

KEF Blade: world's first review inside!

Exclusive, in-depth test uncovers KEF's £20,000 technology showcase

Turntables compared

Rega's beautiful RP3 takes on Pro-Ject's new 2 Experience Basic +



Hi-Fi Choice

PASSION FOR SOUND

www.hifichoice.co.uk

Issue No. 351

November 2011

£3.99

Digital decider

Sweet music from six new streamers, but which one delivers audiophile standards?

Vinyl revival

We test four of the best innovations to make your turntable sparkle

26

carefully chosen reviews: Creek, Olive, Deltec, Ayon and much more...



Sound investment

Bel Canto's £1,800 C5i amp/DAC performs two roles for the price of one, but does it shine at either?



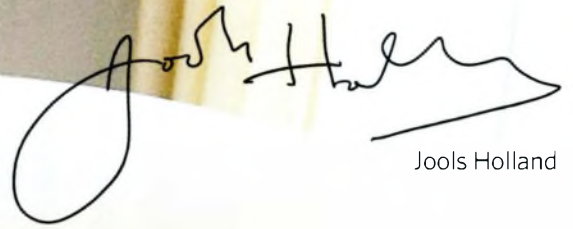
COMPETITION WIN!

DALI IKON 7 MKII speakers worth

£1,695

Future
techradar.com
NOVEMBER 2011
9 770955 111090
11
£3.99

Music has been my life and now I can fit it all and more on my brilliant Brennan



Jools Holland



"If you've got 100s or even 1000s of CDs like me, you'll just love it!"

The Brennan JB7 is a revolutionary CD player with a hard disk that stores up to 5,000 CDs

Key features

- ▶ Browse albums by spinning the volume knob - push to play
- ▶ Display track names as they play
- ▶ Delete tracks you don't like
- ▶ Seven rainbow colour coded playlists
- ▶ Segue function blends one track into the next
- ▶ One touch record from vinyl, cassette or radio
- ▶ One button plays the entire music collection at random
- ▶ Plays MP3 downloads - future proof
- ▶ Clock with alarm
- ▶ 60 Watt, 4.8 x 16 x 22 cm steel and aluminium construction
- ▶ Backup music to external USB hard disk for safe keeping
- ▶ You can use it with your existing hi-fi or on its own



Jools Holland has always loved music of every kind and during his illustrious musical career he's bought and collected 100s and 100s of CDs and albums many of which he continues to play on his weekly radio show. Trouble was, the space they took up, keeping them in some sort of order, the need to find a certain album and then a particular track was always hugely time consuming.

Then Jools found the Brennan JB7. Now his whole collection is stored on something no bigger than a hardback book. Titles of his CDs, albums, even the tracks are automatically recognized and finding them again using the remote control takes just seconds.

"I can honestly say I've rediscovered lots of my music purely because the Brennan has made it so accessible. Just to be able to find what I want instantly rather than have to wade through CD after CD is a joy!"

Jools Holland pianist, bandleader, composer, singer and television host. He was a founder of Squeeze and the multi-million selling Rhythm and Blues Orchestra. He has collaborated with many artists including Sting, Eric Clapton, George Harrison, B.B.King, David Gilmour, Amy Winehouse and Bono. He tours regularly with his Rhythm & Blues Band and currently hosts 'Later... with Jools Holland' on BBC2.



The Brennan JB7 is available in Cobalt Blue or Titanium Metallic



Money back guarantee

If you're not suitably impressed with your Brennan JB7 we'll collect it free of charge and refund you in full.

ONLY AVAILABLE DIRECT. To order visit www.brennan.co.uk

brennan

Hi-Fi Choice

PASSION FOR SOUND

YOUR EXPERTS



PAUL MESSENGER
EXPERTISE: SPEAKERS

PAUL is the UK's foremost expert on loudspeakers. Having worked as a speaker designer and reviewer for over 30 years Paul is internationally recognised for his ability to assess loudspeaker performance, and report on developments in the field.



JIMMY HUGHES
EXPERTISE: SYSTEM OPTIMISATION

JIMMY has been involved in hi-fi for over 40 years. His knowledge of tweaking and optimising systems is unrivalled in the hi-fi industry and he brings enormous expertise to the pages of *Hi-Fi Choice*. If anyone can help you improve your set-up, it's him.



RICHARD BLACK
EXPERTISE: TECHNOLOGY

RICHARD writes exclusively for *HFC* and brings his experience as a successful musician and recording engineer to the title. As Technical Consultant, he's our authority on tech testing, ensuring that our verdicts are beyond compare.



ED SELLEY
EXPERTISE: TROUBLESHOOTING

ED has spent the best part of a decade selling, developing and supporting products from some of the biggest names in audio. As *HFC*'s troubleshooter, he is on hand to help you answer your questions and help you create that perfect system.



NIGEL WILLIAMSON
EXPERTISE: MUSIC

NIGEL has been writing for *The Times* for more than 25 years and has written for various titles including *Uncut*, *Billboard* and *Songlines*. A Mercury Music Prize judge for five years, Nigel has written books on Bob Dylan, Neil Young and the Blues.



JASON KENNEDY
EXPERTISE: TURNTABLES

JASON edited *Hi-Fi Choice* through the Brit-pop era and relinquished the helm after 17 years on the title. A hi-fi addict since his twenties, Jason fell for the beauty of vinyl and has never looked back. He's here to help you get the best from your LPs.



MALCOLM STEWARD
EXPERTISE: EMERGING TECH

MALCOLM is a legend in hi-fi magazine circles. A former editor of *Hi-Fi Review*, he was one of the best known and most outspoken reviewers of the 1980s and 1990s. He now writes exclusively for *Hi-Fi Choice* and he loves being 'back'.

Welcome...

www.hifichoice.co.uk Issue No. **351** November 2011



We've been busy at *HFC* towers recently: not only have we been working on this issue, we've been beavering away on *The Collection 2011* (on sale 29th Sept) and compiling our special *Awards* edition, which will arrive next (13th Oct).

Analysing the data for our annual *Awards* issue has been fascinating and although household spending might be a little squeezed at present, we've identified a huge number of products that are truly world-class. One that really stands out, is the Classé CP-800 preamp we exclusively brought to you in the last issue. Here's a ground-breaking, landmark product that has had us all checking our credit limits! Find out what Jimmy Hughes has to say about it on p130.

In tough times it's nice to get something for nothing, so we hope you like your free gift this month: IsoTek's exceptional System Set-Up Disc worth £20. See you next time for the awards.

Dan

Dan George Editor
dan.george@futurenet.com

FUTURE PUBLISHING, 2 BALCOMBE STREET,
LONDON NWT 6NW +44 (0)20 7042 4000

OUR PROMISE TO YOU

HI-FI CHOICE is passionate about high fidelity. We're dedicated to the very highest standards of sound reproduction. Our commitment is to bring you the most reliable, in-depth hi-fi equipment tests anywhere and we're backed by the UK's biggest technology publisher. Our expert writers will help you get the most from your hi-fi and guide you towards the best-performing products for your budget. Our passion is your passion.



Subscribe: www.myfavouritemagazines.co.uk 0844 848 2852 (p32)



web site:
www.jordanacoustics.co.uk

Follow **JordanAcoustics** on **twitter**

large product range ▶ free parking ▶ 0% flexible finance*

Computer playback at its very finest...



DAC202 Firewire D/A Converter *by weiss*

"I listened to the DAC202 last week and immediately ordered one. It is the best DAC I have ever heard. Period."
A customer on computeraudiophile.com



DAC202 Firewire D/A Converter *by weiss*

"All things considered, the Weiss DAC202 is the best-sounding DAC I've had in my system. I've never heard better sound through my audio system than when listening to hi-rez recordings through the DAC202."
Jeff Fritz - UltraAudio



M1 CDT Transport *by musical fidelity*

"Slickly built, attractively styled compact disc digital transport with strong sound."
Hi-Fi World, July 2011 Issue



M1 Clic Universal Music Controller *by musical fidelity*

"Highly versatile, easy to use network player/DAC/preamp with excellent sound. Superb value for money."
Hi-Fi World, July 2011 Issue



NA7004 Network Player *by marantz*

The NA7004 is your ideal connection to your favourite music, no matter where it comes from - whether it's from your PC, external hard disc, or as an FM, DAB or DAB+ radio station broadcast in your country, or even on the other side of the world via Internet radio or music service Napster. The NA7004 connects to them all.



NA7004 Network Player *by marantz*

Digital inputs, iPod-digital-compatible USB and optional Bluetooth reception. This is versatility in the extreme, all with the best possible audio quality.
AirPlay compatible (feature upgrade required)

bourne-mouth showroom

telephone:

01202 911 886

e-mail: bourne-mouth@jordanacoustics.co.uk

address: Unit 2 - The Old Cart Building, Parley Court
Barns, Parley Green Lane, Hurn, Bournemouth, BH23 6BB
Open: Tuesday - Saturday. Closed Monday.

glentrothes showroom

telephone:

01592 744 779

e-mail: glentrothes@jordanacoustics.co.uk

address: 20-22 Cadham Centre, Glenrothes, Fife, KY7 6RU
Open: Monday - Friday. Closed Saturday.



part exchange* ▶ large selection of used items ▶ home demonstrations*



Super Titan (new) *by isotek*

Hi-Fi World
VERDICT

“ Power conditioning has always been of value, but with the Super Titan, it has finally come of age. Here is a system that never imposed itself upon the music. Here, in fact, the music was king, not the hardware. Yes, the Super Titan might cost a pretty penny but this is one of those high-end components which is actually worth every penny...”

Hi-Fi World, July 2011 (awarded 5 globes)

To find out how mains conditioning can help you to get the most from your system, please give us a call.

With the Geometry Series, only the artist who composed the music and the musicians that interpreted it will be present at the event...



NEW Vector *by wilson benesch*

The Vector is a 2.5 way, highly optimised, advanced materials technology, floorstanding loudspeaker. Thanks to the cleverly engineered A.C.T. monocoque / poly alloy shell structure, complex bracing is no longer accepted as a design compromise. The shell design delivers huge amounts of air volume, despite its small external surface area, which is another key factor in the success of this superior design.



NEW Vertex *by wilson benesch*

The Vertex is a 2-way highly optimised advanced materials technology stand mounted loudspeaker. Unlike many stand mounted designs, the Vertex and its stand, work in harmony to attain structural integrity, vital to the control of key components. Mounted with high tensile bolts, the speaker and stand become one.

*subject to conditions

Hi-Fi Choice Contents

www.hifichoice.co.uk Issue No. 351 November 2011

NEWS & OPINION

8 **Audiofile**

The latest news in audio

23 **Opinion**

The UK's brightest audio journalists

28 **Letters**

Your opinions in print

89 **Music Reviews**

Essential new listening reviewed

130 **The back page**

Jimmy on Classé's new CP-800 preamp

READER SERVICES

96 **Help & Advice**

Your questions, our answers

104 **Reader Classifieds**

The UK's best place to buy and sell – for FREE!

124 **Next issue**

What's in store in the next issue

BUYER'S GUIDE

107 Britain's most useful hi-fi buying information

CD Players/Turtables/Phono cartridges/
Radio tuners/Headphones/Integrated &
pre/power amps/Cables/Speakers/DACs/
Streamers/ Equipment supports
UPDATED MONTHLY



WIN! WORTH £1,699

31
A pair of Dali Ikon7 MkII Loudspeakers

COVER STORY

40 **Best buy streamers:**

We reveal the best music streamers for audiophile systems



16

McIntosh revealed: the home of gothic

84

1966 in music: a special year for music



92

Beautiful systems: Cayin and XTZ's bottle



"We were frankly astonished at how good this new Planar 3 is."

Jason Kennedy: Rega RPM3 p65

TESTED THIS MONTH



60

Bel Canto C5i amplifier



66

Olive O6HD music server



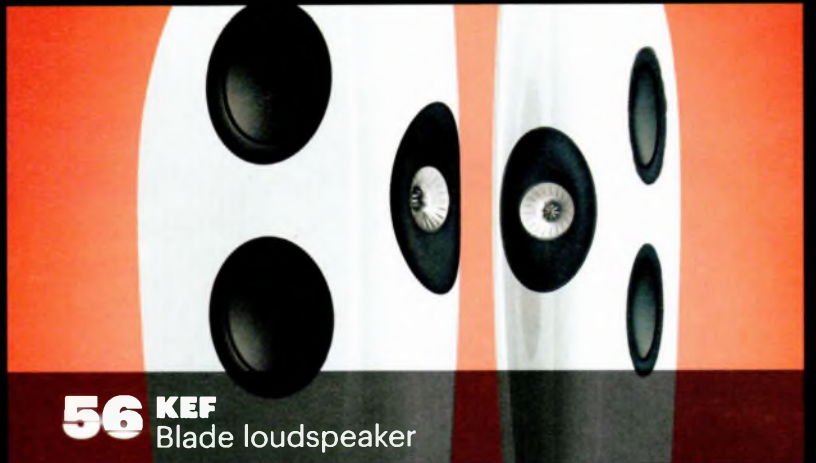
72

Deltec PDM3 DAC



80

Ayon CD07 CD player



56

KEF Blade loudspeaker

REVIEWS

Definitive verdicts on the latest new kit

56_ KEF

Blade loudspeaker

60_ Bel Canto

C5i integrated amplifier

65_ Rega

RPM3 turntable

66_ Olive

O6HD music server

71_ Creek

Evolution integrated amplifier

72_ Deltec

PDM3 DAC

77_ Pro-Ject

2 Xperience Basic+ turntable

79_ Amphion

Helium loudspeaker

80_ Ayon

CD07 CD player

GROUP TEST

Streamers
£240-£1,400

43_ Cambridge Audio

Sonata NP30

45_ Cyrus

Stream X

47_ Logitech

Squeezebox Touch

49_ Marantz

NA7004

51_ Rotel

RDG-1520

53_ Yamaha

NP-S2000

MINI TEST

Isolation platforms

102_ Pro-Ject

Ground It

102_ Ringmat AV

Vivacity AR panel

103_ Townshend

Seismic Sink Platform

103_ Track Audio

Isolation feet

Subscribe and get a Chord Co. interconnect worth £70! (p32)

Prime Numbers

More features, more power and greater energy efficiency for the new Primare range

PRICE: £1,250 (EACH)

AVAILABLE: NOW

CONTACT: 01423 358846

WEB: PRIMARE.NET

Primare has launched a new, affordable CD player and stereo amp, building on the momentum of the larger 32 Series products that we reviewed in *HFC* 344.

The CD22 CD player is the more conventional of the two and features a switchable sample rate converter, coupled with a 24-bit/192kHz Burr-Brown PCM1792 DAC. The signal paths include SMD technology to keep them as short and isolated as possible. The CD22 is also equipped with a DC servo to ensure that no DC

technology designed for high output at low distortion. The Class D amplifier has 80 watts per channel in a dual mono internal arrangement, with one UFPD module per side and a discrete preamp with a separate power supply. Source selection, balance and volume control is entirely analogue.

According to Primare, the I22 is one of the greenest amps in its class, with a standby consumption of only 0.3 watts. Four analogue line inputs are fitted with a tape

“According to Primare, the I22 is one of the greenest amps in its class”

offset is present in the circuit or from the DACs.

As well as the usual RCA and digital outputs, the CD22 is fitted with a USB input for easy connection of an external source such as a PC. The trademark Primare heavy-alloy chassis is employed and a four-stage dimmable display is fitted in a space isolated from the rest of the circuit.

The matching I22 integrated amp takes after the bigger I32 in using Primare's proprietary UFPD power

and pre-out. The I22 is also available with an optional DAC board as a dealer fit. This includes a USB-B socket and optical and electrical inputs.

Unusually, the board does not use another Burr-Brown like the CD22, but instead makes use of an Analogue Devices AD1955 DAC and a Texas Instruments PCM1792A. The USB input is not asynchronous, but the Texas Instruments chip is said to lower jitter and improve clock performance.

I M A R



CD 22

A CLASS APART

PRIMARE IS USING its UFPD technology Ultra Fast Power Device for the second time in the I22. The modules integrate amplifier and filter stages, making control with feedback much more immediate and accurate. All signals are treated equally, regardless of frequency or slew rate and they can suppress filter resonance entirely. As a result, THD levels are extremely low across all frequencies, while at the same time power consumption is lower.



ANTHONY GALLO
 ACOUSTICS

ARCAM

ATLAS Cables

audiolab

AUDIOVECTOR

Blueaudio

B&W

Chasmodon

CHORD

• CHORD •

CRYZZA

CRESTRON

CYRUS

DELL

DENON

epos

exposure

GENELEC

Goldring

GRADO

IMAGE

Isotek

JVC

KEF

KEF

kudos

LINN

Lumagen

marantz

MOBIL ENGINEERING

MONITOR

MUSICAL FIDELITY

NAD

naim

neat

ONKYO

Panasonic

PMC

ProAc

Pro-Ject

Q

QUAD

rsa

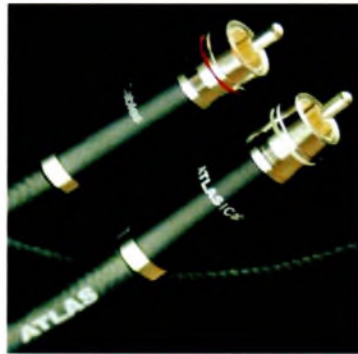
ROTEL

spendor

Technical Systems

Velodyne

WORLD OF AUDIO



HI-FI | HOME CINEMA | AUTOMATED SOLUTIONS

Based conveniently in central Guildford, P.J Hi-Fi has specialised in the demonstration, provision and installation of quality hi-fi and home cinema for over 20 years. Our dedicated demonstration rooms allow you to listen in comfort to a range of exceptional products, whilst our friendly and knowledgeable staff are always on hand to answer any questions you may have.

Whether you are looking for your first genuine hi-fi system, want to create a bespoke home cinema or wish to distribute music and movies throughout your house, P.J Hi-Fi can provide a solution to suit all budgets and criteria

As a truly independent retailer we are proud to say that we hand select, test and scrutinise all the products that we supply, ensuring a consistent standard of quality and reliability over our entire range of equipment.

Drop in today to discuss your requirements or phone / email us to book a demonstration.



Visit our dedicated demo rooms at:
 3 Bridge Street
 Guildford
 Surrey
 GU1 4RY

Opening hours:
 9am-6pm Monday to Saturday

Telephone:
 01483 504801 or 01483 304756

Email:
 info@pjhifi.co.uk

Web:
 www.pjhifi.co.uk



The only real hi-fi shop in Guildford

Uniti gain

SuperUniti combines SUPERNAIT, DAC and UnitiQute in one box

Naim has unveiled the SuperUniti, an upgraded version of the successful Uniti system. Naim says the intention of the SuperUniti is to extend the possibilities of the system into the high end and extend its suitability for larger rooms.

As such, the SuperUniti makes use of an 80-watt internal amplifier, derived from the SUPERNAIT to give

the SuperUniti extra headroom. This is partnered with a digitally controlled analogue volume control to improve performance over the standard Uniti.

The CD drive is dispensed with and the SuperUniti makes use of the streaming hardware that features in the UnitiQute, but with further improvements to the board that allow 24-bit/192kHz streaming. The vTuner

internet radio service is also supported (providing over 17,000 radio stations), along with DAB services and FM/AM radio.

Around the back, six digital inputs are fitted, backed up with the zero jitter design from the DAC. This uses a SHARC processor with Burr-Brown chipset.

The SuperUniti uses the trademark non-resonant and non-magnetic casework.



PRICE: £3,250 **AVAILABLE:** OCTOBER **CONTACT:** 01722 426 600
WEB: NAIMAUDIO.COM

Twenty-Twenty

New Icon Audio Stereo 20 PP borrows from a classic

Icon Audio's new amplifier borrows more than a little from the past. The design is based on the legendary Leak Stereo 20, which made use of the then brand new EL84 and ECC83 valves.

While a mint Stereo 20 will cost over £1,000 these days, the Icon is £500 and includes a headphone socket and an attractive perspex valve cover. A single-ended version is also available.



PRICE: £500 **AVAILABLE:** NOW **CONTACT:** 0116 244 0593 **WEB:** ICONAUDIO.COM

NEWS IN BRIEF

A selection of news-breaking stories on everything hi-fi



•**NAIM AND FOCAL** are to merge. The two companies are to share research and development assets, but will remain separate brands. The new organisation boasts a turnover of £48 million and employs 325 people.

naimaudio.co.uk/focal.com



•**DENON** has introduced an all-black version of its Ceol system. The all-in-one device boasts AirPlay, Internet Radio, network music streaming, iPod/iPhone, and USB connectivity.

denon.com

•**PURE** has released an updated version of its Move personal radio. The Move 2500 supports DAB, DAB+ and FM and has noise-cancelling earphones for improved performance. A 14-hour battery life is claimed.

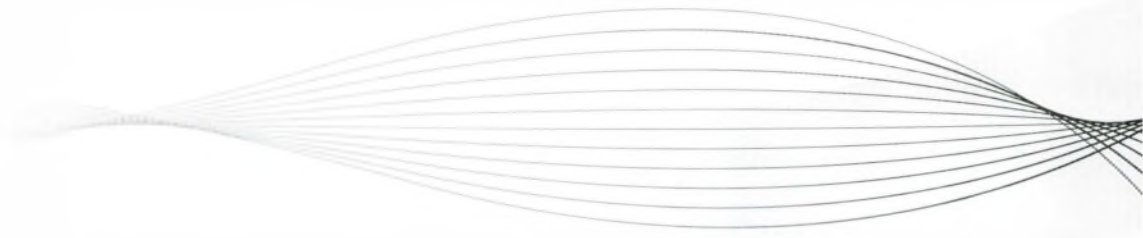
pure.com



•**HOUSE OF MARLEY** is marking thirty years since the death of the reggae legend, by releasing a range of headphones embodying the philosophy of equality, unity, authenticity, sustainability and charity – it says.

thehouseofmarley.co.uk

•**CORRECTION** The Quadral speaker reviewed last month (*HFC 350*) is, in fact, called the Altan VIII.



WHAT HI-FI?
SOUND AND VISION
AWARDS 2010

STEREO AMPLIFIERS
BEST STEREO AMPLIFIER £2000+
LEEMA TUCANA II

"If you get into h-fi to enjoy music, we doubt whether you'll find a more engaging alternative for the money"

"We're massive fans of Leema's Tucana II: it's closer to being all things to all people than any other high-end amplifier we know"

What Hi-Fi? Sound & Vision






Purchase an Antila IIS Eco & Tucana II and receive a Chord Anthem XLR interconnect worth £630 absolutely free!

THE
CHORD
COMPANY

Available only through Leema authorised UK retailers. Due to demand offer extended until 30th September 2011. Terms and conditions apply

Award Winning Hi-Fi



-  Visit: www.leema-acoustics.com
-  Phone: +44 (0)1938 811900
-  Email: info@leema-acoustics.com

Ascential

Quadral releases new Ascent range of loudspeakers

Quadral has announced a new range of loudspeakers. The Ascent series comprises two floorstanders, a single standmount and a centre speaker and a subwoofer for home cinema duties. Quadral says the range has been developed with neutrality in mind for optimal music playback.

The range is built around a titanium mid-bass driver, said to have excellent damping qualities. High-frequency duties are carried out by an aluminium tweeter, which is capable of output up to 46kHz with high-resolution formats. Finishes available include gloss black baffle or cherry lacquer with a graphite-coloured baffle.



PRICE: £245-£589 **AVAILABLE:** NOW **CONTACT:** 01785 748 446 **WEB:** QUADRAL.COM



Logan's Run

MARTINLOGAN has announced the entry-level ElectroMotion EM-ESL which, it says, is the most affordable hybrid Electrostatic loudspeaker on the market.

The ElectroMotion is built around a 34-inch tall curvilinear electrostatic panel and an eight-inch conventional driver for bass duties. The EM-ESL uses a precision-built Vojtko crossover to integrate the two different driver types correctly. The bass driver is passive, rather than actively driven, as it is in the larger MartinLogan models.

The EM-ESL is joined by a dedicated centre and surround speaker to create the potential for a full electrostatic surround system.

The EM-ESL is available in black for £2,499, or gloss black for £2,999.

PRICE: £2,499-£2,999 **AVAILABLE:** NOW **CONTACT:** 020 8971 3909 **WEB:** MARTINLOGAN.COM

Hit the Deck

Monitor Audio shows off two new docks

Monitor Audio has released two new models in its i-deck range.

The i-deck 100 and i-deck 200 are both distinctive curved affairs, which make use of the company's trademark C-CAM driver technology. Both models use a bi-amp configuration with larger

amps powering the bass drivers and separate smaller amps for the tweeters. The DAC technology is also interesting, with specialised high-speed 28-bit/56kHz chipsets being employed to decode the signal straight off the iPod. The design is modelled on a tulip to 'create', says Monitor Audio, 'a distinctive symmetry.'



PRICE: £299-£399 **AVAILABLE:** NOW **CONTACT:** 01268 740580 **WEB:** MONITORAUDIO.CO.UK

YOUR FREE CD



Your Free Gift

IsoTek Ultimate System Set-Up Disc worth £20!

Launched in Hampshire in 2001, IsoTek is the world's leading brand of specialised power management products for hi-fi and home cinema use. Its product range includes high-performance mains cables and connectors, plus a range of performance-enhancing power conditioners focused on the specific requirements of individual systems. IsoTek products are enjoyed by more than 50,000 customers in 45 countries and have earned numerous accolades from specialist audio and AV publications worldwide. All IsoTek products are designed for purpose, manufactured in Europe and built to last.

Contact: 01276 501392
Web: www.isoteksystems.com

IsoTek®
www.isoteksystems.com



Founded in Sweden towards the end of 1976, Opus3 is an independent record company that is dedicated to recording and producing timeless music in authentic surroundings. Since its formation, the label has cultivated an exceptional reputation for superbly natural and accurate recordings, winning a multitude of awards around the world.

Contact: 0870 444 0799
Web: www.opus3records.com

This issue of *Hi-Fi Choice* comes with a very special free gift courtesy of IsoTek – the world's leading brand of specialised power conditioning components for audio systems.

The IsoTek Ultimate System Set-Up Disc is a new CD designed to help you get the most from your hi-fi system by ensuring it's set up correctly and ready to perform at its best. The disc is available to buy from October, with a suggested retail price of £20 – but you've received a copy free of charge, simply by purchasing your favourite hi-fi magazine!

The disc contains a mix of stunning music recordings from the legendary Opus3 audiophile record label, each one chosen to test specific elements of audio performance such as timing, dynamics and soundstaging, with additional test and tune-up tracks to help optimise your system's sound. Here's a more detailed run-down of what's on the CD.

Test and Tune-Up Tracks

1. Introduction

The CD begins with a short audio guide about the disc and how to use it.

2. Channel Evaluation

Using a spoken voice, this track helps to identify whether a system has been correctly wired and tests its ability to deliver a stereo image.

3. Phase Test

This track can be used to test whether the speakers have been correctly wired and are in phase.

4. Loudspeaker Position and Adjustment

Using a combination of spoken voice and a castanet, this track helps you to position your speakers in order to obtain a perfect stereo image.

5 & 6. Soundstage Test

Beginning with an introduction (track 5) and continuing with the test itself (track 6), this track helps you to fine-tune the soundstage.

7 & 8. 360-Degree Test

Beginning with an introduction (track 7) and continuing with the test itself (track 8), this is the ultimate test of stereo performance – when set up correctly, a high-quality audio system should deliver the impression of complete immersion within the stereo soundstage.

9. Burn-In and Demagnetisation

Adapted from IsoTek's award-winning Full System Enhancer Disc, this track gives your system a five-minute workout to ensure it's ready to perform at its best. It begins with some 'hi-fi aerobics' to help exercise components and speaker cones, followed by a demagnetisation regime to reduce the detrimental effects of magnet build-up. Play this track regularly to help optimise your system's performance.

Music Test Tracks

10. Eric Bibb John Henry

(Taken from the Opus3 album *Blues, Ballads & Work Songs*)

This exclusive track is taken from the soon-to-be-released new album from Eric Bibb, Opus3's most famous artist. In order to produce an authentic live sound, the recording was made using an AKG C-24 valve stereo microphone feeding the Opus3 valve mic preamp, plus the Coles Electroacoustic 4038 bi-directional ribbon mic for the Vox amp.

Use to test: delivery of atmospheric detail.

11. Tiny Island Vaquero

(Taken from the Opus3 album *Tiny Island*)

Using the natural acoustical reverberation of an old stone church, this track features five musicians recorded with a stereo microphone adjusted to crossed figure of eights (the Blumlein technique). Starting with a rainstick that's joined by a steel guitar, Vaquero delivers a sound that is only possible when recording in an authentic environment – a method that has become synonymous with Opus3.

Use to test: soundstage depth and width.

12. Dan & The Electros Shaken Not Stirred

(Taken from the Opus3 album *It's Never Too Late*)

This studio recording pays homage to the early 1960s, without suffering from the technical limitations of the time. An authentic sound is created with the help of vintage RCA 44A ribbon microphones made in 1934, perfect for the tenor sax, with an AKG C-24 valve stereo mic hung overhead for the drums.

Use to test: timing and dynamics.

13. Eva Taylor Everybody Loves My Baby

(Taken from the Opus3 album *Eva Taylor Live at the Pawnshop*)

It was a magical evening at the Pawnshop in Stockholm in 1976 when legendary singer Eva Taylor dazzled her live audience with this classic rendition. A former vocalist with Louis Armstrong's band in the 1920s, Taylor brought a lifetime of experience to this astonishing live performance, captured forever in this spellbinding recording.

Use to test: atmosphere and soundstage.

14. Omnibus Wind Ensemble Dog Breath Variations/Uncle Meat

(Taken from the Opus3 album *Music by Frank Zappa*)

This reinterpretation of music written and originally performed by Frank Zappa displays all the musical complexities for which Zappa is famed. The 12-piece Omnibus Wind Ensemble is captured here in a medium-size, wooden-walled concert hall, delivering a live and authentic timbre – a stunning recording of an extraordinary performance.

Use to test: soundstage depth and width.

15. Matthias Wager Toccata in D-Minor (J.S. Bach)

(Taken from the Opus3 album *Organ Treasures*)

This piece is a classic bass test – the organ reaches down to 30Hz. The recording was made using the Thureson CM-504 condenser stereo microphone, which besides its fantastic resolution has a frequency linearity that is second to none, facilitating the recording's exceptional dynamic range and perfectly captured church acoustics.

Use to test: bass depth and dynamic range.

Mac-nificent

Hi-Fi Choice has gained exclusive access to one of audio's biggest stars: McIntosh. Our US correspondent **Kevin Gallucci** reports on the latest goings on from the factory, just north of NYC



There are a number of good hi-fi manufacturers in the world today, but there are only a few that carry the distinction of being called 'legendary.' McIntosh is one of the elite hi-fi companies that bear this mark, an achievement that has taken some 60 years to develop.

Its products have even appeared in numerous Hollywood movies, while actors like Jack Nicholson and Harrison Ford count themselves

among its celebrity clients. But although McIntosh is courted by the California fraternity, its home address is actually three thousand miles away on the East Coast in a town called Binghamton, north of New York City.

Founded in 1949, the company was set up by Frank McIntosh, whose original aim was to build a high-power, low-distortion product. Together with Gordon Gow, he created the first McIntosh amplifier, the 50W-1, which included

the 'Unity Coupled Circuit', a patented design that is still used in McIntosh amplifiers to this very day.

Over the years, it has made a name for itself by winning over customers with products that are distinctive, meticulously built and simply different from the norm (see *HFC 343*). The MC275 amplifier, for example, has been wowing customers for over 40 years!

Each product in the McIntosh factory is still put together by hand, while state-of-the-art equipment is used in conjunction with skilled labour to ensure that each part being produced is up to the company's high standards.

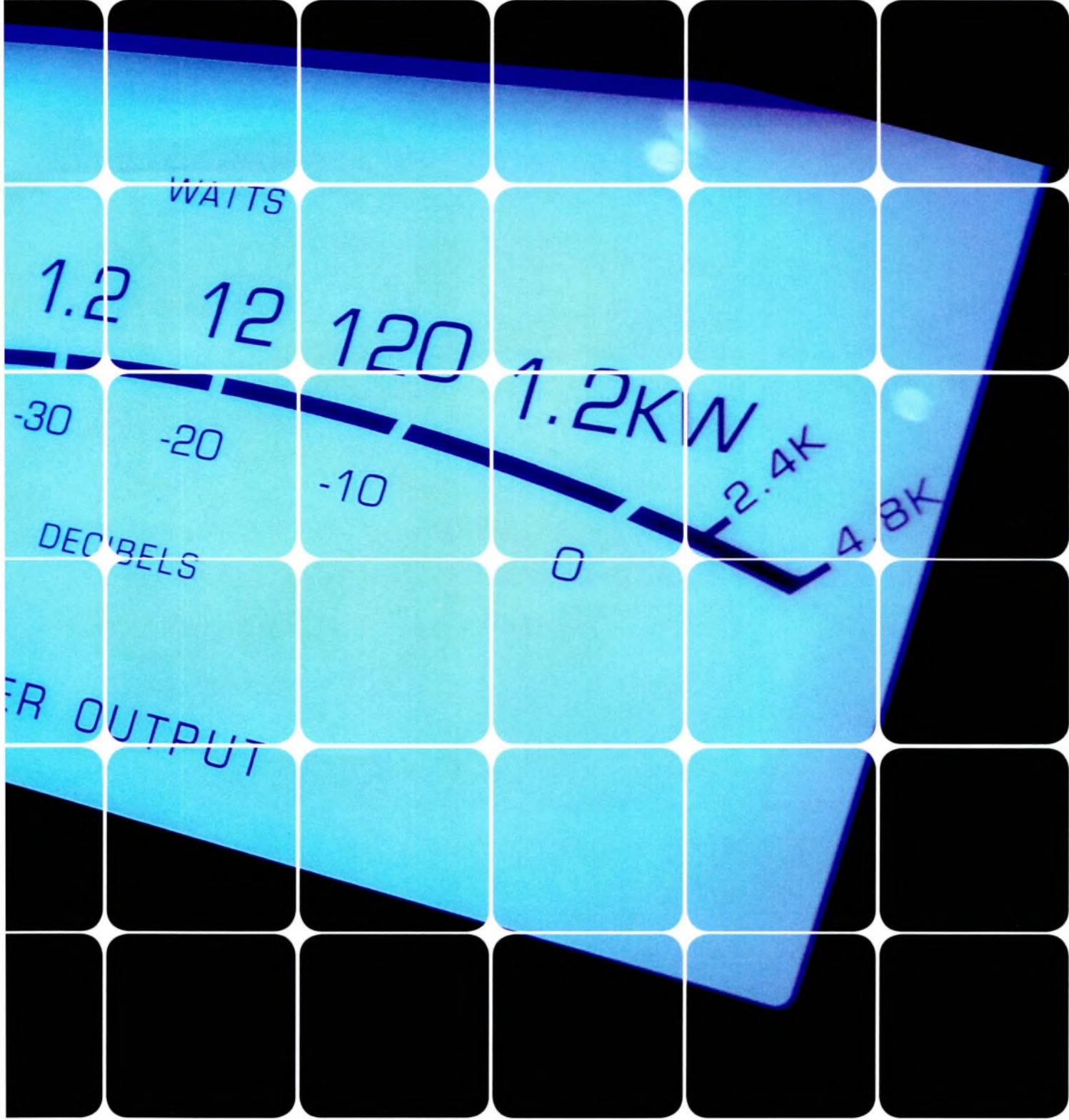
Feeling blue

Given a unique opportunity to see what makes this company tick, our first stop was the PC board assembly area. The company uses automatic insertion machines to assemble most boards and each is then inspected by individual workers (specialty boards are also hand-soldered and assembled).

There's a fully functioning test area that puts the boards to work, with each component facing a series of tests to ensure that it is functioning

McIntosh's headquarters in Binghamton, New York





Guildford Audio

Astintrew
ATC
Audio Research
Audiophile Base
Copland
Crystal Cable
Custom Design
Dan D'agostino
Dartzeel
Dream Vision
EAT

Gamut
Grado
Heed Audio
Jadis
Jeff Roland
Koetsu
Krell
L'vardin
Magnepan
Martin Logan
Micromega

Mimetism
Musical Fidelity
Onkyo
Pragma
Plinius
Prima Luna
PS Audio
Qsonix
Siltech
SME
Sonus faber

Star
Sterling Broadcast
Stratton Furniture
Sugden
Sutherland
Theta
Transparent
Wadia
Wilson Audio
Yter
Z.Axis

When it comes to the music you love...



AUDIO RESEARCH / MUSICAL FIDELITY



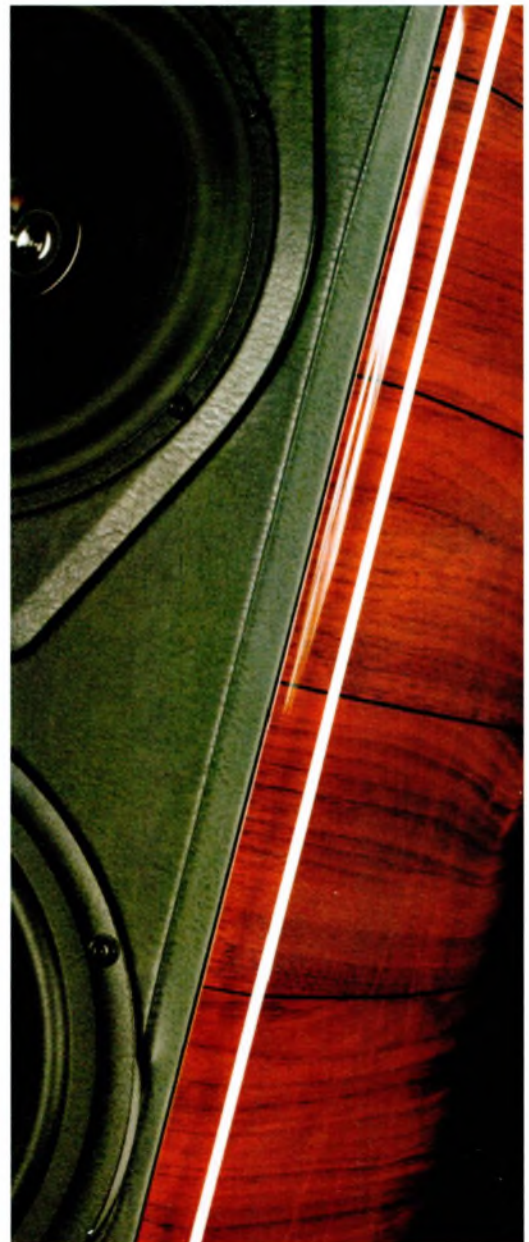
WILSON AUDIO / PRAGMA



WADIA / MARTIN LOGAN



DAN D'AGOSTINO

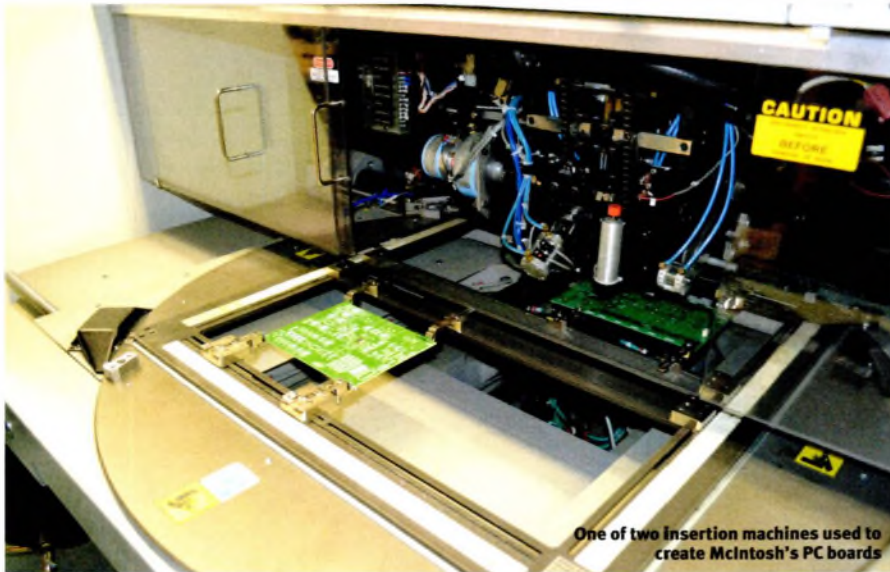


SONUS FABER

t. **01483 537 577**
m. **07979 515 577**
e-mail:
sales@guildfordaudio.co.uk
web site:
www.guildfordaudio.co.uk

Guildford Audio appreciate that only the finest audio products are good enough, backed up with unbiased advice and a first-class service. Run by professionals for professionals.

Trevor Martin



One of two insertion machines used to create McIntosh's PC boards

NEW FROM McINTOSH

McIntosh recently debuted its new preamplifiers, the C50 and C48, each of which incorporates an advanced 32-bit DAC. This allows users to hook-up to a variety of digital sources, including a computer via the USB input.

To compliment these preamplifiers, McIntosh has also introduced two new power amps, the MC302 and MC452. Both feature new circuit components and 'Thermal Track Output Transistors' that adjust bias on the fly.

To utilise the benefits of computer audio, McIntosh has an app that allows users to control their McIntosh kit via an iPod or iPad. These innovative apps turn your Apple product into a fully functional McIntosh controller with a similar look and feel to match your other hi-fi equipment.

“It has made a name for itself with products that are meticulously built and different from the norm.”

Moving to the metal shop, we had a chance to see first-hand how metal components are used in the company's products. Modern metal presses and cutters are employed to shape parts, but McIntosh still depends on more vintage equipment to make one-off pieces – a characteristic that is not uncommon among smaller hi-fi companies. And, as with the glass, raw materials are home grown.

McIntosh amplifiers have a reputation for being quite powerful, thanks to a specially designed C-Core transformer, whose rounded shape allows energy to flow more smoothly. The company also uses tar to seal its transformers, in a process that consists of placing a finished transformer into an aluminium case, flipping the case upside

down and filling it with hot tar. The bitumous liquid seals the transformer, reducing the amount of sound-degrading vibrations reaching the transformer, while decreasing audible hum as well.

McIntosh products also have a reputation for producing very little distortion. In its accompanying literature, it states that its units produce as low as .005 total harmonic distortion. In fact, this figure is actually lower, more in the range of .002 total harmonic distortion. It is not uncommon for hi-fi companies of this calibre to be modest in their product claims and based on our examination of the internal components used in each product, we can confirm that a lot of the McIntosh amplifiers are built to a very high standard. They are built like tanks, yet perform like a Swiss watch.

Loudspeaker enclosures

If you want state-of-the-art performance, it takes extreme engineering and McIntosh has always been serious about the performance

properly. If it doesn't meet the company's strict standards, then the board is rejected.

Wandering around the watt meter section of the factory is particularly revealing. The distinctive blue watt meters, found on just about all McIntosh amplifiers, are one of the most distinctive features of any hi-fi product. Over the decades they have become iconic symbols, but are very different to their predecessors. For instance, McIntosh has switched to LED lights, because of their longevity and the ability to fine tune their colour. The original meters used normal bulbs, but the life span was much less than LED, while another associated problem was that McIntosh had trouble creating the correct blue hue. LEDs have changed all this and the company even uses a light sensor to ensure that each watt meter glows the correct shade of blue.

Built like tanks

McIntosh's distinctive glass faceplate has always been a unique aesthetic feature to its products. A water jet is used to cut out all the pieces of glass found on each product (the glass is sourced from US glass companies), while the rocks used in the cutting process are sourced from a local quarry.

Even in an age of outsourcing, McIntosh prefers to use American-made materials in all its products. Even the cardboard packaging is sourced from local box-makers.



McIntosh's signature glass face plates are created using a flow jet machine



Tar being poured into aluminium transformer cases to reduce sound-degrading vibrations

THE INSIDER

McINTOSH: FACTORY TOUR



Metal components are stamped and cut using advanced metal-working machines



McIntosh's latest creation, the MC452 amplifier waiting for completion

of its products. Which is why its facility has a large R&D department housing a team working constantly on new ideas and technologies. Engineers use both an anechoic and a reverberant chamber to fine-tune and tweak McIntosh products, while in the R&D department, we had an opportunity to catch a glimpse of an exciting new concept. We can reveal that McIntosh is working on a high-performance iPod dock. No details as yet, but keep an eye on our News pages in upcoming issues of *Hi-Fi Choice*.

McIntosh's product line is extensive: it makes everything from source components to amplifiers, but the company is less well-known for its loudspeakers. As a matter of fact, it designs and builds a wide selection of loudspeakers, although this area of the factory was much smaller than the other areas dedicated to electronics.

Nonetheless, the speakers being produced here were very advanced and engineered to the Nth degree. They incorporate a line array design that consists of multiple drivers (the XRT2K uses as many as 40 tweeters and



64 midrange drivers) and McIntosh believes this method offers superior sound to single drivers, because it projects a wide and deep sound field. The design is said to produce a 130-degree dispersion, which creates a large sweet spot.

Close examination of these loudspeakers shows that McIntosh is using only the finest materials. Titanium midrange and tweeters are used in conjunction with aluminium

McINTOSH TIMELINE

1949 - McIntosh Laboratory unveiled in Silver Springs, Maryland, USA

First of 36 patents awarded to McIntosh for the Unity Coupled Circuit – still used today

1951 - McIntosh moves to a new factory in Binghamton, New York

1953 - The A116 power amp and C108 preamp are introduced

1955 - The MC60 power amp and C8 preamp debut

1960 - MC240 power amp is introduced

1962 - The MC275 is launched (which is still in production today)

1964 - C24 preamp – first solid-state product

1967 - The MC250/Mc2100 and MC250 – the first solid-state power amplifiers are introduced

1969 - Woodstock music festival and McIntosh amps power the stage. The first solid-state tuner, the MR73 is launched

1970 - Loudspeakers: ML1, ML2 and ML4

1974 - Grateful Dead's Wall of Sound powered by McIntosh amps

1980 - Anechoic chamber is added to Binghamton loudspeaker department

1985 - McIntosh introduces its first CD player: the MCD7000

1990 - McIntosh purchased by Clarion Corporation

1993 - C39 preamp, MC7106 power amp and HT series loudspeaker launched – all THX certified

1994 - MS468 car audio speakers mark the first in a line of car audio products

1999 - 50th year anniversary and the MC2000 power amplifier limited edition

2003 - Harley Davidson OEM riser mount radio launched

2003 - D&M Holdings Inc. purchases McIntosh

2004 - Ford 100th anniversary GTsystem launched

2010 - McIntosh introduces C48 and C50 preamplifiers featuring USB connectivity



The company's in-house anechoic chamber

bass drivers. Some of the loudspeakers are housed in metal enclosures, while others can be found in traditional wood cabinets. Although it doesn't yet have the same reputation in loudspeakers that it does in other areas of audio, this could easily change.

First class

There's no doubt that McIntosh is truly passionate about its products – future-proofing the entire range with both USB audio and various apps, is a fine example.

Manufactured to an extremely high standard, it's electronics also have an enviable reputation for longevity. In fact, early McIntosh products are worth more today than when they were first released. How's that for a sound investment?

For the latest McIntosh product reviews, look out for *Hi-Fi Choice's The Collection 2011*, on sale 29th September.

Q Series

KEF
INNOVATORS IN SOUND



a class above

The Q series from KEF represents a quantum leap in terms of listening pleasure.

From compact bookshelf designs to serious hi-fi speakers and dynamic home cinema systems, all available in a choice of beautiful luxury finishes, the highly versatile nine-model line-up will truly satisfy your need for class-leading audio purity.

So whether it's music or movies, Mahler or Massive Attack, what you experience is the captivatingly sweet, accurate and natural live sound of the original performance.



KEF Q Series

"...these new KEFs are a compulsory audition; they're a seriously entertaining listen."

Q300, 5*, What Hi-Fi? Sound & Vision, Feb. 2011

"A purist solution to the home cinema conundrum - and an entirely admirable one."

Q300 AV pack, 5*, What Hi-Fi? Sound & Vision, Sept. 2011

GP Acoustics (UK) Limited
Eccleston Road, Tovil, Maidstone, Kent, ME15 6QP, U.K.
Tel: +44 (0)1622 672261 Fax: +44 (0)1622 750653

www.kef.com

*Beautiful.
Captivating.
Award Winning*



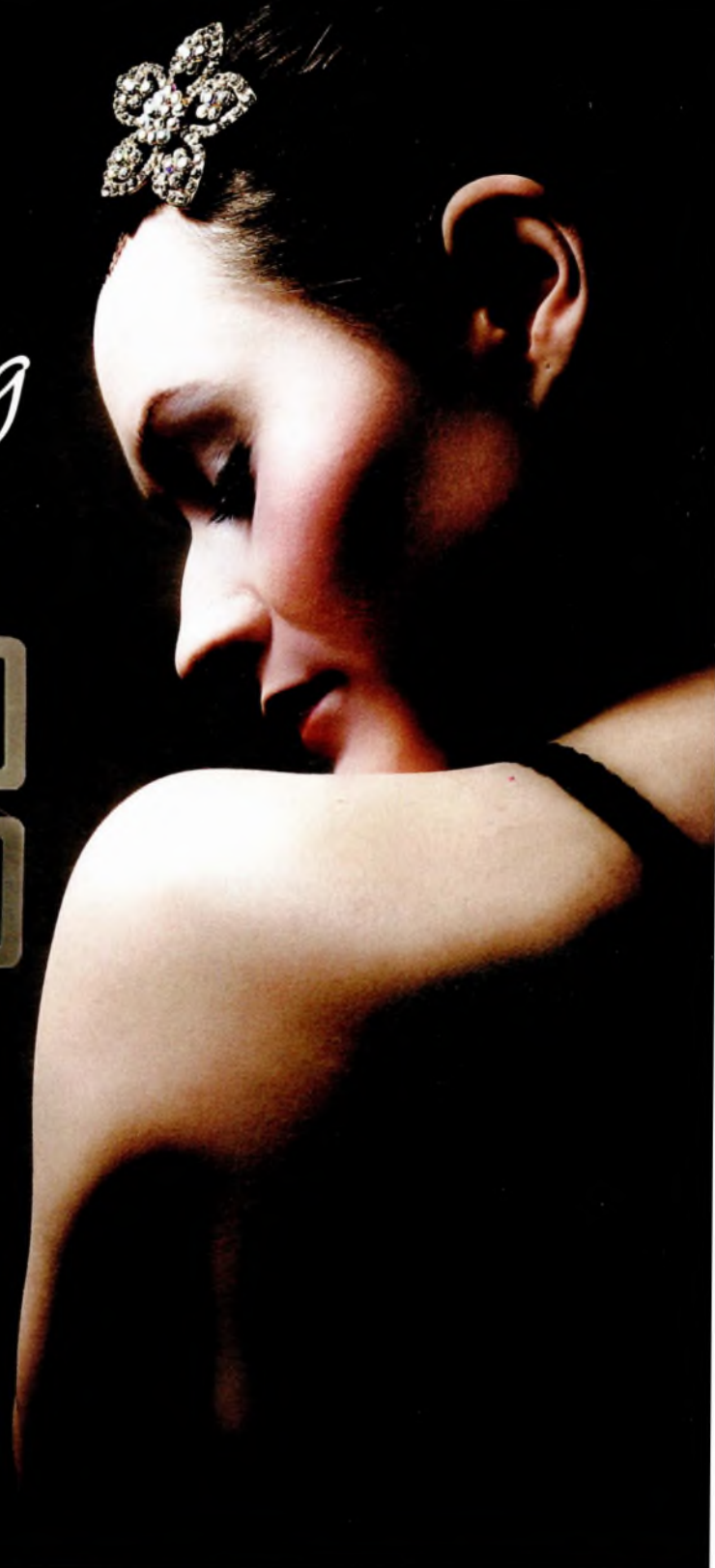
WHAT HI-FI?
SOUND AND VISION

AWARDS 2008

PRODUCT OF THE YEAR

STEREO AMPLIFIERS

ROKSAN KANDY K2



K2 is the latest development in Roksan's ongoing devotion to pristine audio performance.

All K2 Products are currently on offer at your local Roksan dealer:

K2 CD Player - £750

K2 Integrated Amplifier - £750

K2 Power Amplifier - £650

K2 Speakers - £750

ROKSAN

Technology Driven by Emotions



Roksan is distributed in the UK by Henley Designs Ltd.

Tel: 01235 511 166, Fax: 01235 511 266, Web: www.henleydesigns.co.uk

Streaming made easy

Richard Black looks at what actually happens when you connect a streamer to your computer

In this issue, for the first time, our *Blind Listening Group Test* concentrates on streamers, the latest category of audio components to cause a stir. For a lot of folks, anything to do with computers causes anxiety and, fair enough, there's nothing like a malfunctioning computer to drive one 'screaming' up the wall. Do we really need all that hassle around our audio system?

But assuming you've got a basically functioning computer, of any flavour (PC, Mac or Linux-based), there's no reason to fight shy of a streamer. Indeed, playing music via a streamer can end up being easier than playing it directly off the computer, as the streamer's user interface is geared to one job only. Let's have a look at what's involved in playing music this way.

In an audio sense, a streamer is nothing more than a DAC with an Ethernet (and/or wi-fi) input. Digits come down the wire and are buffered, clocked out and converted to analogue. There are some differences, though. Chief among these is that Ethernet is intrinsically a bidirectional interface and digits are only sent when the streamer asks for them. This is quite unlike S/PDIF (your normal digital connection from a CD player to a DAC) and, in fact, unlike what happens in most USB implementations – a few use the fact that USB is also bidirectional, but typically the digits are just squirted down the wire by the computer and the DAC is left to sort them out.

In Ethernet, the streamer asks for some data to be sent and the computer (or 'server') obliges, sending at a rate very much faster

than is required for audio, even high-res. The streamer has to do some buffering because jitter can effectively be measured in seconds, but the whole business of asking for data when it's needed means the system operates in synchronism and it's actually relatively easy to reduce jitter to next-to-nothing. A megabyte or three is received and buffered, and the computer is told to stop sending. When the buffer is nearly empty, another request is sent and so on.

Bit-perfect transmission

Because the computer is simply answering a request to send a file, there's much less chance in this scenario of audio files being randomly resampled by the computer. One of the big drawbacks of computer-based audio is that computer operating systems often do things they haven't explicitly been asked to do, like resampling all audio to 48kHz sampling rate. When a file is requested down a network connection, however, the computer doesn't even bother itself whether the file is audio, images or a text document – it's just data. As long as the streamer treats the digits with respect you get bit-perfect transmission all the way to the D-A. Of the six streamers we tested, five do this at all times, though one appears to do some resampling of hi-res audio.

One thing you generally can't do is connect a computer directly to a streamer via an Ethernet cable. You need a 'router', which will probably be the device that connects your computer to the internet. The good news, though, is that you don't have to go to the trouble of setting up an actual network, still one of the more arcane arts in computer configuration. As long as the router is connected to your computer and it's running a suitable bit of server software (you'll find advice on this in the instructions with your server or on its manufacturer's website) you will be able to access your files. And the computer doesn't even need to be connected or turned on for you to enjoy the benefits of internet audio, including the vast number of internet radio stations.

If you want to find out more, then turn to page 40, for six-way group test.

Assuming you've got a basically functioning computer, of any flavour (PC, Mac or Linux-based), there's no reason to fight shy of a streamer



The tiny and reasonably priced Logitech Squeezebox Touch includes CD cover art display and even Facebook



RICHARD BLACK

A musician and recording engineer, Richard knows a thing or two about hi-fi – he's been writing about it for over two decades

WHAT DO YOU THINK?

Have you added a streamer to your system? Tell us what you're running
Email us now: hifichoice@futurenet.com

ISOtek®

The power to deliver 'clean' power

Syncro is IsoTek's latest product and the company's most advanced mains cable – but it's also so much more.

Syncro incorporates innovative electronics, housed in an anti-resonant aluminium case, designed to synchronise the mains supply in order to promote a perfectly symmetrical sine wave, delivering significant sonic improvements.

- Stops transformer buzz, a common problem referred to as DC on the mains.
- Can be used on all high quality Hi-Fi separates including mains filters.
- Improves sound quality.
- High quality 24ct gold connectors.
- Advanced power cord with active shielding.
- Award winning design team.



"Syncro offers really serious improvements... It's really not a question of whether to purchase, but when."
HI-FI PIAC MAGAZINE

"IsoTek is the leader in mains conditioning products"

HI-FI NEWS

"IsoTek is the UK's biggest name in mains filtration"

HI-FI CHOICE

"IsoTek has built itself a reputation as a purveyor of mains conditioners that actually improve (as opposed to just alter) the sound"

HI-FI WORLD

To obtain your free IsoTek brochure please call:

01276 501 392

info@soundfoundations.co.uk
www.soundfoundations.co.uk www.isoteksystems.com

2007 Hi-Fi Choice Category Winner IsoTek Sigmas	2007 Sound & Vision Category Winner Hungary IsoTek GII Mini Sub	2008 Hi-Fi Choice Best Buy IsoTek Sinus	2008 Hi-Fi Choice Silver Category Award IsoTek Sinus
2006 What Hi-Fi? IsoTek Full System Enhancer CD	2006 T.A.S. Editors Choice Nordost Thor by IsoTek	2006 Hi-Fi News Category Winner IsoTek Sigmas	2006 Hi-Fi Choice Product of the Year IsoTek Sigmas
2005 What Hi-Fi? IsoTek Gemini-6 Way	2005 Hi-Fi Choice Editors Choice Nordost Thor by IsoTek	2005 What Hi-Fi? IsoTek Titan	2005 Hi-Fi News Category Winner IsoTek Titan
2003 Hi-Fi News Category Winner IsoTek Mini Sub [Mk1]	2004 What Hi-Fi? IsoTek GII Vision	2004 Hi-Fi Choice Category Winner IsoTek GII Mini Sub	2004 What Hi-Fi? Category Winner IsoTek GII Vision
2002 Hi-Fi News Category Winner IsoTek SubStation	2003 What Hi-Fi? IsoTek Mini Sub [Mk1]	2003 Hi-Fi Choice Editors Choice IsoTek Mini Sub [Mk1]	2003 What Hi-Fi? Category Winner IsoTek Mini Sub [Mk1]
2004 Hi-Fi Plus Category Winner Nordost Thor by IsoTek	2005 What Hi-Fi? Product of the Year Hong Kong IsoTek Titan	2005 Hi-Fi Plus Category Winner Nordost Thor by IsoTek	2004 Hi-Fi Plus Category Winner Nordost Thor by IsoTek

Lower class?

Class D amps are a decade old, so **Ed Selley** wonders why we still regard them as the exception rather than the norm?

If you were replacing your car and you had the choice of one powered by an engine that was broadly similar to the one in the old model or one that produced a huge amount of power, took up less space and used a quarter as much fuel, the chances are you'd plump for latter. Yet for those of us faced with the choice of buying a new amp, over the last ten years we've had the choice of this 'super engine' to power our next choice and we have yet to really embrace it. By any technical standpoint, Class D designs ought to outnumber their AB counterparts by now and yet they are still firmly in the minority.

This is partly because realising the potential of Class D has taken a little time. If we return to the engine analogy, the early Class D designs realised the potential of high power and good fuel economy, but only at the expense of high noise and vibration levels. Compared to the more perfectly evolved technology of Class AB they had measurable and audible flaws.

Ten years down the line, the flaws of early Class D are non-existent. The Bel Canto C5i (p60) and the Primare i32 (HFC 344) are the technical equal of anything else in their price category. The side effects have been cured.

Original intentions

More to the point, they sound excellent. Stick these two into a blind-listening panel of Class AB amplifiers and they won't stand out for any other reason than the strength of their performance. They have realised the original intentions of Class D perfectly – high power, great sound and relatively high efficiency. Confronted with this, it would seem reasonable to assume that other manufacturers would be following suit. That they don't seem to be doing so is probably down to two distinct problems.

The first is one of perception. Class D amps have been described as 'digital' almost from the outset. Despite this, they are not and never have

been digital in the way that CD is, but this doesn't seem to have stopped them being described as such. With digital comes 'sterile', 'cold' and 'clinical'. This is unfair – both to good digital and certainly to Class D amplification. It is telling that Bel Canto feels compelled to devote part of its website to dealing with these myths and explaining the benefits of Class D. Manufacturers of streaming products have broadly been able to let their products do the talking, while those using Class D amps must first explain their decision before releasing the product.

The second is rather harder to overcome. The actual 'module' of a Class D amp is a component that comes from a smaller number of manufacturers than there are people making Class D amplifiers. Some manufacturers build only for their own requirements, while others (like Bang & Olufsen) are prolific and supply multiple companies with ICEPower modules. A company that has full control of the components that make up a Class AB amplifier will likely have a few reservations about surrendering some of that 'control' and bringing in an external module. That being said, Class D technology is not beyond the technical remit of quite a few manufacturers who currently don't use it.

Overcoming the first stumbling block is a matter of getting would-be buyers to listen to the current offerings with minds as open as their ears. An amplifier is either what you are looking for or it isn't, there should be no need to quantify that with 'it is good for a Class X, but'. The second will be something that only happens in response to demand and necessity. Demand is tied in to the first point, but necessity can be created from a number of angles.

Rising energy costs might get people considering the benefits of an amp that can generate several hundred watts of output with drastically lower consumption than a traditional Class AB or alternatively, as an industry, we may find ourselves the subject of 'green taxation' based on power consumption.

While neither of these possibilities is hugely appealing, the good news is that even if you are compelled, rather than convinced to move to Class D, the technology has truly come of age.

Ten years down the line, the flaws of early Class D are non-existent. The Bel Canto C5i and the Primare i32 are the technical equal of anything else in their price category

The Bel Canto C5i: read our in-depth review on p60



ED SELLEY

Ed worked in retail before joining some of the biggest names in the hi-fi industry creating and supporting audio products

WHAT DO YOU THINK?

Have you auditioned Class D amplification? What did you think and what did you buy? Email us now: hifichoice@futurenet.com

Looking for a better mains extension?

60 Day
Home Trial

Most of us use some sort of mains extension to connect all our equipment, but in our experience, cheap, 'DIY-store' types can strangle the performance of your system.

From our years of testing, listening and watching, we think that upgrading your mains extension is a great way to help you get better sound and pictures from your Hi-Fi and Home Cinema. The SilencerBlock (with Classic PowerKord™) is the most popular in our range: because all your components plug into the block, the whole system benefits from the high quality sockets, mains filtering, surge protection and Russ Andrews PowerKord™ that connects your extension to the wall socket.

But don't just take our word for it; **why not try one yourself for 60 days?** It's easy to order online or by telephone. And if you're not completely satisfied with the improvements to your system, simply return it and we'll refund your money, with a thank you for giving it a try.



Russ Andrews Silencer Block
"...significantly reduced background 'hash' and a subjectively lower noise floor, which in turn improves resolution of details."

Hi-Fi Choice,
The Hi-Fi Accessories Handbook,
July 2006

"What a difference it has made to my system. I can honestly say that no new piece of kit has ever improved my system in such a dramatic way. There is better control, instruments are sharper and better separated and just much more believable than they were - instruments like piano and keyboard are superb... I rarely write testimonials but felt compelled to write this as I am just so pleased with the product."

Mr G Knowles, by email



- ✓ Silencer mains filter for mains noise reduction and spike protection
- ✓ 4, 6 or 8 high pressure large surface area nickel plated sockets
- ✓ brackets to allow wall mounting
- ✓ stylish aluminium casework

The Silencer Block & Classic PowerKord™
6 way Silencer block and 1m Classic PowerKord™
as shown above **£378**
Other cable lengths and socket numbers available.

Call **0845 345 1550** or visit

www.russandrews.com/silencerblock

Mail Order Direct • 60 Day Cable Home Trial • Cable Upgrade Scheme • Free Delivery (orders over £100 within UK Mainland)

KIMBER KABLE
Exclusive UK distributor

Russ Andrews®

Tip 1: Download your FREE guide!

'50 Tips to get the best from
your Hi-Fi & Home Cinema'

Russ Andrews has decades of experience within the Hi-Fi industry and over that time he's picked up lots of tips for improving the sound and picture quality of his systems, for little or no cost. We'd like to share some of that knowledge with you, so we've put together a guide for '50 tips to get the best from your Hi-Fi and Home Cinema'.

The guide is packed full of top tips for improving everything from your amplifier to a humble CD. **Most of the tips will cost you nothing and take very little effort to achieve.**

Available to download free of charge, get yours now simply by visiting:

www.russandrews.com/hfctoptips

FREE
GUIDE



Bassic instinct

REL's Studio subwoofer reproduced frequencies so low, it might almost have doubled as a WMD says *Jimmy Hughes*

RELs Richard Lord didn't invent the subwoofer, but he was certainly one of the first to espouse its use for hi-fi systems. His range of REL subwoofers arguably changed the way audiophiles regarded subs, transforming them from effects boxes into something far more important and meaningful.

Now there's nothing wrong with trouser-flapping bass, but – be honest; is it strictly necessary? Does it add anything of value to one's appreciation of music? Are subwoofers purely for bass freaks, or do they offer something extra that purist hi-fi enthusiasts can recognise and appreciate?

Richard Lord thought so and proselytised the case for subs to anyone who'd listen. He pointed out how a good sub subjectively sweetened the treble, giving the sound a more airy liquid quality. Having a sub also improved stereo imagery, creating greater depth, while making the soundstage seem more three-dimensional.

Now you might think blockbuster recordings are necessary in order to demonstrate what a big sub can do. However, perhaps the most impressive (and puzzling) aspect of subs is the improvement you get on recordings of instruments that (seemingly) have no bass at all. Confused? You will be.

One of our subwoofer party-pieces was to compare the difference with and without using a recording of Vivaldi's concerto for two mandolins. To illustrate the effect of the sub, we'd play the slow movement, which features just the two mandolins playing quietly. No bass there, you'd think. And ostensibly you'd be right.

Playing this quiet piece of music and switching the sub on and off, the difference was uncanny. With the sub working, the sound had noticeably greater richness and depth. Switch the sub off, and the soundstage appeared to collapse and go 'flat'. The instruments no longer seemed to 'project' from the speakers. It's amazing but true.

While such differences might seem plausible on wide-range music with deep bass, to hear it on a recording of two mandolins was uncanny. Even more disturbing; if you switched off the main speakers and listened to the sub on its own, it appeared to be doing nothing. You couldn't tell if the music was playing! Is that weird, or what?

Back in the early '90s, REL's Studio (there's now a Studio III) was probably the biggest sub money could buy. It was large and hugely heavy – so much so, we thought it was screwed to the floor the first time we encountered one! Weighing in at over 200lbs (that's more than 90kg) it was/is an awesome piece of kit.

But – how to get such a massively heavy beast down a narrow flight of stairs? To try and make things more manageable, we ended up taking the sub apart, removing the amplifier and huge 15-inch drive units. Even then – left with just the cabinet – the weight was immensely challenging. But, eventually the deed was done.

Full Fathom Five

In terms of bass, the Studio went deep – really deep. So much of what passes for 'deep' bass is actually stuff in the 20/30Hz region – deep, but hardly subterranean. The Studio went way below that. It produced amazing results and could effortlessly deliver the thunderous lows of a mighty pipe organ, or the power of a massive bass drum. It was also adept at reproducing sub-sonic grunge. One evening, while listening to a recording of some Mozart choral music, we suddenly became aware of a deep vibration.

It felt like the foundations of the house were being shaken – as though a big lorry or bus was parked outside and the vibrations from the engine were rattling the floor and walls. Hitting the Pause button caused the vibration to cease; pressing Play brought it back again! Clearly, the 'vibration' was on the recording.

However, it was so deep, only an exceptional subwoofer like the Studio could reproduce it. Trying the same recording with REL's Stadium sub did not produce anything like the same room-shaking effect. And the Stadium was a big subwoofer; one fully capable of reproducing low frequencies to 20Hz and below.

Now, you'd think that would be more than enough. And, in many ways it is. Only the Studio went noticeably deeper. One might debate whether or not this was always a wholly good thing. But Full Fathom Five it went.



The mighty REL Studio: looks can be deceptive

The most impressive (and puzzling) aspect of subs is the improvement you get on recordings of instruments that (seemingly) have no bass at all



JIMMY HUGHES

A hi-fi enthusiast for four decades, Jimmy's knowledge of system-matching and record-collecting are unmatched in the industry

WHAT DO YOU THINK?

Are you running a 2.1 system? Or have you had a sub and simply moved on? Email us now: hifichoice@futurenet.com

S3/5R² NEW

The Spendor S3/5 (1997-2007) achieved worldwide recognition amongst audiophiles and critical reviewers as the natural successor to the BBC LS3/5a mini-monitor loudspeaker.

The Spendor S3/5R (2007-2010) achieved what many thought impossible - New levels of transparency and imaging coherence, more articulate bass delivery, and the enjoyable fatigue-free listening experience which so clearly distinguished the original S3/5 from other small loudspeakers.

Now the Spendor S3/5R² takes a big step forward with significant improvements in low frequency articulation, dynamics, power handling, transparency and sound integration.



Like its distinguished predecessor the new S3/5R² has a fine technical performance and an impeccable fatigue-free sound. It is easy to drive and easy to place. Sample the best compact loudspeaker when music comes first, and also an accomplished surround (5+1 channel) loudspeaker.

Spendor 2011

A3 NEW

Our new ultra-compact floor standing loudspeaker. The Spendor A3 delivers clear natural sound with real low frequency power and scale.

Powerful electromagnetic damping of the new Spendor bass driver, and an optimised low Q acoustic enclosure with a large diameter free-floating rear-mounted reflex port ensures deep well-controlled bass in any listening room.



SPENDOR

01323 843474

www.spendoraudio.com

Letters

Presented by
Russ Anderson
Solutions for better music & more



Get in touch! email us at hifichoice@futurenet.com or write to: **Hi-Fi Choice Letters, Future Publishing Ltd, 2 Balcombe Street, London NW1 6NW**

tune in RADIO

Tuneln's service is a potential DAB killer

On the air tonight

I read your Letter of the Month in HFC 348, regarding the BBC's Radio 3 HD stream 'Staying intune'. The writer mentions the BBC HD stream available on their website, via a personal computer with flash player installed, but suggests that a 320kbs stream is not available on a mobile device.

I listen to the 320kbs stream of BBC Radio 3, occasionally on my PC, but more often on my Apple iPod touch (revision 4.3.3 software), via the 'Tuneln Radio' programme available from the Apple store for a nominal sum.

I also listen to Linn Classical streaming at 320kbs, via the same program. The difference being that the BBC uses AAC and Linn is using MP3. The BBC stream appeared recently and to my ears sounds very acceptable and a step up in quality compared to DAB.

My Roberts Revival iSTREAM radio cannot use the higher bit rate, so it does suggest the combination of the iPod and 'Tuneln' programme can decode the stream successfully.

Two questions: is the 320kbs stream that I am picking up on my portable device using a different compression algorithm to the HD service available by computer? (The BBC seems vague about this on its Radio 3 HD part of the website and doesn't mention the stream can be decoded other than using a personal computer). And am I still receiving an inferior sound via my iPod, or is it the same stream found on its Radio 3 website?

Ian Walker, via email

HFC Tuneln Radio (which we think is one of the best apps out there) goes directly to the website of BBC Radio 3 for the feed it replays. It will not display the format that the feed is in, but some back-to-back tests

between the iPhone and PC going into the same DAC had us hard-pressed to tell the difference.

We suspect, (but can't prove) that the signal is going to be the high-quality feed. This ought to be comfortably superior to DAB (and not too far removed from even exotic FM tuners). DAB still uses MPEG2 compression, which is old and rather inefficient and broadcast at a lower overall bitrate than the internet feed.

Even if the signal being received was in MP3, this is still more

necessary to make the most of fairly undeveloped DAC technology at the time?

I suspect not, but it seems to be taken for granted that such DACs, thanks to higher sampling rates and better jitter control, are automatically better than earlier high-end units. Is this the case?
Martin Summers, via email

HFC Ed Selley replies: "In all honesty, I don't feel that there is anything so amiss with older high-end DACs that you would need to sell them on, just yet.

In an absolute sense, all but the very oldest DACs are capable of handling 16-bit/44.1kHz files without running into any serious obstacles at all. The manufacturers were also not mistaken in taking



The Rega DAC is superb, but older DACs still have much to give

advanced and capable of better results than the DAB feed. A sad state of affairs for the national radio network, but there you are.

DAC's all folks

Thank you for an excellent column 'Leading from the front?' in HFC 348. I am keen to learn where that leaves those of us who invested a lot of money in high-end DACs five to ten years ago?

Do technological advances mean that current £300-£1,000 DACs easily surpass the great DACs of that time from Theta Digital, Pink Triangle, Mark Levinson and Audio Synthesis (I own a DAX Synthesis)?

If so, were these manufacturers somewhat mistaken in investing so much in power supplies and isolation, or were these

greater care over their power supplies and casework.

The corrective ability of DAC chipsets is one of the key areas of improvement of more recent designs. As such, the care that older designs took in these areas (and usually with matching transports) was built around the premise of minimising jitter, rather than dealing with it via relocking. This mentality is not so outdated that it has been abandoned entirely, either.

Where modern DACs have an indisputable edge, is in terms of connectivity and high-resolution formats. The integration of asynchronous USB is a great feature for those integrating computers into their audio systems and these



Regrettably, for long-suffering partners everywhere, dealer systems are still connected by cables – even if you can't see them

are more likely to be driverless than external USB to S/PDIF converters. High-resolution files are still a tiny part of most people's listening (my own includea), but the new generation of DACs has us covered as they become more common."

Could it be magic?

I loved the 'Dealer Systems: Sounds of Jordan' feature (HFC 348). In fact, I read it with increasing amazement, as Jordan Acoustics appears to have hit upon a method that definitely appeals to my wife: completely wireless connection of high-end kit. When is it going to be available in Canada?

Bob Wilson, via email

HFC Shooting the Dealer System feature is a bit of an exercise in the art of the possible. We generally don't try and shoot the entire system in a single photograph, because it means that both the equipment and the speaker will be rather small.

As a result, we now shoot the electronics as one photo and the speaker in another. We then combine them at the production stage. As cables and mains treatments don't generally appear in these images, we now omit them from the system.

No silver lining?

One of the wonderful things about the 'Red Book CD' era was the reassuring 16-bit convention, which allowed widespread success of the format, as hardware manufacturers and music lovers invested heavily in the 'only game in town'.

By the time Minidisc, DCC, DVD-Audio and SACD came along, sound engineers had refined the sound of CD to the point where it could not be commercially defeated purely on the basis of sound quality alone. In the end, it took the convenience of MP3 portability to mount a real challenge to CD sales, in that small window of opportunity when digital storage was expensive and tiny files were needed.

One side-effect of this, was the creation of a less secure format that facilitated piracy and peer-to-peer sites proliferated to ensure that the next generation of music fans would never willingly pay for music again.

Industry executives are still sulking about this lost income, but they have noticed that the only people who continue to fork out big bucks to own physical media are audiophiles who are interested in sound quality (and who can afford equipment that shows up the difference).

The provision of a truly "open, standard format" (in the words of Mr Tiefenbrun from Linn) would mean that record labels would expose their premium product (hi-res music) to piracy, which is, I suspect, why the preferred model is music rental in order to retain control of distribution.

And this is why I struggle to support this approach. I have

grown accustomed to music ownership that does not rely upon a live internet connection, credit card accounts or (worse of all) the permission of a vendor to listen in the comfort of my own home. Once I buy an album, I like to make a lossless copy for my streaming device, then put in on a shelf along with my books, movies and other things that I paid for. Anything less is a backwards step.

The wait for downloadable hi-res music has been excruciating and I would have accepted 16-bit FLAC in the beginning. Since I have been faithfully paying my way for 20 years, it would have been nice to have been catered for at the start of the downloading revolution, not as an afterthought.

And I am sorry Mr Gallucci, but I do not share your enthusiasm about Apple's involvement in the upgrade of Universal's music library ('Opinion' HFC 346), for this is unlikely to result in that open, standard format we all deserve, but may never own.

John Burke, via email

HFC There is no question that the availability of lossless (let alone hi-res) files that people want to listen to remains painfully limited. The most frustrating aspect is that it is



Krell's Cipher: hi-res music at a time and manner of your choosing

WHAT HI-FI?
SOUND AND VISION
AWARDS 2010

STEREO SPEAKERS & SUBWOOFERS
BEST STEREO SPEAKERS £3000+
SPENDOR A9



A9

Amazingly clear transparent sound, clarity and seamless integration
What Hi-Fi



A6

"Combining wit and wit to it"
What Hi-Fi

WHAT HI-FI?
SOUND AND VISION
AWARDS 2009

STEREO SPEAKERS
BEST STEREO SPEAKERS £1000+
SPENDOR A6

A5

"Endlessly listenable these are a completed beyond their price"
What Hi-Fi Mar 11



SPENDOR

01323 843474
www.spendoraudio.com

impossible to judge whether there is a demand or not for such material, while there is so little available to stimulate demand in the first place! We feel that the risk of piracy towards lossless files needs to be seen in light of the fact that pretty much any music you can think of is already available illegally, if you are determined to find it.

The question of whether we buy files outright or rent access to them from a central location is likely to be fought and won on the quality of internet coverage and whether it makes remote streaming a practical proposition or not.

One thing we have found is that the actual level of affection for CD as a format, is pretty low. It is still a means to an end, rather than something that has an appeal all of its own, like vinyl. The future is still inconclusive, but we hope to see more answers soon.

Memory lane

I share the same feeling as your reviewer Jimmy Hughes, when it comes to music stored on hard drives. For me it is a bit inhuman. There is no connection with the music. With LP or CD you can touch it, open it, see it, even smell it (especially LPs when they are new).

All these elements are very human and in my opinion they are killed with music files. It doesn't mean that I don't have some myself. As a matter of fact I'm ripping *Tubular Bells* as I write this email and my collection is about 300Gb. It will be much bigger still as many of my CDs are still waiting to be ripped.

But buying CDs and LPs is something that can't be replaced by storing or streaming music. I hope that, at least, LPs will survive in today's digital world.

By the way, I am from Poland and I have just started to read *Hi-Fi Choice* magazine online, via Zinio.

Bartłomiej Zawadzki, Poland via email

HFC There is certainly a loss of interaction when switching over to streaming and networked systems, but there are other benefits. Many of the devices we have reviewed recently have either come with interactive remote controls, like the *Cyrus Stream XP* (HFC 346), or have excellent iPhone and iPad applications.

The experience of browsing a music collection via an iPad, can often be as good as a big rack of CDs. As for vinyl, the vast majority of people who intended to dispense with the format have probably done so, but the customer base that remains is loyal and (slowly) expanding. We don't think you'll need to sell your turntable any time soon!

LETTER OF THE MONTH

Technological terror

PRIZE
WINNER!



I HAVE FINISHED reading your latest issue (*HFC* 349) amid a combination of emotions. There is a sense of unease that comes from the increasingly strong reliance on computers and the internet, that many of the products in the magazine seem to rely upon. I am 48 years old and while I routinely hammer out spreadsheets and emails, the home network is not something I've dabbled in. Am I going to have to embrace these arcane practices to keep enjoying the hobby I love?

This unease is mixed with a sense of encouragement, because whatever my feelings about this, the direction audio equipment is taking does seem to be more inclusive and inviting to the younger generation of people that we need to get on board to ensure the survival and success of our pastime. The Cambridge Audio NP30 is the first product I've seen, beyond the iPod, that my 17-year old son has exhibited any interest in and whatever confusion it holds for me, it seems perfectly targeted at him.

Finally, I can't help feeling the merest hint of jealousy that I can't afford to purchase the Copland, Audio Research and Sonus faber (Beautiful System) you also featured in *HFC* 349. So I am wondering if Mr Hughes might be amenable to some form of work exchange programme!

Max Buttermere, via email ●

WIN A RUSS ANDREWS POWERMAX MAINS LEAD WORTH £45!

Letter of the Month winners receive a Russ Andrews PowerMax mains lead worth £45. Contact: hifichoice@futurenet.com

WIN!

DALI IKON 7 MKII LOUDSPEAKERS

PRIZE
WORTH
£1,699

TO WIN this fantastic prize, correctly answer the following question:

What two materials do the IKON 7 MkII drivers combine?

- A: Kevlar and carbon fibre**
B: Wood fibres and paper pulp
C: Aluminium and titanium

Please text your answer: DALI A, B, or C to 87474 or visit futurecomps.co.uk/Dali and follow the instructions, leaving your selected answer and details where prompted

We were delighted to have a DALI speaker back in the pages of *HFC 348* and even more delighted when the IKON 7 MkII turned out to be as good as it was. This talented Danish-built floorstander combines a high-quality cabinet with custom drivers designed and built in-house by DALI, including its sophisticated hybrid tweeter module combining a dome and ribbon tweeter for optimal results.

We were won over by a superb performance in both measurement and listening conditions. We loved the excellent tonality, negligible cabinet coloration and superb top-to-bottom coherence. So impressed were we with the IKON 7 MkII, that we summed it up by saying that it offers "a substantial percentage of high-end performance at a far more realistic price."

Now, thanks to the generosity of DALI, one lucky reader could experience this superb performance for themselves by winning a pair in this month's competition.

TERMS AND CONDITIONS To enter the DALI competition, you can either (a) text your answer to 87474 at any time between 15.09.11 and 12.10.11, or (b) enter online at www.futurecomps.co.uk/Dali with your entry being received between 15.09.11 and 12.10.11. By sending your entry you agree to these competition rules and you confirm you are happy to receive details of future offers and promotions from Future Publishing Limited and carefully selected third parties. If you do not want to receive information relating to future offers and promotions, please include the word STOP at the end of your text message or at the end of your postal entry. Tests will be charged at £1.00 plus your standard network tariff rate.

By taking part in a Competition, you agree to be bound by the Competition Rules, which are summarised below but can be viewed in full at www.futurenet.com/futureonline/competitionrules.asp. Late or incomplete entries will be disqualified. Proof of posting (if relevant) shall not be deemed proof of delivery. Entries must be submitted by an individual (not via any agency or similar) and, unless otherwise stated, are limited to one per household. The Company reserves the right in its sole discretion to substitute any prize with cash or a prize of comparable value. Unless otherwise stated, the Competition is open to all GB residents of 18 years and over, except employees of Future Publishing and any party involved in the competition or their households.

By entering a Competition you give permission to use your name, likeness and personal information in connection with the Competition and for promotional purposes. All entries will become the property of the Company upon receipt and will not be returned. You warrant that the Competition entry is entirely your own work and not copied or adapted from any other source. If you are a winner, you may have to provide additional information. Details of winners will be available on request within three months of the closing date. If you are a winner, receipt by you of any prize is conditional upon you complying with (amongst other things) the Competition Rules. You acknowledge and agree that neither the Company nor any associated third parties shall have any liability to you in connection with your use and/or possession of your prize.

SUBSCRIPTIONS

Subscribe and receive a Chord Company CobraPlus cable worth £70!

GIFT
WORTH
£70!

Get this incredible £70 interconnect when you subscribe for just £21.99 every six months by Direct Debit



THE
CHORD
COMPANY
www.chord.co.uk



Dan George, *Editor*

“This is our best offer of the year; you’d be mad to miss out on a £70 Chord Company interconnect for your hi-fi system.”

How to order

myfavouritemagazines.co.uk/HFCP1K

Call **0844 848 2852** quote code **HFCP1K**

Lines open Monday to Friday 8am-9.30pm, Saturdays 8am-4pm

Or fill in the form opposite and return by Freepost

Why subscribe to Hi-Fi Choice?

- Receive a Chord Company CobraPlus interconnect worth £70!
- Save money on the cover price!
- Never miss an issue!
- All 13 issues delivered straight to your door!

About The Chord Company CobraPlus cable

- Pseudo-balanced 22 AWG multi-stranded oxygen-free copper conductors
- Signal and return conductors arranged in noise-cancelling, twisted pair configuration
- Low-density polyethylene with vibration-damping cotton-conductor spacers
- Conductors encased in soft PVC to reduce mechanical noise, protective outer layer
- Dual-layer: high-density braid oxygen-free copper shield and overlapped foil shield
- Fitted with Chord VEE Plugs (a high-performance RCA phono plug)

Overseas subscriptions

If you live outside the UK, please call **+44 1604 251045** for our latest prices



UK PRICING

I'd like to pay £21.99 every six months by Direct Debit and receive my Chord Company CobraPlus interconnect

PERSONAL DETAILS

Title Forename
Surname Address
..... Postcode

Telephone
If you'd like to receive emails and SMS from HI-FI CHOICE and Future Publishing and its group companies containing news, special offers and product and service information, please include your email and mobile no. below.

Email

Mobile no.
Please tick here if you are happy for us to pass your details to carefully selected companies so they can send you relevant information about their products or services by email or SMS

PAYMENT DETAILS

I would like to pay by Direct Debit (UK only) and receive my Chord Company CobraPlus cable (please complete the Direct Debit form below)
(I understand that £21.99 will be debited from my account every six months)

	Originator's Identification Number 768195	
--	---	--

Instruction to your Bank or Building Society to pay Direct Debits

To the Manager (Bank name)

Address

Postcode

Name(s) of account holder(s)

Branch sort code

Bank/Building Society account number

Ref No (Office use only)

Signature(s)

Date

Please pay Future Publishing Direct Debits from the account detailed on this Instruction subject to the safeguards assured by the Direct Debit Guarantee. I understand that this instruction may remain with Future Publishing and if so, details will be passed electronically to my bank or building society.

POST YOUR ORDER

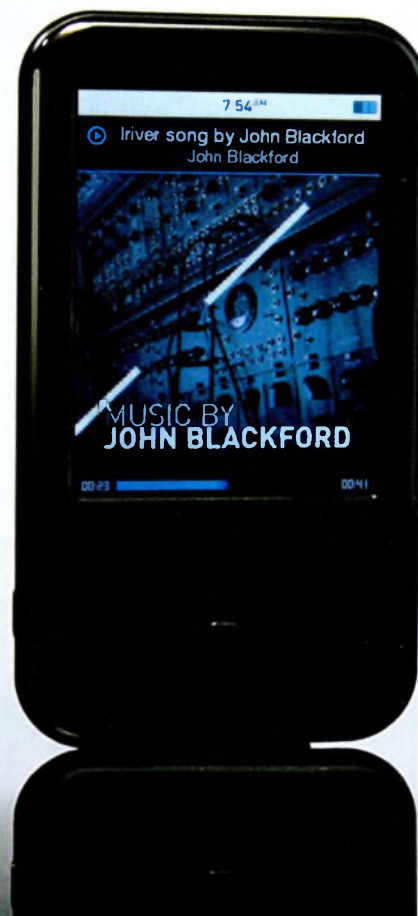
RETURN THIS FORM FREEPOST TO:
HI-FI CHOICE SUBSCRIPTIONS
FREEPOST RSHB-JSCH-ZUST
FUTURE PUBLISHING
10 WATERSIDE WAY
NORTHAMPTON
NN4 7XD

OFFER CODE HFPC1K **OFFER ENDS 15 OCTOBER 2011**
Direct Debit and free gift offer only available to UK subscribers

TERMS AND CONDITIONS: This is a UK-only offer open to new subscribers paying by Direct Debit only. You will receive 13 issues per year. Minimum subscription term is 12 months. Gifts are subject to availability. We reserve the right to send you an alternative gift of a similar value if this gift runs out. Please allow 28 days for delivery of gifts. Your subscription will start with the next available issue. If at any time during the first 60 days you are dissatisfied in any way, please notify us in writing and we will refund you for all unmailed issues. Please tick here if you do NOT wish to receive relevant information about products or services from Future Publishing or any of its group companies by post or telephone . Please tick here if you do NOT wish us to pass your details to carefully selected companies to enable them to contact you about their products or services by post or telephone . Details of Direct Debit guarantee available on request.

High-def Portables

Want to play lossless FLAC files from a portable? If so, there are a number of options to choose from, says **Adam Hartley**

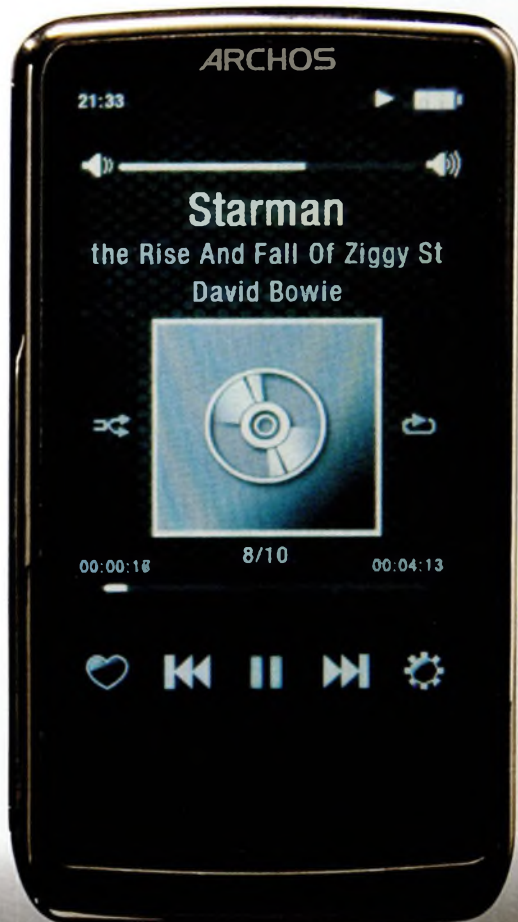


If you have all of your digital music saved in the FLAC (free, open, lossless codec) format – the high-quality audio codec favoured by so many audiophiles – then there are a number of options when it comes to listening to your tunes on the go. You can either download the FLAC Player app to listen to your lossless files directly on an Apple iOS device (iPod touch, iPhone or iPad), or you can choose to buy a FLAC-compatible portable digital music player from the likes of Archos, Cowon, iRiver or Philips.

Of course, many of us are likely to have at least one Apple iOS device on which we store some of our digital music – whether this be an iPod touch, iPhone or iPad. But even so, many hi-fi fans don't favour the feeling of being forced to save or transfer their music into Apple's own (DRM-crippled) music formats when they want to take their tunes out and about. Which is where the iOS FLAC app or the four lossless digital music players we test out here come into play.

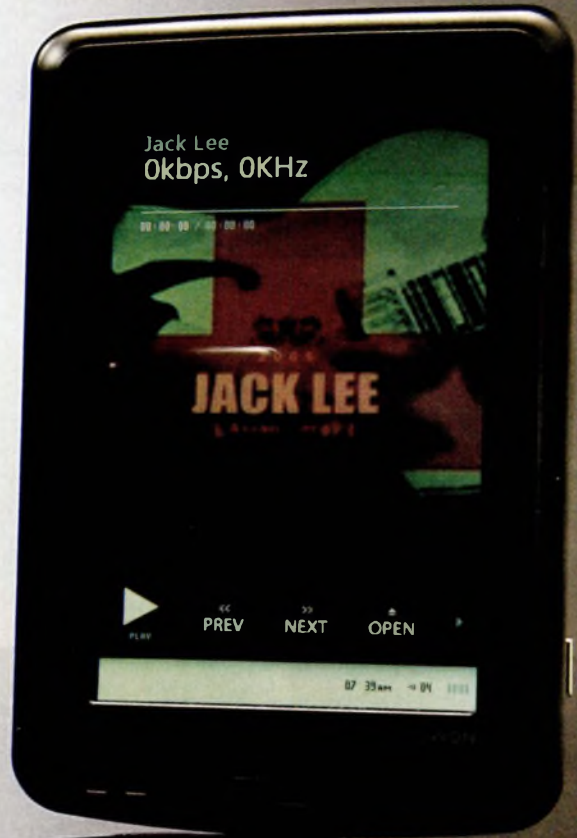
What is FLAC?

The FLAC format is lossless – it allows decompression into a perfect copy of the original audio data, which is why many audiophiles rip their CDs into the format. It is open source with no rights management or licensing, which means it is widely supported by full-size media streamers. The downside is that FLAC files are considerably larger than compressed MP3s and AACs, which has limited the number of albums and tunes you have been able to store on a portable player.



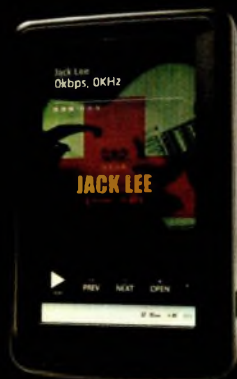
Archos
3cam Vision
£90

The Archos 3cam is a great option if all you want is a basic FLAC-compatible player to slip into your pocket now and then.



Cowen
X7
£229

The best portable music player that is not manufactured by Apple. If you don't want apps and just want lossless audio, get this.



Philips
GoGear Muse 3
£139

The Philips GoGear Muse 3 is a great FLAC-compatible audio player for those that don't want excessive storage or a clever user interface.

iRiver
S100
£130

The smallest FLAC-compatible portable in our test is ideal if you want a compact, pocket-sized player without any fuss and bother.



FEATURE TEST FLAC-COMPATIBLE PORTABLES

Archos 3cam Vision

TEL: 01256 707070 WEBSITE: ARCHOS.COM

KEY FEATURES:

- Storage: 8GB
- Screen size: 3 inches
- Battery life: Music playback time 14 hours
- Weight: 44 grams
- FM transmitter and voice recorder

THE ARCHOS 3CAM VISION was marketed as Archos' answer to the iPod Nano, although the fact that it also plays FLAC files has been criminally overlooked in the company's PR messaging.

Sure, the 3cam can do stills and video capture better than any device in its budget price range, yet it is the sound quality of this little French marvel that really delights. Archos has always played the role of David to Apple's Goliath in the portable media player market over the last decade, which is a great shame for the audiophile listener, as this player offers far more out of the box than the (far more expensive) iPod touch, for example.

Sure, it's only got 8GB of on-board storage. But exactly how many albums do you really need to save in your pocket at any given time? Surely quality over quantity is the key for anybody that truly cares about music? The build quality may leave a lot to be desired, but if you want an inexpensive option to play FLAC music on the go, this is certainly one to consider.

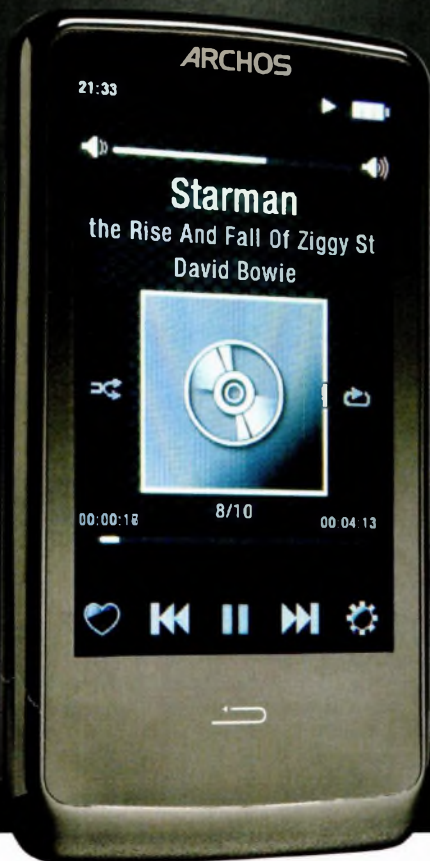
Sound quality

The Archos also has an FM transmitter and a voice recorder, so is sure to appeal to both radio fans and amateur sleuths.

The 3cam Vision is certainly going to appeal to those that care about audio quality and is a strong performer with FLAC. The fact that it won't play Apple's AAC files (i.e. it is not compatible with iTunes) is unlikely to be too much of a turn-off for the hi-fi crowd. There is no way that the 3cam can compete with the likes of the Cowon X7 or the iPod touch. But the simple fact is that it doesn't even attempt to.

VERDICT

THE ARCHOS 3CAM is the smallest, most affordable pocket-friendly FLAC Player in our test



Cowan X7

TEL: 0845 050 7926 WEBSITE: COWONUK.COM

KEY FEATURES:

- Storage: 120GB
- Screen size: 4.3 inches
- Battery life: 103 hours of music playback
- Weight: 212g

THE COWON X7 is a viable challenger to the Apple iPod Touch if you are looking for a good-quality, well built portable lossless audio player with plenty of onboard storage.

With a 4.3-inch screen, the Cowon is also, by some margin, the biggest portable player in our test. Although that doesn't really work against it, as both the video playback quality and the touchscreen user interface are pretty impressive features that only serve to add to the X7's appeal. And with 120GB of in-built storage the X7 also offers the biggest memory capacity of all four players on test, which is perhaps the main reason why we prefer it to the Philips and iRiver portables. And why it earns a Group Test Winner badge.

On top of all that, the Cowon X7 packs in an FM radio, a decent sound recorder and has a seriously impressive battery life. All important (and oft-overlooked) features when you are considering investing in a new portable music player.

Sound quality

The fact that you can stick loads of AIFF, FLAC or WAV files on the Cowon X7 is clearly the main selling point for audiophiles. The sound quality is nothing less than superb, the bass sounds solid and weighty and, providing you use it with a decent pair of cans (we recommend that you quickly ditch the bundled in-ears, as is usually the case) or through your home hi-fi then you are not going to be disappointed with the output. It's a bit bigger than the iPod touch and does far less. But if all you want is sound quality and storage, then plump for this one.

VERDICT

THE COWON may well be the biggest portable FLAC player in our test, but it also provides the best-for-buck quality.



iRiver S100

TEL: 01189 893434 WEBSITE: IRIVER.COM

KEY FEATURES:

- Storage: 8GB
- Screen size: 2.8 inches
- Battery life: 42 hours of music playback
- Weight: 77g

THE IRIVER S100 is both the smallest and the cheapest FLAC-compatible digital music player in our test. It is also the player that has the least amount of on-board memory storage (8GB), which means that you are only going to be able to store around twenty or so albums saved in FLAC format.

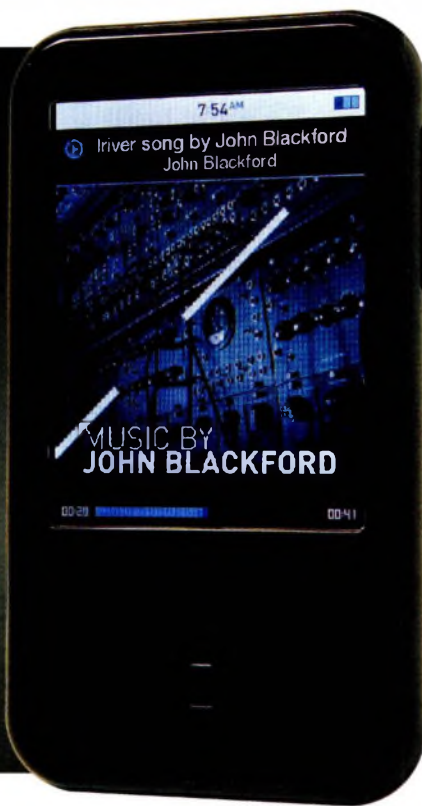
However, that said, if you don't feel the need to have thousands of tunes in your pocket at any given time, then the iRiver S100 is worth considering, purely because you can keep a bunch of your favourite albums with you, in a fully open and lossless audio format, wherever you happen to be for a taste of proper hi-fi.

For radio fans, the other major unique selling point of the iRiver S100 is the fact that it also doubles up as a portable DAB player. So if you like to tune in to 6Music or BBC 1Xtra or whatnot, then this little portable could well prove to be a godsend. And yes, we realise that DAB has its own limitations in terms of audio quality and so on, but this is a nice addition nonetheless.

Sound quality

This mini 2.8-inch screen PMP supports lossless FLAC and APE, in addition to your bog-standard MP3 and WMA audio files. Which means that it is great, if all you want to do is upload up to 20 albums in FLAC format to listen to when you are out and about. The screen is way too small to watch any videos even though it supports them, but is clear enough for browsing album and artist information. The user interface itself is pretty basic, but the sound quality is top notch and you will soon learn how to search your music library via artist, album title, genre, playlist or rating.

VERDICT SLIM, SMALL AND HANDY for taking out a few albums in FLAC format, the iRiver S100 is a great budget option



Philips GoGear Muse 3

TEL: 0800 331 6015 WEBSITE: PHILIPS.CO.UK

KEY FEATURES:

- Storage: 16GB
- Screen size: 3 inches
- Battery life: 25 hours of music playback
- Weight: 95g

THE PHILIPS GOGEAR MUSE 3 is the third generation GoGear digital music player from Philips, and is a great budget option for those that want a decent FLAC-capable player but don't necessarily want to shell out for a portable media player (PMP) with all the bells-and-whistles and app capability of something like the latest Apple iPod touch.

Philips' user interface (UI) is a little bit clunky, which is really the only thing that lets this FLAC portable down, although if all you want to do is play music, you shouldn't have too much trouble figuring out how to do so. Minor gripes about the UI aside, the fact that the Philips features native support for OGG vorbis, FLAC and APE playback is sure to appeal to music lovers and hi-fi fans who want audio quality over and above everything else.

So while it cannot match the Apple iPod for features or app capability, if you are looking for a solid, reasonably priced FLAC portable to store a limited amount of your music library to listen to on the go, then the Philips GoGear Muse 3 is certainly worth considering.



Sound quality

Leaving aside the irresponsive touchscreen and the clunky UI, the Philips GoGear Muse 3 is a pretty robust little device, constructed from solid metal throughout the front and the back, which means that it should be able to withstand being dropped and knocked. A vital consideration for any portable audio device.

Sound quality is the redeeming factor here. The Philips will play your FLAC files with consummate ease. And if that is all you want it to do and you are not so bothered about the UI limitations or the limited quality multimedia playback, then the GoGear Muse 3 is certainly worth a listen.

VERDICT THE PHILIPS GOGEAR MUSE 3 is a budget portable FLAC player, if you don't mind the memory limitations (16GB) and plasticky build quality



With a decent range of FLAC-compatible portable media players now available for any budget, there is simply no longer any excuse for listening to lower-quality compressed digital music. After all, you've spent thousands on your hi-fi and (likely) hundreds on a decent pair of headphones or in-ear custom moulds.

So, the question is, why choose the lowest quality source? You can run the same song on different quality formats over USB into a digital-to-analogue convertor (DAC) on a decent system to instantly understand the vast differences in audio quality between MP3 and FLAC, should you still need persuading.

The sound quality is superb on all four of the FLAC portables tested out here, which means that the real differentiators are price, build quality and memory storage capacity. And in these terms, in addition to overall ease-of-use, it really is difficult to top Cowon's X7, the Group Test winner.

How we test

Hi-Fi Choice employs the most rigorous test and measurement regime in the business and here we explain why our definitive verdicts count



Hi-fi reviews

No other magazine offers a more reliable standard of hi-fi testing. Technical Consultant **Richard Black** explains...

EXPERT TESTING

FOR OVER THREE decades, *Hi-Fi Choice* has been trusted for its combination of subjective and technical review expertise. The crucial consideration for any audio component is how it sounds, but it is important to back this up with laboratory measurements for many reasons – everything from the wish to check basic performance to the possibility of uncovering peculiar behaviour under conditions, perhaps slightly different from those of the subjective tests.

Listening

Subjective testing doesn't necessarily require the world's sharpest ears. What's more important is the experience to analyse the sound arriving from the hi-fi and this is where our subjective reviewers come in: they have been listening critically to audio equipment for aeons and have learned to identify the characteristics that make kit informative, involving or just plain dull.

Measurement

But even the most experienced listener, with a stack of familiar recordings heard in familiar surroundings, can't always know what is causing a particular

characteristic in the sound. Brightness, for instance, may be a function of frequency response or distortion and this is where measurements come in. We analyse a range of parameters to see just where the correlation lies between sound and design. Our test equipment has been tried, tested and added to over the years and again our experience with it is unrivalled.

Straightforward presentation

We call on that experience to boil down the measurements to simple bar charts, which show at a glance how well a component behaves relative to others in its category. It's this combination of subjective and technical expertise that makes our reviews the most useful in the field.

“crucial consideration for any audio component is how it sounds, but it is important to back this up with laboratory measurements...”

OUR AWARDS



EDITOR'S CHOICE: Awarded to those products that are judged to deliver reference-standard performance



RECOMMENDED: The products we feel meet a certain high standard of performance



GROUP TEST WINNER: Comparative tests can only have one true winner, and this badge says it all

STATE-OF-THE-ART HI-FI TECH

HFC's test equipment is the most advanced kit available



AT HI-FI CHOICE, we have access to some of the most advanced test equipment currently available on the market, including the Audio Precision APx585, which you'll find in the labs of many top hi-fi manufacturers. The 585 can be configured to test a variety of key hi-fi products, such as amplifiers, CD players/DACs and – with the help of a specially-calibrated microphone – loudspeakers.

In conjunction with some conventional lab equipment at our disposal, the 585 will also be used to test analogue playback equipment including phono stages and turntables. These objective measurements – which conform to recognised industry standards – are designed to complement subjective evaluations such as the listening panels organised by our internationally respected reviewers.

The standard of our test facilities is unrivalled in the UK press. Quite simply, no other magazine offers this level of cutting-edge testing, making the verdicts in *Hi-Fi Choice* the only ones you can really trust.

Unrivalled group tests

Hi-Fi Choice is the only magazine to offer blind-listening group tests, fully backed up with objective data

BLIND-LISTENING TESTS

THIS CRUCIAL test involves relatively rapid-fire comparisons of the test units for a panel of three listeners who are not aware of which product they are listening to. Levels are accurately matched and the test is conducted with the minimum of distractions, playing the same programme through each system while the listeners take notes of whatever pleases or bothers them.

SIGHTED LISTENING

IN ADDITION to the 'blind' test, the author also spends a longer period listening to each system with various items of partnering equipment and a wider range of music. Apart from the obvious fact that this is how most people listen most of the time, this also has the advantage that interesting aspects of the sound can be investigated and different musical

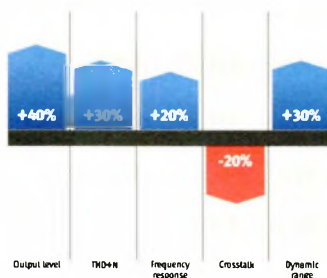
In this way, an evaluation free of prejudices based on brand, price or appearance can be made, while the different tastes and sensitivities of each listener help round out the analysis and make it more widely applicable. Occasional repeats of kit give a 'sanity check', while years of experience help make the process efficient and reliable.

styles tried out to see what works, not to mention experimenting with such variables as listening level.

Long-term reference pieces of equipment (some from past reviews) get substituted for the kit under test from time to time, in order to check on performance relative to the rest of the audio world, while recordings made by the author provide a live reference.

TECH LABS

RESULTS AT A GLANCE



FOR THIS MONTH'S STREAMERS *Blind-listening Group Test*, we pressed into service the APx585 audio analyser (see opposite). This highly sophisticated PC-controlled instrument can simulate many items of lab equipment, including an oscilloscope, audio voltmeter, chart recorder, phase monitor and test signal/sweep generator.

For Streamers, the APx585 is used in conjunction with a specially created *Hi-Fi Choice* lab test disc to measure a number of key performance criteria. There are five of these – which are summarised for each of the reviewed products using our unique bargraph system. Anything out of the ordinary is commented on in the lab report which compares like with like across the whole six-way group.

OUTPUT LEVEL

We measure the output levels of both left and right channels, with a standard 0dBFS (full-scale) stereo 1kHz test tone. For a streamer, we should expect both channels to be around two-volts RMS.

THD+N

We measure DAC performance using 16-bit/-44kHz signals. Part of our testing procedure involves measuring THD+N with much lower-level signals (-20dBFS and -60dBFS). THD+N will increase as signal level decreases.

FREQUENCY RESPONSE

You should expect a flat frequency response from 20Hz to 20kHz. The Tech Labs measure this by conducting a sweep between these two frequencies and monitoring the output.

CROSSTALK

We measure leakage from the left channel to the right and vice versa. The higher the figure, the better. There should be little difference between the two figures and what's listed here is the average of the two.

DYNAMIC RANGE

This spec expresses the difference between the highest amplitude, distortion-free signal a DAC can output using a 16-bit/44kHz signal (a sine-wave is used here). The higher the figure, the better. In theory, a 16-bit signal has a dynamic range of 96dB.

TESTING EQUIPMENT USED

- Source:**
- Custom-built PC (AMD 965-based) running Windows XP with PURE Flowserve and SqueezeboxServer
 - BT Home Hub 2
- Amplifiers:**
- Exposure 3010 integrated
- Loudspeakers:**
- ATC SCM20
- Cables:**
- Black Rhodium, Kimber, QED, Wireworld

TEST MUSIC USED

IAN DRURY: THE BUS DRIVER'S PRAYER AND OTHER STORIES



MILES DAVIS: KIND OF BLUE



GUZMAN: AMBROSIO



HAMELIN: ETUDES FOR PIANO



THIS ISSUE'S BLIND PANEL

This month's panel of experienced listeners from within the industry are:



STEVE REICHERT
JOB: PR MANAGER ARMOUR HOME ELEC.
WITH NEARLY FORTY years in the business, Armour's PR man is also the 'Golden Ears' for the Q Acoustics and QED brands.



ED SELLEY
JOB: HFC STAFF WRITER
ED HAS SPENT the best part of a decade selling, developing and supporting audio products. He now works full-time with HFC.



BRADLEY WALTERS
JOB: MANAGING DIRECTOR OF HI-FI RACKS LTD
BRADLEY IS A passionate enthusiast of live and recorded music and knows a thing or two about system set up.

DEFINITIVE VERDICTS

No other magazine offers an equivalent listening programme

Few, if any, magazines in the world can equal our dedication and thoroughness in combining blind and sighted listening with extensive lab tests and detailed internal examination of equipment passing through our hands. Each of these is equally important and it's not just that we do them – we also bring to the table decades of audio experience.

Our listeners in the *Blind-Listening Group Tests* for example, are experts from within the hi-fi industry. Each and everyone of them is used to listening critically during product development and initial product testing. In fact, many of them also get involved in making recordings and their own music.

One of these is HFC's Technical Consultant Richard Black, who has been involved with designing, testing and evaluating audio equipment for a quarter of a century.

It's the culmination of all the aspects mentioned on these pages that makes for the most reliable hi-fi verdicts in the business.

TESTED THIS MONTH'S STREAMERS
TURN OVER NOW!

Blind-listening Group test

STREAMERS £240-£1,400

Go with the flow: we reveal the top streamers

For the first time ever, **Richard Black** and the blind panel investigate the best audiophile streamers for easy integration into high-performance hi-fi systems

AMONG USES FOR A COMPUTER that no one even dreamed of as little as twenty years ago, playing tunes must rank pretty highly. For a start, back then a hard disk big enough to store a CD cost about as much as a small car. Now, by contrast, the cost of storing that much data is less than 3p. At that kind of price, the attractions of having a substantial music collection contained within a box the size of a hardback book, accessible in seconds, are obvious.

What's not so obvious is how best to interface a computer, or indeed a standalone hard disk, to a hi-fi system. Sure, you can just dump a laptop computer next to the hi-fi and use a stereo mini-jack lead to connect the two, but that's got all sorts of drawbacks, ranging from poor sound quality to the limit it's likely to put on other uses for the computer.

The answer, it seems, is a sort of half-way house: a device that has enough computer-like quality to be able to access data on a network, or on directly attached storage devices, but which also has dedicated, high-quality audio processing built in and a user interface

targeted specifically at audio functions. Enter the streamer. For the first time, the blind listening panel will audition six of the market's best streamers, to discover which is 'right' for hi-fi applications.

As well as playing audio files, in most of the usual formats ('native' or full-quality formats like WAV, as well as

“What's not so obvious is how best to interface a computer, or standalone hard disk, to a hi-fi system.”

space-saving 'compressed' formats like MP3), streamers also let you listen to internet radio and other streaming online sources, making them extremely flexible sources of entertainment. Some even feature FM and/or DAB radio and many will act as docking stations of portable music players, including the ubiquitous iPod and its ilk. Of course, nobody is saying that streamers and hard discs should replace LP and CD, but they can supplement a system in a way that opens music up like never before.



TALKING POINT

Few, if any of our recent group tests have so clearly illustrated the way in which the big names from the computing world and the much smaller names from the world of specialist audio, are converging on the ground where quality audio exists.

To keep the broad public happy, the computer types are going to have to sell quality as the next big upgrade and here we are with a Logitech going head-to-head against strong names from audio. And there's no reason why not. The chips that make this all happen get better (and cheaper), with every year that passes.



ON TEST



Cambridge Audio Sonata NP30 £400 P43

Cambridge Audio's 'Sonata' range is budget-oriented and the case and external appointments of this unit are relatively modest. It doesn't stint on features, though, offering support for a wide range of formats and sources and a user interface not much different from that of the dearer streamers. Does the sound manage a similar trick?



Cyrus Stream X £1,400 P45

Intended principally for integration into a Cyrus digital system, the Stream X has only a digital output. It also features several digital inputs, making it potentially a powerful hub. Its streaming features are good and it comes with an all-new bidirectional remote control, which brings the whole user experience up to date.



Logitech Squeezebox Touch £239 P47

An interloper from the world of mass-market computer accessories, the Touch may be tiny and cheap, but it's also very sexy with its full-graphics display and touchscreen control. It offers the full range of inputs and outputs and adds features the others don't have, including CD cover art display and even Facebook!



Marantz NA7004 £600 P49

In a well-appointed group this unit scores most highly for sources supported, adding not just FM and DAB radio, but AM. It controls iPods, including via Airplay and, of course, supports the usual online streaming options, but it won't connect wirelessly to a network. Marantz has an impressive heritage in digital audio: does this unit benefit?



Rotel RDG-1520 £795 P51

Very nearly matching the Marantz for features and, in this case, supporting wireless network connection (via a supplied dongle), this 'digital gateway' neatly manages to add 21st-century features and sources to a user interface, which will seem comfortably familiar to anyone who's used a digitally controlled tuner.



Yamaha NP-S2000 £1,400 P53

In some ways the most obviously audiophile streamer here, with deluxe touches including balanced audio outputs, this large and heavy unit actually scores relatively low for features, but still supports most kinds of network and internet audio. But does its sound justify the slight sacrifices in operational convenience?

QUEUE

BACK

REPLY

PLAY

STOP

PAUSE

SKIP -

SKIP +

 **R·D·S**
RADIO DATA SYSTEM

DAB


PUSH SELECT



Benchmark



**30 DAY
MONEY BACK TRIAL**

Hearing is believing. We want you to really know what a difference Benchmark will make to your music, music you thought you knew!

Call 020 8418 1470 and get a DAC1 in your system

Terms & Conditions apply*

*At participating dealers only

Let the music engage you...

DAC1 HDR. Introducing the new Benchmark DAC1 HDR

An all-in-one, reference-quality, stereo pre-amplifier bringing together all the best features and performance of the award-winning DAC1 family. All this with the added convenience of an intelligent remote control solution.

The DAC1 HDR combines some of Benchmark's finest engineering accomplishments into one device: the DAC1 digital-to-analog audio converter with UltraLock™ clock system, AdvancedUSB™ computer audio playback interface, and the legendary HPA2™ headphone amplifier. The unique remote control solution of the DAC1 HDR is built around Benchmark's new HDR-VC™. **Hear it and believe it.**

Also in the Range



ADC1
2 Channel 24-bit 192KHz A/D Converter



DAC1 PRE
Stereo Pre-Amplifier / DAC / Headphone Amp



DAC1 USB
2 Channel 24-bit 192KHz D/A Converter



www.sevlondon.co.uk

Distributed by SCV London: benchmark@sevlondon.co.uk



Cambridge Audio Sonata NP30 £400

Small and attractively priced, but have corners been cut on performance?

DETAILS

ORIGIN:

UK/China

WEIGHT:

2.1kg

DIMENSIONS:

(WxHxD)
270x67x285mm

FEATURES:

- Inputs: Ethernet, Wi-fi, USB-A (front and rear)

- Outputs: Electrical and optical S/PDIF, analogue (unbalanced)

- Formats: WAV, FLAC, AIFF, WMA, MP3, AAC/MP4, OGG Vorbis

- Max resolution: 24-bit/96kHz

DISTRIBUTOR:

Audio Partnership

TELEPHONE:

020 7940 2200

A simple, unassuming little box, in keeping with the rest of the Sonata range, the NP30 keeps things simple on the input and output front, without actually scrimping. There is wired Ethernet (the one interface common to every device in this group) and a wireless connection via the supplied antenna, plus front and rear-mounted USB sockets for local media players. Output is analogue on phono sockets, or digital electrical and optical.

The display shows four lines of text, making navigating menus and lists easy enough and the obligatory twist'n'push button scrolls through options. We're not sure we would call the function of each of the eight pushbuttons blindingly obvious, but the manual is well written and one soon learns to get around using front panel or remote control.

In addition to the obvious functions of playing from local media and the computer network, various internet streaming services are accessible via UuVol, Cambridge Audio's platform for streaming content. Internet radio is there, of course, while our unit also offered us MP3Tunes, Aupeo and BBC iPlayer. Registering with UuVol, via your home computer, makes these easier to navigate.

There are various touches about the NP30 that audiophiles will appreciate,

including the comforting display of digital format, which tells you whether you are receiving, for instance, 44.1kHz PCM, 320kbps AAC or 96kbps WMA. Practically all the current formats are supported, including 24-bit/96kHz PCM (via wired Ethernet connection).

Construction is on the budget side, but tidy for all that and with decent-quality components. The wireless connection uses an off-the-shelf USB-to-wireless dongle, retained in place internally with just the antenna connection exposed – clever! The power supply is switch-mode.

Sound quality

Overall, this unit struck our listeners as a middling achiever, with decent detail, rhythm and tonality, but not outstanding in any one area. The group as a whole didn't necessarily set the highest standard ever for rhythm, pace and excitement, but in the context of that standard this was one of the better streamers, with a relatively lively and upfront presentation which kept musicians quite present and believable.

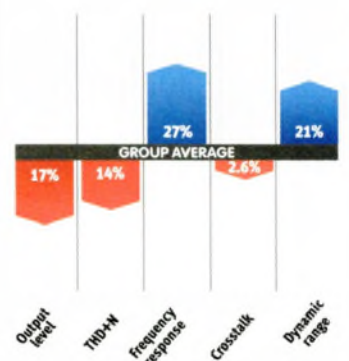
Detail was also quite good, though as a couple of comments pointed out it's not always very well integrated, making for a slightly disjointed sonic picture. Indeed, this is arguably the key to the respectful, but muted reaction the NP30 received: it does

TECH LABS

The Sonata NP30 set a precedent for streamers in the lab. Most surprising was the dynamic range measurement which reached just shy of the theoretical limit for our CD-audio test signal. For the extra opportunity for the test file, being read from a remote source, to pick up noise we were surprised that the dynamic range held up so well. The output level seems optimum for delivering that dynamic range at line level, where some equivalent digital audio products suffer more distortion that reduce this measurement.

Our only real disappointment with this product was a slightly high and divergent crosstalk test. We recorded; left active: -82.2dB; and right active: -84.1dB. The NP30's frequency plot was just shy of our accepted 16-bit/44.1kHz deviation and while the distortion we measured was a little high, the ability to play higher bit-rate material, keeps the Cambridge Audio product in good competitive standing.

RESULTS AT A GLANCE



Hi-Fi Choice

OUR VERDICT

SOUND QUALITY

★★★★

LIKE: Inconspicuous unit that's easy to use; decent detail; quietly and upfront

VALUE FOR MONEY

★★★★★

DISLIKE: Sound hampered by a lack of integration

BUILD QUALITY

★★★★★

WE SAY: Adding a DacMagic lifts performance – but at a price!

FEATURES

★★★★★

OVERALL

★★★★★



olive®
SAVE THE SOUND

INTRODUCING:

OLIVE O3HD

SOUNDS GREAT.
COSTS LESS.



"In terms of value for money, the Olive O3HD is unbeatable"
What Hi-Fi? Dec 2010



The Olive O3HD Music Server is the most affordable way to turn your stereo into a digital HD Music System.

ONLY
£925

Super Simple

It's easy to set up and use. Simply connect it to your stereo system, and start enjoying amazing sound. No PC required. No hassle. And the color touch screen navigation makes it a delight to use. Have fun.

Music Storage

Keep all your music in one place. The Olive O3HD stores up to 1,500 CDs or 5,000 HD tracks.

HD Sound Quality

Enjoy your music in HD sound. The Olive O3HD stores and plays uncompressed files which deliver far greater sound quality than MP3 files. So, get ready for the convenience of a digital solution – without compromising the music experience.

WHAT HI-FI?
SOUND AND VISION



Distributed in the UK by;
Henley Designs
www.henleydesigns.co.uk
01235 511166





Cyrus Stream X £1,400

The digital-only output may restrict the appeal, but Cyrus's latest has some nice features to it

DETAILS

ORIGIN:

UK

WEIGHT:

2.2kg

Dimensions:

(WxHxD)

215x86x385mm

FEATURES:

• Inputs: Ethernet, Wi-fi, USB-A (rear), 2x optical and 3x electrical S/PDIF

• Outputs: Electrical S/PDIF

• Formats: WAV, FLAC, AIFF, WMA, MP3, AAC/MP4

• Max resolution: 24-bit/96kHz

DISTRIBUTOR:

Cyrus Audio

TELEPHONE:

01480 410900

WEBSITE:

cyrusaudio.com



Cyrus offers a range of three Stream devices, of which this is the simplest, offering as it does just a digital output. It's Stream XP includes a DAC and hence analogue outputs, while the flagship Streamline goes the whole hog and includes a power amp and speaker outputs. For the purposes of this review we alternated between Cyrus's own DAC X and a Cambridge Audio DacMagic, the latter keeping the total price more in line with the rest of the group.

In terms of features, this streamer is rather out on a limb in present company. It features Ethernet and wireless network connections, of course, and a USB socket (just the one), but it also has five digital inputs: two optical and three electrical, making it unusually well suited to the job of digital 'hub' in a sound system.

Although that makes it more flexible, there's less flexibility on the streaming side as there seems to be no access to the various online streaming services apart from internet radio. That works well enough, though we reckon the display of bitrate is, at least, sometimes wrong: Radio 3 at a claimed 57kbps, for instance, sounded and behaved a lot more like 320kbps.

We mentioned the remote control, and that's definitely a glory of this system. It's a radio-connected bi-directional control which gives a great deal of information on its built-in screen. It adds a couple of features, including the ability to search within a track, though only at a fixed, rather slow, rate. It slightly improves on the front panel for ease of use, but either way this is a simple enough device to use.

For once, Cyrus's universal case is not at all stretched to accommodate the workings: the power supply is switch-mode so there's no big transformer and the main circuit board is mostly empty anyway. Small daughter-boards carry most of the network and RF components.

Sound quality

Our 'blind' listening panel heard this streamer via the DAC X and this all-Cyrus system went down rather well, with favourable comments on several aspects of its performance. It seems it's not the most exciting and foot-tapping sound ever, but several aspects of the sound will appeal to lovers of classical music in particular, including the very assured way in which the sound rises and falls through long, slow dynamic changes.

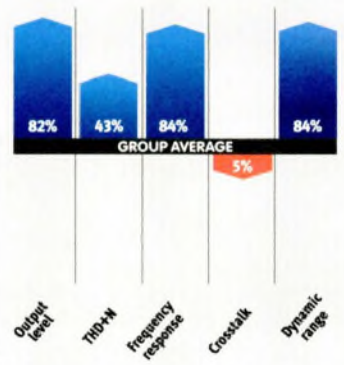
Detail is also good, indeed one of the best in the group. It's there in

TECH LABS

The Stream X gave us a wide mix of results. The frequency response recorded was one of the best we've seen: a deviation of +/-0.03dB and only 0.002dB difference between the two output channels. This speaks highly of Cyrus's ability to reproduce the optimum response curve for digital audio of CD-quality. Equally outstanding is the maintained 96dB dynamic range we recorded. And while our distortion measurement seems less than impressive, all these figures point to a particularly transparent streamer. Indeed, the Stream X passes the raw digits over to your connected DAC and so is effectively just a front end for finding your networked media.

While the other streamer products in the group offer the flexibility of an analogue stage, the Cyrus device doesn't presume to deliver an all-in-one box and rather seems to focus its efforts in producing the most transparent media transporter.

RESULTS AT A GLANCE



Hi-Fi Choice

OUR VERDICT

SOUND QUALITY



LIKE: Particularly good on the detail front – generous but not oppressive

VALUE FOR MONEY



DISLIKE: Treble loses some grip; requires an external DAC

BUILD QUALITY



WE SAY: This is a capable unit that makes a sensible digital 'hub'

FEATURES



OVERALL





Logitech Squeezebox Touch £240

From the makers of mice and keyboards comes one of the niftiest bits of audio user interface we've ever seen

DETAILS

ORIGIN: Switzerland/China

WEIGHT: 1kg

DIMENSIONS: (WxHxD)
150x110x80mm

FEATURES:

• **Inputs:** Ethernet, Wi-fi (internal antenna), USB-A, SD card slot

• **Outputs:** Electrical and optical S/PDIF, analogue (unbalanced)

• **Formats:** WAV, AIFF, FLAC, Apple Lossless, WMA, MP3, AAC/MP4, OGG Vorbis

• **Max resolution:** 24-bit/96kHz

DISTRIBUTOR: Logitech UK

TELEPHONE: 01753 870900

WEBSITE: logitech.com

The photo will already have told you that this is in many ways a horse of a very different colour.

All the same, its basic input and output features are close enough to those of the rest of the group. Ethernet and wireless network access are joined by a USB socket at the rear and an SD card socket at the side, both of which allow the use of local music storage devices. Output is on the usual pair of phono sockets, or a mini-jack for headphones, or electrical and optical digital connections.

The most obvious difference is in the user interface. Where all the other manufacturers use some kind of alphanumeric display and associated navigation, Logitech has put the whole lot on a touchscreen, which clearly puts the whole business of operation on a different plane altogether and renders the remote control a lot less attractive than usual. Even if you use the remote you benefit from the possibility of displaying cover art and so on (if your files are appropriately tagged, that is), but the touchscreen itself

scored a huge thumbs-up from us for adding a feature we've missed in every consumer digital player we can recall: instant access to any point in a track. After a 28-year wait, digital cueing catches up with LP.

The usual options for playing local or network-stored music are joined by internet radio and a whole range of other services, including Spotify, MP3Tunes, Napster and so on, as well as Facebook – check your status on screen and upload links to tunes. Very space-age and very easy to use, though the multiplicity of menu levels can occasionally become overwhelming. You need to install Squeezebox Server on your main network computer, but that takes very little time and didn't give us any problems. We just loved using this unit and its physical design, with the screen sloped gently backwards and just enough weight to keep it firmly in place, is very well judged.

Sound quality

A blind listening session really is the acid test for a unit like this – it's hard to imagine not being swayed one way or the other by its looks, heritage and price. In the circumstances, our listeners found it a very attractive unit. Its sound was still not quite as energetic and involving as they might ideally have liked, but there was still plenty to praise.

It's particularly at home with voices in any style of music and there was very good definition of individual voices plus excellent integration between multiple voices or voice and accompaniment.

Detail was also more than just decent, with plenty of insight into

recordings both new and familiar, and stereo imaging was thought among the best of the group. Width is just a touch reduced in some recordings, we felt. Dynamics are assured and climaxes hold together very well, with no loss of clarity.

Tonally, there's very little to comment on, though the bass can sometimes seem a touch wayward. Its level is well judged, though, and treble is very clean and sweetly extended. The midrange seems very even and there's no favouritism among musical instruments.

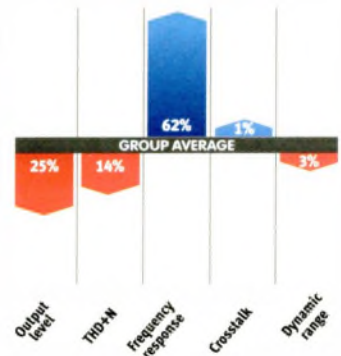
TECH LABS

The Squeezebox Touch performed admirably among the big audiophile players in the group test. With a power consumption of around six watts, we can forgive the slightly low output level of just less than 2Vrms from a 0dB full scale waveform.

Given the relatively low output level the distortion figures look quite good for the Squeezebox. The measurements fall below the other streamers in the group and below our expectations for an audiophile device, but only the -60dB distortion figure will likely be detrimental in practice. However, an impressive frequency response plot keeps the Logitech in the game.

The device's ability to transport higher resolution files and a digital output option all allow for improved performance and should be considered seriously, as the analogue stage on the Squeezebox touch is evidently not the product's unique selling point, while it's interface surely is.

RESULTS AT A GLANCE



Hi-Fi Choice

OUR VERDICT

SOUND QUALITY

★★★★★

VALUE FOR MONEY

★★★★★

BUILD QUALITY

★★★★★

FEATURES

★★★★★

LIKE: Possibly the best user interface we've seen on any dedicated digital audio player

DISLIKE: Slight lack of bass control at times

WE SAY: We just can't fault it and we'll be very happy if this is a taste of the future

OVERALL

★★★★★





Marantz NA7004 £600



Plenty of streaming functions, but we suspect the inclusion of Apple Airplay will pique as much curiosity

DETAILS

- ORIGIN:** Japan/Malaysia
WEIGHT: 6.5kg
DIMENSIONS: (WxHxD) 440x106x354mm
FEATURES:
- Inputs: Ethernet, electrical and optical S/PDIF, FM, AM, DAB, USB-A (front)
 - Outputs: Electrical and optical S/PDIF, analogue (unbalanced), headphone (6.3mm)
 - Formats: WAV, FLAC, WMA, MP3, AAC/MP4
 - Max resolution: 24-bit/96kHz
- DISTRIBUTOR:** Marantz UK
TELEPHONE: 01753 680868
WEBSITE: marantz.co.uk

Marantz's take on streaming audio is that it needn't replace more familiar ways of accessing audio and, indeed, the same box can look after new and old sources. Accordingly, the NA7004 functions also as a DAC, a digital radio and indeed an FM/AM radio too, thus covering the gamut of 'streaming' audio right back to the 1920s. As a DAC, it includes both types of S/PDIF input and a USB type B socket, for connection to a computer, which means you can use it alongside a computer that's not on a network.

The USB socket on the front is for media players, including the iPod (and other Apple devices), and the NA7004 is also equipped with Apple Airplay for wireless music replay from suitable Apple players.

In terms of network audio, the usual options exist for playing audio from devices on the network and internet radio is also supported along with Napster and last.fm.

With all those options it's no surprise that the case of the NA7004 is unusually well filled. There's a little module for FM and AM radio, another for DAB and a third for network connection (wired Ethernet only), then a large board for digital stuff and most of the power supply

plus a separate, slightly smaller board for the analogue output, which uses Marantz's 'HDAM' discrete-transistor circuits.

One feature we haven't seen elsewhere is the possibility of controlling the NA7004 from a home computer running a web browser, potentially wirelessly (from computer to Ethernet router). The NA7004 has its own IP address, so it's just a question of addressing that. Nifty!

Sound quality

In many ways this seems to offer a classic Marantz sound, which is reassuring. Our listeners spotted the very slightly warm balance and incisive, yet surprisingly laid-back way with detail that many of the NA7004's family members have shown. It's an attractive combination – unless of course your real longing is for the ultimate in rhythm and timing.

Yet even there the results are far from bad. One of the things we found in our sighted listening is that while timing can seem a bit casual at first, after a few tracks one comes to realise that it's actually much better than that, understated rather than actually underperforming.

Perhaps the best aspect of this streamer's performance is its highly cohesive sound, keeping everything

in perspective as part of a carefully conceived whole. It managed this across the whole range of musical styles we presented it with, and indeed is very 'music agnostic', seeming just as happy with the drive of a rock band as with the more tender tones of a meditative solo.

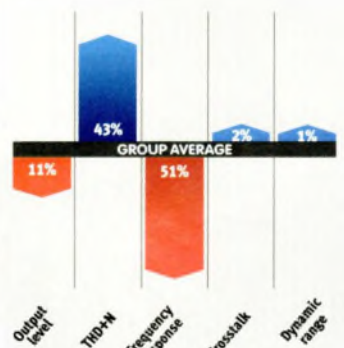
It has a delightful treble, only revealing a slight harshness in comparison with a very good DAC, while deep bass is firm and purposeful. The FM tuner deserves praise, too, for a clean and pleasing, if not extraordinarily insightful, sound.

TECH LABS

The NA7004 product really shows its background in delivering audiophile sound. It effortlessly maintains the full dynamic range available for the 16-bit/44.1kHz audio format of 96dB, while delivering a solid output level of just under 2.4Vrms. The output level optimised the crosstalk interference which we measured at -86dB – about as low as we expect for a digital audiophile product. A similar story is seen in the distortion characteristic, with our measurements capturing a performance in line with some top CD transporters.

Our only disappointment with the NA7004 is an unremarkable frequency plot, a deviation of almost +/-0.3dB from our expected curve leaves us wanting. Within the group the unit loses ground with its frequency deviation, as well as being out performed for measured distortion.

RESULTS AT A GLANCE



Hi-Fi Choice

OUR VERDICT

- SOUND QUALITY** ★★★★★ **LIKE:** Very flexible; well controlled bass; good FM tuner section
- VALUE FOR MONEY** ★★★★★ **DISLIKE:** Not the easiest unit to navigate and sound may be a little laid-back for some
- BUILD QUALITY** ★★★★★
- FEATURES** ★★★★★ **WE SAY:** A way of accessing music, with unfussily attractive sound

OVERALL



The Music Chain

Much is written about music and the musicians who entertain us, and we rightly exalt great musicians. But there is an interlinked chain of participants, two of which I believe are crucial to our music scene in today's world. For centuries the music chain was a very short one – composers or songwriters, musicians and listeners, and the judgement on quality was immediate. Recording technologies have changed all this exponentially.

Today, we listen to most of our music from a recording and this gives recording engineers the opportunity to avoid poor acoustics, duff notes and off days. This, of course, means the chain has grown to include the recording engineers, the music distribution system (retailers or downloads), hi-fi manufacturers, hi-fi sellers and the hi-fi purchasers, the latter being the listeners. I should start by saying that hi-fi has become an adulterated term that no longer has its original meaning because it's applied to much equipment that certainly should not be termed high-fidelity.

It's said that a chain is only as strong as its weakest link. However, I believe there are two particularly strong links that, if removed from the chain, would seriously damage the quality of recorded music. These are the audiophile, or hi-fi connoisseur, and the specialist hi-fi retailer, the latter in nearly all cases also being the former because it's their interest that has driven them into their particular business. These are the people who most appreciate how exciting and involving music can be and how it can deliver an emotional experience.

Hi-Fi Connoisseurs

So why is the hi-fi connoisseur so important to the music industry? By their nature, audiophiles are generally avid music lovers who enhance their enjoyment through listening to music at its very best quality level, which means playing great recordings through hi-end hi-fi to achieve the most outstanding results. Without the audiophile, the main driver for quality would probably be removed from the chain. Let's be honest, over recent years the majority of music listeners now settle

for MP3 convenience and, therefore, mediocre sound quality. If the pendulum ever swings so far that all but a few listen to highly compressed formats such as MP3, music producers will not waste their resources on producing high quality recordings because it would be commercially unnecessary, even if their recording engineers wanted to achieve the best they could. After all, an MP3 or AAC file, the iTunes default format, downloaded at 128 kbps (the most popular download speed), is about one-eleventh the size of a full resolution CD track, 1411 kbps, so the quality is inevitably far inferior. Information is irretrievably lost and the full dynamic range is lacking. Using an iPod while jogging does not really raise a quality issue but playing low-resolution tracks through an iPod docking station that feeds into a decent hi-fi system, is a disaster area. It's rubbish quality made louder. Fortunately, there is still significant demand from audiophiles committed to sound quality to sustain the production of high quality recordings, but it would be a tragedy if there weren't. For example, most classical recordings downloaded as

THE TOP 20



an MP3 or AAC file are a complete waste of time because there is so much information missing that they are reduced to just the essence of a tune.

Specialist Hi-Fi Retailers

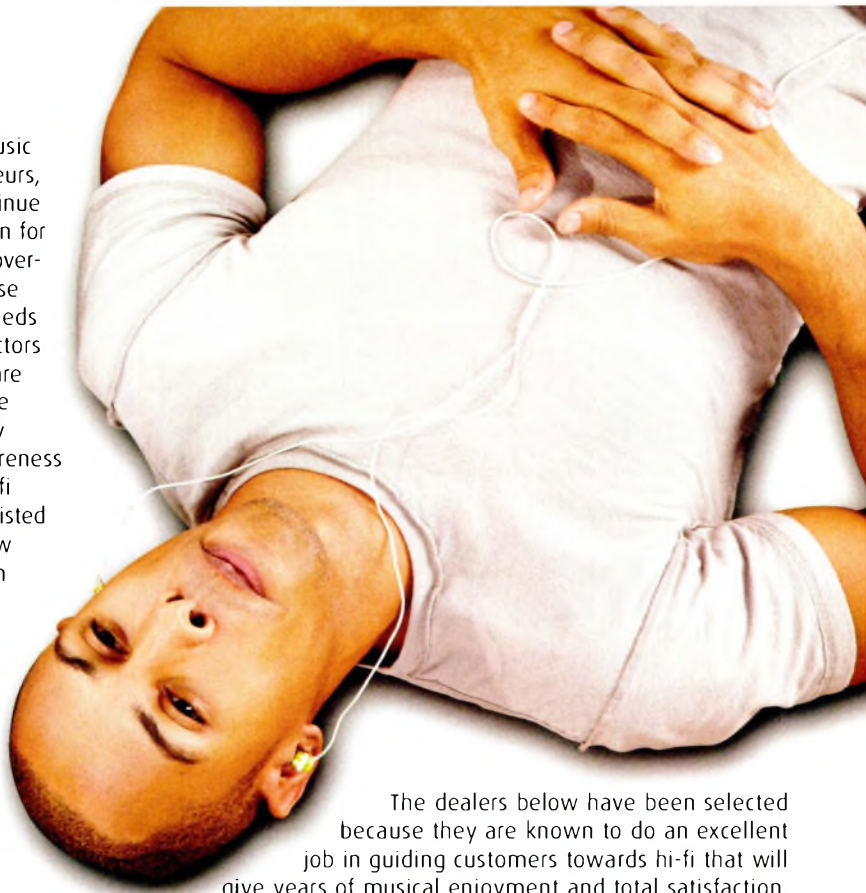
Just as essential a link in the chain as the hi-fi connoisseur is the specialist hi-fi retailer and the two are rightly dependent on each other. Without the specialist retailer the hi-end hi-fi manufacturer would have to rely on the internet and hi-fi magazine reviewers to try and assess the relative merits and performance of their products against that of their competitors – a notoriously unreliable decision making process. Specialist hi-fi retailers are constantly being offered new products for assessment and potential stocking and, as it is also their hobby as well as their livelihood, they are greatly interested in achieving the best performance and seeking out the most outstanding products and combinations. More than that though is their relationship with audiophiles for, if they are to stay in business, they must satisfy the most discerning customers in the industry. The reality is that audiophiles and specialist hi-fi retailers are essential to each other.

Future of Recorded Music

What are the future prospects of maintaining high quality music recordings? We must hope that audiophiles, or hi-fi connoisseurs, or perhaps most accurately described, music lovers, will continue to drive the demand for quality. But another important reason for hope within the mass-market is that there is no longer any overriding reason for MP3 and AAC to have such a following. These formats were designed to overcome very slow download speeds and expensive memory capacity. These are not significant factors for most people now. Full resolution, CD quality, downloads are already available and should become the norm as long as the general public can be made aware of the tremendous quality benefit. This has happened with HD TV so we know this awareness can grow rapidly. In the meantime, we must highly value hi-fi connoisseurs and specialist hi-fi retailers, of which the ones listed on this page represent the UK's finest. Specialist dealers know how to choose the products that combine as a superb system and how to get the best out of it by expert installation in the home. If there's a price premium over an internet purchase, it's probably a small one, but it's unquestionably worth the difference.

STAR QUALITIES

VALUE FOR MONEY ★ ★ ★ ★ ★
 SERVICE ★ ★ ★ ★ ★
 FACILITIES ★ ★ ★ ★ ★
 VERDICT ★ ★ ★ ★ ★



The dealers below have been selected because they are known to do an excellent job in guiding customers towards hi-fi that will give years of musical enjoyment and total satisfaction.

GUIDE

TO BUYING A HI-FI SYSTEM

OUR TOP 20 UK HI-FI DEALERS

SOUTH

Ashford, Kent

SOUNDCRAFT HI-FI
 40 High Street.
 t: 01233 624441
www.soundcrafthi.com

Chelmsford

RAYLEIGH HI-FI
 216 Moulsham Street.
 t: 01245 265245
www.rayleighhi.com

Colchester

RAYLEIGH HI-FI
 33 Sir Isaac's Walk.
 t: 01206 577682
www.rayleighhi.com

Kingston-upon-Thames

INFIDELITY
 9 High Street,
 Hampton Wick.
 t: 020 8943 3530
www.infidelity.co.uk

Maidenhead

AUDIO VENUE
 36 Queen Street.
 t: 01628 633995
www.audiovenue.com

Rayleigh, Essex

RAYLEIGH HI-FI
 44a High Street.
 t: 01268 779762
www.rayleighhi.com

Southend-on-Sea

RAYLEIGH HI-FI
 132/4 London Road.
 t: 01702 435255
www.rayleighhi.com

LONDON

Ealing

AUDIO VENUE
 27 Bond Street.
 t: 020 8567 8703
www.audiovenue.com

N1

GRAHAMS HI-FI
 190a New North Road.
 t: 020 7226 5500
www.grahams.co.uk

SW11

ORANGES & LEMONS
 61/63 Webbs Road.
 t: 020 7924 2043
www.oandlhi.com

SOUTH WEST

Bath

AUDIENCE
 14 Broad Street.
 t: 01225 333310
www.audience.org.uk

Exeter

GULLIFORD HI-FI
 97 Sidwell Street.
 t: 01392 491194
www.gullifordhi.com

MIDLANDS

Banbury

OVERTURE
 3 Church Lane.
 t: 01295 272158
www.overture.co.uk

Birmingham

MUSIC MATTERS
 363 Hagley Road,
 Edgbaston.
 t: 0121 429 2811
www.musicmatters.co.uk

Coventry

FRANK HARVEY
 163 Spon Street.
 t: 024 7652 5200
www.frankharvey.co.uk

Leicester

CYMBIOSIS
 6 Hotel Street.
 t: 0116 262 3754
www.cymbiosis.com

Nottingham

CASTLE SOUND & VISION
 48/50 Maid Marian Way.
 t: 0115 9584404
www.castlesoundvision.com

NORTH

Cheadle

THE AUDIO WORKS
 14 Stockport Road.
 t: 0161 428 7887
www.theaudioworks.co.uk

Chester

ACOUSTICA
 17 Hoole Road.
 t: 01244 344227
www.acoustica.co.uk

Hull

THE AUDIO ROOM
 2 George Street, Hedon
 t: 01482 891375
www.theaudiroom.co.uk

York

SOUND ORGANISATION
 2 Gillygate.
 t: 01904 627108
www.soundorg.co.uk

SCOTLAND

Aberdeen

HOLBURN HI-FI
 441 Holburn Street.
 t: 01224 585713/
 572729
www.holburnhi.com

Edinburgh

LOUD & CLEAR
 Bonnington Mill,
 72 Newhaven Road.
 t: 0131 555 3963
www.loud-clear.co.uk

Glasgow

LOUD & CLEAR
 520 St Vincent Street.
 t: 0141 221 0221
www.loud-clear.co.uk

Glasgow

GLASGOW AUDIO
 135 Great Western Rd.
 t: 0141 332 2200/4707
www.glasgowaudio.com



Coherent Systems

Vivid Audio

The undiscovered
sonic beauty

tel. 0845 5191833

www.coherent-systems.co.uk



ORACLE AUDIO

The Fine Art of Playing Music



Hear the Paris at:

The Sound & Vision Show

5th & 6th November 2011

At the Burlington Hotel, Dublin



For your nearest dealer call 0845 6436299
Another fantastic product from NuNu Distribution



Rotel RDG-1520 £795



Streamer or a 'digital gateway'? Fact is, this is an easy bit of kit to use if you're not used to computerised audio

DETAILS

- ORIGIN:** Japan/China
WEIGHT: 6.5kg
DIMENSIONS: (WxHxD) 431x99x312mm
FEATURES:
- Inputs: Ethernet (on USB-A socket), Wi-fi, electrical and optical S/PDIF, USB-A (front), FM, DAB
 - Outputs: Analogue (unbalanced)
 - Formats: WAV, FLAC, AIFF, WMA, MP3, AAC/MP4, OGG Vorbis
 - Max resolution: 16-bit/96kHz
- DISTRIBUTOR:** Rotel Europe
TELEPHONE: 01903 221763
WEBSITE: rotel.com

Streamer, tuner, 'digital gateway' – whatever you call it, this is a very flexible way of getting at tunes. It may not have quite as many options on offer as the Marantz, but it still does plenty: streaming from a computer network (wired or wireless) and playing internet radio, FM, DAB, USB including iPod etc.

It does support 96kHz playback off a network, though not off USB and only at 16-bit resolution. What's more, although it plays the files it downsamples them to 48kHz, so they are no longer high-res in any sense.

That's a bit bizarre, especially since high-sample-rate sources are decoded happily enough from the digital inputs. We thought at first that the computer was doing the downsampling, but on reflection that's unlikely, since on a network the Rotel is simply asking to be sent a file: the computer doesn't decode that file or even worry about what sort of file it is.

On a more positive note, the RDG-1520 is nice and easy to use, especially if you're not too familiar with modern, computer-connected audio components. It's got rather a lot of buttons on the front but they're clearly labelled and switching from USB to internet radio, say, is just a matter of pressing the appropriate

source button, just like on an amp. The usual twist'n'push control does a good job with the four-line display and we found navigation very straightforward. Rotel's internet radio website is great and makes searching for and saving stations very easy using a web browser, with settings that are reflected on your RDG-1520

Connections are not quite the standard set and it's particularly confusing, we thought, to put Ethernet on a USB socket. You need to use a (supplied) socket adaptor or wireless adaptor to get going. We assume the logic is that USB sockets carry power (unlike Ethernet ones) making a wireless adaptor feasible.

Sound quality

Our listeners rated this the best of the group for rhythm and timing, finding it the most adept at getting the sound 'out of the box' and into the listener's heart and soul. One consideration might be that even as they commended the RDG-1520 in present company, those same listeners still hankered after rather more in the timing department and we'd have to agree: playing the same tracks via the best mid-price CD players did indeed suggest there's more to be had.

But there's real listening pleasure to be had here and other aspects of this

Rotel's performance contribute too. Detail is good, with imaging, being particularly impressive. Tonally the sound is a little on the bright side, but not to offensive levels. Bass is deep and quite strong, though once again not as well controlled as one might wish for, but it helps make for a 'big' sound with lots of presence.

For some strange reason, in the limited amount of testing we did with data-reduced formats (mostly internet radio), we found this streamer the most adept at side-stepping their drawbacks.

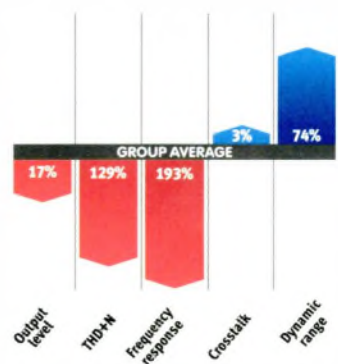
TECH LABS

The RDG-1520 recorded some promising measurements, but was let down in some key areas among a fairly high-performing group of streamers. The RDG-1512 output a decent level, if a little low and both analogue outputs performed almost identically, with less than 0.5% difference on each test. And by a small margin the 1512 achieved the least crosstalk and matched the dynamic range measurement of the best of the group.

RDG-1512's distortion characteristic at low levels holds up against the group, but for 0db signal we measured a THD+N ratio of four times what we expect for an audiophile product delivering CD audio. Similarly, the frequency response drifted a small amount, where we have come to be able to expect virtually no attenuation of frequencies in the audible range.

With higher resolution test signals, we saw no notable improvement from the 16-bit/44.1kHz figures.

RESULTS AT A GLANCE



Hi-Fi Choice

OUR VERDICT

SOUND QUALITY

★★★★★

VALUE FOR MONEY

★★★★★

BUILD QUALITY

★★★★★

FEATURES

★★★★★

LIKE: Plenty of input options; good rhythm and timing

DISLIKE: FM radio performance weak; lack of full support for hi-res sources

WE SAY: A product for those unaccustomed to internet-based audio

OVERALL

★★★★★



PLATINUM M

finest masterpiece



HI-FI WORLD

"Real fidelity at an affordable price" - 5/5 PLATINUM M4

HOME CINEMA BOSS BOY

"Absolutely fantastic" CHROMIUM STYLE 5.1

hi-fi news HIGHLY COMMENDED

"Tuneful bass ... Tweeter scintillates ... Impressively built and finished off for the price" - ORKAN VIII

WHAT HI FI? EDITOR'S CHOICE

"This brand will sweep you off your feet" International Edition

Hi-Fi Choice

"Sweet and smooth" 4.5/5 - ALTAN VIII

Why quadral? All our speakers are designed to work with any component and intentionally tuned for a typical furnished home. Add fantastic value and glowing reviews and you've got the ultimate all round sound investment.

DEALERS: LONDON: Tea, London, SOUTH EAST: Sound Advice (Essex), Premiere Home Cinema (Essex), RJR Custom Installations (Cambridge), SOUTH - Weymouth HiFi (Weymouth), SOUTH WEST: AV Bristol (Bristol), MIDLANDS: Audio Affair (Birmingham), Sound Academy (Walsall), Home Cinema and Beyond (Birmingham), Gear 7 (Solihull), SHROPSHIRE: Creative Audio (Shrewsbury), NORTH WEST: Ambient AV (Northwich), Cherry Electronics (Bolton), NORTH EAST: Harrogate Home Cinema (Harrogate), Konnectiv Technology LTD (Sheffield), Novatech (Leeds), A1 Sound (Sheffield), Audio Elevation (Doncaster), NOTTS: John Kirk HiFi (Beeston Nottingham), Forum HiFi Visual (Sherwood Nottingham)

t: 01785 748 446

e: info@quadralgb-ie.co.uk w: www.quadralgb-ie.co.uk

quadral

HiFi / Surround Speakers

BROKEN IPHONE?

We are iPhone Repairs & Spares LTD

Dedicated specialists for the Apple iPhone

FREE iPhone screen protector with every iPhone 3G or 3GS touch screen repair

All iPhone models repaired
12 months warranty on all repairs
Fast turnaround
Parts available for DIY repairs
Drop in service available



Visit our website for iPhone accessories including:

Protective cases
Solar chargers
External batteries
In-car accessories
and much more...

iPhone 24ct Gold plating Now available!

Bring your iPhone 3G/3GS to us and we will repair within 5 minutes on-the-spot

Tel: 01634 405 662

Email: service@iphonerepairsLtd.co.uk
www.iphonerepairsLtd.co.uk

Admirals Offices
The Historic Dockyard
Chatham, Kent, ME4 4TZ

Slash your TV, internet & phone bills!

Save up to £408* per year

83% of our customers save

One quick call. Thousands of deals.

LOWEST PRICE GUARANTEE

We do the hard work for you:

- 1 Call free and speak to our London based impartial experts.
- 2 We review over 6,000 deals from the top UK providers to find the right one for you - with our Lowest Price Guarantee.
- 3 Our experts do the hard work, answer your questions and even arrange your installation!



We're proud to be the only service to be accredited by Ofcom for TV, broadband and home phone comparison

PRICE COMPARISON CALCULATOR Ofcom

Freeview plusnet sky O2 BT Virgin Primus TalkTalk

Call us free and we'll do the hard work! Experts available:

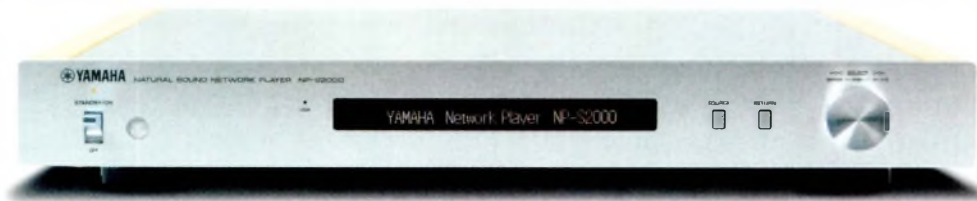
0800 466 1053

Monday-Friday 8am-8pm,
Saturday 9am-5.30pm,
Sunday 10am-5.30pm

www.techradarstores.co.uk/digitalsave or text "DEAL" to 81400 and we'll call you

simplifydigital

*20% of Simplifydigital customers received an average saving of £408. Data based on 1,538 records between 1st of Jan 2010 to 31st Nov 2010. ** Out of 445 consultations between 01/01/2010 and 03/05/2010, 368 Simplifydigital customers saved money by signing up to our recommended deal. Lowest Price Guarantee Terms and Conditions apply - see www.simplifydigital.co.uk/lowest-price-guarantee for full details. Standard SMS network charges apply.



Yamaha NP-S2000 £1,400

Slick and sleek, with more obvious audiophile features than most, but is it worth the extra cash?

DETAILS

- ORIGIN:** Japan
- WEIGHT:** 12kg
- DIMENSIONS:** (WxHxD) 435x69x440mm
- FEATURES:**
 - **Inputs:** Ethernet
 - **Outputs:** Analogue (balanced and unbalanced), electrical and optical S/PDIF
 - **Formats:** WAV, FLAC, WMA, MP3, AAC/MP4
 - **Max resolution:** 24-bit/96kHz
- DISTRIBUTOR:** Yamaha Music Europe
- TELEPHONE:** 0844 811 1116
- WEBSITE:** uk.yamaha.com

By some margin the most 'hair-shirt' of the streamers in this group, the NP-S2000 nevertheless looks a lot more like a bit of high-end audiophilia than the rest. It's vast and very heavy, and we were impressed to find, after removing 42 screws to get the lid off, that it really is quite full of electronics – two separate mains transformers, a large and well-populated audio circuit board, and so on.

Part of the reason why the audio board needs so much electronics is that it has to drive a balanced output, as well as the usual unbalanced, something you really don't often see on streamers. There are optical and electrical digital outputs as well.

If outputs are plentiful, the same can't in truth be said for inputs: there is just one, Ethernet. No USB, no digital input, no wireless of any kind. There's also not much of a display, just one line of text. It's very nicely done, but it means that you invariably have to scroll up and down to see what the other options might be at any menu level. You can, however, operate the NP-S2000 using an iPhone or iPod Touch, or control it using a home computer, via the Ethernet link.

Internet sources are limited to internet radio and podcasts, which isn't really very much of a limitation given how much stuff is available out there. Music on the network uses Twonky media server, which is pretty

much a standard and appears under various disguises so you may already have it installed. The full range of sample rates is supported up to 96kHz, as well as all the usual file types and formats. Yet again, there is no way to search either forwards or backwards within a track. We really can't imagine how so many manufacturers seem to have missed this – isn't it a fundamental feature?

Sound quality

The panel listening results of this streamer were noticeably influenced by its tonal character, which is more favourable to the treble than the bass, a little bright and lacking body. Once one gets used to that, though, there's plenty to enjoy in other areas, including detail, dynamics and imaging. Timing was felt to be something of a mixed bag. It's no secret that a touch of brightness can seem to enhance timing a little, but in this case the lack of body seemed to counterbalance that and our listeners found the result frustrating.

There are other side effects, for instance an increased awareness of background noise (tape hiss) in the Miles Davis track we played. On the other hand, detail can sometimes be a touch improved by this kind of tonal balance and, as an example of that, the Bach piece for cello and piano in our presentation benefitted from particularly good detail and definition of the instruments.

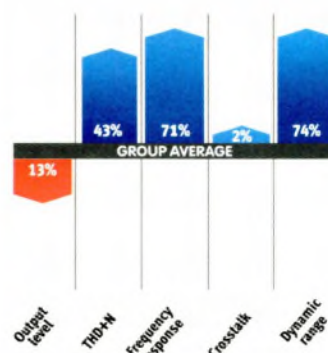
TECH LABS

Aesthetically, the NP-S2000 commands to be taken seriously among the group and in the lab measured a serious performance. Starting from a solid output level of a modest 2.3Vrms and achieving distortion measurements about as low as can be expected with our 16-bit/44.1kHz test signals; the NP-S2000 went on to plot a frequency response graph, with a deviation worthy of any top audiophile digital audio product (less than 0.06dB).

Our crosstalk reading left little room for improvement at -86.5dB, while the dynamic range performance is the same story again – as large as we can expect at 95.9dB compared to a fundamental limit of 96dB. Further improvements were seen when we explored the Yamaha's performance with higher resolution signals.

Overall the NP-S2000 shows its ambition of contending as a serious audiophile product manufacturer, keeping abreast of the changing landscape of consumable media.

RESULTS AT A GLANCE



Hi-Fi Choice

OUR VERDICT

SOUND QUALITY



LIKE: Good with music for large forces, creating a spacious sonic canvas

VALUE FOR MONEY



DISLIKE: Tonal balance distinctly favours higher frequencies, resulting in lack of impact

BUILD QUALITY



FEATURES



WE SAY: Performance just doesn't justify the price

OVERALL



Lab conclusions

James Waldron finds that our group of new-tech streamers performs far better than expected with some surprisingly strong results

TECH LABS

As music catalogues find their way onto hard drives and servers, and online radio stations and subscription services become more prolific and relevant; the need for high-quality streaming devices to compliment an audiophile system is itself maturing into some commendable audio transport solutions.

One problem facing streaming devices is the susceptibility to interference and degradation of a signal as it passes through a network. Such problems can amount to drop-outs of the audio in the extreme, but more subtle artefacts may appear as distortion and reduced signal-to-

noise ratio and dynamic range. These transport issues are being overcome in modem devices and we are seeing more and more high-quality streamers.

In our group test we evaluated the devices' own analogue output stages, where we may otherwise have taken a digital output and used a stand-alone DAC. This should highlight some potential issues as manufacturers may try shaving costs from their device's power supply as it delivers different voltages to the digital and analogue stages. A reduced and potentially noisy power supply to an analogue output amplifier circuit may affect the dynamic range and distortion performance

whilst the lower voltages required for the digital side may lose synchronisation from slight fluctuations as well. By observing the output power we can make a guess as to where any distortion and reduced performance could be generated by the device or inherent to the transmission interference.

Overall, our group performed better than we expected, rejecting interference from the network and driving a solid line-level analogue output. The differences we see in performance are most likely in each manufacturer's analogue output stage and converters, and the results were surprising and illuminating across such a wide variety of form-factors.



Depending on how sophisticated your household computer network is, wireless (wi-fi) may save a lot of bother in terms of cable installation. On the other hand, wireless links are intrinsically less reliable than wired, and are subject to interruptions from sources beyond your control. It's also worth noting that some streamers don't support high-res audio via wi-fi, only Ethernet cable.

RESULTS AT A GLANCE

Make/model	Cambridge Audio Sonata NP30	Cyrus Stream X	Logitech Squeezebox Touch	Marantz NA7004	Rotel RDG-1520	Yamaha NP-S2000
Price	£400	£1,400	£239	£600	£795	£1,400
Sound	★ ★ ★	★ ★ ★ ★	★ ★ ★ ★	★ ★ ★ ★ ↓	★ ★ ★ ★ ↓	★ ★ ★ ★
Value	★ ★ ★ ★	★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★
Build	★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★	★ ★ ★ ★	★ ★ ★ ★	★ ★ ★ ★
Features	★ ★ ★ ★	★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★	★ ★ ★ ★	★ ★ ★ ★
Overall	★ ★ ★ ★	★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★ ↓	★ ★ ★ ★ ↓	★ ★ ★ ★ ↓
Conclusion	Inexpensive and does what it says on the tin, but lacks the performance edge	User interface not the slickest and needs a DAC, but a capable streaming addition	A delight to use and listen to – we'll be very happy if this is a taste of the future	Comprehensive way of accessing digital or radio music sources, with unfussily attractive sound	Well suited to those previously unaccustomed to internet-based audio; good for internet radio	Not without its attractions, but performance doesn't quite justify the price

Key features

Network inputs	Ethernet/Wi-fi	Ethernet/Wi-fi	Ethernet/Wi-fi	Ethernet	Ethernet/Wi-fi	Ethernet
USB inputs	Front/rear	Rear	Rear	Front inc. iPod/Rear	Front inc. iPod	None
Digital inputs	None	3x elec, 2x opt	None	Elec, opt	Elec, opt	None
Other inputs	None	None	SD card	FM, AM, DAB	FM, DAB	None
Digital outputs	Elec, opt	Elec	Elec, opt	Elec, opt	None	Elec, opt
Analogue outputs	Unbalanced	Unbalanced	Unbalanced	Unbalanced	Unbalanced	Balanced/unbalanced
Other outputs	None	None	Headphone (3.5mm)	Headphone (6.3mm)	None	None

Lab conclusions E = Excellent | AA = Above average | A = average | BA = average | P = poor

Output level	2.18Vrms A	4.78Vrms E	1.97Vrms A	2.35Vrms AA	2.19Vrms A	2.28Vrms AA
THD+N	0.003% BA	0.002% E	0.004% BA	0.002% AA	0.008% AA	0.002% AA
Frequency response	+/-0.142dB A	+/-0.030dB E	+/-0.073dB E	+/-0.292dB AA	+/-0.567dB AA	+/-0.057dB AA
Crosstalk	-82.2dB A	-79.85dB BA	-85dB AA	-86.05dB AA	-86.8dB AA	-86.45dB B
Dynamic range	95.4dB AA	96dB E	92dB BA	96dB E	95.9dB E	95.9dB E

Blind-listening verdicts

With **Richard Black** and the blind panel having cast their opinions, there's a surprising winner and some notable recommendations

IT'S ALWAYS FUN CONDUCTING a first group test of a new equipment category and this was certainly no exception. We had very little idea how things would pan out, but we were gratified that the exercise went without a hitch, showing that this technology is already surprisingly mature and ready to be employed as casually as one would buy and install a new CD player, for instance.

In terms of sound, we had little trouble spotting a few differences between the units – in terms of features and ease of use, things were even more obvious. Two units failed to make the grade for formal recommendation: Cambridge Audio and the Yamaha. Given that the Cambridge is the second-cheapest in the group this may seem a little harsh, but the Logitech Squeezebox Touch is tough competition and we didn't feel the Cambridge quite justifies itself. Its sound simply lacks that certain something that keeps the listener alert and it failed to move our listening panel.

The Yamaha certainly manages better sound, but at a rather high price and with

relatively limited features – no USB, for a start, which is often nice to have and we'd have loved a bit more impact in the sound. The Cyrus Stream X (at the same price, but requiring an external DAC) just pips it in most ways.

The Marantz and Rotel units are very closely matched for features and not very far apart in price and we ended up scoring them identically. In the end we'd admit a very marginal preference for the Marantz, but they really are so close in every way that personal taste will decide the issue in many cases. The Marantz is certainly better on the FM radio front, if that's important to you, while the Rotel adds wireless network connectivity which could be a decider for some.

The Rotel doesn't appear to support high-resolution files correctly, but for most users that's a non-issue in reality. Despite the new technology, both units seem to continue the 'house sound' tradition of their respective brands, which could speed up the selection process, if you've had experience with them in the past. ●

THE WINNER IS...

WE DIDN'T HAVE TO AGONISE over this. When a contender in a group test sounds, at least, as good as the average, adds features the others lack and comes in a price that's 40 per cent lower than the nearest competitor and less than one-fifth that of the dearest, what is one to do? And even if you find the Squeezebox Touch's sound a bit lacklustre via its analogue outputs (bearing in mind the strongest criticism we had was of a very slight lack of energy), you can upgrade it with a choice of popular external DACs and still keep the price the right side of £600. Heck, you may very well already own a DAC. And this unit is just so much fun to use. Proper audiophile sound with the very latest in look and feel – how could we not love it?



For many, streamers will simply supplement a good existing system, but if you're starting from scratch try these faithful partners in rhyme

DAC:
 Rega DAC **£498**

An external DAC is an obvious way of upgrading a streamer and also quite a handy way of integrating other digital sources, such as CD (for those CDs you haven't loaded to your hard drive yet!) and DAB. This one has a beautifully sweet sound, plus a very neutral midrange. It's particularly likeable for its tendency of focusing on the music without fuss or showing off and, for instance, it makes a fabulous amount of detail available, but doesn't force it on you. Selectable digital filter responses give a small but useful degree of tailoring to taste and there are plenty of inputs available.



AMPLIFIER:
 Audiolab 8200A **£730**

Harking back to the days long before computer audio, the 8200A is Audiolab's brand-new revision and relaunch of the 8000A. It's a practical unit, particularly well featured in terms of configuration options, but the most important feature is, of course, the sound. We found that it more than meets expectations in terms of hi-fi requisites like detail, dynamic, rhythm and tonality, but also adds just a touch of its very own charm that makes for exceptionally enjoyable listening. There's a special kind of insight in the lower midrange which makes for new perspectives on familiar recordings, while even the ills of MP3 are somewhat tamed.



LOUDSPEAKER:
 Monitor Audio Gold GX200 **£2,300**

It's easy to get hung up on specific design features, especially in loudspeakers. This model has attracted quite a lot of attention, because it features ribbon tweeters. More to the point, it should be attracting attention because of its open and detailed sound. It can seem a little bright at times, with a balance that subtly favours higher frequencies, but although its bass isn't attention-grabbing it does pack a punch when it's needed. Throughout the midrange there's excellent definition and this helps keep voices natural and highly communicative.





Blade- runner



KEF's Blade celebrates 50 years of loudspeaker innovation with the most dramatic leap forward in decades, says **Paul Messenger**

KEF has been virtually synonymous with loudspeaker innovation for five decades.

Although in recent years the company's main preoccupation seems to have been with multi-channel home cinema, through an impressive succession of clever designs, but the Blade looks likely to put KEF back on the stereo hi-fi top table.

Conceived by Mark Dodd and executed with considerable assistance from Jack Oclew-Brown, a Project Blade 'technology demonstrator' first appeared two

formed into a continuous series of curves, the profile does indeed somewhat resemble a machete, but it's also rather reminiscent of the wing of a Spitfire, with the front-mounted Uni-Q driver representing the cannon. The body proper is then supported on an equally elegant plinth, dough-moulded in a mineral- and metal-loaded resin to provide good mass and footprint stability.

KEF's co-axial Uni-Q driver seems to have been with us since time immemorial, but the variation used here is very different from its predecessors. While it still adopts

"The first thing one notices on playing the Blade is its stunning stereo imaging – tightly focused and precisely layered, with convincing depth perspectives and accurate lateral locations."

years ago. There was talk of it going into production, but nothing had been decided and its elaborate and costly enclosure – a carbon fibre, balsa wood sandwich – meant that the price was likely to be something like twice our review speaker's £20,000 price.

The Production Blade

That's still expensive, no question, but it's a sum which no longer seems unduly extravagant in today's high-end context. And what you get is arguably the most stylish speaker on the planet, thanks in part to industrial designer Eric Chan of ECCO Design, as well as one of the most advanced in engineering terms.

Now fabricated in moulded fibreglass, the Blade looks very similar to the prototype and is no shrinking violet. It stands more than 1.6 metres tall and also needs to be sited well clear of walls, so it will certainly be a dominant feature in any normal domestic environment.

Looking wonderfully slim from the front with a moulded enclosure

the classic technique of positioning a tweeter powered by a compact neodymium magnet on the central pole of the midrange driver, much work has gone into maintaining a consistent acoustic wavefront transition between tweeter and midrange and thence to its mounting in the enclosure.

The tweeter's titanium-alloy dome uses a two-part construction to improve rigidity and achieve a wide bandwidth, and loads the diaphragm with short horn and a 'tangerine' waveguide in order to deliver a spherical wavefront.

The midrange driver is even more radical. The flared diaphragm is constructed on a skeletal substrate, moulded in liquid-crystal polymer, faced by a ribbed diaphragm in a lithium/magnesium/aluminium alloy. It has an outside diameter of 95mm and an inside diameter of 47mm, so it's actually an annulus in shape to maintain the spherical wavefront, alongside a minimal and flat surround. It has a large 75mm voice coil, driving the diaphragm at

▶ DETAILS

- PRODUCT:** KEF
ORIGIN: UK
TYPE: Three-way floorstanding loudspeaker
WEIGHT: 57.2kg
DIMENSIONS: (WxHxD) 363x1,590x540mm
FEATURES:
- Uni-Q mid/treble driver
 - 25mm two-part aluminium dome tweeter with tangerine waveguide
 - 125mm midrange driver with Li-Mg-Al/LCP hybrid cone
 - 4x225mm force-cancelling bass drivers
 - Two rear-ported bass chambers
 - Tall, slim-moulded fibreglass enclosure
 - Finished in gloss black or white, plus a dozen custom colours
 - Moulded mineral/metal-loaded plinth for appearance and stability
 - Top-adjustable spikes
 - Built-in spirit level aids set-up
 - Twin terminal pairs with captive links
- DISTRIBUTOR:** KEF Audio
TELEPHONE: 01622 672261
WEBSITE: kef.co.uk

its first bending node and ensuring massive power handling reserves.

The mid/treble Uni-Q is mounted in a small sub-enclosure that is mechanically decoupled from the main enclosure and acoustically integrated via a carefully shaped rubberised trim pad.

Not to be outdone, the bass is equally radical. It uses four 230mm drivers with shallow-dish 175mm alloy diaphragms (roughly equivalent to one 17-incher), mounted on both



Drivers and crossover in their naked glory

Q&A...

WE SPOKE WITH MARK DODD, GP ACOUSTICS' HEAD OF GROUP RESEARCH

HFC: *The Blade incorporates a number of key technologies. Is there any way to prioritise these?*

MD: The prime aim of the Blade is simply to produce the sound field of a single point source, together with dispersion that progressively narrows with rising frequency.

The resulting smoothly falling power response should give the most natural in-room balance, since the reflected sound will match the direct sound.

However, it's also important to avoid the 'ringing' coloration produced by diaphragm breakup and enclosure wall resonances. These reduce the detail and give the loudspeaker its own characteristic sound. The spaced array of bass drivers gives an apparent source at the Uni-Q, while controlling the vertical dispersion to give a smooth, downward-sloping power response with wide lateral dispersion. The narrow and smoothly rounded enclosure front gives wide midrange dispersion with minimal diffraction.

The Uni-Q array with tangerine waveguide extends dispersion control through the remaining part of the audible frequency range. The stiffened high-frequency dome and ribbed, nodally driven midrange cone keep the frequency of parasitic diaphragm resonances a couple of octaves above the working band of the drivers.

The force-cancelling enabled by the bass driver positioning nullifies the large forces from the bass drivers, so that they can't excite the enclosure walls. Enclosure bracing is still important to control enclosure wall excitation due to the internal air pressures. The midrange driver is in a 'floating' enclosure using elastomer decouplers to avoid midrange coloration from the enclosure.

Placing the bass drive units high up off the ground is certainly unusual. Do you see any possible disadvantages in doing so?

You do get a reduction in coupling to the vertical room modes compared to having the bass drivers nearer the floor. In most rooms this will be an advantage, but there may be a few where it is not.

While it doesn't seem unduly expensive in today's high-end context, there's no denying that the Blade is a costly proposition that will be way beyond the means of most consumers. To what extent will you be able to incorporate the Blade technologies in more affordable models?

The Blade technology has already had a significant impact on both recent and planned products. The tangerine waveguide is already incorporated in the Q series and there are developments in the pipeline for some three-way systems using 'piston' drive and a simplified driver array.

Given that the force-cancelling bass arrangement effectively eliminates any rocking tendencies in the enclosure, is there any real need for rigid floor coupling through spikes?

We had not expected spikes to be necessary, but experience has shown the small differences in acoustic loading results in enough vibration to make spikes desirable.



sides immediately above and below the Uni-Q. The magnets are housed within large 115mm voice-coils that are deliberately decoupled from the diaphragms to limit the bandwidth, and the drivers are mounted in back-to-back pairs, so that their reaction forces cancel each other out – shades of KEF's 104/2 from the mid-1980s. Besides plenty of reinforcing ribs, the enclosure is internally divided, so that each pair of bass drivers is reflex-loaded by half the total volume and a rear port.

Ensuring that the Blades are properly vertical is vital from an aesthetic point of view, so the little spirit level built into the plinth is very useful – as is the fact that the spikes are top-adjustable – and then locked by generous and accessible thumbwheels with serrated edges. Two terminal pairs permit bi-wiring or bi-amping, while a third terminal-like pair acts as captive links.

The disposition of the drivers is designed to create a 'Single Apparent Source', which is clearly a good thing (though the press release's claim that this is a 'World's First' ignores the fact that Cabasse launched La Sphere back in 2007). Just as significant is the fact that all the drivers are

remarkable when compared to nearly all the competition.

The tonal balance is beautifully smooth, open, evenhanded and neutral, at least above the upper bass region. We did struggle a bit initially with the bass alignment and integration, but sorted that out by moving the speakers further out into the room and away from the wall behind than the 'free space' locations we normally use. The result was sonically very satisfactory, but somewhat inconvenient from a lifestyle perspective. The conclusion must be that the Blade is really a speaker that works best in a fairly large space – ideally one rather larger than our 4.3x2.3x5.5m room – or indeed one whose construction techniques involve rather more natural bass absorption. Furthermore, the room layout should be such as to allow plenty of free space around the speakers.

The exceptional stereo imaging along with refreshingly 'open' voicing are the first things one notices after connecting up these speakers, so much so that the bass end doesn't immediately attract attention with most programming. It is, in fact, deep, powerful and well timed, but

“The bottom line is that this loudspeaker is a truly impressive technological achievement, stuffed with clever ideas that come together to deliver exceptional performance.”

designed to operate pistonically through (and well beyond) their operating ranges.

Stunning stereo

Certainly the first thing one notices on connecting up and playing the Blade is its stunning stereo imaging – tightly focused and precisely layered, with convincing depth perspectives and accurate lateral locations. It did at first seem a little strange, or at least unusual, to find all the sound emanating from a point source a metre off the ground, but if this is what a 'single apparent source' is able to do, then we ought to have a whole lot more of it.

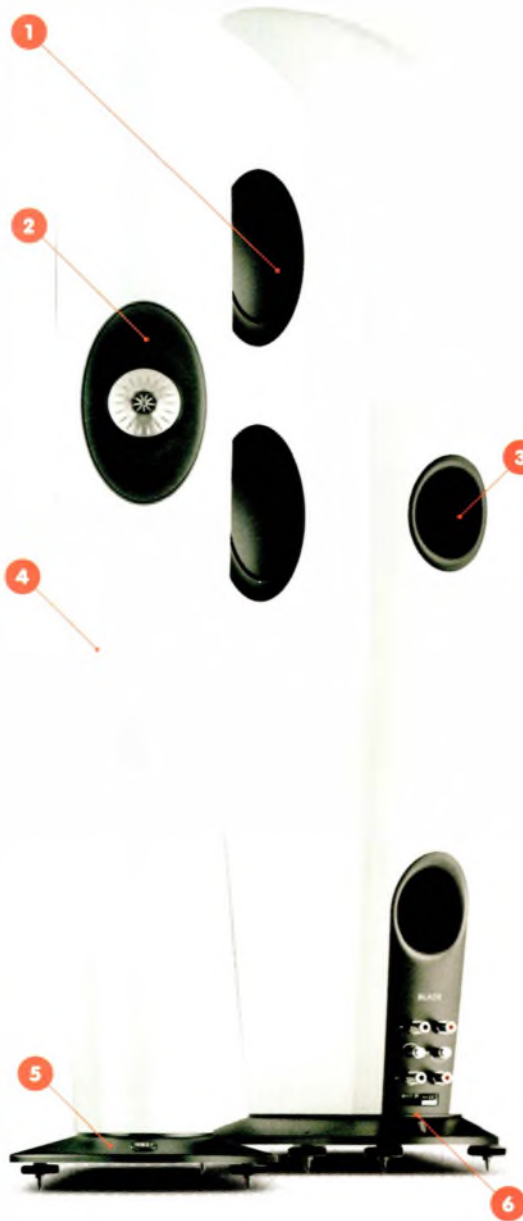
Although the best image is inevitably available for those occupying a 'hot seat' equidistant from the two speakers, the Blade still gives a remarkably good image around and between the speakers. Furthermore, walk around the room and the character of the sound remains very consistent and stable, which is actually quite

also almost uncannily free from any colorations and as such it's easily overlooked until called upon to do the business. However, pick a favourite drum solo – one with plenty of kick drum action – and wind the volume up as high as it can go. Then walk up to the speakers (wearing ear defenders) and put your hand against the enclosure and notice how much vibration you can feel. That's right – nothing! The power of force cancellation in avoiding any trace of cabinet coloration is truly remarkable.

Dynamic Range

Despite its considerable surface area, there's no evidence of any enclosure coloration here, either as a result of vibrations generated within the structure itself, or as an acoustic consequence of the shape of the front baffle. That is reflected in both an impressive freedom from any boxiness – or indeed any tendency for the image to cluster around the speakers – and in an exceptionally

FEATURES



1 Two 225mm bass drivers on each side are mechanically coupled internally to cancel reaction forces

2 Uni-Q mid/treble driver incorporates a two-part aluminium-dome tweeter with tangerine waveguide and a midrange driver with a Li-Mg-Al/LCP hybrid cone

3 Two separate bass chambers are each reflex-loaded by generous ports at the rear

4 Tall, slim and shapely enclosure is painstakingly moulded in fibreglass

5 The moulded mineral- and metal-loaded plinth incorporates top-adjustable spikes conferring both style and stability

6 Given the complex curves, the built-in spirit level is important in achieving accurate set up

SYSTEM MATCHING

THE IMPORTANT thing to consider in matching the Blade to other components is to ensure that the amplifier is capable of delivering plenty of current, in order to cope with the speaker's decidedly low-impedance amplifier load, which extends right through the bass region and up through much of the midband too.

Valve amps are not really suitable here, especially those of the low-power single-ended variety and class A solid-state units are also better avoided. Go for a big juicy solid-state amp for best results, and remember that the Blades will work best when positioned well clear of walls in a large room.

HOW IT COMPARES

FINDING APPROPRIATE competition for a speaker that costs £20,000 is far from easy. However, Bowers & Wilkins' top model, the 800 Diamond, has an £18,000 pricetag, which is about as close as one's likely to get.

Both are great loudspeakers, but very different in layout and sonic character. While we particularly like the bass grip and drive of the 800 Diamond, as well as respecting the sweet top end of its diamond dome tweeter, the KEF's Uni-Q mid and top is significantly smoother, more even and coherent. It also provides much tighter stereo focus and precision, though airy 'in the room' sound of the Bowers & Wilkins has its own rather different appeal.

wide dynamic range, due to a freedom from low-level 'hash'

The latter, in particular, gives exceptional results with classical material and choral performances, where the accurate rendition of low-level ambience plays a crucial part in creating an effective illusion.

The voicing of a loudspeaker through the critical presence region always involves a degree of personal judgement and taste. The Blade certainly has a little more presence energy than average and, as a result, has a tendency to sound a little forward, even slightly aggressive with some recordings, especially if they're played at a high level. However, across a broad range of different equipment, sources and material it simply sounds neutral, open and correct, with great coherence and freedom from strain.

If there is a bias towards a particular type of music, the Blade does seem particularly comfortable with classical material, where its ability to deliver convincing instrumental textures was easy to appreciate. But they're also well able to rock as and when required, even though the midband, rather than the bass, takes the lead.

Sonic statement

The Blade is very much a visual, as well as a sonic statement, and as such won't appeal to everyone. But the bottom line is that this loudspeaker is a truly impressive technological achievement, stuffed with clever ideas that come together to deliver exceptional performance throughout the whole audio band.

While the stereo imaging is its most outstanding and obvious characteristic, it's also always very informative and entertaining across the whole gamut of musical styles and genres, and works well with speech and movie soundtracks, too.

TECH LABS

RESULTS AT A GLANCE



Hi-Fi Choice

OUR VERDICT

SOUND QUALITY ★★★★★ **LIKE:** Unboxy with wide dynamics and good imaging

VALUE FOR MONEY ★★★★★ **DISLIKE:** Can sound bright, lacks some bass authority and warmth

BUILD QUALITY ★★★★★ **WESAY:** A stylish speaker with a wide dynamic range, but the bass can lack weight

EASE OF DRIVE ★★★★★

OVERALL





Swell new bel

From America comes a switching amp that's big on digital inputs. **Richard Black** thinks it might be the most exciting thing he's heard in a while

Don't be too hard on yourself if you haven't heard of Bel Canto. We'd had very limited exposure to the firm's products and only a rather hazy idea about what the range consists of. In fact, the company can sort you out a complete hi-fi system (minus speakers) from its product list, which includes predictable things like a CD player and a handful of DACs, as well as an FM tuner with partly digital processing and a digital output.

Fully featured

The C5i is an integrated amplifier for the digital age, or maybe it's a DAC with a power output stage. It does

actually have analogue inputs – two of them, one line level and one MM phono, but digital inputs are more its thing. There are five of those: two each electrical and optical S/PDIF and one USB, the latter capable of handling 24-bit/96kHz material, as are an increasing number of DACs these days.

There's a preamp output, too, as well as a headphone socket, but the main output is for speakers on the usual 4mm sockets/binding posts. Drive to these is provided by a switching amplifier, which uses an ICEpower module, licensed from Bang and Olufsen.

The perfect illustration of how switching technology can enhance

practicality, this module includes two channels of audio output and a switching power supply, the whole item being only 160x80mm and about 35mm high to the top of the tallest components. Try doing that with Class A!

We wouldn't want to suggest that practicality is the only thing on offer here, though, and Bel Canto makes proud claims for sound quality, which we'll come to in a moment. Still, the compact case keeps clutter to a minimum, especially given that it includes both DAC and amplifier, with a most attractive appearance, including the matt-finish 10mm front panel.

Apart from the ICEpower module, there's one audio circuit board inside the C5i, which as you would expect carries quite a few multi-pin, surface-mounted integrated circuits: a couple of op-amps; a sample-rate convertor; a high-grade Wolfson DAC (with built-in digital attenuator) and an analogue-to-digital convertor.

Bel Canto doesn't actually seem to mention this, but the analogue inputs to the unit are, in fact, converted to digital after buffering and, in the case of the phono input, amplifying and the usual RIAA equalisation. This isn't to feed the ICEpower module because that has analogue inputs,

▶ DETAILS

PRODUCT: Bel Canto C5i
ORIGIN: USA
TYPE: Integrated amplifier/DAC
WEIGHT: 6kg
DIMENSIONS: (WxHxD) 216x88x305mm
FEATURES:
• 5 digital inputs: 2 x electrical S/PDIF, 2 x TOSLINK, 1 x USB
• Maximum sample rate 192kHz (USB 96kHz)
• 2 analogue inputs: line, phono (MM)
• Preamp output
• Headphone output
• Single speaker output
DISTRIBUTOR: Aanvil Audio Ltd
TELEPHONE: 01359 240687
WEBSITE: belcantodesign.com



TALKING POINT
SINCE SWITCHING audio amplifiers became realistic from a quality point of view, one of the most successful implementations has been the ICEpower range from Bang and Olufsen.

There are several models in this range (three of them targeted specifically at home audio) and it says something about how fast the field is moving that these are described as 'third generation'.

A key feature is that each includes a switch-mode power supply, so in principle all a manufacturer needs to do is add a box and some connectors. But what's really important is that manufacturing volumes are big enough to justify custom, dedicated integrated circuits and heatsink components.

Generally, custom silicon is the preserve of brands like Sony and Pioneer, but B&O has managed to achieve a very impressive performance. It's great that smaller fry like Bel Canto can benefit too!

200 steps of 0.5dB, giving very fine control over the full range from maximum output to mute. The one downside of such precise control is that you can spend a long time twiddling the knob, but Bel Canto has been rather clever and built in some velocity sensing, so that if you twiddle the knob fast at low-volume settings, the volume changes more rapidly than the 12dB/rotation that occurs at slow rates.

There are also two mute settings, accessible via the remote control, 'soft' and 'hard'. The latter is completely mute, while the former simply drops level quite a lot, but not to complete inaudibility – great for answering the phone and similar interruptions. Cunning use of (otherwise redundant) decimal

“It seems to deliver consistently vibrant, energetic and convincing melodies.”

points on the display indicates mute status and also digital lock when a digital input is selected. Input selection uses the same knob as volume: just press it briefly and twiddle through the input range. It's an easy unit to use.

Unaware, when we started our listening session, of the fact that the analogue inputs are digitised, we began listening via line in, naively assuming that it would be the simplest signal path. And fair enough, it sounded very decent, with perfectly acceptable detail, tonality and timing. It wasn't until we

instead it's purely and simply to unify the signal path and benefit from the digital volume control.

We doubt it's a major bottleneck in the signal flow, as conversion is carried out at 192kHz, giving an analogue bandwidth of comfortably 90kHz (though there's some good old-fashioned analogue roll off from a good deal lower than that). Vinyl diehards may faint dead away, but

we'll live with it. The only pity, it seems to us, is that lacking a digital output you can't use a C5i as an archiving ADC for transferring vinyl recordings to hard disc.

Easy to use

The C5i's display by default shows volume setting in decibels, with an arbitrary reference which makes 100.0 the maximum. Below this are

CONNECTIONS



1 Ground terminal

2 Good quality speaker terminal

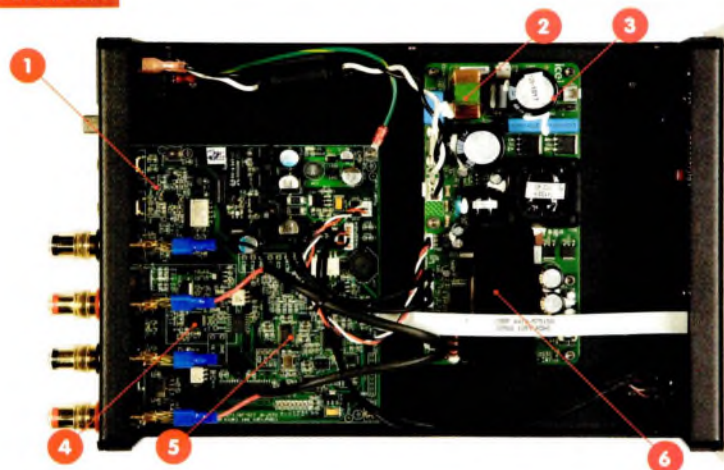
3 Line output for driving a second system, or bi-amping

4 Phono input is fixed-gain, MM only

5 Single line input-like phono, digitised internally

6 Digital inputs: TOSLINK and S/PDIF (up to 192kHz)

HIDDEN TECH



- 1 Phono stage
- 2 Switch-mode power supply
- 3 ICEpower module
- 4 USB receiver chip (24-bit/96kHz)
- 5 DAC chip, including digital volume control
- 6 Output transistor on custom heatsinks

switched to the digital inputs, though, that we found the C5i really coming on song, for reasons that became obvious once we had pulled the lid off and established the signal flow.

All in the rhythm

Confirming our general suspicion that switching amps in general (and ICEpower-based ones in particular), need absolutely no apology in terms of getting on with the music, this amp puts in a very spirited performance, with as much verve as Ray Charles on a good day (er, did he ever have a bad day?). From Albinoni to Zappa, it seems to deliver consistently vibrant, energetic and convincing melodies, harmonies and rhythms. Foot tapping? It nearly fell off!

But we've had issue in the past with all kinds of hi-fi products which excel in that area, but fall down in matters of detail, tonality and finesse. In this case, although we wouldn't necessarily say that detail is in the very top league,

there's certainly little enough to detract from anyone's close-in listening.

We are particularly impressed with the way this amp seeks out information from deep within multi-layered recordings, whether simply miked acoustic or multi-tracked studio jobs. The finest hi-fi components can reveal huge amounts of detail without making a fuss over it; the C5i retrieves slightly less than the very best, but scores highly on the fuss-free front, making for very relaxed listening.

It might seem odd to use the word, 'relaxed', straight after praising the sound as energetic, but of course there are many different aspects to listening and hearing. If you have to work hard simply to hear what's there, you are apt to miss some of the musical excitement simply due to the brain's aural effort. This amp reminds us pointedly that clean, clear delivery of sound allows us at the receiving end to relax and enjoy the message.



AN INTERESTING one, this, because the market is short on audiophile, digital-input amps. Judging value, therefore, involves not-quite-like-for-like comparisons. For instance, for a slightly smaller sum you could buy a Cambridge Audio B40A amp, DacMagic and 640P phono stage. More analogue inputs, more power – but a lot more space and relatively prosaic sound.

Perhaps, nearer the mark sonically, would be an Arcam A38, plus rDAC, but with the A38's optional phono stage the price goes a little higher. Exciting, yes, if maybe not to the C5i's level of adrenaline, but again a lot bigger and rather more hassle. Audiolab's 8200A and 8200CD could be interesting, but we doubt it would be more fun than the Bel Canto and again it's a lot bigger. The fact is, the C5i is outstanding in a field of one at the moment and its real competitors are in the future.

A mellow tone

As a result, one isn't strongly aware of the equipment, which is clearly a good thing. Applying our best analytical ears, though, we did detect some mild character traits, which might from time to time become an issue, particularly in the way of tonality. Bass is generally full and well controlled, but occasionally veers towards excess. A minor sin, that one, though, especially if you have smaller speakers which are hardly likely to aggravate it.

High treble can lack some incisiveness, and again with many speakers that may even seem an advantage, but in well-recorded classical music heard via slightly demure speakers we did miss a little sparkle now and then.

The midrange has little, if any coloration and we found the unit very even-handed between male and female voices, while the various instruments that cover the midrange in a symphony orchestra (that's most of them!) are nicely defined timbrally.

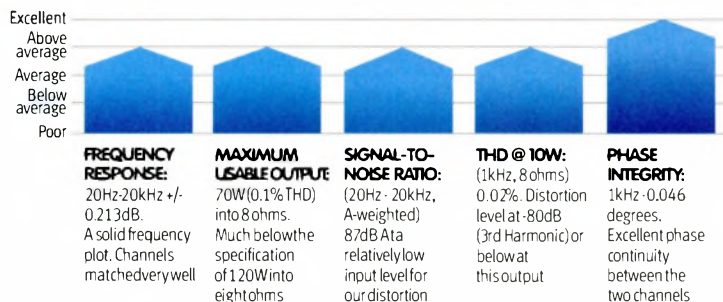
But an ensemble like that does show up what struck us as the one weak point of the C5i: stereo imaging. It managed well enough laterally but there could be more and better defined, depth to large-scale images. It's almost as if the amp's eagerness to get down and party makes it prone to dumping the image rather forwards.

Still, there are certainly more grievous sins against sonic purity than mildly compromised image depth and, at this price, with this many sonic qualities and features on offer, we aren't inclined to quibble unduly.

The Bel Canto C5i offers a great deal in a compact, practical and attractive package and the fact that its performance is highly competitive with any kind of combination of components one might assemble against it at a similar price, makes it, we think, a most appealing proposition. ●

TECH LABS

RESULTS AT A GLANCE



Hi-Fi Choice

OUR VERDICT

- SOUND QUALITY** ★★★★★ **LIKE:** Very energetic sound with plenty of detail too; small and efficient
- VALUE FOR MONEY** ★★★★★ **DISLIKE:** Balance seems a little tilted towards the bass
- BUILD QUALITY** ★★★★★ **WE SAY:** A very practical product with well-rounded performance; environmentally friendly
- FEATURES** ★★★★★

OVERALL



CYRUS

Explore your music

The Cyrus streaming platform provides the perfect solution for all music lovers. This new range of streaming music players provide you with immediate access to all of your favourite tunes and albums, plus you can listen to literally thousands of different internet radio stations from across the world; all in true hi-fi quality.

Purchase a Cyrus streaming music player during August and September to receive a free NAS drive and network switch. These thoughtfully chosen products will release the full potential of the n-remote control so you will have a host of options in which to browse your music, all at the touch of a button. Music this convenient has never sounded so good.



free
NAS Drive
&
Accessories

Buy a Cyrus Stream XP, Stream X or Streamline during August and September 2011 and you will receive a free NAS drive and network switch. This package provides everything you need to play high quality music. Visit a retailer today!

- Lintone Audio 7-11 Park Lane, Tyne & Wear • Tel. 0191 4774167
- Fanthorpes 6 Hepworth Arcade, Hull • Tel. 01482 223096
- Moorgate Acoustics Ltd 184 Fitzwilliam Street, Sheffield • Tel. 0114 2756048
- Frank Harvey Hi Fi 163 Spon Street, Coventry • Tel. 02476 525200
- Nottingham Hi Fi Centre 116-122 Alfreton Road, Nottingham • Tel. 0115 9786919
- Audiovation 4 Cross Church Street, Huddersfield • Tel. 01484 424000
- Vickers Hi Fi Ltd 8 Concorde Park, York • Tel. 01904 691600
- Bartletts Hi Fi 175-177 Holloway Road, London • Tel. 0207 6072148
- Sevenoaks (Holborn) 144 Grays Inn Road, London • Tel. 0207 8377540
- Sevenoaks (Sevenoaks) 109-113 London Road, Kent • Tel. 01732 459555
- Sevenoaks (Tunbridge Wells) 28/30 St Johns Road, Kent • Tel. 01892 531543
- Sevenoaks (Witham) 1 The Grove Centre, Essex • Tel. 01376 501733
- Southport Hi-Fi 8-10 Princes Street, Merseyside • Tel. 01704 536901



Did You Know

The stylish and intuitive n-remote is packed full of features including backlit keys, full colour screen and a motion sensing backlight to name but a few.



WHY pay more?

shown left:
CD-100i CD Player
A-55T Integrated Amp

shown center:
100.49 Speakers
CD100 CD Player
Class A100 D3 Integrated Amp
AP100 Power Amp

shown right:
Proxima2 Speakers

COME & LISTEN

Our NEW dedicated listening room is now open. Please call **01623 857 707** to make an appointment.



Divine Acoustics



audiosanctum

PERFORMANCE AND QUALITY

t. 01623 857707 ▶ m. 07517 889 738 ▶ www.audiosanctum.co.uk ▶ info@audiosanctum.co.uk

Reference-grade audio cables. UK-designed & built. Available worldwide.



Analogue • Power • MP3 • Speaker • Digital • Video • USB

DYNAMIQUE

DETAIL. DYNAMICS. DYNAMIQUE...



Review, Issue 80, Alan Sircom

"Every cable brought out deep and powerful bass, with a broadly neutral midrange, a silken sheen to the upper mids and fine soundstaging... also very well-extended... as you might expect, a dynamic sound too."

"As a newcomer, this is a brilliant rollout of quality products from the get-go. There are brands that have been making cables for years that don't have this kind of consistency and neutral midrange. Dynamique roques!"

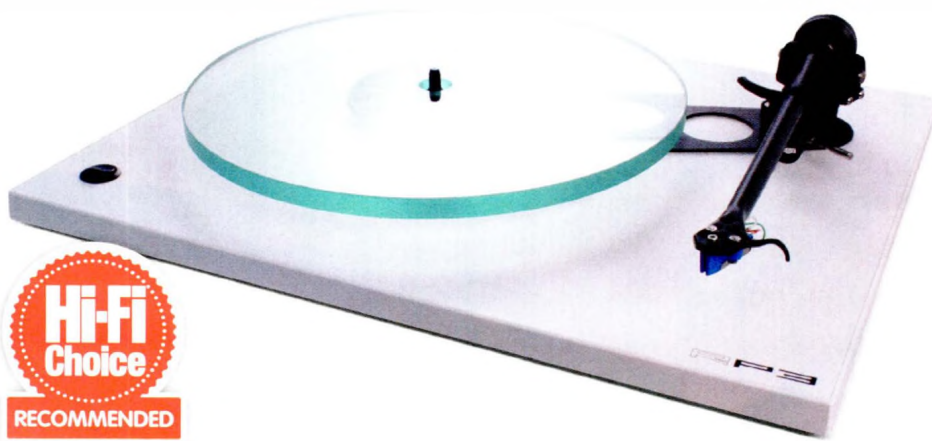


Review, June 2011, Richard Black

"Near faultlessly neutral in the midband... precise and stable images with very good depth definition... we were delighted to hear excellent dynamics on offer; swinging from loud to soft effortlessly without compression or exaggeration."

"They are both rather characterless; that is, they don't impose themselves on the music. Unless you are of the mindset that likes to regard cables as tuning devices, that's very much a point in their favour; neutrality being a hi-fi Holy Grail".

Visit us at www.dynamiqueaudio.com, or call us on +44 (0) 7786 310 910.



Pace and rhythm

We had the opportunity to compare the RP3 with its predecessor, the P324 and this revealed the newcomer to have greater dynamic contrast and better timing. However, it didn't make it clear just how good this turntable is. This was made obvious when we started spinning vinyl through a highly revealing system. The basis of its ability to bring vinyl to life is a superb sense of pace and rhythm.

This can transform a lacklustre record into a vital one, as we found with *Waiting for Columbus* (see *Music Reviews* p89). The quality of playing is superb and this shone through from the off, distracting us from all other considerations and resulting in a slew of record sleeves on the floor.

It's not just about timing, it's also about differences, differences between musicians, instruments and recordings, and these are far greater than you might imagine, even with a modest Elys 2 cartridge. The RP3 is contagiously musical and even though there were bigger turntables in our listening room, this was the one we kept coming back to, not something that happens very often.

Pound for pound

In the end, we were frankly astonished at just how good this new Planar 3 is. Its predecessor had similar timing skills, but was nowhere near as revealing nor dynamic – clearly the arm refinements and that double brace have had a dramatic effect.

It also brings Rega into serious contention with Pro-Ject, its main rival in the budget turntable field. The latter usually manages to make a more refined sound than Rega pound-for-pound, but it will have to come up with something pretty special to beat the RP3 in any area, let alone sheer musical engagement. ●

The Planar evolution

Jason Kennedy finds out what improvements Rega has included to turn its best-selling turntable into a giant-slayer

The RP3 is the latest generation of a turntable that goes back to Rega's roots in the seventies when it launched the Planet; a turntable that evolved into the Planar 3 and has been slowly improving ever since. The last iteration was the P3-24, but something dramatic has happened to this budget classic since then: it has grown an exoskeleton between main bearing and tonearm, in an effort to bring greater rigidity to this crucial link.

This is a lot more than cosmetic – it signals a change from attempting to make the entire plinth as stiff as possible to concentrating on the inflexibility where it matters most. That's not all, the tonearm has gone through its second stage of evolution to come out more sleek and rigid again.

Modified headshell

Rega founder and designer Roy Gandy points out that a turntable is an instrument for measuring the tiny variations in the wall of a vinyl groove. In order for it to do this job effectively, you need to eliminate movement between the bearing that the platter sits on and the arm base and thence the arm and stylus. Previous P3s have had a 0.9mm phenolic resin skin in order to make this link stiff, but Roy realised that a

brace in thicker phenolic that joins the key points could be even thicker and thus stiffer where it counts. There is a brace either side of the plinth and each is 2mm-thick in order to achieve this, a by-product is that the plinth itself looks and feels nicer than its all-phenolic predecessor.

The RB301 tonearm has morphed into the RB303, which retains the three-point fixing of its predecessor, but has a completely new cast alloy tube. Thanks to advanced CAD input this is no longer a series of straight lines, but has a smooth form both internally and externally, with more consistent wall thickness. The headshell has also been modified with the goal of greater stiffness.

Flowing lines

The RP3's glass platter is 12mm-thick, which makes it fairly heavy and this is topped by a felt mat. It sits on an ABS sub-platter that's driven by a rigidly mounted motor. Rather than trying to decouple the motor, as is usually the case, Rega hand-tunes a 24-volt motor to eliminate this source of resonance and to avoid the speed variations that decoupling can introduce.

The new arm may be an evolution of its forerunner, but it looks significantly better thanks to flowing lines. It now has a black counterweight, but the calibrated down-force and anti-skate remain the same.

▶ DETAILS

PRODUCT:

Rega RP3

ORIGIN:

UK

TYPE:

Turntable and arm

WEIGHT:

5.6kg

DIMENSIONS:

(WxHxD)

445x115x360mm

FEATURES:

- Colour options: white, black, silver

- Speeds: 33/45rpm manual

- Dust lid

- Double brace technology

- 24V hand tuned motor

DISTRIBUTOR:

Rega Research Ltd

TELEPHONE:

01702 333071

WEBSITE:

rega.co.uk

Hi-Fi Choice

OUR VERDICT

SOUND QUALITY

★★★★★

LIKE: Uncanny ability to get to the heart of the music

VALUE FOR MONEY

★★★★★

DISLIKE: What's not to like? Except that we have to wait for the gloss finish version

BUILD QUALITY

★★★★★

FEATURES

★★★★★

WE SAY: If money is tight, do you really need anything better?

OVERALL

★★★★★



Olive branch

Olive's new flagship hard-disk player brings huge storage and simple ease of use to the masses. **Malcolm Steward** listens in

The 06HD is the current flagship model in the Olive range of hard-disk music servers. The enclosure is rather idiosyncratic: it is trapezoidal with the CD-drive loader (along with the headphone socket and volume control) mounted on the front, while the sloping top holds all the control buttons and an impressive 10-inch colour touch-screen. This precludes stacking the device or placing it on anything but the top shelf of an equipment rack.

In fairness, though, it is highly unlikely that anyone would buy such a distinctive looking component and then hide it away. If they do, they can still operate it with an iPod/iPad/iPhone application.

Original quality

Fundamentally, the 06HD rips CDs to its internal two-terabyte hard disk, where it stores them for subsequent replay. Olive says the disk will accommodate around 6,000 CDs 'in original quality'. You can virtually

▶ DETAILS

PRODUCT:

Olive 06HD

ORIGIN:

USA

TYPE:

Music server

WEIGHT:

7.5kg

DIMENSIONS:

WxHxD:

440x120x360mm

FEATURES:

- HDMI connection allows navigation through a TV

- IR input

- No support for ripping SACD or DVD-A

- Burns CDs and playlists to CD-R

DISTRIBUTOR:

Henley Designs

TELEPHONE:

01235 511166

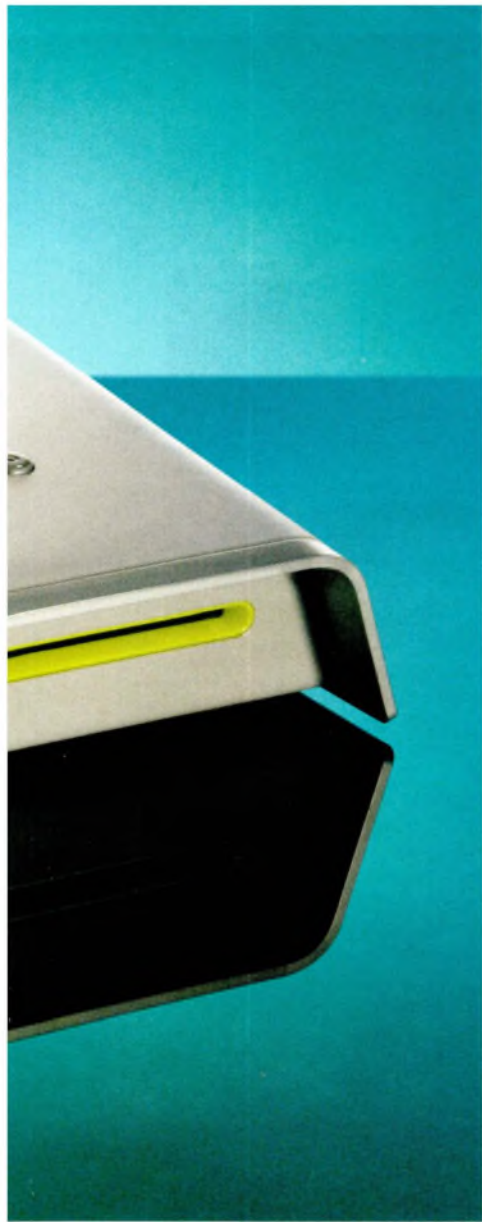
WEBSITE:

olive.us.com

double that capacity by storing the CDs in FLAC (Free Lossless Audio Codec) format, which reduces the file size, but does not discard any musical information. The Olive Maestro operating software is happy with FLAC and WAV files, along with the compressed AAC format and the ubiquitous MP3.

Music from the hard disk passes through a pair of TI (Burr-Brown) 24-bit/192kHz PCM 1792s, running in dual-mono configuration – one DAC chip per channel – for conversion to analogue, assuming you wish to use its analogue rather than its digital output. The DAC also includes an ultra-low jitter master clock, an asynchronous sampling rate convertor (upsampling to 24-bit/384kHz) and a second-order Bessel reconstruction filter.

Naturally, it is essential to back-up the music stored on the 06HD, just as one would with any single-hard disk system. This is accomplished through a rear-panel USB port. Obviously, you will need a drive with sufficient space to hold all your music. You will need a 2TB drive or larger as a backup.



for this task, as the back-up process overwrites everything on the destination disk. So, do not even think about keeping all your family photographs on the back-up disk as well!

An alternative approach to ripping music on the 06HD is to import rips and downloads from a computer attached to the same network. This process only works with file formats recognised by the Olive. Once the music is present in its import folder, accessed through your web browser, the 06HD then categorises it and organises it into its library. One caveat that Olive points out is that WAV files rarely come with any metadata attached, so import them and you will end up with a host of unknown artists and unknown albums. We'd recommend using dBpoweramp Music Converter first to encode them into FLAC format, which incorporates Vorbis Comments – as opposed to the inappropriate ID3-Tags used with MP3s.

The 06HD will also play internet radio – provided the player can access the internet – and it can stream music from other computers and NAS drives on the network. Olive recommends storing all one's music on the 06HD, however, and says it only provides 'limited support' to streaming from external sources. We suspect this means they cannot guarantee to solve any problems you might encounter using a NAS, with which they are not intimately familiar.

The unit nonetheless, happily renders music from external stores, each of which uses UPnP servers other than Twonky or TVerseity, of which Olive seems to approve.

HOW IT COMPARES

ITS PRICING MEANS that the Olive 06HD occupies the same arena as the Naim HDX audiophile hard-disk player. The latter is available with on-board music storage or, as the HDX-SSD, with no internal storage for music, meaning that has to be kept elsewhere on the network, usually on a NAS. In the scheme of things this adds little to the price: for example, £420 for a 2TB VortexBox Appliance ripping NAS.

We had mixed feelings about the sound of the Olive and felt that overall the Naim HDX offered more: higher levels of consistently excellent performance and upgrades through power supplies and an external DAC being the most valuable.

For the listener who is simply looking for a high-end plug and play, one-box device, though, the Olive 06HD ought to fit the bill nicely. Conveniently, the 06HD simply plays, as well as rips, CDs.

Audiophile intent

The company makes frequent mention of the 06HD's audiophile nature. Its specifications certainly feature lots of big numbers and its power supply is described as a 'high-precision linear power supply with ultra-low noise toroidal transformer, linear regulators and high-performance AC line filter'.

All of this sounds promising enough, until we spotted a statement in the user manual that recommends connecting the 06HD through a UPS (Uninterruptible Power Supply) to afford it protection against 'power surges and blackouts'. This, in our opinion, is the counsel of a computer professional, rather than an audiophile: our experience with UPSes suggests that they adversely

“The 06HD will play internet radio and can stream music from NAS drives on the network.”

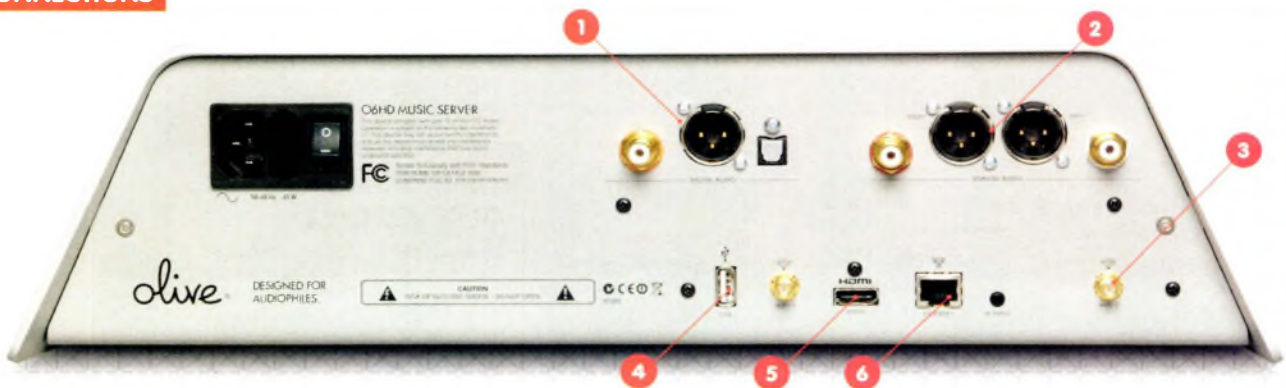
affect the mains supply, do nothing to improve sound quality and are at best avoided.

The 06HD can connect to your network through a wired or a wireless connection: there are no prizes for guessing the one that we chose. Even Olive recommends using wired if you are transferring a lot of material to the device, which implies a lack of trust in wireless.

Other clues disclosing its audiophile intent, include the separate DAC and amplifier to drive the headphone outlet, anti-vibration, two-part polymer feet to help isolate the

Modern versions of Windows will not format this to the required FAT32 format, so you will need a third-party program, such as CompuApps SwissKnife, for that purpose. It is important to have a dedicated drive

CONNECTIONS



1 Digital outputs

2 Balanced and unbalanced audio outputs

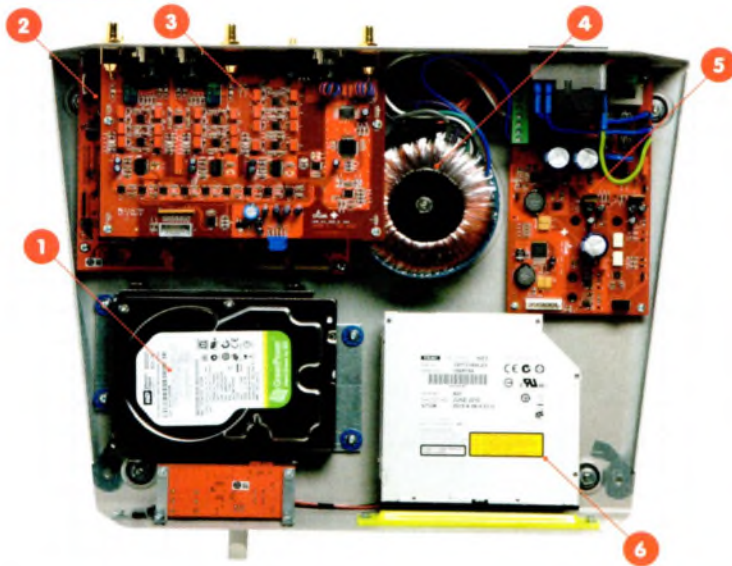
3 Wi-fiaerial attachment

4 USB input

5 HDMI output for connecting to external display

6 Ethernet port for network connection

HIDDEN TECH



- 1 Harddrive
- 2 Networking and control board
- 3 Audio board
- 4 Toroidal transformer
- 5 Power supply board
- 6 Inhaler CD drive mechanism

server from the environment and eight layers of noise-cancelling padding supporting the internal hard disk. We have already mentioned the 24-bit/384kHz up-sampling DAC feeding the balanced/unbalanced analogue outputs.

Finally, the Maestro software that controls the player seems a little more responsive in the 06HD, than it did in the 04HD (HFC 333).

First class

The 06HD doesn't disappoint when playing hi-res files. However, some of the music supplied on its hard disk is a little too 'shiny' for our taste: the sound being too high-end and

pristine, but rather soulless. Switching away from that to a 24-bit/96kHz version of The Allman Brothers *Live at Fillmore East* demonstrates that the 06HD is not an emotion-free zone. Similarly, the 24-bit/96kHz rip of Robert Plant and Alison Krauss' *Raising Sand* reinforces our suspicion that the 06HD can be spirited, drop into a groove and convey feeling, as well as plenty of hi-fi detail.

Playing *Art Pepper Meets the Rhythm Section* (a 24-bit/96kHz vinyl rip) shows that the 06HD can turn in a first-class performance with decent material: Philly Joe Jones' drumming 'grooves' was replete with

texture and dynamic contrast, as is Pepper's luminescent sax playing. Our only reservation is that the sound of the player seems a tad recessed in the high frequencies: not dull, but not sharp enough.

Playing Speed Caravan's aggressive *Kiss of Electric Sand* brings the matter into sharper focus: the Naim HDX is faster sounding with better defined note-shape, which makes the Olive sound warm and slightly fuzzy in comparison when both played through the same DAC – either the M2Tech Young or the Naim. Curiously, the Olive sounds cleaner and more transparent through its analogue connection, which seems more musically rewarding than its digital output.

We encountered only one problem with the Maestro software: it refuses to read metadata that is obviously present on some tracks. Then the player decides not to play 24-bit/192kHz tracks off our NAS. We've seen other players misbehave in a similar fashion; usually after a NAS has re-enumerated its listing of folders after a large addition of downloads or rips. None of these situations applies here, but we power-cycled the 06HD, which normally resolves such occurrences and it returned to business as usual.

High-end heaven

The Olive 06HD is a machine whose performance leans more towards the American high-end style than that of the UK. Someone who favours the latter might find the sound a tad sterile and soulless, but if a high-end presentation is your thing, you will not be disappointed.

If you are the 'fit it and forget it type' and are not bothered about 'getting under the bonnet' then Olive's Maestro software will appeal. If you want to manage your music files the way you do those on your PC, then store them on a NAS rather than the 06HD's internal drive. ●



TALKING POINT

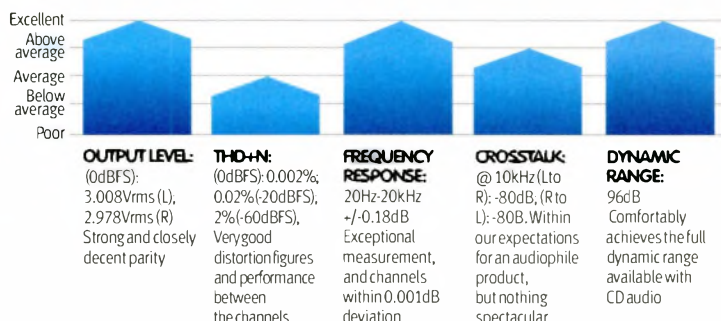
OLIVE WROTE ITS own software, Maestro, to drive its hard-disk players and control its software library. All credit to the company for that effort. However, the programme can be a little clunky and non-intuitive at times, with the result that one can end up at another point in the menu than one intended.

The hardened audiophile will want easier access to his rips than Maestro provides – there is no Windows Explorer style access. The access to metadata seems outwardly lightweight in comparison to what is offered by programmes such as MP3Tag or The Godfather.

In fact, their facilities are repeated, but they are not as logical or simple to access as some might like. They are also hampered by only being accessible through a web browser interface, and, at the time of this review, the only browser supported is Mozilla Firefox.

TECH LABS

RESULTS AT A GLANCE



Hi-Fi Choice

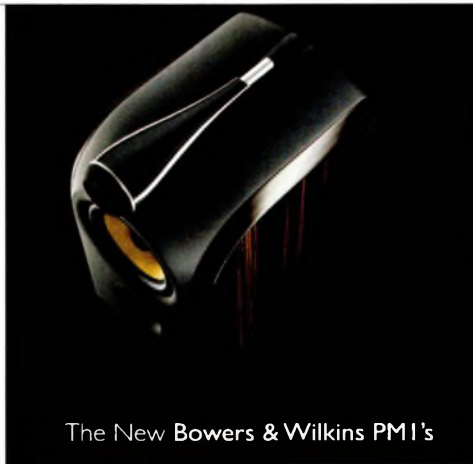
OUR VERDICT

- SOUND QUALITY** ★★★★★ **LIKE:** Decent musical performance and simple, straightforward operation
- VALUE FOR MONEY** ★★★ **DISLIKE:** The Maestro software can be something of an acquired taste
- BUILD QUALITY** ★★★★★ **WE SAY:** Better suited for someone who wants a simple hard disk, rather than the hardcore audiophile
- FEATURES** ★★★★★

OVERALL



LINN DS With iPad Control
Play, Queue And Rediscover Music.



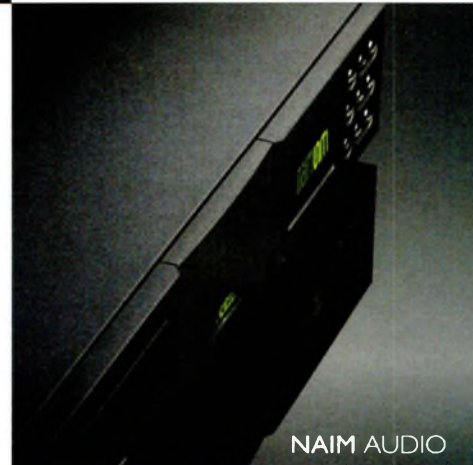
The New Bowers & Wilkins PMI's



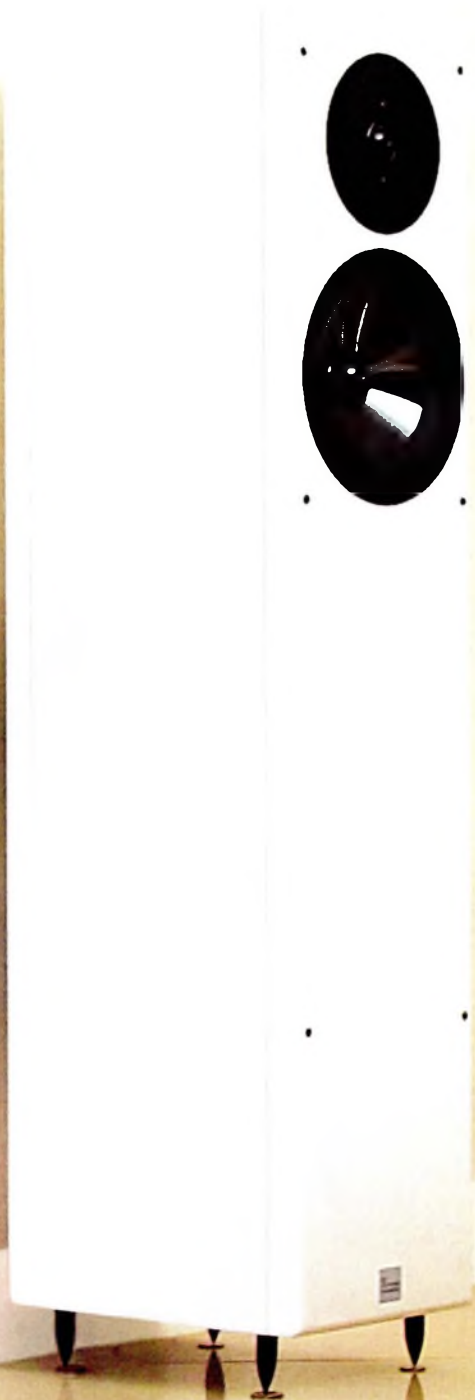
REGA RP3



ARCAM CINEMA



NAIM AUDIO



Style & Performance

With over twenty years of experience and a multitude of patented technologies, Vienna Acoustic speakers are renowned for acoustic brilliance and superb build quality. The Bach Grand* are the result of painstaking technical research and passionate attention to detail.

This beautiful floor standing cabinet features a powerful 7 inch mid-bass driver with 'Twin Balanced Reflex' that combines a conventional rear port with a ground breaking airflow control port on the front cabinet, to deliver class-leading bass output and control. This complex front port system also combines a refined 1 inch triple stacked neodymium magnet silk dome tweeter, resulting in a sonic presentation of power and verve that belies the speakers' compact proportions.

To appreciate the sound, innovation and quality of these speakers, call us now on 01480 270550 or visit www.va-speakers.co.uk to locate your nearest stockist.

Tel: +44 (0)1480 270550
Email: sales@audyus.co.uk

www.va-speakers.co.uk



Musical update

This Creek amp claims a variety of technical improvements over the original. **Richard Black** investigates how this works out in sonic terms

Rather to our surprise, we find it's over five years since we first set eyes and ears on the original Creek Evolution amp. Amplifier design may not have made any revolutionary leaps in that time (at least, conventional amplifier design like Creek's – switching amps have progressed rather more), but it's natural that a manufacturer would find a few tweaks to apply that could justify adding a '2' to the model name.

Extra, extra

One of the changes is a practical one, adding an 'AV direct' input which bypasses the volume control, allowing the Evo 2 to be used as a power amp. As the AV designation suggests, this is most likely to appeal to those with a multichannel AV system (where the Creek would drive the front channels), but it could equally allow upgrading with an external preamp.

Other changes are internal and concern the distribution of gain between preamp and power amp stages. Improvements to the power amp's performance have allowed it to be run at higher gain without penalties in terms of distortion or frequency response and, in turn, this has allowed Creek to remove a gain stage in the preamp which followed the volume control. Simply put, this means less electronics in the signal path which, all else being equal, is generally a good thing. Apart from anything else, it's likely to improve

noise performance, which in these days of high-resolution sources is more of an issue than ever.

The sum of its parts

Inside its smart and robust case, the Evo 2 features a well-filled circuit board on which we couldn't spot a single surface-mounted component: everything (even the electronic volume control chip) is through-hole and good quality with it. A couple of op-amps feature in the preamp section, but the power amp uses only discrete transistors.

Features are basic, with just four line inputs, one of which can optionally be converted to phono by adding an internal circuit board, but you do get a headphone output.

Output power is a shade down on the original Evo's 85 watts at about 75 watts, both channels driven. We found the volume control a bit bizarre, with 0.5dB steps (and in fact some 0dB steps!) over the top 30 increments, which will almost never be used in practice. Volume setting 44, out of 80, gives full power from a 2-volt output.

It's alive

Still, inconveniently scaled volume controls are hardly new and have no effect on the overall sound quality. The original Evo was a lively and energetic amp and this one generally continues in that mould. It has plenty of get-up-and-go, but it is also capable of sometimes surprising subtlety. It has good command of

► DETAILS

PRODUCT:
Creek Evolution 2

ORIGIN:
UK/China

TYPE:
Integrated amplifier

WEIGHT:
8.5kg

DIMENSIONS:
(WxHxD):
430x80x340mm

FEATURES:

- 4 line inputs (one optionally phono)
- AV/power amp direct input
- Preamp output
- Record output
- Single speaker outputs
- Headphone output (6.3mm jack)
- 75W rated output

DISTRIBUTOR:
Creek Audio

TELEPHONE:
01442 260146

WEBSITE:
creekaudio.com

dynamic range and it seems unusually good at managing not just sudden loud passages, but sudden quiet ones, keeping sound clearly in focus when the level drops. This, we found, makes it a very good choice for classical music, which tends to involve more and larger, dynamic swings than most other styles.

Tonally, the Evo 2 is not quite neutral, though its midrange is very even. Bass is quite well extended, but just occasionally a little lacking in real extension. The treble can be a shade bright from time to time, but we didn't find it particularly distracting.

All in the details

If there's one area where we feel the Evo 2 advances significantly over the original, it's detail. This has improved from decent to really rather good, with lovely resolution of those little bits of inside information that can make a recording come to life.

Alongside this, as one would expect, is very good stereo imaging, with precise and consistent lateral placement of instruments and good depth too.

Overall, we found the combination of excitement and insight very convincing in this amplifier. There's some worthy competition around at a similar price, but we feel few amps can measure up sonically and the upmarket looks and build certainly add appeal. ●

Hi-Fi Choice

OUR VERDICT

SOUND QUALITY



LIKE: Plenty of energy, with very confident dynamics; smart, too!

VALUE FOR MONEY



DISLIKE: Not many inputs and frequency extremes could be more neutral

BUILD QUALITY



WE SAY: An attractive option if you want an amp with performance that's a cut above the average

EASE OF DRIVE



OVERALL



Precision audio?

Deltec was one of the first to make a standalone DAC and now its back in the fray, **Jason Kennedy** finds out if its experience has paid off

Back in the late eighties the idea of a separate digital-to-analogue convertor was a very new thing. Until then, the relatively young CD player market had, on the whole, been dominated by larger companies.

Deltec Precision Audio (or DPA) was formed by Robert Watts and Adrian Walker to produce technologically advanced audio components, among which were pre and power amplifiers as well as one of the first standalone

DACs to hit the market, the DPA PDM1. This used surface-mount devices (SMD) in its circuit boards, had one of the first bitstream chipsets and came in a shiny dark grey case. In fact, it looked pretty much like this latest incarnation, the PDM3.

Rock around the link

The key feature that the PDM3 brings from its predecessors is a clock link. Deltec established rather earlier than most, that the problem with external

▶ DETAILS

PRODUCT:
Deltec Precision
Audio PDM3

ORIGIN:
UK

TYPE:
DAC

WEIGHT:
2.6kg

DIMENSIONS:
(WxHxD)
230x100x330mm

FEATURES:
• Digital inputs:
coaxial, TOSLINK
optical, USB B

• Analogue outputs:
RCA phono

• Deltran clock link

• 32-bit DAC

• High-quality
mains lead

DISTRIBUTOR:
Deltec Precision
Audio

TELEPHONE:
01793 238085

WEBSITE:
deltecprecisionaudio.
com

DACs was that sending a digital signal down a cable into another device introduced jitter. Its engineers figured that if you could introduce a clock link between transport and convertor, then jitter would be minimised. This resulted in the Deltran clock link, which is incorporated into the DAC via a TOSLINK connection and is naturally required in the partnering transport. Deltec modifies players to include this feature and supplied a Cambridge Azur 650C in just such a form for the purpose of the review.

The Deltran device in the DAC sends a master clock reference to the player, in order to produce a low-jitter S/PDIF signal, which can be sent to the DAC by the usual optical or coax methods. Deltec's claim is that even modest CD players, such as the aforementioned Cambridge, can be turned into a high-quality transport when a Deltran clocking system is fitted.

The casework on this DAC seems to be largely unchanged from its first



incarnation, this is because it's designed to be exceptionally stiff and thus resistant to vibration, presumably at frequencies that will upset the electronics (nothing can stop vibration across the board). The curved front panel is machined from billet aluminium and finished in a deep-powder coat.

The front panel has only a single LED to tell you that it's on, all the input switching is automatic and based on a priority selection process,

“A DAC that opens up the layers in a recording to let you hear the quietest sounds.”

although the lack of documentation means that it's not clear who gets pole position.

There is no option to turn upsampling on or off, because this is that rare thing: a non-upsampling converter and Deltec considers this near-universal feature to be a corrupting influence. The back panel is naturally a bit more busy, with high-quality RCA phono output sockets beside digital inputs in TOSLINK, electrical coaxial and USB varieties. There is also the Deltran output, which has an on/off toggle switch.

Irritating buzz

We had a little difficulty with our first sample of this converter, which produced a static-like noise when it



WE SPOKE TO Deltec CEO Adrian Walker about the PDM3

HFC: Which converter chip are you using? Is it still a one-bit type?

AW: We're using the 32-bit AK4397.

HFC: How much does the Deltran mod cost to be supplied and fitted?

AW: For most players we charge £250 to fit a Deltran clock link.

HFC: We were under the impression that modern digital receivers are very good at eliminating jitter, is Deltran really a necessity today?

AW: They are; but having a system with two independent clocks means there is always uncorrelated jitter present. With Deltran there is one clock for transport and DAC.

HFC: Is it correct that this is a non-upsampling DAC?

AW: Yes, digital integrity is maintained by not using potentially corrupting upsampling or DSP (Digital Signal Processing) before the converter.

Following the converter, the reconstruction filter is formed around Deltec's unique hybrid voltage amplifier.

HFC: What's the maximum sample rate for the USB input?

AW: 48k, due to the USB interface device.

CONNECTIONS



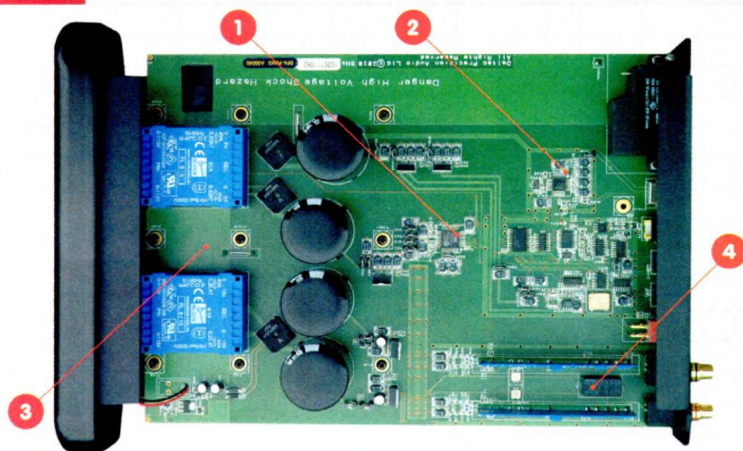
1 Analogue output RCA phono only

2 Deltran clocklink connection and switch

3 IEC mains inlet and on/off switch

4 Digital inputs in optical and coaxial S/PDIF plus USB B

HIDDEN TECH



- 1 AKM DAC
- 2 Isolated USB interface
- 3 Separate digital and analogue PSUs
- 4 Deltec hybrid analogue and reconstructive filter

was used without Deltran engaged. A second sample cured this, but suffered from higher than usual transformer buzz, a third sample reduced this, but didn't completely eliminate it. Deltec tells us that there has been a quality issue with this part, which it is addressing and as it was not audible from the listening seat we were able to proceed.

The circuitry inside is designed by Dave Clarke, who incorporated an AK4397 32-bit DAC chip, which is able to accept inputs up to 192kHz (if you can find a source of them with an S/PDIF output). The USB receiver is an iso-synchronous type that only accepts signals up to 48kHz.

Our sample came with Deltec's Perfect Wave digital interconnects for signal and clocklink, as well as a proprietary mains cable in a rather more substantial gauge than usual. Deltec supplies one Perfect Wave interconnect with every DAC.

On paper, the PDM3 does not look overly competitive, there are plenty of converters around with USB

inputs for less money and some even have volume controls and multiple inputs – Antelope and Benchmark come to mind and both are extremely good-sounding devices for the money. Deltec is also up against the Naim DAC, with its full iPod compatibility and established sonic advantages.

Time loves a hero

Using the S/PDIF output of the Deltran-modified Cambridge 650C as the source, the PDM3 produces a refined, high-resolution sound with good imaging. It's not the most on-the-ball when it comes to timing however, and this (along with limited dynamic abilities) tends to make music less engaging than it should be. Switching the Deltran link-in does not, in our experience, make a significant difference – which is a bit of a surprise given that this is one of the product's key USPs.

It is nonetheless a revealing DAC that opens up the layers in a recording to let you hear the quietest sounds, a skill that means you get plenty of

texture out of acoustic sounds and no shortage of nuance, especially from voices. Out of interest, we compared it to the significantly more affordable Rega DAC (£498) that we reviewed in HFC 346), this revealed the Deltec's shortcomings in the timing department rather obviously. It's the area where the Rega is at its strongest, of course, and in other respects the bigger DAC is considerably more refined and revealing. It sounds more definite, but is not as musically engaging.

Highs are very clean, however, allowing your ear/brain to create convincing stereo solidity. In fact, there is plenty of depth on good recordings and plenty of bass energy to provide scale. The low end is likewise very clean and has a strength to it that gives kick drums genuine kick – a quality we noted being even greater when the Deltec coax lead was used (as opposed to a Chord Signature which sounds more relaxed).

The USB input initially created the static that we'd encountered earlier on, but turning off the Deltran does help (naturally there is no such link upgrade option for computers). This does give our digital files a similar degree of precision and focus, as it does with more traditional sources.

Resistible

The Deltec finds itself in rather more competitive waters than its forebears, especially in a world where products at this price point need to be very strong in all departments to warrant recommendation. And while it is very good at the fine details, it doesn't have the timing skills, nor the dynamics to make the result irresistible and that's what we expect for this sort of money.

With products like the Electrocompaniet PD-1 (HFC 350) blowing our socks off for less than half the price of the Deltec, makes it rather difficult to recommend. ●



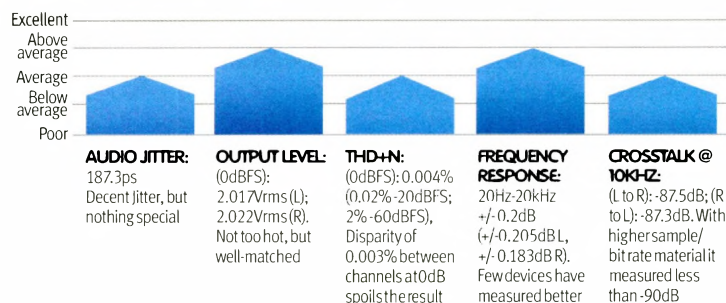
THERE ARE A LOT of very good DACs for the money that Deltec is asking for the PDM3. One of the most impressive is the Naim DAC (HFC 328) at £2,100. As we explained at the time, this sounds meticulously detailed and yet has class-leading timing. It can also play material directly from a USB stick and will play files at up to 32-bit quality. It doesn't, however, have a USB B input for direct connection to a computer.

While the Deltec might be in the same league, as far as fine detail is concerned, it won't touch the Naim for cogency of timing, which is crucial for musical engagement.

The other contender in this ballpark is the Antelope Audio Zodiac Plus, which is a preamp as well as a multi-input converter with every digital input you can think of. This has a similar degree of transparency as the Deltec, but significantly better dynamics and timing. Attached directly to a power amp it can thrill you like few other components we've heard.

TECH LABS

RESULTS AT A GLANCE



Hi-Fi Choice

OUR VERDICT

- SOUND QUALITY: ★★★★★
LIKE: Transparent and revealing convertor
- VALUE FOR MONEY: ★★★★★
DISLIKE: Timing is not good enough for the money, which undermines musicality
- BUILD QUALITY: ★★★★★
- FEATURES: ★★★★★
WE SAY: It does not live up to its price and there is some very strong competition in this sector

OVERALL



HOME ENTERTAINMENT MANCHESTER 2011

Buy your tickets online & save 10%

HI-FI, HOME CINEMA, FLAT SCREENS, PROJECTORS & 3DTV's

- The Largest Hi-Fi & Home Cinema Show in the North West
- Great deals and special offers only available at the show
- Win! Superb prizes in our Show competition
- 2011 What Hi-Fi? Sound & Vision Awards live at the Show
- The North's major Show right in the heart of Manchester

Current brands on show: Amina, Anthem AV Solutions Ltd, Arcam, art:one, Artisan Audio, Audio Technica Headphones, Audiolab, Audiovector, Aurum, BDI, Bedini, Black Diamond II, Bowers & Wilkins, Bryston, Canton, Chord Company, Clearer Audio, Cyrus, Dali, Dianemo, Diverse Vinyl, Focal, Gecko Furniture UK Ltd, Henley Designs, Hi-fi Plus, Hi-Fi Racks, HiDiamond Cables, JVC, KEF, Lehmann, Michell Engineering, Mission, Mistral Audio, Monitor Audio, Naim Audio, Neat Acoustics, Olive, Onkyo, Optimum, Ortofon, Panasonic, Paradigm, Peachtree Audio, Philips, Pioneer, PMC, Power Wrap, Pro-Ject, ProAc, Quadral, Rega, REL Acoustics, Resolution Audio, Roksan, Rotel, Salamander, Samsung, Screen Innovations, SIM2, SmX, Sonic Design, Sonos, Stuff Magazine, Supra Cables, Teac, van den Hul, Velodyne, Vienna Acoustics, What Hi-Fi? Sound and Vision, Yamaha, ZVOX... with more booking weekly!

22nd & 23rd October
Renaissance Hotel,
Manchester, M3 2EQ

Saturday 9:30am - 5:30pm
Sunday 10am - 5pm

Admission Adults	£7
Students / Senior Citizens (over 65)	£4
Accompanied Children (Under 16)	FREE

How to get to the show:



By car: North, Take the M56 motorway to the City Centre South, Take the M6 motorway north towards Manchester and exit onto the M56



By train: Manchester Victoria Station is only a 5 minute walk. Piccadilly Station is only a 5 minute taxi ride or 10 minute walk.



There is easy parking in the NCP next to the hotel. Further car parking is available within a short distance away.



SEVENoaks
SOUND & VISION

www.ssav.com

In association with

WHAT HI-FI?
SOUND AND VISION

Organised by

audioT



Find us on:
facebook.

Visit www.manchestershow.co.uk for all the latest information

your home your style your life

HIGH PERFORMANCE HOME ENTERTAINMENT SOLUTIONS TO SUIT YOU



Here at Sound Academy our professional and friendly team offer real expert advice and have an enviable range of components to show you that will complement and enhance your home and lifestyle.

We'll have a solution to suit everyone's budget and ensure that you get the best value from your home entertainment investment.

Over 1000 square feet of newly refurbished showroom is stocked with the latest technology from premium brands. We know experiencing the performance is essential and our Cinema Dem Room lets you experience the latest in high performance sound and vision in real comfort.

INSTALLATION EXPERTS

MULTI ROOM SYSTEMS

WITH LIGHTING CONTROL AND WIRELESS AUDIO

IN HOUSE SERVICE CENTRE

Look out for our exciting, dealer-specific **open evenings** throughout the year with special offers and unbelievable prizes. Check our website for details:

www.soundacademy.co.uk



SOUND
ACADEMY

www.soundacademy.co.uk

152a High Street, Bloxwich, Walsall, West Midlands, WS3 3JT Tel: 01922 493499 Email: sales@soundacademy.co.uk
Open: Mon - Sat 9.00am - 5.30pm

SPECIALISTS IN HI FI

HOME CINEMA

CUSTOM INSTALLATION



Are you Xperienced?

Pro-Ject has added a unipivot to its Xperience turntable. **Ed Selley** cues up

Pro-Ject seems intent on creating a turntable to suit absolutely everybody and its range is expanding on a seemingly daily basis. The classic decks, of which the entry-level 2-Xperience Basic+ is now a part, sits somewhere above the Essential and Debut ranges and runs parallel to the RPM series.

Beefed up

The deck itself looks more like a beefed-up Debut, than a member of the RPM series. The Acrylic plinth is roughly the same size as a Debut and is joined by a thick, particle board platter. But there are some neat touches that mark it out as being more upmarket than the Debut. The three spiked feet are high quality and allow for easy and effective levelling, while the motor is a more sizable affair than the smaller models and once up to speed, is impressively quiet. The only slight visual anomaly is the presence of the relatively thick white silicone belt on an otherwise all-black deck. A deliberate move, we're sure.

Tonearm confidence

The 8.6 tonearm is lifted from the entry-level Essential model (HFC 347). This is a unipivot design (as opposed to the majority of Pro-Ject arms, that use a more conventional bearing arrangement) and it says something of Pro-Ject's confidence that they have lifted it off a £150 turntable and attached it to a deck

that is four times the price. The 8.6 is also mounting a rather more sophisticated cartridge than the basic Ortofon OM5 on the Essential. The Project Pick It is a high-output, moving-coil design and represents an impressive piece of equipment to be fitted to a turntable at this price point.

In the great Pro-Ject tradition, setting up the 2-Xperience basic+ is as simple as can be reasonably expected for a turntable. From opening the box to cueing a record, ought not to take more than twenty minutes, even if done very carefully.

The fit and finish is also good for the asking price. The piano black surface is smooth and even and all of the components feel fairly solid. The lack of supplied lid, however, is a minor annoyance and the tonearm doesn't feel as solid as the carbon fibre efforts on the other Xperience decks, although equally, it doesn't feel like it is going to give way any time soon.

Placement-wise, the deck gives the best results on a separate shelf, but the spiked feet give sufficient isolation to allow for placement on the top of a rack. The deck itself does not seem too affected by footfall or vibration from speakers that can bedevil unsprung designs.

Openness and space

The presentation of the deck is dominated by an openness and space. A real sense of the environment in which a piece

was recorded is conveyed.

The Pick It cartridge is also extremely quiet and is free of surface noise, which further aids the sense of airiness. This generally gives music space to breathe and allows incidental detail to be easily perceived.

Tonality is good, too. The Pro-Ject handles voices and instruments well and sounds believably real. Where it is less assured is in the bass. What there is of it is fast, tuneful and detailed, but the real low-end shove that some records possess is somewhat absent. This has an effect on the perceived timing. Recordings of any tempo have a pleasing flow to them, but with faster and more energetic material, the Pro-Ject doesn't necessarily get the toes tapping.

Sensational performance

The overall impression of the Pro-ject is of a very natural and unfatiguing-sounding turntable. Perhaps, the biggest issue it has is the newly arrived Rega RP3 (see p65). This offers sensational performance at a lower price than the 2-Xperience. It isn't a walkover – the Pro-Ject has a better cartridge supplied as standard and a sense of air and space that the more closed-in RP3 lacks.

There is much to like about the 2-Xperience even if it faces stiff competition at the price. ●

DETAILS

PRODUCT: Pro-Ject 2 Xperience Basic+

ORIGIN: Czech Republic

TYPE: Turntable

WEIGHT: 5.2kg

DIMENSIONS: (WxHxD) 462x120 x340mm

- FEATURES:**
- Acrylic plinth
 - Unipivot tonearm
 - Pick It high output moving-coil cartridge

DISTRIBUTOR: Henley Designs

TEL: 01235 511166

WEBSITE: project-audio.com

Hi-Fi Choice

OUR VERDICT

SOUND QUALITY



LIKE: Open and natural sound; easy to set up; good cartridge included

VALUE FOR MONEY



DISLIKE: Limited bass extension; no lid as standard

BUILD QUALITY



WE SAY: A solid performing deck at a good price, but not without competition

FEATURES



OVERALL



Digital Audio streaming

hi-fi and networked audio specialists from single systems to whole house solutions



New Akurate DS

LINN



New Klimax DS

- Networked audio - simple access with a huge performance increase
- Audition & compare various products or brands in our listening rooms
- Arcam, B&W, Denon, Linn, Naim, PMC, Rega, Rotel, Quad, Spendor

Whether you wish to add to or replace your existing source a networked audio player will provide easy access to your entire music collection and give a huge increase in performance. Our expert and freindly team can help plan, install, configure your network, and help migrate your music collection. Come and get hands on with the future and experience the latest digital streaming technology has to offer.

0% APR or deferred payment options available to suit your own budget

Example: Cash Price £1425. 20% Deposit required £285 plus 12 equal payments of £95. Total £1425 0% APR



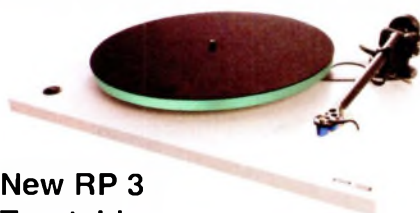
Audition the Naim Uniti family - the complete home network music solution
Enjoy an audition in our comfortable listening rooms - Free on site parking

www.billyvee.co.uk

See our website for current range of ex-demonstration and special offers

Rega - New product range

Outstanding performance and value



New RP 3
Turntable

Brio-R
amplifier



Rega
DAC



Billy Vee
SOUND • SYSTEMS

020 8318 5755
020 8852 1321

email enquiry: info@billyvee.co.uk

248 Lee High Road, Lewisham, London SE13 5PL (Mon - Sat 10am - 6.30pm Closed Thursday)

It's a gas



The Helium 410 is Amphion's smallest speaker, but as **Ed Selley** discovers it still packs a punch

The premise of an advert, inviting you to listen to a speaker with the volume turned down, might not be the most obvious way of selling it to a wider audience. For Amphion however, there is a reason for this unusual approach. The entire range is designed to offer excellent intelligibility and clarity even at very low volumes.

The Helium series is the entry-level offering in the range and the 410 is the smallest speaker in the group. The two-way bookshelf is only 260mm tall and, although relatively deep, the overall dimensions are very compact. Despite this, Amphion claims that the key features of the brand are all present and correct.

One-inch wonder

The Helium 410 makes use of a one-inch titanium tweeter and a 4.5-inch paper mid bass driver. The tweeter sits in a recessed conical waveguide, which is an Amphion trademark, to assist in producing a more believable three-dimensional image. In turn, this is supposed to reduce the amount of electrical correction required to keep phase perfect. A small rear port aids bass response, but Amphion only quotes a +/- 3dB figure for the 410 down to 60Hz, so technically, this is not going to be the most seismic of performers.

White sheen

Aesthetically, the 410 is a break from the wood-finished boxes that are usually found from the competition. The cabinet is finished in a white-sheen effect with black detailing version available. The drivers are fitted with removable metal grilles, which auger well for their long-term survival. The fit and finish is also excellent and it feels extremely solid with a sturdy, non-resonant cabinet.

There is no escaping the fact that £599 buys any number of significantly larger speakers than the 410, but very few we have seen recently are as well built. Whether you value this over the larger size (and as a result, deeper

bass) that other designs will offer will depend on listening room size and preferences.

In terms of placement, the 410 is simplicity itself: we obtained best results on dedicated stands set about 100mm away from the rear wall. Using the Helium on shelves and tabletops still gave strong results and this is one of the most unfussy speaker's we've ever encountered.

In terms of nearfield listening in computer or desktop systems, the 410 is extremely flexible and coupled with its small size makes it an excellent choice in this role. The 86dB/w sensitivity is a little low, but an amplifier of reasonable power ought to have no trouble with it.

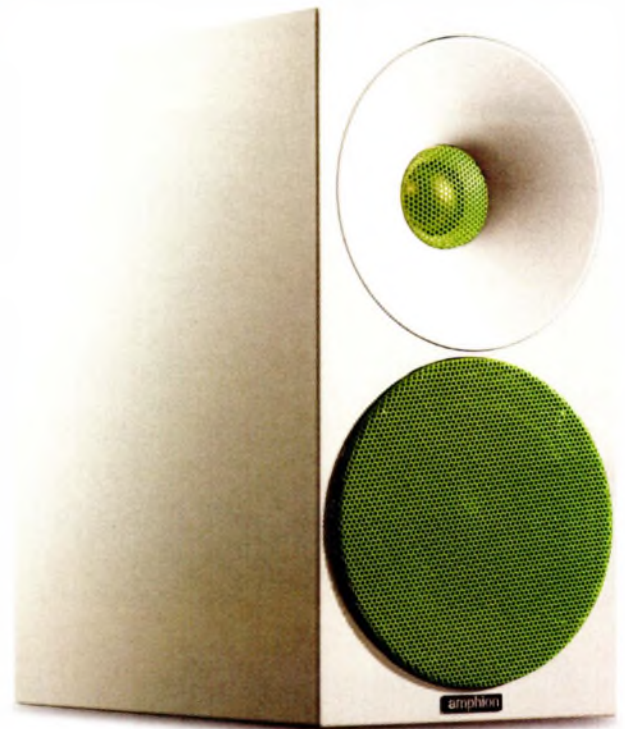
Uncommonly clear

The attention that Amphion has devoted to the waveguide and time-alignment is rewarded with an uncommonly clear performance. The 410 has excellent clarity with voices and instruments, that makes even very complex pieces simple to follow. This also makes it a satisfying performer at lower listening levels.

The timing and pace of the speaker is also impressive. It's unfazed by even the fastest of material and rarely fails to get the toes tapping. This is partly a reflection on the fact that there is less deep bass to slow proceedings down, but what bass is present is fast and tuneful. Perhaps, the Amphion is forced to give ground to larger designs in terms of outright extension, but it doesn't give up without a fight.

Satisfying listen

If you can accommodate a larger speaker, the very compact size of the Helium and with it, the limitations to bass extension may not appeal. But if you have less room and are looking for a speaker that will work in confined spaces and still provide a satisfying listen at lower volume levels, then the 410 makes a great deal more sense. This is a well-built and exactly thought out speaker, that has much to recommend it. ●



DETAILS

PRODUCT:
Amphion Helium 410

ORIGIN:
Finland

TYPE:
Two-way standmount loudspeaker

WEIGHT:
3.5kg

DIMENSIONS:
(WxHxD)
132x259x220mm

FEATURES:
• One-inch Titanium tweeter
• 4.5-inch paper mid-bass driver

• Interchangeable coloured grilles

DISTRIBUTION:
Amphion Audio Europe

TELEPHONE:
+00 493744020

WEBSITE:
amphion.fi/en

Hi-Fi Choice

OUR VERDICT

SOUND QUALITY



LIKE: Exceptional clarity and timing, with a solid build

VALUE FOR MONEY



DISLIKE: Limited bass extension and it's not cheap

BUILD QUALITY



WE SAY: A clever design with many likeable attributes and great flexibility

CASE OF DRIVE



OVERALL





A touch of glass

Can this substantial valve output CD player mix it with the hardcore contenders? **Jason Kennedy** finds out

Ayon is an Austrian company that produces sources, amplifiers and loudspeakers, as well as glass audio components. It makes its own power valves at a facility in the Czech Republic and builds some very high-end products – it's most affordable power amp, for example, costs nearly £20,000.

The CD-07s sits at the opposite end of the scale and looks to be an attempt to break into a sector of the market with more potential buyers. A deeply competitive sector, of course, but this player is heavy on features.

Highs and lows

The casework on the CD-07s is very impressive for a player at this price and can be found on all of Ayon's

players, right up to the £7,300 CD-5s. It's a top-loader with the disc-retaining puck built into the acrylic and aluminium lid. This makes disc-changing a quick and easy affair with a degree of manual interaction – you can open the lid while it's playing and put another disc in without pressing a button.

The aluminium remote handset, that's finished in the same anodised black aluminium as the casework, is a luxurious-looking design with controls for an Ayon amplifier. It can also adjust the analogue output level of this player, so that it can be connected directly to a power amplifier.

It doesn't have any analogue inputs, but has digital inputs in coaxial and USB forms. It could, therefore, form the heart of an all-digital system. Analogue outputs are available on

► DETAILS

PRODUCT:
Ayon CD-07s
ORIGIN:
Austria
TYPE:
CD player
WEIGHT:
11kg
DIMENSIONS:
(WxHxD)
460x110x320mm
FEATURES:
• Digital input:
coaxial S/PDIF,
USB B
• Digital outputs:
coaxial S/PDIF
• Analogue outputs:
RCA phono, XLR
• Burr-Brown
24-bit/192kHz
upsampling DAC
• 24-bit/96kHz
USB input
• 5687 triode
output stage
DISTRIBUTOR:
15 Audio
TELEPHONE:
08448 221115
WEBSITE:
ayonaudio.com

XL R and RCA phono sockets with the option of high and low gain – in other words, output level can be increased, doubled in fact, if you have a low-gain amplifier.

The mesh covers at the back of the case are to let heat out from the valve output stages, each of which is built around a 5687 double triode, that operates in a circuit that's free of negative feedback and has very short signal paths.

Ayon has given this player a low-output impedance, so that it can drive long cables and/or amplifiers with a difficult input load. This is useful because lots of valve components have high-output impedances, which makes them harder to match with amplifiers.

The signal path is devoid of followers, buffers and solid-state devices, once it gets to the output stage and it seems that Ayon has done its best to keep things as direct and clean as it can.

The DAC chip is by a Burr-Brown that runs at 24-bit/192kHz, with the option of upsampling to this level from the handset. The power supply is the heart of any amplifier and this effectively is what the output stage of a CD player is. Ayon has used a low-noise R-Core power transformer with separate windings for the various digital and analogue elements within the player. There is also filtering for noise on the mains



in order to provide some isolation for the various power supplies within the player.

One unusual, but sensible feature is a soft start for the valve output stage, this is indicated by a countdown on the LCD display. The CD-07s runs too hot to be left on permanently, but doesn't take long to get up to temperature.

Lustrous tonality

As we have alluded, this is a very nicely built player. The casework is all aluminium and the quality of

“The casework is extremely rigid, which should keep external resonance at bay.”

finish is very high. The curved corners and thickness of metal means that it's extremely rigid, which should help keep external resonance at bay and provide a degree of sinking for vibration created by the disc drive. Ayon

goes so far as to suggest that the chassis 'imparts a richer, more lustrous tonality' to the resulting sound, which is hard to argue with as the player does possess this quality, but whether that's down to the chassis is less obvious.

It does have a suspension system for the CD transport, however, which will have obvious benefits when it comes to resonance control. Internal parts include Teflon valve sockets with gold pins, which bodes well for longevity. Also of interest is the



AS AYON MAKES a full range of components, the distributor 15 Audio, recommended a system from its extensive catalogue.

As the least expensive Ayon power amplifier is in another price league to the CD-07s, it recommended the Orion 2 integrated amplifier (£2,250). This is built on a matching chassis and uses a pair of KT88 output tubes that can be operated in triode or pentode modes.

Triode operation will give the most revealing and subtle result. Pentode mode is quite nice if you want to play more muscular music.

15 Audio also recommends spending 50 per cent of a system's budget on speakers, so the Ayon Ibis (£4,350) would be perfect for this pairing. This is a three-way floorstander, with a pair of seven-inch woofers and a 91dB sensitivity, which makes it perfect for valve amplification.

CONNECTIONS



1 Digital input via RCA coaxial S/PDIF or USB B, RCA coaxial digital input

2 Output level switch, 'high' increases gain by 6dB

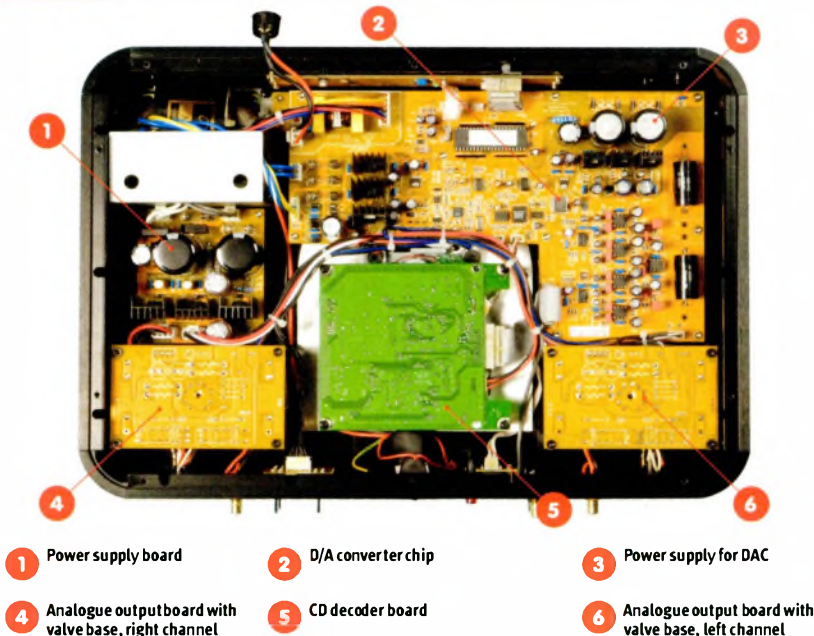
3 XLR and RCA phono analogue outputs right channel

4 Output mode control for line out (normal) or volume controlled (direct amp)

5 Output type switch: RCA or XLR

6 XLR and RCA phono analogue outputs left channel

HIDDEN TECH



“This CD player will play all manner of music in a way that is inspiring.”

pianos, horns and voices with no fear of edginess, even through a very revealing loudspeaker. Our Bowers & Wilkins 802 Diamond is just such a speaker and is a fine partner for the Ayon, exposing the way that it can deliver remarkably tactile imaging that, while not the most precisely etched, has a presence that's totally real and engaging.

We compared the onboard volume control with that in the Leema Tucana II amp, which has a unity gain input so can be used as a power amp. The solid-state preamp presents a drier, tighter version of events than the Ayon volume control, which sounds more relaxed and bodacious. Which appeals to you will probably depend on material and speaker balance.

The USB input makes our digital files sound a little lazy, when compared with a solid-state DAC. Musical flow is good, as is tone again, but this feature is unlikely to turn you into a computer-audio enthusiast overnight.

It's irresistible

The Ayon's controlled exuberance and excellent sense of timing mean that it will play all manner of music in a way that is inspiring. This combined with substantial build quality and a rather nice remote handset makes the CD-07s look like a very worthy contender for your budget in the sub-two-grand stakes.

Those that prefer a more precise, measured sound may not be swayed, but anyone who is into music for the emotional communication will thoroughly enjoy this machine. ●

mains polarity indicator on the back panel, this is primarily for Europe where it's easy to get this wrong, thanks to the way that Schuko-style plugs can be inverted, however it can happen in the UK and is always good to get right.

The quality of hardware on the back panel is about par for the price but the quantity of it is not. There are switches for output level, direct or normal output and XLR or RCA phono output. The former does not indicate that the CD-07s is a balanced component by the way, as that would be pushing the budget a bit too hard.

The USB input is able to take signals up to 96kHz, which is better than the more common 48kHz and the S/PDIF input can do the same if you have a source that can provide such a signal – a few DVD-A players are up to the job.

Palpable presence

The CD-07s is a highly entertaining player. We dropped it into one of the high-end systems that has come in for review in *The Collection* (on sale 29th September) and revelled in a juicy, ripe tone. There's plenty of valve flavour to be enjoyed here and in a good way, too. Some glass-powered machines are blowsy and slow, this one is relaxed but very much on the ball. You can't help but be swept away by the groove the musicians are putting together. The advantage of this ancient technology is that, when done well, it brings out the vibrance of the music and presents it in a transparent, yet fluid fashion. You can do this with solid-state, but not usually for this sort of money.

The lack of grain is also delightful – turn the volume up and it will play



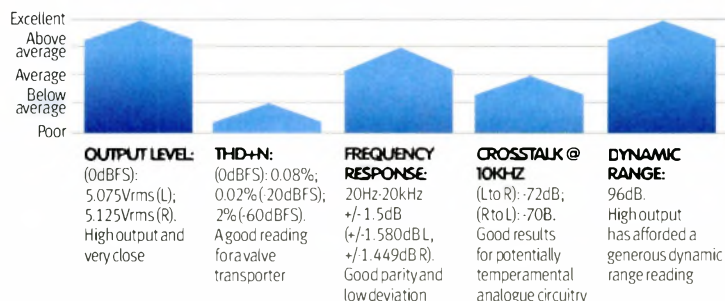
VALVES, BEING AN intrinsically older technology than transistors, are not able to produce nearly as much power before they overload or distort. But the nature of this distortion is second harmonic. It's this that is partly the reason why valve audio has a richer tone than solid-state, the latter produce third harmonic distortion when they hit the end stops and this results in a thin, flat sound.

In a line output stage, like that in the CD-07s, the valves do not have to provide a lot of power and thus do not distort, yet they still have a characteristically rich tone compared to more common transistor types. This is because valves amplify in a more linear fashion, amplifying voltage rather than current as transistors do.

It's also the reason why it's possible to eliminate negative feedback without provoking instability.

TECH LABS

RESULTS AT A GLANCE



Hi-Fi Choice

OUR VERDICT

SOUND QUALITY ★★★★★ **LIKE:** Open, fluent, dynamic, with excellent pace

VALUE FOR MONEY ★★★★★ **DISLIKE:** Results with USB could be better

BUILD QUALITY ★★★★★ **WE SAY:** Thoroughly enjoyable player from a company that clearly knows a thing or two about valve technology

FEATURES ★★★★★

OVERALL ★★★★★



Shanling CD-T2000

...brings SACD sound quality from regular CD!



SOUND QUALITY
★★★★★

VALUE FOR MONEY
★★★★★

BUILD QUALITY
★★★★★

FEATURES
★★★★★

OVERALL
★★★★★

“ Like most Shanling products, the CD-T2000 offers ‘battleship’ build quality and a very high standard of finish. ”

“ If this product were manufactured in the USA, it would probably cost three or four times what Shanling is asking here and at just under £2,000, makes it a veritable bargain. ”

“ Via the CD-T2000, cymbals reproduce with a lovely breathy openness that sounds like good analogue. ”

“ It delivers a smooth, natural, well-balanced sound that lets you hear the music as it was originally recorded. ”

“ ...the thought of going back to something ‘inferior’ once the review period was over was just too depressing to contemplate. ”

Jimmy Hughes - Hi Fi Choice, October 2011

Real hi-fi

Official Importers & Distributors for:

3Dsonics • Bias King • Duevel • Heart • Hørning • Shanling • Supravox

Tel: 01257 473 175 • info@realhi-fi.com • www.realhi-fi.com

To find your nearest 'Real hi-fi' Dealer visit www.realhi-fi.com or call us today.

SWINGING '66, BABY!

Carnaby Street, *Revolver*, The Krays, Twiggy, beating West Germany 4-2... **Simon Berkovitch** pulls on his Beatle boots and presses Play on 1966's grooviest soundtrack

Spinning the dial back 45 years uncovers an embarrassment of riches in popular music and a sonic revolution underway. Britain was leading the way in 1966; pushing the boundaries of music and establishing pop royalty in the process.

For an indication of the pulling power of two key groups during one of the most inventive twelve months of music, one need only look at the albums that ascended to the number one slot in the UK's album charts. It comes as little surprise that two groups dominate the pole position in 1966 – The Beatles and The Rolling Stones – but the extent of these pop titans' reigns is revealing.

The Fab Four's last long player from 1965, *Rubber Soul*, held the top slot until the end of April 1966, until its crown was snatched by The Stones' *Aftermath*, the first LP to be exclusively made up of compositions by the songwriting partnership of Mick Jagger and Keith Richards. *Aftermath* itself was nudged from the summit by one of the year's most significant, ambitious releases on August 13th, The Beatles' *Revolver*.

The Beatles and the Stones

Although it's 1967's *Sgt. Pepper's Lonely Hearts Club Band* that earns the distinction of being the quartet's most iconic album, *Revolver* is the more significant – and arguably more satisfying – listen – armed with stranger guitar sounds than previously heard, evident in tracks like the adrenaline-fuelled opener *Taxman*, *She Said, She Said* and *I'm Only Sleeping*. *Revolver* is the moment that mainstream pop music emerges

from the capsule and takes a spacewalk – the flowers of psychedelia are in bloom. The earliest cut on *Revolver* is light years from the folk-rock-flavoured *Rubber Soul*. Originally titled *The Void*, album closer *Tomorrow Never Knows* distils underground interests – studio experimentation and Tibetan philosophy – into a killer pop song. Propelled by cyclical drums (Ringo Starr's finest hour), John Lennon intones passages from *The Tibetan Book of the Dead*, his voice processed through the Leslie speaker cabinet of a Hammond organ for that dislocated tone, while backwards tape loops unfurl around him. Psychedelia arrives in the nation's living rooms, but The Beatles weren't alone in spreading the gospel according to Doctor Timothy Leary (see *Psychedelic Lollipops*, opposite).

The yin to The Beatles' yang, The Rolling Stones, delivered their most accomplished long player so far in *Aftermath*, the first to be issued in stereo. Although the songwriting team of Mick and Keith was key to the success of *Aftermath* – an album containing Stones classics *Mother's Little Helper*, *Lady Jane* and *Under My Thumb* – the contribution of multi-instrumentalist Brian Jones should not be underestimated. Perhaps the most potent pop image of 1966 is of Jones, sitting cross-legged and dressed entirely in white, strumming a sitar during a performance of companion single *Paint It, Black* on *The Ed Sullivan Show*. Other suitably eclectic instruments grace *Aftermath*: Jones coaxes memorable riffs out instruments as diverse as dulcimer (*Lady Jane*), marimba (*Under My Thumb*) and koto (*Take It Or Leave It*).



SIMON BERKOVITCH

A music historian, ex-record shop guru and Production Editor on HFC's annual high-end celebration, *The Collection*, psychedelia fan Simon not only knows music, he lives it through his love of vinyl and high-class hi-fi

WHAT DO YOU THINK?

Beatles or Stones? Do you have a favourite '60s band and if so, why?

Email us now: hifichoice@futurenet.com



CARNABY STREET

THE YEAR IN MUSIC: 1966

UK HIT SINGLES OF 1966

From middle-of-the-road ballads from Frank, Jim and Tom to the premier league pop bands – The Beatles, The Stones and The Beach Boys – reinventing the humble 7-inch single, this year in music's number ones read like the ultimate 60s iPod playlist

The Spencer Davis Group
Keep On Running

The Overlanders *Michelle*
Nancy Sinatra *These Boots Are Made For Walking*

The Walker Brothers
The Sun Ain't Gonna Shine Anymore

The Spencer Davis Group
Somebody Help Me

Dusty Springfield *You Don't Have To Say You Love Me*

Manfred Mann
Pretty Flamingo

The Rolling Stones
Paint It Black

Frank Sinatra
Strangers In The Night

The Beatles
Paperback Writer

The Kinks *Sunny Afternoon*

Georgie Flame and The Blue Flames *Get Away*

Chris Farlowe *Out Of Time*

The Troggs
With A Girl Like You

The Beatles
Yellow Submarine

The Small Faces
All Or Nothing

Jim Reeves *Distant Drums*

The Four Tops
Reach Out, I'll Be There

The Beach Boys
Good Vibrations

Tom Jones *Green, Green Grass Of Home*

REVOLVER

PSYCHEDELIC LOLLIPOPS

Psychedelia was creeping into the mainstream in 1966, ready to blossom the following summer. Both sides of the Atlantic, bands were setting the controls for the heart of the sun...

As ever, it was The Beatles that introduced the latest trend to the nation, psychedelia, in 1966. The flip side of June's single *Paperback Writer* contained the astonishing *Rain*, complete with backwards vocals, paving the way for the experiments to come on *Revolver*.

But over in the US, the first wave of underground acid and garage-rock was already breaking, courtesy of debut albums from The Seeds (*The Seeds*), Jefferson Airplane (*Jefferson Airplane Takes Off*), the Blues Magoos (*Psychedelic Lollipop*) and, furthest-out of all, Texan visionaries The 13th Floor Elevators, defiantly nailing their colours to the mast with *The Psychedelic Sounds of the 13th Floor Elevators*.

THE YEAR IN MUSIC: 1966



Exotic instrumentation abounded in 1966, as groups worldwide gleefully broaden their musical horizons. Throwing off their dated Californian surf image The Beach Boys raised the game this year in both the singles and albums charts. Inspired by the diversity of The Beatles' *Rubber Soul*, *Pet Sounds* was Wilson's towering achievement. Containing lush, sophisticated classics like *God Only Knows* and *I Know There's An Answer*, an arsenal of instruments (and non-instruments) and army of session musicians were deployed on the album to emulate – and better – Phil Spector's 'Wall of Sound' approach to record production, much admired by Wilson. Hearing *Pet Sounds* also prompted The Beatles to raise their game on *Revolver*.

Drawing inspiration from the rivalry, huge hit single *Good Vibrations*, with its eerie Theremin, was intended to be a taster for The Beach Boys' masterpiece – the eventually abandoned *Smile*. Looking back on the achievements of 1966, the loss of *Smile* in its 1960s incarnation – described in lofty terms by its creator as “a teenage symphony to God” – is one of pop's great 'What if?' moments.

Make mine a double

The idea that pop music was now an art form was reinforced by key releases from Bob Dylan and The Mothers of Invention – both *Blonde On Blonde* and *Freak Out!* were ambitious double albums. Backed by members of The Band, *Blonde On Blonde*



contains some of Dylan's most enduring 1960s 'rock' songs: two hit singles – *I Want You* and *Rainy Day Women 12 & 35*, the latter containing the controversial (but misinterpreted) lyric “Everybody must get stoned” – and lengthy epics *Sad Eyed Lady of the Lowlands* and *Visions of Johanna*. It certainly threw down an almighty gauntlet for copyists like Donovan to pick up.

A week after the release of Dylan's double album, a bunch of longhairs scowled from the cover of the debut from The Mothers of Invention, *Freak Out!*. Largely a vehicle for mainman Frank Zappa's sarcastic, often hilarious muse, the two LPs housed a plethora of musical styles – from rhythm and blues-influenced rock to doo-wop and percussion-heavy, sound effects-addled experimentation. *Freak Out!* was an elaborate

“In rock, pop and beyond, the musical landscape of 1966 is a defiant cross-pollination of styles.”

commentary on American consumer society, and the launchpad for Zappa's prolific recording career. A cult record both sides of the Atlantic, fans ranged from the sublime – The Beatles, who acknowledged the LP as an influence on the following year's *Sgt. Pepper* – to the ridiculous – The Monkees, the original 'boy band', who also released their debut LP in 1966. The Monkees' passion for Zappa appears genuine, however: he appeared in the band's cult flick *Head* and in an episode of their TV series, two years later.

Fresh Cream

The Mothers of Invention and The Monkees weren't the only major names to debut on vinyl this year: 1966 was also the year of the power trio. Accomplished musicians Jack Bruce, Ginger Baker (ex-Graham Bond Organisation) and Eric Clapton (ex-The Yardbirds and John Mayall's Bluesbreakers) put aside personal tensions (at least for now) to join forces as Cream, releasing their first long player *Fresh Cream* in December.

Meanwhile, The Jimi Hendrix Experience's first vinyl outing, a cover of *Hey Joe* (also recorded by, amongst others, The Byrds on their proto-psychedelic *Fifth Dimension* in July) hinted little of the incredible guitar pyrotechnics to come. Both Neil Young and Steven Stills also began long recorded music careers with a collaborative outing – the debut album from Buffalo Springfield – and Paul Simon (and Art Garfunkel) brought the sounds of London's folk clubs to a worldwide audience, courtesy of a commercial, electric backing on *Sounds*



of Silence and follow-up *Farsley, Sage, Rosemary and Thyme*.

From folk into jazz

Paul Simon may have 'borrowed' traditional folk legend Martin Carthy's arrangement of *Scarborough Fair* and given it a global platform, but in the folk underground, other innovation was at work. Stellar guitarist Bert Jansch continued to push the boundaries with his third LP *Jack Orion*, home to classic traditional songs, including a lengthy, compelling reworking of ballad *Glasperion*, renamed as the title track. Fellow guitarist John Renbourn joins him on some of the album's cuts, sewing the seeds for legendary folk-jazz outfit Pentangle. Scotland's fantastically titled The Incredible String Band also released their first album on Elektra, a showcase for weird and wonderful instrumentation and also one of the first outings for the mutant genre strain now known as acid-folk.

Although a strange brew was bubbling in rock and folk circles, as ever, the jazz scene was no stranger to new, exciting sounds and none more so in 1966. Improvisational giant John Coltrane introduced many listeners to the exhilaration of free jazz, blowing minds with the suitably titled *Ascension*, a major release on the legendary Impulse! label. Other landmark releases on Impulse! included the free music of both Albert Ayler (*Live in Greenwich Village*) and Archie Shepp (*Mama Too Tight*). The legendary out-there Sun Ra also continued his prolific release rate, sending albums *Strange Strings* and *Monorails and Satellites, Volumes 1 and 2* into orbit on his own Saturn label.

The experiments of these daring musicians may have been a niche concern to the general listening public, yet jazz was also enjoying a higher profile than ever in the mainstream, thanks to Sonny Rollins' soundtrack to *Alfie*. And, in art house circles, Herbie Hancock lent his compositional chops to Italian director Michelangelo Antonioni's 'Swinging London' movie *Blow-Up*, also starring The Yardbirds in an iconic guitar-smashing club sequence.

From exciting releases from pop music giants like The Beatles and The Rolling Stones to underground rumblings in folk, rock, jazz, blues and beyond, the musical landscape of 1966 was a defiant cross-pollination of styles, whose echoes can be felt across the subsequent decades, rumbling loud and clear 45 years later. ●



Home of the finest Audio equipment



Unison Research
Unico Nuovo,
Integrated
Amplifier

'A Thoroughbred'
- Hi Fi Choice



PATHOS

Pathos Acoustics
InPol Remix

10 Watts of pure
Musical Pleasure.



Unison Research
Unico CDE
Twin DAC

Valve CD Player
with twin DAC -
Best Buy & Group
Test winner
HiFi Choice



Opera
Grand Callas
Loudspeakers

A beautiful
listening
experience.



Thorens
TD-309
Turntable

European
Turntable of the Year
2010/2011.



Unison Research
S6 Integrated
Amplifier

"During those all-
important few minutes
when we first got the
amp up and running,
we had an immediate
'I like it' moment..."
Hi-Fi Choice, July 2011

FOR MORE INFORMATION PLEASE CONTACT:

t 01753 652 669

e. mail@ukd.co.uk

www.ukd.co.uk

Please check out the UKD web site for information on all of our products and special offers/promotions.



Pro-Ject

A U D I O S Y S T E M S

Xperience, gained...



V Pack, now including:
Ortofon Vivo Blue cartridge
Pro-ject Evolution tone arm
Pro-ject Xperience turntable
Price tag - £1,000



Distributed in the UK by Henley Designs Ltd.

www.henleydesigns.co.uk, info@henleydesigns.co.uk, 01235 511166



90 **The Smiths**
Complete



91 **R.E.M.**
Out Of Time



91 **John Coltrane**
A Love Supreme

Music reviews

Hi-Fi Choice's pick of the latest high-quality music releases

ALBUM OF THE MONTH



Pink Floyd Dark Side Of The Moon

emimusic.com

★★★★★

6-CD/DVD 'Immersion' box set

PINK FLOYD'S BEHEMOTH has previously been released on stereo vinyl, quadraphonic vinyl, eight-track, CD (in several different mixes), Super Audio CD, Windows Media Audio, standard iTunes and iTunes Plus, selling an estimated 40-million 'units' in the process and proving there is an insatiable supply of people ready to buy and re-buy all the reissues.

But the band has remained notoriously secretive about the contents of its vaults, jealously guarding tapes of demos and outtakes, as well as refusing to indulge in the record industry's mania for repackaging classic albums with the 'bonus' of rare and unheard material deemed not fit for public consumption at the time. Until now.

Being Pink Floyd they have not only embraced the deluxe/expanded/special edition scam, but decided to do it more spectacularly than just about anybody else with a six-disc 'Immersion' box set. Before you get too excited, though, there is not much that can be described as genuinely new material.

Disc one contains the original album, in a newly remastered edition by James Guthrie. Disc two features a live performance at Wembley in 1974. Disc three makes re-available the 5.1 surround sound mix previously released on SACD and the original vinyl stereo and quad mixes (the latter unavailable since the mid-seventies). Then there's a DVD of concert

"The band has remained notoriously secretive about the contents of its vaults."

performances and a Blu-ray disc with much of the same audio-visual material.

Finally we come to disc six before we find the real buried treasure, including Alan Parsons' pre-release 1972 mix – live recordings from when the band toured the prototype work prior to entering the studio and a handful of demos.

Play the different mixes back-to-back and minor, but significant differences are readily detectable: the Hammond organ is heavier in the surround-sound mix, for example, and the extraordinary vocal by Clare Torry at the end of *Great Gig In The Sky*.

By contrast, it's also fascinating to hear the early 1972 Parsons'

mix of the track before Torry's vocal was added and to note how incomplete it feels without her spine-tingling wail. Guthrie, is also responsible for the latest 2011 remastering. It's arguably the 'cleanest' we've ever heard the work, but sounds a little too soft-toned to this reviewer's ears.

The 1974 live recording is of high soundboard quality, with David Gilmour's guitar sounding wonderfully brawny. But more revealing are the 1972 live recordings of a work-in-progress, when tracks still had generic titles such as *Travel Sequence* and *Mortality Sequence*, and which offer us an insight into the genesis of the work's now familiar musical themes and motifs. Equally fascinating is Richard Wright's original demo for *Us And Them*.

The Dark Side... release will be followed in November by a similar six-disc 'Immersion' edition of *Wish You Were Here*. **NW Standout tracks:** Breathe (In The Air); Money; Us And Them; Great Gig In The Sky

EMI



Floyd in the passport style





HOT PICK

The Smiths

Complete

rhino.com

★★★★★

8-CDs

Rhino

FOUR STUDIO ALBUMS, a live recording and three compilation's of singles and B-sides totalling 112 tracks create a comprehensive chronicle of the intense, dynamic and combustible Morrissey/Marr collaboration between 1983-87.

At the time, it seemed The Smiths stood almost alone as custodians of the best traditions of British pop music, while the rest drowned in a murky sea of tinny synths and nastily programmed drums. Today The Smiths sound every bit as fresh and invigorating as they did back then.

Was it Morrissey's lyricism or Marr's musicality that lay at the core of The Smiths' genius? These remasters will support subscribers to the latter theory. Marr himself returned to original tape sources and set about removing the 1980's 'processing'. The results leave Morrissey sounding much as he always did, but the soaring, chiming guitars have been re-burnished with a spectacular passion. **NW**

Standout tracks: This Charming Man; William It Was Really Nothing; I Know It's Over; There Is A Light That Never Goes Out



Nico Muhly

Seeing Is Believing

deccaclassics.com

★★★★★

CD

Decca

LASTING AROUND 24 minutes, *Seeing Is Believing* is a spiky, evocative work. Scored for six-string electric violin and chamber orchestra, it defies classification, but makes an atmospheric sound that tickles the ear and delights the senses. The piece creates its own sound world, somehow managing to sound both modern and archaic at the same time.

Muhly is very interested in early English choral works. *Motion*, as the name implies, is a constantly shifting, rhythmically adroit piece that's on the move from first to last. *Step Team*, meanwhile, written for nine players, is inspired by the big and beefy 'Steakhouse' brass sound of the Chicago symphony. It's a clean, bright, open recording throughout, with lots of detail. **JH**

Standout track: Seeing Is Believing

HOT PICK



Cesar Franck

Le Chasseur Maudit; Les Djinns; Les Eolides; Symphonic Variations.

cypres-records.com

★★★★★

CD

Cypres

FRANCK'S SYMPHONIC poem describes the downfall of a blasphemous nobleman who chooses to hunt on a holy day and is destroyed by vengeful gods. It's an amazing piece and this new performance is tremendously exciting, yet sensitive, too, with some powerful climaxes.

Cedric Tiberghien is a highly capable pianist and while the performances could sometimes relax a little more, the results are very engaging. The disc finishes with the popular *Symphonic Variations* and the recording is outstanding, offering crisp, focused detail, deep bass and a huge dynamic range. **JH**

Standout track: Le Chasseur Maudit



Patti Smith

Outside Society

columbiarecords.com

★★★

Columbia Legacy

CD/2-LPs

ODD THAT THIS is the first single-disc retrospective in Smith's 35-year career, which leads us chronologically through her ten studio albums to create an almost Smith-lite effect. As an exercise in introducing her work to a new, younger audience, the safety-first approach is understandable.

Paradoxically, the even-handedness of allotting each album more or less equal space creates an imbalance: does *Dream Of Life* really deserve the same representation as her brilliant 1975 debut, *Horses*?

Similarly, the presence of no fewer than four covers doesn't really allow full expression of her status as one of the premier rock poets. **NW**

Standout tracks: Because The Night; Free Money; People Have The Power

AUDIOPHILE VINYL

Little Feat *Waiting For Columbus* mofi.com



★★★★★

Warner Bros

180g vinyl

LITTLE FEAT was the boogie band to beat back in the day. **Noone** could touch their tight-but-loose ease of playing, nor **Lowell George's** ability

to sum up the southern outlook in a song.

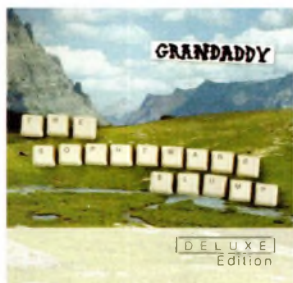
This double-gatefold album was recorded in 1978 and includes pretty well all of their best tunes in its 17 tracks. As well as the original line-up, the Feat took the Tower Of Power horn section on this tour and the resulting sound is as rich and varied as you could hope of a live performance. The songs are often more relaxed and inventive than the studio cuts that they were based on and arguably some of the originals are better, but the

atmosphere is phenomenal as are some of the solos.

Mobile Fidelity has added some of its trademark bottom-end power to these pressings, but there is also a truckload of detail across the board, which gives the album a depth you'll not find on CD. Little Feat was a phenomenally good band that could play the blues with finesse and heart – it's a real treat to be able to join an ecstatic audience and revel in the sound. **JK**

Standout tracks: Fat Man In The Bathtub; Dixie Chicken; Time Loves A Hero





Granddaddy
The Sophtware Slump
universalmusic.com
★★★★ Universal
2-CDs (deluxe edition)

FEW ALBUMS made in the year 2000 summed up the hopes and fears for the new millennium better than the second release from Jason Lyttle and his Californian crew. He took as his themes, science and progress and how they enhanced or eroded our humanity. The result was an atmospheric masterpiece of insightful songs that marked Granddaddy out as American rock's answer to Radiohead.

The shimmering, hazy atmospherics balance a lo-fi organic aesthetic with smart studio wizardry to echo the album's themes of duality. The original album exists in its own world of perfect symphonic cohesion – which makes the concept of an 'expanded edition' rather gratuitous. **NW Standout tracks:** He's Simple He's Dumb He's The Pilot; The Crystal Lake; So You'll Aim Towards The Sky

BLU-RAY DVD

Chris Rea Santo Spirito Blues chrisrea.nl



★★★★ Jazzee Blue/Rhino
3-CD and 2-DVD set

THE TWO DVDS on Chris Rea's latest include a brace of feature films specially commissioned for the project. **Bull Fighting**



Mike Oldfield
Incantations
universalmusic.com
★★★★ Universal
2-CDs/1-DVD (deluxe edition)

HE'LL BE FOREVER TRIPPING over the *Tubular Bells*-shaped albatross draped round his neck, but multi-instrumentalist Mike Oldfield produced a lot more music than that magnum opus. His fourth album is a case in point – the themes and sounds are of a very similar ilk, but there are tunes and innovation aplenty.

The Deluxe edition includes a new remastering of the original 1978 stereo mix of *Incantation's* four long tracks. There's another CD of contemporary tracks, most of which are worth an airing, though they don't hold together thematically as well as the minimalist themes of the main work.

Also included, is a DVD with 5.1 surround mixes of some of the extra tracks and a live performance of the work. **DO Standout track:** Part Two

features the legs and torsos of a pair of dancers, intercut with bullfighting scenes and subtitled quotes from bullfighters in a lyrical hymn that neither glorifies nor condemns one of the world's most barbaric sports. *Santo Spirito* meanwhile, documents the disturbing black and white images a man sees on a journey of discovery through Florence, juxtaposing art and life.

In both cases, the images complement the music without being essential to it and show interesting potential for future development – certainly a cut



Buddy Guy
Buddy and the Juniors
universalmusic.com
★★★★ Universal
CD

THESE DAYS, BUDDY GUY has carved out a reliable place for himself as an elder statesman of Chicago-style guitar blues. While trying to get out of his contract with Vanguard, he teamed up with veteran harmonica hero Junior Wells and jazz pianist Junior Mance, eschewing his usual electric band in favour of an up-close and intimate performance.

This is the first time this heartfelt session from 1969 has appeared on CD and it's been remastered from the analogue tapes by original producer Michael Coscuna. Wells' harp whispers and screams with nary a hint of distortion. Guy's acoustic guitar is faultlessly rhythmic and Mance's piano stylings offer subtle tonal variations. **DO Standout tracks:** Talkin' 'Bout Women (Obviously) Riffin'

above simply filming the band at work.

The flamenco sketches of *Bull Fighting* suggest the heat and dust of rural Spain from Rea's solo acoustic guitar, while *Santo Spirito* features a band and various electronic effects with plenty of room for the electric guitar.

The CD is a more conventional Chris Rea album with a collection of rockers and ballads, all including his warm chocolate vocals as well as his lyrical guitar stylings. **DO Standout track:** Bull fighting

HIGH-RESOLUTION DOWNLOADS

R.E.M.
Out Of Time
hdtracks.com

★★★★

Warner Brothers

24-bit/96kHz and 24-bit/192kHz



THIS SEMINAL ALBUM from 1991 marked the point where R.E.M. made the transition from post-punk, indie cult heroes to mainstream stadium-fillers.

The outstanding elements of the sound of R.E.M. were Michael Stipe's frequently near-undecipherable, murmured lyrics contrasting with Peter Buck's distinctive guitar work, much of which was played on the preferred tool of the jangle-meisters, the glorious Rickenbacker 360.

The 24-bit/96kHz recording certainly helps illuminate this, even though it does not make Stipe's word-smithery any less cryptic! And B52 Kate Pierson's backing vocals on *Shiny Happy People* sound absolutely heavenly. **MS Standout tracks:** Shiny Happy People; Losing My Religion

John Coltrane
A Love Supreme

hdtracks.com

★★★★

Impulse Records

24-bit/96kHz stereo



THERE ARE often problems when musicians get spirituality: their music wanders off in some self-referential

trance. That's not the case here though. While Coltrane intended this suite to be representative of his deep gratitude for his talent, it enjoys a truly magnificent fusion of hard bop and free jazz.

The 24-bit/96kHz recording is ideally suited to Coltrane's quartet – vividly bringing the instruments and playing to life. It captures all the vitality of the one-session recording, in particular, the deft and masterly stick-work of Elvin Jones and McCoy Tyner's sublimely expressive piano playing, the perfect foil to 'Trane's explosive saxophone reveries. **MS Standout tracks:** Acknowledgement; Pursuance

Cayin and able

An unusual Sino-Swedish combination that as *Ed Selley* discovers, is even more sophisticated than it looks

Appearances can be deceptive. While this trio looks as conventional as hi-fi gets, with its hefty integrated valve amp, large floorstanding loudspeakers (with conventional drivers) and, most vintage of all, a CD player, behind the facade lurks a system with a series of technical attributes rarely seen anywhere else – at any price.

These features aren't gimmicks either; thanks to them, this system has a better chance of sounding great in almost any room space you can imagine, than pretty much anything else on the market. Bold claims? Perhaps, we should explain.

This system has no less than eighteen possible modes of operation (and the speakers have another party

“This is a system with a bass extension that is felt, as well as heard and a monster soundstage.”

piece beyond that, but we're getting ahead of ourselves). If this sounds complicated, in reality it is self-explanatory and lends this combination incredible flexibility. The result is a sound that is unfailingly 'right' and something that turns quick listening sessions into all-night affairs.

The brands that form this system are not widely known, yet, but there is a sense that in wanting to prove themselves, they have gone the extra mile with these components. If this sounds peculiar in the context of describing products that use valves, it needn't. Cayin has graced the pages of *Hi-Fi Choice* before, but with nothing quite as imposing as the A-100t integrated amp and CD17t CD player.

COMPONENTS



1 CAYIN A100T INTEGRATED AMPLIFIER £3,349

100 watts of valve-based heft, this is a seriously beefy amplifier. Eight KT88 valves provide the power and the amp offers a choice of Triode and Ultralinear operating states for different situations



2 CAYIN CD17T CD PLAYER £1,999

The CD17T blends high technology and vacuum tubes to extract the absolute best from the silver disc. Balanced and unbalanced outputs and separate power supplies suggest technical excellence

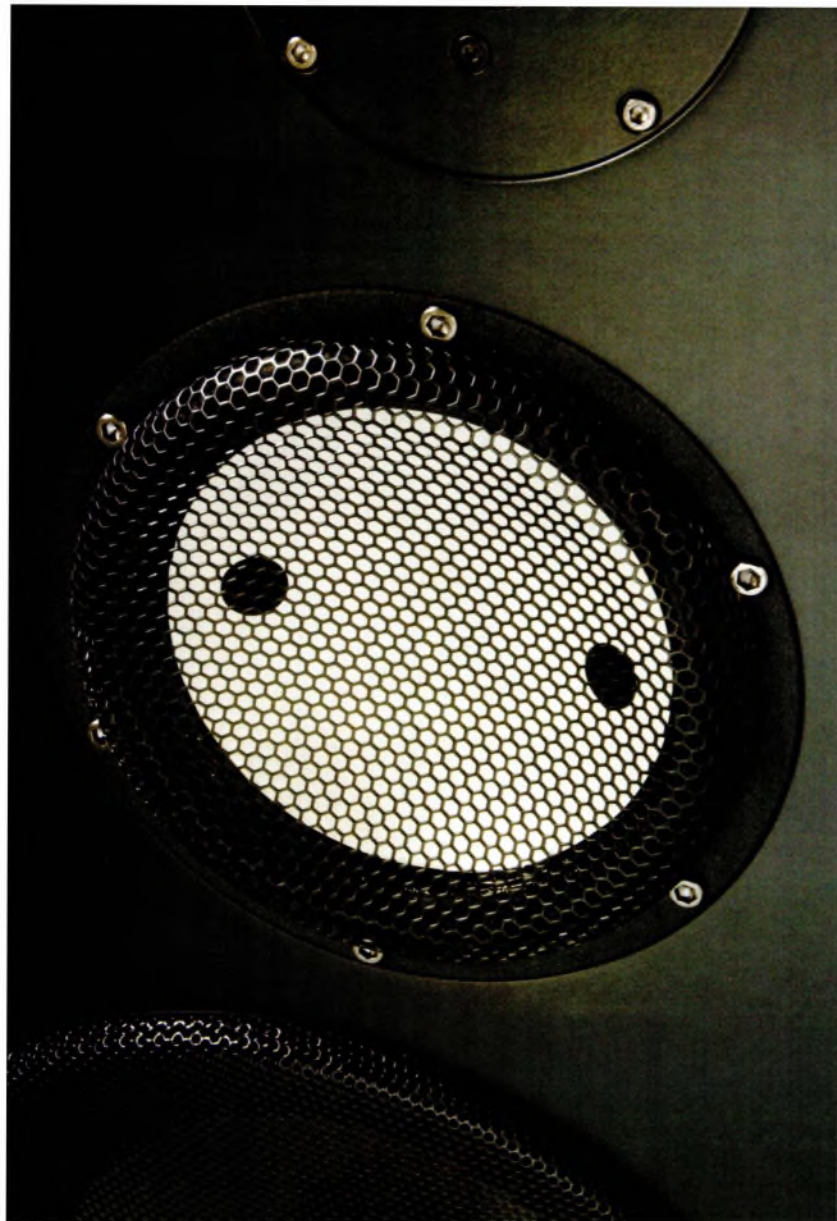


3 XTZ DIVINE 100.49 LOUDSPEAKER £4,200

XTZ's flagship includes ceramic drivers, wiring for active and passive use and a variety of room-tuning options. A technical *tour de force*







LEFT: The XTZs make use of a ceramic tweeter and midrange driver
RIGHT: The controls of the CD17 are ringed in blue light
BELOW: The A100T features a centrally mounted bias gauge for manual biasing

like it could stop small arms fire, we're not sure how much interference is going to be present, but we like the idea.

For good measure the aesthetics are equally impressive, with the mirrored front panel and the display and controls surrounded by a smart blue circle of light providing a very distinctive appearance. As a (much appreciated) finishing touch, the remote control is a beautifully furnished metal unit that is a world away from the parts bin 'specials' that so often accompany units. This is clearly a CD player where a great deal of time and attention has gone into the design and construction.

Mellow tonality

The partnering A100t amp shows all the signs of the same exhaustive attention to detail. This integrated dwarfs the CD17t, but given the specifications, it probably needs to. As the name suggests, the A100t delivers 100 watts of power from eight KT88 valves, arranged in two quartets. Nestled between the KT88s are five smaller valves that constitute the preamp and a large meter. This is for adjusting the bias of the output valves and ensuring they are all functioning correctly. There is often a sense of hair shirt minimalism that comes with valve amps, but Cayin doesn't subscribe to this.

Likewise, XTZ has also put in an appearance with the monolithic Divine 100.49. And when this combination pulls out all the stops, the end result will make you sit up and pay attention.

Impressive aesthetics

The CD-17t CD player is the most conventional unit of the trio, but is still more interesting than the bulk of CD players on sale today. The output stage features two pairs of 6922 triode valves; one per channel for both the balanced and unbalanced outputs. This is more complex than switching the same valves between the outputs, but it should ensure the optimal performance of both.

The power supplies are equally impressive. Two cast-in shielded dual-mono power transformers, one for the analogue and one for the digital section are fitted. This keeps interference to a minimum and noise levels low. The transport is then placed in an acoustically damped enclosure to keep it away from any interference that might be present within the chassis. Given that the chassis weighs in at 16kg and feels





The handsome remote controls volume, input selection and most interestingly, the topology of the amplifier. Operating in ultra-linear mode produces the stated 100-watt output. Unusually, it is also possible to switch to 'triode' operation; output halves, but with it comes a sweeter and mellower tonality.

Switching between these modes is not unheard of, but the ability to do it from the remote is something of a Cayin party piece. The result is an amplifier that offers all the functionality and real world power output of a solid-state amp with not one, but two variations on the valve sound.

It is beautifully finished as well. The top plate and transformers are finished in a metallic blue paint that gives a sumptuously deep finish and manages to hide some of the bulk. The thick brushed-steel front panel hosts well-weighted controls. There is a protective cage for the valves, but using it is akin to putting the Mona Lisa in a crash helmet so it stayed in the box.

A touch of the Divine

The partnering speakers up the technical ante of this system further still. Swedish brand XTZ has also been featured before, but the sheer scale and ambition of the Divine 100.49 floorstander is still something of a surprise. This three-way design is 1,230 millimetres high, 600 deep and 450 across, with a weight of 65 kilos. Moving them into place is definitely something we advise seeking help with. Once in situ, however, the impressive technical specification of the Divine

starts to become apparent.

It uses a ceramic tweeter and midrange drive, which is rare below £10,000 and unheard of below £5,000. These are partnered with a pair of hefty 10-inch aluminium bass drivers. Backing up this potent driver complement is one of most complex terminal panels we've ever seen on a domestic speaker. Six sets of terminals are fitted with a large array of jumper bars festooning the top and middle.

Before you rush off to your dealer to order a set of speaker cables that resemble a Humbolt squid, we suggest you glimpse at the manual. The Divine is fitted for both active and passive operation. It can be single, bi or tri-wired, or amped via the crossover. Alternatively you can use an active crossover and connect one, two, or three amplifiers directly to the drivers via the lower set of terminals.

The jumpers also ought not to be ignored. These adjust the output of the drivers to better integrate with the room. With nine variations on the speaker and with the option of trying all of them in triode and ultralinear modes (via the A100t) gives us eighteen different settings to experiment with in any given room. Add foam bungs for the bass ports and you have a speaker that has huge scope for room tuning.

Superbly built

All this technical excellence would be for nothing if this trio didn't use it to make great music but the results are, if anything, greater than the sum of their parts. With the Divine running a little midrange boost, bungs in place and the A100t in ultralinear mode,



CONTACT
DETAILS

DISTRIBUTOR:
Audio Sanctum
TELEPHONE:
01623 857707
WEBSITES:
cayin.com
xtz.se/uk

we are treated to something spectacular. This is a system capable of absolute clarity, with a bass extension that is felt, as well as heard and a monster soundstage. At the same time, there is not a trace of harshness or aggression.

You Can't Teach An Old Dog New Tricks by Seasick Steve, is captured with the rawness of the recording intact, but the limitations, artfully minimised. The ceramic drivers are capable of a shockingly real presentation with voices and instruments.

Step up the pace and slip on Younger Brother's sublime *Vaccine* and revel in the effortless urge and completely unflappable sense of power this trio has. Everything manages to sound so right and so composed. You will quickly find yourself listening at the sort of levels that are reminiscent of the clubs Younger Brother cut his teeth in, only one that has also has a delicacy with incidental detail that only the very best hi-fi can achieve.

The Cayins are slightly warmer than neutral, but in this context it simply encourages you to ask for more power from the KT88s and simply revel in the focused and richly textured wall of sound that results from it.

This is an extraordinary set up. Superbly built, cleverly designed to adapt to the room it inhabits, it makes an astonishingly convincing case for itself. This is strengthened by knowing this isn't a one-off gelling of the speakers and room, but one that can be repeated pretty much anywhere. If this is a statement of intent from these two brands, everyone else ought to look out. ●

Help & advice

We've got the answers to everything you've ever wanted to know about hi-fi and weren't afraid to ask. Email us now at hifichoice@futurenet.com or write to: **Hi-Fi Choice Q&A, Future Publishing Ltd, 2 Balcombe Street, London NW1 6NW**

YOUR EXPERTS



PAUL MESSENGER

EXPERTISE: LOUDSPEAKERS

HAVING WORKED on both sides of the audio industry for over 30 years, as loudspeaker designer and reviewer, Paul is ideally placed to offer thorough, in-depth analysis of every speaker reviewed, as well as cutting-edge developments in the field.



JIMMY HUGHES

EXPERTISE: SYSTEM OPTIMISATION

AS EVERY audiophile knows, there's so much more to getting a system to sing than merely throwing components together. Jimmy Hughes has spent 40 years tweaking and optimising systems, as well as voraciously collecting records.



RICHARD BLACK

EXPERTISE: TECHNOLOGY

WRITING EXCLUSIVELY for HFC, Richard brings his experience as a successful musician and recording engineer to bear in our rigorous *Blind-Listening Group Test*. As our technical consultant, Richard is the authority on HFC's test and measurement.



ED SELLEY

EXPERTISE: DIGITAL AUDIO

RESIDENT IN the audio industry for over a decade, Ed has considerable experience of both CD and SACD formats on disc, as well as an increasing personal interest in streamed high-resolution audio and network based systems.



MALCOLM STEWARD

EXPERTISE: COMPUTER AUDIO

WITH DECADES OF experience in audiophile journalism, Malcolm now combines his legendary status as an ex-editor and writer on all things hi-fi, with his unquestionable expertise on streaming, networking and computer audio.



JASON KENNEDY

EXPERTISE: TURNTABLES

ANOTHER EDITOR, Jason opted to become a freelance contributor when he relinquished the helm of HFC after 17 years on the magazine. A hi-fi addict since his twenties, Jason fell for the beauty of vinyl and has never looked back.

ASK US A QUESTION TODAY!

Our experts are on hand to answer your questions. Whether you're looking for future-proof upgrades, advice or help with your current set-up, our two-channel Einsteins have all the necessary expertise and several hundred years of combined audio knowledge to slake your thirst and support your passion for perfect sound. Email your questions now: hifichoice@futurenet.com

QUESTION OF THE MONTH

Q I need a new integrated amp for my office system. The Exposure 2010S and the Audiolab 8200A come well recommended but I want an internal phono stage. Any ideas at around £700?

Tim Wright, via email

A It is worth pointing out that the Exposure 2010S2 can have an internal phono stage fitted at additional cost. Other strong choices with a phono stage built in are the Roksan Kandy K2, which costs £750 and the Rega Mira 3, which is a bit of a steal at £460.

Both of these models featured in our CD/amp Blind Listening Group Test in HFC 344.



Roksan's Kandy K2 includes a good phono stage

SACD and DACs

Q I am very interested in buying a DAC for my hi-fi system. Your June issue (HFC 346) has a fantastic review on the M1 DAC from Musical Fidelity. However, there is one thing that I have not been able to work out. Do these DACs work with an SACD (DSD) input signal? For instance, the new Sony Blu-ray players have SACD capabilities. Will a DSD or other digital output from these players be accepted as a digital input signal to the DAC? As far as I can see most DAC-chip sets are DSD capable these days.

Sjaak Vanderstoep, via email

A Many DAC chip sets are indeed SACD capable these days (although a great many of them still convert the DSD signal to PCM for the business of decoding). The problem remains that SACD players do not have an active digital out over coaxial or optical for the DAC to use. This is a defined part of the SACD design standard and is something that has very few workarounds.

Many players that are also Blu-ray or DVD will output SACD over HDMI to a suitable receiver (as the HDCP system on HDMI acts as sufficient security to allow transmission) but we don't

know of any DACs that are able to receive this information. This facility is generally provided for the enjoyment of multichannel SACD.

A small number of high-end manufacturers, such as Esoteric, DCS and Accuphase have SACD-capable transports and DACs that usually use a variation on the IEE394 Firewire connection to allow the transfer of DSD data, but these are all greatly more expensive than the Musical Fidelity or excellent Rega units that we have enthusiastically endorsed.

Ultimately, we feel that 24-bit/192kHz files (that these DACs are equipped to handle) offer the same promise of improved performance over CD that SACD did. Although the availability of these files remains limited at the moment, the limitations of high-resolution files are far less apparent (or self-imposed) than those of SACD.

Improved response

Q I have read *Hi-Fi Choice* for a few years now and before that *Hi-Fi Answers* (I remember sticking diamond-shaped sticky paper on everything at the advice of Jimmy Hughes). I have been using a Primare CD31 and 130 amp for a few years now and have found both excellent. I recently



Onkyo's mighty P3000R and M5000R offers both an analogue and digital upgrade

bought a pair of ProAc Response 18 loudspeakers and feel that either the CD or amp might be letting the system down a bit. Therefore I would like to make a substantial upgrade to both, probably one item at a time.

I was thinking along the lines of the Leema Antila and the Tucana as a starting point. Funds would only permit one change at a time. What do you think of the Leemas and do you have any suggestions?

Dougie Alexander, via email

A In these circumstances, we would generally recommend making a priority of changing the amplifier first, as this generally has more of an effect on the overall performance of the system.

We suspect that the combination of laid-back electronics, in the form of the Primares and the very civilised ProAcs is making for a system that might be seen as a little lethargic.

It has been a while since we reviewed the Leema Antila and Tucana (HFC323), but they are unquestionably fine units and should work well with the ProAcs. They have also seen further upgrades since this review, which we would hope has improved matters further still. At this price point, you are not short of choices, however.

We find that Naim equipment is a strong partner for ProAc (it often uses Naim electronics at hi-fi shows). Something like the SUPERNIT integrated (HFC 294) would certainly be worth considering, with either the

CD5XS or CDX2, or indeed the Naim DAC or NDX, depending on the way you see your system developing in the future.

A really substantial upgrade that might also be worth considering is the mighty Onkyo P-3000R and M-5000R pre/power amplifier we tested (HFC 345). This costs more than the Leema, but the presence of digital

the CD52 has been, I'd be keen to go for another Marantz, but this is where it gets interesting. Within my budget I have a choice of a 'conventional' replacement in the form of an SA-KI Pearl Lite. I could also go for the UD7006 Universal Blu-ray player and take my old DVD player out of circulation as well as SACD replay and play files from a NAS drive. Finally, I could choose the NA7004 and dispense with the silver disc altogether.

Sonic performance is the absolute consideration here, but I'm not going to pretend that I'm not up for a few bells and whistles! Which of these three units is going to offer the sonics and the features that I want?

Julian Adarve, via email

A This is a very interesting comparison to make and one that will ultimately depend on what you want your system to be able to do. Of the three units, we feel the UD7006 is, perhaps, the most compromised of the three. The



The Marantz NA7004 is good enough to challenge its SACD family rival

inputs on the preamp means that you might only need to be a CD transport to complete the system. The refined, but powerful sound ought to function well with the ProAcs and the build quality and facilities are top notch.

Once more with feeling

Q My very long-serving Marantz CD52 has given up after 18 years of loyal service and I am wondering how to replace it. Given how fantastic

feature count is extremely high (it technically does everything that the other two units do with video functionality as well) but to do this, it comes with functionality and user issues that make it the most frustrating of the three units.

The choice between the SA-KI Lite and the NA7004 is a much harder one to make. The SA-KI is the better built of the two and has some of the magic that the KI-tuned units generally possess. The NA7004 is less 'special' in

design and construction, but it is a supremely talented unit that offers truly outstanding functionality for the asking price. If you are confident about the materials needed to get the NA7004 up and running and ready to put the time in turning your CD collection into a well-organised set of high-quality files, we'd choose the streamer.

Naim of the game

Q I currently own a Naim CD5 and NAIT5 (non 'i' prefix models from a few years ago). I have recently purchased a pair of PMC GB1s and I'm really pleased with the results. I'm now looking to upgrade the amp and was getting ready to go for a NAIT XS, as it is a useful step forward from the NAIT5, but keeps the Naim 'house sound'.

Two things have caused me to rethink this decision and look at some other options. The first is that with the recent Naim price rises it now costs £1,450. This is still I price I would be prepared to pay, but it brings it very close to the Rega Elicit, which went and won your recent group test (HFC 349), despite being the cheapest amp there.

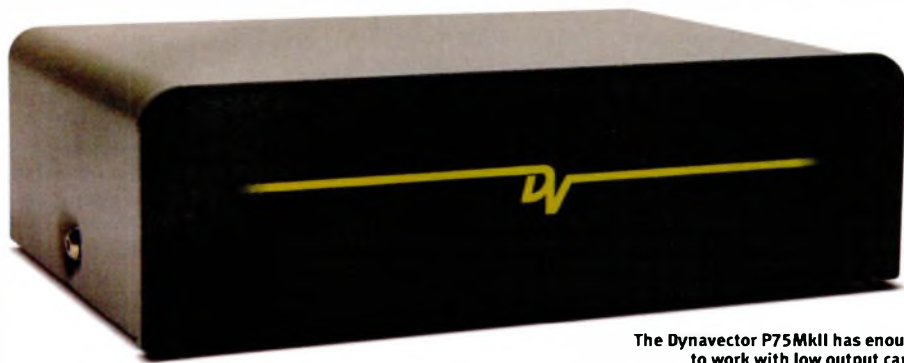
Is the Rega a valid competitor to the Naim? I do like the Naim house sound and listen to a fair amount of material from folk though to fairly ballistic rock. If the Rega isn't suitable, are there any other designs you would recommend that I try?

Oliver Hill, via email

A The Rega was something of a star package in the recent integrated versus pre/power group test. Exactly how it compares to the NAIT XS is harder to say, as regrettably no Naim amplification was involved, but we think that there is certainly scope for a demonstration. The Rega doesn't have quite the sense of pace and timing that the



The Rega Elicit: one of 2011's best bargains



The Dynavector P75MkII has enough gain to work with low output cartridges

Naim does, but it is still capable of a pacy and assured performance. We also think it has wonderful tonality and usually manages to sound believably real as well. The power output should have no trouble with the PMCs either.

The other amp that would also be worth a look is the £1,600 Creek Destiny (HFC 342). This is slightly more laid back than the Naim or the Rega, but still has superb timing and some of the best soundstaging and presentation we have seen under £2,000. If the Naim sound is truly the one for you, the NAITXS is likely to win out, but we really think you ought to be looking at the Creek and especially the Rega.

Zero hour

Q The very positive review of the Audio Note Zero components (HFC 348) has got me considering these two small units as a replacement for my old and barely used Cambridge Audio system. I may substitute the Zero DAC for the CD player, but the Zero integrated amp would be chosen.

The only area where I am less convinced is with the speakers. I have not used floorstanders in the past and the AZ Two speakers in the review were not the most attractive designs going. With an eight-watt output, I am aware that I will need a sensitive loudspeaker, but given my listening levels are relatively low, I was wondering if there were some suitable

standmounts that might be chosen instead? The AZ-Two is £1,300, but I could probably spend a bit more than this if needed. My music interest, by the way, is jazz and blues.

Bruce Elliot, via email

A What constitutes a 'low' (or indeed 'high') listening level is very subjective, but if you don't feel you will be going that loud, there are some standmount options that should be sensitive enough to provide good results with the AN Zero amp.

Of the speaker designs that we have reviewed, the standmount that has the best chance of working well with the Audio Note is the £2,499 Tannoy Revolution DC8, which did extremely well in our luxury standmount Blind Listening Group Test in HFC 343. This is sensitive enough to work with the Audio Note and also boasts the warmth and tonality to make the most of your jazz and blues material.

Another interesting choice would be the £2,799 Revolver Screen 3 (HFC 325), which can also be wall mounted if required. Both of these options are more expensive than the AZ Two, however.

More Karat...

Q I have recently purchased a Dynavector Karat 17D3, partly on the strength of your review (HFC 334). It is a big

step up over my previous Sumiko Blue point, but the switch from high-output moving coil to (very) low-output moving coil is causing me some problems.

I use a Pro-Ject tube box (the older MkI model) which supports both moving magnet and moving coil cartridges, but to get anything like the output I need through my Sugden A21, I am having to wind the volume up a long way. This also means I am getting a lot of noise and hum.

I really like the Sugden and don't really want to change it. If I trade the Pro-Ject in, I can probably get up to £1,000 together for a phono stage to get the performance I know I can from the Dynavector.

Stephen Bosford, via email

A The Dynavector is a fantastic cartridge, but the output is only 0.2mV, which is low even by the standards of moving coil designs. The two designs that would hopfully fit the bill for you are conveniently both under the £1,000 budget. The first is the £595 Dynavector P75MkII (HFC 344). This uses a different process to ordinary phono stages to produce the prerequisite gain and is naturally designed with the low outputs of the Dynavector cartridges in mind. We think the performance is absolutely superb and it also won't take up any more space than the Pro-Ject does.

The other possibility is the slightly more expensive £850

Primare R32 (HFC 345). This is designed to operate with a wide variety of cartridges and features a special stage that can be selected to offer high gain. We think that this is one of the most musical phono stages anywhere near this price and the performance is absolutely excellent. It is a full size design, however, so will need more space than the Pro-Ject does.

Need Resolution

Q I've been streaming my music since I bought a Logitech Transporter 18 months ago. I'm sold on the concept and I'm looking to upgrade again. I was considering the Linn Akurate DS (HFC 343), but as I owned a Resolution Audio Opus 21 before I bought the Transporter, I was wondering how the Cantata music player stacked up?

The Cantata is more expensive (and has a CD drive that isn't going to see much action), but I loved the sound of the Opus, so I am wondering if you think it is worth the extra £1,500 over the very talented Linn?

Graham Ambrose, via email

A The Linn is one of the finest streaming products we have ever tested and it has a fantastic level of flexibility in terms of configuration and control.

The Resolution is a CD player first and a streamer second. It cannot match the Linn in terms of networking and control. At this price point, however, we would be expecting nothing less than a home demonstration and we would encourage you to try the units side by side.

We suspect that if you liked the Transporter as much as you did, the Akurate is the unit that is going to be more like a high-end version of that. It should be an interesting and entertaining comparison though!



The Resolution Audio Cantata is a fantastic performer with both CD and streamed files

REAL STORES • REAL PEOPLE • REAL PRODUCTS • REAL VALUE



Don't miss this year's

HOME ENTERTAINMENT MANCHESTER SHOW

22ND & 23RD OCTOBER 2011
RENAISSANCE HOTEL, MANCHESTER

SEVENOAKS
SOUND & VISION

Organised by

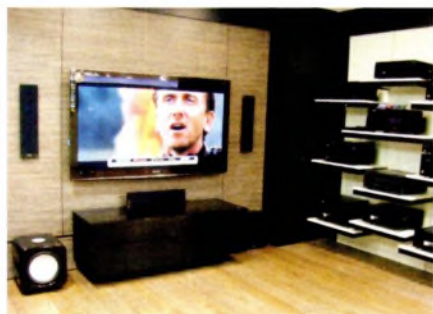
audioT

In association with

WHAT HI-FI?
SOUND AND VISION

For the latest information visit

www.manchestershow.co.uk



STORES NATIONWIDE

Aberdeen* 01224 252797
Basingstoke* 01256 324311
Blackpool* 01253 300599
Bolton* 01204 395789
Brentwood* 01277 264730
Brighton (Hove)* 01273 733338
Bristol* 0117 974 3727
Bromley 020 8290 1988
Camberley* 01276 685597
Cambridge* 01223 304770
Cardiff* 029 2022 8565
Chelsea* 020 7352 9466

Cheltenham* 01242 241171
Chorleywood (Watford)* 0845 5046364
Enfield* 020 8367 3132
Epsom* 01372 720720
Exeter* 01392 218895
Glasgow* 0141 332 9655
Guildford 01483 536666
Holborn* 020 7837 7540
Kingston* 020 8547 0717
Lancaster* 01524 39657
Leeds (Wetherby) 01937 586886
Loughton* 020 8532 0770
Maidstone* 01622 686366
Manchester* 0161 839 8869
Norwich* 01603 767605
Nottingham* 0115 911 2121

Oxford* STORE RELOCATING
Poole* 01202 671677
Portsmouth* 023 9266 3604
Preston* 01772 883958
Reading* 0118 959 7768
Sevenoaks 01732 459555
Sheffield* 0114 255 5861
Southampton* 023 8033 7770
Swansea* 01792 474608
Swindon* 01793 538222
Tunbridge Wells 01892 531543
Warrington* 01925 632179
Weybridge 01932 840859
Witham (Essex) 01376 501733
Worcester* 01905 619059
Yeovil* 01935 700078

VISIT OUR WEBSITE

for the latest offers and news, as well as the convenient option to order many products on-line or click to reserve before you travel.



2011 GUIDE

Visit our website and request the new 56 page Sevenoaks and AudioT guide FREE.

UK Mainland Only

PLEASE NOTE: SOME BRANDS/PRODUCTS ARE NOT AVAILABLE AT ALL STORES. SPECIAL/ADDED VALUE OFFERS ARE NOT IN CONJUNCTION WITH ANY OTHER OFFER (NICWAOO). ADVERT VALID UNTIL 21/10/2011. E&OE
*THESE STORES ARE EITHER LICENSED OR FRANCHISED AND OPERATE UNDER A LICENCE AGREEMENT TO SEVENOAKS SOUND & VISION

www.SSAV.com

SEVENOAKS

SOUND & VISION

REAL STORES

Sevenoaks Sound & Vision have stores nationwide - each carries the very best in home cinema and hi-fi equipment on display, ready for you to watch, listen to and compare in our dedicated demonstration rooms.



REAL PEOPLE

Our staff are friendly, knowledgeable and passionate about music and film and the equipment needed to get the most out of your collection. They will be delighted to assist you in making the right selection to ensure you enjoy your system for years to come.



REAL PRODUCTS

A wide selection of products from the world's leading manufacturers is in stock and available for you to take home. We also offer a delivery and installation service as well as a convenient on-line click and reserve option for many of our products.



REAL VALUE

Fantastic value for money is our aim. Although we remain independent, you'll be pleasantly surprised just how competitive we can be - with the added benefit of seeing, hearing and touching the product before you buy, and someone to help if things go wrong.

FOR OUR LATEST PRICES AND OFFERS VISIT [WWW.SSAV.COM](http://www.ssav.com)



AUDIOLAB 8200CD • 8200A CD / AMPLIFIER
The award-winning 8200CD features a wealth of digital inputs that will keep it playing all your music regardless of how it may be stored.



CYRUS CD6 SE • 6 XP CD / AMPLIFIER
Some of the finest hi-fi in the world has just become more affordable. A great opportunity to buy this award-winning CD and amplifier.



ROKSAN CASPIAN M2 CD / AMPLIFIER
The M2 amp boasts 85wpc and five line inputs while the matching CD features a 24-bit DAC plus dedicated power supplies for the outputs.



LEEMA ANTILA IIS ECO / TUCANA II CD / AMPLIFIER
This high-end CD player and integrated amplifier combines power, detail and musicality with a comprehensive range of facilities.



MARANTZ CD6004 • PM6004 CD / AMPLIFIER
Replacing the award-winning CD6003 and PM6003, both products have been extensively reworked by the Marantz engineering team, under the direction of Brand Ambassador Ken Ishiwata.



YAMAHA CD-S300 • A-S500 CD / AMPLIFIER
With its high quality sound and features such as iPod and MP3/WMA compatibility, the CD-S300 is an ideal partner for the award-winning A-S500 integrated amplifier.



MARANTZ M-CR502DAB CD RECEIVER
Searching for a compact all-in-one music player that looks as great as it sounds? The hunt ends here with the Marantz M-CR502DAB CD Receiver.



DENON D-M38DAB CD RECEIVER
With its excellent design, first class build quality and fantastic audio performance, the Denon D-M38DAB is a first rate micro system and a worthy update to the award-winning range.



ARCAM SOLO MINI CD RECEIVER
Enjoy outstanding performance with this award-winning integrated CD, amplifier and DAB tuner system.



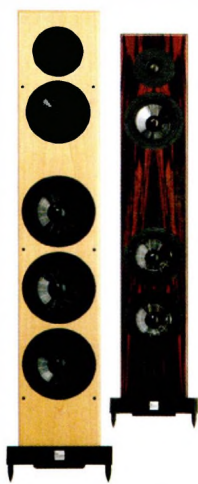
ARCAM FMJT32 TUNER
Arcam's FMJT32 Tuner makes the most of its state-of-the-art build quality to provide impressive sound playback via DAB, FM, AM and Sinus Satellite broadcasts.



AUDIOLAB 8200T TUNER
Designed to complement the Audiolab 8200 range, this well specified tuner is equipped with DAB, DAB+, FM and AM to offer a full range of radio listening pleasure.



REGA RP1 TURNTABLE
Excellent build quality, reliability and ease of use combine to make the RP1 a product that will offer a lifetime of musical enjoyment.

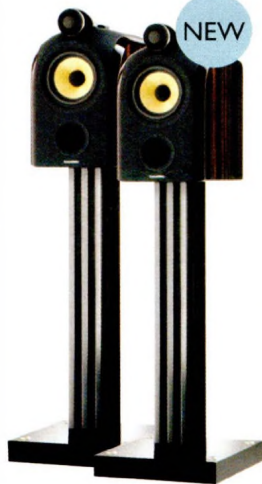


**VIENNA ACOUSTICS
CONCERT GRAND**
Featuring the Beethoven 'Concert' and 'Baby' Grand. The composer name is selected based on the scale, complexity and power of performance for which they are best known.



SPENDOR A-LINE
A3 • A5 • A6 • A9

These high performance, floorstanding speakers combine smart styling with natural veneer finishes. Each model benefits from important advances in Spendor's drive unit technology, cabinet design and crossover engineering.

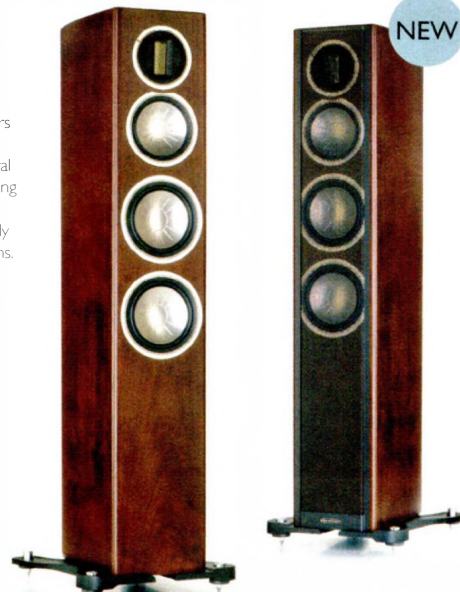


**BOWERS & WILKINS
PMI**
The PMI is a luxury, compact loudspeaker; the latest in a long line of Bowers & Wilkins audiophile mini monitors. It offers an extremely high-quality audio performance and features several technological innovations including a new tweeter design and a cabinet unlike anything previously constructed by Bowers & Wilkins.

NEW



**KEF AUDIO
Q SERIES**
Experiencing the Q Series is like hearing a system costing many times more. Key features include an all new Uni-Q array with advanced bass technologies.



MONITOR AUDIO
Monitor Audio's new Gold GX speakers use technology that has filtered down from their flagship Platinum PL range. The range comprises two standmounts, two floorstanders, two centre speakers, a pair of surround speakers and a single subwoofer.

GOLD GX



NEW

DENON DNP-720AE NETWORK AUDIO PLAYER
Enjoy internet radio and online digital content along with AirPlay support for streaming music from your iPad, iPhone or iPod touch.



MARANTZ M-CR603 CD NETWORK RECEIVER
Features CD playback, a DAB/DAB+/FM/AM tuner along with a USB connection and network capability via its ethernet port.



ARCAM SOLO NEO NETWORK MUSIC SYSTEM
Combines superb music performance, network audio capabilities along with an internal CD player and radio tuner.



DENON DBP-2012UD UNIVERSAL DISC PLAYER
Enjoy exceptional sound and picture quality from many formats including Super Audio CD, DVD-Audio, 3D Blu-ray and your home network.



MERIDIAN AUDIO CORE 200 • DSP3200
Perfect for bringing all your audio sources together, the Audio Core 200 and DSP3200 Digital Active Loudspeakers combine to form a compact, yet powerful and versatile stereo system.



NAIM UNITI CD / AMP MUSIC STREAMER
Combines an integrated amplifier, CD player, DAB/FM tuner, internet radio, iPod dock, DAC, music file player and network stream player. Please Note: Naim products are not available at all stores.



PLAY:3
New ZonePlayer with built-in speakers - just add a Sonos Bridge to create a wireless hi-fi system. Available in black or white.

NEW

SONOS MULTIROOM PRODUCTS
Play your digital music all over your house without a PC in every room. Just add a ZonePlayer and speakers in the rooms of your choice and a Sonos Controller in hand to access all your digital music.



MARANTZ NA7004 NETWORK AUDIO PLAYER
Connect to your favourite music whether it's from your PC, external hard disc, radio broadcast or via Internet Radio or music service.



OLIVE MUSIC SERVERS
Access your digitized music from one centralized library. Everything from 16-bit converted CDs to 24-bit HD files will be at your fingertips along with the ability to play it all in any room of your home.

CYRUS MUSIC STREAMERS
The new streaming platform from Cyrus provides the perfect solution for all music lovers. These new streaming music players provide you with immediate access to your entire network music library. Plus you can listen to literally thousands of different internet radio stations from across the

world; all in true hi-fi quality. With the n-remote you can quickly find specific albums, artists or tracks and it makes browsing your network music library a real pleasure. With its sleek body, full colour screen and two-way control, the n-remote is just one of the features that make the new Cyrus streaming music players very special.



CYRUS
STREAMLINE • STREAM X • STREAM XP

NEW

Please Note: Some brands/products are not available at all stores. Special/added value offers are not in conjunction with any other offer (NICWAOO).

ADVERT VALID UNTIL 21/10/2011. E.&OE.

SEVENoaks
SOUND & VISION

Minitest

Richard Black looks at four of the best ways to improve turntable and CD player performance

Pro-Ject Ground it

PRICE: £255 CONTACT: 01235 511166
WEBSITE: PROJECT-AUDIO.COM

PRO-JECT MAY HAVE branched out in several directions recently, but began life as a turntable manufacturer and still has a good core business in that line. Now if there's one thing a turntable needs like no other hi-fi component, it's vibration-free support, so it's no surprise that Pro-Ject should be offering this 'resonance-free' base. Available in either 500x400mm or 435x340mm size (we tested the former), it is a little over 40mm thick, or more like 65mm with the supplied conical feet fitted. Usefully, there are five threaded holes, allowing various combinations of feet/spike placement so that the unit can be stabilised if asymmetrically weighted loads are applied. You can, of course, use spikes or indeed soft feet of your choice as the threads are industry-standard M8 size.

Basically, this is a large piece of MDF, but its weight of over 11kg makes it obvious there's more to it than that. Inside, deep channels have been

cut out and filled with 2mm-diameter steel balls, which act very effectively to damp any kind of vibration. The result really is very dead, as one can easily confirm by tapping it and, as a result, it adds most beneficially to the performance of an unsuspended equipment rack.

We found that turntables – both suspended and solid – placed on it gained noticeably in precision, while the general background 'hash' on decent recordings was markedly reduced, making detail clearer. Even a wall-mounted shelf benefitted, though less obviously, while a couple of CD players seemed a touch more precise, too.

VERDICT A VERY SIMPLE, but also effective way to reduce the amount of vibration reaching sensitive source components from below

★★★★★



Ringmat AV Vivacity AR panel

PRICE: £63 CONTACT: 01729 823873
WEBSITE: RINGMAT.COM

THE CASUAL OBSERVER could be forgiven for thinking that this couldn't possibly address the same issues as the Pro-Ject Ground it, principally because it weighs about one per cent as much. But Ringmat's Vivacity range of panels (a wide and slightly confusing range) does indeed address the problem of vibration coupled upwards into equipment. It's just that the approach is very different. The Vivacity technique relies on rapid damping of vibration thanks to the low mass, very lossy materials used, which are related to those used in NXT's distributed-mode loudspeakers.

In its literature, Ringmat discusses impedance-matching and nodal points, which are certainly relevant: but rest assured, you don't need to spend hours boning up on mechanical vibration theory, a little practical experimentation is generally enough to find the best ways to use a Vivacity panel or kit.

The version we reviewed is intended to supplement a shelf in a rack, sitting on top and damping, redirecting and generally defeating mechanical vibration. It has several clear plastic feet attached to its underside, which add to the 5mm thickness of the panel itself, giving an overall height of 8mm. We tried it under various items of audio electronics and also turntables, the last category being, perhaps, less successful as the limited low-frequency attenuation of the panel gives very little reduction in bass input, the most critical area. Nevertheless there was a perceptible improvement in treble clarity and CD players and amplifiers also acquired more of a sense of air and space, as if some background mush had been reduced. Imaging also tightened up a notch.

VERDICT A COST-EFFECTIVE UPGRADE for good-looking, but under-performing racks, especially those of the metal and glass variety

★★★★★



Townshend Seismic Sink Platform

PRICE: £400 CONTACT: 020 8979 2155
WEBSITE: TOWNSHENDAUDIO.COM

THERE HAVE BEEN various iterations of the Seismic Sink theme over the years, but they all share the basic idea of mechanical decoupling from structure-borne vibration using well-established principles – basically some kind of spring arrangement with a degree of damping. The simple platform incorporates bellows feet which are conceptually very similar to the spring/damper assemblies on any car. Their design is actually very ingenious, as it allows quite free movement over very small distances, giving the system a very low resonant frequency of about 3Hz (loaded), above which vibration is attenuated progressively. Large displacements, due to footfall or handling the equipment on top of the Platform, are efficiently damped by air leaking in and out of the bellows through a small hole. Various sizes and load capacities of Townshend's Platform are available.

Made of steel, the Platform is itself quite dead due to the use of constrained-layer damping in the top, but the bottom plate is undamped and rings quite audibly. That apart, though, the Platform makes turntables quite astonishingly immune to the effects of floor-borne vibration.

Even suspended decks benefit, but solid-body ones are improved by a very significant margin, acquiring precision, kick and detail one never suspected was there. Effects on digital sources and amplifiers are much less pronounced, though some CD players are noticeably improved. This is one of the best ways around to support any LP player.

VERDICT ★★★★★ **PRICEY, BUT MAKES AN** immediately obvious difference to the performance of any turntable placed on top of it, especially unsuspended models



Track Audio Isolation Feet

PRICE: £295 (SET OF FOUR) CONTACT: 01494 723755
WEBSITE: TRACKAUDIO.CO.UK

TRACK AUDIO, a new name to us, specialises in support, offering speaker stands (including models for floorstanders), plus a few related accessories. These isolation feet are intended to replace those on speakers or equipment supports, or indeed to fix directly to equipment. They are supplied with a range of thread adaptors which enable them to screw into the most common screw threads found on racks and stands, making them very flexible in application. Their design is ingenious and very well executed in stainless steel. Projecting from the bottom is a tapered pin terminating in a moderately sharp spike, which is fixed at its upper end in a plastic compound which Track claims offers 'viscous damping'. We wouldn't want to question that, but it's quite stiff and as a result there's very little 'give' in the foot and no decoupling to speak of at low frequencies. Height is adjustable on a separate screw thread, with a locking ring. Floor protectors are also supplied.

We tried these on a couple of racks and also a selection of speaker stands. In general, we found their benefits quite subtle, but they can give a useful degree of extra tautness to the sound, especially when used under speaker stands. Apart from anything else, their sheer solidity seems to give a subtle boost to the low-frequency definition of speakers compared with regular

spikes. All the same, we would tend to regard these as late-stage upgrades for an already well-tweaked system: the improvements they bring about are generally quite small and the price is on the high side.

VERDICT ★★★★★ **VERSATILE AND ADAPTABLE**, these feet look great and do bring benefits, but in absolute terms we're not convinced they are great value



Audio equipment performs at its best when properly supported. One of the commonest oversights and the easiest to rectify, is wobbly support due to careless adjustment of support feet/spikes.

It's always worth making sure that all the feet on a stand or rack are in firm contact with the floor after the equipment has been placed on top. Once that's done, some additional

isolation can be highly beneficial in cutting to a minimum the effects of mechanical vibration, both coupled through the floor and transmitted through the air.

For sale / Wanted

Hi-Fi Choice Reader Classified

Welcome to *Hi-Fi Choice* Reader Classified, the UK's first and best free private ads service for buying and selling second-hand hi-fi components.

These pages are a must-read if you're thinking about buying used kit, and if you want to sell something it's definitely the place to be. It's free to place an advertisement – simply submit your ad of up to 30 words, remembering to include your email, phone number and county.

The simplest way to send your ad is via email to: hifichoice@futurenet.com
Or mail to: **Reader Classified, Hi-Fi Choice, Future Publishing, 2 Balcombe Street, London NW1 6NW.**
Please note that this service is open to private advertisers only.

FOR SALE

AVI Bigatron standmount speakers (cherry). Good condition with Partington stands. Bowers & Wilkins 684 floorstanders (cherry). Excellent condition £550. **07982 794884 (Essex).**

KIMBER Select KS1030 interconnect (1m) £800, Kimber Select KS1020 interconnect (1m) £400. **01772 314151 or email jamesmckendrick@btinterconnect.com (Preston).**

ARCAM R-DAC. Only three months old, as new, boxed with all accessories, instruction booklet and receipt. £175 inc p&p. **01964 613177 or email dave.drew@talktalk.net (East Yorkshire).**

ROGUE AUDIO ST90 amplifier (£2,650) £1,095. New, only a few hours use. High-quality transparent power, includes upgrade Svetlana KT88s. **0208653 0778 or email johnkalli01@googlemail.com (London).**

SUGDEN CD Master £650, Sugden Headmaster headphone/preamp £400, Trichord Dino phono stage,

Dino+ power supply and Dino power lead £250. All items are in excellent condition and come complete with boxes, packaging and instructions. **01305 263069 (West Dorset).**

ROKSAN Radius 5 turntable, clear acrylic £475. Clearaudio Nano phono stage £99. **07702 014763 (Bristol).**

EUPHYA Alliance Symbiose 320 amplifier (French manufacture) includes separate power supply, 80 watts. Silver casing mixture of non-magnetic metal and Perspex. (£3,450) £1,250. **07805 199598 (W Sussex).**

CHORD Electronics DAC 64 for sale (black finish). Several years old, but very low actual usage; mint condition and looks absolutely brand new. Supplied in original box with manual. Buyer collects - £630. **07905 312191.**

CYRUS 8 XPD QX amplifier (black), light use after service, £1,100. PSX-R

power supply (black) £275. Cyrus 8SE CD player (2009 model), barely used (black) £700. **07884 002911 or email ishmael386-inet@yahoo.co.uk (Halifax).**

NAIM NAC 202 preamp plus Napsco power supply. Excellent condition. First owner. Boxed and including all accessories. Four years old. £1,200. **+0045 60910090 or email jafrikas@jubii.dk (Denmark).**

LINN LP12 (grooved rosewood) Lingo /Naim arm, excellent condition £1,000. **01554 891010 (Carmarthen).**

REGA RS1 speakers (black) £250, Partington Dreadnought speaker stands £130. **01452 385457 (Gloucs).**

NAIM CD5XS CD player, two years old in superb condition. Boxed with manual and remote, bargain at £895. **07914985733 (Derbyshire).**

WANTED Sony JB930 or 940 minidisc deck. **01445 781498 (Northern Scotland).**



£175 for an Arcam R-DAC is a veritable bargain

CYRUS 8vs amp (black). Superb condition with box and remote, £350. **01159 288006 (Notts).**

MONTORAUDIO RS1 speakers, new condition, boxed £175. Rotel RT935 AM/FM tuner with Chord interconnect, £60. **01943 467859 (W Yorks).**

KIMBER D-60 Digital 1m coaxial interconnect, RCA plugs with case £180, Russ Andrews Superclamp Ultra (unwanted prize) £25, Genelec 1029A active monitors, hardly used. (£700) £295. **01902884694. (Wolverhampton).**

PRIMARE i30 integrated amp and CD31 CD player (black). Good condition, supplied with manuals and remote (not boxed) and Atlas Navigator XLR interconnects. Sold as a pair, but would consider splitting. £1,500. **07748 986963 (Hants).**

LINN Lingo 2, excellent condition £425. Linn Trampoline £90. Funk Achromat, turntable mat, 5mm (as new) £55. Linn felt mat £7. Will negotiate on p&p. **01582 867139 (Beds).**

LYNGDORF W210, pair of corner woofers in maple finish and excellent condition, £1,200. **01253 729944 or email lyngdorfw210@tesco.net (Lancashire).**

ARCAM Alpha 7 FM/AM tuner, good condition with original box and handbook £30. **01252 548012 (Hants).**

ROKSAN Kandy LIII stereo integrated amplifier, 30 months old, hardly used and in perfect condition. Usual Roksan features 120 watts, phono stage, remote, rock-solid build etc. (£650) £295. **01896 823388 (Northumberland).**

ORIGIN LIVE Sovereign Mk1, carefully serviced, two platter mats. Illustrious Mk2 arm. New replacement power supply upgraded and OFC wiring with Supra mains lead with silver IEC £1,995 **07960 718424 or email mcgillm@talktalk.net (Essex).**

APOGEE Stage full-range ribbon loudspeakers (anthracite grey) with new midrange units. Overall excellent condition, £800. **01825 841104 or email mark.hanna@virgin.net (East Sussex).**

CAMBRIDGE AUDIO Azur 340ASE amplifier (black), with MP3 i/p Mission 750 speakers (black, limited edition) with stands (black) for £200. **07906 492335 or 020 8643 2487 (London).**

ROCKPORT Technologies Merak loudspeaker and Sheritan II subwoofer. Ex-demo and brief use (black gloss), superbly built system (£2,600) £1,300. **08448 221115 or email mark.hanna@virgin.net (East Sussex).**

EXPOSURE 2010S CD player in silver. Excellent condition. £250. **01484 427426 (W. Yorkshire).**

BUYING TIPS **BUYING SECOND-HAND** can be a great way to pick up a bargain. A formerly expensive second-hand component might well prove a better long-term bet than a brand-new product if the price is right. **DO SOME RESEARCH** on which brands have a good service back-up, so if something does go wrong, you can get it fixed. Unless you purchase from a dealer, you're unlikely to get any warranty, so it's up to you to ensure the fitness of any gear that you buy. **USUALLY**, speakers should be less prone to breakdown than amps, and amps should be more reliable than CD players. But any abused component could be trouble – have a proper demo and judge the seller as well as the goods!

BOWERS & WILKINS DM70 electrostatic speakers from 1969. Large bass units, one non-functional, would suit enthusiast to restore, £350. **07814 198334 (Cheshire).**

QUAD 34 preamps, one with DIN inputs, one with RCA. 2x 303 power amps. All recently refurbished by Quad; £500 per pre/power combination. **01872870602 (Cornwall).**

BOWERS & WILKINS P4 speakers in good condition £130. Pioneer 737 DVD player in gold. Good condition with remote £20. **07900 662976 (Cambridgeshire).**

WHARFEDALE 10-6 floorstanders with spikes, instruction manual and boxes. Can be bi-wired. Purchased in 2010, only four hours use, £295. **01248 789432 (Somerset).**

QUAD early portable amplifier made in 1938. Type 57 S.P Fidelity, may be a Peter Walker product. Offers over £350. **01634 817846 (Kent).**

TEAC VRDS 10, faulty, but repairable. Legendary build and great sound. Cosmetically good, call for details, £85. **07704 833767 (Somerset).**

NAIM Uniti all-in-one unit in immaculate condition with box. Would consider part-exchange with Arcam Solo Neo. £1,500. **023800738935 (Hants).**

ROKSAN K2 amp. Owned from new (black), boxed with manual and remote control. £375. **02920 568165 or email barbragamester@btinternet.com. (Cardiff).**

REGA P3/RB300 tonearm, Rega Super Bias cartridge, Pro-Ject Phono Box II USB. All for £250. **embt80@gmail.com 01555 759124 (South Lanarkshire).**

VAN DEN HUL Meridian interconnects. Pair, 900mm length, Neutrik phono connectors £31 plus p&p. Pair interconnects 600mm length, Neutrik phono connectors £28 plus p&p. **i.fraser587@btinternet.com 01582 573570 (Beds).**

REGA Kyte speakers (black). In good working order, but with some damage

around rear terminals. £65. Wharfedale SW150 subwoofer (black), hardly used, £110. Offers welcome. **joshjfefferjeff@hotmail.com (London).**

SPECTRAL MIT interconnects MJ330 1.5m x2 £210. Handmade equipment support in oak, six-tier, offers. Audio Source, six-way conditioning block (£350) £210. All mint. **0115 9126424 (Notts).**

MARANTZ CD-63 MkII CD player, Thorens TD280 MkIV turntable, Kenwood stereo cassette deck KX-5060S, Kenwood AV stereo receiver KR-V5570, pair of Castle Severn speakers. Sensible offers, will split if necessary. **01422 354995 or email b.d.heyhoe@talktalk.net (West Yorkshire).**

MARANTZ CD10 CD player, boxed with remote. Data sheet available as PDF. £300 **07771 776877 (Herts).**

KORD Tornado speakers, classic eight-inch mid-bass monitors. Bargain at £300, including Atacama SL stands. **07814 556915 (Oxfordshire).**

CYRUS CDXTSE+ transport. (black). Purchased new Dec 2010 (£1,550) £1,050. 2x Cyrus Smartpower Plus power amps (black). (£700) £275. **07970 096244 (Bucks).**

CRYSTAL CABLE Piccolo RCA interconnects 0.5m pair. Multi-award winning cables in immaculate condition. Very light use, complete with presentation box. £115 ono. **07725 072878 (Leics).**

MONITOR AUDIO silver MX1 speakers in natural oak. Boxed with only 12 hours use. Bargain at £299. **01702 556116 (Essex).**

REGA Exon-3 monoblock amps (pair) in black, hardly used, £625. Bang & Olufsen Beolab 6000 active speakers £525. **01782 596470 (Staffordshire).**

RUSS ANDREWS silver mains powerkords; 1x signature, three feet £1,000 and reference, four feet £700. Cash only, buyer collects. **074111 388152 (Herts).**

AVI Nu Neutrons (cherry) Punchy little speaker in good condition, £150. **01484 427426 (West Yorks).**

PRIMARE I30 amp, new condition, boxed £900. **01225 706783. (Wilts).**

Q ACOUSTICS 1020i speakers with stands, £60. Buyer collects. **01482 563883 (Hull).**

AUDIO TECHNICA AT-F5/OCC moving coil cartridge. Hardly used, £65. Grado SR80i headphones £50 Sale due to upgrade **02476 711668 (Coventry).**

UNISON RESEARCH Seconda amplifier. Very good condition. Boxed. Instructions. £450. **01255 675115 (Essex).**

NAIM SBL speakers, upgraded bass drivers, 14 years old and excellent condition, £550. Naim SNAXO active crossover for SBLs £250. Mana SBL bases £100. Phone for package price. **01376 331712 (Essex).**

QUAD system 99 pre, CD, 909 amp various ages, plus 2905 speakers. All very good condition. Must collect. No boxes. Will demo. £3,750 ono. **01773 856828 (Derbyshire).**

LINN LP12/Beautiful Fluted Afrosoma fully upgraded with Akito/Grado Platinum cartridge Cirkus Bearing/Trampoline 2 £1,500. Project Phono Box SE11 £120. Nakamichi CR4, near mint/full service history from 1986. £300. **07875 719136 (South Wales).**

ATACAMA Uropa 8SE, four-shelf hifi/AV rack (£520) £225. o.n.o. **01634 842874**

or email: **p.evans11@live.co.uk (Kent).**

MARTIN LOGAN Clarity electrostatic speakers in excellent condition. Finished in black and silver, wonderful open sound, £1,250. **02380 224003 (Southampton).**

BOWERS & WILKINS CM8 speakers (black) £895. B&W PV1-subwoofer black £575. Mint. New buyer collects. **020 8951 3178 (Middlesex).**

PRO-JECT record deck and Pro-Ject phono amp/Musical Fidelity XA-1 preamp/Arcam Alpha 9 CD player/Arcam P60 power amp/Rogers Studio 5 speakers. Includes all power cords (Russ Andrews) and cables/speaker stands and equipment stand. (£3,700) £1,300 ono. Must be heard. **+00353 87 637 6623 (Ireland).**

OPTIMUM equipment rack, eight glass shelves, brushed steel spacers, 52cm x 61cm, £100 TQ4 5AT **07905 472293 or email: rodneymoorhouse@btconnect.com (Devon).**

MUSICAL FIDELITY A1 CD Pro in immaculate condition. Comes with original box, manual, receipt and remote. **07814 468747 (North London).**

FOCAL Mezzo Utopia loudspeakers. Cherry and black piano finish. As new, boxed, manuals.

Light use, (£8,700) £3,500. Currently in Naim system, can demonstrate **07747 620856 (London).**

HARBETH p3esr speakers, special edition, mint condition, rosewood finish. £850. **02920 419226 or email: frank8bush@ntlworld.com (South Wales).**

ARCAM FMJ CD33T (Silver) CD player, very good condition, boxed with original manual and remote. £350 ono. Buyer collects. **01482 865162 or 07760 407871 (East Yorkshire).**

EPOS ES22 speakers (cherry) £500. Audiolab 8000Q preamp £250. 8000M power amps pair £400. 8000C preamp £200. Arcam Alpha 9 CD player £250. All in excellent condition. **01590 674669 (Hampshire).**

GRADO PS1000 headphones. As new and boxed, won in competition, £900. **01332 233011 or 07796 912295 (Derby).**

PS AUDIO 4.6 preamp with separate p/s, inputs, phono MC, MM, tape x2, tuner, CD, speaker outputs x2, straight wire or high-gain output, plus mono, £285. **01923 855359 or email wombat.jr@talktalk.net (Hertfordshire).**

VECTEUR I 4-2 integrated amp, 80 watts. Excellent condition, including remote and original power cable, (£1,200) £475. Can demo. **07748 652009 (Portsmouth).**

HOW TO SUBMIT YOUR FREE AD

YOUR DETAILS

Name _____

Address _____

Email address _____

Daytime telephone number _____

Date _____

YOUR ADVERTISEMENT

SEND YOUR ADVERTISEMENT TO

Hi-Fi Choice, Future Publishing, 2 Balcombe Street London NW1 6NW

To submit your advert to us, please email **hifichoice@futurenet.com** or alternatively, use the postal form below. Please limit ads to a maximum of 30 words, ensuring all details, model names etc are correctly stated. Kindly also include your email, telephone number and home county. We regret that we cannot take adverts over the phone.

Hi-Fi Choice

Buyer's Guide



Welcome to the *Hi-Fi Choice Buyer's Guide* – the ultimate directory to the very best high-performance hi-fi gear that you can buy. Here, you'll find our favourite current products listed under easy-to-use categories, with up-to-date pricing and trustworthy verdicts.

Reviews you can trust

Hi-Fi Choice test results are the most reliable in the business. We employ the UK's most respected hi-fi journalists and use the most stringent techniques to ensure our ratings are the ones you can trust (see *How We Test* p38). All the equipment we rate most highly is contained within these pages, from CD and vinyl to the latest disc players, amplifiers, tuners and loudspeakers.

Reviews online

You can also read the full review for each of our

Buyer's Guide entries online. Simply type: techradar.com into your browser, then click *Reviews* menu, followed by *Audio visual* and then *Hi-fi and audio*.

How to use this guide

The *Hi-Fi Choice Buyer's Guide* is the best way to make a shortlist of components to audition. Pick the ones that best suit your taste and budget, then consult our *Dealer Guide (Classified)* section to find specialist outlets where you can try them with your favourite music and test discs.

BADGES EXPLAINED

OUR AWARDS



EDITOR'S CHOICE: Awarded to those products that are judged to deliver reference-standard performance



RECOMMENDED: The products we feel meet a certain high standard of performance



GROUP TEST WINNER: Comparative tests can only have one true winner, and this badge says it all

NEW ENTRIES...

Every month, our buying bible is updated to include our latest reviews. These new entries are highlighted in yellow and reflect the very best reviews from the previous issue.

SOURCE COMPONENTS

108 _ CD players

Whether CD or SACD, we list the very best players for the job

111 _ Turntables

A selection of our favourites, from a £190 Pro-Ject to a £115k Continuum

111 _ Phono cartridges

The best in both magnetic and moving coil cartridges

113 _ Radio tuners

Surf the airwaves with any one of these carefully selected tuners

113 _ Headphones

Badge-winning headphones for your personal listening pleasure

117 _ Streamers/servers

Our favourite next-gen hi-fi, from streaming clients to full-on servers

117 _ DACs

Digital-to-analogue convertors are once again revolutionising quality



AMPLIFIERS

115 _ Stereo amplifiers

Our pick of the world's best one-box integrated amplifiers

115 _ Pre/power amps

For those occasions when two boxes seem better than one



CABLES

117 _ Interconnects

Cables can provide a useful tweak to your system, check out our choices

117 _ Speaker cables

Priced per metre, these are our top recommendations for taming speakers



LOUDSPEAKERS

119 _ Stereo speakers

An invaluable guide to the best loudspeakers for your system

STANDS & SUPPORTS

123 _ Equipment supports

The best equipment supports: sprung; solid; air-filled; glass; MDF and more...

123 _ Speaker stands

Stands come in all shapes, sizes and prices, so take your pick from our list



DEALER CLASSIFIED

125 _ Dealer guide

A veritable *pot pourri* of hi-fi dealer classified advertisements

129 _ Dealer directory

For all your hi-fi wants, check our index of independent hi-fi dealerships



BADGESKEY: RECOMMENDED = ● EDITOR'S CHOICE = ● GROUP TEST WINNER = ● BEST BUY = ●

CD players



Any one of these fine players will make sweet music for years to come

Up to £1,000

Badge	Product	Price	Comments	SACD compatible	ELEC dig output	OPT dig output	CD-RW compatible	BAL analogue out	Headphone socket	Variable output	Issue Number
●	Advance Acoustic MCD-204	795	CD player with warm valve sound. Harmonically rich and inviting performance								342
●	Audiolab 8200CD	700	No SACD support, but excellent detail, neutrality and communication								340
●	Cambridge Audio Azur 650BD	400	Musical, precise, involving and with great energy at a superb price								340
●	Creek Evolution 2	680	Smart and desirable-looking player with lots of detail present in performance								350
●	Exposure 2010S2	710	Paired with the 2010S2 amp, this CD player is a fine performer with plenty of detail								344
●	Marantz Pearl Lite SA-KI	899	A key CD/SACD player at an attractive price, with support for digital								338
●	Marantz KI Pearl Lite	750	Excellent sound, this CD player has also dropped in price from £920 to £750 since our review								344
●	Micromega CD-10	799	The cheapest in the range, the CD-10 has been fine-tuned to please the audiophile								328
●	Moon CD.5	999	Admirably energetic music-maker from this very well-built player								335
●	Musical Fidelity M1 CDT	600	Reviewed in combination with the M1 DAC, this CD transport holds its own against the competition								346
●	Oppo BDP-95EU	999	This universal player is revealing, transparent and musically involving								347
●	Pro-ject CD Box	300	This player belies both its size and its price with sounds worthy of a decent mid-range system								338
●	Rega Saturn	898	Strikingly full-voiced, the Saturn offers a sound that feels remarkably real								344
●	Roksan Kandy K2	899	State-of-the-art technology and precision engineering produces a fine CD performance								335

Above £1,000

Badge	Product	Price	Comments	SACD compatible	ELEC dig output	OPT dig output	CD-RW compatible	BAL analogue out	Headphone socket	Variable output	Issue Number
●	AMR CD-777	3,195	Extremely natural and engaging sound that brings analogue to the digital world								332
●	Arcam CD37	1,300	Excellent detail and imaging, neutral tonality and above-average bass resolution								340
●	Audio Analogue Maestro	2,250	Boasts refined highs and good image quality with a fine sense of timing								348
●	Audio Note Zero CD/II	1,742	Reviewed as part of a system, this really is a CD player for those who don't like CD								348
●	Copland CDA 825	3,985	This a highly revealing player that delivers music in a realistically engaging form								332
●	Creek Destiny	1,400	This player presents the music and nothing but the music and is thoroughly recommended								328
●	Icon Audio CDX1 Signature	1,350	Has an open, vinyl sound with a very high listenability factor								341
●	Krell S-350A	2,695	Accomplished CD player with real breeding underpinning its excellent performance								341
●	Krell CIPHER	12,255	Vivid, highly detailed sound – SACD has rarely sounded so good								350
●	Marantz UD 8004	2,450	Sophisticated and highly capable universal player that just about does it all								336
●	Meridian 808.3 Signature	10,000	Extraordinarily revealing and open CD player with a first-class performance level								339
●	Micromega CD-20	1,249	No SACD, unfortunately, but without doubt one of the better mainstream players								332
●	Mimetism 20.1	5,107	An impressive player that produces a very convincing and musical sound								330
●	Moon 750D	7,950	Very few CD players can extract as much information off the disc as the 750D								331
●	Naim CD5 XS	1,790	Its composure and openness results in a musical performance that is extremely seductive								334
●	Primare CD32	2,200	Smart, slick and with balanced outputs, this CD player looks every bit the high-end part								348
●	Resolution Audio Cantata	5,995	CD player/streamer that's revealing enough to set it far apart from the competition								336
●	Roksan Caspian M2	1,600	This impressively engineered CD player is punchy and dynamic, with excellent timing								338
●	Shanling CD-T2000	1,895	Great sound, good looks, superb build and unbeatable price								350
●	Unison Research Unico CDE	2,475	Has an engaging and musical sound with strong tonal realism								348

SPECS KEY **SACD COMPATIBLE** Plays high-resolution SACD discs in two-channel mode. **ELC DIGITAL OUTPUT** Electrical coaxial output for digital connection to a DAC or digital recorder. **OPT DIGITAL OUTPUT** Optical Toslink output for digital connection to a DAC or digital recorder. **CD-RW COMPATIBLE** Will play CD-RW (rewritable) discs, most CD players can cope with CD-Rs. **CD TEXT** Will display album and track titles from inserted disc. **BAL ANALOGUE OUT** Balanced XLR output connections for similarly equipped amplifiers. **HEADPHONE SOCKET** Quarter inch (6.3mm) headphone jack fitted to the CD player. **VARIABLE OUTPUT** Player features both fixed level and variable, volume adjustable outputs.

REVOX SERVICE

THE MANUFACTURERS' APPOINTED SERVICE COMPANY

REVOX SERVICE

Correct Revox Spare Parts Pricing
24 Hour Estimation procedure
Manufacturer Upgrades and Advice
Delivery and Collection Service
Comprehensive Guarantees

Factory Trained Engineers
Rapid Response Turnaround
Full Revox range serviced
Written Technical Reports
Late Evening Opening

THE AR TECHNOLOGY LIMITED

TTL House, Sheeptick End, Near Lidlington, Bedfordshire, MK43 0SF
Telephone 01525 841999 Facsimile 01525 841009

THE
Missing Link

AUDIOPHILE CABLES HANDMADE IN BRITAIN

Vinyl Passion **DUST BUSTER** Stylus Cleaner



Simply the Best Choice for Preserving your Stylus & Cherished Vinyl

Reviewed in Record Collector & Hi Fi World
Three BEST BUY Awards

Available From All Good Accessory Stockists Including
DIVINE AUDIO - RUSS ANDREWS -ORIGIN LIVE
STAMFORD AUDIO - VINYLBIUTIKEN of SWEDEN
AMAZON - EBAY - MISSING LINK

FOR JUST £19



www.the-missing-link.net
01623 844478 or 07967 859333

VP
1992

Visit Us at The Northampton Whittlebury Show September 24th & 25th

The Missing Link Offer You The Highest Quality Custom Built Audiophile Cables

Call Mark or Jan : 01623 844478 or 07967 859333



British Hand Built Audio Cables for People Who Enjoy Music



We also have an Excellent Range of DIY Products & Kits

For Details of Our Full Range of Audio Cables

Please See Our Website or Phone
01623 844478 or 07967 859333

www.the-missing-link.net



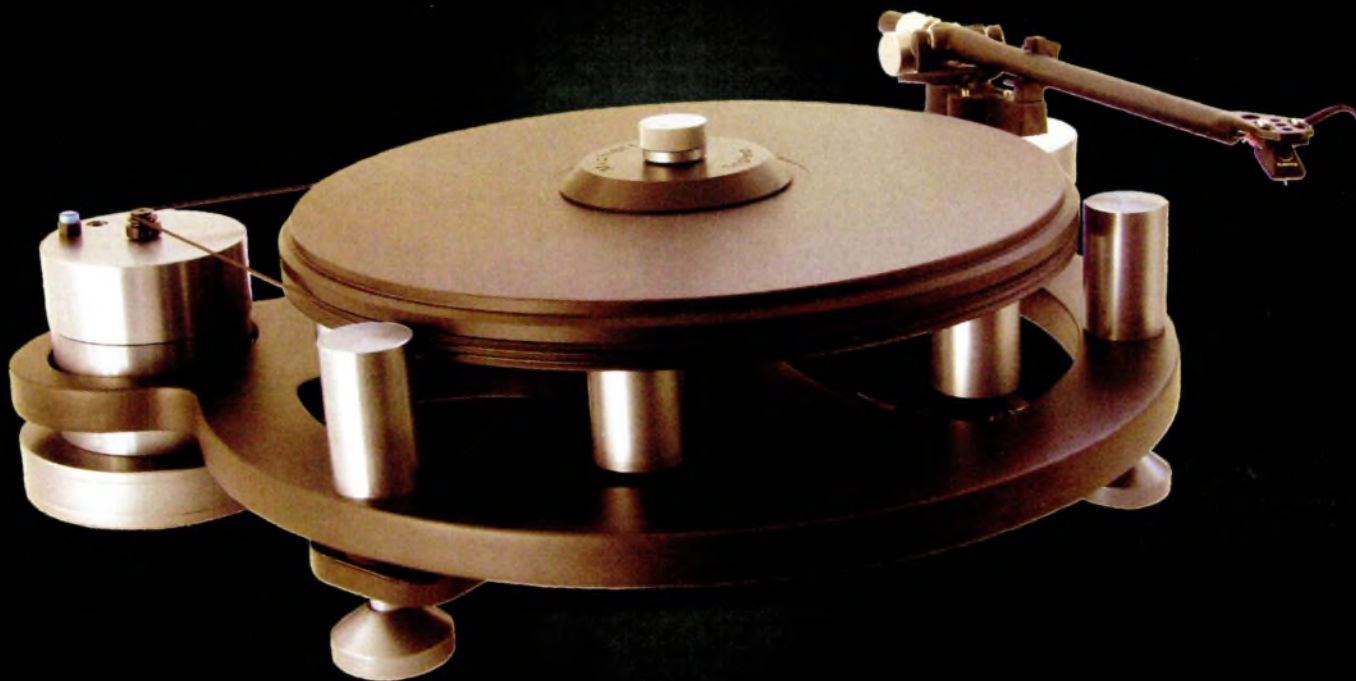
News with a **view**

TechRadar.com covers the stories you want to talk about

So come along and talk. If you're passionate about technology, you'll find lots to keep you interested and plenty of ways to have your say.



99 of a kind



Following on from the success of the GyroDec Odyssey, we are delighted to be introducing the new limited edition Gyro SEduction

Finished in the unique 'blue steel' and black finish, the Gyro SEduction combines many of the upgrades offered to the standard Gyro SE such as HR Power Supply, matching record clamp and black TechnoArm.

With only 99 units available world-wide, be quick to secure your unique opportunity to own this Gyro SE Super Deck.

For further information or to find your nearest stockist, contact



MICHELL ENGINEERING

Tel: 020 8953 0771 / E: info@michell-engineering.co.uk
www.michell-engineering.co.uk

Turntables



The best record players money can buy

Badge	Product	Price	Comments	Switchable-speed change Suspension subchassis Speeds	Supplied with arm	Supplied with cart	Issue number
●	Clearaudio Concept	1,100	One of the easiest ways of getting into analogue, with excellent results for the price	33/45	●	●	338
●	Continuum Caliburn	125,000	Luxury turntable with state-of-the-art design includes Cobra tonearm and Castellon stand	33/45/78	●	●	320
●	Dr Feickert Woodpecker	2,995	Offers superb bass, excellent build quality and range of arm choices	33/45	●	●	335
●	Edwards Audio TT1	325	Classic, no-nonsense design, with exemplary performance at the price	33/45	●	●	342
●	The Funk Firm Funk V2	1,390	Not only as beguiling as those that preceded it, this turntable is also more substantial to boot	33/45	●	●	324
●	Hanss Acoustic T-30	3,600	The only multi-armbase deck in its price range, it boasts image stability and precise bass	33/45	●	opt opt	331
●	Lumley Heliosphere	2,495	A distinctive-looking turntable with a unique sound and a performance that reflects your vinyl	33/45	●	opt opt	319
●	Michell Gyro SE	1,150	Excellent timing really propels a very good performance. Plenty of detail and insight, too	33/45	●	●	345
●	Michell Gyro SEducation	2,245	Limited edition version of above with TecnoArm, HR power supply and blue-steel finish	33/45	●	●	342
●	Pro-Ject RPM-1 Genie 3	190	The Genie is that rare thing of a product with good looks, fine build and excellent sound	33/45	●	●	332
●	Pro-Ject RPM 10.1 Evolution	2,000	This turntable is a good combination of high mass and effective suspension	33/45	●	●	348
●	Pro-Ject Xperience 2 Pack	775	Holds its own against all competition (arm included)	33/45	●	●	345
●	Pro-Ject 6 Perspex	1,280	Plenty of detail and good rhythmic qualities (arm included)	33/45/78	●	●	338
●	Roksan Radius 5.2	1,399	Sophisticated design with accomplished sound quality, excellent imagery and good isolation	33/45	●	●	338
●	SRM Tech Arena	650	A welcome addition to the affordable end of the market, this is an engaging turntable	33/45	●	●	349
●	Townshend Rock 7	1,750	Very well-defined bass; good detail; well judged rhythm and pace (reviewed with Excalibur arm)	33/45	●	●	345
●	Well Tempered Simplex	1,495	Superb timing makes this one of the most entertaining turntables in its price range	33/45	●	●	347

Phono cartridges



MM and MC recommendations

Badge	Product	Price	Comments	Replaceable stylus MM MC	Issue number
●	Dynavector DV-20X2L	499	Revealing and open sound from a well-built and easy-to-align MC cartridge	●	342
●	Dynavector Karat 17D3	699	One of the most thrilling-sounding cartridges on the market	●	334
●	Goldring Legacy	595	An MC cartridge better suited to the smoother-sounding turntable, it unearths a mountain of detail	●	328
●	Grado Prestige Gold 1	150	Unusually assured 'presence' region is the basis of a beautifully musical and involving presentation	●	338
●	Ortofon 2M Red	80	A little fussy about set up, but sound is admirably balanced and full of unforced detail	●	345
●	Ortofon Vivo Red	200	Never less than musically convincing, this all-in-one cartridge is remarkably capable	●	338
●	Ortofon Cadenza Red	750	There's much to admire in this cartridge's fine detail and unfussy presentation	●	330
●	Shure M97xE	82	A budget cartridge, but bass and midrange are to high-end standards and treble is just as assured	●	345

Phono stages



Make your turntable sing

Badge	Product	Price	Comments	MM phono inputs MC phono inputs Adj impedance Adj gain	Issue number
●	Dynavector P-75 MkII	595	A stage that will put spring in the step of any decent cartridge you can throw at it	●	344
●	Lehmann Audio Black Cube	335	This phono amp is a very distinguished performer with an MM source	●	335
●	Linn Uphorik	1,850	Exceptional sound quality, the Uphorik could easily win over the next generation of LP enthusiasts	●	334
●	Primare R32	850	If you are into vinyl for the music, then this is one of the most revealing examples on the market	●	345
●	Pro-Ject Tube Box SE II	435	The big picture is the most evident thing here, but the finer details are there, too	●	335

SPECS KEY **SPEEDS** Speeds offered in rpm. **SUSP SUBCHASSIS** Turntables with a sprung or suspended support for the platter and arm. **SWITCHABLE SPEED CHANGE** Some decks require manual lifting of the belt from one pulley to another to change speed, but not these ones. **SUPPLIED WITH ARM** Deck is supplied complete with tonearm – some require a separate purchase in this department, but the dealer will fit it for you. **SUPPLIED WITH CARTRIDGE** Some decks are supplied with a starter cartridge and this is included in the price shown. **MM** Moving magnet cartridge – see amp and phono stage features to match this type. **MC** Moving coil cartridge – see amp and phono stage features to match this type. **REPLACEABLE STYLUS** Some cartridges have separate styli for ease of replacement, but it compromises sound quality.

HFC TOP PICKS



Dynavector Karat 17D3 £699

The 17D3 gets very close to the results achieved with MCs at twice the price and few can touch it in terms of sheer musicality and resolution of detail



Pro-Ject 6 Perspex £1,280

Our Product of the Year 2010. A winning combination of open and even-handed sound, handsome design and excellent build quality



Dr Feickert An. Woodpecker £2,995

A very flexible and well-thought-out deck that offers brilliant build quality and excellent bass. Able to work with a wide variety of arms, too

HERE COMES THE REAL MAGIC

AWARD WINNING - The Mini-I has consistently been rated full marks for its sheer number and quality of features resulting in an outstanding price to performance ratio. The Mini-I has ranked 5/5 Star from HiFi Choice and won the Headphonista Outstanding Design 2010 award!

24/192KHZ - The Mini-I supports up to 24-bit and 192KHz through its S/PDIF and BNC inputs. The maximum sample rate supported via USB is 24-bit/48 KHz.

LCD DISPLAY - A useful feature that displays the current active input, sample rate, volume level and track time information.

INPUTS/OUTPUTS - The Mini-I has it all with USB, BNC, Optical and digital Coaxial inputs. A single pair of phono (L/R RCA) and balanced (XLR) connectors provide the outputs.



REMOTE CONTROL - One of the very DACs to come with a remote control. Features on/off control, input selection, volume control and a mute button.

DAC/PRE-AMP/HEADPHONE AMP - The Mini-I does it all; you can use the DAC as a fixed line output or as a preamp with variable line out. The icing on the cake is the 6.3mm headphone jack.

MATRIX MINI-I DAC/PRE-AMP/HEADPHONE AMP

£259 inc UK shipping



BADGES KEY: RECOMMENDED = ● EDITOR'S CHOICE = ● GROUP TEST WINNER = ● BEST BUY = ●

Radio tuners



Surf the airwaves with these carefully selected tuners

FM tuners

Badge	Product	Price	Comments	Wavebands	Presets	Remote control	Signal strength meter	Rotary tuning knob	Issue number
●	Creek Audio Evolution	350	Sound is detailed, cohesive and extended both tonally and spatially – very classy	FM, AM	80	●	●	●	308
●	NAD C426	220	If you aren't already wedded to DAB, then this is a very attractive purchase	FM, AM	80	●	●	●	339
●	T+A T1210R	1,200	High-end looks are matched by the sound, which is detailed and sophisticated	FM	100	●	●	●	283

DAB/FM tuners

●	Arcam FMJ T32	600	A highly cost-effective way of optimising the airwaves. iPod functionality is a bonus	DAB, FM	100	●	●	●	319
●	Onkyo T-455DAB	400	Admirably free of grain or obvious tonal blemishes, this tuner achieves a high standard	DAB	40	●	●	●	298

DAB/FM portables

●	Monitor Audio Airstream 10	225	The range of features on this DAB/FM/Internet radio is certainly impressive	DAB, FM, Web	4	●	●	●	337
●	Pure Sensia	250	One of the smartest table radios around, offering wireless computer-sourced music	DAB, FM, Web	40	●	●	●	331
●	Roberts Revival	200	A handy way to get internet radio and media streaming throughout the house	DAB, FM, Web		●	●	●	344
●	Tivoli Networks+10	239	FM reception is excellent and a cut above everything else this radio has to offer	DAB, FM, Web	5	●	●	●	344
●	Vita Audio R1 MkII	160	Limited to DAB/FM and line inputs, but the sound quality is very good	DAB, FM, Web	10	●	●	●	337
●	Vita Audio R2i	300	Very smartly built with a sound that's full-bodied, neutral and detailed	DAB, FM	30	●	●	●	323

SPECS KEY **WAVEBANDS** Which bands are supported: FM, M – medium wave, L – long wave, DAB – digital audio broadcasting. **PRESETS** How many stations can be stored in memory. **RDS** Radio Data System – station names and program titles can be displayed among other facilities (FM only, DAB has more comprehensive display potential). **REMOTE CONTROL** For the couch potato. **SIGNAL STRENGTH METER** Useful for setting up an aerial. **ROTARY TUNING KNOB** An ergonomic alternative to buttons.

Headphones



Audiophile solutions for home and travel use

Badge	Product	Price	Comments	Electrostatic	Supra-aural	Circumaural	Open/Closed back	3.5mm jack adaptor	Weight (grams)	Issue number
●	AKG Q701	500	A welcome addition to the ranks of the world's finest transducers				●		235	341
●	Audio Technica ATH-W1000X	649	Fine advert for the virtues of closed-back headphones, with great bass and background noise reduction				●		350	334
●	Beyerdynamic DT770	179	One of the most tonally satisfying closed-back headphones around with excellent detail				●		270	333
★	Beyerdynamic T1	880	A characterful, enjoyable music-maker with a detailed, weighty sound				●			331
●	Bowers and Wilkins P5	250	A superb headphone with B&W's sound and build quality sealing the deal				●	●	195	333
●	Grado GS1000i	1,100	A superb transducer, capable of astonishingly high performance standards				●			325
●	Grado PS1000	1,795	Offer excellent detail and effortless dynamics, but they can be heavy to wear after a while				●	●	500	329
●	Jamo wEAR In30	80	In-ear headphone sound is beguilingly musical and very detailed across the board							348
●	Klipsch Image X10i	229	Natural sound and fit; lightweight and unobtrusive in-ear headphones						10	342
★	Sennheiser CX880i	83	This in-ear headphone is excellent for the price and the results overall are most impressive							348
●	Sennheiser HD380	140	This model offers good sound and is a worthy alternative to in-ear monitors				●	●		327
●	Unique Melody Miracle	775	Great build and sound, the custom-moulded Miracles are one of our favourite in-ears							346

SPECS KEY **ELECTROSTATIC** Uses electrostatic film instead of more common cone or dome dynamics. **SUPRA-AURAL** Earpads sit on ear rather than around it. **CIRCUMAURAL** Earpads rest on the head around the ears. **OPEN BACK** Vented capsules let sound in and out. **CLOSED BACK (●)** Sealed capsules. **WEIGHT** In grams. **3.5MM JACK ADAPTOR** Allows connection to personal stereos, computers etc.

HFC TOP PICKS



Bowers & Wilkins P5 £250

The P5 is a no-brainer for iPhone users but this well built and attractive design should be able to win friends from outside the Apple camp as well



PURE Sensia £250

PURE's ground-breaking touch-screen DAB radio has changed the way we interact with radio forever and sets the standard for innovation



Beyerdynamic T1 £880

Our 2010 award winner is beautifully built and attractively designed, with a strong and engaging performance and remarkable detail

The world's greatest gadget magazine, wherever and whenever you want.



Available in print, online,
on mobile and iPad



www.t3.com

The latest issue of T3 magazine is available now at iTunes, Zinio or at all good newsagents.



BADGES KEY: RECOMMENDED = ● EDITOR'S CHOICE = ● GROUP TEST WINNER = ● BEST BUY = ●

Amplifiers

Our pick of the best one-box amps out there



Up to £1,000

Badge	Product	Price	Comments	Line inputs	Phono input	Remote control	Headphone socket	Power output (watts)	Issue number
●	AudioLab 8200A	730	Has detailed sound with good extension and unusually assured midrange	6				60	349
●	Cambridge Audio 840A v2	800	A chunky powerhouse with features aplenty, this amp offers detail and delicacy (silver finish)	8	●	●		120	327
●	Denon DCD-1510AE	900	Offers a taste of high-end excellence at an affordable price	5	MM/MC	●	●	70	335
●	Exposure 2010S2	752	Impressive amplifier with preamp output, the 2010S2 was a blind group test winner	6		●		75	344
●	Marantz KI Pearl Lite	750	Impressive performer with a well-filled phono-amp board and now down to £750 from £920	5	●	●	●	90	344
●	NAD C3226BEE	320	Unusually confident into awkward loads and very assured especially in bass. Treble a touch recessed	7		●	●	50	322
●	Rega Mira 3	460	Competent performer that makes an excellent system with the matching Saturn CD player	5	●			60	344

Above £1,000

●	Audio Note iZero	1,548	A fine performer that provides a catalyst for the Zero system CD player and loudspeakers	4				8	348
●	Consonance Cyber 10 Sig	1,595	Gorgeous tube amp delivering high-end performance at a realistic price	5				11	345
●	Creek S350 Evolution	1,075	One of the most attractive amps in its price range, with a sound that's immediately satisfying	5	MM/MC	●		120	334
●	Creek Destiny 2	1,600	Excellent tonal balance and gorgeous, effortless detail	6	opt	●	●	116	342
●	Cyrus 8xp d	1,550	Best heard in the context of a Cyrus system, this amp nevertheless has some great qualities	6		●	●	80	342
●	Electrocompaniet EC15 Mk II	2,750	Big, characterful and beautifully built amp, with equally big and unforced sound	6				120	349
●	Emillé Ara	2,450	An extremely competent valve amp in its own right with a useful set of features	2			●	22	343
●	Icon Audio Stereo 60 Mk 3	1,700	An energetic valve amp that offers high power and delivers it with confidence	4			●	65	346
●	Leema Pulse III	1,495	Offers a clean, smooth sound and has an unusually wide array of inputs	6	MM/MC			70	342
●	Moon I3.3	3,000	Lively and lifelike with a good sense of rhythm and generally good performance	4	opt	●	●	10	349
●	Pathos Ethos	3,250	A highly capable two-channel amp that offers great sound, plus a versatile equipment interface	6	●			100	348
●	Peachtree Audio iDecco	1,000	A well-equipped amp/DAC one-stop solution for iPod and digital audio users	2			●	40	344
●	Peachtree Audio Nova	1,099	This amp/DAC combi is a fine heart for a computerised desktop system	3		●	●	80	341
●	PrimaLuna Prologue Two	1,820	This valve amp has many fine qualities that will endear it to many audiophiles	4		●	●	30	346
●	Primare I32	2,200	Gorgeous sound, while the prospect of future upgrades is truly mouth-watering	3				120	344
●	Rega Elicit	1,595	A very good bass, while imaging and detail provide an involving and enjoyable listen	5	opt	●		80	349
●	Roksan Caspian M2	1,600	This muscular-sounding amplifier is load tolerant and more powerful in practice	6		●		85	338
●	Unison Research S6	2,990	This valve amp creates a big spacious soundstage with ample depth and width	5				35	347

Pre/power amplifiers

Separate boxes can bring clear advantages



Up to £2,000

Badge	Product	Price	Comments	Pre-amplifier	Line inputs	Phono input	Remote control	Power output (watts)	Issue number
●	Cambridge Audio Azur 840E/840W	2,000	Enterprising technology delivers a pre/power combo that always sounds detailed and controlled	●	8	opt	●	200	309
●	NAD C165BEE/C275BEE	1,550	An alternative to the usual integrated route and one that offers flexibility and fine sound	●	6	MM/MC		130	336

Above £2,000

●	Audio Research DS450	7,000	Power amp features a very neutral transparent DS with lots of power and low-running temperature		2			450	337
●	Bryston BP16/ 2B S5T2	5,700	Preamp and power amp combo offers superb sound quality	●	6	opt	●	100	323
●	Cayin SP-30S/SP-40M	3,346	Smooth clean sound quality, this combo is well-balanced and natural-sounding	●	4	MM		40	343
●	Classé Audio CP-800	4,450	A future-proof and well-built preamp with an excellent USB DAC and range of features	●	6				350
●	Cyrus Stream XP	2,000	An easy to use streaming DAC/preamp with a great combination of sound quality and features	●	5				346
●	Cyrus Mono X300	2,495	A power amp with a rare combination of speed and resolution		2			300	341
●	Linn Akurate Kontrol/2200	7,550	Reviewed as part of an entire system (streamer and speakers), this combo offers a crisp, open sound	●	2			200	343
●	Mark Levinson No. 326S	8,000	Excellent USB implementation, natural sound and solid build. Excellent performance levels	●	7	●	●		338
●	Musical Fidelity M6PRE/PRX	4,998	For those wanting a powerful high-end pre/power combo at a realistic price, this is a fantastic package	●	9	●	●	260	340
●	Onkyo P-3000R/M-5000R	4,200	Superb sounding combination with excellent build, flexibility and connection options	●	6	MM		80	345
●	Quad Elite Pre/Mono	1,500	Clear and well-focused bass, plus a sound with a high degree of simple honesty	●	6	MM/MC		150	349
●	Trilogy 909/990	10,390	Extremely musical valve-based pairing with hybrid power and beautiful finish	●	6			100	325

SPECS KEY **LINE INPUTS** Input sockets for source components with a line level output: CD players, DVD players, tape decks, tuners, phono stages etc. **PHONO INPUT** Input sockets and on-board phono stage for a cartridge. Either MM (moving magnet) or MC (moving coil), occasionally both. **REMOTE CONTROL** A remote control is supplied with the amplifier. **HEADPHONE SOCKET** To drive your cans with. **POWER OUTPUT** Manufacturer's rated output in watts per channel.

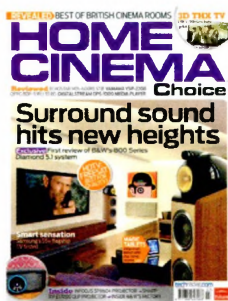
HOME CINEMA

HIGH-PERFORMANCE SOUND & VISION **Choice**

Helping you to make the most of your home cinema **OUT NOW!**



First for HD TV, Blu-ray, 3D, projectors, surround sound, AV amplifiers & more...



BADGES KEY: RECOMMENDED = ● EDITOR'S CHOICE = ● GROUP TEST WINNER = ● BEST BUY = ●

Streamers/music servers



Streaming and music servers are opening up a new dimension in listening pleasure

Badge	Product	Price	Comments	Internal drive Wireless	iPod compatible USB	Balanced output	Apple AirPlay	Digital output	Issue number
●	Cambridge Audio Sonata MP30	400	A fully featured streamer that sounds remarkably open and works well wirelessly	●	●	●	●	●	349
●	Marantz NA7004	720	Easy to use, the NA7004 makes getting into streaming simple and all for a great price, too	●	●	●	●	●	344
●	Naim NDX	2,995	The ideal combination of vivid performance and understated styling	●	●	●	●	●	345
●	Olive 4HD	2,200	Allows the music fan to dispense with physical media and download from hi-res internet sites	●	●	●	●	●	333
●	Yamaha NP-S2000	1,429	Drop-dead gorgeous and it sounds appropriately sophisticated	●	●	●	●	●	346

SPECS KEY **WIRELESS** Able to receive files wirelessly **INTERNAL DRIVE** Fitted with its own hard drive **USB** USB Sockets fitted **INTERNET RADIO** Able to receive web radio **IPOD COMPATIBLE** Able to connect directly to an iPod **APPLE AIRPLAY** Able to function as an AirPlay receiver **BALANCED OUTPUT** Fitted with a balanced out **DIGITAL OUTPUT** Fitted with a digital output

DACs



Digital-to-analogue convertors are back and the price has come right down

Badge	Product	Price	Comments	Coaxial input	Optical input	USB	Wireless	Balanced outputs	Headphone socket	Volume control	Issue number
●	Antelope Audio Zodiac Plus	1,895	Remarkable resolving capabilities and more inputs than the majority of DACs	●	●	●	●	●	●	●	345
●	Benchmark DAC1	950	Very clean sound with plenty of detail and also good rhythmic drive	●	●	●	●	●	●	●	341
●	Cambridge Audio DACMagic	230	Detail and imaging are very good and a decent feature count only adds to the appeal	●	●	●	●	●	●	●	331
●	Electrocompaniet PD1	1,250	Great sound and superb build, the PD1 allows you to access music on your computer hard drive	●	●	●	●	●	●	●	350
●	Furutech GT40	395	The perfect 'missing link' between analogue and the home computer	●	●	●	●	●	●	●	342
●	Matrix Mini-i	260	Agile, lively and detailed sound with clear and full-bodied bass	●	●	●	●	●	●	●	349
●	M2 Tech Young DAC	1,200	For affordable ultra-high resolution, this DAC has detailed sound and is full of life and vibrancy	●	●	●	●	●	●	●	350
●	NuForce DAC9	1,095	A very capable DAC with good input and output provision	●	●	●	●	●	●	●	350
●	Rega DAC	498	A little stunner, combining genuinely high-end sound with a good feature set	●	●	●	●	●	●	●	346
●	PS Audio Digital Link III	899	A simple no-fuss product that just sounds great and at its price is something of a bargain	●	●	●	●	●	●	●	341

SPECS KEY **COAXIAL INPUTS** Fitted with a coaxial input **OPTICAL INPUTS** Fitted with an optical input **USB** Fitted with a USB input **WIRELESS** Able to receive material wirelessly **SAMPLING RATES** Maximum sampling rate of the DAC **BALANCED OUTPUTS** Fitted with a balanced output **HEADPHONE SOCKET** Can operate as a headphone amp **VOLUME CONTROL** Can be connected directly to an active speaker or power amp.

Cables




Cables really can make a difference, especially our top recommendations

Analogue interconnects				Stranded	Solid core	Copper	Silver	Digital cable type	Issue number
Badge	Product	Price	Comments						
●	Black Rhodium Polar Illusion	250	A good all-rounder, with clear and purposeful bass and particularly fine treble	●	●	●	●		321
●	Chord Co. Indigo Plus	995	Costly, and high-class cable needs running in, but this is a finely detailed design overall	●	●	●	●		323
●	Peerless Sigma	70	A cable that belies its modest price with sound that's detailed, neutral and full bodied	●	●	●	●		343
●	QED Ref Audio Evolution	63	Tonally favours the bass, but overall detail and imaging are very good	●	●	●	●		343
●	QED Signature Audio S	190	Mellifluous and rounded, this cable is a great choice for lovers of the human voice	●	●	●	●		332

Digital interconnects									
●	Atlas Mavros	285	By any reckoning this is a very revealing wire	●	●	●	●		E 336
●	van den Hul The Wave	65	The results this cable achieves are excellent and it scores highly for value	●	●	●	●		E 336

Speaker cables (price per metre)									
●	Black Rhodium Jive Bi-Wire	14	Bi-wire cable which is full of sonic virtues. It's highly practical, too	●	●	●	●		339
●	Kimber 4PR	65	Many high-end virtues at a budget price, including a well-judged bass and sweet extended treble	●	●	●	●		349
●	Monster MCX-1s	5	Notable for its bass, perhaps a touch overdone at times but could be a good foil to small speakers	●	●	●	●		280
●	van den Hul The Teatrack	35	A bi-wire cable with a sound that's impeccably timed, neutral and full of detail	●	●	●	●		339
●	Wireworld Stream	6	Packs a punch when needed and the detail is good	●	●	●	●		349

SPECS KEY **STRANDED** Cable has a number of (usually) twisted strands to conduct the signal. **SOLID CORE** Cable has one or more individually insulated strands to conduct the signal. **COPPER** Material used to form the conducting element of the cable. **SILVER** Alternative material used to form the conducting element of the cable. **DIGITAL CABLE TYPE** E – electrical, O – optical. Cables are one metre length unless otherwise stated.



THE POLLS ARE OPEN!

It's been an incredible year for gaming and now it's time for you to cast your vote in the world's biggest games awards for your favourite game of the year.

You could win some fantastic and exclusive prizes just for voting!

**Cast your vote at
www.goldenjoystick.com**

Find us, follow us



BADGES KEY: RECOMMENDED = ● EDITOR'S CHOICE = ● GROUP TEST WINNER = ● BEST BUY = ●

Stereo speakers

The most influential link in the chain



Size: width, height, depth (cm)
 Floorstander
 Ease of drive
 Bass from (Hz)
 Free space
 Close to wall
 Issue number

Up to £1,000

Badge	Product	Price	Comments	Size: width, height, depth (cm)	Floorstander	Ease of drive	Bass from (Hz)	Free space	Close to wall	Issue number
●	Acoustic Energy Radiance 1	600	Limited bass, power handling and dynamics, but exceptional mid-to-treble voicing	18.5,32,25		A	33			325
●	Acoustic Energy Neo V2	700	Lots of box, this speaker produces a coherent and engaging sound	20.3,120,30		A				348
●	Amphion Ion L	900	Sharp styling, fine mid/treble coherence a sweet treble, but less happy bass alignment	16.2,32.6,26.5		A	40			310
●	ATC SCM11	867	A very fine little speaker t-at its best with natural recordings where it adds little	21,38,25		A-	55			293
●	Boston Acoustics A 360	720	A very cohesive and entertaining speaker with a wonderfully musical and tonally even performance	34.5,106,27.4		A				349
●	Bowers and Wilkins CM1	488	Luxury miniature has laid-back sound, low coloration and fine imaging, but weak dynamics	16.5,28,28		A-	40			279
●	Cambridge Audio S30	130	At its best with energetic, rhythmic music, this bookshelf speaker has class-leading bass	16,22.6,23.5						347
●	Castle Knight 2	400	A true resurgence for the Castle brand, the Knight 2 has a beguiling sound quality	20,38,33.5		A+	42			338
●	EB Acoustics EB2	669	Excellent value speaker, its composite enclosure gives a very clean and neutral sound	22.5,45,30		A	64			341
●	Elipson Planet L	600	Well built and clever design, this is a fine-sounding speaker with many likeable qualities	40.5,42.3,42.8		A	48			350
●	Epos Epic 5	750	Excellent aesthetic and lively, involving sound, this is a superb performer	28.6,98,38		A				347
●	Focal Chorus 726V	950	Compact and realistically priced, the Chorus 726V is a good all-round performer	22,99,37.5		A	25			325
●	JBL Studio L880	700	Good value floorstander with neutrality, massive headroom and plenty of punch	22,99,37		A	25			275
●	KEF iQ50	599	Looks cute and very discreet, with spacious imaging, good balance and a sweet treble	17.5,81.5,26		A	23			315
●	Mission MX5	600	An engaging listen and worth an audition, if you have the room	25,99.5,39		A-				341
●	Monitor Audio BX5	500	Attractive and compact design with fast and engaging sound	21.5,86.8,24.8		A-				345
●	Monitor Audio Silver RS8	850	Bold, dynamic sound, it's an easy load that works well in larger rooms	90,18,27		A	33			276
●	Monitor Audio GS10	900	More neutral tonally than some recent MAs, the GS10 is easy to drive	20,36,27		A-	40			284
●	PMCD B1i	985	Could be more neutral, but a very effective musical communicator	15.5,29,23.4		A+	30			334
●	ProAc Tablette Ref Eight	704	Stunning standmount with electrostatic like imagery. Its brother is even better!	15,27,23		A+	40			267
●	Q Acoustics 2010	115	The sheer cleanliness of this speaker's sound is astonishing	15,23.4,20.3						347
●	Q Acoustics 1020i	140	Outstanding value, t smooth well-balanced and lively sound makes a fine communicator	17.5,25,26.5		A+	60			318
●	Rega RS1	390	Clever close-to-wall speaker has a fine coherence and good communication skills	15,32,23.6		A	23			319
●	Roth Audio OLi10	100	An even-handed bookshelf loudspeaker with very good upper-bass energy	15.3,19.9,17.8						347
●	Tannoy Revolution DC6T	820	Good-looking and compact floorstander with a beautifully judged overall balance	20.2,95,25.3		A				346
●	Teufel T500	568	Good value, solid build and an extended warranty	19.5,105,32.5		A-				340
●	Triangle Color	899	Excellent build, with strong and evenhanded sonics	18.8,96.5,27.5		A				349
●	Wharfedale Diamond 10.0	130	A strikingly energetic bookshelf speaker that's notably communicative with voices	14.5,23.6,16.5						347
●	XTZ 99.26	670	Astonishing value for money, this is a very talented performer with well-recorded music	24.4,39.9,35.2						348

Above £1,000

●	Adam Audio Tensor Delta	8,400	This active loudspeaker brings a powerful range of capabilities to its performance	33,56,34		A	50			329
●	AE Energy Radiance 2	1,000	This speaker boasts fine neutrality, sweet top, fine imaging and wide dynamic range	18.5,92,25		A	30			334
●	AE Energy Radiance 3	1,500	This speaker's effective enclosure ensures a wide dynamic range and a very clean sound	23,92,29.7		A	27			320
●	AE AE1 MkIII	2,000	This speaker has a lovely midband smoothness and superior image focus	18.5,31,25		A	24			337
●	Amphion Argon 3L	2,300	Solid build ensures an impressively clean sound with loads of bass and fine neutrality	19,92.5,30.5		A	44			322
●	Aspara H16	4,300	Acoustic material sounds great and there are many strengths in design and performance	18.5,93,34.5		A				332
●	Audio Note Zero AZ-Two	1,294	A sensitive and immediate-sounding speaker and tested as part of the Zero system	25,90,30		A				348
●	Audioplan Kontrapunkt IVB	2,898	Boasts exceptional stereo imaging and mid-through-treble coherence	16,35,26		A	45			329
●	Audiovector Ki3 Signature	1,890	Very attractive and discreet, with fine stereo imaging and low coloration	14,98,27		A				343
●	Audiovector S3 Super	2,600	Useful ability to upgrade, offers good musical communication and stereo imaging	19,103,31		A	50			328
●	AVI ADM9	1,125	Active mini-monitors that are exceptionally accurate and dynamic sounding	20,30,26		ACT	60			301
●	Bowers and Wilkins CM8	1,250	Exceptional looking speaker with a fine midrange and superior imaging	16.5x96x28		A	60			344
●	Bowers and Wilkins 802	11,500	This high-end speaker has an airy, spacious midband, with clean bass reproduction	36.8,138,56.3		A	27			337
●	Cabasse Bora	2,200	A real enthusiast's choice with high sensitivity, strong bass and powerful dynamics	33,27,50		A	52			324
●	Canton Vento 820	1,200	Really emphasises the benefits of the standmount, with great freedom from boxiness	22,36,31.5		A+				342
●	DALI IKON 7 MkII	1,669	With a wide dynamic range, this speaker offers high performance at a realistic price	20x117x36.4		A				348
●	Dynaudio DM3/7	1,299	Sound has a fine overall balance and impressive bass weight	20.4,96,27.5		A				345
●	Focal Chorus 826W LE	1,879	Focal has turbo charged the 826 resulting in lots of energy, excitement and line detail	28.2,103.8,37.5		A				330
●	Focal Electra 1027 Be	4,399	Outstanding mid and top with fine delicacy, low coloration, but lacks some bass grip and drive	26.5,111,35		A-	25			276
●	Free FS1	3,500	An elegant design with the minimum of wiring. Wireless with Sonos or Airport Express	16,87,27		ACT	35			301
●	Gamut Phi5	3,040	Lovely discreet floorstander has excellent sound and several very clever engineering touches	17,100,24			20			305
●	Green Mountain Audio Rio	2,000	Fabulously tight timing and coherence makes for a very expressive and musical performer	20.8,40.6,34.9		A	80			332

T3

Gadget Awards 2011

What will you choose?

From tablets, to smartphones, to gaming, vote for your pick of the year's hottest kit in the T3 Gadget Awards 2011

The shortlist is now open. Vote for your favourites and you will be entered into our fantastic Awards Gadget Giveaway



**VOTE NOW
FOR A
CHANCE
TO WIN**

**Vote now at
www.T3.com/awards**

Stereo speakers *(continued)*

Shapes and sizes for every budget

Badge	Product	Price	Comments	Size - width, height, depth (cm)	Floorstander	Ease of drive	Bass from (Hz)	Free space	Close to wall	Issue number
●	Guru QM10	1,595	A very clever close-to-wall standmount with fine imaging, that sounds a lot bigger than it looks	30,25,2,23.2		A	26	●	●	317
●	Jamo R 907	6,600	Arguably the more 'chummy' of Jamo's dipole flagships, powerful bass and open midrange	44,118,9.7	●	A	30	●	●	317
●	JBL Everest DD66000	44,000	Awesome performance in the true meaning of the word & exceptional musical communication	111,96.5,47	●	A	50	●	●	331
●	Kudos X2	1,350	Attractive presentation alongside a lively sound makes for an involving experience	16.6,78,20.6	●		27	●	●	337
●	Linn Akurate 242	7,300	Wide, smooth high-frequency dispersion, with excellent sound	21,100,38	●			●	●	343
●	Magico V2	18,000	High pricing derives this speaker's superb painstaking engineering & impressive performance	25.5,115,30	●	A	32	●	●	325
●	Magneplan Magneplanar 1.6	2,500	Great with acoustic and classical material, this dipole panel speaker has superb sound quality	48,165,5	●	A	43	●	●	329
●	Mission 796	1,300	Clean, open and detailed, smooth, relaxed loudspeaker does exactly what it says on the box	20.6,99.8,31.8	●	A	25	●	●	321
●	Monopulse 42A	1,995	Oddball styling, fine bass-to-mid balance and dynamics and superb voice coherence	26,110,25	●	A	25	●	●	302
●	Monitor Audio Gold GX200	2,300	A stylish speaker free from boxiness with wide dynamic range	17,99,30	●	A	25	●	●	349
●	Mordaunt-Short Perf 6 LE	4,799	Striking moulded enclosure minimises coloration, overall balance is smooth, neutral and open	24,115,43	●	A	22	●	●	308
●	Neat Momentum 3i	1,790	Sounds bigger than it looks, with good coherence and an impressively wide dynamic range	22,38,27	●	A	23	●	●	302
●	Opera Callas	3,195	Technically innovative multi-tweeter system, this is a grown up and articulate performer	23,37.5,34			32	●	●	311
●	Opera Seconda	1,995	Fine styling and finish, plus very superior voicing, if a shade lacking in warmth	24,102.5,31.5	●	A	20	●	●	314
●	Pioneer S-2EX-W	5,200	This speaker offers superb midband neutrality and exceptional clarity	291,56.5,42.5	●	A	37	●	●	320
●	PMC GB1i	1,525	Fine voice reproduction, overall agility and well-judged balance	15.5,87,23.4	●	A	40	●	●	347
●	PMC FB1i	2,100	A floorstander that boasts impressive bass extension and a smooth sweet top end	20,100,30	●	A	20	●	●	329
●	PMC fact .8	5,250	Beautiful styling, alongside a superb all-round sound with a notably wide dynamic range	15.5,105,38	●	A	55	●	●	327
●	Quadral Aurum Altan VIII	1,570	This speaker has a warmth that belies its size and a very laid-back character	22,240.5,34.6	●	A	52	●	●	350
●	ProAc Studio 140 Mk2	1,690	Headroom and high sensitivity are an encouragement to play it loud	19,104,28	●	A		●	●	347
●	Rega RS7	1,685	Lively and transparent with superior dynamic range	24.6,98.8,34.6	●	A		●	●	347
●	Revolver Screen 3	2,799	Visually dramatic and very successful in delivering genuine high-quality hi-fi sound	50,140,11		A	35	●	●	329
●	Roksan Caspian FR-5	2,475	Sharp-looking speaker sounds exceptionally open and lively without aggression	20,100,25	●	A	22	●	●	290
●	Sonus faber Luito Monitor	1,690	Subtly designed, elegant-sounding package, especially with good recordings	18.5,35,33.5		A-	55	●	●	322
●	Sonus faber Minima Vintage	2,490	Easy, graceful-sounding compact, a natural for acoustic material at moderate volume levels	20,33,27.5		A-	55	●	●	312
●	Sonus faber Cremona Audit.	3,350	Open, exciting and with surprisingly good bass, this is 'The Little Speaker That Could'	20,35,37		A	50	●	●	305
●	Spendor SA1	1,295	Very high-quality sub-miniature with notably superior sound	16.5,30.5,19		A	30	●	●	334
●	Spendor SP3/3R2	2,295	Lovely overall balance with fine voicing and transparency	27.5,45,32.5		A		●	●	343
●	Tannoy Definition DC8	2,500	Stylish-looking, this speaker is a fine communicator with clean, crisp and dynamic sound	27,47,26			55	●	●	343
●	Totem Sttaf	1,695	This speaker delivers good scale with a fine midband	16x85x74.2	●	A		●	●	340
●	Triangle Genese Lyrr	3,300	A well-balanced speaker with generous sensitivity, fine imaging and good expressiveness	23,30.3,113.3	●	A	30	●	●	338
●	Teufel Ultima 800	2,498	Exceptional value for money due to direct sales and easy system-matching	22,98,37	●	A	42	●	●	335
●	Vivid Audio K1	14,495	With a subtle, fast and wide bandwidth, this speaker is one of the finest on the planet	281,30,45		A	35	●	●	325
●	Wilson Benesch Curve	5,383	Much (but not all) of the ACT's performance in a much more compact and affordable package	23,91,37	●	A	28	●	●	254
●	Wharfedale Opus	1,500	Great material value and a solid, if bright and forward sound. Has great loudness potential	26,100.5,41	●	A	23	●	●	314
●	Yamaha Soavo 2	1,200	Cunningly crafted with a beautiful balance that always sounds lively, open and involving	22,38,35		A	28	●	●	296
●	Zu Essence	3,750	Realism and communication skills are more than compensation for balance shortcomings	30.5,125,30.5	●	A	25	●	●	327

SPECS KEY **SIZE W,H,D (CM)** Width, height and depth of one cabinet in centimetres. **FLOORSTANDER** Speakers that don't require stands. **EASE OF DRIVE** How much power the amplifier needs (approximately) to drive the loudspeaker effectively. **A+** 25 watts plus **A** 50 watts plus **A-** 100 watts plus **ACT** Active – the speaker has its own in-built amplifier. **BASS FROM** How low the speaker goes – the smaller the number the deeper the bass. **FREE SPACE** The speakers work best away from wall(s). **CLOSE TO WALL** The speakers will work best when up against a wall (but avoid corners).

HFC TOP PICKS**Castle Knight 2 £400**

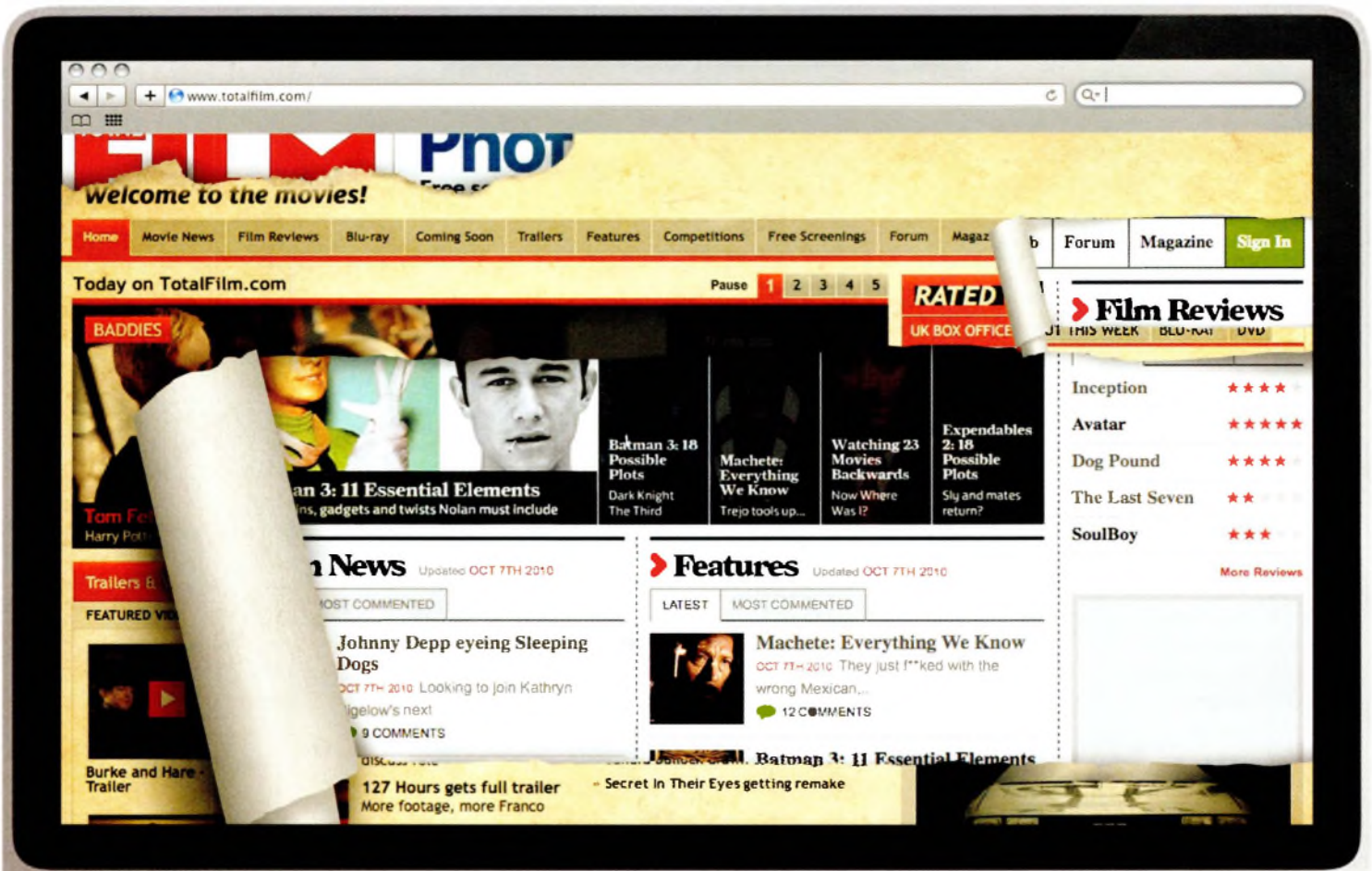
The Knight 2 continues in the great Castle tradition of excellent finish and solid build and climbs to the top of the pile with excellent sonic performance

**Focal Chorus 826W LE £1,879**

Focal has taken the 826 and turbocharged it, keeping the virtues of the stock model but with increased energy, excitement and detail

**PMC fact.8 £4,600**

A fantastic combination of elegant design, well-thought out room-tuning features and superb sonic performance. A 2010 Product of the Year nominee



The world's best movie website just got better...

TOTALFILM.COM 2.0

MORE reviews and movie trailers **SMARTER** features **SHARPER** news coverage
EASIER to navigate, share and comment **BETTER** looking

ONLINE NOW!

BADGES KEY: RECOMMENDED = ● EDITOR'S CHOICE = ● GROUP TEST WINNER = ● BEST BUY = ●

Equipment supports

Hi-fi equipment supports come in all shapes and sizes



Badge	Product	Price	Comments	Top plate size (cm) Height (cm)	Number of shelves Welded	Shelf type	Issue number
●	Audiophile Base Std Supp't	1,200	Expensive and quite bulky, but sound is unusually detailed and resonance-free	57	46,35	3	MDF 302
●	Blok Stax 300	180	A simple and effective design that gives some useful isolation across most of the audio band		40,46	3	MDF 334
●	Custom Design Inert Matt	70	Isolation platform can improve the sound of hi-fi components, but is a bit small for most kit		40x25		Metal 311
	Custom Design XL4	380	Simple construction pays off in smart looks. Sound contribution is minimal		60,42	4	Glass 293
	Custom Design Milan	509	Good-looking stand with nothing more to complain of than slight muddying of detail	57	48,39	4	Glass 302
●	Hi-Fi Racks Podium	500	A keenly priced piece of high-class furniture that also happens to sound great		59.5		Wood 320
●	Isonoe Isolation feet	98	A set of four isolation feet that are ideally suited to microphonic kit like turntables				Alloy 327
●	Magic Racks MR1	600	At its best it's very effective and gives real isolation across the audio band				Rubber 344
	Partington Minim	470	Adds its own character to rock, but to the detriment of acoustic sounds	59			Glass 302
●	Quadraspire QX25 Support	25	Beautifully simple design, cheap and easy to use. Excellent with CD players	78	45,37	● 5	Glass 302
●	Quadraspire Sunoko-Vent T	800	The sound is detailed and largely uncoloured, while the design is rigid and beautifully veneered		59,47	4	MDF 334
	Russ Andrews Torlyte Rack	988	Attractive modular system made of very light Torlyte: a touch of added warmth is its only vice	68	54,49	4	Torlyte 240
●	Townshend VSSS	1,380	This attractive Seismic Sink retains the same excellent vibration-killing sound quality	76	35,50	4	Glass 273

Speaker stands

Not all stands are made equal - try one of our top buys



Badge	Product	Price	Comments	Top plate size (cm) Height (cm)	Number of shelves Welded	Fillable	Issue number
●	Atacama Duo 6	65	Maintains high standards in mid and treble, with excellent tonality and good detail		17,13	●	1 346
●	Custom Design FS104	190	Gets excellent results out of speakers small and large, and excels in fine detail and precise imaging			●	1 346
●	Custom Design SQ404	220	Robust four-pillar design gives very low coloration and maximises performance	61	18,16,3	●	4 283
●	Partington Ansa 60	119	Elegant flat-packer 'disappears' sonically; restrained but neutral and coherent	62	18,15	●	4 232
●	Quadraspire QV60	250	This stand helps maximise detail and tonal resolution			●	1 346
●	Soundstyle Z2	70	Bass can be a little imprecise, but there's plenty of detail on offer		17,13	●	1 346

SPECS KEY HEIGHT (CM) Height of equipment support and speaker stand (not including spikes) in centimetres. **TOP PLATE SIZE (CM)** Width by depth of the supporting platform(s). Single figures indicate a square platform (Speakers generally overhang top plates). **FILLABLE** The stand can be mass-loaded with sand and/or lead to stop ringing. **WELDED** As opposed to bolt-together construction. **NUMBER OF SHELVES** To put your kit on (different configurations are often available). **NUMBER OF LEGS** That support the stand. **SHELF TYPE** Material that shelves are made of.

HFC TOP PICKS



Atacama Duo 6 £65

This value-priced loudspeaker stand adds a hint of vibrancy to the sound and there's plenty of life and energy in the midrange and treble



Quadraspire Sunoko Vent T £800

A clever solution to the twin problems of equipment cooling and resonance, thanks to a unique shelf design, makes this a worthy 2010 award winner



Townshend VSSS £1,380

Although not cheap, Max Townshend's skillfully engineered rack nears the ideal in terms of isolation and spending more doesn't really bring big gains

JENA LABS

Now available in the UK from Trichord Research

Interconnect and Speaker cables using the legendary 18G ULTRA-WIRE

Ultra high purity 99.9999%, linear crystal, stress-free, super annealed, micro-polished, ultra fine stranded copper conductors. Phenomenal reputation with sound quality to match.



Trichord Research

Tel: +44 (0)1684 311600
sales@trichordresearch.com

Fax: +44 (0)1684 311928
www.trichordresearch.com



Diablo Phono Amplifier

COMING SOON



Hi-Fi Choice

PASSION FOR SOUND

EDITORIAL

Editor Dan George, dan.george@futurenet.com
Art Editor Corin Skeggs, corin.skeggs@futurenet.com
Production Editor Richard Holliss, richard.holliss@futurenet.com
Staff Writer Ed 'Coatrules' Selley, ed.selley@futurenet.com
Technical Consultant Richard Black

CONTRIBUTORS

Jimmy Hughes, Jason Kennedy, Paul Messenger, Malcolm Steward, Kevin Gallucci, Dave Oliver, Nigel Williamson, Simon Berkovitch, James Waldron

Photography Rob Monk, Kevin Nixon, Will Ireland
Group Senior Editor Nick Merritt
Group Art Editor Rodney Dive
Creative Director Bob Abbott
Design Director Matthew Williams
Editorial Director Jim Douglas

ADVERTISING

Advertising Director Malcolm Stoodley
Advertising Sales Director James Ranson
Senior Advertising Manager Charlie Said
020 7042 4142 charlie.said@futurenet.com
Account Manager David Priestman
020 7042 4266 david.priestman@futurenet.com
Sales Executive Lucie Gillespie,
020 7042 4252 lucie.gillespie@futurenet.com

MARKETING

Marketing Manager Libby Brook,
libby.brook@futurenet.com
Brand Marketing Director Matt Woods,
matt.woods@futurenet.com

CIRCULATION

Circulation Manager John Beeson,
john.beeson@futurenet.com
Circulation & Trade Marketing Director Rachael Cock,
rachael.cock@futurenet.com

PRINT & PRODUCTION

Production Manager Ralph Stringer,
ralph.stringer@futurenet.com
Production Coordinator Roberta Lealand,
roberta.lealand@futurenet.com
Senior Ad Production Coordinator Gemma O'Riordan,
gemma.oriordan@futurenet.com

LICENSING

Head of International Licensing Tim Hudson,
+44(0)1225 442244 tim.hudson@futurenet.com

FUTURE PUBLISHING LIMITED

Group Publisher Pat Eggington
Chief Executive Mark Wood

SUBSCRIPTIONS

UK hotline on +44 (0)844 848 2852
Subscribe online at www.myfavouritemagazines.co.uk

BACK ISSUES

+44 (0)844 848 2852 **Prices:** UK £5.95 per issue, Europe
£6.95 per issue, rest of the world £7.95 per issue

Distributed in the UK by Seymour Distribution Ltd, 2 East
Poultry Avenue, London EC1A 9PT. Tel: 020 7429 4000

Future produces carefully targeted special-interest magazines, websites and events for people who share a passion. We publish more than 170 magazines and websites and 100 international editions of our titles are published worldwide. Future plc is a public company quoted on the London Stock Exchange (symbol:FUTR).
© www.futureplc.com



Chief Executive Stevie Spring
Non-executive Chairman Peter Allen
Group Finance Director John Bowman
+44 (0)20 7042 4000 (London)
+44 (0)1225 442244 (Bath)

Want to work for Future?
Visit www.futurenet.com/jobs

techradar.com

©Future Publishing 2010. All rights reserved. No part of this magazine may be reproduced without the written permission of the publisher. Future Publishing Ltd (company number 2008883) is registered in England and Wales. The registered office of Future Publishing Ltd is at Boulevard Court, 10 Mermaid Quay, Bath BA1 2BW. All information contained in this magazine is for information only and is, as far as we are aware, correct at the time of going to press. Future cannot accept any responsibility for errors or inaccuracies in such information. Readers are advised to contact manufacturers and retailers directly with regard to the price of products/services referred to in this magazine. If you submit unsolicited material to us, you authorise Future to license to publish your submission in whole or in part in all editions of the magazine, including printed editions worldwide and in any physical or digital format throughout the world. Any material you submit is sent at your own risk and, although every care is taken, neither Future nor its employees, agents or subcontractors shall be liable for loss or damage.



When you have finished with this magazine please recycle it.

Next month

B&W PM1: our verdict on the tiniest of big speakers



AWARDS 2011!

Your essential guide to the best buys of 2011/12

If you can't always find a copy of this magazine, help is at hand! Complete this form and hand in at your local store, they'll arrange for a copy of each



issue to be reserved for you. Some stores may even be able to arrange for it to be delivered to your home. Just ask!

Subject to availability

Please reserve/deliver my copy of on a regular basis, starting with issue _____

Title _____ Firstname _____

Surname _____

Address _____

Postcode _____

Telephone number _____

If you don't want to miss an issue



PLUS: the UK's finest hi-fi journalism, round-ups of accessories and music, the most trustworthy hi-fi reviews on the planet, not to mention the latest news, views and features from the UK's most reliable guide to high-performance audio – Britain's *only* growing hi-fi magazine!

ISSUE 352 ON SALE THURSDAY 13 OCTOBER 2011

BACK ISSUES & REPRINTS

YOUR DETAILS

Name _____

Address _____

Email address _____

Card Number _____

Expiry date _____

Signature _____

ISSUES REQUIRED

Month	year	Issue

PAYMENT

Make cheques/POs payable to Future Publishing Ltd. (PLEASE TICK RELEVANT BOX)

- Cheque
- Mastercard
- Maestro
- Visa
- Postal Order

COST

United Kingdom £5.95
European Union £6.95
Outside the EU £7.95
(price per issue)

SEND YOUR ORDER TO

uk readers:
Hi-Fi Choice Back Issues,
10 Waterside Way, Northampton
NN4 7XD

overseas readers:
Hi-Fi Choice Back Issues,
Cary Court, Somerton,
Somerset, TA11 6TB UK

How to order a back issue

Back issues are available by post and from www.myfavouritemagazines.co.uk. They cost £5.95 (UK), £6.95 (Europe) or £7.95 (rest of the world). All prices include p&p. You can also order by phone on 0844 848 2852 or +44 1604 251045 (overseas). We accept MasterCard and Visa credit cards, and Maestro debit cards. Alternatively, send a cheque or PO made payable to Future Publishing Ltd. For back issues only, please use the form on the left.

How to order a review reprint

If you're interested in an *HFC* review of an older component and the back issue has sold out, we can usually send photocopies of individual reviews to any UK address for a flat fee (inc p&p) of £5 per review. You must know in which issue the original review appeared; we are unable to search back issues for old reviews, sorry. Please send a written request, enclosing a cheque for £5 made payable to Future Publishing Ltd, to: **Hi-Fi Choice Reprint Service, Future Publishing, 2 Balcombe Street, London, NW1 6NW.**

Outstanding in our Field



Located in the midst of rural Norfolk, Basically Sound offers a relaxing, out of town location for you to visit and experience the best performing audio systems available.

From turntables to the latest in network audio solutions, we ensure that you hear music as it should be heard - and the parking and coffee are free.

Calveley Court, Reymerston, Norfolk NR9 4QD

01362 820800

enquiries@basicallysound.co.uk
www.basicallysound.co.uk

Audio
Home Cinema
Multi-Room
Installation

Brands offered include:

Arcam
Bryston
Chord Co.
Dynavector
HiFi Racks
Guru Pro Audio
Isoblu
Lehmann
Linn
Naim
Okki Nokki
PMC
Rega
REL
Sennheiser
Wilson Benesch
Wireworld

**BASICALLY
SOUND**

studio **AV** 44 HIGH STREET
ETON
BERKSHIRE SL1 6BL
www.studioav.co.uk
sales@studioav.co.uk

Open Event Days 2011

Linn Summer Party - 2nd & 3rd September*

Mark Levinson/ Revel/Nordost - 7th October & 8th October*

Anthem/Sim2/Paradigm/ Focal Utopia - 14th & 15th October*

Naim Audio - 11th November & 12th November*

* Start and finish times to be confirmed, please enquire by phone or email

Please register your interest in any of
the above events at
events@studioav.co.uk
or call the shop on the
number below

01753 631000

Every issue in Guitarist...

Find out more about the gear that made the music



Guitarist is packed to the brim every month with gear reviews, artist interviews, guitar lessons, tech Q&A, free CD and more

Guitarist

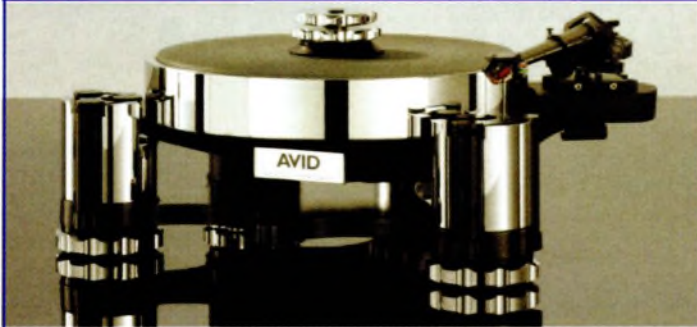
THE BEST GEAR
FIRST

The Guitar Player's Bible

On sale in all good newsagents

www.myfavouritemagazines.co.uk • www.musicradar.com

Analogue Seduction
where music is our passion



Analogue Seduction are dedicated towards two channel Hi-Fi, specialising in vinyl replay.

As well as our on-line shop we have dedicated demonstration retail facilities based in Peterborough, Cambridgeshire and we can offer our customers home demonstrations.

We stock the finest in amplification, analogue, digital replay and speakers. We also specialise in a cable termination and cable burn in service.

Please visit our website www.analogueseduction.net to browse or purchase products that are not easily available elsewhere.

New vinyl records now stocked

Tel: +44 (0)1733 344768

senso
 SYSTEMS

Telephone
 (01872) 273215

high quality hi-fi

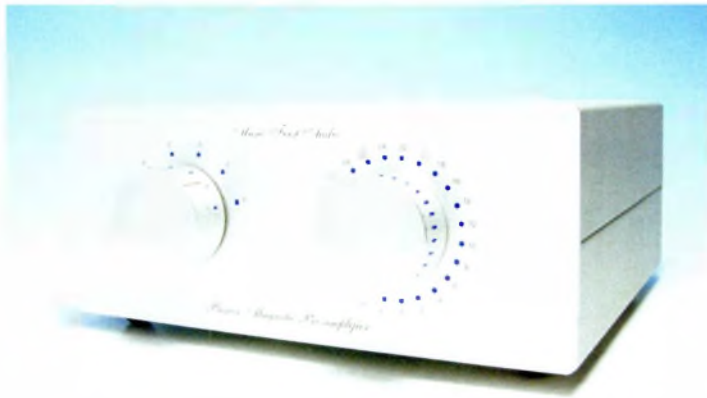
and home cinema

in cornwall



Lemon Street, Truro

www.senso-systems.co.uk



“...so good I swear it is surrounded by magic”

- Noel Key wood - Hi Fi World

HIFI HOME CINEMA
 & TECHNOLOGIES D'INTERIEUR

We're delighted to be exhibiting at the Salon Hi Fi Show in Paris, France on the 1st and 2nd October 2011

Please contact us for further details

arcam

dynavector

epson

focal

grado

isoblu

hutter

kudos

linn products

lyra

naim audio

neat acoustics

nottingham

primare

ortofon

pmc (including fact)

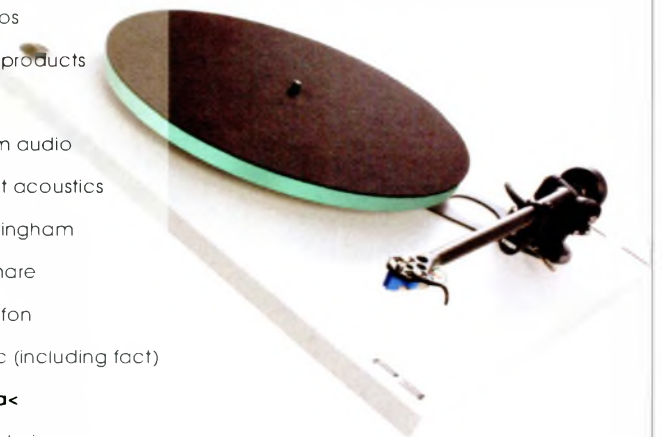
regac

sennheiser

stax

sumiko

**new toys
 for black stuff:
 rega RP3**



signals

hi-fi for grown-ups

ipswich (01473) 655171
www.signals.uk.com

Oranges & Lemons

www.orangesandlemons.info

Audio-Visual
Hi-Fi
Multi-Room

020 7924 2040

61-63 Webbs Road London SW11
shop@orangesandlemons.info



Outstanding music and video systems from a retail shop established for over 40 years.

Come and enjoy your favourite discs and a cup of coffee with our relaxed team.

Every brand we sell is chosen for its spectacular quality, performance and reliability.

O'Brien Hi-Fi

60 Durham Road - London - SW20 0TW

020 8946 1528 or shop@obrienhifi.com

Tuesday to Saturday from 9am until 6pm

www.obrienhifi.com



Recycle your magazine and seven days later it could come back as your newspaper.

recycle
The possibilities are endless.

www.recyclenow.com

Mayflower Sounds

Acoustic Preference Almarro Audio Analogue

Kemp Elektronik Rel Acoustics Silver Arrow

Yamamoto AudiophileBase

BCD

Burson Audio

Cain & Cain

CI Audio

Diapason

Emille Labs

Exposure

Synthesis

Tannoy

Tri

Triangle Unison Research Pathos



Graaf

Grado

Thorens

Waudex

Moscode

Music First

Oracle Audio

www.mayflowersounds.co.uk

Email: info@mayflowersounds.co.uk

Tel: 01302 711528 or 07931524266

020 7226 5500

www.grahams.co.uk

GRAHAMS

"One of the five best hi-fi shops in the world"

ARENA Magazine

Grahams Hi-Fi
Canonbury Yard
190a New North Road
London N1 7BS

www.
hifichoice.
co.uk

sound cinergy

37 High Street, Aldridge
01922 457926

exposure
focal linn marantz michell
monitor audio okki nokki
onkyo optoma ortofon
project rel roksan trichord

Ample Parking Tue-Sat 10 - 5.30pm
www.soundcinergy.co.uk

25% discount on full price WOW

Storage Solutions

BESPOKE HANDMADE TRADITIONAL & MODERN FURNITURE



Wizard Range Holds 2,796 CDs



V-MAX RANGE EST 1970

HANDMADE, HAND POLISHED, NO ASSEMBLY REQUIRED!

Shelves adjustable by 1" increments to accommodate 660 CDs, DVDs or books etc

Height 188cm, Width 62cm

WOODS: OAK, CHERRY MAHOAGANY, MAPLE ETC

**WAS £781
NOW
£495**
INC VAT

TEL: YOUR ORDER NOW
01423 500442

www.iansbespokefurniture.co.uk

IAN EDWARDS BESPOKE HANDMADE FURNITURE

The Old Chapel, 282 Skipton Road, Harrogate, North Yorkshire, HG1 3HE
Tel: 01423 500442 Fax: 01423 705200

IAN HARRISON HIFI

SALE! UP TO 25% OFF ANALOGUE EQUIPMENT
TEL: 01283 702875

SPECIALIST SUPPLIER OF TURNTABLES, TONEARMS, CARTRIDGES AND PHONO STAGES

INCLUDING: AMATEK, AUDIO TECHNICA, BENZ MICRO, CARTRIDGE MAN, CLEARAUDIO, DENON, GOLDRING, GRADO, GRAHAM SLEE, HADCOCK, HEED, ICON, KOETSU, LEHMANN AUDIO, MICHELL, MOTH, ORTOFON, PRO-JEKT, REGA, SME, SUMIKO, THORENS, TOM EVANS, TRANSFIGURATION, TRICHORD, WHEST AUDIO, ZYX,

HARBETH	£POA
EAR/YOSHINO	£POA
STAX HEADPHONES	£POA
Q ACOUSTICS	£POA
AUDIO TECHNICA HEADPHONES	£POA
GRADO HEADPHONES	£POA
SUGDEN	£POA
PURE SOUND	£POA
PATHOS ACOUSTICS	£POA
UNISON RESEARCH	£POA
OPERA	£POA
VAN DEN HUL	£POA
BLACK RHODIUM	£POA
APOLLO	£POA
ROBSON ACOUSTICS	£POA

PLEASE PHONE TO CONFIRM PRICE & AVAILABILITY PRIOR TO ORDERING. ALL GOODS ARE BRAND NEW & BOXED WITH FULL U.K. GUARANTEES. NO EX-DEM OR EX-DISPLAY GOODS. NO GREY IMPORTS. GOODS ARE NOT SUPPLIED ON APPROVAL. SORRY NO GENERAL CATALOGUES. PLEASE PHONE OR WRITE FOR SPECIFIC REVIEWS, BROCHURES OR PRICES. ESTABLISHED 1986.

**MAIL ORDER ONLY FROM: IAN HARRISON, 7 MILL HILL, REPTON, DERBY, DE45 6GQ
TEL: 01283 702875 9am-9pm INCLUDING SUNDAYS.**

Front End Problems?
contact:

The Cartridge Man

It doesn't have to cost an arm and leg to get the best
- listen to my Koetsu - and - Decca - eater.
Also agents for Croft, Moth, Hadcock & Mitchell & E.A.R. Graham Slee projects.
Valve equipment re-build service available.
- Plus cartridge re-tipping service

020 8688 6565
Website: www.thecartridgeman.com

- THE AUDIO BARN FROM ROCK SOLID SOUNDS -

VIVID AUDIO	ASTINTREW	 Rock Solid Sound Systems
ELECTROCOMPANET	BLACK RHODIUM	
AUDIO PHYSIC	BELLES	
BLADELIUS	ORACLE	
AYON	AURA	
CODA	STELLO	
MUSIC TOOLS	HI FI RACKS	
BOULDER	VITUS	

The Old Barn, Rosier Business Park, Coneyhurst Road, Billingshurst West Sussex, RH14 9DE. **tel. 01403 782221 or 07950 274224**
info@rocksolidsounds.co.uk - www.rocksolidsounds.co.uk
- Please telephone for an appointment -

**To advertise here please call
01225 224422**

15 AUDIO SE
 Churchward Court, 15 Western Road,
 Lewes BN7 1RL
 ☎ 08448 221115
 🌐 www.15audio.co.uk

NOTTINGHAM HI-FI CENTRE EM
 120-122 Alfreton Road, Nottingham,
 Nottinghamshire NG7 3NR
 ☎ 0115 9786919
 🌐 www.nottinghamhifi.co.uk

ACOUSTICA LTD NW
 17 Hoole Road, Chester, Cheshire
 CH2 3NH
 ☎ 01244 344227
 🌐 www.acoustica.co.uk

GRAHAMS HI-FI GL
 Canonbury Yard, 190a New North Road,
 London N1
 ☎ 020 7226 5500
 🌐 www.grahams.co.uk

STUDIO AV WM
 44 High Street, Eton, Berkshire,
 SL4 6BL
 ☎ 01753 631000
 🌐 www.studioav.co.uk

AUDIO COUNSEL NW
 26 High Street, Cheadle, Cheshire
 SK8 1AL
 ☎ 0161 491 6090
 🌐 www.audio-counsel.co.uk **BADA**

INFIDELITY GL
 9 High Street, Hampton Wick
 Surrey, KT1 4DA.
 ☎ 020 8943 3530
 🌐 www.infidelity.co.uk **BADA**

SOUND CINERGY WM
 37 High Street, Aldridge, Walsall, West Midlands
 WS9 8NL
 ☎ 01922 457 926
 🌐 www.soundcinergy.co.uk

SYNERGY AV HI-FI NW
 12a West St, Congleton, Cheshire
 CW12 3JB
 ☎ 01260 280017
 🌐 www.synergyav.co.uk

AUDIOBOFFS GL
 338 Shenley Road, Borehamwood,
 Herts WD1 1TP
 ☎ 020 8177 4095
 🌐 www.audioboffs.co.uk

VICKERS HIFI NE
 8 Concorde Park, Amy Johnson Way,
 Clifton Moor, York YO31 7EQ
 ☎ 01904 691600
 🌐 www.vickers-hifi.co.uk

ACTON GATE AUDIO W
 4 Ruabon Rd, Wrexham,
 Clwyd LL13 7PB
 ☎ 01978 364500
 🌐 www.acton-gate-audio.co.uk

SONATA GL
 West Hampstead, London NW6
 ☎ 0330 111 5653
 🌐 www.sonatahifi.com

SE - South East,
GL - Greater London,
SW - South West,
E - East,
EM - East Midlands,

WM - West Midlands,
NE - North East,
NW - North West,
W - Wales.

SENSO SYSTEMS SW
 Norfolk House, 16-17 Lemon Street,
 Truro, Cornwall TR1 2LS
 ☎ 01872 273215
 🌐 www.audio-cinema.co.uk

THE RIGHT NOTE SW
 56 High Street, Saltford, Bristol
 BS31 3EJ
 ☎ 01225 874728
 🌐 www.rightnote.co.uk

AUDIO IMAGES E
 128 London Road North, Lowestoft, Suffolk
 NR32 1HB
 ☎ 01502 582853
 🌐 www.audioimages-hifi.com

BASICALLY SOUND E
 Calveley Court, Southburgh Rd, Reymerton
 Norfolk NR9 4QD
 ☎ 01362 820800
 🌐 www.basicallysound.co.uk

HI-FI CHOICE

**To advertise in the dealer directory,
 Please contact
 Lucie Gillespie +44 (0) 207 042 4252
 lucie.gillespie@futurenet.com**



In a Classé of its own

Jimmy Hughes reflects on Classé's game-changing CP-800 preamp reviewed in the the last issue. Has a new benchmark been set?

In *HFC 350*, Jason Kennedy reviewed a remarkable new product – Classé's CP-800; an analogue/digital preamp offering balanced/unbalanced inputs and outputs, plus a 24bit/192kHz USB DAC. So what's so remarkable, you might think; putting a DAC in a preamp is hardly news.

What's remarkable is Classé's claim that ripping CDs to a computer hard drive, then playing them through the CP-800's DAC via its USB port, delivers audibly improved sound quality – better than the same CD reproduced through any CD player regardless of price. It's an amazing assertion.

Even more amazing, Classé's claims seem to hold water. Okay, we haven't compared the CP-800 to every high-end CD player, but it certainly outpaced the £12,500 Krell Cipher (*HFC 350*) and £11,000 McIntosh MCD1100 SACD players with CD – though these machines delivered superior results playing SACDs.

Ripped CDs via the CP-800 sound remarkably open and clear. There's a clean natural tonal quality, enhanced dynamic range and a firm solid powerful bass. The slight 'congestion' you typically get with CD is all, but eliminated – as though a layer of grunge has been stripped away.

Dynamics are wider, too. The playing has crisper attack and seems better focused – subtler too, so the music surprises you more, with a wider palette of tone colours. Of various high-end CD players we've so far tried, the only one that gets close to the CP-800's cleanness and clarity is Musical Fidelity's flagship AMS-CD.

This offers similar transparency and a comparable lack of congestion. The CP-800 just retains a slight sonic advantage over the AMS-CD, sounding a shade more neutral and open. But wait – is this really so? How can a ripped CD (a copy) sound better than the disc itself? Surely that's impossible?

Here's what Classé's President Dave Nauber says "if you get the set up right and use USB (not S/PDIF) to asynchronously transfer data, you can get amazing results from your CD collection. The USB solution developed for the CP-800 is unique and explained in some detail in our CP-800 white paper.

Putting good-quality data together in a system where we control the accuracy of the clock gives us the potential to outperform both stand-alone CD players and outboard USB DACs. All things being equal, shortening the signal path in itself gives the CP-800 a substantial advantage'.

Interestingly, Classé doesn't offer a separate outboard USB DAC using this technology. Why? Because it says it wouldn't give comparable results to its preamp. We actually tried putting a USB signal through three different high-end outboard DACs. None sounded as clean as the CP-800...

No-brainer

Purely from a user-convenience standpoint, CDs ripped to a hard drive makes music access a lot faster and simpler. For many, this is hugely attractive proposition by itself. But, when you add the advantage of audibly improved sound, the benefits become very difficult to ignore. It's a no-brainer – a game-changer.

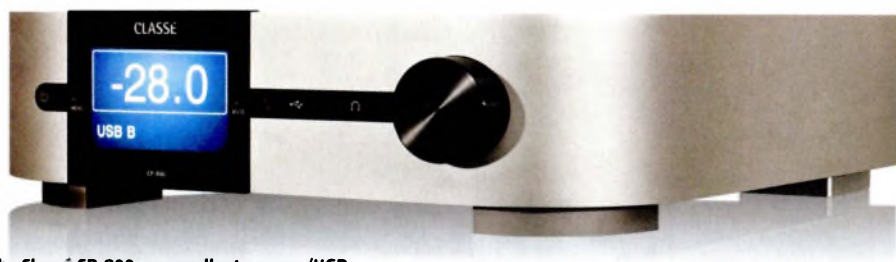
Storing music on a hard-drive gives you virtually unlimited continuous playing times. But this is not just about marathon listening sessions; it's also about not having to suffer annoying breaks in works that exceed a CD's 80-odd minute time span. It means even the most expansive performance of both Mahler's 8th or 9th symphonies can now be heard without interruption.

While this is a great plus factor, for audiophiles the lure of the CP-800 will be the way it upgrades your entire CD collection in terms of sound quality. This makes Classé's CP-800 one of the most interesting and exciting hi-fi products we've seen in years. It really is something exceptional.

So, has Classé made high-end CD players obsolete? We'd prefer to say the CP-800's simply raises the bar, setting a new benchmark for makers of high-end CD players to emulate.

All the same, before you invest in a new high-end CD player, check out what the CP-800 has to offer. Are we impressed? It's worse than that. To be honest, we're totally smitten! And once you've heard it, we think you will be, too. ●

This is a hugely attractive proposition and when you add the advantage of audibly improved sound, the benefits become very difficult to ignore. It's a no-brainer – a game-changer



The Classé CP-800: an excellent preamp/USB DAC with an impressive range of features



JIMMY HUGHES

A hi-fi enthusiast for four decades, Jimmy's knowledge of system-matching and record collecting are unmatched in the industry

WHAT DO YOU THINK?

Has smart USB implementation signalled the end for CD?

Email us now: hifichoice@futurenet.com



Icon Stereo 25 MKIII

"...more depth to it's sound than solid-state can muster and surprisingly lithe and expressive bass..."



From £799

Icon Stereo 40 MKIII

"Offered more grunt and lighter bass... the M520 and the Icon (Stereo 40 MKIII) were the two that made the hairs stand up on the back of my neck."



From £1299

Icon PS1 Phono

"The Icon Audio relayed the sounds with great gusto, seemingly revelling in the rhythms... and engagingly uplifting sound ... offers unbeatable value for money."



From £699



Icon Stereo 300 MKII

"Stupendously musical performer... got my speakers singing their hearts out... beautiful texturing, flowing organic rhythms."



From £1999



Icon PS3 Phono

"The Icon presented the vocal with a real focus, revealing the subtle nuances... well balanced, inviting and musical sound... mid range clarity and satisfying weight."



From £1399

audioemotion

Music is our Passion

www.audioemotion.co.uk

t 01333 425 999

ICONIC AMPLIFICATION.

Amplifiers which set the sonic benchmark, look gorgeous, are easily affordable and last a lifetime.



Icon MB845i

"These amps are required hearing for anyone after an extraordinary sound... they took my breath away and are amongst the best amplifiers I have ever heard."



From £3499



icon MB90 MKII

"...focuses the entire performance, allowing each instrument to better interact with each other... organic presentation, articulate bass... Heaven!"



£1999

mx SERIES



▲ FOR



September 2010 - MX1



June 2011 - MX2



BEST STEREO SPEAKERS UP TO £150
MISSION MX1



January 2011 - MX5



May 2011 - MX5



June 2011 - MX1



October 2010 - MX1

▼ AGAINST

“Nothing...”

- Hi-Fi World June 2011 - MX2



IAG House, Sovereign Court, Ermine Business Park, Huntingdon, Cambs, PE29 6XU, UK
Tel: +44(0)1480 447700 Fax: +44(0)1480 431767 <http://www.mission.co.uk>