



Sampling Delights

Adam Smith tries Consonance's unusual non-oversampling Forbidden City Orfeo CD player...

Having just written the review for the Vienna Acoustics Haydn Grand loudspeakers on page 52, and pondered their musical nomenclature, it was funny to find Consonance's new Forbidden City Orfeo CD player in front of me, as the theme continues here. L'Orfeo is actually one of the earliest works recognized as an opera, composed by Claudio Monteverdi and Alessandro Striggio for the annual carnival of Mantua in 1607.

Perhaps the company's full name gives something of a clue; as the Opera Audio Company, their use of operatic monikers for their new Forbidden City range suddenly makes sense. The 'Forbidden City' part comes from the Chinese Imperial Palace in Beijing and the styling of the components has been influenced by the gates at the front of this - the gates are red and feature rows and rows of decorative studs on their surface.

This has given rise to the detail squares on the front of the equipment, and also explains why they are available in red! Sadly, however, despite much nagging we did not manage to secure a red review sample - importer Alium

Audio tell me that, although they were rather hesitant about bringing too many red units into the country, they have actually been selling surprisingly well!

The Forbidden City range consists of the Ping all-in one system, Liu turntable, the Tristan and Calaf amplifiers and the Orfeo and Turandot CD players. The Turandot features 24bit/192kHz upsampling but the Orfeo is rather simpler, being a 16bit, non-oversampling design with no digital filter. It is actually a development of the CD120 Linear reviewed in *Hi-Fi World* in the August 2007 issue, but features an improved power supply design and higher quality components in the heavier, Forbidden City range casework. Most notably, the DAC section uses four Philips TDA1543 chips working in

parallel, rather than the two of the CD120 Linear. Consonance claims that this "lowers essential output impedance and gives higher DAC precision".

Build is excellent but it is a little, ermm, 'characterful' in use. There are only six buttons on the front of the unit, for standby/on, play/pause,

stop, forward skip, backward skip and eject. These are denoted by small, dark symbols on a black background so take a bit of learning! The red LED display is a simple affair, showing track number and time and stands out well on the black fascia.

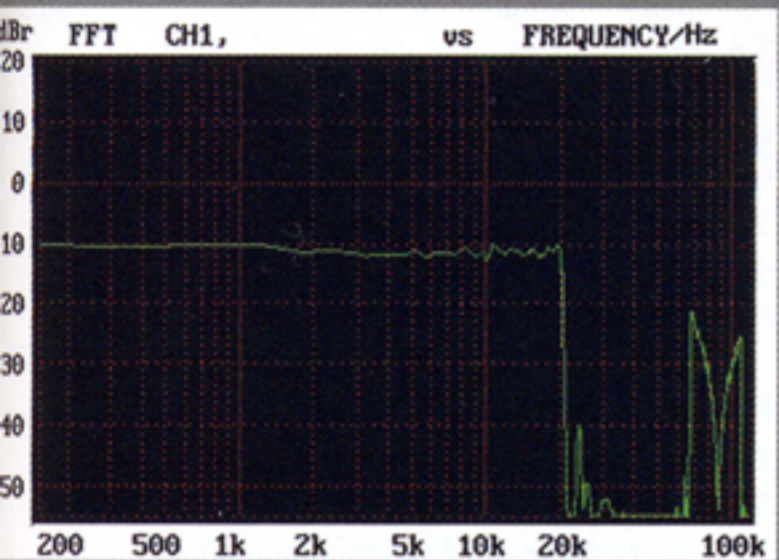
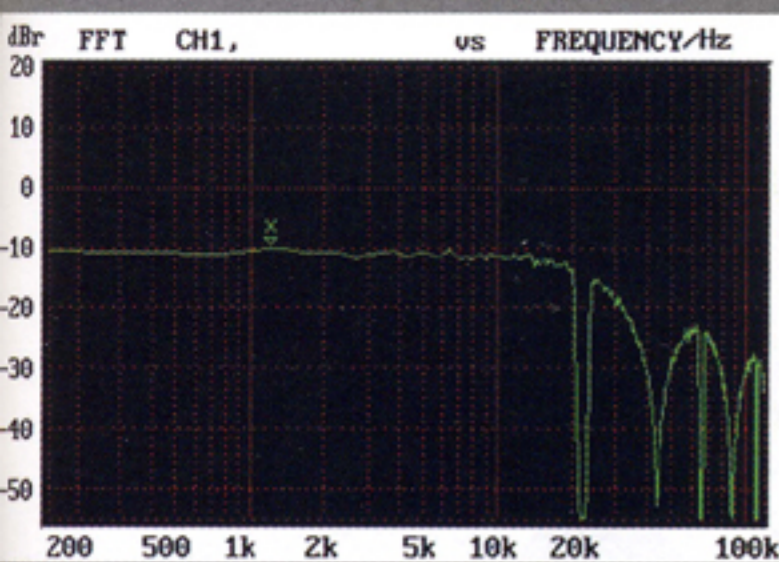
The remote control handset is a fabulous thing, being a solid metal chunk, but again, ten buttons give a minimal range of controls - there is no direct track access numerical keypad, for example. Mind you, as forward and backward search are cutely labelled 'wind' and 'rewind' I think I can forgive it quite a bit, even though on one or two occasions when skipping tracks, the Orfeo locked up, sat for a moment then returned to the start of the disc.



"a highly entertaining musical companion..."

SOUND QUALITY

The Orfeo really is a lovely player. The differences between the 44.1kHz and 88.2kHz sampling rates were quite noticeable and, whilst the lower setting seemed to offer slightly better midrange insight into softer acoustic material, the 88.2kHz setting seemed universally more dynamic and cleaner,



SAMPLE THIS...

As mentioned in the text, selecting the 88.2kHz sampling frequency does improve the sound of the Orfeo and this is highly likely to be due to the lack of filtering employed by the player.

As a result, on 44.1kHz (top graph, left) aliasing artefacts can be seen stretching down almost to the top end of the audible frequency spectrum. The result of this will be to add a certain amount of 'mush' to the top end, reducing focus and detail, in addition to a slight softening caused by the measured frequency rolloff towards 20kHz.

Selecting 88.2kHz, however, (bottom graph) moves the main sampling frequency, plus its associated sidebands and artefacts, much higher up the frequency range and out of the area in which it will have a large effect on the audible spectrum.



so the player was left in this mode during listening [see SAMPLE THIS].

Most noticeable about the Orfeo's performance, compared to most other players at the price, is the scale and spatiality that it confers onto material. Orchestras were positively grandiose and expertly laid out in and around the loudspeakers. The Orfeo brought the performance well out into the room and gave a sense of easy space.

At the top end, the Consonance proved a sweet and lucid performer, adding just the right amount of metallic ring to cymbals but without ever pushing them so far that they

violin being expertly contrasted with the electronic keyboard interludes - you could hear the soundstage 'collapse' as the action moved from natural to processed instrument, and then open back up again as they switched back.

At the low end, the Orfeo continued to impress, giving bass lines a sense of solidity and anchoring them firmly within the

ended up sounding like dustbin lids struck with a scaffold pole. Electric and acoustic instruments were solid and detailed, the Orfeo imparting a flowing and even-handed nature onto all items. Even more impressive were vocals, which sat locked centre-stage and came across with an unenforced intimacy; rarely have I heard a player at this price point make such a luscious job of reproducing Norah Jones or Diana Krall.

Spinning Roger Eno and Kate St. John's 'The Familiar', the first track 'Our man in Havana was sublime - the acoustic nature of the cello and

mix. Bass detail was excellent - the bass guitar on the intro of Simply Red's 'Sad Old Red' sounding incredibly vivid, tight and composed. Faster rock and dance music bass lines held no fear for the Consonance either, but comparison with the Yamaha CD-S2000 [see p28] did show that the latter had an extra level of punch to its low end.

The Yamaha was also blessed of a crispness and stark clarity that the Orfeo missed out on slightly, but the Consonance definitely struck a winning blow in terms of imagery and the sheer atmospheric scale that it added to performances.

CONCLUSION

The Consonance Forbidden City Orfeo is a unique performer at its price point, and improves even further on the already enjoyable CD120 Linear, addressing its weaknesses. Whilst it uses an uncommon technology and, as a result, does tend to slightly lack the very top end incision that is common with CD but, in many ways this could be considered an advantage, as it never sounds harsh or hard; something that all too often goes hand in hand with that incision.

An unfailingly enjoyable performer, the Orfeo makes a highly entertaining musical companion; one of those likeable components that had me spinning discs long after 'completing the review' simply to allow me to enjoy the sounds it made.

VERDICT

Interesting design that sounds more like a conduit for music than a hi-fi component. Always enjoyable sonically, if a little odd operationally!

CONSONANCE FORBIDDEN CITY ORFEO £995
 Alium Audio
 +44(0)1273 325901
 www.aliumaudio.com

FOR

- musicality
- fine spatiality
- sweet top end
- solid, detailed bass
- proper metal remote!

AGAINST

- slight lack of crispness
- operationally quirky

MEASURED PERFORMANCE

CD players have 'brick-wall' anti-alias filters to keep unwanted rubbish (signal aliases) out of the audio band. Whilst they seem to restrict the sound stage to a letterbox between the loudspeakers, eliminating the filter increases distortion as well as aliasing rubbish. At -60dB the Orfeo produced 2% distortion at 44.1kHz sample rate, reducing to 1.1% with 88.2kHz sample rate. This compares with 0.2% or so from players with filters, meaning there's a x5 increase in low level distortion, not to mention the non-harmonic components the analyser doesn't measure. Our boxout shows how choosing the higher 88.2kHz sample rate clears the spectrum above 20kHz of much rubbish, as well as lowering distortion, so it is best selected and is important to the Orfeo.

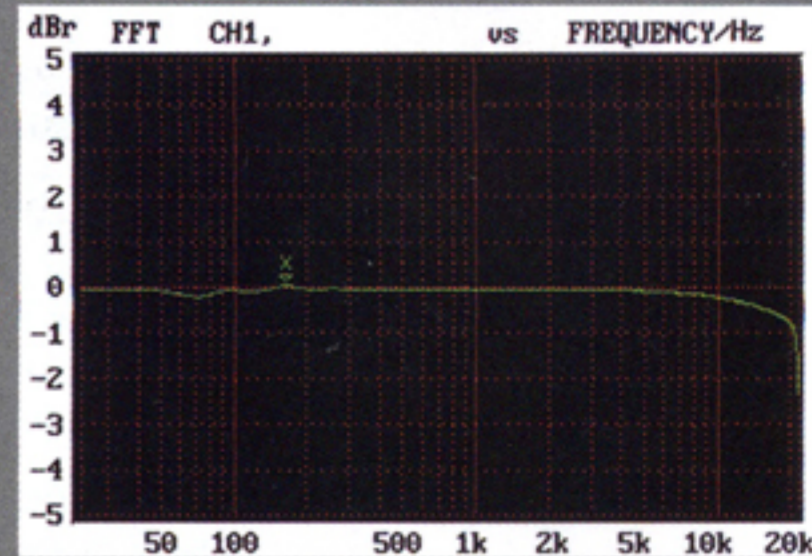
Frequency response was flat, with just a slight fall in output toward 20kHz, our analysis shows. The lower limit was 2Hz.

Channel separation values were a little lower than usual but still more than adequate for good stereo. Inevitably, EIAJ Dynamic Range suffered, coming in at 96dB, against 110dB or so for conventional players.

Like all players with reduced anti-alias filtering the Orfeo doesn't measure as well as conventional designs. Its 88.2kHz sample rate minimises drawbacks by a useful degree however, measurement also shows. In the end whether benefits outweigh drawbacks is a subjective decision; certainly players like this sound dramatic. NK

Frequency response (-1dB)	CD	2Hz - 21kHz
Distortion (%)	0dB	0.07
	-6dB	0.033
	-60dB	1.1
	-80dB	9.8
Separation (1kHz)		56dB
Noise (IEC A)		98dB
Dynamic range		96dB
Output		2.3V

FREQUENCY RESPONSE



DISTORTION

