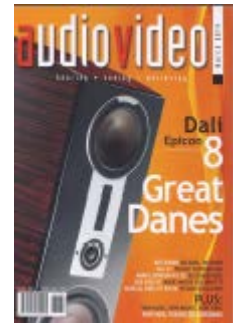


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Audio Video Magazine South Africa  
ADL X1 Review

March 2014



Together with the surprising resurgence of vinyl, the demand for headphones (and associated ancillaries) has literally exploded over the past few years.

There could be several reasons. The emergence of the smartphone as a multimedia device is certainly one of the strongest contributing trends, encouraging smartphone users to upgrade from the standard, and often pedestrian, in-ear sets to something better and more comfortable.

Headphones, especially the over-ear types, are also a way to provide privacy in public spaces, be it an airport departure lounge, a commuter train or a shopping mall. And given that our home living spaces are shrinking, headphone usage at

home has also become more common.

However, let's not underestimate the impact of value for money: given that an iPhone's sonic output is quite reasonable (especially when it's playing something better than low-res MP3 files), the combo of smartphone and a decent set of headphones can sound surprisingly good.

What does all of this have to do with the ADL X1? Well, everything. The X1 is a portable headphone amp/DAC that recognises the need for a highly mobile device able to extract the maximum sonic potential from the likes of iPods, iPads, iPhones and other smart devices.

ADL is no stranger to this genre: the ADL Cruise is also a portable headphone amp with integrated Wolfson DAC, a stylish, curved enclosure and a very sexy,

polished carbon finish. But the X1 bats in a higher league in almost every respect.

For starters, it's more portable and more user-friendly, thanks to a slim, rectangular shape that's compact enough to be attached to your mobile device with the silicone strap supplied. The aluminium/composite case is light, but feels reassuringly rugged.

The front of the X1 is occupied by a rotary control that acts as both an off/on switch and a volume control. The headphone input is a 3,5 mm stereo jack, and there's also a 3,5 mm stereo analogue input, which will accept any line-level source signal.

The rear panel is even more interesting. A USB Type A socket is flanked by a USB Mini-B socket on the one side, and a

3,5 mm minijack on the other. The latter is one of those combination outputs that act as both an analogue output, and a mini-Toslink digital output source.

Thus, the X1 can drive two headphone sets simultaneously, although ADL warns that its best to use pairs with similar (and not too challenging) impedances. Alternatively, you can feed the digital signal from the mini-Toslink socket to a standalone DAC.

But for many would-be X1 users, the fact that the USB Type A input allows the X1 to accept audio signals from iOS devices in the digital domain, using Apple's 30-pin or newer Lightning-to-USB cables, will be a key attraction. The arrangement should work with

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even connect the X1 to your main audio system, and run it as a USB DAC. If your amp doesn't have a headphone socket, then the X1's headphone amp will be useful in this application, too.

You could even use the ADL's optical digital output to process the digital signal by another, perhaps better DAC, but frankly, I don't think too many users will go that far. After all, the X1's own ESS DAC does a pretty good job.

I did much of my review listening with the X1 in a desktop headphone amp/DAC role, with my MacBook Pro running Audirvana Plus software hooked up to the little device via a Furutech GT2 cable. I chose Sennheiser's superb Momentum

almost all fairly recent iOS devices, including iPods, iPads and iPhones.

As the X1 doesn't offer upsampling, D/A conversion remains at the native 44,1 kHz/16-bit, but it's still a darn sight better than relying on analogue signal delivery.

The USB Mini-B interface is an asynchronous, 192 kHz/24-bit XMOS device designed to be connected to a Mac or PC. It not only allows the X1's internal battery to be charged, but also provides an asynchronous USB audio path, with a maximum 192 kHz/24-bit resolution, thanks to the X1's ESS 24-bit DAC chip.

Okay, so it's pretty clear that this is a full-featured and versatile little unit that can be employed in a variety of ways. You can link your iDevice to the USB Type A socket, and listen to the result using decent headphones – probably the most common application while on the move.

Back at the office, or in your study, you could run the X1 as a desktop headphone amp/DAC, using your PC or Mac as the source, and connecting it to the ADL via the USB Mini-B interface. That way, you'll also keep the X1's internal 1 650 mAh li-ion battery charged.

Analogue sources, as mentioned, can be hooked up via the analogue stereo minijack input. And if you have a minijack-to-stereo RCA interlink, you could

## VITAL STATS

DAC.....	ESS-ES9023, 24-bit/192 kHz
USB .....	Asynchronous XMOS, 24-bit/192 kHz
Analogue inputs .....	3,5 mm stereo minijack
Digital inputs .....	USB Type A, USB mini-B
Analogue output.....	3,5 mm stereo minijack
Digital output .....	3,5 mm mini-Toslink
Headphone output .....	34mW (12 ohm) – 19 mW (600 ohm)
Frequency response .....	20 Hz – 20 kHz (±0,5 dB)
Signal-to-noise ratio .....	95,5 dB/32 ohm – 102,1 dB (600 ohm)
Charge time .....	±7 hours (USB bus, 0,5A)
Playback time .....	Up to 7,5 hours
Dimensions (WxDxH).....	68 x 118 x 16,5 mm
Weight .....	147g

PRICE..... R5 100

### VERDICT

Versatile, portable and light, yet rugged, the biggest surprise is how musically competent this little headphone amp/USB DAC actually is. Music on the move will never be the same again!

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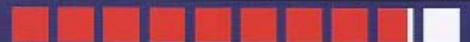
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OUR RATING: 88 / 100





over-ears as the primary recipient of the X1's signal, but also challenged its capabilities with my reference Sennheiser HD-800s, and a more portable pair of on-ear B&W P3s.

Kings of Leon's *Mechanical Bull* may not be everyone's cup of tea, but it's

smoothly and competently executed rock, recorded with plenty of space, presence and grit. It's an album that sounds big if projected properly, but

just ordinary on lesser systems.

A stern test thus for a tiny box of tricks – and wow! The X1 sounded gutsy and boisterous from the outset, grabbing the music by the horns, and displaying a real

talent for pace and punch.

I liked the accessibility of the delivery, helped along by one of those wide-open soundstages that ensured an immersive

listening experience. The clarity of the sound made every instrument individually come alive, so that every guitar riff, every bass lick, every snare drum snap, was perfectly, wholesomely presented.

Somehow, I had expected the X1 to sound clean, even clinical. But while it did provide a clear and open window on the music, it did so without losing sight of its soul and essence. While never attenuating the upper trebles, the sound was smooth and engaging.

The midrange delivery was wholesome without becoming bloated, and the lower registers had just the right amount of pace and power to sound almost tactilely convincing – something I'm more used to experiencing when listening to muscular systems with big transducers.

Moving on to Paul McCartney's disconcertingly youthful *Music*, the X1 managed to capture the exuberance of the performances, but also the deeper complexities of the layered production. Again, there was a sense of the DAC finding more in the music than was initially apparent – more detail, a larger canvas, richer hues, and an ability to capture both notes and nuances.

When I swapped the Momentums for

## Associated Equipment

Sennheiser HD800 stereo headphones  
 Sennheiser Momentum stereo headphones  
 B&W P3 stereo headphones  
 ADL Esprit headphone amp/USB DAC  
 iPhone 4S  
 iPod Classic 160g  
 13-inch MacBook Pro/Intel Core i7 processor, 2,7 GHz/8 Gb RAM

## Software

Arctic Monkeys *AM* (Domino Digi)  
 Dan Patlansky *Wooden Thoughts* (Home Grown Digi)  
 Gustav Mahler *Symphony No.9* - Valery Gergiev/London Symphony Orchestra (B&W Digi)  
 Kings Of Leon *Mechanical Bull* (RCA Digi)  
 Renee Olstead *Skylark* (Reprise Digi)

the HD 800s, I expected the X1 to run out of steam just a little. This is a taxing headphone, designed to match the high-end status of the ancillaries it's usually paired with. But the X1 took the challenge in its stride, despite having to power a big (by headphone standards) pair of diaphragms, and dealing with a 300 ohm impedance.

I purposely selected the Arctic Monkeys' latest release, *AM*, because of its driving bass, jangling guitars, solid percussion and soaring vocals. 'R U Mine' can turn into a fuzzy mess on the wrong system, but the X1 kept everything nicely in check, without stifling the energy and zip of the music.

Staging was again a highlight, with the X1 not embarrassed by the revealing nature of the HD 800s, and using its penchant for extracting fine ambient clues to create a compelling, enthralling listening experience.

Completely different is Dan Patlansky's acoustic latest release, *Wooden Thoughts*, which is not only a showcase for this virtuoso blues guitarist's stellar technique, but also manages to capture the depth, the zing, the very life of his instrument.

This was perhaps the most impressive of the varied and consistently enjoyable listening experiences in the company of the X1, perhaps because the recording's

closely attentive and starkly realistic focus on the guitar allowed the X1's own ability to capture the essence and harmonics of the instrument to be brought impressively to the fore.

And so, I found myself becoming completely involved in every recording I listened to – from the expansive soundscapes of Gustav Mahler's *Symphony No. 9*, so emotively portrayed by the London Symphony Orchestra under Valery Gergiev's passionate guidance, to the sassy jazz standards of Reneé Olstead on *Skylark*.

Here's something else that surprised me: when I swapped my MacBook for my iPhone 4S, and ran the X1 in its intended mobile role, the sonic traits described above were perfectly maintained, despite that I was now listening to the music in non-upsampled 44,1 kHz/24-bit resolution.

There was the same seamlessness, the same meaty tonality, the same airy staging. And having swapped to the B&W P3s for this mobile application of the X1, it was also clear that the solid bottom-end, the pace and the finely focussed stereo imaging had also been retained.

Using the X1 with an analogue source by running a line-out minijack cable

from my iPod Classic to the X1 was a definite step back, despite identically encoded files. Clearly, that ESS DAC chip's talents are not to be scoffed at – and besides, much of the sound then relies on the source component's inherent capabilities.

I saw little point in feeding a digital signal from the X1 to another DAC – there seemed no need for any digital reinterpretation of the music.

Indeed, let's not lose sight of the X1's reason for being. First and foremost, it's been designed to improve the music on the move experience from sources such as iPhones and iPads by offering optimised D/A conversion and the benefit of succinct, dedicated amplification.

It's also a perfect, compact and user-friendly desktop listening solution, with a computer and decent music playback software acting as the source. The battery pack's seven-hour playback time isn't exceptional, but should suffice in most cases, while ADL's usual impeccable build quality promises the kind of rugged reliability required of a mobile device.

The X1 continues ADL's established tradition for fine electronics, and provides a tempting and musically attractive solution to those who demand quality sonics on the move.

**Deon Schoeman**

