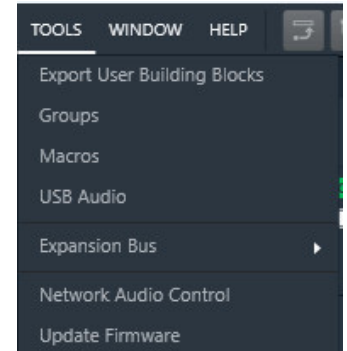
Edit

The **Edit** menu offers the standard Windows Edit menu options Cut, Copy, and Paste.

Tools

This menu lists all of the tools available on the selected device. This list automatically updates depending on which device is selected, to only display relevant tools.

- **Export User Building Blocks** — Opens the Organize Building Blocks dialog box.
- **Groups** — Opens the Configure Groups dialog box to create, edit, and delete Gain and Mute groups.
- **Macros** — Opens the Configure Macros dialog box for creating, editing, running, and deleting macro functions.
- **USB Audio** — Opens the USB Audio Control dialog box with drop-down boxes to set the desired USB Audio channel count. USB channel configurations can contain any combination of input and output channels, up to eight total channels.
- **Expansion Bus** — Contains a submenu to set a device as a Primary or Secondary unit and enable the Expansion Port.
- **Network Audio Control** — Opens the Dante Controller application, if it is installed.
- **Update Firmware** — Opens the Firmware Loader application, if it is installed.



NOTE: Go to www.extron.com to download the Dante Controller or Firmware Loader software.

Window

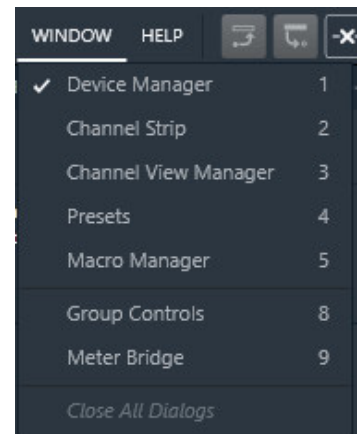
This menu lists features that reorganize open dialog box windows. They are also available as icons along the left side of the DSP Configurator Pro window.

- **Device Manager** — Opens the Device Manager dialog box to add new devices, connect and push configurations to existing devices, manage device settings on existing devices, interface with device configurations, and organize systems of multiple devices.
- **Channel Strip** — View of the internal parameters for the blocks contained within the channel of focus.
- **Channel View Manager** — Show or hide any channel within the workspace and save that arrangement of channels as a Channel View.

NOTE: The Channel View Manager is not available when connected to a device over USB or RS-232.

- **Presets** — Opens a panel to create, modify, and recall presets.
- **Macro Manager** — Opens the Macro View dialog box to view a list of user-created Macros and rename, configure, and run **Macros**.
- **Group Controls** — Opens the Group Controls dialog box to access existing group controls and add new groups.
- **Meter Bridge** — Opens a dialog box to view all meters on the device for convenient viewing of system status.

NOTE: The Meter Bridge is only available when connected to a device.



Help

The Help menu offers options such as the **Help file** and **About**.

Connection

NOTE: Not all icons and their features are available on all devices.

This section displays the controls necessary for connecting to or disconnecting from the selected device as well as the connection status of the active device.



- **Push** — Pushes an offline configuration to a device.

NOTE: AT Input Channel names are only pushed when the checkbox is selected.

- **Pull** — Pulls the existing configuration from the device.
- **Disconnect** — Disconnects from an online device.
- **Shield** — A filled shield icon indicates that the device has a secure connection. A shield with a diagonal line through it indicates that the device has an unsecure connection.
- **Type of Connection** — Displays the connecting type of the online device or the connection type that is stored on the offline device.

NOTE: Green means that the device is online. Gray means that the device is offline.

- **Primary or Secondary** — A circled P or S indicates whether the device is set as the primary (P) or secondary (S) device.
- **Tx and Rx LEDs** — These signal presence meters illuminate whenever any DSP Configurator Pro transmits or receives communication data from the device.
- **Device Settings (gear)** — Opens a dialog box with the device settings of the online device.
- **DTP3 I/O Configuration** — Opens a dialog box to configure the DTP3 I/Os as an input or an output.
- **Amplifier Settings** — Opens a dialog box to configure the amplifier output mode.

Channel View

The Channel View readout displays the currently selected channel view on DSP Configurator Pro devices.

DSP Configurator Pro Status

This panel displays the current status of DSP Configurator Pro and shows when data is being pushed to or pulled from the device. When the software is ready to perform actions, the panel displays Ready.

Icon References

Icon	Description
	Device Manager — Opens the Device Manager panel to add new devices, connect and push configurations to existing devices, manage device settings on existing devices, interface with device configurations, and organize systems of multiple devices. This panel is the central hub for interfacing with any Extron device supported by DSP Configurator Pro
	Channel Strip — Opens the Channel Strip panel to view the internal parameters for all the blocks on a given channel.
	Channel View Manager — Opens the Channel View Manager to show or hide any channel within the workspace and save that arrangement of channels as a Channel View. Only available on the DMP Plus series.
	Preset Manager — Opens the Preset Manager panel to create, modify, and recall presets. Presets are saved states of blocks within the workspace. Available on all devices except the AXI series, the AXP series, and the MVC series.
	Macro Manager — Opens the Macro Manager dialog box displays the list of user-created Macros and provides the ability to rename, configure and run Macros. Available on all DMP Plus devices.
	Group Controls — Opens the Group Controls console to view the created group, and control created groups. Gain, Bass, and Treble groups are placed on the top row in ascending order. Mute and Meter groups are placed on the bottom row in ascending order. Available on all devices except the AXI/AXP series, and MVC series.
	Meter Bridge — Opens a dialog box to view all meters on the device for convenient viewing of system status.
	Push — Pushes an offline configuration to a device.
	Pull — Pulls an existing configuration from a device.
	Disconnect — Disconnects from an online device.
	Gear — Opens a dialog box with the device settings of the online device.
	DTP3 I/O Configuration — Opens a dialog box to configure the DTP3 I/Os as an input or an output.
	Amplifier Settings — Opens a dialog box to configure the amplifier output mode.
	Add — Adds a new item.
	Add Folder — Adds a new folder.
	Delete — Deletes an existing item.

Dante Controller

This section describes the DTP3 CrossPoint network installation, configuration, and control using Dante Controller for Windows and covers the following topics:

- [Overview](#)
- [Downloading and Installing Dante Controller](#)
- [Configuring the DTP3 CrossPoint in Dante Controller](#)
- [Dante Controller Operation](#)
- [Dante Troubleshooting](#)

Overview

DTP3 CrossPoint devices use Dante technology by Audinate to provide high performance digital audio networking over standard TCP/IP networks. The Dante Controller software application is used to route audio on the network, and can be accessed from the Audio Config tab in PCS, after the software is downloaded. Dante allows audio channels to be transported across a switched Ethernet data network while meeting the quality requirements of professional audio.

Up to 32 channels can be transmitted from the DTP3 CrossPoint to the Dante network and up to 32 channels can be received by the DTP3 CrossPoint from the Dante network.

Audio signals are converted by DTP3 CrossPoint devices, processed and routed to the AT bus, and transmitted onto the Dante network. Audinate recommends the Dante audio network be kept separate from other networks. However, the audio network can be shared with control traffic or unrelated data traffic. Audio channels can be unicast or multicast to make the best use of available bandwidth.

Downloading and Installing Dante Controller

Dante Controller from Audinate is required to route transmitters and receivers and can be used to configure Dante settings and monitor performance. Install Dante Controller on a PC running Microsoft® Edge®. For full details about computer requirements and to download the software, see the Dante Controller product page at www.extron.com.

To download Dante Controller:

1. On the Extron web page, mouse over the **Download** tab at the top of the page.
2. From the Featured Software list, select **Dante Controller** link.
3. On the Dante Controller page, click **Download**.
4. On the Download Center page, fill-in the required fields.
5. Click the **Download dantecontroller.exe** button.
6. If you choose to run the file, follow all prompts. If you saved the file, click the saved file to begin installation when ready.

Configuring the DTP3 CrossPoint in Dante Controller

Use a standard Ethernet cable to connect the DTP3 CrossPoint to a Dante network via the rear panel AT port and power the device.

Device Name

Multiple devices on the same Dante network can present difficulty in identifying individual devices. To avoid confusion and difficulty, ensure the following steps are taken:

- Connect devices to the Dante network one at a time.
- Rename each device before making audio subscriptions in Dante Controller.
- Rename each device with a unique and meaningful identifier.
- Rename each device before the next device is connected to the Dante network.

ATTENTION:

- It is essential that a Dante device be named before audio subscriptions with other devices are established. Existing subscriptions are removed when a device is renamed.
- Il est essentiel qu'un appareil Dante soit nommé avant l'établissement des abonnements audio avec d'autres appareils. Les abonnements existants sont supprimés lorsqu'un appareil est renommé.

In Dante Controller, a device can be renamed to identify the device on the audio network. The default device name of the CrossPoint consists of the model name, followed by the last six characters of the Dante interface MAC address (for example, DTP3-CP-2c50d4). In addition to renaming the device, individual Transmitter (Tx) and Receiver (Rx) channels can be renamed.

Receiver and Transmitter Names

In addition to renaming a device, individual transmitter and receiver channels can be renamed in Dante Controller. Rename transmitter and receiver channels to reflect the location of the device or the purpose of the transmitter or receiver. Ensure transmitter and receiver channels are renamed before making audio connections between devices. Refer to [Renaming a Receiver or Transmitter](#) on page 97 for renaming procedure.

ATTENTION:

- It is essential that a Dante device be named before audio subscriptions with other devices are established. Existing subscriptions are removed when a device is renamed.
- Il est essentiel qu'un appareil Dante soit nommé avant l'établissement des abonnements audio avec d'autres appareils. Les abonnements existants sont supprimés lorsqu'un appareil est renommé.

Dante Controller Naming Conventions

- Device names follow Domain Name System (DNS) hostname rules. Legal characters are A-Z, a-z, 0-9, and hyphen (-). Names must begin with a letter and cannot end with a hyphen (-).
- Dante Tx and Rx channel names (also known as labels) can be up to 31 characters in length. Label names are not case-sensitive. For example, "ANALOG OUT-1" and "analog out-1" are recognized as the same name. Unicode and non-roman characters are not supported.
- Tx and Rx channel labels can use any character except equals (=), period (.), or @.
- Tx and Rx channel labels must be unique on a device but do not need to be unique on the network.

Renaming the CrossPoint in Dante Controller

NOTE: Dante device naming can also be done via DSP Configurator Pro (see the *DSP Configurator Pro Help File* available in the software).

1. Ensure that the control computer and a single DTP3 CrossPoint are connected to the same network.
2. From the control computer **Start** menu select: **All Programs > Audinate > Dante Controller**
3. The Dante Controller - Network View screen opens. All Dante devices on the network are discovered and listed.

4. From the Device menu, select **Device View** or press <Ctrl+D> on the keyboard.
5. The Dante Controller - Device View dialog opens. Select the device being configured from the (**Select a Dante Device...**) drop-down list.

NOTES:

- If there are multiple DTP3 CrossPoint devices connected to the network that have not been renamed, obtain the Dante interface media access code (MAC) address of the desired device from the white label on the rear panel of the device in order to identify it in Dante Controller.
- There are four MAC addresses listed on the rear panel of a DTP3 CrossPoint, one for the LAN port, one for the AV LAN ports, one for the DTP3 CrossPoint, and one for the Dante interface. The Dante interface MAC address is listed next to the Dante port and is labeled Dante.

The Device View dialog populates with the selected DTP3 CrossPoint information.

6. Click the **Device Config** tab to open the Device Config page.
7. In the Rename Device panel, enter the new name of the device in the text field. No spaces are allowed in the name. Names should be significant identifiers. For example, enter **DTP3-CP-MainRack**.
8. Click **Apply**. A confirmation prompt opens.
9. Click **Yes** to confirm the new name, then close the Device Configuration dialog box. The new name is written to the Dante interface of the DTP3 CrossPoint. Repeat as necessary for all devices.

NOTE: The device name assigned in Dante Controller only applies to the Dante interface and does not affect the device name recognized in DSP Configurator Pro.

Renaming a Receiver or Transmitter

In addition to renaming devices, individual receiver and transmitter channels can be renamed in Dante Controller. To better organize the various receivers and transmitters, it is recommended each receiver and each transmitter be named using a description of the device they belong to, the location of the device, or the purpose of the receiver or transmitter.

ATTENTION:

- It is essential that a Dante device be named before audio subscriptions with other devices are established. Existing subscriptions are removed when a device is renamed.
- Il est essentiel qu'un appareil Dante soit nommé avant l'établissement des abonnements audio avec d'autres appareils. Les abonnements existants sont supprimés lorsqu'un appareil est renommé.

To view the receiver or transmitter channels in Dante Controller, click the + sign next to the receiver or transmitter device name to expand it. The + sign becomes a – sign when the device is expanded.

TIP: To simplify setup and operation of large matrix systems, rename the receiver and transmitter channels to better indicate the source at the transmitters or receivers.

To rename a DTP3 CrossPoint receiver or transmitter:

1. From the Device menu on the Network View screen, select **Device View**, or press <Ctrl+D> on the keyboard. The Device View dialog box opens.
2. From the (**Select a Dante Device...**) drop-down list, select the name of the desired CrossPoint.
3. On the Device View screen, select the **Receive** tab or **Transmit** tab as desired.
4. Click on the name of the receiver or transmitter to be renamed. The name becomes a text box with a cursor.
5. Enter the new name (up to 31 characters) using any combination of letters, numbers, and special characters except for @, =, and . (period).
6. Press <Enter> on the keyboard to confirm the name, or click another channel text box.
7. Repeat **steps 4 through 6** to rename additional receiver or transmitter channels.
8. When finished renaming receivers and transmitters, close the Device View dialog box.

Finding a Dante Device IP Address

To find the IP address of a Dante device, the name of the device is needed (see [Renaming the CrossPoint in Dante Controller](#) on page 96).

NOTE: If the DTP3 CrossPoint has not been renamed, its default name consists of the product name followed by a hyphen, plus the last 6 digits of the device MAC address (for example, DTP3-CP-2c50d4).

1. Open Dante Controller.
2. On the Dante Controller-Network View screen, click the **Device Info** tab.
3. On the Device Info page, locate the name of the DTP3 CrossPoint in the Device Name column. The IP address is located in the Primary Address column.

Dante Controller Operation

Dante Transmitters and Receivers

A Dante network is comprised of transmitters that output digital audio onto the Dante network and receivers that receive digital audio input from the Dante network.

- Transmitters output digital audio from the device onto the audio network.
- Receivers take in digital audio from the audio network into the device.

DTP3 CrossPoint Transmitters and Receivers

The DTP3 CrossPoint DMP EXP Bus output channels are Dante transmitters because their audio output is transmitted onto the Dante network.

The DTP3 CrossPoint input channels are Dante receivers because they receive digital audio signal from the Dante network that can then be routed and mixed into the DTP3 CrossPoint mix matrix.

Dante Routing Operation

Dante Controller is used for all network signal routing of transmitters and receivers for Dante-enabled devices. The DTP3 CrossPoint transmitters and receivers are available in Dante Controller for routing to other Dante devices.

Routing Devices

After the DTP3 CrossPoint is configured, the channels can be routed to the other Dante devices on the audio network. Channels transmitted to the network or received from the network are routed using the Dante Controller **Routing** tab on the Network View page. The transmitters, listed horizontally along the top of the screen, and the receivers, listed vertically down the left side, form a matrix whose intersections are the connection points between the receivers and transmitters.

- To make a receiver-to-transmitter connection, click once on an intersection.
- To remove a connection, click on the icon at the intersection.

One of the following icons appears at each connection intersection, indicating the status of both the transmitter and receiver channels and the connections (subscriptions):

Icon	Description
	Indicates an active subscription.
	Indicates subscription is in progress.
	Indicates a pending subscription.
	Indicates a broken subscription.
	Indicates the transmitting device has been removed from the network or is switched off.

See the *Dante Controller User Guide*, available at www.audinate.com, for additional information.

Creating Subscriptions Between Devices

1. Ensure the control computer and DTP3 CrossPoint are connected to the same network.
2. From the start menu select: **All Programs > Audinate > Dante Controller > Dante Controller**
The Dante Controller - Network View screen opens.
Dante Controller auto-discovers Dante devices on the network and advertises itself to allow other Dante-enabled devices to communicate with it. Transmitters connect to receivers using the subscription matrix.
3. To show the transmitters of a Dante device, click the + box next to the desired device in the Dante Transmitters panel, such as DTP3-CP-2c50d4. The + changes to a – sign when the device expands.
4. To show the receivers of a Dante device, click the + box next to the desired device in the Dante Receivers panel, such as DTP3-CP-2c50d4.
5. Click the intersection of the desired subscription between a transmitter and a receiver.
A check mark at the intersection indicates the subscription is made. A check mark also appears next to the receiver channel.

NOTE: A receiver can connect to only one transmitter. A transmitter can connect to multiple receivers.

Disconnecting Inputs from Outputs

To undo routing, click the junction again to disconnect the receiver from the transmitter.

NOTE: After making changes to Dante network routing such as subscriptions, device names, or channel labels, wait at least 5 seconds before disconnecting or powering down the devices. This ensures that the new information is properly saved to those devices. Device level configuration such as sample rates, latency, and clock settings are saved instantly.

Setting up AES67 Mode

The DTP3 Matrix supports the AES67 audio over IP interoperability standard. This feature allows audio transport to and from other AES67-compatible devices, such as the Extron NAV series.

To enable AES67 mode:

1. Open **Dante Controller** and double-click the Dante device name in the **Routing** tab to open Device View.
2. Click on the **AES67 Config** tab. The configuration screen opens.
3. Select **Enabled** from the drop-down list.
4. Click the **Reboot** button to reboot the device and enable AES67.

To create an AES67 Multicast Flow:

1. Open **Dante Controller** and double-click the Dante device name in the **Routing** tab to open Device View.
2. Click the **Create a new multicast flow** button .
3. In the Flow Config section, click the **AES67** radio button.
4. In the Flow Config section, select **Auto** or **Manual Destination Address**. If manual is selected, enter the destination address.
5. Check the box for each channel to be included in the Multicast Flow.
6. Click **Create**.

Dante Troubleshooting

The most common Dante troubleshooting issues occur when devices are not discovered by Dante Controller or when routing is not successful. Both issues occur when software is not able to properly discover devices operating on the Dante network.

Before moving into more difficult troubleshooting, shut down Dante Controller and reseal the Ethernet cable connecting the PC to the Dante network and restart Dante Controller. This can be enough for the software to reacquire the Dante network.

If the problem persists, perform the following troubleshooting procedures in the order listed.

Simplifying the Network for Troubleshooting

If further troubleshooting of Dante Controller is necessary, begin by simplifying the network:

1. Bypass network switches by connecting two Dante-compatible units, such as a DTP3 CrossPoint and an AXI 44 AT, via their AT ports.
2. Connect the PC to an unused AT port with an Ethernet cable.
3. Use Dante Controller to check if the issue was resolved before moving on to network interface troubleshooting.
4. If the issue is resolved, add connections and hardware one at a time, checking for proper operation after each addition, until the point of failure is discovered (typically a bad cable or invalid redundant configuration).

Troubleshooting the Network Interface

If the issue is still present, continue to diagnose the PC network connections as described below. Check Dante Controller after each step to see if the problem is resolved.

1. Click the **Choose a Dante Interface** icon. The Configure Dante Interfaces dialog box opens.
Be certain the correct LAN connection is selected (the PC LAN port that is physically connected to the AT network) and note the IP address.
2. If it is on, turn off the PC wireless adapter. Disable all connections except the LAN port connected to the Dante network (verify this is the correct port by checking the IP address shown in the Configure Dante Interfaces dialog).
3. Turn off all anti-virus and firewall software on the computer.
4. Enable DHCP on the remaining network connection. This forces the computer to acquire an IP address from the Dante interface.

NOTE: A DHCP server must be on the network for DHCP to function correctly.

Restarting Dante Controller

If subscriptions or normal operation cannot be restored, restart Dante Controller software. **To access the Dante Controller Help file, do any of the following:**

- Click the **Help** icon in the upper-right corner of the Network View screen.
- Select **Help**, then **Online Help** from the list.
- Press the <F1> key on the computer keyboard for online help or <Shift+F1> for offline help.

Internal Web Pages

The DTP3 CrossPoint network, name, and time can be remotely configured and firmware updated via the internal web page. This section details web page operation, including:

- [Accessing the Internal Web Page](#)
- [Web Page Panels](#)

This chapter describes the factory-installed internal web pages, which are always available and cannot be erased or overwritten.

The DTP3 CrossPoint internal web page can be accessed via the AV LAN port or USB-C port, connected via a LAN or WAN, using a web browser such as the Microsoft® Edge®.

The ShareLink Pro module internal web page can be accessed via the ShareLink Pro module LAN A or LAN B ports (see the *ShareLink Pro 2500 User Guide* at www.extron.com).

The IPCP Pro 360MQ xi control processor internal web page can be accessed via the LAN port (See the *IPCP Pro Q xi and xi Series User Guide* at www.extron.com).

NOTES:

- If it has not been changed, the AV LAN ports default IP address is 192.168.254.250.
- If it has not been changed, the DTP3 CrossPoint default IP address is 192.168.254.254.
- If it has not been changed, the IPCP LAN port IP default address is 192.168.253.250.
- To connect to the ShareLink Pro Module via the ShareLink Pro LAN A port, default setting is DHCP enabled, which uses the IP address provided by the DHCP server.
- If DHCP is disabled and it has not been changed, the ShareLink Pro LAN A port default IP address is 192.168.253.249.
- If it has not been changed, the ShareLink Pro LAN B port default IP address is 192.168.252.249.
- If it has not been changed, the ShareLink Pro AV LAN port default IP address is 192.168.254.248.

Accessing the Internal Web Page

Access the DTP3 CrossPoint internal web pages as follows:

1. Connect the DTP3 CrossPoint to a LAN or WAN using the rear panel RJ-45 LAN port (see [figure 10](#) on page 19) or the front panel USB-C port (see [figure 17](#) and [figure 18](#) on page 25).

NOTE: If connecting through the IPCP panel, use the AV LAN port to connect to the DTP3 CrossPoint. **DO NOT** use the LAN port. The LAN port connects to the IPCP Pro 360MQ xi control card.

2. Open a web browser on a PC connected on the same LAN or WAN.

NOTE: Compatible web browsers are Microsoft® Edge®, Mozilla® Firefox®, Google Chrome™, and Apple® Safari®.

3. Enter the DTP3 CrossPoint IP address in the browser **Address** field.

NOTES:

- If the local system administrators have not changed the value for the DTP3 CrossPoint, the default is 192.168.254.254.
- If connected to the USB port, the default is 203.0.113.22 (this IP address cannot be changed).

4. Press the <Enter> key on the keyboard.
5. The DTP3 CrossPoint is password protected. Enter **user** or **admin** in the **Username** field (see [figure 48](#) on page 103).

6. Enter the password in the **Password** field when prompted (see figure 48).

NOTE: The factory configured passwords for all accounts on this device have been set to the device serial number. In the event of a complete system reset, the passwords convert to the default, which is **extron** (see [Passwords Panel](#) on page 106 to change a password).

7. Click the **SIGN IN** button. The internal web page opens (see figure 49).

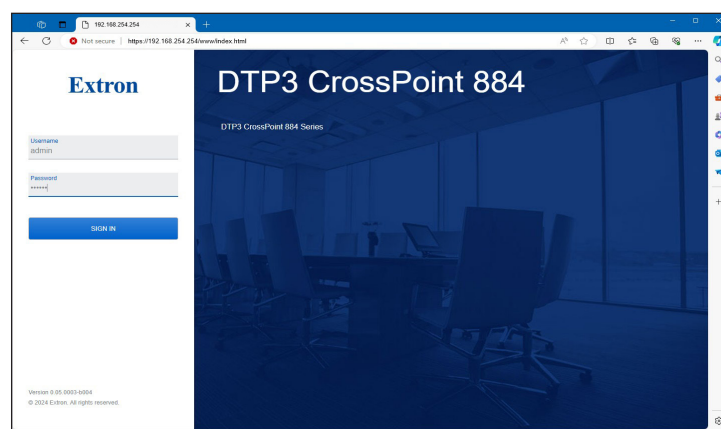


Figure 48. Network Password Prompt

Web Page Panels

The DTP3 CrossPoint internal web page (see figure 49) provides an overall, read-only view of the status of the switcher, with some editable fields for the following categories:

- | | |
|------------------------------|--------------------------|
| ❶ Details Panel | ❺ Passwords Panel |
| ❷ Status Panel | ❻ Firmware Panel |
| ❸ Date and Time Panel | ❼ Dante Panel |
| ❹ Network Panel | |

The panels in the accordion section that can be edited have an **EDIT** link to click to access the panel. To access each panel in the accordion, click the name or the arrow for each panel. To view general information about the DTP3 CrossPoint, click the **ABOUT** link (❸ see [About the DTP3 CrossPoint](#) on page 108).

The internal web page does not automatically update. To see an updated page, click the **Refresh** button on the web browser.

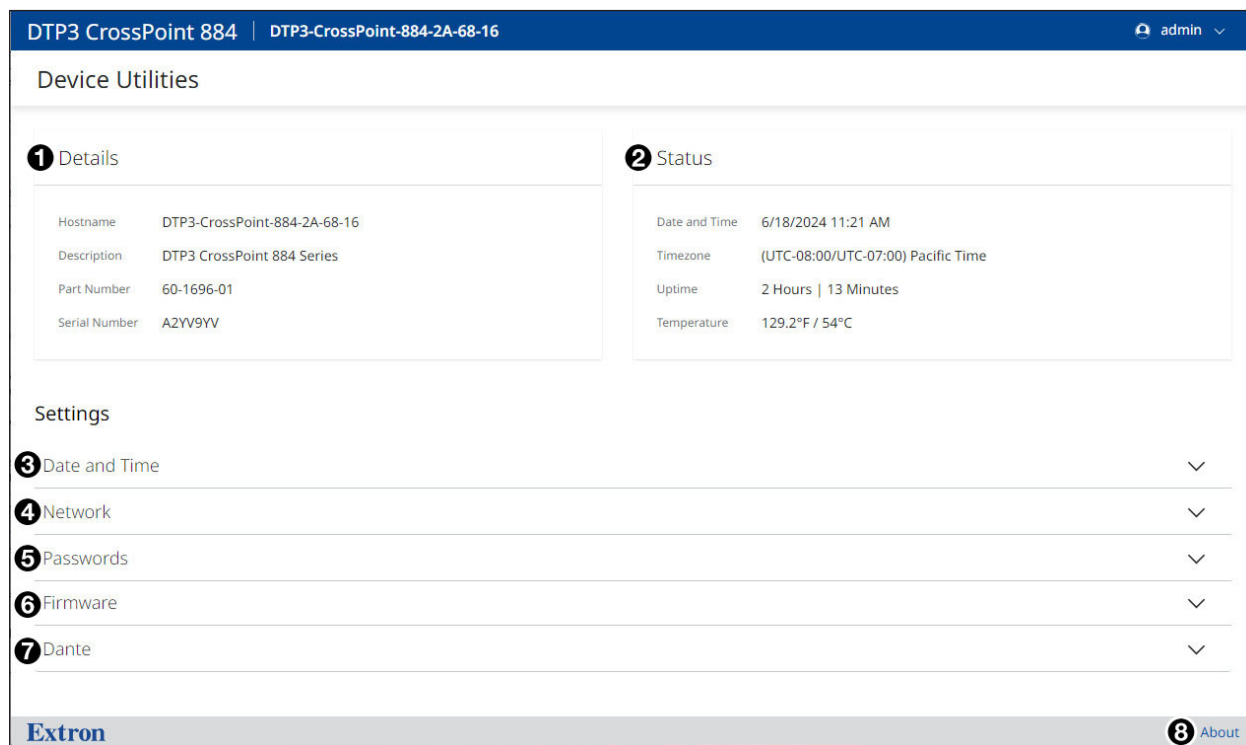


Figure 49. DTP3 CrossPoint Internal Web Page

Details Panel

The Details panel (see [figure 49](#), ❶ on page 103) displays the device name, a brief product description, the part number, and the serial number. The name can be changed in the [Network Panel](#) (see page 105).

Status Panel

The Status panel (❷) displays the current date, time, time zone, internal temperature in degrees Fahrenheit and Celsius, and the amount of time the device has been running (Uptime). The date and time can be edited in the [Date and Time Panel](#).

Date and Time Panel

The Date and Time panel (❸) displays the mode used to set the date and time, current date, and time. There are three options to set the date and time: manual mode, sync to NTP (Network Time Protocol) servers, and sync to the connected PC.

To set the date and time in Manual mode:

1. Click **EDIT** in the Date and Time panel. The editable fields are displayed (see figure 50)
2. Select the **Manual** radio button.
3. Edit the **Date/Time** as desired by typing in the date and time or using the calendar and clock.
4. Edit the **Time Zone** as desired, using the drop-down list.
5. When finished editing, click **SAVE** to confirm your changes or **CANCEL** to close the window without making changes.
6. Alternatively, click **SYNC TO PC** to set the date and time according to your PC.

To set the date and time in Sync to NTP Servers mode:

1. Click **EDIT** in the Date and Time panel. The editable fields are displayed (see figure 51).
2. Select the **Sync to NTP Servers** radio button.
3. Select the desired time zone from the **Time Zone** drop-down list.
4. Click in an **NTP Server** field and enter the IP address or host name of a desired NTP Server.
5. When finished editing, click **SAVE** to confirm your changes or **CANCEL** to close the window without making changes.

To sync the date and time with your PC:

Click **SYNC TO PC** to set the date and time according to your PC.

Set Date & Time

☒ Manual

☐ Sync to NTP Servers

Date | Time
06/18/24 11:21 AM

Time Zone
(UTC-08:00/UTC-07:00) Pacific Time

SAVE SYNC TO PC CANCEL

Figure 50. Manual Mode

Set Date & Time

☐ Manual

☒ Sync to NTP Servers

Time Zone
(UTC-08:00/UTC-07:00) Pacific Time

NTP Server #1
time.nist.gov

NTP Server #2

NTP Server #3

Current Date & Time
Jun 18, 2024, 11:21:25 AM

SAVE SYNC TO NTP SERVER CANCEL

Figure 51. Sync to NTP Servers Mode

Network Panel

In the Network panel (see [figure 49](#), [4](#) on page 103), view the MAC address, edit the device name, set the IP address, subnet mask, and DNS server for your DTP3, and turn DHCP **On** and **Off**.

To change the name:

1. Click **EDIT** in the Network panel. The editable fields are displayed (see figure 52).
2. Click in the **Device Name/Hostname** field and enter the desired device name.
3. When finished editing, click **SAVE** to confirm your changes or **CANCEL** to close the window without making changes.

To set the IP addresses:

1. Click **Edit** in the Network panel. The editable fields are displayed.
2. Edit the network settings as desired:
 - a. Click the **DHCP** switch to toggle DHCP on and off. When DHCP is enabled (On), the unit configures its IP address and other network settings from the DHCP server. The default is Off.
 - b. To set network fields: **IP Address**, **Subnet** mask, and **Gateway** address, click in the desired field and enter the address.
3. When finished editing, click out of the field and **SAVE** to confirm your changes or **CANCEL** to close the window without making changes.

Device Name / Hostname
DTP3-CrossPoint-884-2A-68-16

DHCP ☐

IP Address
192.168.254.254

Subnet Mask
255.255.255.0

Default Gateway
0.0.0.0

DNS Server
0.0.0.0

MAC Address
00-05-A6-2A-68-16

SAVE **CANCEL**

Figure 52. Network Panel

Passwords Panel

The Passwords panel (see [figure 49](#), [6](#) on page 103) displays whether Admin and User passwords have been set and provides an option to set administrator or user passwords. It does not display the actual password.

NOTE: The following rules apply to passwords:

- A password can be 1-12 characters.
- All human-readable characters are permitted except |.
- The password cannot be a single space.
- Passwords are case-sensitive.
- The factory configured passwords for all accounts on this device have been set to the device serial number. In the event of a complete system reset, the passwords convert to the default, which is **extron** for the Admin and User.

To assign a administrator and user passwords:

1. In the Passwords panel, click **EDIT**. The editable fields are displayed (see figure 53).

The screenshot shows the Passwords panel with two main sections. The left section is for the Admin Password, showing a field with four asterisks and an 'EDIT' button below it. The right section is for the User Password, showing a 'User Password' field, a 'Confirm User Password' field, and a 'CREATE PASSWORD' button. A 'CANCEL' link is also present. At the bottom right, there is a checkbox labeled 'Show Password'.

Figure 53. Roles and Permissions Panel

2. Click in the **Admin Password** field and enter the administrator password.
3. Click in the **Confirm Admin Password** field and enter the same password from the Admin Password field.
4. To assign a user password, repeat steps 2 and 3 in the User panel.

NOTE: The User Password fields become editable when a Admin Password is set.

5. When finished, click **SAVE** to set the passwords. To close the window without saving a password, click **CANCEL** or the **X** in the upper-right corner.

NOTE: Passwords can be changed but they cannot be removed entirely. The DTP3 must have passwords at all times. These fields cannot be blank.

Firmware Panel

The Firmware panel (see [figure 49](#), [6](#) on page 103) displays the current firmware version and the date it was last updated. Update the firmware on the DTP3 CrossPoint from this panel (see [Software Installation](#) on page 86 to download the firmware files).

NOTE: Firmware updates can take up to 20 minutes depending on the firmware update.

To update firmware:

1. In the Firmware panel, click the **SELECT FILE** button (see [figure 54](#)).
2. In the Open dialog box that opens, browse to locate the new firmware file on your computer (by default the file is stored at C:\Program Files (x86)\Extron\Firmware\DTP3 CrossPoint after being downloaded from the [Extron web page](#)).

NOTE: Firmware files for DTP3 CrossPoint have a .eff extension. Do not attempt to load any other file types.

3. Double-click the firmware file name. The Open window closes, and the selected firmware file name appears in the Update Firmware panel on the web page.
4. Click **INSTALL** to begin.

To cancel the update, click the **X** button in the Update Firmware panel.

During the updating process, a window appears in the middle of the screen, showing messages giving the progress of the update:

Initializing, Installing the Firmware, and Rebooting Device.

When the update is completed, the message window closes and the message Firmware Upload Complete displays near the top of the screen. The new firmware filename displays beside Version in the Firmware panel.

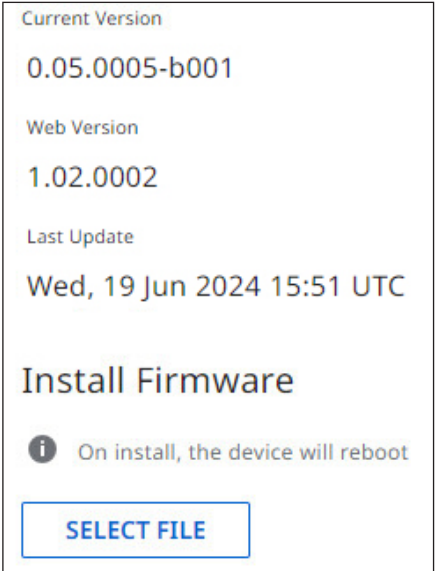


Figure 54. Firmware Panel

Dante Panel

The Dante panel (see [figure 49](#), [7](#)) displays the Device Name and Firmware Version of a Dante device connected to the DTP3 CrossPoint.



Figure 55. Dante Panel

About the DTP3 CrossPoint

Click on the **ABOUT** link (see [figure 49](#), [8](#) on page 103) to open the About dialog box to view general information about the DTP3 CrossPoint, such as the firmware version, copyright, part number, licenses, patents, and web page version. Click on the **View the End User License Agreement** link to view the user licenses.

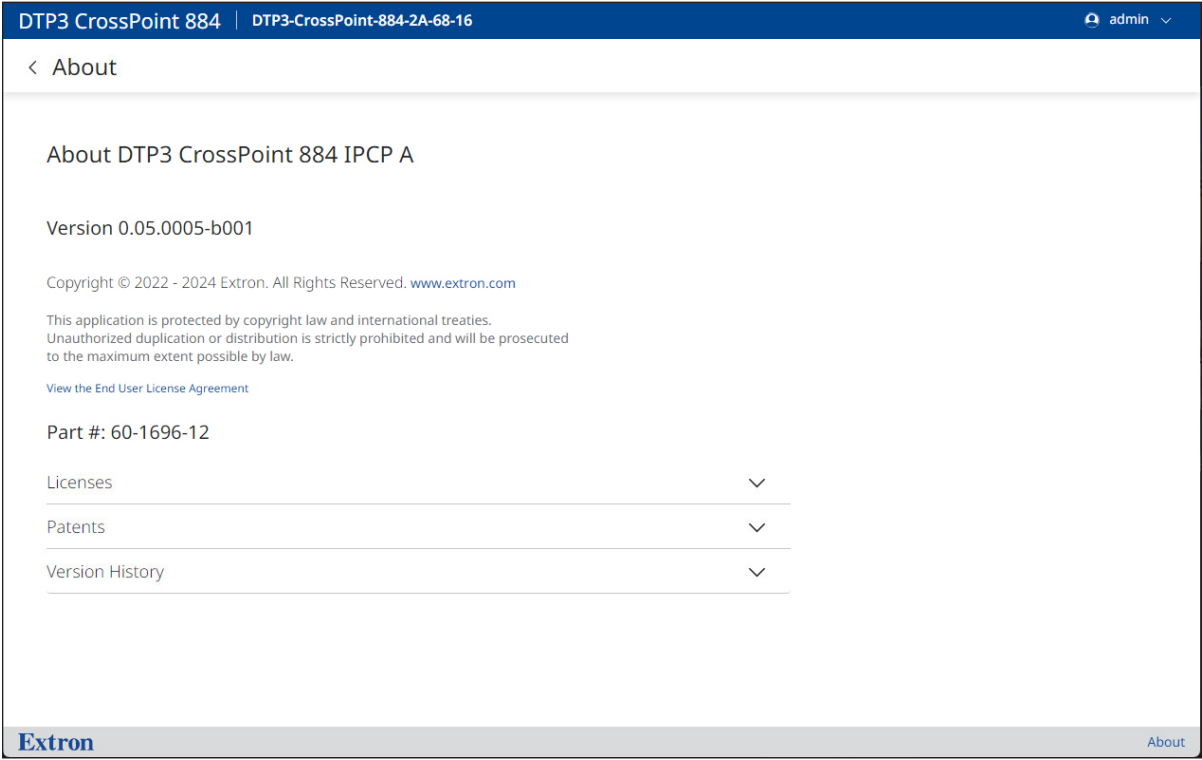


Figure 56. About the DTP3 CrossPoint Panel

Reference Information

This section covers mounting and cleaning the DTP3 CrossPoint matrix switcher.

- [Mounting the Switcher](#)
- [IEEE 802.1X Certificates](#)
- [SNMP](#)
- [Best Practices for Cleaning Your Extron Products](#)

ATTENTION:

- Installation and service must be performed by authorized personnel only.
- L'installation et l'entretien doivent être effectués uniquement par un technicien qualifié.

Mounting the Switcher

The DTP3 CrossPoint is housed in a rack-mountable, 3U high, full rack width metal enclosure with mounting flanges for standard 19-inch wide racks.

UL Guidelines

The following Underwriters Laboratories (UL) guidelines pertain to the installation of the DTP3 CrossPoint into a rack.

CAUTION:

- **Elevated operating ambient temperature** — If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consider installing the equipment in an environment compatible with the maximum ambient temperature specified by Extron (T_{ma} = +32 to +113°F [0 to +45°C]).
- **Reduced air flow** — Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.
- **Mechanical loading** — Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
- **Circuit overloading** — Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
- **Reliable earthing (grounding)** — Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (such as the use of power strips).

Consignes UL Pour le Montage en Rack

Les consignes UL (« Underwriters Laboratories ») suivantes concernent l'installation en rack d'un boîtier DTP3 CrossPoint :

ATTENTION :

- **Température ambiante élevée** — En cas d'installation de l'équipement dans un rack fermé ou composé de plusieurs unités, la température du rack peut être supérieure à la température ambiante. Par conséquent, il est préférable d'installer l'équipement dans un environnement qui respecte la température ambiante maximale (Tma = +32 to +113°F [0 to +45°C]) spécifiée par Extron.
- **Réduction du flux d'air** — Si l'équipement est installé dans un rack, veillez à ce que le flux d'air nécessaire pour un fonctionnement sécurisé de l'équipement soit respecté.
- **Charge mécanique** — Installez l'équipement en rack de manière à éviter toute situation dangereuse causée par le déséquilibre de la charge mécanique.
- **Surcharge électrique** — Lorsque vous connectez l'équipement au circuit d'alimentation, observez la connexion de l'équipement et étudiez les effets possibles d'une surcharge du circuit sur les protections contre les surintensités et les conducteurs d'alimentation. Consultez à cet égard les indications de la plaque d'identification de l'équipement.
- **Mise à la terre** — Assurez-vous que l'équipement est correctement mis à la terre. Accordez une attention particulière aux connexions électriques autres que les connexions directes au circuit de dérivation (ex. : les multiprises).

Mounting Instructions

Rack mount the switcher as follows:

1. Insert the unit into the rack, aligning the mounting bracket holes with those in the rack (see figure 57).

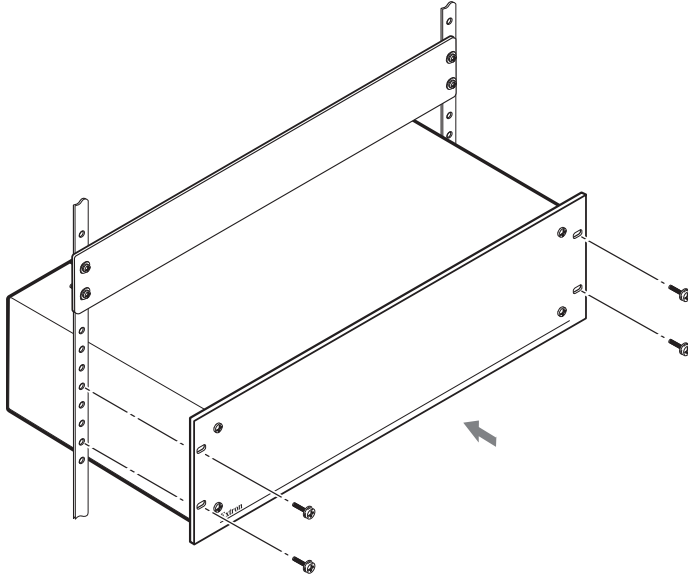


Figure 57. Installing the Switcher in a Rack

2. Secure the switcher to the rack using the supplied bolts.

IEEE 802.1X Certificates

IEEE 802.1X is a standard that enables port-based network access control via an authentication server. The protocol requires that all devices must be authenticated before gaining privileges to access the secure part of the network.

The Extron implementation of 802.1X supports PEAP - MSCHAPV2 and EAP - TLS methods of authentication. This section of the guide details the requirements for any certificate file (machine or CA) and the private key file (for the machine certificate) to be used in the system.

Extron provides resources for learning about 802.1X implementation:

- The *Extron 802.1X Technology Reference Guide*, available from www.extron.com, is the primary resource for background information, system planning, topology, and how to set up these systems.
- The *Toolbelt Help File* provides detailed step-by-step information on using the software to set up 802.1X and troubleshooting.
- The 802.1X Primer white paper, also available from www.extron.com, provides a general overview of the protocol and its use within a control system.

NOTES:

- Toolbelt must be run as an administrator.
- Machine certificates require a private key file, which can be encrypted. If the default HTML page does not display after 10 minutes, close the web browser and reopen.

Certificate File Requirements

PEM (Privacy-enhanced Electronic Mail) file types are ASCII encoded, and they are the required format for 802.1X authentication for the DTP3 device. DER (Distinguished Encoding Rules) file types are binary encoded and can typically have several file extension variations, such as .crt and .cer.

NOTE: DER encoded files (with .der, .crt, or .cer extensions that are encoded in DER binary format) must be converted to a PEM encoded file type (.pem) before being used for authentication.

DER encoded certificates must be converted to PEM encoding using a third-party tool. Contact your IT administrator for more information on required tools.

To create the 802.1X security certificate for uploading to Extron DTP3 devices, ensure that the certificate file meets the following requirements:

- It contains X.509 certificate information.
- It contains a private key (for machine certificates only).
- It is PEM encoded.
- It has a file extension that is .crt or .pem.
- Its file name consists of the following types of valid characters:
 - Alphanumerical (A-Z, a-z, 0-9) characters.
 - Some special characters (colon [:], underscore [_], and hyphen [-]).

NOTE: Spaces are not permitted anywhere in the name.

Private Key File Requirements

Private key files are required only when employing machine certificates. Follow these requirements for creating a private key:

- Its file name consists of the following types of valid characters:
 - Alphanumerical (A-Z, a-z, 0-9) characters.
 - Some special characters (colon [:], underscore [_], and hyphen [-]).
- It has a file extension that is .key or .pem.
- It can have optional encryption (via password or passphrase).

SNMP

Extron control products support Simple Network Management Protocol (SNMP). SNMP facilitates the exchange of basic network management information between network devices. It helps in monitoring of operations and factors such as packet usage, memory usage, remote password resets, and collection of error information. An information technology administrator can use common IT tools to monitor those factors, as well as look up device location and the name of the contact person for the device.

The SNMP controls within Toolbelt provide a way to enable or disable SNMP. It also allows you to specify related information such as the name of a contact person, the physical location of the unit, and a community name. The text that is specified in these fields is seen by the network community when the unit is queried.

Extron DTP3 products support the following security levels:

- Management Information Base 2 (MIB-II)
- SNMPv2a

Best Practices for Cleaning Your Extron Products

There may be times when it becomes necessary to clean your Extron product. Plastic surfaces and cosmetic finishes can be damaged by long term exposure to chemicals. Therefore, Extron recommends the following guidelines when cleaning our products.

All Extron products can be safely cleaned with:

1. 70% concentration or higher Isopropyl Alcohol
2. Disinfectant cleaners that:
 - Are non-ammonium based
(for example, contains no ammonium chloride)
 - Contain 2% or less sodium hypochlorite
(for example, 2% bleach, 98% water)

It is important to follow these general guidelines when cleaning:

1. If possible, unplug the device.
2. Spray the cleaner on a lint-free cloth until the cloth is damp.
3. Do not spray the cleaner directly onto the product.
4. Gently clean the product surface using the cloth.

Your health and safety are our top priority. Keeping devices clean, especially those in high-traffic environments and high-use applications, is a crucial step in minimizing the spread of infections. Please contact us if you have any questions about the guidelines or if you have a question about cleaning the product.



Extron Warranty



Powered Product Warranty

Extron warrants its powered products against any defects in materials and workmanship for a period of three years from the date of invoice. In the event of a malfunction during the warranty period, Extron will repair or replace a product to its original operating condition.

To assure the highest level of service, a return authorization number must be obtained from Extron before products are returned for service. Products must be shipped to Extron, prepaid along with proof of purchase ONLY after obtaining a Return Authorization (RA) number from the Extron Customer Support department.

This statement of policy is in lieu of any other policy expressed or implied and no representative or person is authorized to assume any other liability or adopt any other policy for Extron Electronics without our written consent.

Powered Product Warranty Exceptions

Everlast™ Power Supplies — Extron warrants Everlast power supplies against any defects in materials and workmanship for a period of seven years from the date of invoice. In the event of a malfunction during the warranty period, Extron will repair or replace the power supply to its original operating condition. Extron engineers will examine the returned product and determine whether the Everlast Power Supply Warranty or Powered Product Warranty applies.

Speakers — Extron warrants Flat Field®, SoundField®, SpeedMount®, Column Array, and System *INTEGRATOR*® speakers against any defects in materials and workmanship for a period of five years from the date of invoice.

Touchscreens — Extron warrants touchscreen display and overlay components against any defects in materials and workmanship for a period of one year from the date of invoice.

Annotator 300 — Extron warrants the Annotator 300 against any defects in materials and workmanship for a period of five years from the date of invoice.

Non-Powered and Cable Products - Lifetime Limited Performance Warranty

Extron warrants that its non-powered products and cable products will be free from defects in material and workmanship for as long as you or your customer owns the product. All Extron non-powered products and cables are designed and engineered to meet and exceed performance specifications. If, at anytime, the product fails due to manufacturer defect, Extron will repair or replace the product to ensure that it meets original performance specifications. Reduced performance due to normal wear and tear, or damages caused by misuse or negligence will not be covered. Extron will test and evaluate all non-powered and cable products claimed defective.

To assure the highest level of service, a return authorization number must be obtained from Extron before products are returned for service. Products must be shipped to Extron, prepaid along with proof of purchase ONLY after obtaining a Return Authorization (RA) number from the Extron Customer Support department.

This statement of policy is in lieu of any other policy expressed or implied and no representative or person is authorized to assume any other liability or adopt any other policy for Extron Electronics without our written consent.

Non-Powered and Cable Product Warranty Exceptions

Cable Cubby, Hideaway Surface Access Enclosures and Retractors — Extron warrants Cable Cubby cable access enclosures, HSA Hideaway Surface Access enclosures, and Retractor cable retraction modules for a period of three years from the date of invoice.

Active Cables and Active Adapters — Extron warrants active cables and active adapter cables for a period of three years from the date of invoice.

Cable Termination Tools and Dies — Extron warrants cable termination tools for a period of three years from the date of invoice, excluding the die.

General

This **Limited Warranty** does not apply if the fault has been caused by misuse, improper handling care, electrical or mechanical abuse, abnormal operating conditions or non-Extron authorized modification to the product. Extron Electronics makes no further warranties either expressed or implied with respect to the product and its quality, performance, merchantability, or fitness for any particular use. In no event will Extron Electronics be liable for direct, indirect, or consequential damages resulting from any defect in this product even if Extron Electronics has been advised of such damage. Please note that laws vary from state to state and country to country, and that some provisions of this warranty may not apply to you.

Return Information

Units must be returned insured, with shipping charges prepaid. If not insured, you assume the risk of loss or damage during shipment. Returned units must include the serial number and a description of the problem, as well as the name of the person to contact in case there are any questions.

NOTE: To assure the highest level of service, a return authorization number must be obtained from Extron before products are returned for service. Products must be shipped to Extron, prepaid along with proof of purchase **only** after obtaining a Return Authorization (RA) number from the Extron Customer Support department.

Please contact Extron to receive an RA (Return Authorization) number:

USA:	714.491.1500 or 800.633.9876	Asia:	65.6383.4400
Europe:	31.33.453.4040 or 800.3987.6673	Japan:	81.3.3511.7655
Africa and Middle East:	971.4.299.1800	China:	4000.398766

Worldwide Headquarters: Extron USA West, 1025 E. Ball Road, Anaheim, CA 92805, 800.633.9876