IN1808 Series

EIGHT INPUT 4K/60 SEAMLESS PRESENTATION SWITCHER

18 Gbps 4K/60 4:4:4 | VECTOR 4K SCALING | DTP SYSTEMS | ProDSP | IPLINK PRO | EVERLAST POWER SUPPLIES

Complete AV Switching and Processing for Professional Environments

- Integrates DisplayPort, HDMI, and audio sources into presentation systems
- Advanced Extron Vector™ 4K scaling engine
- Selectable output rates from 640x480 to 4K/60 4:4:4
- Logo image keying and display
- Available with energy efficient 100 watt Class D stereo or mono amplifier
- Available with integrated IPCP Pro control processor

Extron

IN1808 Series

The Extron IN1808 is an eight input seamless presentation switcher that supports signal resolutions up to 4K/60 at 4:4:4. It incorporates Extron-patented Vector 4K seamless scaling technology specifically engineered for the most demanding applications. It features DisplayPort and HDMI inputs, HDMI output and Extron DTP2 extension to send 4K/60 video, audio, and control signals up to 330 feet (100 meters) over a shielded CATx cable. A built-in Extron IPCP Pro control processor and integrated 100 watt class D power amplifier make the IN1808 IPCP an all-in-one system design solution.

ProDSP utilizes studio grade 24-bit audio converters with 48 kHz sampling to maintain audio signal transparency. IN1808 with ProDSP has comprehensive capabilities to control audio embedding, de-embedding, mic/line mixing with ducking, feedback suppression, dynamics, equalization, delay, and phantom power.

IN1808 IPCP models feature a built-in Extron IP Link® Pro control processor with a secure, dedicated three-port AV LAN switch designed to control local AV devices, and safeguard them from outside intrusion or interference. The IN1808 IPCP delivers high-speed processing and abundant control port capacity for complete, customizable control of an entire AV system.

IN1808 IPCP models feature stereo or mono 100 watt Class D power amplifiers with patented CDRS™ - Class D Ripple Suppression technology that provides a smooth, clean audio waveform and an improvement in signal fidelity over conventional Class D amplifier designs.

The IN1808 is designed for larger rooms where reliability and superior quality presentations are crucial, including corporate boardrooms, lecture halls in higher education, government facilities, and public performance venues. In addition to pristine video performance, the IN1808 incorporates logo keying and seamless switching transition effects to enhance the user experience. For larger installations, the IN1808 IPCP with class D amplifier and control processor is available to provide all-in-one AV switching, signal processing, audio power amplification, and system control.

SEAMLESS SWITCHING AND LOGO KEYING

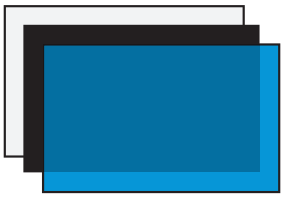
High performance video scaling within the IN1808 Series allows for uncompromised image quality. Powered by Vector 4K scaling technology, these presentation switchers provide powerful processing capabilities, including selectable seamless switching transition effects and logo keying. These capabilites serve the needs of environments where superior quality presentations are crucial.

Seamless Switching Transitions

Critical presentations will not tolerate video glitches. To ensure glitch-free, professional quality presentations, several transition effects can be selected when switching between video sources.
Effects include:

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


Cut Through Black


Fade Through Black

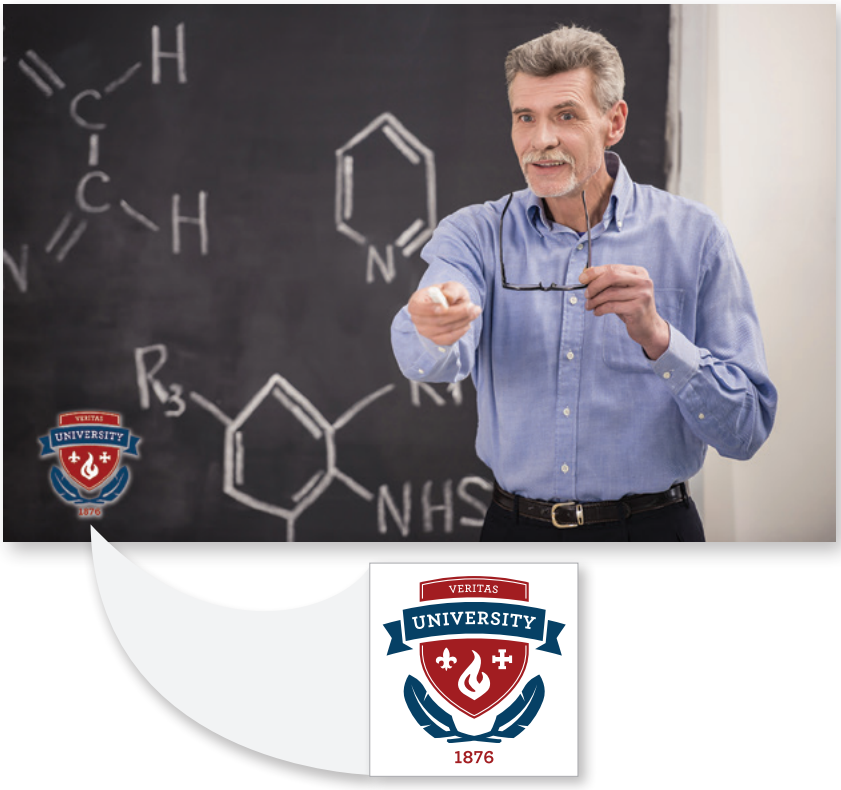

Seamless Cut


Seamless Fade

Logo Keying

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

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



EXTRON EXCLUSIVE VECTOR 4K SCALING ENGINE

VECTOR 4K
SCALING

When it comes to delivering unsurpassed image quality, Extron has the proven technology and expertise to do it right. For over 20 years, Extron has been engineering and designing scaling and signal processing solutions, with 24 worldwide patents awarded to date.

Extron Vector 4K is the latest generation of our video scaling engines and is specifically engineered for critical-quality 4K imaging. Innovative applications utilizing 4K content and displays continue to emerge, with end users demanding sharp, detailed, and professionally crafted imagery from their systems. To meet this important criterion, Extron has created a new series of signal processing technologies for upscaling, downscaling, and optimally converting 4K signals or any other source content.

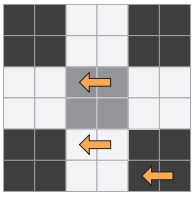
Designing Scaling Technology from the Ground Up

The Vector 4K scaling engine is the result of our extensive R&D operations with in-house engineering expertise in signal processing, image rendering, software engineering, and computing platform integration. With the vast knowledge we've acquired over the years through our research into high resolution video and graphics imaging, we're able to deliver patented image processing technologies that meet our exact specifications for visual performance.

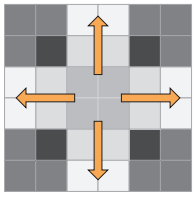
In addition to high performance image processing, Vector 4K incorporates essential integration features that help address frequent AV system design and integration challenges, while simplifying setup and commissioning. Having our own "home-grown" scaling and signal processing technology allows us to respond to specific AV integration needs in a timely manner.

Unparalleled Scaling Quality

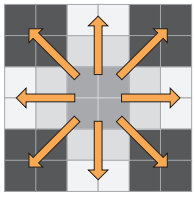
The Vector 4K scaling engine incorporates Extron-engineered, multi-tap, bicubic interpolation, which creates a new pixel by averaging adjacent pixels above, below, to the sides, and diagonally of the new pixel. This produces sharp, accurate output, preserving single-pixel detail as content is downscaled or upscaled.



Nearest Neighbor



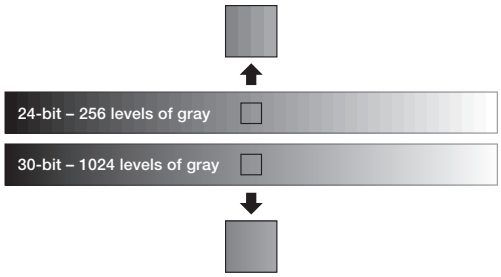
Bilinear Interpolation



Bicubic Interpolation

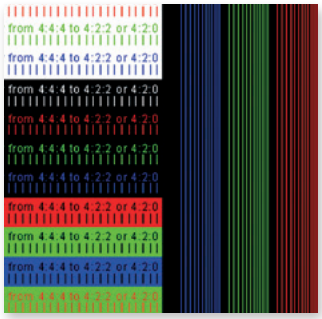
Color Bit Depth

Vector 4K scaling technology processes video at 30 bits per pixel to maximize grayscale and color accuracy. This maintains color fidelity and detail present in native 30-bit source content, while delivering better color accuracy for 24-bit sources.

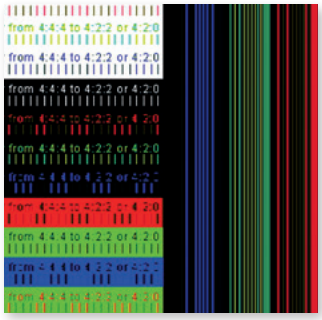


4:4:4 Chroma Processing

4:2:2 or 4:2:0 chroma subsampling may be acceptable for processing full-motion video, but can produce color smearing, missing lines, jagged lines, and other artifacts with PC-generated content. Vector 4K scaling processes video and computer graphics in the RGB domain with full 4:4:4 color, which is critical for processing fine image details such as single pixel, colored lines and text in computer content.



4:4:4



4:2:2

MODEL SUMMARY

All IN1808 Series models feature Vector 4K scaling up to 4K/60 4:4:4, seamless switching, logo keying, ProDSP 64-bit audio signal processing, and DTP2 signal extension over CATx cable. For complete functionality, models are available with an integrated 100 watt 70-volt mono or stereo Class D power amplifier, and a built-in IPCP Pro control processor with isolated Gigabit Ethernet AV LAN switch.

IN1808

Features

- DTP2, DisplayPort, and HDMI inputs
- Selectable HDMI loop-through
- Mirrored DTP2 and HDMI outputs
- Selectable output rates from 640x480 to 4K/60 4:4:4
- ProDSP 64-bit audio digital signal processor

Model	Version Description	Part Number
IN1808	Standard Model	60-1615-01

IN1808 IPCP SA

Features

- DTP2, DisplayPort, and HDMI inputs
- Selectable HDMI loop-through
- Mirrored DTP2 and HDMI outputs
- Selectable output rates from 640x480 to 4K/60 4:4:4
- ProDSP 64-bit audio digital signal processor
- Integrated IPCP Pro Control Processor
- 100 watt Class D stereo amplifier
  - 2 x 50 watts @ 4 ohms
  - 2 x 25 watts @ 8 ohms

Model	Version Description	Part Number
IN1808 IPCP SA	Control Processor and Stereo Amp	60-1615-02
IN1808 IPCP SA	Control Processor and Stereo Amp, LL UI Upgrade	60-1615-02A

IN1808 IPCP MA 70

Features

- DTP2, DisplayPort, and HDMI inputs
- Selectable HDMI loop-through
- Mirrored DTP2 and HDMI outputs
- Selectable output rates from 640x480 to 4K/60 4:4:4
- ProDSP 64-bit audio digital signal processor
- Integrated IPCP Pro Control Processor
- 100 watt Class D 70 V mono amplifier

Model	Version Description	Part Number
IN1808 IPCP MA 70	Control Processor and 70 V mono Amp	60-1615-03
IN1808 IPCP MA 70	Control Processor and 70 V mono Amp, LL UI Upgrade	60-1615-03A

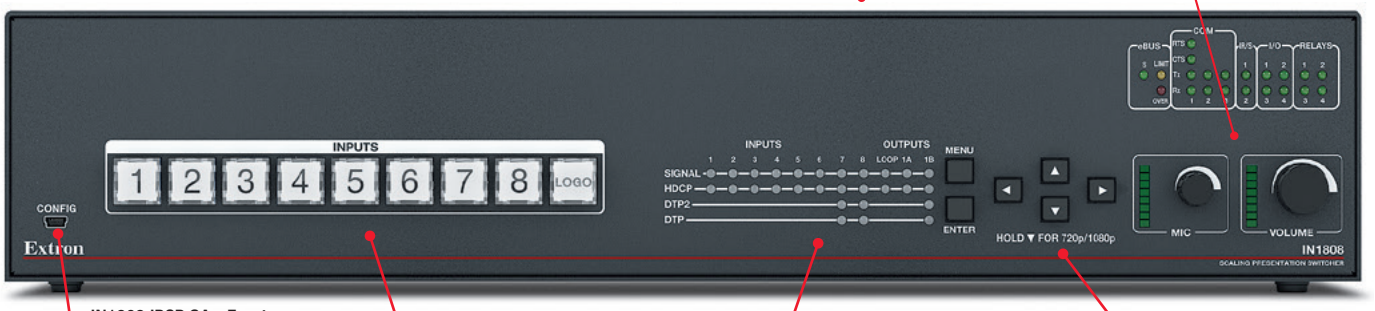
OVERVIEW

Extron Vector 4K scaling engine
The exclusive 4K scaling engine is specifically designed for critical-quality 4K imagery, with best-in-class image upscaling and downscaling, with selectable output resolutions up to 4K/60 4:4:4

HDCP 2.2 compliant
Ensures display of content-protected 4K video media and maintains interoperability with earlier versions of HDCP

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

Volume controls
Allow for adjustment of program volume and microphone level, with accompanying LEDs to indicate volume level



IN1808 IPCP SA - Front

USB configuration port
Provides convenient user access for system setup and configuration

Dual color backlit input selection and LOGO buttons

LED indicators monitor signal presence and HDCP status for every video input and output

Menu navigation controls for on-screen display
Key parameters such as input and output video formats and resolutions are conveniently grouped on the initial Quick Setup screen to get up and running fast

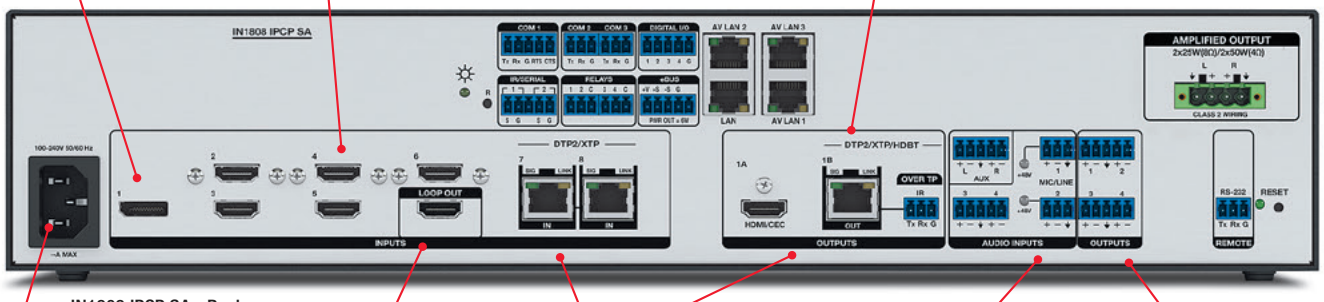
DisplayPort input
Supports DisplayPort SST - Single Stream Transport data rates up to 21.6 Gbps

Five HDMI inputs
Supported HDMI 2.0 specification features include data rates up to 18 Gbps, Deep Color, and HD lossless audio formats

IPCP Pro Control
Available integrated IPCP Pro control processor with isolated three-port Gigabit Ethernet AV LAN switch

Dual mirrored outputs
The main scaler video output is available simultaneously in HDMI and DTP2 formats

Integrated XTRA Series audio amplifier
IN1808 IPCP models are available with a 100 watt stereo or 70 volt mono amplifier



IN1808 IPCP SA - Back

Internal Extron Everlast™ power supply
Provides worldwide power compatibility, with high demonstrated reliability and low power consumption for reduced operating cost

HDMI loop-through output
May be switched independently to monitor any video input

DTP2 connections extend 4K/60 video, audio, and control signals up to 330 feet (100 meters)
Configurable to be compatible with all DTP2 and DTP-enabled products, XTP CrossPoint matrix switchers, and HDBaseT-enabled displays

Two mic/line inputs with ducking and 48 volt power
Can be independently mixed with program audio. Selectable 48 volt phantom power allows the use of condenser microphones

Audio de-embedding
Four analog outputs are configurable as mono or stereo and support balanced/unbalanced operation

FEATURES

Integrates DisplayPort, HDMI, and audio sources into presentation systems
The IN1808 provides centralized switching for a wide range of AV sources.

Supports signal resolutions up to 4K/60 with 4:4:4 color

Available with integrated IPCP Pro control processor
IN1808 IPCP models include a built-in IPCP Pro control processor for complete AV system control.

Available with energy efficient Class D stereo or mono amplifier: 2 x 50 watts @ 4 ohms; 2 x 25 watts @ 8 ohms 1 x 100 watts @ 70 volts

Supports DisplayPort SST - Single Stream Transport data rates up to 21.6 Gbps

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

HDMI loop-through output is selectable for any input

Logo image keying and display
A logo graphic can be positioned and keyed over the live video output. Full screen images up to 4K resolution can be displayed to avoid showing a blank screen between presentations.

Auto-switching between inputs
Auto-switching allows for intuitive operation in collaboration spaces. Multiple switching priority modes include last-connected input and user-selectable priority.

Stereo audio embedding and de-embedding
Analog audio signals can be embedded onto the DTP2 and HDMI outputs, and embedded two-channel PCM audio can be extracted to the analog outputs, or multi-channel bitstream formats can be passed to the DTP2 and HDMI outputs.

Integrated audio digital signal processor with ProDSP™ 64-bit processing
The IN1808 features 64 bit floating point audio DSP processing, which maintains very wide dynamic range and audio signal transparency to simplify gain stage management while reducing the possibility of DSP signal clipping.

Selectable seamless switching transitions
Seamless cut/fade, cut through black, and fade through black transition effects are available.

Comprehensive EDID control and management
Use PCS software to control EDID Minder for setting video input EDID, capturing EDID from connected displays, or uploading custom EDID files. Freely downloadable EDID Manager 2.0 software is available for editing custom EDID tables.

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

SpeedSwitch® Technology provides fast switching speeds for HDCP-encrypted content

HDCP 2.2 compliant

Supports custom EDID and output resolutions
User-defined output resolutions can be supported by uploading custom EDID files, or capturing EDID from a display or other destination device.

Internal video test patterns and pink noise generator for calibration and setup
IN1808 models offer several video test patterns and audio pink noise to facilitate proper system setup and calibration of display devices.

Audio file playback
Up to 16 pre-recorded messages may be stored and played back over analog and embedded audio outputs.

Audio input gain and attenuation
Gain or attenuation can be adjusted for the audio input to eliminate noticeable differences when switching between sources.

Ethernet monitoring and control

CEC - Consumer Electronics Control Capability
Standard, built-in CEC commands can be triggered to control displays or other AV devices connected to the HDMI or DTP2 outputs. The ability to control specific functions, such as power on/off, input selection, or volume level, is dependent on implementation by the device manufacturer.

DTP2 extension supports transmission of 4K/60 video, audio, and control up to 330 feet (100 meters) over a shielded CATx cable

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

Compatible with CATx shielded twisted pair cable
Shielded twisted pair cabling with solid center conductor sizes of 24 AWG or better is recommended for optimal performance.

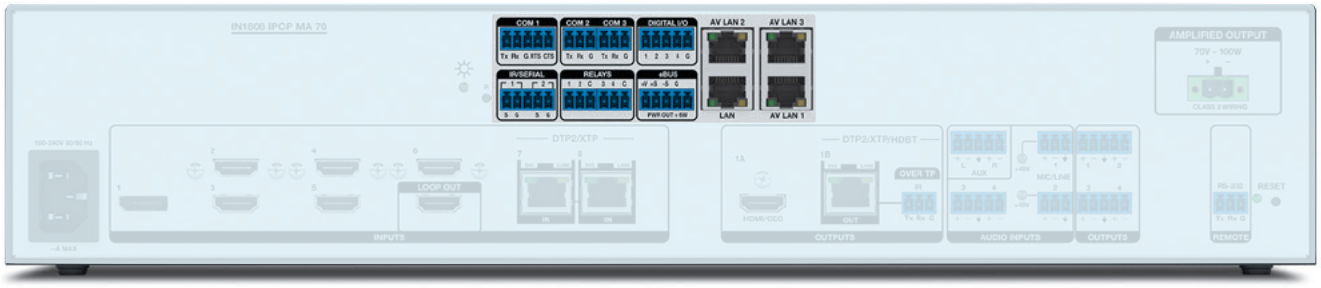
Remote powering of select DTP transmitters and receivers
The IN1808 can provide power to select DTP or DTP2 transmitters and receivers over the twisted pair connections, eliminating the need for separate power supplies at the remote units.

Accepts additional analog stereo audio signals
IN1808 supports stereo analog audio signals for simultaneous transmission over the same shielded twisted pair cable.

Bidirectional RS-232 and IR pass-through for AV device control
Bidirectional RS-232 control and IR signals can be transmitted alongside the video signal over the DTP connection, allowing the remote device to be controlled without the need for additional cabling.

Compatible with all DTP-enabled products plus XTP CrossPoint matrix switchers
Enables mixing and matching with desktop and wallplate endpoints, as well as other DTP and DTP2-enabled products to meet application requirements. IN1808 can be integrated with XTP and XTP II CrossPoint matrix switchers to provide connectivity between presentation spaces and a larger, facility-wide system.

DTP2 output is compatible with HDBaseT-enabled devices
The IN1808 can be configured to send video and embedded audio, plus bidirectional RS-232 and IR signals to an HDBaseT-enabled display.



Built-In IP Link Pro Control Processor

The integrated IPCP Pro control processor includes all of the same advanced features, processing power, and breakthrough technologies found in standalone Extron Pro Series control systems. It enables the IN1808 IPCP to provide powerful AV and room control capabilities, including control of all sources and displays, lighting, window shades, projection screens, occupancy sensing, and much more. The IN1808 IPCP can also be grouped with up to three additional IPCP Pro control processors using Global Configurator Professional software to create large, sophisticated control systems. This is ideal for controlling multiple systems, rooms, or even remote locations around the world.

Two bidirectional RS-232 serial ports with software handshaking

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

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

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

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

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

Supports LinkLicense
Enhances the capabilities of Extron Pro Series control systems

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

Fully customizable using Extron control system software
GUI Designer combined with Global Configurator Plus or Global Configurator Professional

Controller Groups
Allow multiple IP Link Pro control processors to be grouped together to function as one, when configured with Global Configurator Professional

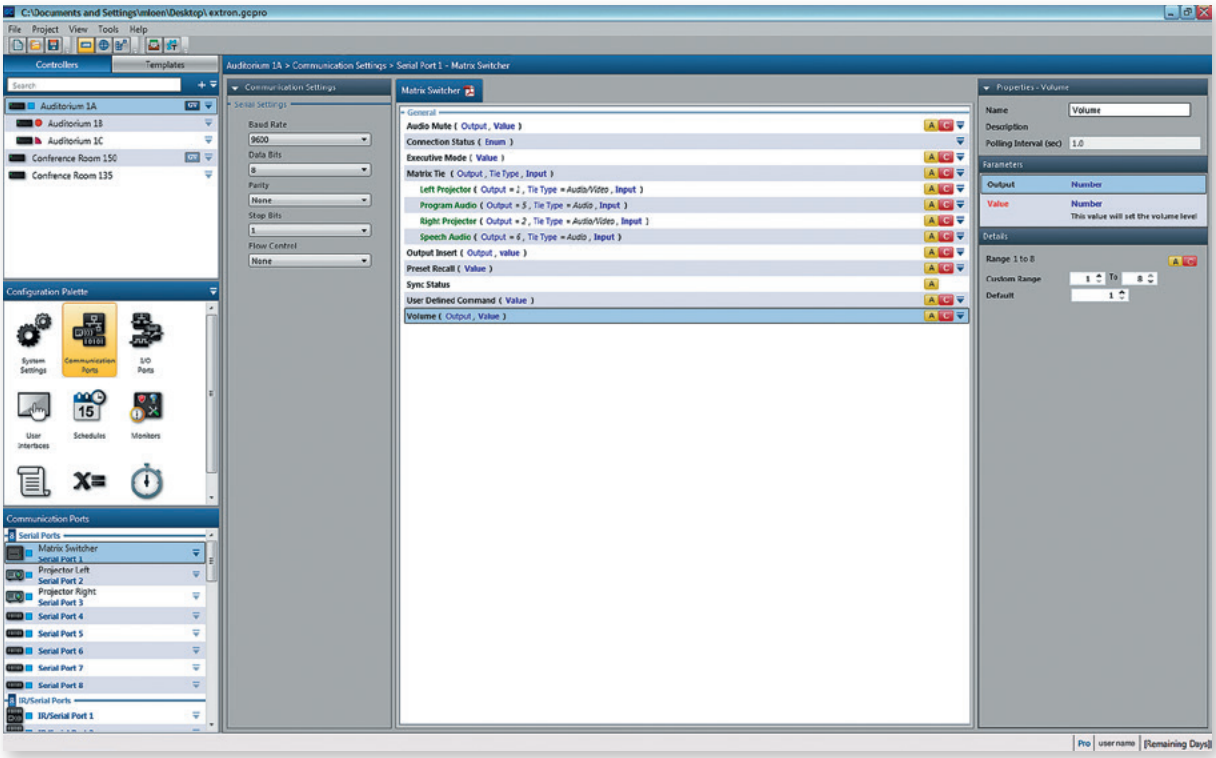
Pair with TouchLink Pro Touchpanels For a Powerful AV Control System

The IN1808 IPCP supports direct connectivity with Extron TouchLink® Pro touchpanels through the Gigabit switch on the presentation matrix switcher. TouchLink Pro touchpanels feature enhanced processing and memory, plus capacitive touchscreens for select models. These touchpanels are available in a variety of form factors and sizes to suit a wide range of applications.

Powerful Configuration Software

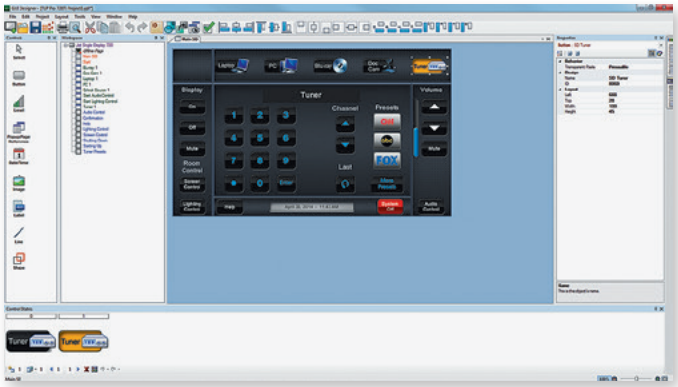
Global Configurator is Extron's most powerful and versatile control system configuration software. It is ideal for a wide variety of control systems and applications, and helps streamline integration within today's demanding AV control environments. Within this latest version, powerful features, such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

One of the many features of Global Configurator Professional is the ability to create controller groups. Multiple control processors can be grouped together with the IN1808 IPCP to function as one. This provides unique control system scalability, and is beneficial when more control ports are needed than offered on a single control processor, especially in larger-scale projects spanning multiple rooms.



GUI Designer

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



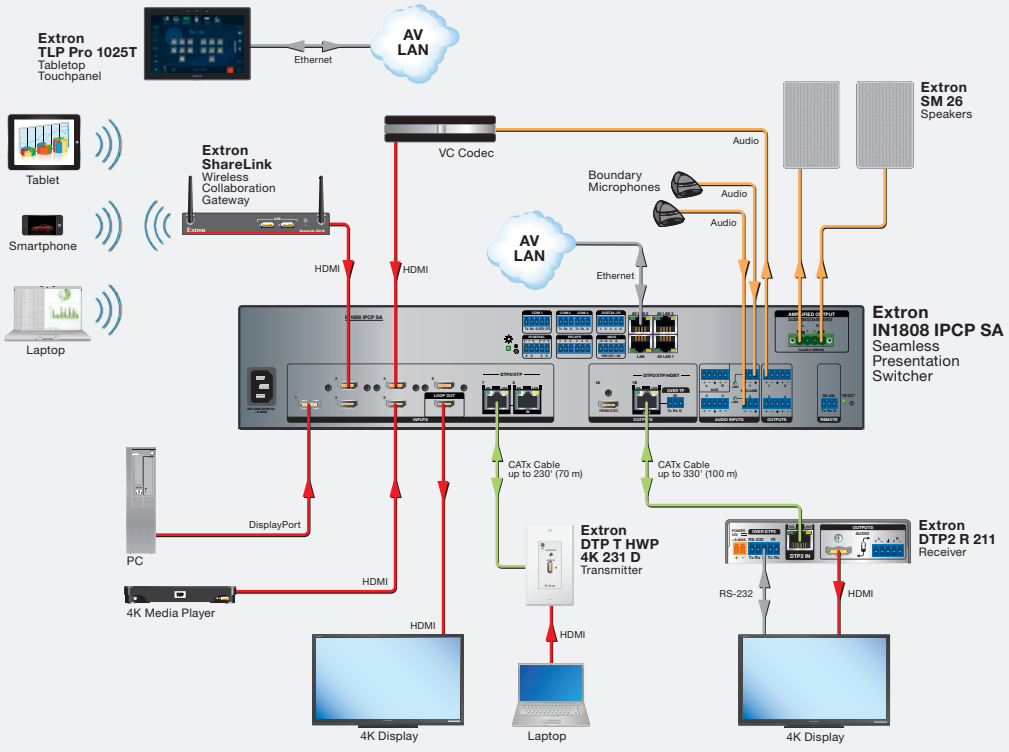
ADD POWERFUL CAPABILITIES WITH LINKLICENSE

Extron LinkLicense® is an easy, cost-effective way to add even more powerful capabilities to Extron products. Purchasing a LinkLicense for User Interfaces upgrade for the IN1808 IPCP will enable people to use a mobile device or computer as the primary control interface for the AV system. With the purchase of a LinkLicense with the IN1808 IPCP, integrators can create custom user interfaces for tablets or laptops, and duplicate them to additional devices with no per-user fees.

Download on the App Store

GET IT ON Google Play

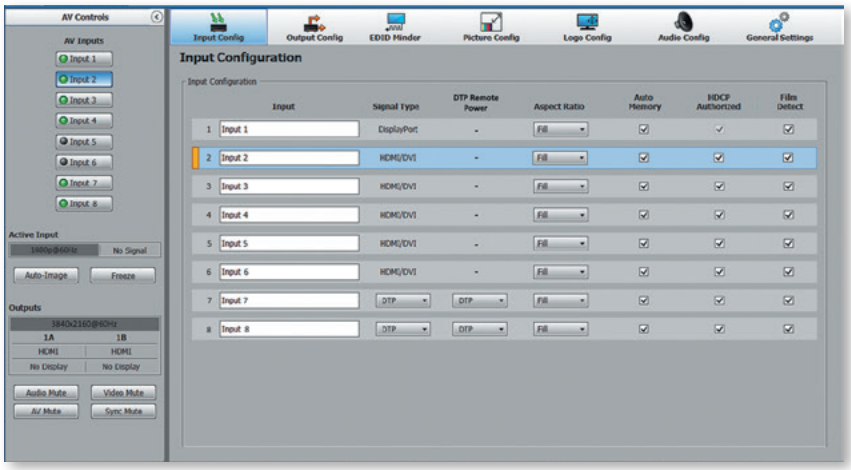
- **Purchase LinkLicense and activate it with a single click to take immediate advantage of all the benefits**
- **Unlock features that add convenience, expand system options, and enhance the capabilities of your Extron products**
- **No central management of licenses required**
- **Use a mobile device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



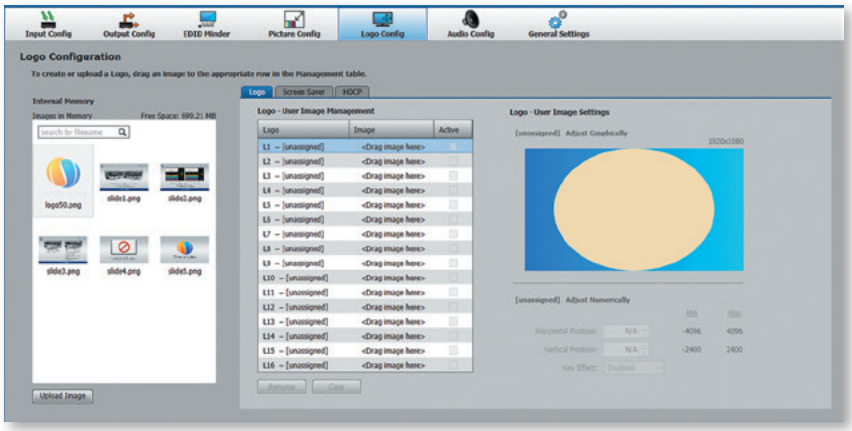
Intuitive System Setup and Operation

The IN1808 Series can be easily configured using Extron's PCS - Product Configuration Software via the front panel USB port or over Ethernet. The user-friendly GUI of the configuration software allows for expedited audio and video setup. You are able to use the IN1808 out of the box, in just a few steps. Users can view details about the current input and output, such as video signal presence, HDCP status, and audio format. Picture settings include resolution selection, image brightness, contrast, positioning, sizing, and more. PCS offers preset management and provides the ability to configure multiple IN1808 units in the same session, making it easy for AV integrators to quickly set up systems across different rooms in a facility.

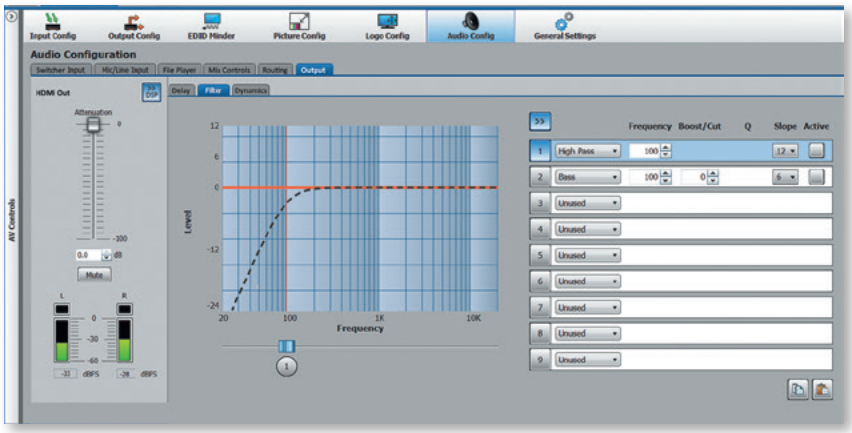
AV integrators and technicians can adjust audio levels in PCS using the graphical sliders available for each input. Real-time meters are available at all inputs and outputs to set proper gain structure for the audio system.



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



Logo placement, selection, and file management are easily configured with PCS



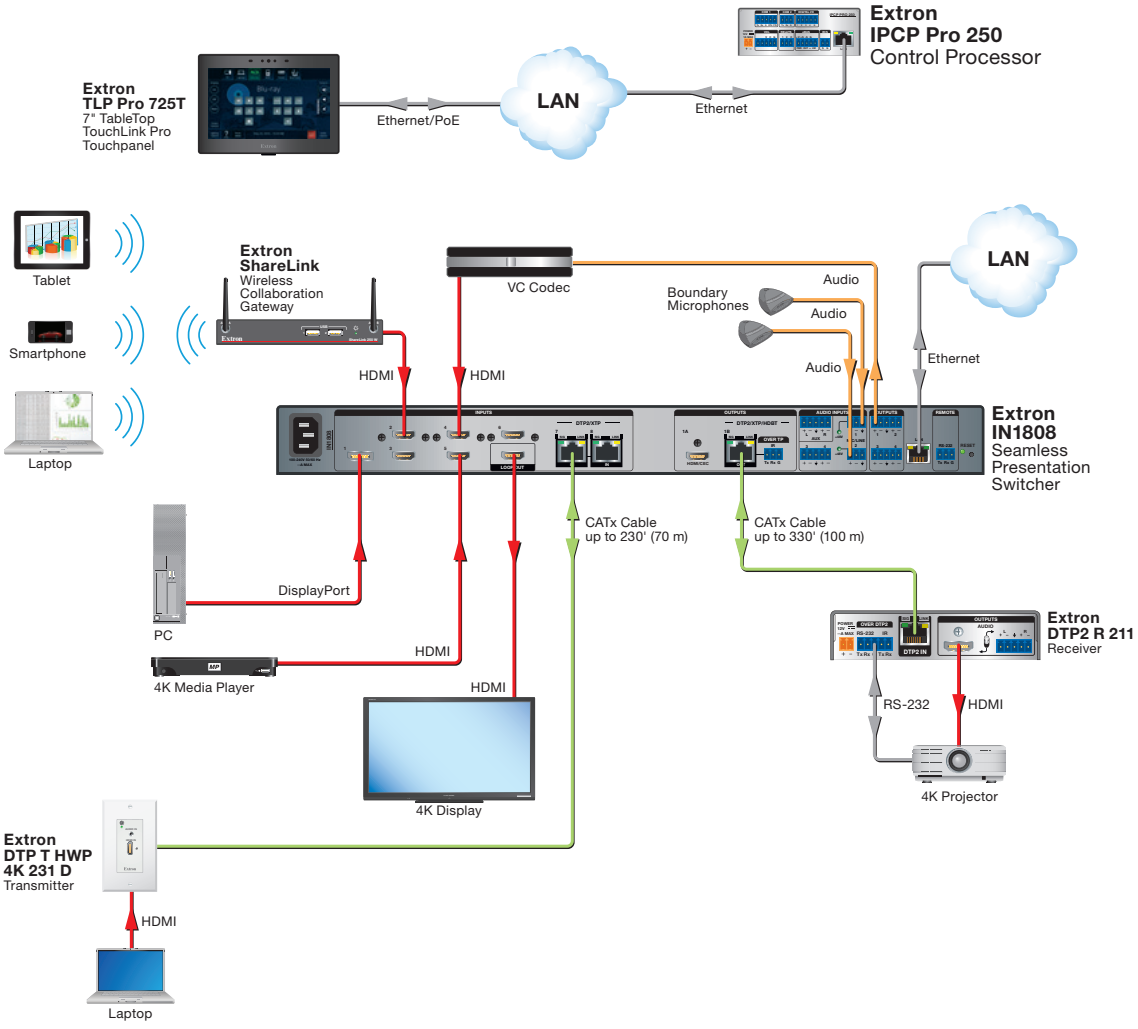
PCS enables expedited audio system setup with convenient audio input format selection, level adjustment, and real-time meters for each input and output.

Compatible with Extron DTP-Enabled Products and XTP Matrix Switchers

The IN1808 works in conjunction with all Extron DTP endpoints and DTP-enabled switching products to extend video, audio, and control signals. The ability to extend these signals and provide remote power to select DTP and DTP2 endpoints with just one shielded CATx cable greatly simplifies system designs and installation. DTP2 products build upon the extensive DTP platform to reach new heights in professional AV integration. They incorporate advanced features and functions to let you create the sophisticated, yet simple to use systems that customers demand. All DTP2 products accommodate the full 18 Gbps data rate of HDMI 2.0 and support video signals up to 4K/60 with 4:4:4 chroma. Analog audio inputs on all DTP2 products support audio embedding and audio de-embedding is supported on analog audio outputs of all DTP2 products. The IN1808 can also be integrated into XTP Systems when working in tandem with XTP II CrossPoint matrix switchers, offering greater coverage for larger facilities already using facility-wide AV distribution.

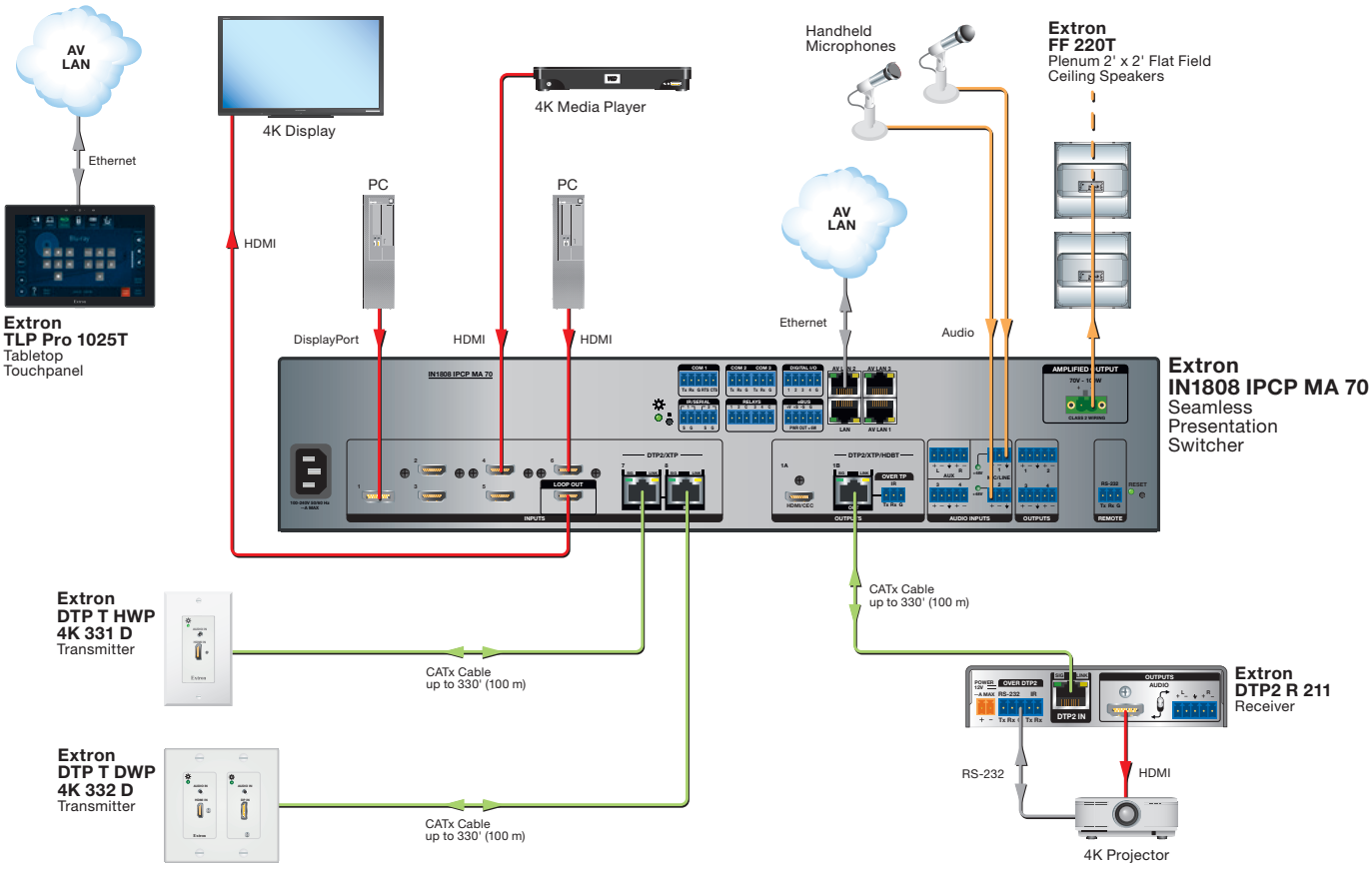
Conference Room

The IN1808 provides excellent audio and video performance for installations requiring local content sharing in addition to videoconferencing capability. Meeting participants can share content by connecting via HDMI and DisplayPort to the IN1808, or wirelessly to the ShareLink Collaboration Gateway. The IN1808 will convert the video to 4K/60 4:4:4 and transmit over CATx cable while providing power to the DTP2 R 211 receiver at the projector. During videoconferencing sessions, the HDMI loop-through, in conjunction with the microphones and ProDSP audio processing built into the IN1808 delivers an enhanced user experience.



Auditorium

At the heart of the system, the IN1808 IPCP MA 70 provides all audio, video, and control processing for this auditorium. Two PCs and a media player are permanently installed, and wallplates with DisplayPort and HDMI inputs are available for guests to connect their own devices for display on the main 4K projector. All IN1808 video connections are capable of 4K/60 4:4:4 resolution and the system will upscale lower resolution video sources to 4K as necessary. The IN1808 IPCP MA 70 provides audio reinforcement by handling the microphone mixing and ducking, amplification, and driving the distributed FF 220T flat field ceiling speakers. The entire system can be controlled locally at the TLP Pro 1025T touchpanel, or remotely over the LAN connection.



SPECIFICATIONS

TRUE 4K SPECIFICATION

Max 4K Capabilities		
Resolution and Refresh Rate	**Chroma Sampling**	**Max Bit Depth per Color**
4096 x 2160 at 60 Hz[2] 3840 x 2160 at 60 Hz 4096 x 2160 at 30 Hz 3840 x 2160 at 30 Hz	4:4:4	8 bit
		10 bit[3]
4096 x 2160 at 60 Hz 3840 x 2160 at 60 Hz	4:2:0[4]	

Frame rate[1]	24, 25, 30, 50, or 60 fps
Chroma sampling[1]	4:4:4 and 4:2:2, 4:2:0 at input only
Color bit depth[1]	8 or 10 bits per color
Signal type	DVI v1.0, HDMI v1.4 and v2.0, DisplayPort v1.2, HDCP v1.4 and v2.2
Max. video data rate[1]	
HDMI	18 Gbps (6 Gbps per color)
DisplayPort	21.6 Gbps (5.4 Gbps per lane)

NOTE: [1]Subject to the maximum data rate limit. Use our calculator at www.extron.com/4Kdatarate to determine video parameters supported by this data rate.

[2]4096 x 2160/50-60 at 4:4:4 is available only for HDMI and DisplayPort connections.

[3]DTP2 and XTP are 8 bits per color for all 4096 x 2160 formats.

[4] 4:2:0 sub-sampling is supported at input only.

VIDEO INPUT

Number/signal type	1 DisplayPort (HDCP compliant) 5 HDMI/DVI (HDCP compliant) 1 HDMI/DVI loop-out, configurable (HDCP compliant) 2 DTP2/XTP-configurable (HDCP compliant)
Connectors	1 female DisplayPort 5 female HDMI type A 1 female HDMI type A loop-out 2 female RJ-45
Horizontal frequency	15 kHz to 135 kHz
Vertical frequency	24 Hz to 75 Hz
Resolution range	640x480 @ 60 Hz through 4096x2160 @ 60 Hz with 4:4:4 chroma sampling Includes 480i, 480p, 576i, 576p, 720p, 1080i, 1080p, 2K, and 4K.

VIDEO PROCESSING

Digital sampling	8 or 10 bits per color; 600 MHz pixel clock maximum
Colors	1.07 billion (10 bit 4:4:4 processing)

VIDEO OUTPUT

Number/signal type	1 HDMI/DVI (HDCP compliant) 1 DTP2/XTP/HDBT, configurable (HDCP compliant)
Connectors	1 female HDMI type A 1 female RJ-45
Peripheral device power	250 mA per output (HDMI outputs only)
Scaled resolution	640x480[8], 800x600[8], 1024x768[8], 1280x768[8], 1280x800[8], 1280x1024[8], 1360x768[8], 1366x768[8], 1440x900[8], 1400x1050[8], 1600x900[8], 1680x1050[8], 1600x1200[8], 1920x1200[8], 2048x1200[8], 2048x1536[8], 2560x1080[8], 2560x1440[8], 2560x1600[8], 3840x2160[1,2,3,4,5,6*,7*,8*], 4096x2160[1,2,3,4,5,6*,7*,8*], and Custom 1-8 480p[7,8], 576p[6], 720p[3,4,5,6,7,8], 1080i[6,7,8], 1080p[1,2,3,4,5,6,7,8], 2K[1,2,3,4,5,6,7,8], and UHD/4K[1,2,3,4,5,6,7,8] [1]23.98 Hz, [2]24 Hz, [3]25 Hz, [4]29.97 Hz, [5]30 Hz, [6]50 Hz, [7]59.94 Hz, [8]60 Hz *Available on HDMI output or to a DTP2 Rx

AUDIO

Gain	Unbalanced output: -6 dB; balanced output: 0 dB
Frequency response	20 Hz to 20 kHz, ±0.5 dB
THD + Noise	<0.1%, 20 Hz to 20 kHz at nominal level
S/N	>90 dB at maximum balanced output (unweighted)
Supported formats	
Analog de-embedding	LPCM-2Ch
HDMI pass-through	LPCM up to 7.1/24-bit/192 kHz, Dolby TrueHD, Dolby Digital Plus, Dolby Digital EX, Dolby Digital 5.1, Dolby Digital 2/0 Surround, Dolby Digital 2/0, Dolby Atmos 7.2, DTS-HD Master Audio, DTS-HD, DTS ES Discrete 6.1, DTS ES Matrix 6.1, DTS Digital Surround 5.1, DTS 2-channel

AUDIO INPUT

Number/signal type	2 stereo line level, balanced or unbalanced 2 mono mic/line level, balanced or unbalanced, (with available phantom power) 6 stereo, de-embedded from HDMI/DisplayPort (PCM only) 2 DTP2/XTP (de-embedded HDMI—PCM only, or remote unbalanced analog*) *Available only in DTP mode
Connectors	(2) 3.5 mm, 5 pole captive screw for line (2) 3.5 mm, 3 pole captive screw for mic/line 5 female HDMI type A 1 female DisplayPort 2 RJ-45 female
Input gain adjustment	Line inputs: -18 dB to +24 dB in 0.1 dB steps, adjustable per input LPCM-2Ch inputs: -18 dB to +24 dB in 0.1 dB staps, adjustable per input Mic/line inputs: -18 dB to +60 dB in 0.1 dB steps, adjustable per input
DC phantom power	+48 VDC ±10% (can be switched on or off per mic/line input)

AUDIO OUTPUT — LINE OUT

Number/signal type	2 stereo or 4 mono, balanced/unbalanced 1 HDMI, embedded 1 DTP2/XTP/HDPT (embedded digital, and remote balanced/unbalanced analog*) *Available only in DTP mode
Connectors	(2) 3.5 mm, 5 pole captive screw 1 female HDMI type A 1 female RJ-45
Output volume range	0 to -100 dB in 0.1 dB steps (Volume control not available on loop output)

SPECIFICATIONS

AUDIO OUTPUT — POWER AMPLIFIER — IPCP MODELS ONLY

Number/signal type	
IN1808 IPCP SA	1 stereo (default) or 2 mono (2 channels total)
IN1808 IPCP MA 70	1 mono, 70 V line
NOTE: The 5 mm screw lock captive screw connector accepts wires of 22 AWG to 12 AWG.	
Connectors	
IN1808 IPCP SA	(1) 5 mm, 4 pole, screw lock captive screw
IN1808 IPCP MA 70	(1) 5 mm, 2 pole, screw lock captive screw
Load impedance	
IN1808 IPCP SA	4 ohms minimum
IN1808 IPCP MA 70	50 ohms minimum
Amplifier type	Class D
Output power	
IN1808 IPCP SA	25 watts per channel, 8 ohms, 1 kHz, 0.1% THD, or 50 watts per channel, 4 ohms, 1 kHz, 0.1% THD
IN1808 IPCP MA 70	100 watts (rms) @ 70 V, 1 kHz, 0.1% THD
Protection	Clip limiting, thermal, short circuit, DC output
Frequency response	20 Hz to 20 kHz, -3 dB to +1 dB @ 1 W
THD + Noise	<0.1% @ 1 kHz, 3 dB below clipping
S/N	>90 dB, 20 Hz to 20 kHz, unweighted

COMMUNICATIONS

Serial control port	1 bidirectional RS-232, 3.5 mm, 3 pole captive screw connector (rear panel)
USB control port	1 female mini USB B (front panel)
Ethernet	
Connector	1 female RJ-45* *IPCP models use IPCP Ethernet ports.
Ethernet data rate	10/100/1000Base-T, half/full duplex with autodetect
Ethernet protocol	ARP, ICMP (ping), IP, TCP, DHCP, HTTP, Telnet
Program control	Extron Product Configuration Software (PCS) program for Windows® Extron Simple Instruction Set (SIS™) Microsoft® Internet Explorer®

COMMUNICATIONS

IPCP Pro Control Processor with AV LAN — IPCP models only

Memory	
SDRAM	512 MB
Flash	4.5 GB
Software and control options	
Software	Extron Global Configurator Plus and Professional for Windows®
Control options	GlobalViewer®, eBus®, TouchLink® for Web, Touchlink for iPad®, or TouchLink Pro touchpanels
Ethernet control	
Network interface controllers (NICs)	2: 1 LAN, 1 AV LAN
AV LAN network switch	1 unmanaged 3 port switch
Connectors	
LAN	1 female RJ-45
AV LAN	3 female RJ-45
Ethernet data rate	10/100/1000Base-T, half/full duplex with autodetect
Protocols	DHCP, DNS, HTTP, HTTPS, ICMP, NTP, SFTP, SMTP, SNMP, SSH, TCP/IP, UPD/IP

COMMUNICATIONS — EXTERNAL DEVICE RS-232/IR OVER DTP2/XTP/HDBT

Serial control pass-through ports	DTP2/XTP Tx to IN1808: RS-232 can be transmitted to and from DTP2/XTP/HDBT Tx via Ethernet insertion. IN1808 to DTP2/XTP/HDBT Rx: IR pass-through via (1) 3.5 mm, 3 pole captive screw connector
Baud rates	Up to 115200 baud
Protocol	6 to 8 data bits 1 or 2 stop bits Even or odd parity, no parity (default)
IR control pass-through ports	IN1808 to TP Rx: (1) 3.5 mm, 3 pole captive screw connector TTL level (0 to 5 V) modulated infrared control from 30 kHz up to 60 kHz
IR control pin configuration	1 = Tx, 2 = Rx, 3 = Gnd

GENERAL

Power supply	Internal Input: 100-240 VAC, 50-60 Hz
Temperature/humidity	Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing
Cooling	
IN1808	2 fans, air flows from right to left (when viewed from the front)
IN1808 IPCP SA and IPCP MA 70	1 fan, air flows from right to left (when viewed from the front)
Mounting	
Rack mount	Yes, with optional rack shelf
Furniture mount	Yes, with optional under-desk or through-desk mounting kit
Enclosure dimensions	
IN1808	1.75" H x 17.5" W x 10.5" (4.4 cm H x 44.4 cm W x 26.7 cm D)
IN1808 IPCP SA and IPCP MA 70	3.50" H x 17.5" W x 10.5" D (8.9 cm H x 44.4 cm W x 26.7 cm D)
Product warranty	3 years parts and labor
Everlast power supply warranty	7 years parts and labor

NOTE: All nominal levels are at ±10%.

Model	Version Description	Part number
IN1808	Standard Model	60-1615-01
IN1808 IPCP SA	Control Processor and Stereo Amp	60-1615-02
IN1808 IPCP SA with LinkLicense	Control Processor and Stereo Amp, LL UI Upgrade	60-1615-02A
IN1808 IPCP MA 70	Control Processor and 70 V Mono Amp	60-1615-03
IN1808 IPCP MA 70 with LinkLicense	Control Processor and 70 V Mono Amp, LL UI Upgrade	60-1615-03A

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

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