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Cyrus ONE family gets digital

Building on the huge success of the Cyrus ONE, the ONE_{HD} ups the ante by adding an on-board DAC and digital inputs including DSD and asynchronous USB, as well as being one of the first Hi-Fi products available to support Bluetooth apt-X HD streaming. The ONE_{HD} follows the “just add speakers” system-in-a-box philosophy of the ONE, with the all original ONE’s amazing performance and functionality as well as the new digital source capabilities.

- 4th Generation of Cyrus’s Hybrid Class D amplifier design, delivering 100 Wpc
- Improved pre-amp section bringing a more refined sound with improved dynamics and rhythmical control
- 32-bit DAC supporting up to 32/192kHz files and DSD 128
- Co-axial, optical, and asynchronous USB B inputs
- Bluetooth aptX HD® for streaming
- Cyrus high performance sonic characteristics, very open soundstage, wide 3D imaging, incredible levels of detail and exceptionally good hold of low frequencies
- Speaker Impedance Detection for perfect matching with loudspeaker
- High performance moving magnet phono stage
- High performance high current class AB headphone amp
- RRP Cyrus ONE_{HD} £999 (Cyrus ONE £699)

DIGITAL CREDENTIALS

The ONE_{HD} adds a whole digital section to the Cyrus ONE. Centred around a high-end ESS Sabre DAC, the unit offers optical and co-axial digital inputs as well as an asynchronous USB B input for connecting a laptop which can handle up to 32/192k files as well as DSD 128.

This is the first time that Cyrus has used a DAC from the ESS stable, in preference to a Burr Brown. However, over recent years, ESS have really advanced their high-end DACs, and now offer better performance at this level, and at Cyrus we always want to use the best components available. This meant that the R&D team has spent a long time tuning the DAC implementation to ensure that even with a DAC from a new stable, the ONE_{HD} still carries the Cyrus sonic signature that customers expect.

The Bluetooth input has also been upgraded to aptX HD, which is the highest quality Bluetooth available, better than “CD quality” aptX. The ONE_{HD} is one of the first true Hi-Fi products to carry this. Compatible smart phones (that can output aptX HD files) are currently rare but will become more commonplace over the next few years.



PERFORMANCE TWEAKS

The Cyrus team has also taken the opportunity to tweak a few areas of the core ONE platform. A number of improvements have been made to the Hybrid class D power amplifier section, so many in fact that Cyrus has christened this the 4th generation of this technology. The results of these changes enable the music to be tracked more accurately giving better rhythmical control, as well as improved imaging.

The pre-amp section has also had a re-vamp, with higher quality components, such as polypropylene capacitors being used in the signal path and upgraded op amps. This has had the effect of increasing the low frequency bandwidth which has helped improve the amplifier's dynamics.

Many of the power supplies have also been redesigned, including upgrading some of the components, particularly again in the pre-amp section, to help clean up the overall presentation.

The phono stage has been moved to a separate daughter board, to give it better noise insulation leading to a lower noise floor and therefore improved performance. The actual circuit design has not changed as it already used the same design principles as the highly acclaimed Cyrus Phono Signature.

There is no supplied remote control, as this is done via the Cyrus ONE app (available for iOS and Android), which then communicates to the amp using Bluetooth LE, embedded on the same chip as the aptX HD. This clever dual-purpose use of the same chip is similar to the technology employed by Apple on their latest earpod headphones. The advantage of using an app over Bluetooth as a remote is that you don't need line of sight to control the amp. More traditional customers however will be pleased to hear that the ONE_{HD} is IR remote compatible. IR codes are available on the website or it can be controlled by the existing Cyrus main system remote.

ALL THE ORIGINAL ONE FEATURES

- **High Power – Highly Efficient Power Amp Delivering True Hi-Fi**
The power amp section of the ONE_{HD} delivers 100 watts per channel and yet generates very little heat. A number of technology innovations have enabled the Cyrus R&D team to generate true high-fidelity performance from an amazingly efficient design. This low heat generation not only means the amplifier is running at optimum operating temperature within seconds of switch on, eliminating the need for low power stand by, but also increases product longevity and reliability, with critical components not being exposed to a high temperature environment.
- **Exceptional High Current Output for Amazing Dynamic Control**
Not only is the Cyrus ONE_{HD} a very high-power amplifier at 100 wpc but also has huge current delivery capability – up to 78A pulsed current per channel.



This high current ability not only enables the ONE to drive even the most difficult and exotic speakers, but also gives the amplifier extraordinary control over the lower registers. Bass lines always sound tight and controlled as well as tuneful and the vast dynamics of a bass drum kick is consummately controlled.

The power supply design also helps support this dynamic ability by using a clever mix of electrolytic, poly and ceramic capacitors to get a very fast response rate as well as huge reserves of power.

- **Extremely Low Noise Design**

Every element of the design and the circuit lay out incorporates elements to reduce the susceptibility to noise. The ONE_{HD} uses a buffered analogue volume control to maintain a consistent Signal to Noise ratio at all levels. Setting the volume control in the analogue domain means that any background noise will reduce as the signal reduces. All the analogue audio circuits are towards the rear of the unit to shorten the audio signal paths and thus reduce the potential for noise.

- **High Performance Headphone Amp**

The class AB current feedback design is the same as the original ONE, although improvements in the pre-amp section of the amplifier will feed through to better performance here.

Total harmonic distortion (THD) is better than 0.005% and the signal to noise (S/N) ratio is better than 110dB. Output power is 2 x 1W and the high current output is powerful enough to drive any headphones all the way from 8Ω and 10kΩ impedance. The headphone amp has a 1200V/μs slew rate which means it is very fast and extremely responsive and therefore exceptionally accurate. This phenomenal agility makes for a superbly fast and dynamic sound.

Perhaps the neatest feature is the intelligent high-power supply design. When headphones are connected, the ONE disconnects the power supply from the main amplifier and switches it over to powering the headphone amp, so when in operation, the headphone amp benefits from all the massive power capability of the entire unit. This way the power supply is dedicated to performing only one function at a time, either powering the main amplifier or the headphone amp, not both at the same time. This gives a better performance to both functions.

- **Moving Magnet Phono Stage**

To cater for the growing number of new vinyl owners, the ONE_{HD} features a moving magnet phono stage. High performance values are maintained here, as this circuit uses the same design principles as featured in Cyrus's highly rated Phono Signature.



- **Home Theatre and AV Compatibility**

As well as being an outstanding two channel system, the ONE_{HD} can be integrated into an AV set up. The AV input is set up as variable but can be turned into a fixed gain to give -6db which is the Cyrus standard for AV. This means that any other Cyrus amplifier can be used in conjunction without any differences in gain. It is not possible to accidentally put the unit into this mode – a series of safety measures have been introduced to stop this from happening.

- **Speaker Impedance Detection (SID)**

Each time the Cyrus ONE is powered up it sends a signal to the attached speakers and measures their impedance. The amplifier then adjusts itself, matching the amplifier's output response to the electrical load of the speakers, to ensure it is configured to optimally drive those particular speakers. This all happens in the first couple of seconds from power on (during the LED start up sequence).

This feature, combined with the huge current ability, means that Cyrus ONE is capable of driving almost any loudspeaker.

TECHNICAL SPECS

Connectivity - Digital
USB B (32/192) Asynchronous - DSD 128 support
1 x co-axial (24/192)
1 x optical (24/192)
aptX HD® compatible Bluetooth
Connectivity - Analogue
Built-in MM phono stage
3 additional line level inputs, including fixed gain AV bypass
Pre-outputs for connection to additional power amplifiers
High power, high voltage class AB headphone amplifier
Bi-wire compatible speaker binding posts
Technical Features
Cyrus 4 th generation Hybrid Class D amplifier.
2 x 100W into 6 Ω
Large toroidal transformer
Linear power supply
Exceptionally cool running, very energy efficient, up to optimal operating temperature in under 30 seconds.
Remote control app, over Bluetooth for control even when not in line of site
User upgradable firmware
Dimensions
(H x W x D) 85 x 220 x 390mm
Weight: 5.6kg



About Cyrus Audio

Cyrus is an English, specialist audio company, manufacturing precision hi-fi equipment. Built around its Research and Development team, Cyrus is internationally recognised as a leader in audio engineering. For over 35 years the design philosophy has been to engineer the very best performance possible within three ranges of models; all built in Huntingdon, with increasing levels of performance, each directly profiting from the technology developed for the range above it.

The Cyrus sound is an intentionally tuned acoustic picture, where a vast soundstage, deep tuneful bass, precise timing and open expressive vocals are prime values.

Press contacts

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To access the AV Direct mode on the ONE, the following needs to be done:

Open app and connect to unit

On the app, go to settings

Press AV Direct

Follow app instructions

(last 3 lights on volume lit = AV Direct mode)