



Radio Gaga

The hi-fi world is currently going mad for wireless transmitted music, and Electrocompaniet are the latest to offer a solution in the shape of the Prelude PD 1 DAC and EMS-1 Music Streamer. David Price investigates...

There have been more digital to analogue convertors released in the past year than in the ten before that. Well, at least it seems that way. I suppose it's the sudden profusion of digital sources around the home, from PlayStation 3s to Sky boxes, from the new generation of iPod docks to the internet radio in your kitchen, suddenly there's more to digital ins and outs than a MiniDisc recorder. Factor in the explosion in computer audio, and the DAC is beginning to look like the centrepiece of a modern music system, whereas ten years ago it was for geeks who couldn't be bothered to buy a decent CD player.

Electrocompaniet are the latest in on the scene, with a reasonably priced solution in the shape of this, the PD 1. It's a typically quirky product from this slightly eccentric

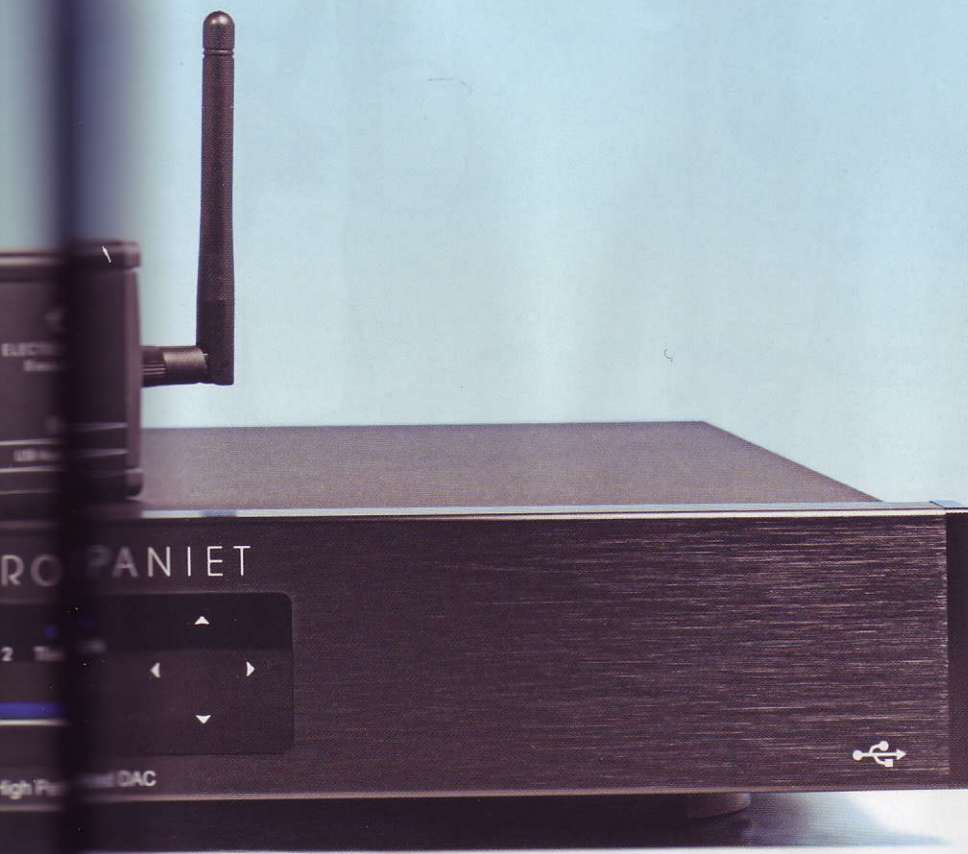
4.3kg black box which it comes in isn't the most salubrious. The pressed steel casework is flimsy and microphonic (some might want to line it with Sorbothane, to stop the rattles), whereas the front panel sports an interesting user interface with lots of bright blue LEDs. One long bar of them denotes the volume level (which is variable), and there's another row of LEDs showing the source. These are controlled by a touch sensitive panel to the right (left arrow, up arrow, right arrow, down arrow). The trouble is that the touch sensitive panel isn't very positive in operation and the fascia isn't backlit, so it's hard to see (or know) what you're doing in low light.

I'm only dwelling on this because Electrocompaniet's £1,200 DAC is far bigger and more fiddly to use than Arcam's £400 rDAC, and is apparently far inferior in terms of build to the DAC it buys from

beautifully finished aluminium and wonderfully styled. So it is possible to do better for less, in this regard. I was more impressed by the rear panel, which has those all-important balanced XLR outputs.

More and more amplifiers have balanced inputs these days and so this is a great feature; fully balanced sounds significantly better than unbalanced via RCA phonos, to my ears. There also two coaxial inputs, one TOSLINK and a USB. Plus there's a connection for a small radio aerial, which brings me on to this... The optional, partnering EMS-1 RF music streamer arrives





in a small box, which opens up to show the EMS-1 as even smaller still. You screw the (other) aerial in and hook it up via a USB cable from your computer and then select it as your music output device in your computer's control panel. This done, the PD 1 and EMS 1 will 'sync' up with one another automatically by RF transmission.

The DAC is an upsampling type, but sadly there's no indication of either the sampling frequency coming in to it, or the rate its upsampling to; or even if it has locked on to a signal. Again, this is a bit of a faff when you're trying to connect umpteen digital devices to and getting no signal, as reviewers often find themselves doing! Still, it goes up to 24bit, 192kHz via S/PDIF, but 16/48 is your lot via the USB input (which is not asynchronous, incidentally), and also the RF link. The unit comes supplied with a remote control, which is useful and makes the PD 1 a bit easier to use; it's less fiddly than the front panel. The streaming facility worked well, with no glitches, but the bulk of my serious listening was done via the digital output of the excellent Luxman D-05 CD player, in CD mode of course.

SOUND QUALITY

Eagle-eyed readers may have detected a little negativity from my first acquaintance with the PD 1; fiddly buttons and iffy build quality are less excusable on a product of

its price than on, say, a £250 DAC. But I'm happy to say that when I got the Electrocompaniet DAC up and running, *all* my criticisms just washed away. The first thing it did was to, almost from cold, improve on the sound of the expensive Luxman D-05 CD player (in CD mode). Now let's get this into perspective – the Lux costs nearly £5,000 and is by any standards a very capable machine. But the Electrocompaniet DAC duly augmented its performance still further; running balanced out to my Musical Fidelity AMS35i amplifier, it turned in a sound that brought the smile back to my face. Suddenly, I'd forgiven it its foibles...

"like a good unipivot tonearm, this DAC pulls you in to the music and holds your attention..."

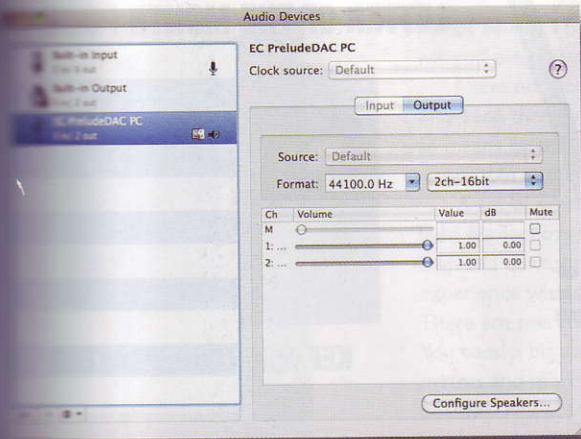
Mark Ronson's 'Bang Bang Bang' showed this DAC to have a tonal balance on the warm side of neutral, not exactly euphonic but certainly less forensic than the Japanese CD player; think camomile and honey, as opposed to lemon and lime. The bass was slightly fuller, richer and more tangible, yet it started and stopped almost as quickly as the taut, tight Lux. The midband was more expansive, the recording hanging back a little behind the plane of my loudspeakers rather than being

laser-etched on my cranium. There was more room to roam inside the recorded acoustic, as it were. At the same time, instruments in the mix seemed a little less forced and more relaxed about playing independently; I felt its timing was a touch more fluid and organic, rather than the in-strict-tempo regime of the Luxman CD player. This made for a slightly looser yet more enjoyable and musical rendition of the track. The treble was less bright, with a darker and more silky feel, although I did feel it lacked the Lux's amazing focus and grip.

Turning away from electro-pop and towards rock, Rush's 'Afterimage' showed the best side

of the Electrocompaniet. This is a mid eighties recording with high levels of energy across the midband; with shards of fuzz guitar and bright





Above: when you've plugged the EMS 1 into your Mac or PC, you need to set it as your preferred output device via your Control Panel or Audio Mixer...

certainly it's not far behind the sort of performance you'd get from a good mid-price CD spinner such as a Cyrus CD8 SE. Overall, it served up a wide soundstage and a fulsome tonal balance, with none of the scratchy, tinny sound of some cheap streaming

place without a Wi-Fi network, but I'm not sure how useful that is given that most people have it.

CONCLUSION

Another quintessentially Electrocompaniet product, there's a lot wrong with the PD 1 superficially but inside it is seemingly made of gold; fiddly, crude in operation, quirky in its choice of RF wireless, ratty in its casework – but it sounds great for the money, and works fine too. This is comfortably ahead of anything I've heard under £1,000, offers that all-important balanced out, has a very effective and affordable RF option. As such, I feel it will win a great many friends, as indeed it should.

REFERENCE SYSTEM

- Luxman D-05 CD player/transport
- dCS Debussy digital to analogue convertor
- Musical Fidelity AMS35i integrated amplifier
- Yamaha NS1000M loudspeakers

Oberheim OB-Xa synths, augmented by some fierce ride cymbal work, it's hardly an easy listen. Normally it's a screaming nightmare on CD, but the PD 1 poured calming water on the midrange fire. Although hardly laid back, it proved smooth enough to make things listenable, and added a decently weighty bass and some lovely hi hat cymbal work to give a wider range rock sound that's closer to the vinyl version. Even the middle eight's cranked

up, high-neck solo came over with passion rather than pain. It's not the most dynamic sounding DAC I've ever heard, but is solid in this respect and rather like a good unipivot tonearm pulls you in to the music and holds your attention.



MEASURED PERFORMANCE

Frequency response was all but ruler flat to 20.1kHz our analysis shows. This will ensure the PD1 has an even tonal balance, but it may well be quite well lit with brighter digital recordings, as this characteristic does not soften digital defects. The PD1 is however very accurate.

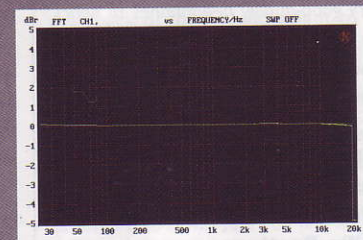
Distortion levels were very low right through the convertor's dynamic range, from 0dB down to -80dB, with the important -60dB value coming out at 0.17%, an unusually low value for 16bit PCM. With 24bit resolution this fell to 0.1%. Peculiarly, this is a little higher than the best, that can manage 0.03%, but it shows the PD1 can deliver low distortion from high resolution digital.

Output was on the low side at 1.94V from the unbalanced phono output so in an A/B showroom comparison the PD1 will not sound quite as loud as many DACs, most of which give 2dB more from this socket. The balanced XLR output gave twice as much. This was the only measurable difference between balanced and unbalanced however, as is usually the case.

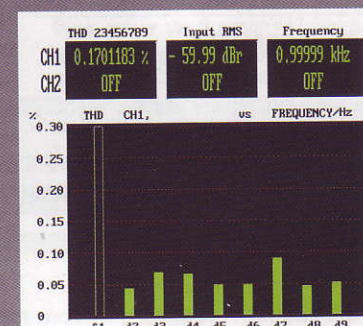
The PD1 delivered the usual excellent measured performance Electrocompaniet are noted for. It should give fine sound quality.NK

Distortion (%)	
0dB	0.004
-6dB	0.0015
-60dB	0.17
-80dB	2.3
Separation (1kHz)	
Noise (IEC A)	105dB
Dynamic range (EIAJ)	-96dB
Output (unbal/bal)	98dB
	1.94 / 3.87V

FREQUENCY RESPONSE



DISTORTION, 16bit



VERDICT

Quirky but highly capable digital convertor with an effective wireless radio option and balanced outs.

ELECTROCOMPANIET
PD-1 £1,250
ELECTROCOMPANIET
EMS-1 £250
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- FOR**
- engagingly musical
 - pleasant tonal balance
 - balanced operation
 - well sorted RF

- AGAINST**
- ratty casework
 - poor ergonomics
 - 16/48 only via USB

Via its little RF widget, the Electrocompaniet was excellent; better than I could possibly expect. It clearly signposted the differences between AAC (256kps), ALAC and .wav files, showing how nasty the first is, and how mediocre the second is. With uncompactd .wav, the radio streamer ran the Luxman's excellent CD transport surprisingly close. It wasn't as good, losing a little depth and bass power and grip, and a slight hazing of the treble, but it was subtle stuff and