

## PROCISE® 7.3 High-Definition Professional Surround Sound Processor

Experience World-Class Surround Sound Performance — In Any Room!

*"PROCISE delivers pure, mind-blowing sonic performance wrapped in a strikingly handsome package — with impeccable specs to back it all up — plus brilliant new design innovations never before seen in a surround sound processor."*



**AUDYSSEY**  
MULTEQ XT  
DYNAMIC VOLUME

**HDMI™**

**dts-hd**  
Master Audio

**DOLBY**  
TRUEHD

It's a rare event when an audio product comes along that captures all the senses, inspiring discerning audio design professionals and high-tech enthusiasts alike. Meet the PROCISE® PSPHD — the ultimate high-definition surround sound processor designed for high-end boardroom and custom theater installations.

No other audio processor does so much to maximize the impact of all your digital and analog sources within the unique acoustical environment of your boardroom or auditorium. Whatever the shape of the room or its materials and furnishings, whether using cinema class loudspeakers or quality ceiling speakers, the PSPHD has the intelligence to propel your listening experience to a new pinnacle of auditory gratification.

With its proprietary combination of advanced features and innovative new technologies, the PSPHD fulfills the myriad design challenges and performance expectations of the high-end custom market:

**7.3 HD surround sound processing** — Delivers the ultimate multi-channel experience with enveloping surround sound and uniform deep bass coverage employing multiple subwoofers

**Audyssey MultEQ® XT precision automatic room compensation** — Maximizes your speaker system's performance within your acoustical space

**HDMI® connectivity** — Provides the essential transport for 7.1 surround sound, HD 1080p and 3D video

**Studio grade performance** — Three floating-point DSPs and 24-bit 96kHz A-D/D-As achieve articulate, life-like sound with extreme dynamic range and ultra low noise down to 125 dB SNR

**Dolby® TrueHD, Dolby Digital® Plus, and DTS-HD Master Audio™** — Supports the latest 7.1 surround sound audio formats to get the most from Blu-ray Disc® and other high-definition media

**Audyssey Dynamic EQ®** — Assures consistent bass response, tonal balance and soundstage at any volume

**Audyssey Dynamic Volume®** — Solves the problem of spikes in volume level between television programs and commercials, and between the soft and loud passages of movies

**Pure mode** — Bypasses all signal processing to provide a pure signal path for critical listening of analog sources

**QuickSwitch HD® digital switching** — Achieves fast, fluid switching of HDMI audio and video

**Smart HDCP management** — Industry-leading support for HDCP ensures the most reliable handling of digital HD content, and compatibility with the widest range of devices

**Discrete output channel signal processing** — Affords independent fine adjustment of every individual speaker and subwoofer

**Integrated line mixer** — Enables straight-forward integration with teleconferencing codecs and microphone mixers, eliminating the need for extra outboard gear

**Dedicated speech processing** — Each of the three mixer inputs includes programmable compression, gating, 4-band EQ and notch filtering

**Downmix outputs** — Provides independent mono and stereo output signals to feed additional listening zones, codecs, assistive listening and recording equipment

**Sophisticated signal routing** — Allows flexible distribution of each mixer input to feed any of the front, surround, rear, and downmix outputs

**2-channel signal steering** — Lets you alternately route stereo audio to the surround, rear, or all speakers for better background or party music

**Copious connectivity** — Furnishes an incredible 30 inputs including HDMI, AES/EBU, S/PDIF optical and coaxial; plus mono, stereo, and multi-channel analog

**XLR balanced input/outputs** — Ensures a quieter, more reliable analog interface to professional-grade amplifiers, powered subwoofers, and source components

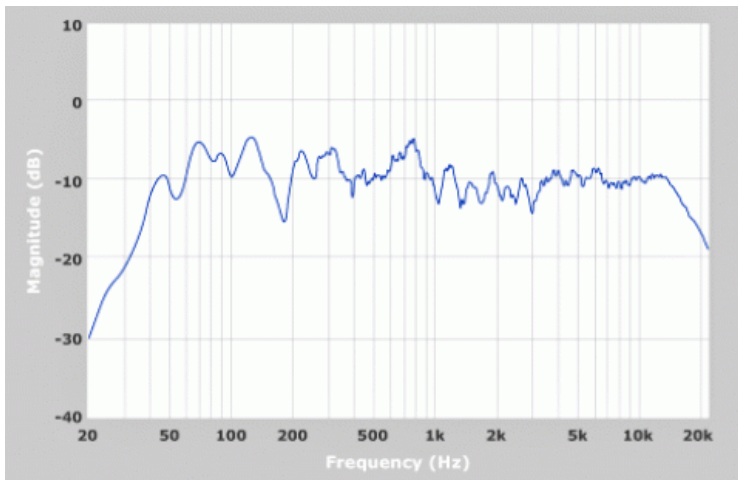
**PROAMP automatic amplifier pairing** — Allows unprecedented integration between preamp and amplifier for seamless control and monitoring

**Native Crestron Control®** — Enables virtually unlimited customization for real-time touch screen control and automation as part of a complete Crestron® control system

**Crestron PROCISE Tools software** — Affords extensive configuration and fine adjustment via USB or Ethernet

**DigitalMedia™ system integration** — Melds seamlessly into a Crestron DigitalMedia distribution system via HDMI and Ethernet

**High-end appearance** — Features a stunning milled aluminum front panel with clean, uncomplicated controls and selectable visual feedback for a look befitting the finest showcase theater or luxury conference room



**Typical loudspeaker response measured at one point in a room. Peaks and dips are caused by interactions with surfaces and furniture.**

### Your Room — Perfected!

Your boardroom or auditorium is your domain, and whether you're making a critical motivational presentation to the board of directors or just taking in a movie or watching sports after hours, you should be able to enjoy world-class cinema sound quality. With PROCISE you can enjoy high-end audio in any room — whether it's an acoustically optimized custom theater or untreated meeting space.

Exacting speaker calibration is enabled in the PSPHD using patented Audyssey MultEQ® XT technology<sup>(1)</sup>. With MultEQ XT, every seat in the room becomes the best seat in the house. MultEQ XT replaces hours of tedious measurements using expensive sound analyzers, arriving at a far superior result in minimal time. Employing the same room correction technology used to tune commercial theater sound systems worldwide, PROCISE provides up to 32 measurement points for precise room compensation.

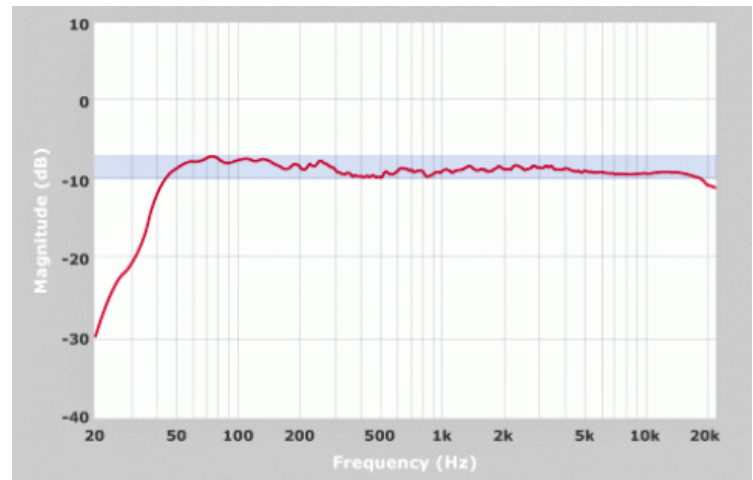
MultEQ XT solves the problem of distortion caused by room acoustics, capturing sound information in the time domain to evaluate not only the frequency response, but also reflections in the audio path that affect time of arrival and cause distortion. With this information, MultEQ XT adjusts the settings for each speaker to perfection — including equalization, crossover points, and time delays. The result is a superb soundstage with accurate tonal balance, exquisite imaging, and deeper, more defined bass.

Crestron highly recommends the use of the Audyssey MultEQ XT feature on the PSPHD to take full advantage of this exciting technology.

### Bass Beyond Compare

Tremendous bass is essential to the enjoyment of today's movies, music, and video games. The PSPHD reaches an explosive new "low," providing three independently controllable subwoofer outputs and advanced bass management. Support for multiple subwoofers greatly enhances the quality of deep bass in a large room, effectively canceling room resonances so bass is distributed more evenly.

Uniquely flexible, the PSPHD allows you to adjust the level, crossover, EQ, and delay settings independently for each subwoofer, either manually or automatically through MultEQ XT. Engaging the "Bass Reinforcement" feature allows the full low-frequency range to be routed to your main left



**A smooth, flat response curve is achieved at every seat in the room using the PROCISE PSPHD with Audyssey MultEQ XT technology.**

and right speaker pair for even greater bass coverage. The end game is shockingly realistic low frequency effects and tight, gripping, defined bass at every seat.

### A Refined Listening Experience

Let's face it, there's a time and place for the jarring impact of loud effects and sudden volume swells. In a corporate or educational environment, these fluctuations can be an annoyance and a liability. Audyssey Dynamic Volume® and Audyssey Dynamic EQ® solve this issue, letting you enjoy clear, rich, enveloping sound from all your media sources at any listening level.

Dynamic Volume monitors the volume of program material moment-by-moment, maintaining the desired listening level for all content while optimizing dynamic range to preserve the overall excitement. Dynamic EQ solves the problem of deteriorating sound quality as volume is decreased by taking into account human perception and room acoustics. Together, these refinements help to maximize your enjoyment by preventing sudden volume spikes and degraded bass and surround performance at low volumes.

PROCISE adds one more refinement to help ensure consistent levels when switching between sources. Every audio input on the PSPHD includes a dedicated input compensation adjustment, allowing the installer to match the average signal level from each TV receiver, disc player, media server, and game console in your system.

### Adaptive Signal Routing

With its built-in signal routing capabilities, the PSPHD adapts to your sound system design instead of the other way around. Multimedia presentation, speech reinforcement, and even teleconferencing can coexist in perfect harmony without the need for a rack full of extra line mixers, matrix switchers, and distribution amps. It supports virtually any speaker configuration up to 7.3, including systems with no center channel speaker. It even lets you utilize your ceiling speakers to serve double duty for speech reinforcement and surround sound, eliminating the need for separate dedicated speaker components for a cleaner, more cost-effective installation.

# PSPHD PROCISE® 7.3 High-Definition Professional Surround Sound Processor



PSPHD – Rear View

To accommodate inputs from your microphone mixer and teleconferencing codec, the PSPHD includes a built-in 3-channel line mixer. Independent mono and stereo “downmix” outputs are also provided to feed the mix-minus signal back to the codec, and to send your own mix of signals to recorders and assistive listening equipment. Each mixer input features independent control over the signal level going to each of the individual main, surround, rear, and downmix outputs giving you complete control over which signals are heard from each speaker in the room.

Each mixer input also offers sophisticated signal processing including gating, compression, 4-band EQ and 2-band notch filtering, affording tailored speech response and feedback control without the need for extra outboard processors. (Note that the notch filters do not affect the downmix signals.) The mixer bypasses all other signal processing in the PSPHD, ensuring a pure, low-latency signal as required for clear speech and unhindered codec operation.

## A Harmonious Pair

The PROCISE PSPHD and its companion PROAMP amplifier possess the unique ability to operate as one, affording functionality unattainable from any other preamp/amp combination. Naturally, the PROAMP delivers a robust supply of power to compel any 7-channel speaker system to its utmost performance. (It looks pretty awesome with the PSPHD as well.) But also, through a simple Ethernet connection, the two components become paired, enabling seamless control and monitoring of the amplifier through the PSPHD’s front panel without any need for a control system. Even the output level of each amp channel is conveyed on the face of the PSPHD via analog style meters.

As part of a complete Crestron® control system, this pairing streamlines programming while allowing for sophisticated remote control including the ability to view the detailed status of each amp channel from a Crestron touch screen.

Please refer to the PROAMP spec sheet for additional information.

## Professional, Precise...PROCISE!

Especially in today’s elaborate custom theaters with all their sound deadening materials, electronic noise and distortion is the last thing you want to hear. To this end, PROCISE has been designed to produce pristine, accurate audio — and nothing more. Our engineers employed three separate floating-point DSPs and high-performance 24-bit 96kHz converters to achieve exceptional dynamic range and extremely low noise. So, even during the quietest moments of a high-resolution film soundtrack or original master recording, you’ll be enveloped in studio-silent ambiance, every nuance revealed, so when the sound comes up you’ll be convinced you’re a part of it.

## The Ins and The Outs

One glance at its back panel reveals the incredible amount of connectivity the PSPHD offers to handle a vast arsenal of sources. Its six HDMI inputs provide the essential connections for all your high-definition AV sources, including Blu-ray Disc® and DVD players, HDTV receivers, and multimedia computers. HDMI is the key to handling 7.1 digital surround sound signals including high bit-rate lossless audio formats like DTS-HD Master Audio™ and Dolby® TrueHD, and also allows for switching of high-definition video up to 1080p60 with Deep Color and 3D, and computer resolutions up to WUXGA (1920x1200).

Additional digital audio inputs include four optical and six coaxial S/PDIF inputs, plus professional AES/EBU to support very high-end studio and broadcast equipment. Your analog components are also supported via eight RCA unbalanced stereo inputs, one XLR balanced stereo input, and an eight-channel surround sound input.

A choice of XLR balanced or RCA unbalanced outputs provides high-performance connectivity to drive the PROAMP High-Definition Professional Surround Sound Amplifier, or any other amplifier(s) with up to 7 channels. Additional balanced and unbalanced outputs are provided to drive up to three powered subwoofers. Still further balanced and unbalanced outputs are included to feed additional listening zones and equipment, with independent mono and stereo feeds each carrying an unprocessed downmix of the entire surround sound signal.

A single HDMI output provides a connection for your high-def display or

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projector, eliminating the need for a separate video switcher. This output also carries a stereo downmix of the main surround output, perfect for sharing audio and video from the theater with the rest of your facility via a Crestron DigitalMedia™ system.

## Worry-Free HD

To ensure compatibility with the widest range of HD content and components, Crestron equipped the PSPHD with the most advanced HDCP management of any signal processor in its class. At setup, every connected HDMI device is authenticated and its key allowances verified, immediately revealing any limitations in the system. This lets the installer reconfigure the system before problems start, eliminating the surprise of a sudden loss of sound and picture caused by some HDCP-encrypted or non-compliant source.

## Why does HDCP matter?

As the move to digital takes hold, more and more content providers are using HDCP (High-bandwidth Digital Content Protection) to protect their DVDs, Blu-ray Discs, broadcast signals, and online content against unauthorized copying. Analog connectivity, which can't support HDCP, is being eliminated from the computers and AV equipment being sold today, and soon content providers will be taking full advantage of the new digital technology to ensure only authorized users may view their content in all its high-definition glory. Systems that don't support HDCP simply won't let you display all this HD content.

Input selection on the PSPHD is fast and fluid thanks to Crestron exclusive QuickSwitch HD technology. QuickSwitch HD maintains a constant HDCP connection with each HDMI device in the system, eliminating the need to re-authenticate each time a different source is selected, ensuring uninterrupted switching between all sources.

## The Full Frontal

What was the thing you noticed when you first saw the PSPHD? Was it the clean, inviting controls, the modern metallic accents, or its high-resolution graphic displays? Unlike other audio processors, setting up and operating the PSPHD from the front panel is a pleasure. Touch any button to awaken it, and easily select your source and make adjustments with a simple turn and tap of the left selection knob. Detailed information appears on the front panel to eliminate any confusion. Jump directly to key menus using the dedicated function buttons. And, oh yeah, select the bargraph analyzer or retro-style analog meters to lend a classic touch for monitoring signal status. And by all means, turn up that knob on the right whenever you want to impress your guests with more volume.

## PROCISE Tools

While much of the PSPHD's initial setup and configuration can be accomplished through its front panel, PROCISE Tools software provides the optimum user interface for accessing all of its audio adjustments and settings. And, although MultEQ XT does most of the work to optimize your system's sound quality, there is plenty of customization and tweaking available to those so inclined. For instance, PROCISE Tools allows you to fine-tune lip-sync delay, define the default decoding and EQ modes for each source, set up the mix inputs, monitor signal levels, and finesse the various level, crossover, delay, and other settings.

To those who prefer to make all their own EQ adjustments, either globally

or for a specific input or surround mode (in lieu of MultEQ XT), PROCISE Tools offers a choice of master 6-band graphic EQ or ten independent channels of precision 6-band parametric EQ. Each EQ mode allows five presets to be saved, which can be recalled via a control system or set to correspond with any input or decoding mode.

## The Beauty of Simplicity

The wonderful thing about Crestron is, once the system's installed and all the critical adjustments are made, all you need to worry about is your presentation or choice of movie. As part of a complete Crestron system, all the technology within the PSPHD disappears behind the scenes, with only the controls you want and need provided to you on your choice of Crestron touch screen or handheld remote.

So press play, set your senses for maximum impact, and enjoy the movie!

## SPECIFICATIONS

### Audio – General

**Features:** 27 selectable source inputs plus built-in noise generator, 7.1 Dolby Digital®/DTS® surround sound decoder, 7.3 multi-channel signal processing and steering, Audyssey MultEQ® XT, Audyssey Dynamic Volume®, Audyssey Dynamic EQ®, 6-band graphic or parametric EQ, 100 ms lip-sync/speaker delay, unprocessed “Pure” mode (analog sources only), “Direct” mode (HDMI only), independent mono and stereo downmix outputs, 3 channel line mixer (post surround decoder/processor) with independent speech-optimized signal processing, HDCP management, Crestron QuickSwitch HD®

**Input Signal Types:** HDMI supporting HD lossless multi-channel up to 7.1 with HDCP, DisplayPort Multimode<sup>2</sup>, S/PDIF (coaxial and optical), AES/EBU, analog 2-channel (balanced and unbalanced), analog 8-channel (unbalanced), analog mono (balanced or unbalanced)

**Output Signal Types:** Analog 7.3 channel (balanced and unbalanced), analog 2-channel downmix (balanced and unbalanced), analog mono downmix (balanced and unbalanced), HDMI w/2-channel downmix

**Processor:** Three floating-point DSPs

**Analog-To-Digital Conversion:** 24-bit 96 kHz

**Digital-To-Analog Conversion:** 24-bit 96 kHz (192 kHz in Direct mode)

**Frequency Response:** 20 Hz to 20 kHz ±0.2 dB

**THD+N:** 0.002% digital in to analog out;

0.003% analog in to analog out

**S/N Ratio:** 125dB AES/EBU in to balanced out;

122dB SPDIF/HDMI in to balanced out;

118dB AES/EBU in to unbalanced out;

114dB SPDIF/HDMI in to unbalanced out;

109dB unbalanced in to unbalanced out

### Audio – Surround Sound

**Decoding Modes:** None, Stereo, Dolby Pro Logic IIx Movie, Dolby Pro Logic IIx Music, DTS Neo:6 Cinema, DTS Neo:6 Music, Two Channel Steering – Surround, Two Channel Steering – Rear, Multi-Channel Stereo (Party), Cathedral, Hall, Stadium, Jazz Club, Dolby Digital®, Dolby Digital EX, Dolby Digital Plus, Dolby® TrueHD, DTS®, DTS-ES Matrix, DTS-ES Discrete, DTS 96/24, DTS-HD Master Audio™, PCM Multi-Channel, Multi-Channel Input

**Master Volume Level:** -80 to +20 dB, adjustable from 0% to 100%, plus mute

**Speaker Levels:** ±12.0 dB per output (Front L/R, Surround L/R, Back L/R, Center, Sub 1-3)

**Low Frequency Effects (LFE):** -10.0 to +0.0 dB

**Decoding Mode Speaker Levels:** ±12.0 dB per output

**Decoding Mode LFE Level:** -10.0 to +0.0 dB

**Input Compensation:** ±10.0 dB per input

**Bass Control:** ±12.0 dB

**Treble Control:** ±12.0 dB

**EQ Modes:** Audyssey MultEQ XT, 6-band graphic (global), or 6-band parametric (per output)

**GEQ Center Frequencies:** 63, 250, 1k, 4k, 10k, 20k Hz

**GEQ Gain:** ±12.0 dB per band

**GEQ Presets:** 1 thru 5

**PEQ Center Frequency:** 25 to 20,000 Hz per band

**PEQ Gain:** ±12.0 dB per band

**PEQ Bandwidth:** 0.0 to 3.0 octaves per band

**PEQ Presets:** 1 thru 5

**Crossover Frequency:** Large (full range) or 40 to 200 Hz, adjustable in 10Hz steps, per output (excluding subs)

**Delay:** 0 to 100 ms lip-sync (global);

0 to 20 ms speaker distance compensation (per output);

Adjustable in milliseconds, feet, or meters;

NOTE: 100 ms max per output lip-sync and speaker delay combined

**Compression:** Off, Audyssey Dynamic Volume (Heavy, Medium, Light), Dolby/DTS DRC (Heavy, Medium, Light), Dolby TrueHD Auto

**Loudness Compensation:** None or Audyssey Dynamic EQ (available only with MultEQ XT active)

**DTS Neo:6 Music Settings:** CGain 0.0 to 1.0, Standard or Wide mode

**Dolby Pro Logic IIx Music Settings:** Dimension ±7, Center Width 0 to 7, Standard or Panorama

#### Audio – Downmix

**L/R Output Level:** -80dB to +20dB, adjustable from 0% to 100%, plus mute

**Mono Output Level:** -80dB to +20dB, adjustable from 0% to 100%, plus mute

**Bass Control:** ±12.0 dB per output

**Treble Control:** ±12.0 dB per output

#### Audio – 3-Channel Input Mixer

**Mix Level:** -80.0 to 0.0 dB per channel (Mix 1-3), per output (Front L/R, Surround L/R, Back L/R, Center, Stereo Downmix, Mono Downmix)

**Input Compensation:** ±10.0 dB per input

**EQ Mode:** 4-band graphic plus 2 notch filters (per input)

**GEQ Center Frequencies:** 160, 500, 1.2k, 3k Hz

**GEQ Gain:** ±12.0 dB per band

**Notch Filter Frequency:** 20 to 20,000 Hz per filter

**Notch Filter Width:** 0.020 to 3.500 octaves per filter

**Dynamics Processing:** Gating and compression (per input)

**Dynamics Pre-Process Level:** ±12.0 dB

**Gating Level (Threshold):** 0-100%

**Gating Depth (Attenuation):** 0.0 to 80.0 dB

**Gating Attack:** 0 to 100 ms

**Gating Decay (Release):** 0 to 5000 ms

**Compression Level (Threshold):** -80.0 to +20.0 dB

**Compression Ratio:** 1.0:1 to 10.0:1

**Compression Attack:** 0.1 to 300.0 ms

**Compression Release:** 1 to 1000 ms

**Compression Curve:** Hard or soft knee

**Dynamics Post-Process Level:** ±12.0 dB

**Mixer Input Presets:** 1 thru 30

#### Audio – Master Mixer

**Program Level:** -80.0 to 0.0 dB plus mute per output group (Main, Stereo Downmix, Mono Downmix)

**Mixer Level:** -80.0 to 0.0 dB plus mute per channel (Mix 1-3), per output group (Main, Stereo Downmix, Mono Downmix)

**Master Mixer Presets:** 1 thru 10

#### Video

**Features:** 6x1 digital switcher, audio breakaway, HDCP management, Crestron QuickSwitch HD

**Input Signal Types:** HDMI, DVI<sup>[1]</sup>, DisplayPort Multimode<sup>[1]</sup>

**Output Signal Types:** HDMI, DVI<sup>[1]</sup>

**Formats:** HDMI w/Deep Color & 3D, DVI, HDCP content protection support

**Input Resolutions, Progressive:** 640x480@60Hz, 720x480@60Hz (480p), 720x576@50Hz (576p), 800x600@60Hz, 848x480@60Hz, 852x480@60Hz, 854x480@60Hz, 1024x768@60Hz, 1024x852@60Hz, 1024x1024@60Hz, 1280x720@50Hz (720p50), 1280x720@60Hz (720p60), 1280x768@60Hz, 1280x800@60Hz, 1280x960@60Hz, 1280x1024@60Hz, 1360x768@60Hz, 1365x1024@60Hz, 1366x768@60Hz, 1400x1050@60Hz, 1440x900@60Hz, 1600x900@60Hz, 1600x1200@60Hz, 1680x1050@60Hz, 1920x1080@24Hz (1080p24), 1920x1080@25Hz (1080p25), 1920x1080@50Hz (1080p50), 1920x1080@60Hz (1080p60), 1920x1200@60Hz, 2048x1080@24Hz, 2048x1152@60Hz, plus any other resolution allowed by HDMI up to 165MHz pixel clock

**Input Resolutions, Interlaced:** 720x480@30Hz (480i), 720x576@25Hz (576i), 1920x1080@25Hz (1080i25), 1920x1080@30Hz (1080i30), plus any other resolution allowed by HDMI up to 165MHz pixel clock

**Output Resolutions:** Matched to inputs

#### Communications

**Ethernet:** For control, console, and pairing with PROAMP; 10/100 Mbps, auto-switching, auto-negotiating, auto-discovery, full/half duplex, DHCP

**Cresnet:** For control and console, Cresnet slave

**USB:** For console, USB client

**HDMI:** Passes EDID, supports HDCP, provides HDCP key management

## Connectors

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**DIGITAL SOURCES (optical) 1 – 4:** (4) JIS F05 female (TOSLINK) optical fiber connectors; S/PDIF optical digital audio inputs

**DIGITAL SOURCES (coaxial) 1 – 6:** (6) RCA female; S/PDIF coaxial digital audio inputs; Input Impedance: 75 Ohms; Input Level: 0.5 Vrms nominal

**AES/EBU:** (1) 3-pin XLR female; AES/EBU digital audio input; Input Impedance: 110 Ohms; Input Level: 0.6 Vrms nominal

**HDMI INPUT 1 – 6:** (6) 19-pin Type A HDMI female; HDMI digital audio/video inputs

**HDMI OUTPUT:** (1) 19-pin Type A HDMI female; HDMI digital audio/video output; Audio stream is a 2-channel downmix of the surround sound audio signal (pre master mixer)

**ANALOG SOURCES L/R 1 – 8:** (16) RCA female comprising (8) unbalanced stereo line-level audio inputs; Input Impedance: 11k Ohms; Maximum Input Level: 2 Vrms

**MULTI-CHANNEL SOURCE FRONT L/R, SURROUND L/R, BACK L/R, CENTER, SUB:** (8) RCA female; Unbalanced line-level 7.1 surround sound audio input; Input Impedance: 11k Ohms; Maximum Input Level: 2 Vrms

**BALANCED STEREO L/R:** (2) 3-pin XLR female; Balanced stereo line-level audio input; Input Impedance: 22k Ohms balanced; Maximum Input Level: 4 Vrms; Note: For use with balanced source only

**MIXER INPUT 1 – 3:** (3) 3-pin 3.5mm detachable terminal blocks; Balanced/unbalanced line-level inputs; Input Impedance: 22k Ohms balanced, 11k Ohms unbalanced; Maximum Input Level: 4 Vrms balanced/unbalanced

**OUTPUT (unbalanced) LEFT, RIGHT, SURR L., SURR R., SURR BL., SURR BR., CENTER, SUB 1, SUB 2, SUB 3:** (10) RCA female; Unbalanced line-level 7.3 surround sound audio output; Output Impedance: 100 Ohms; Maximum Output Level: 4 Vrms

**OUTPUT (balanced) LEFT, RIGHT, SURR L., SURR R., SURR BL., SURR BR., CENTER, SUB 1, SUB 2, SUB 3:** (10) 3-pin XLR male; Balanced line-level 7.3 surround sound audio output; Output Impedance: 200 Ohms; Maximum Output Level: 8 Vrms

**DOWNMIX OUT (unbalanced) LEFT/RIGHT:** (2) RCA female; Unbalanced line-level stereo audio output; Output Impedance: 100 Ohms; Maximum Output Level: 4 Vrms

**DOWNMIX OUT (balanced) LEFT/RIGHT:** (2) 3-pin XLR male; Balanced line-level stereo audio output; Output Impedance: 200 Ohms; Maximum Output Level: 8 Vrms

**DOWNMIX OUT (unbalanced) MONO:** (1) RCA female; Unbalanced line-level mono audio output; Output Impedance: 100 Ohms; Maximum Output Level: 4 Vrms

**DOWNMIX OUT (balanced) MONO:** (1) 3-pin XLR male; Balanced line-level mono audio output; Output Impedance: 200 Ohms; Maximum Output Level: 8 Vrms

**LAN:** (1) 8-wire RJ45 with 2 LED indicators; 10Base-T/100Base-TX Ethernet port; Green LED indicates link status; Yellow LED indicates Ethernet activity

**NET:** (2) 4-pin 3.5mm detachable terminal blocks; Cresnet slave ports, paralleled

**100-240V~50-60Hz 65W:** (1) IEC C14 male chassis plug; Mates with removable power cord (included)

**G:** (1) 6-32 screw, chassis ground lug

**Microphone (front):** (1) 3-pin mini-XLR, female (behind front panel); Input for calibrated microphone (part of CSSTK Surround Sound Tuning Kit, sold separately)

**USB (front):** (1) USB Type B female (behind front panel); USB computer console port (cable included)

## Displays

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(2) 256 x 64 graphic VFDs (Vacuum Fluorescent Displays); Left display shows source, decoding mode, setup, info, and installer menus; Right display shows volume levels; Both displays can show real-time VU meters or spectrum analyzers

## Controls & Indicators

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**Selection Knob (left):** (1) rotary encoder with integral pushbutton, used to navigate and select various menu options and adjust values

**STANDBY:** (1) pushbutton and red LED, places PSPHD (and PROAMP if connected) into "Standby" mode (all outputs turned off)

**SOURCE:** (1) pushbutton, enters the source selection menu

**MODE:** (1) pushbutton, enters the decoding mode selection menu

**SETUP:** (1) pushbutton, enters the compression and equalization setup menu

**INFO:** (1) pushbutton, enables display of source information

**HOME:** (1) pushbutton, returns both displays to their default screens showing the current source and decoding mode (left) and volume (right)

**DISPLAY:** (1) pushbutton, normally sets the front panel display brightness; pressing DISPLAY and HOME simultaneously for 5 seconds enters the installer menu

**METER:** (1) pushbutton, enables dual analog meter display

**SPECTRUM:** (1) pushbutton, enables dual spectrum analyzer display

**LEVEL:** (1) pushbutton, enables display of speaker volume levels

**AMPLIFIER:** (1) pushbutton, enables display of amplifier status (if PROAMP is connected)

**Volume Knob (right):** (1) rotary encoder with integral pushbutton, turn to adjust master volume level, press to display master volume level

**MUTE:** (1) pushbutton and red LED, mutes all outputs

**RESET:** (1) miniature pushbutton (behind front panel), hardware reset

**SETUP (rear):** (1) recessed miniature pushbutton and (1) red LED, used for touch-settable ID (TSID) in conjunction with Crestron Toolbox™ software

### Power Requirements

**Main Power:** 65 Watts @ 100-240 Volts AC, 50/60 Hz

**Cresnet Power Usage:** none, does not draw Cresnet power

### Environmental

**Temperature:** 41° to 104°F (5° to 40°C)

**Humidity:** 10% to 90% RH (non-condensing)

**Heat Dissipation:** 225 BTU/Hr

### Enclosure

**Chassis:** Metal, vented sides, ultra-quiet speed-controlled fan cooling

**Front Panel:** Aluminum with plastic overlay

**Mounting:** Freestanding or 3U 19-inch rack-mountable (detachable feet and rack ears included)

### Dimensions

**Height:** 5.74 in (146 mm);  
5.19 (132 mm) without feet

**Width:** 17.28 in (439 mm);  
19.0 in (483 mm) with ears

**Depth:** 14.75 in (375 mm)

### Weight

12.0 lb (5.4 kg)

## MODELS & ACCESSORIES

### Available Models

**PSPHD:** PROCISE® 7.3 High-Definition Professional Surround Sound Processor

### Available Accessories

**CSSTK:** Surround Sound Tuning Kit

**PROAMP-7X250:** PROCISE® High-Definition Professional Surround Sound Amplifier, 7x250W

**PROAMP-7X400:** PROCISE® High-Definition Professional Surround Sound Amplifier, 7x400W

**PROAMPI-7X250:** PROCISE® High-Definition Professional Surround Sound Amplifier, 7x250W - International Version, 230V

**PROAMPI-7X400:** PROCISE® High-Definition Professional Surround Sound Amplifier, 7x400W - International Version, 230V

**CBL-PRO-XLR:** PROCISE® XLR Balanced Audio Interconnects

**CBL-HD-LOCK:** Locking High-Speed HDMI® Cable

**CBL-HD:** Crestron® Certified HDMI® Interface Cable

**CBL-HD-DVI:** Crestron® Certified HDMI® to DVI Interface Cable

**CBL-RCA:** Crestron® Certified RCA S/PDIF Audio Interface Cable

**CBL-RCA2:** Crestron® Certified RCA Stereo Audio Interface Cable

### Notes:

1. Setup of MultEQ XT is highly recommended for optimum system performance. Requires [CSSTK](#) Professional Surround Sound Tuning Kit for setup.
2. HDMI requires an appropriate adapter or interface cable to accommodate a DVI or DisplayPort Multimode signal. [CBL-HD-DVI](#) interface cables available separately.

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at [www.crestron.com/salesreps](http://www.crestron.com/salesreps) or by calling 800-237-2041.

The specific patents that cover Crestron products are listed online at: [patents.crestron.com](http://patents.crestron.com).

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