

hi-finews GROUP TEST

Compact Disc is facing tough competition and player manufacturers are working harder than ever to tempt us. We upgrade from a budget audiophile player to the heights of the high-end

CD PLAYERS £330-£3250

TESTED THIS MONTH

CAMBRIDGE AUDIO AZUR 650C	£330
MARANTZ SA-KI PEARL LITE	£900
SIMAUDIO MOON CD.5	£1350
PRIMARE CD32	£2200
DENSEN AUDIO TECHNOLOGIES B-440XS	£3250



Cutting-edge gear, cherry-picked by the *Hi-Fi News* editor



The pinnacle of sound quality within its peer group



Great sound, great value and a cut above its rivals

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Casual listeners may be content playing CDs on their games consoles or BD players hooked up to TV sets, but a dedicated CD player designed solely for accurate music replay will always be the best choice for a proper hi-fi system. Precisely how much does one need to spend to enjoy good sound from CD? Is there a marked difference in performance between budget players and more esoteric designs? This month we've measured and auditioned a selection of models ranging from £330 to £3250.

ON TEST...

Cambridge Audio's 650C will be considered entry level for most enthusiasts with audiophile aspirations. We've heard it before [*HFN* Nov '09] and judged it excellent value. Will it be put in the shade in present company? Marantz's SA-Ki Pearl Lite will also be familiar to regular readers. We thought it outstanding given its feature set and performance when it was launched last autumn. But how will it compare alongside more esoteric models? Spend around

£500 more and you could be the owner of a Moon CD.5 player from Canadian manufacturer Simaudio. Its exclusivity assures pride of ownership – but how does it perform? More expensive again is Primare's CD32, a brand new model designed to partner the Swedish company's latest I32 integrated amplifier that fared well in last month's amplifier group test. As befits its price it is particularly handsome, but what about its sound? Finally we have an esoteric £3250 player from Denmark's Densen Audio Technologies. Does its audio performance warrant spending as much as that?

...AND THE MUSIC

Among the countless CDs enjoyed during the review period we used four specific tracks for comparing the subjective sound quality of each player. From Pink Floyd's *The Wall* [EMI/Harvest CDS 746036 8] we played the closing section of 'Another Brick In The Wall' (with its helicopter scene) that segues into the killer bass/drum thwacks of 'The Happiest Days Of Our Lives', an epic test of speed and dynamics.

To judge fidelity of timbre, detail resolution and portrayal of a natural image we chose a simple recording of The Helicon Ensemble playing the *Allegro* from Vivaldi's Sinfonia in C using early instruments [Reference Recordings RR-23CD]. Also something of a hi-fi 'demo' track was Patricia Barber's 'Bye Bye Blackbird' from *Nightclub* [Premonition 7243 5 27290 2 9], a vivid production, brimming with atmosphere, sympathetically recorded and mixed to create a sound image you feel you could almost walk into.

Finally, 'Rolling In The Deep', the opening soul stomper from Adele's 21 album [XL Records XLCD520] with its party-rousing 'march' on the kick drum, was used to test composure. Nowhere near as screechy as many modern pop recordings, its high mastering level and in-your-face balance is a challenge for any player to maintain listenability. The system comprised a Mark Levinson No 383 amp, Townshend Sir Galahad speakers and Atlas Asimi silver cables. ↻

REVIEWS BY JOHN BAMFORD
LAB TESTS BY PAUL MILLER

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Primare CD32 (£2200)

Replacing the CD31, this new CD32 has been designed alongside the I32 integrated Class D amplifier [HFN Jun '11]. Sweden's Primare company has always had an eye for handsome design and while the appearance of these latest 32 models is broadly the same as the products they supersede, each component has been enhanced by the inclusion of a white-coloured, variable-brightness organic electroluminescent display (OLED) panel that adds real finesse.

The CD32 is housed in an alloy/steel chassis and is beautifully finished; balanced outputs match the balanced inputs of its partnering amplifier. Separate PCB modules featuring SMDs are used to isolate signal paths while keeping them as short as possible, a regulated power supply employing an R-core transformer with separate windings for mechanical, analogue and digital audio circuits, while a separate switch mode supply powers the player's microprocessor.

Its multi-bit DAC comprises two Burr-Brown PCM1704s (with DF1706 digital filter), used with a SRC4392 sample rate converter that can be switched between 44.1, 48 and 96kHz via the remote handset.

RAZOR SHARP

The Vivaldi sounded crisp and vivid, the CD32 preserving the fast-edged transients of the instruments and providing an open window through which to observe the musicians spread across the soundstage. While subjectively less sweet than the Marantz SA-KI Pearl Lite and a bit more forward-sounding, it delivered



ABOVE: CD navigation is performed via just two buttons on the Primare's fascia. RCU controls the OLED's brightness

a razor-sharp image that was highly explicit. The CD32's up-front balance was noticed again with Patricia Barber's 'Bye Bye Blackbird' where her intimate vocal appeared more forward in the mix – this was judged to be a subjective consequence of the player's extraordinary clarity.

Compared with the other players in this group the Primare sounded quite stark, with inky-black space around the musicians that helped produce a holographic sound image. The brushes on the snare drum and hi-hat were extremely authentic, bass was deeply extended, and the piano sounded explicit as the tails of reverb faded to silence around each note during the jazz solo.

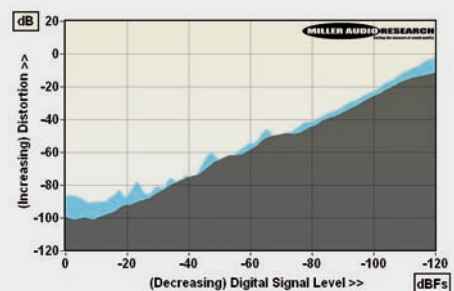
I expected the energetic Pink Floyd and, especially, Adele's effervescent track to sound spiky given this explicitness – yet it didn't. Sure, it doesn't gloss over imperfections in recordings, but its clarity proved exhilarating.

Sound Quality: 85%



HI-FI NEWS LAB REPORT

While not the costliest player in our step-by-step group test, Primare's new CD32 is the only model to feature balanced analogue outputs, on XLRs. This brings improvements in overall output level (4.1V from a 45ohm discrete MOSFET output buffer), S/N ratio (111dB re. 0dBFS) and a reduction in even-order distortions, bringing the total to just 0.0005% at this peak output through bass and midrange. At higher treble frequencies this increases to 0.005%, which is innocuous enough, although Primare's choice of Burr-Brown's DF1706/PCM1704 oversampling/DAC combination does give rise to a characteristic series of 'wiggles' in its profile of distortion versus digital level [see Graph, below]. This is something of a fingerprint and completely missed by the conventional single frequency/single level test procedures used almost everywhere else! Otherwise, while Primare's crystal selection is not top-of-the-heap at 210ppm, its use of a Sanyo CD mech with read-ahead and 5sec buffering plus TI's excellent SRC4392 upsampler ensures any jitter is quelled to the minimum measureable 120psec. PM



ABOVE: Distortion versus digital signal level at 1kHz (black trace) and 20kHz (blue trace) over a full 120dB dynamic range



ABOVE: Outputs are single-ended and balanced, there are 3 digital outs, and RS232, IR and triggers are included too. USB input offers only MP3 and WMA file playback

Maximum Output Level/Impedance	4.08Vrms / 46ohm (balanced)
A-wtd S/N Ratio	110.9dB
Distortion (1kHz, 0dBFS/-30dBFS)	0.00047% / 0.0063%
Distortion & Noise (20kHz, 0dBFS)	0.0049%
Frequency response (20Hz-20kHz)	+0.01dB to -0.41dB
Digital jitter	120psec
Resolution @ -100dB	±0.2dB
Power consumption	20W
Dimensions (WHD)	430x110x385mm

GROUP TEST VERDICT

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Thanks to its fulsome bass and a smooth treble, Densen's B-440BX sounds notably sumptuous and is adept at glossing over the hard edges of sharp and 'hot' CDs that might otherwise be considered intolerable to listen to. But when auditioned back-to-back with other players in quick succession it could be heard to be noticeably soft of focus, masking fine details in recordings and blurring the image.

You might deem it a tonic for an otherwise fatiguing sound from CD in your system, but even the humble Cambridge player proved more revealing of the true character of recordings, offering greater fidelity to the studio engineer's art.

SOMETHING OF A BARGAIN

Indeed, to say that the £330 Cambridge Audio 650C punches above its weight is something of an understatement. Several Cambridge Audio products are renowned for delivering tremendous performance at unbeatable price points, this player proving to be one of them. OK, so you might occasionally criticise the 650C's slightly grainy quality, but even when auditioned through a revealing high-end system it didn't disgrace itself. It proved capable of resolving fine details in dense productions and creating a holographic image from purist audiophile recordings, its only real failing being a lack of sweetness when compared alongside more refined (and costlier) machines.

Simaudio's Moon CD.5, with its large, easy-to-read-at-tentimetres status display and rugged 'prosumer' appearance, is a little expensive for what's really on offer, although you might feel its premium price worth paying for the cachet of owning a machine imported from Canada. Mind you, even the budget-priced Cambridge Audio

player comes with a remote control handset that's better designed. The Moon CD.5 sounded noticeably smooth, with a relaxed demeanour that avoids all traces of CD's 'digititus'. Certainly it will curry the favour of hi-fi enthusiasts who find CD replay fatiguing to listen to.

In terms of faithfulness to the source it's a close run between the Marantz SA-KI Pearl Lite and Primare CD32. As reported when we first tested the Marantz many months ago, it offers tremendous value with a sound that is commendably revealing and sophisticated. And it plays SACDs! An enthusiast with a fabulous high-end system might well consider the Pearl Lite for SACD replay alone if they lack this facility – the price is probably less than replacing the stylus of a beloved MC cartridge.

Compared side-by-side with the Primare CD32 it was observed to be not quite as squeaky-clean or

open-mouthed: a bit softer-focused and less explicit. As is the case with hi-fi's law of diminishing returns, the slight increase in fidelity afforded by the Primare does come at more than double the price.

HANDSOME COUPLE

Needless to say Primare's CD32 can be regarded the *de facto* choice for partnering with its eco-friendly I32 Class D integrated amplifier that featured in last month's group test. With their matching OLED displays (really classy) and common remote control handset the two components will make a lovely couple. On the other hand, used as a standalone player in a system of mixed components... well, if the price ticket is acceptable, the CD32 certainly won't disappoint thanks to a sound that's explicit and highly revealing. You'd need to spend a small fortune on a very esoteric high-end player to better it. ☺

'You'd need to spend a small fortune to better the CD32'



ABOVE: Primare's new CD32 delivers superb transparency, the best in the test group. But if you're looking for value the Marantz SA-KI Pearl Lite is frankly a steal

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