

DIGITAL...HERE WE ARE AGAIN



Unico CD Uno

After introducing the Unico CDDue last year, Unison Research is now confirming its presence in the world of digital audio with the new CDUno.

The Unico CDUno is a high-specification DAC with integrated CD mechanism that is flexible and customizable. The CDUno combines Unison Research's high-end sound quality with the broad playback possibilities offered by today's digital audio solutions. The CDUno will allow you to play back all the music formats and sampling rates currently available on the market.

The UnicoCDUno boasts a wide variety of inputs and outputs. On the back-panel there are inputs for USB and Toslink™ cables, and built inside the housing is a Bluetooth™ receiver that allows for wireless streaming from compatible devices.

The audio stage uses one 12AU7//ECC82 double triode, operating in pure class A, followed by a solid state discrete buffer still operating in class A for a low impedance output and ideal audio behavior.

Aesthetically the CDUno, like the CDDue, differs from existing Unico products with its new three-fold faceplate, white LEDs and white display. This same aesthetic will pass over to the new Unico 90 and Unico 150 amplifiers, which are designed to be perfect matches for the CDUno and CDDue.

Features

The UnicoCDUno is a simple to use but feature-rich player.



The new 128 x 64 resolution graphic display uses white OLED technology for excellent visibility in all lighting conditions and from any angle. The "Display" function on the remote control allows you to turn off the display so you can enjoy listening without any illumination. The display shows the most important information in large fonts, and additional information in smaller fonts

The flexibility of the CDUno is best expressed by discussing each input as well as the overall design.

USB

The USB input of the CDUno uses a latest-generation D/A converter to manage signals up to 384kHz PCM and 11,2896MHz DSD, which effectively covers you for almost every format and sampling rate currently available.

Bluetooth

The small screen on the back panel of the CDUno masks the built-in aptX Bluetooth aerial that allows for music playback from compatible smartphones, tablets and computers. Set-up is quick and easy with any compatible device.

Digital inputs

Coaxial S / PDIF, balanced AES / EBU and optical Toslink

You can connect the CDUno external digital sources such as satellite receivers, digital recorders, digital mixers, etc.) There are three digital inputs on the panel .These inputs accept up to 192kHz and 24 bit (96 kHz and 24 bit via the optical input). Note that the coaxial inputs accepts balanced and also transfer signals encoded DSD64 DoP.

CD

The reading mechanism is a sleek drawer "slim" design and can only read audio CDs. The mechanism is enclosed and shielded by a thick metal cover.



Digital outputs

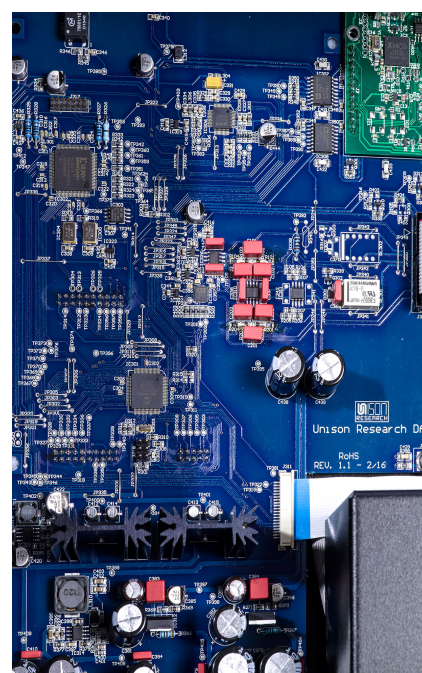
The CDUno can even be connected to another external DAC via the coaxial S/PDIF output.

DAC board and features

The CDUno has been designed to separate the digital section from the analogue one.

The DAC section contains 8 stabilized power supply rails to ensure a clean and distinct delivery to each device on the board. Additional stabilisers are employed to ensure optimal sensitivity from the power supply; the first stabiliser acts as a filter, and the second removes any residual noise. All this has been done to ensure the DAC can operate in the best conditions possible.

The current-voltage converters NE5532AD are "very-low distortion" and use quality components including Wima capacitors and Vishay resistors.



The use of an FPGA allows for faster response times in the management of the digital data, as well as specialized functionality and greater power when compared to DSP processors.

The ESS Sabre DAC ES9018K2M with jitter eliminator offers an exceptional signal-to-noise ratio of 125 dB and a low distortion 0.0003%. The timing system is given by a quartz oscillator with high precision and low phase noise.

It is possible to select from three different types of digital filters:

F1 filter high slope and linear phase

F2 filter high slope and minimum phase

F3 filter low slope and linear phase

The three filters have characteristics which favour certain types of sound (temporal coherence, phase coherence or impulse response) and this allows the user to select the digital filter that best suits the installation, registration and your tastes.

You can also reverse the absolute phase of reproduction in the CDUno menu.

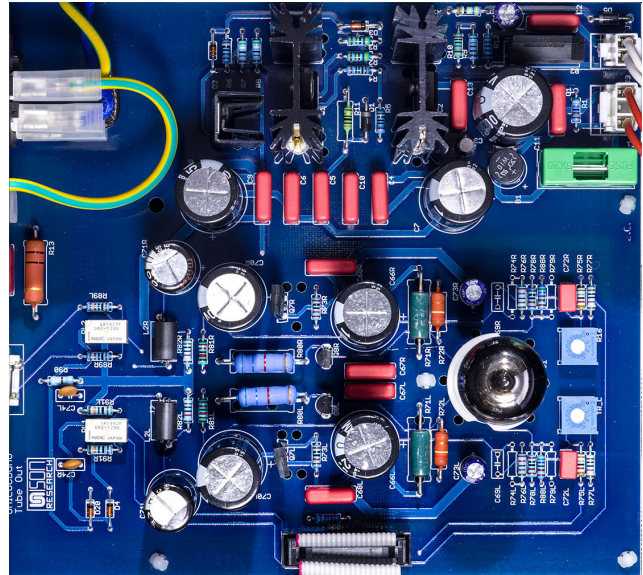
One more function is the capacity to bypass tube section for have a " solid-state" sound



Valves Output stage :

The tube stage uses two stabilizers, one for the anodic supply and one for the filaments.

The path of the masses of signal and power have been designed in a particular way so they are combined in a "stellar-like" connection in the center of the board. From this point you see the mass connection to the DAC board as a way to reduce noise and disturbances.



The CDUno has been developed through both extensive listening sessions and a meticulous R&D process. The result is an innovative product that accommodates the world of digital audio and delivers it to your system with a rich valve sound.

The audio stage is designed around a single 12AU7//ECC82 double triode operating in pure class A, defining the sonic performance of the unit, followed by a solid state discrete buffer still operating in class A for a low impedance output and ideal audio behaviour. The totem pole circuit is also used in the One and 150 in the Only 90 of the same line of CDdue.



Technical Specification

Digital Input:	<u>1 x USB</u> : Standard: USB 2.0 Audio Class frequencies: 44.1, 48, 88.2, 96, 176.4, 192, 352.8, 384, DSD64, DSD128, DSD256 Ready Resolution: 16 to 32 bits
	<u>1x Toslink™</u> : Sampling frequencies: 44.1, 48, 88.2, 96 (176.4 and DSD64 DoP with high efficiency transmitters) Resolution: 16 to 24 bits
	<u>1 x Bluetooth™ Receiver</u> : Standard: BT 3.0 Profiles: A2DP, SSP (HID supported with Android smartphones through SPP) Sampling frequencies: 44.1kHz, 48kHz Resolution: 16 bits
Digital Output:	1x S/PDIF: Output voltage: 0.5Vpp on 75 Ohms
Transport:	8829CD-KHM DVD-Loader , Only audio CD
Display:	128 X 64 White OLED graphic display
Digital to Audio stage:	DAC: ESS Sabre ES9018K2M with jitter eliminator SNR: 125dB (0dBFS, 1kHz, 192kHz, "A" weighted) THD+N: 0.0003% (0dBFS, 1kHz, 20Hz-20kHz) Timing: low phase noise, high precision crystal oscillators
	IV converter: NE5532AD high-performance, very low noise, use high-quality components like wima capacitor and wishay resistor

Output Audio stage:

channel: 2

Output stage: Duple Triode, pure class A

Valve complement: 1 x 12AU7/ECC82

Output audio connectors: 1 x RCA stereo

Optional buffer: NE5532AD output buffer that bypass tube stage, can be activated by remote control

General Specification:

Remote control: 1 x Infrared in wood and metal

Disc Formats: CD Audio

Power consumption: 100W max

Dimension: 45cm x 38cm x 13cm

Net weight: 10Kg