

**C.E.C.**

since 1954



## CEC DA 0 3.0 - D/A Converter

Universal DSP controlled discrete resistor ladder 32bit/384kHz Audio DAC

The new CEC DA 0 3.0 represents the original multibit DAC concept with the most sophisticated implementation and highest precision. We based the solution on the best technology available and applied our knowledge and experience taking the design to the extreme.

The CEC DA 0 3.0 uses a concept called R2R ladder. This is a resistor matrix that is switched for the various output levels outputting a fraction of an internal reference (much like a volume control). In order to bring the performance of multibit DAC's to new levels the only solution is to build them from discrete components as there are no off the shelf chips good enough. This involves the selection of ultra precision resistors, thermally coupling them and building a very fast and sophisticated switching logic to

control them. The result is an order of magnitude better performance than what is achievable by IC based solutions. To take advantage of the available resolution and bandwidth we had to implement a state of the art digital pre-processing. This is a suite of algorithms that would apply digital filtering and upsampling to the incoming data stream. After processing a 16bit 44.1kHz CD data stream it is converted to 32bit 352.8kHz data fed directly to the DAC. This greatly improves low-level resolution and the sense of space. The process is all user controllable and defeatable for purist band non-oversampling use. Apart from taking the uncompromising approach of using discrete ladder technology we have taken exceptional care of the construction and operation of each circuit within the DAC.



The ultimate task of a high end audio component is to breathe life into reproduced music and convey to the listener that the soul of the performer lives in each musical event. Test reports in international magazines as well as the testimony of our satisfied customers worldwide confirm that we have achieved our musical objective: **music reproduction on its highest level.** More information: [www.cec-international.com](http://www.cec-international.com)

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## CEC DA 0 3.0 - Universal DSP controlled Audio DAC

The CEC DA 0 3.0 uses transformer or optical decoupling of all inputs, meaning that contaminated ground connection and other interfering signals don't make it to the inside of the unit. The CEC DA 0 3.0 has no output filter at the DAC output providing the cleanest possible output signal, just a transformer matching the impedance of the converter resistors to the outside world and isolating them from external influence. The CEC DA 0 3.0 uses completely separate power supplies for each block in the DAC: the Converters, Clock, DSP and Control logic all with floating ground planes and our unique constant current regulator technology. Then the whole assembly is mounted into a solid aluminum case for vibration damping and EMI/RFI screening. The CEC DA 0 3.0 is a league of its own considering all currently available high end DAC's.

The feature list includes among others: Multibit conversion, DSD64 and DSD128 support, 1ppm resolution, transformer isolated output, no I/V conversion or output buffers, no filtering after D/A, total galvanic isolation of internal circuits from outside world, Internal clock generators, selectable reclocking, selectable upsampling, selection of 4 digital filters.

The CEC DA 0 3.0 D/A converter is the ideal counterpart for CEC's wholeheartedly recommended CD Belt Drive Transport TL 0 3.0. You get music reproduction quality at its finest. The calm, supreme composure and confidence with which the TL 0 3.0 and DA 0 3.0 produce music together recall the playback by an analogue mass-loaded turntable. The concentrated application of know-how, innovative capacity and decades of experience have quite obviously paid off.



CEC SUPERLINK Digital Signal Transmission System Connection was redesigned for the new DA 0 3.0. SUPERLINK is CEC's proprietary digital signal transmission system that transports music signals and synchronization (clock) signals with separate cables. The SPDIF- and AES/EBU- systems, commonly used in coaxial digital outputs and optical outputs, transmit both the music and clock signals through the same cable, and thus are prone to jitter effects caused by the signals interfering with each other. CEC's SUPERLINK system transmits these signals separately with multiple cables, requiring no encoding/decoding process for data transmission. It minimizes deterioration of the music signal during transmission by using the clock signals from the D/A converter's master clock generator to achieve complete synchronization. CEC combines the best drive system, a very excellent transfer concept and precise signal processing to create a CD drive/converter package with superior sound quality - to pack more into these products is currently unimaginable.

more information: [www.cec-international.com](http://www.cec-international.com)

DAC	Universal DSP controlled resistor ladder 32bit/384kHz Audio DAC
Power Supply	AC 120-230V / 50-60Hz
Digital Input	<ul style="list-style-type: none"><li>• SUPERLINK: (BNC x 4) 2.5Vp-p/75Ω</li><li>• Coaxial (SPDIF): 0.5Vp-p/75Ω</li><li>• TOS (optical): -21~-15dBm EIAJ</li><li>• AES/EBU (Balanced XLR; HOT=2):</li><li>• USB 2.0: PCM 32bit/32-384kHz, DSD 64/2.8224-128/5.6448MHz</li></ul>
Analog Output	<ul style="list-style-type: none"><li>• balanced XLR connectors</li><li>• unbalanced RCA connectors</li></ul>
Digital Filter	Selection of 4 digital filters
Consumption	30 W
Dimensions	432 (W) x 400 (D) x 120 (H) mm
Weight	21 kg
Color	Silver

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