



CH Precision Unveils the 10-Series Digital Family: A New Standard in High-Performance Digital Audio

Préverenges, Switzerland
April 25, 2025
For immediate Release

CH Precision is proud to announce the launch of its 10-Series Digital Family, a modular digital front-end system that redefines what is possible in high-resolution digital playback. Designed and crafted entirely in Switzerland, the 10-Series brings together decades of engineering expertise in pursuit of one singular goal: to bring listeners closer to the music.

At the core of the CH Precision 10-Series digital family lies a singular commitment to scientific and engineering integrity—a design philosophy that refuses compromise and redefines the limits of what digital playback can achieve. Every element, from circuit topology to mechanical isolation, reflects a level of sophistication that transcends conventional high-end standards. This is not refinement for its own sake, but a methodical pursuit of accuracy and transparency, shaped by empirical rigor and guided by a deep understanding of how each subsystem contributes to the whole. Where others stop at excellence, CH Precision begins its most meaningful work.

[More on the Next Page](#)





The C10 Master DAC

Built on CH Precision's modular design ethos, the two-chassis C10 DAC redefines what's possible in digital playback—even in its simplest form. It also marks the starting point of a system-wide journey toward our ultimate digital front end, with a clear upgrade path shaped by scalability and performance.

At its core is the PCM1704 DAC chip, implemented in a fully balanced DSQ™ Phase Array. Sixteen converters—four per polarity—are driven by CH's proprietary 32-bit PETER DSP engine, which precisely prepares the digital signal for 24-bit conversion. With 64x oversampling and sequential data flow, the C10 achieves exceptional time-domain accuracy and musical coherence. Signals are re-clocked and upsampled to 705.6/768kHz, facilitating transparent filtering without phase distortion. CH's high-frequency Bessel filter maintains constant group delay with sub-femtosecond precision, preserving phase integrity and reducing coloration.

Where most high-end manufacturers offer DAC filter options that trade pre-ringing for post-ringing—or vice versa—CH Precision's proprietary PETER algorithm takes a fundamentally different approach. By employing spline interpolation, it minimizes both forms of temporal distortion simultaneously. Unlike conventional methods that introduce smoothing or artifacts, PETER preserves every original sample, maintaining waveform integrity and reinforcing the system's time-domain precision.

All PCM signals, from CD to DXD, are treated identically, varying only in interpolation factor. DSD is converted in a single step to 24-bit/705.6kHz PCM, preserving its time-domain precision while filtering modulation noise.

Together, these technologies form the foundation for a digital platform that evolves with the system—delivering uncompromised performance at every stage of the journey.

[More on the Next Page](#)



An Architecture Engineered for Musical Truth

Delivering true musical realism requires more than data conversion accuracy—it demands an uncompromising approach to every aspect of design, from power delivery to physical layout. This pursuit led CH's engineering team to completely rethink the DAC's topology, DSP algorithms, power architecture and internal structure. Housed in a dedicated chassis, the power supply delivers eleven ultra-stable DC feeds to four fully galvanically isolated zones within the main unit: digital circuitry, clock distribution, and the dual DAC arrays.

Inside the C10, a symmetrical internal structure places the input cards at the center, flanked by DAC sections on either side—each served by precisely matched clock paths to ensure perfect temporal alignment.

The C10's software-based approach further extends its capabilities. It delivers exceptional digital performance from the outset while providing a platform that supports ongoing enhancements in both features and sound quality—ensuring ongoing relevance and sustainability.

The C10 is designed to exceed conventional performance metrics, focusing on accurate and complete data retrieval, signal preservation, and time-domain integrity. Its architecture is optimized to preserve low-level detail, spatial information, and dynamic structure, enabling an exceptionally precise reproduction of the recorded signal and the artist's original intent. Informed by decades of digital design expertise, the C10 embodies CH Precision's commitment to engineering solutions that unite objective accuracy with authentic musical expression.

[More on the Next Page](#)



The C10 DAC: Modular and Customizable

The C10 features a fully modular architecture, enabling flexible configuration to meet a wide range of system requirements. Three identical input slots support seamless integration of CH Precision interface boards. Each C10 is supplied with the proprietary Digital IN HD card as standard, with two additional slots available for user-defined expansion.

The Streaming HD board supports high-resolution playback from networked servers (UPnP, Roon, etc.) and online platforms including Qobuz, TIDAL, and Internet radio. The board also includes a USB input for direct connection to local digital sources. Unlike most high-end DACs that rely on OEM or third-party streaming modules, CH Precision's in-house design ensures full control over hardware and software implementation, preserving signal integrity and optimizing playback quality.

An optional Clock Board adds one word clock input and two outputs via precision BNC connectors, enabling synchronization with an external master clock such as the CH Precision T10 Time Reference. This configuration enhances timing accuracy across connected digital components, reducing jitter and improving overall system coherence.





C10 Mono: A Simple, Powerful Upgrade

Upgrading the standard C10 to the C10 Mono configuration involves the addition of a second dedicated power supply—an architectural enhancement that significantly improves performance. This dual-supply layout enables completely independent power regulation for each DAC board and analog stage, maintaining full galvanic isolation between the left and right channels. By optimizing the C10's four discrete power domains, this configuration reduces system noise, increases voltage stability, and elevates the overall signal-to-noise ratio.

The result is a measurable and audible improvement in channel separation, resolution, and dynamic precision. Spatial presentation becomes more defined, low-level detail more discernible, and transient behavior more lifelike—qualities essential to reproducing the full dimensionality and intent of the original recording.

[More on the Next Page](#)



The C10 Conductor—Isolating Analog DAC from Digital Processing

To achieve ultimate musical realism, CH Precision introduces a foundational innovation: the physical and functional separation of digital processing and analog conversion. Dividing these tasks between two purpose-built chassis—the C10 Conductor and C10 Master DAC—minimizes noise, enhances timing precision, and elevates musical transparency.

The C10 Conductor serves as the system's digital hub, managing source selection, analyzing input signal phase and frequency, and executing synchronous upsampling via multiple DSP modules. Based on this real-time analysis, it transmits audio data and clocking commands to the Master DAC over the proprietary CH-Link—a low-noise LVDS connection designed for signal integrity.

All digital processing and DSP functions are removed from the C10 Master DAC, eliminating potential sources of noise and interference. Isolated from DSP-related activity, the C10 Master DAC focuses exclusively on D/A conversion. Guided by commands from the Conductor, it employs a temperature-stabilized master clock and CH's advanced DSQ phase array to deliver analog output with sub-femtosecond timing accuracy and remarkable phase coherence.

Each chassis features its own power supply: the Conductor is powered independently, while the Master DAC can be configured with either a single stereo supply or dual mono PSUs [pictured configuration] for enhanced separation and performance scalability.

This disciplined separation of roles not only improves stability and upgrade potential—it reveals deeper textures, greater nuance, and the full emotional intent of the recorded performance.

[More on the Next Page](#)



The D10 Reference Transport— Redefining Optical Disc Playback

The D10 represents a profound evolution of the optical disc transport, building on the acclaimed D1.5 while integrating transformative advances in mechanical design, vibration control, and data retrieval. Drawing directly from CH Precision's accumulated expertise, the D10 redefines what is possible in the extraction of digital information from physical media.

At its core lies CH Precision's proprietary MORSE mechanism—Mechanically Optimized Reading & Stability Enhancement—an in-house innovation engineered to achieve reference-level precision. Improving on the D1.5 single material approach, the D10 transport mechanism adopts a hybrid composite architecture, with brass core encased in an aluminum exoskeleton. This dual-material construction offers a balance of mass and internal damping: the brass provides density and thermal stability, while the aluminum skin improves stiffness and resonance control. The result is a mechanically silent platform that minimizes parasitic vibrations and transmission paths.

The entire laser assembly is mounted within this composite structure and suspended via alpha-gel isolators, yielding exceptional decoupling from external vibrations and mechanical chassis noise. Weighing over 13 kilograms, the D10's transport mechanism is more than ten times heavier than that of the D1.5. This increase in mass not only enhances mechanical grounding, but also pushes structural resonance frequencies below 20 Hz, effectively eliminating interference within the audio band.

The D10 employs a precision circular level, mounted directly on the transport mechanism—not the chassis—allowing for meticulous calibration of the disc's rotational plane. This ensures that the optical pickup maintains exact azimuth and tracking angle, even under dynamic disc rotation, further optimizing error correction and read accuracy.

By addressing every mechanical and vibrational variable with extreme care, the D10 preserves the timing, detail, and nuance embedded in the digital signal—elements often compromised by less exacting designs. In doing so, it delivers a playback experience of unmatched musical realism and temporal fidelity, reaffirming CH Precision's position at the forefront of digital audio innovation.



[More on the Next Page](#)

The D10 Transport: Silence. Stability. Sonic Truth.

A motorized top-loading mechanism provides vertical access to the Disc Vault, sealed by a hybrid-action door that reflects the same engineering precision and intent found throughout. Every mechanical choice has been made in service of the music—capturing each disc with absolute accuracy and unlocking a level of resolution, space, and natural expression that redefines what optical playback can achieve.

Like all 10 Series components, the D10 operates with a dedicated external power supply. Designed with current and voltage reserves equivalent to those of many high-performance amplifiers, the D10 PSU provides stable, low-noise power to the transport. Four galvanically isolated domains independently feed the transport motor, control system, DSP, and master clock, eliminating inter-domain interference. Cascaded regulation ensures consistent voltage and current across all subsystems.

With a total system weight of 66 kg, the D10 sets a new benchmark in mechanical and electrical stability for optical playback. It supports all major disc formats, including SACD, CD, and MQA-CD, ensuring broad compatibility without compromising performance. This foundation enables precise data retrieval, enhanced resolution, stable imaging, and accurate temporal structure—faithfully revealing the full content and artistic intent embedded in every recording.

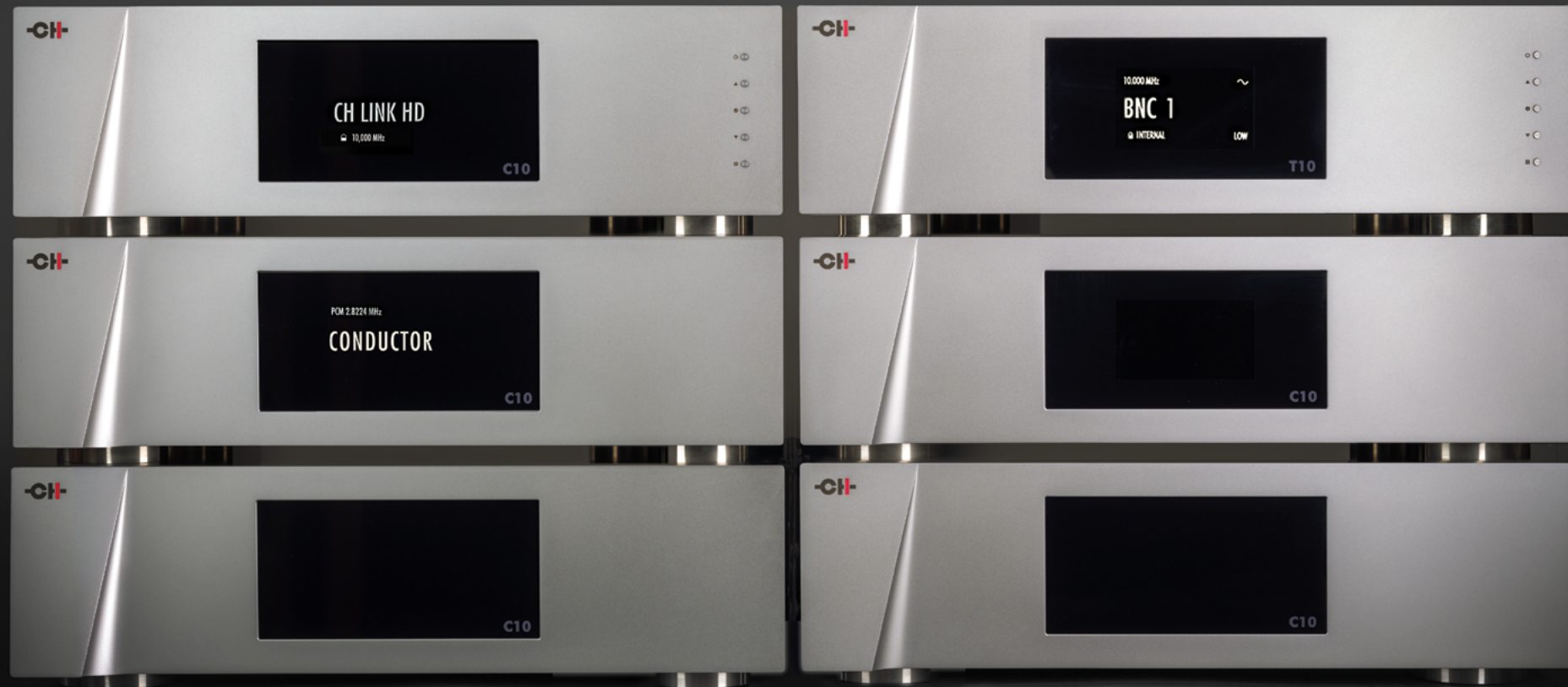


[More on the Next Page](#)

The T10 Master Clock

In digital audio, precision in the time domain is not simply desirable but essential. Every sample, each microscopic data point, must arrive in perfect sequence and at precisely the correct interval. The C10 Master DAC already incorporates state-of-the-art clocking, improving further when paired with the C10 Conductor. Adding the T10 Master Clock elevates timing accuracy to an even higher standard, unlocking greater clarity, coherence, and musical expression. The T10 produces a hyper-accurate, low-jitter clocking signal with vanishingly low phase noise, ensuring digital data is transferred and converted with unwavering stability.

Pairing a transport with a separate DAC can introduce timing errors caused by independent clock domains. Even slight discrepancies can result in jitter, diminishing resolution, and musical coherence. The T10 Time Reference Clock addresses this by providing an ultra-stable timing source for the entire system. Its 10MHz oven-controlled oscillator (OCXO) is renowned for low phase noise and is thermally stabilized within a solid billet aluminum block to ensure consistent performance. Referencing all digital components to the T10 reduces timing errors, unlocking deeper resolution, spatial precision, and musical flow.





The 10-Series Digital Family: Scalable Architecture, Uncompromised Performance

The CH Precision 10-Series features a modular digital architecture, where each component is engineered to function independently or as part of an integrated system. The C10 DAC features CH's DSQ™ Phase Array architecture for precise D/A conversion; the D10 employs the proprietary MORSE transport mechanism for the pinnacle of optical disc reading; the C10 Conductor provides centralized digital control and processing; and the T10 Master Clock ensures absolute temporal coherence across the system.

The system's modular platform is designed for scalability. The C10 DAC, already at the cutting edge of performance, forms the foundation. Performance is further elevated by adding an additional C10-PSU, the C10 Conductor, or the T10 Master Clock—each contributing to greater precision, clarity, and musical realism. The D10 Reference Transport is an ideal choice for any system demanding the highest level of optical playback performance. This architecture preserves initial investment while delivering measurable gains in resolution, timing precision, and musical transparency. Rooted in scientific rigor and precision engineering, the 10-Series redefines digital reproduction—bringing the listener closer to the recorded performance and the artist's intent.





Pricing and Availability

C10 Master DAC & C10-PSU: \$95,000 [Available Now]

C10 Conductor & C10-PSU: \$75,000 [Available July, 2025]

D10 Reference Transport & D10-PSU: \$95,000 [Available July, 2025]

T10: \$26,500 [Available Now]

C10-PSU: \$36,000 For Dual-Mono C10 [Available Now]

About CH Precision

CH Precision is a Swiss-based manufacturer of ultra-high-performance audio components, dedicated to the design and production of fully modular, precision-engineered systems. Each product is developed in-house, from electrical and circuit design to mechanical architecture and software, ensuring absolute control over performance and quality. With a focus on signal purity, time-domain accuracy, and long-term scalability, CH Precision offers a complete ecosystem of digital and analog components that evolve with the listener's system. Rooted in engineering excellence, genuine science, and guided by a commitment to musical realism, CH Precision delivers a listening experience that faithfully reveals both the detail and emotional depth of every recording.

Media Contact

Kevin Wolff

Head of International Sales

kwolff@ch-precision.com

Learn more at www.ch-precision.com

Download images [here](#).

Download a text-only version of this press release [here](#).

