



Small Speakers For Smart People

Complete Home Theater
On Sale From \$999 Today!

Stereo Systems
From \$239



Premier Partner
Samsung



NEWS REVIEWS BLOGS FORUMS TR STORE MAGAZINES VOTE & WIN!

Browse categories Mobile phones Computing Cameras AV Latest Reviews How to buy

Follow us on Facebook iPad 2 Sell your old phone

Where am I? Reviews Audio visual Hi-fi and audio Hi-Fi accessories

All feeds Get weekly Weird Tech email Join TechRadar

HI-FI ACCESSORIES REVIEW

Electrocompaniet PD 1 DAC review

A DAC that improves the sound from your CD player and offers wireless USB connection to a computer? We are all ears

Our Score

Last reviewed: April 26th

REVIEW USER REVIEWS PHOTOS FULL SPEC COMPARE PRICES ALSO CONSIDER

A decade or more back, the rationale for buying an outboard DAC was to upgrade the performance of an older CD player or transport with the latest digital technology. However, now that many current CD players offer upsampling to 24-bit/196kHz as standard, such reasons no longer seem convincing.



The PD 1 delivers sonically and lets you access music on your computer hard drive

But, wait; what about a DAC that has balanced analogue outputs, plus the ability to access and play music stored on a hard drive? Not only do you get the promise of improved sound, you can now link your ripped music to the hi-fi.

The stylish Electrocompaniet PD 1 DAC delivers just such an upgrade. Interested?

High-precision

Like many recent digital products, the PD 1 is based around a 24-bit/192kHz digital-to-analogue converter. The incoming digital signal (say, 16-bit/44.1kHz from Red Book CD) is converted to this higher specification by something Electrocompaniet dubs ASRC (Asynchronous Sample Rate Converter).

A high-precision master clock is used which it's claimed, virtually eliminates jitter at the output – so, even if your sources contain timedomain errors, they're quickly zapped.

Prior to processing, the USB input is likewise converted into standard S/PDIF format by the sampling-rate converter – so it's similar to the other inputs. Audio information from the USB data stream is extracted using low-jitter PLLs (phase-locked loops) and output to S/PDIF.

With the sample-rate converter being 'clocked' by an ultra-accurate reference device any remaining timing errors are further reduced, resulting in an output that is accurate and jitter-free.

The analogue output stage employs discrete transistors running in a pure Class A configuration with no negative feedback. A carefully designed 2-pole linear-phase, anti-aliasing filter further removes any delta-sigma conversion artefacts.

Analogue and digital sections feature individual power supplies for reduced interference. The power supplies for the analogue output stage and DAC employ ultra low-noise tight-shunt regulators, which the maker claims results in a more open and transparent sound, due to reductions in spurious noise. As a result of these measures, the PD 1 effectively 'cleanses' all digital signals that pass through it.



Digital inputs include: 2x S/PDIF (coax via an RCA phono plug); 1x S/PDIF TOSLink optical; 1x USB Type 2; and an RF wireless link for use with the optional EMS 1 music streamer. The S/PDIF inputs support 24-bit/192kHz sampling, while the USB and RF options are 16-bit/48kHz.

There are two sets of analogue outputs: unbalanced (single-ended, RCA phono plugs) giving 1.7-volt output and balanced (XLR) giving 3.4-volt output. This output is variable. The maker claims distortion is less than 0.003 per cent from 20Hz to 20kHz, with noise levels 140dB below peak output over the same bandwidth.

PRODUCT SUMMARY

PD 1



Price at launch
£1,250.00

For

- > Great sound
- > Good build
- > Superb value

Against

- > No 24-bit/192kHz on RF and USB (yet)

SHARE THIS ARTICLE

tweet

ORIGINAL REVIEW FROM

HI-FI CHOICE
PASSION FOR SOUND

Read user reviews powered by reeboo

RELATED LINKS

- TechRadar Reviews Guarantee
- Read more Hi-Fi accessory reviews
- Subscribe to Hi-Fi Choice magazine

Compare phone contracts and SAVE UP TO 40%

Quickly compare millions of phone deals to find the best offer. **GO**

Harbeth Speaker Stands

Foundation stands designed to suit Harbeth P3, C7, SHL5, M30, M40.1. www.planetofsounddistribution.com

Wyred 4 Sound DAC -2

Absolute Sound Editor's Choice 2011 They're back! - €1299 VAT Included www.americanaudioconsultants.com

Analog To Digital

Excellent DC And Drift Performance Extended Temp Range (-40 to 105 °C) TL.com/ADS1209



Ads by Google

Find a review Search reviews

Visit our exclusive Samsung hub powered by TechRadar

CLICK HERE TO WIN A LG OPTIMUS 2X

GET MORE FROM TECHRADAR

- iPhone 5 rumours: what you need to know
- 15 best Android tablets in the world
- 20 best mobile phones in the world today
- Hands on: HTC Wildfire S review
- LG Optimus 2X
- Hands on: HTC Sensation review
- Nokia N8
- Sony Ericsson Xperia Arc
- Amazon Kindle 3
- HTC Desire HD
- Sony Ericsson Xperia Play
- HTC Desire
- HTC Wildfire
- iPhone 4

Nikon D700 for \$76.12 is what I am talking about! Nothing beats this deal on this camera

Debbie, Canada

97% OFF

**HI-FI ACCESSORIES REVIEW****Electrocompanion PD 1 DAC review**

A DAC that improves the sound from your CD player and offers wireless USB connection to a computer? We are all ears

Our Score

Last reviewed: April 26th

[REVIEW](#) [USER REVIEWS](#) [PHOTOS](#) [FULL SPEC](#) [COMPARE PRICES](#) [ALSO CONSIDER](#)

On solo piano, for example, there's definitely an enhanced sense of space and separation, so subjectively the notes start and stop with increased alacrity. Although the PD 1's unbalanced analogue output is slightly lower than the Shanling's – around 1.7V compared to 2V – the PD 1 actually sounds bigger and better-able to project the music, thereby creating a more holographic 'out of the boxes' sort of result.

The PD 1 focuses your attention on the music and performance. It enhances the impression of commitment – making it sound as though the players are involved and concentrating. Used alone, the Shanling seems a tad less disciplined musically. With the PD 1, everything suddenly becomes keener and more precisely focused; more alive and awake. Brass rasps; cymbals shimmer; voices sing out and rock bands rock.

All early comparisons were made using unbalanced analogue outputs, as the Shanling does not offer balanced. Via the PD 1's balanced outputs, the sound grows dimensionally. It's bigger, bolder; with increased separation; a palpably heightened sense of scale. Yet the end-result feels natural too; it's not pumped up or inflated.

Of course, with balanced, the output level increases by between 3dB to 6dB, which is significant in itself. But, even after you've reduced volume levels to bring things back to an equal footing, the sound is still bigger and bolder. It's definitely more assertive and displays increased depth and separation.

Essentially then, the PD 1 offers a two-pronged improvement. Its low-jitter digital conversion and high-performance DAC results in a cleaner more focused sound, while balanced analogue outputs deliver increased scale and dimensionality. The result is a very worthwhile sonic improvement – even over a good one-box player.

There's more. Add the EMS 1 music streamer (£250) and via iTunes you can access music stored on your computer hard drive. Connection is made wirelessly to the PD 1 and currently digital conversion is at 16-bit/48kHz – though it's possible that 24-bit/192kHz conversion may be offered at some future point.

The quality of sound from CDs ripped to a hard drive and conveyed to the PD 1 via the EMS 1 is fine – clear, open, lively and detailed. However, you need to save the disc in a high-quality format like WAV for best results. Saved as AAC, the sound is still good, but seems thinner and slightly lacking in richness and refinement.

Without doubt, the facility to play music stored on your computer hard drive – with a lack of fuss and drama – is alone as persuasive a reason as any to invest in a PD 1.

Compelling package

The PD 1 is an excellent product, delivering worthwhile upgrades in sound quality and user-convenience that many users will appreciate.

As a DAC, it should provide an audibly cleaner, more detailed sound over most one-box CD players. And, if you're able to utilise those balanced outputs, the improvement will be even greater.

Then there's the added benefit of being able to access music stored on hard-drives via the PD 1's USB socket – with the advantage of a wireless interface using the optional EMS 1 music streamer.

It all adds up to a compelling package at a realistic price – indeed, we're sorely tempted to buy one; it's that good!

Follow TechRadar Reviews on Twitter: <http://twitter.com/techradarreview>

Tags: [DACs](#), [digital to analogue converters](#), [Electrocompanion](#)

Me gusta

Regístrate para ver qué les gusta a tus amigos.

PRODUCT SUMMARY**PD 1**

Price at launch

£1,250.00**For**

- > Great sound
- > Good build
- > Superb value

Against

- > No 24-bit/192kHz on RF and USB (yet)

SHARE THIS ARTICLE

tweet

ORIGINAL REVIEW FROM

Read user reviews

**RELATED LINKS**

- [TechRadar Reviews Guarantee](#)
- [Read more Hi-Fi accessory reviews](#)
- [Subscribe to Hi-Fi Choice magazine](#)

Compare phone contracts and **SAVE UP TO 40%**

Quickly compare millions of phone deals to find the best offer. **GO**

WHAT satellite & Companion TV

CLICK HERE FOR LATEST SUBSCRIPTION OFFERS

The ultimate guide to satellite TV

Powered by [myfavourite magazines.co.uk](#)

Find a review [Search reviews](#)

Visit our exclusive Samsung hub powered by TechRadar

CLICK HERE TO WIN A LG OPTIMUS 2X

GET MORE FROM TECHRADAR

iPhone 5 rumours: what you need to know

15 best Android tablets in the world
20 best mobile phones in the world today

Hands on: HTC Wildfire S review
LG Optimus 2X
Hands on: HTC Sensation review
Nokia N8
Sony Ericsson Xperia Arc

Amazon Kindle 3
HTC Desire HD
Sony Ericsson Xperia Play
HTC Desire
HTC Wildfire
iPhone 4

Dell Creative Studio

Powering your IT needs