

EXCLUSIVE – ZANDEN 8120 POWER AMP

hi-fi+

REPRODUCING THE RECORDED ARTS JULY 2015 • 125

www.hifiplus.com



ISSN 1465-5950

£4.99



25 >

BACK TO THE FUTURE

iFi RETRO – CLASSIC STYLE,
TOMORROW'S TECHNOLOGY!

EXO GAL COMET

GAMUT D3I AND D200I

PRIMARE PRE60 AND A60

TAD D1000

**HIFIMAN AND RUSSELL K
PRIZES WORTH OVER £4000
MUST BE WON!**



WORLD EXCLUSIVE

CONSTELLATION'S MIGHTY HERCULES II
POWERS UP OUR AMPLIFIER SPECIAL ISSUE





Come Together
The Beatles
FLAC 192 kHz 24 Bit

LUMiN

LUMiN

THE
AUDIOPHILE
NETWORK
MUSIC | PLAYER
FAMILY

S1 / A1 / T1 / D1

NOW | WITH | NATIVE
TIDAL | SUPPORT



TIDAL



selectaudio[©]

Distributors of exquisite audio equipment
Tel +44 (0)1900 601954

WWW.LUMINMUSIC.COM

EDITOR

Alan Sircom
Email: editor@hifiplus.com

**CONTRIBUTORS THIS
ISSUE INCLUDE:**

Denis D Davis, Roy Gregory,
Jason Kennedy, Chris Martens,
Nicholas Ripley, Alan Sircom

GRAPHIC DESIGNER

Jenny Watson
Fonthill Creative, Salisbury

PHOTOGRAPHY

The Hi-Fi+ Team

ADVERTISING

Tom Hackforth
Tel: +44 (0)1425 655255
Email: tom@hifiplus.com

ASSOCIATE PUBLISHER

Pete Trewin
Tel: +44 (0)1425 655699
Email: pete@hifiplus.com

PUBLISHER

Chris Martens
Tel: +1 (512) 419-1513
Email: cmartens@nextscreen.com

**THE EDITORIAL OFFICE
CAN BE CONTACTED AT:**

Hi-Fi+ Editorial
Absolute Multimedia (UK) Ltd
Unit 3, Sandheath Industrial Estate,
Sandheath, Hampshire
SP6 1PA
United Kingdom
Tel: +44 (0)1425 655255
Web: www.hifiplus.com

Absolute Multimedia (UK) Ltd is a
subsidiary of TMM Holdings LLC,
2601 McHale Court, Suite 100
Austin, TX 78758, USA

CHAIRMAN AND CEO

Thomas B. Martin, Jr.

All Rights Reserved.

Not one word of Hi-Fi+ may be
reproduced without the written consent
of the Editor. We are perfectly happy
to co-operate, but we don't want
quotations to appear out of context.

Printed By
Advent Print Group, Andover

Hi-Fi+ is published twelve times a
year by: Absolute Multimedia (UK) Ltd

ISSN 1465 5950



www.hifiplus.com

editorial

The amplifier is sometimes called the 'heart' of any good audio system. Some, however, still hold to other concepts; that of 'source first' (very popular when vinyl was the predominant format, rather than the greying underdog position it currently holds) and even the 'all competent amplifiers sound the same' stance held by hi-fi enthusiasts until the mid 1970s.

In a way, I subscribe to this latter stance, but read in a different way. The pivotal word is 'competent'. I think some of the best amplifiers are converging on a point where they sound equally good, but what's clear thus far is just how far we still have to go to reach that convergence. Amplifiers still have a distinct 'voice' and character, but it seems the best of them limit the intrusion of that voice into the musical mix.

We seem to be moving away from the bright and forward sound of audio, if this crop of amplifiers is anything to go by. Or, maybe we got lucky, and we didn't happen upon too many of the bright and forward set by luck and luck alone. I hope it's the former.

One thing is clear, though. Amplifiers today show a greater diversity than any other section of the audio world, especially in the high-end. Far from being a moribund link in the chain, we have the latest DSP-driven switch-mode, Class D designs rubbing shoulders with amplifier circuits that would have looked quaint to a radio operator in WWII. And all points in between. These are all still in circulation for one reason, and one reason alone: they sound good! Ultimately, we might be converging on a more uniform version of good sound, but it's still a long way off.

The drive to make things ever smaller and especially ever more environmentally-friendly doesn't necessarily sit right with audio folk. But, an awareness of environmental concerns does slowly seem to be filtering through to the audio world, through the medium of Class D audio, and the brands who are beginning to adopt it more widely.

What the future holds for the humble – and not so humble – amplifier remains hard to fathom at this time. But for the moment at least, it really doesn't matter, because we seem to be getting the best of all possible worlds.

No writing is ever error-free, but managing to misspell the name 'Ensemble' in a headline is unforgivable. Our apologies to all concerned.

Finally, congratulations to Bradley Lear from Milton Keynes in the UK, who wins a pair of Alacritty Audio's excellent Caterthun 6 loudspeakers worth £2,699!

Alan Sircom
editor@hifiplus.com

ISSUE 126 (Personal Audio Special) ON SALE: UK AUG 6, 2015 ... US SEP 3, 2015



ARABESQUE

miniSSIMO

n a t u r a l s c i e n c e



CHOOSE YOUR MINISSIMO

FOR MORE INFORMATION ABOUT CRYSTAL CABLE'S ARABESQUE LOUDSPEAKER RANGE
& HIGH END CABLES VISIT:

www.crystalcable.com www.facebook.com/CrystalCable.IAH

 **absolute sounds ltd.**

International Distributors & Consultants of Specialised Hi-End Audio & Video Systems

58 Durham Road, London, SW20 0TW T: +44 (0)20 89 71 39 09

W: www.absolutesounds.com E: info@absolutesounds.com

contents

EQUIPMENT+

ISSUE 125

COMMENT

- 4** **INCOMING!**
Your views
- 8** **SHOW REPORTS: MUNICH AND NEWPORT BEACH**
High-End 2015 and T.H.E. Show back-to-back
- 14** **AMPLIFIERS: THE COMPLETE GUIDE**
All you need to know...

MUSIC

- 98** **CONTEMPORARY, AUDIOPHILE, AND CLASSICAL MUSIC**
- 104** **CLASSIC ALBUMS**
Frankie Goes to Hollywood, *Two Tribes*
- +**
- 47** **COMPETITION!**
HiFiMAN equipment must be won!!
- 66** **COMPETITION!**
Russell K Red 50 speakers must be won!!
- 86** **SUBSCRIPTIONS**
- 94** **ADVERTISER INDEX**

- 20** **CONSTELLATION AUDIO HERCULES II**
stereo power amplifier
- 27** **ZANDEN 8120**
stereo valve power amplifier
- 35** **GAMUT D3i/D200i**
pre/power amplifier
- 41** **PRIMARE PRE60/A60**
pre/power amplifier
- 48** **IFI AUDIO RETRO**
complete audio system
- 56** **EDGE SIGNATURE NL 1.2/NL12.2**
pre/power amplifier
- 61** **TAD D1000**
CD/SACD and digital file player
- 67** **EXO GAL COMET**
digital to analogue converter
- 72** **PS AUDIO DIRECTSTREAM/ PERFECTWAVE**
high-res DAC and disc transport
- 79** **ENIGMACOUSTICS MYTHOLOGY M1**
standmount loudspeaker/ supertweeter
- 84** **TRANSFIGURATION PROTEUS**
moving coil phono cartridge
- 87** **PEACHTREE AUDIO DEEPBLUE 2**
Bluetooth wireless music system

61



Please send your letters to Hi-Fi+, Unit 3, Sandleheath Industrial Estate, Sandleheath, Hampshire, SP6 1PA, United Kingdom.
Or email them to editor@hifiplus.com

incoming!

in association with **audioquest**

LETTER OF THE MONTH WINS A DRAGONFLY

Both AudioQuest and *Hi-Fi+* are passionate about music and the sound it makes. We know what makes a good audio experience, and we know what makes it better. Most modern audio equipment is good, but with the right attitude, right advice, and the right components, the sound it delivers can move from 'good' to 'great' to 'fantastic'. AudioQuest has to deal with a lot of queries regarding audio systems, because almost everything in an audio system is connected with a cable. The company has amassed a wealth of information on a range of topics in audio, both in general terms and with a team comprising keen, specialist audio experts willing to impart their expertise.

Which is why we've teamed up with the good folks at AudioQuest to award the letter of the month a free AudioQuest Dragonfly

Alpha to Omega

After almost 25 years of reliable use, my old Arcam Alpha CD player finally bit the dust, and I guess that is Nature's way of telling me to move into computer audio. Paradoxically, although I use a computer every day at work, I've never considered adding one to my audio system until recently, and while I feel somewhat forced into the situation by the Arcam's demise, I want to get a similar performance to my Arcam from my computer source.

I already have a PC in mind for this (a touchscreen Lenovo A540), and plan to rip my existing CDs in FLAC to an USB external hard drive, and connect this to the audio system using a USB DAC (most likely, the AudioQuest DragonFly). Can I run both from a USB hub, or does the DAC need to be connected directly to the PC? I was planning to use Windows Media Player to rip and play my music, but I believe there are better options open to me? Which do you recommend?

Finally, the DragonFly only seems to have a headphone output. Can I use this with some kind of adapter, or should I choose another DAC?

Eric Ingledew, W Yorks

Sorry to hear about your Arcam CD player, but it does indeed seem like a good time to investigate a computer as a basis for archiving and playing back your CD's.

I think your plan to rip your collection in a lossless format like FLAC is a good idea. Please don't throw away the CD's though, they are a perfect back-up plan, alongside regular back-ups of your collection, and keeping the back up in a separate location from the computer. Ripping discs is a laborious process: ripping them again is frustration on an epic scale.



The Lenovo looks like a great machine, the touchscreen should make using it a breeze, too. It's worth ensuring it's stacked with plenty of RAM, as we've found that this greatly helps playback performance, especially as some playback software loads a track into RAM to play from there, rather than directly from the external hard disc.

With regards to the question of where to connect the DAC, I'd recommend connecting directly to the computer. Wherever possible we even recommend keeping the input connection bus separate from the output connection bus; if you had an eSata connection, Thunderbolt, or FireWire connection on the computer, we recommend using an external music disc on one of these inputs, to keep the USB output separate. This easily avoids a problem known as 'synchronous conflict,' which can occur if you share the same bus for incoming and outgoing data. However, the Lenovo you mentioned only features USB buses,

for the love of music...

KA I 180 MkII integrated amplifier



Karan Acoustics

Pure differential, class A,
bipolar solid-state circuits
of unprecedented musical
properties and real life
dynamic abilities.

A collection of true
bespoke creations.

KA L MkIII line preamplifier / KA S 180 MkII power amplifier



KA M 900 power amplifier



Benz-Micro • Cardas • conrad-johnson • finite elemente • HighResTech • **Karan Acoustics** • Kuzma
Magnum Dynalab • McCormack • Muse Electronics • Rogue Audio
Running Springs Audio • Tri-Planar • Zanden Audio

Distributed Exclusively by

AUDIOFREAKS

DISTRIBUTORS OF FINE AUDIO + HOME ENTERTAINMENT EQUIPMENT

tel: **020 8948 4153** fax: 020 8948 4250 email: info1@audiofreaks.co.uk www.audiofreaks.co.uk

- so aside from storing your music on a network attached drive, you'll need to follow the USB in and out route. The more these can be separated, the better. We would not recommend using both devices on an external hub plugged into the same USB controller, unless absolutely necessary. But AudioQuest's upcoming JitterBug USB filter helps enormously in situations like this.

With regards to software, we've not found anything that works as well as jRiver Media Center. It is a good 'bit perfect' ripper and outstanding playback software, perfect for getting the best from the DragonFly or any other DAC that you might like to choose. It also has good remote control options, so if you have a smartphone or tablet there are remote controller apps that you can use – jRemote for the iPad is an example, making control of your library from the sofa a breeze.

jRiver costs \$50.00, but is worth the extra as it sounds much better than the stock apps, and is far more flexible too, as you can even add podcasts, internet radio and other services, and it's well supported by its Wiki, Forum and its developers.

Foobar is another very good playback option; it's free, and is almost infinitely configurable, but in is still feature-limited in comparison to jRiver. If you don't need the extras, it sounds great, but you'd need to partner it with a standalone ripping solution, such as the excellent dBpoweramp.

AudioQuest has guides and suggestions that can be downloaded from: www.audioquest.com/computer-audio/

Finally, yes, the DragonFly uses a 3.5mm analogue output, but any cable with 3.5mm to RCA plugs (as long as your amplifier has RCA sockets) would do the

trick. The Bridges & Falls range from AudioQuest offers 3.5mm to RCA as well as other connection options.

Enjoy!

Robert Hay – AudioQuest

Back in the black

After my recent comments I thought I'd let you know that the latest edition (issue 124) seems to be a return to form. I don't know if it's the mix of material or authors, but it was a great read.

In particular, you were on fire in your review of the Melco N1Z. Not only does it sound like an amazing device, but 'Rocket Surgery' and 'Geek-do' had me laughing out loud. Brilliant.

I keep hoping to enter the digital streaming domain in due course. I've got a NAS drive running on Powerline Ethernet, but I'm thinking Chord 2Qute with an SSD-equipped netbook might work and sound better. Any recommendations for those of us at the shallow end?

Giles Morrison, Sheffield

Thanks for your kind words about issue 124.

When it comes to streaming, your options really are open, should you decide to go down that route. If you already have a NAS drive, it might be a great idea to use that, investing in a Media Renderer/Player to access music stored on that drive. Or, as you suggest, you can also use a netbook or laptop with a software version of a media renderer to do the same. You can even combine the two, and use the NAS drive as storage for the laptop. However, opinion is divided over the use of 'home plugs' (power line communication, or Ethernet over Power) – while some have no issue with their use, others recommend a wired solution because of fears of RF and mains pollution. Remember too that if you are using some kind of DLNA/UPnP streaming solution, you should install Media Server software on your NAS, and we currently recommend Asset or MinimServer.

In terms of DACs, the Chord 2Qute is a great option – one of the best for the money. If you can stretch a little further to the Hugo, you get a substantially better DAC, however. If you are using a NAS with home plugs, a Linn Sneaky DS might be a good option, or if you can stretch to it, a Linn Majik DS or Primare NP30. We will be reviewing the integrated Majik DSM shortly.

Finally, there's always the third option: do nothing. Spinning discs of all kinds are still great audio replay sources, and there are many who turn in their CD players to go streaming, only to regret the decision and turn back a few years later. Remember that computer audio can be just another shelf on the equipment rack, rather than pushing something off an existing shelf. – **Ed**



THE PERFECTIONISTS

Once in a generation we design and hand build loudspeakers of such stunning quality they set the standard by which all others are measured for years to come. For perfectionists who demand uncompromisingly accurate sound, capturing the full emotional range, depth and detail of the original performance, THE REFERENCE delivers an experience without equal.

Experience obsession here:

Audio Affair

Birmingham
www.audioaffair.co.uk

Acton Gate Audio,

Wrexham
www.acton-gate-audio.co.uk

Brian & Trevors

Manchester
www.brianandtrevors.com

Canterbury Hi-Fi,

Canterbury, Kent
www.canterburyhifi.co.uk

Criterion Audio

Cambridge, Cambridgeshire www.criterionaudio.com

Fanthorpes HiFi

Hull, East Yorkshire
www.fanthorpes.co.uk

HiFi Excellence

Coventry, Warwickshire
www.hifix.co.uk

InTune Audio

Sudbury, Suffolk
www.intuneaudio.co.uk

Loud & Clear

Edinburgh
www.loud-clear.co.uk

Loud & Clear

Glasgow
www.loud-clear.co.uk

Lyric HiFi,

Belfast, Northern Ireland
www.lyrichifi.com

Nintronics

Welwyn Garden City, Hertfordshire
www.nintronics.co.uk

Nottingham HiFi Centre

Nottingham, Nottinghamshire
www.nottinghamhificentre.co.uk

Oxford Audio Consultants

Oxford, Oxfordshire
www.oxfordaudio.co.uk

Sevenoaks Sound & Vision

Clifton, Bristol
www.sevenoakssoundandvision.co.uk

Sevenoaks Sound & Vision

Cheltenham, Gloucestershire
www.sevenoakssoundandvision.co.uk

Sevenoaks Sound & Vision

Reading, Berkshire
www.sevenoakssoundandvision.co.uk

Sevenoaks Sound & Vision

Tunbridge Wells, Kent
www.sevenoakssoundandvision.co.uk

Sonority Design

Brierly Hill, West Midlands www.sonoritydesign.co.uk

Stone Audio

Poole, Dorset
www.stoneaudio.co.uk

Unilet Sound & Vision

New Malden, Surrey
www.unilet.net



OBSESSED WITH HIGH RESOLUTION

Munich High-End and T.H.E. Show Newport Beach

by Chris Martens and Alan Sircom

The merry, merry month of May is best considered the merry, merry month of audio shows, because two of the largest events on the audio calendar – Munich High-End and T.H.E. Show Newport Beach – occurred this year at the middle and end of that month.

Munich has grown to become arguably the most important show in the audiophile calendar, with thousands of visitors and hundreds of exhibitors filling four halls, three floors, and two atria of the Munich M.O.C. exhibition centre. This is more than just a German audio show, it's become the place where the international audio market meets to show and sell the next great audio products. And, with attendance figures up 16% on last year, this is still growing!

By contrast, Newport Beach in Southern California was traditionally a relatively small show, but it's grown exponentially in size and significance in recent years, trading blows with AXPONA and Rocky Mountain Audio Fest for the best event in the US calendar. Newport Beach's success has, in part, been fuelled by the show organisers concentrating on this event and stepping away from running a parallel show to CES in January in the process, and in part due to the introduction of the new 'Headphonium' section, dedicated to the in-ear and on-ear world.

Both shows are growing and fortunately for us they are growing apart in time; next year, they are a month apart.

For more details on all these shows and more, go to www.hifiplus.com. +



Focal's two-strong Sopra speaker range fits between its Electa and Utopia lines



The first view of D'Agostino's four input Momentum phono stage



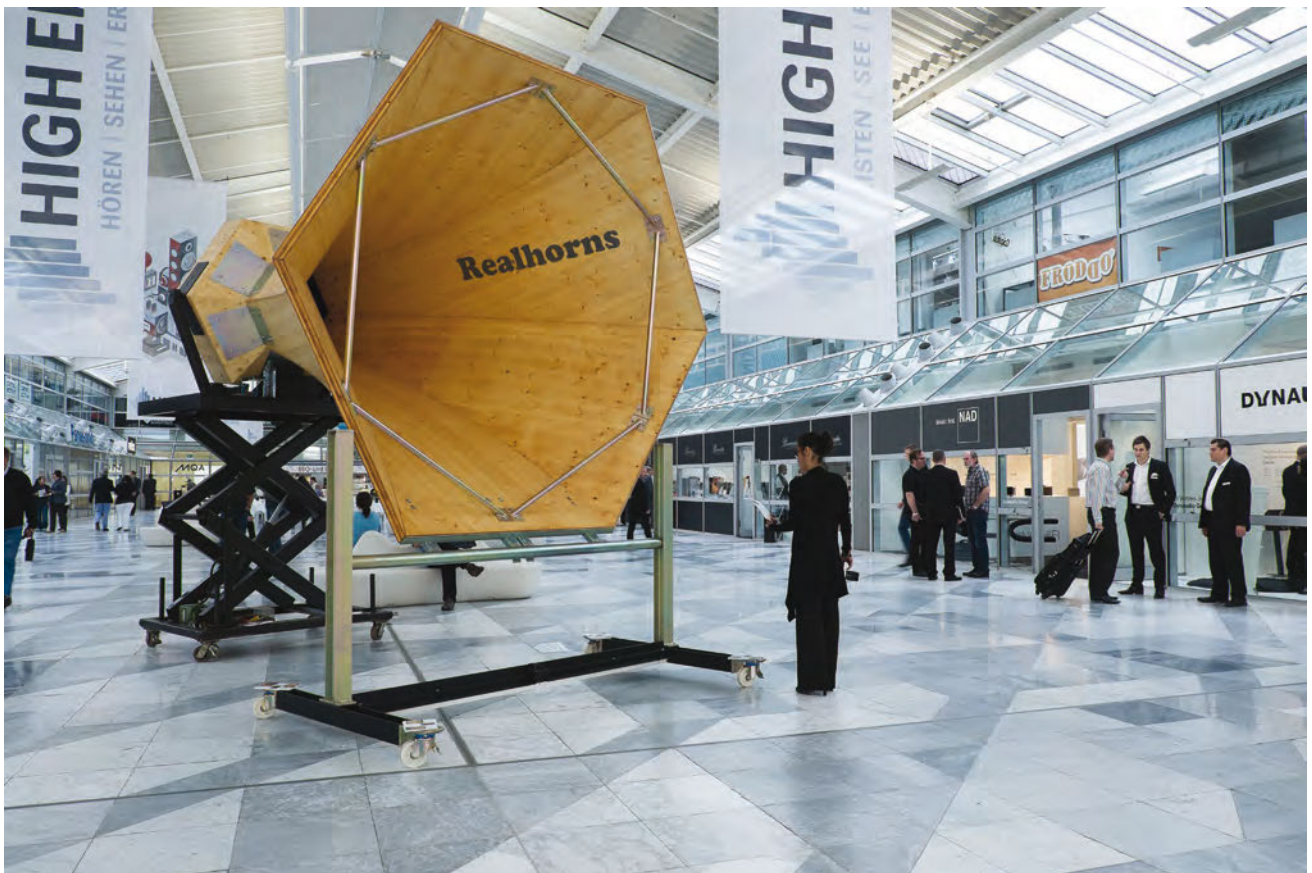
SME's new Model 15 turntable was on display in the Transrotor room



Moon's new 780D network DAC is the brand's new digital reference



Tannoy's upcoming supertweeter has a touch of the Captain Nemos!



The joy of the Munich High-End event is sometimes you just get a full range of products that go from 'mild' to 'wild'. This Realhorns design was probably not a loudspeaker you'd put in the 'mild' class, but it certainly got a lot of attention!



The show was busy. Sometimes hundreds waited in line, even in the afternoon!



Sonus faber announced its new Chameleon line of tower, bookshelf, and centre-channel loudspeaker with replaceable and colourful side cheeks



The deliciously named Technical Brain launched a TB-Zero/int EX integrated amp



The Hotel Irvine Grand Ballroom was festooned with top quality LPs, accessories, and even the odd supercar!



Sanders Sound Systems 10D hybrid electrostatic loudspeakers were superb



Dealers and manufacturers work together at Newport Beach. Here, Shelley's successfully teamed up with Moon, Magnepan, and JL Audio



Meridian successfully demonstrated its MQA format to the public



The Pear Audio Blue turntable is keeper of the Tom Fletcher flame



Silverline's \$15,000/pair Bolero Supreme use Dynaudio's best-ever drive units. These drivers aren't made any more, but Silverline keeps a lot of spares!

oppo

PM-3

Closed-back
Planar Magnetic
Headphones



Optimised for portability, PM-3 is the World's lightest closed-back planar magnetic design. It provides privacy and noise isolation and features high sensitivity and comfortable fit.

“Simply put, the Oppo PM-3 are my favourite closed-backed headphones currently available.”
Sound & Vision

“...this is a superbly built, exceptionally comfortable and immensely talented headphone”
AV Forums

“The Oppo PM-3 are some of the best portable headphones ever made.”
Trusted Reviews

HA-2

Portable
Headphone
Amplifier
& USB DAC



HA-2 is a compact headphone amplifier and USB DAC featuring ESS Sabre³² Reference ES 9018-K2M DAC chip and support for 384 kHz/32-bit PCM and DSD up to 11.2MHz.

“A gem of a headphone amp/DAC at a very competitive price. Deserves to win plenty of friends.”
Hi-Fi Choice

“...a crushingly competent piece of equipment for the asking price”
AV Forums

PM-3 available in
black or white



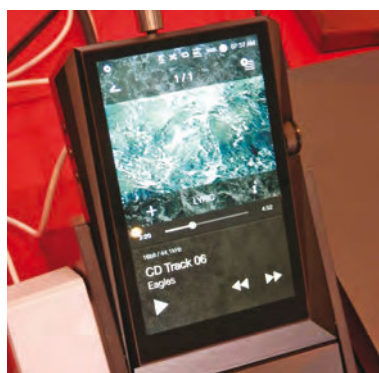
oppodigital.co.uk



Centrance MD Michael Goodman with the new DACport Slim USB DAC/amp



Mike Johnson and Chuck Reynolds from Pendulum show off the outstanding new Stance S1+ self-powered Bluetooth headphones



Astell & Kern's new portable flagship – the DLNA-ready, \$3,499 AK380



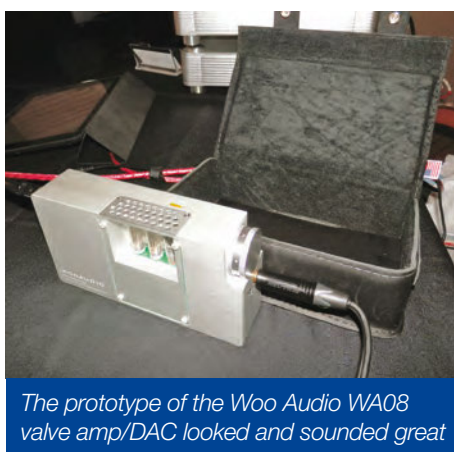
Noble Audio's \$99 BTS device helps bring Bluetooth connectivity to any headphones



ALO Audio's new \$1,495 Continental Dual Mono headphone amp/DAC



Burson Audio's new Conductor Virtuoso offers two DAC options



The prototype of the Woo Audio WA08 valve amp/DAC looked and sounded great



Campfire Audio is a new brand of high-grade universal-fit earphones

"To say the Continuum S2 comes highly recommended is putting it mildly – this is the kind of amplifier I could happily live with and never feel the need to upgrade ever again"
(Alan Sircom – Editor HiFi Plus)



All amplifiers are not created equal.

For more information and a professional demonstration on Jeff Rowland products please contact one of these dealers:

Midland HiFi Studio 01902 380083
Guildford Audio 07979 515577

High End Cable 01775 761880
Brian & Trevors 0161 766 4873

Phase 3 Audio 01903 245577
Audio Destination 01884 243584

Distributed by: Signature Audio Systems 07738 007776

www.jeffrowlandgroup.com

Amplifiers: the complete guide

by Jason Kennedy



A 'straight wire with gain' was QUAD founder Peter Walker's definition of the perfect amplifier. Walker famously never listened to music in the process of developing his amplifiers. He listened to, "funny noises and funny distortions, to see whether these things are going to matter." In the process, he produced a series of amplifiers that made his company one of the most respected in the business.

Acoustic music does not require amplification, but we need amplifiers to enjoy that music through loudspeakers, and the only thing an amp can do is try to drive those loudspeakers with the minimum of distortion. There are distinct camps when it comes to which amplifier type is best; on one side you have the 'less is more' purism of single-ended triode lovers, who are prepared to forego power in favour of minimal intrusion. On the other are those who are looking for the drive and control that power provides, and those seeking wide bandwidth and minimal colouration, who generally use a variation on solid state amplification. The latter camp seem more concerned about measured distortion than the former, but no amplifier technology is distortion free; it's a matter of choosing the compromise that suits the listener and their loudspeakers.

Amplifier choice is as much about getting a good match with a pair of speakers as almost anything else. There have been plenty of much-vaunted low-powered amplifiers that are useless without high sensitivity loudspeakers, and there are also high-powered amps with high damping factors that are ill-suited to certain types of loudspeaker. There are even speakers that hardly any amplifier can drive, but fortunately for amp makers, the Apogee Scintilla is a thing of the past.

Some amplifier makers have tried to overcome matching issues by using DSP to customise the amp/speaker interface, typically controlling the sub-200Hz region for room and power handling purposes. Devialet's SAM system tailors the amplifier's output to better control specific loudspeakers, while Linn's Space Optimisation software goes a step further back and tailors the output of its streamer/preamps to compensate for the likely effects of room acoustics on given loudspeakers.

More traditionally there are also active speaker systems, where a power amplifier is used for each drive unit in a loudspeaker. These are often designed for that purpose alone. On paper, this looks like the best answer to the amp/speaker matching issue, but in commercial practice active systems have rarely proved terribly appealing to audio enthusiasts.



History

The earliest amplifier was Lee de Forest's Grid Audion, the first example of a triode valve invented in 1906. It was developed to amplify radio signals, but by 1922, valve amplifiers were being used with Rice and Kellogg's loudspeaker designs. The drive for lower distortion started almost immediately, and by the end of WWII, valve amps (like the Leak Point One and D.T.N. Williamson's *Wireless World* design) were reaching 0.1% distortion, thanks to early versions of 'Ultra-Linear' or 'push-pull' output stages. Then, in 1951, Bell Labs came up with the Germanium transistor. The power available from transistors, along with their relative robustness and lower cost compared to valves, meant the latter had become almost extinct by the 1970s. But a few dedicated enthusiasts and a handful of American companies kept the glass fires burning. It took the Japanese to rediscover the potential of single-ended triodes, however; the Audio Note Ongaku, created by Hiroyasu Kondo, was notable for its 211 power tubes and silver-wired output transformers, but it also resurrected a technology that had lain dormant since the 1940s.

Transistors, meanwhile, developed into MOSFET and bipolar types, and have been refined and developed over time

to offer high power and lower heat emission, and, despite the proliferation of chip-based operational amplifiers, they remain the go-to technology for the aspiring contemporary designer.

Class A

Much vaunted by those in the valve fraternity, Class A operation is where the output devices (or device) remain 'on' at all times. The advantage that this confers is more linear operation at the crossover point when the signal goes from being amplified by one half of the output stage to the other. The trade-off is it's a dreadfully inefficient way to amplify a signal, and higher even harmonic distortion than Class B, but many consider this to be a price worth paying. Valve amp designer Andy Grove is a big advocate of Class A operation and single-ended valve circuits in particular: his view is that it's the most purist approach to amplifying an audio signal. He feels that the trade-off in harmonic distortion is more than made up for by the elimination of switching distortion.

There are also Class A transistor amplifiers, but they tend to have much higher output than their glass powered cousins and as a result require heavy heatsinking to dissipate all that always-on power. Musical Fidelity's first A1 was an ►

“It combines the linearity of Class A for the first few Watts, with the power of Class B beyond that.”



- integrated Class A design with griddle shaped heat sinks on the top: legend has it that this got so hot you could use it as a barbecue. Dan D’Agostino launched Krell with the KSA-50, the most powerful Class A amplifier in the business in 1980, it actually produced 70 Watts into eight Ohms, and consumed a substantial amount of power, most of which became heat.

Class A/B

The most common operational mode is Class A/B, which is used in the majority of solid-state amplifiers because it combines the linearity of Class A for the first few Watts, with the power of Class B beyond that. So a 100 Watt amplifier would typically produce around two Watts in Class A before switching to Class B. Class B on its own would be very powerful, but its crossover distortion reduces linearity, so you need the low level Class A element to avoid that crossover distortion in the part of the output we listen to.

Class A/B typically relies on negative feedback circuits. These have their drawbacks and some high-end amplifiers avoid feedback altogether, because it’s a way of correcting a problem after the fact, but this is a crude analysis. The real drawback with negative feedback is that it multiplies high order harmonic distortion, which can be heard as a hardness in the sound. However a well designed Class A/B output stage can minimise the audibility of such non-linearities, which is why the technology is so widely used.

Class A/B’s advantages include high power, reliability, and when correctly designed, stability. You wouldn’t get the former without the latter. Toroidal transformers never go wrong unless you actively try to break them and the capacitors used in linear power supplies have a relatively easy life, compared to switching supplies in Class D designs.

Billy Woodman of ATC uses Class A/B in his amps because it offers the ability to cope with dynamics that he feels Class A does not, and because he feels Class D is not yet good enough: “You can’t achieve the performance.”

Class D

Class D amplifiers are increasingly popular because they deliver high power outputs, produce lower heat and are the most energy-efficient design in audio. The basis of Class D, which it’s worth noting does not stand for ‘digital’, is effectively

an analogue amplifier with a fast-switching output stage. They usually have a switching power supply; in standard form, this is a bit of a crude device for high fidelity, but companies have refined switching supplies to a stage where they compete at the highest level. Two of the biggest players in this are Linn and Chord Electronics, neither of which call their technologies Class D because of the low quality connotations of that name. Chord Electronics, for example, uses a ‘sliding bias Class A/B output stage with a high frequency power supply’.

According to Ian Wilson at Linn the main advantage of a Class D power supply is that it can operate at a higher frequency than the mains, which means that it can refresh capacitors considerably faster. A linear supply can only refresh itself at the 50Hz frequency of the mains supply (60Hz in the US), whereas a Class D supply can be run at 100MHz.

Bruno Putzeys of Mola Mola who developed the UcD and Ncore modules made popular by Hypex is of the opinion that any amplification technology has the potential to be good, but that the energy efficiency potential of Class D make it the best option today. He puts its relative unpopularity down to the fact that the technology is fairly young, but cites its use by companies including Jeff Rowland, Primare, Theta Digital, and Bel Canto as an indication that Class D can compete at the highest level.

Digital

There are also truly digital amplifiers. Their advantage is that they avoid the types of distortion typically associated with analogue technologies, and in the case of digital sources, move the D/A conversion to what is effectively the last stage of amplification. At present true digital amplifiers are largely avoided by hi-fi companies because no one has yet eliminated the timing errors that make this technology unsuitable for high resolution systems. But they are popular in PA applications, because they combine high efficiency and low mass, and are also to be found at the affordable end of the market, where sound quality is not perhaps as critical as price.

Power supply

In order to amplify a signal, an amplifier modulates the DC electricity produced by the power supply. As a result, an amplifier is only as good as its power supply. This is why many ►

Shrug? Never.

"Ask the Aesthetix amps to jump and the question really is, 'How high?' "

-Roy Gregory, Hi-Fi+, February 2014

ATLAS

The Aesthetix Hybrid Power Amplifier



You won't find another hybrid power amplifier designed with true zero feedback, one stage for all voltage gain, three separate choke input power supplies for the solid-state output, solid-state driver and valve high voltage gain stages, and an on-board high pass crossover. Aesthetix Atlas is the proud recipient of a TAS Golden Ear, 5 Stars from What Hi-Fi?, 100 Sound Points from Stereo (Germany) and is a Stereophile Recommended Component.

Aesthetix stands the test of time.

Core principles define our designs,
craftsmen hand assemble our products and
honest music is our ambition.



AESTHETIX

www.aesthetix.net



“Preamplifiers are commonly regarded as the hardest part of the audio chain to get right.”

although few are able to deliver as stiff a supply as the mains itself and thus few are truly suitable for power amplifiers.

Preamplifiers

The preamplifier was originally created to select different sources and provide the first stage of amplification to the low level signals produced by tuners, tape recorders, and turntables, albeit the latter requires equalisation as well. Now that line sources such as CD players, network streamers, etc., produce a relatively high output, the preamp's role has changed and it's possible to use entirely passive preamplifiers. The majority, however, have gain stages that work like small power amplifiers, often in Class A and with feedback.

Preamplifiers are commonly regarded as the hardest part of the audio chain to get right. This much becomes apparent when you hear a really good one; the difference it makes seems greater than in virtually any other part of the chain. Steve Sells at Naim explained that volume controls are simple to make, but difficult to get right: potentiometers change resistance with level, which can affect later stages while reed relays or ladder resistor arrays have constant resistance, but are costly. Naim uses reed relays in its Statement components, but sticks with variable resistors in its classic models.

Impedance matching does seem to be a big factor with regard to the unpredictable nature of sources and power amps. This is presumably why transformer-coupled passive types, which automatically match impedance, often seem to have an advantage over their powered cousins. There are also issues with crosstalk between channels, which is why the best preamps are usually fully dual mono. And then there's the RFI issues that beset all audio electronics, too...

The crossroads

Amplifier technology is at an interesting crossroads. On the one hand, you have classic topologies being refined and engineered to a very high standard, while on the other, you have modern alternatives making serious progress. That Linn now only makes Class D amplifiers reveals as much. The great thing is that the variety of options continues to expand, the range of sonic styles available is as wide as it has ever been, and the degree of resolution that's available from the best of them is significantly higher than it was only 20 years ago. +

- ▶ companies offer power supply upgrades for their amplifiers; the cleaner and stiffer the supply, the more revealing and powerful the end result. The basis of the power supply in Class A and A/B amplifiers is the mains transformer: the heaviest component in the chain that drops the incoming AC voltage to a level where it can be converted to DC and safely used by the amplifier circuitry. This stage is usually, but not always, followed by a regulator designed to reduce noise on the supply and to keep it within specific voltage parameters. Thereafter, it is modulated by the incoming signal from the preamplifier prior to being amplified to an adequate voltage to drive the loudspeaker load by the output device(s).

Naim has recently started to put its 'DR' dual regulation power supply technology developed for preamplifiers and sources into its power amplifiers, but this is only the latest stage in a long running evolution that has been mirrored by amp manufacturers around the globe.

Valve amplifiers of the more desirable variety have valve rather than solid state rectification, and their makers use the best quality mains transformers that the budget will allow. The AC mains power is not as clean as it used to be: the advent of switch-mode power supplies on the majority of consumer electronics and the popularity of computers ensure that our mains supply is awash with various types of high frequency noise. This is why power regenerators are usually a good idea,

Are you interested in seriously good loudspeakers?

Hear these
speakers plus
'big daddy' Classic
Whittlebury Hall
hifi show
19-20 Sept

IF IT'S THE HEART AND SOUL of music you're searching for – not just 'hifi' bells and whistles – these speakers will bring tears to your eyes.

They'll do all the technical things, of course, but with panache and timing that bring 'presence' and involvement that you may never have experienced before.

One key to the performance of the Vivace and Chiara loudspeakers is the unprecedented care taken to limit damage to the music signal from vibration and radio frequency interference (RFI).

Yes, it's not just electronics, speakers also suffer the effects as detail and timing information are destroyed by the interaction between the signal and vibration and RFI/EMI.

Loudspeakers vibrate air of course, but that vibration travels everywhere via cables.

Particular care is taken with the crossover in both speakers, using technology developed by UK company Vertex AQ. Vibration is dissipated into material with thousands of pathways, while Stealth shielding developed for military aircraft and ships protects against RFI/EMI.

A second key feature are cabinets built from Tankwood, a composite so dense that it blunts diamond tools in Kaiser Acoustics' hi-tech factory near Munich.

Formed from highly-compressed beech ply and resin, Tankwood has inherently excellent damping properties but also is perfect for musicality, natural tone richness and authentic timbral colour.

Rear view of the Vivace, showing the passive mid/bass driver (top) and the additional bass unit. Finish of this particular pair is high gloss white with an exotic wood veneer front baffle. Almost any wood or paint finish is possible.

Don't think of the Chiara as a stand-mount speaker.

Vivace and Chiara loudspeakers both produce a scale, power and depth of sound out of all proportion to their physical size. So think of the Chiara as a compact floor-stander.

Initially the bass capability astonishes, until its other strengths – agility, clarity, timing, sparkling detail, separation, soundstage depth and width – also come into focus.

Chiara's invisible 'secret' is the substantial vibration absorption built into the integral stand, draining energy from drive units, crossover and the cabinet itself.

Those labyrinths are the major reason the speaker offers power and scale like a floor-stander. Absorbing the huge energy inside the cabinet during intense music passages allows it to control timing and phase accuracy, key to that stable imaging and sound stage.

The result is stop-you-in-your-tracks presence and realism, a jaw-dropping re-creation of the original performance. Even playing music that's not your usual choice the effect is riveting.

A third feature of both speakers is an extra drive unit on the back passively driven by the main mid-bass front driver – similar to the Vivace (below left).

The aim is to work with and control the room, rather than fighting it and setting up difficult modes. Humans need two milliseconds to separate a musical tone from a noise, after which the room's ambient sound intrudes.

Read much more under 'Loudspeakers' on our web site, including several major reviews, eg 'Best of the Best' in hifi+ magazine for the Vivace.

Customers say we make some of the best sounds at shows and in our studio they have ever heard, so you know we can do the same in your home. Our advice takes account of your best components and guides you where change is needed, in stages you can afford. Let us advise.

You avoid expensive mistakes, enjoy music and save money in the long run.

Just listen and you'll know

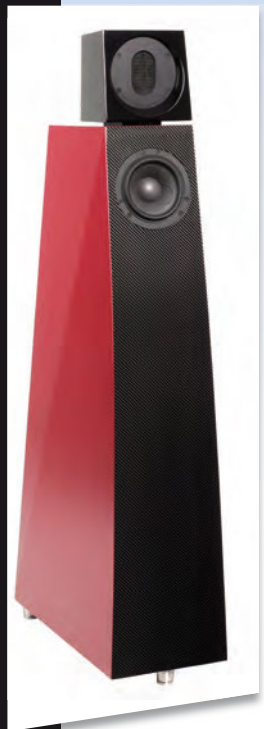
CD: Aurender, Bel Canto, dCS, Gamut, Vertex AQ DAC. Vinyl: Graham, Spiral Groove, Transfiguration.

Tuners: Magnum Dynalab. Amplifiers: Bel Canto, CAT, Gamut, Sonneteer, Storm Audio, VTL.

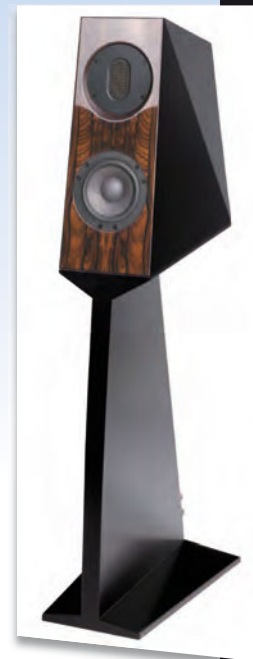
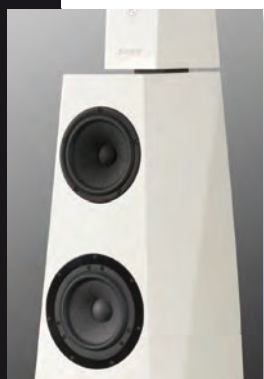
Loudspeakers: Avalon, Gamut, Kawero! – Vivace & Chiara, NEAT, Totem. Cables: Chord Co., DNM, Nordost, Siltech, Vertex AQ. Mains: Vertex AQ. Supports: Arcici, Black Ravioli, Hi-Fi Racks, LeadingEdge, Stands Unique, Vertex AQ. Room Acoustics: LeadingEdge.

www.rightnote.co.uk

01225 874728



Finish of this Vivace is high gloss Burgundy red with a carbon fibre baffle.



Chiara in another finish option. There's a third, passive, drive unit on the back.

Constellation Audio Hercules II

by Alan Sircom

Let's get the headline story out the way first. This Constellation Audio Hercules II stereo amplifier from the company's Reference Class is the best amplifier I have ever heard, and by a significant margin. OK, at £85,000 it's also one of the most expensive, too. But, I have had a lot of experience with audio's top table, and the Hercules II pushes 'best' to new levels.

That 'best' part also extends to the finish, which is something people have commented on from the first days of Constellation Audio. The aluminium casework of this amplifier is so far beyond the norm, comparisons are meaningless. Exemplary doesn't even get close. The finish almost looks like it has been plastic coating or painted until you get up close and really look at it and especially run your hand across the finish. It is simply without parallel.

As distinct from the original Hercules, the Constellation Audio Hercules II comes in stereo and mono form, but you'd be hard pressed to tell them apart from the inside or out, save for the second set of RCA phono, XLR balanced, and XLR direct connections at the bottom of the rear plate (the mono amp uses the second set of multi-way loudspeaker terminals for bi-wiring). Naturally, this kind of amp requires a beefier-than-usual 20A IEC terminal.

Constellation Audio followers might note there is a fairly big difference between Hercules and Hercules II. The original was an upright monoblock chassis, looking rather like a pair of tower computers, where the newer models – stereo, and mono – are more conventional power-amp shaped devices. This was one of the reasons for the change from Hercules to Hercules II – the original towers look great, but a single tower between the loudspeakers didn't have the same appeal, so a more conventional stereo design was mooted. This design demanded a very different layout, and it was decided to apply the same form factor to the revised monoblock amplifiers, in the process making them more powerful. And they are powerful: the Hercules II stereo tested here delivers an impressive 550W into eight ohms, where the new mono amplifier delivers a mighty 1,100W into the same load.

However, the basic circuit of the original Hercules remains the same in the Hercules II, even though there is no such thing as a 'basic' circuit on a Constellation device. In fact, the circuit is more like a 'greatest hits' of all the things you'd

want from an amplifier circuit, with the best components that were made for an amplifier of its kind (irrespective of price or current availability), designed and built by a 'dream team' of the finest amplifier engineers the world has ever seen. And, unlike other 'greatest hits', it doesn't come with half an album full of 'filler' tracks.

The problem with power is how to deliver more of it without making something less good sounding in the process. While not every amp maker shares that concern – manufacturers are quite content with piling on the power, regardless – Constellation designed the Hercules architecture as inherently scalable, centred around 125W amplifier modules, with amplifiers from the Inspiration series up to this Reference series using successively more modules, all featuring Constellation's rare stock of higher-specification, close tolerance components. What makes this Constellation concept sound so good is that it sounds as tight and as fast as a 125W amplifier, but with the added bottom end control and dynamics that you get from more powerful amplifiers.

Designing a stereo amplifier that cannot sit in the shade of the monoblocks was not an easy task, but neither would it be right to build a stereo chassis that overshadowed its bigger brothers. The result is a stereo chassis that echoes one channel of the monoblock almost perfectly. These design criteria all necessitated a move to a larger power supply from the original Hercules mono, with significantly greater amounts of storage capacitance, which is no mean feat in and of itself. This extra storage allows the Hercules II to smooth out the DC from the wall more deftly than before, and the increased size of the amplifier chassis means it is possible to double the size of the copper bus bars that run through the architecture.

This also meant doubling the size of the transformers in the power supply, moving from an unliftable pair of 1,500W toroidal devices, to a completely unliftable pair of 3,000W toroidals. All of which serve to make a single chassis amplifier capable of delivering up to a 1kW into a two ohm load, which equates to an ability to drive virtually every loudspeaker that ever graced a domestic listening room, no matter how demanding that loudspeaker may be.

This sheer power delivery on offer by the Hercules II is not the whole story, however. Although not commonplace, high-end power amplifiers capable of delivering half a kilowatt



“Combining the refinement and pace so loved by small-amp aficionados, with big amp range and scale. A perfect partnership.”

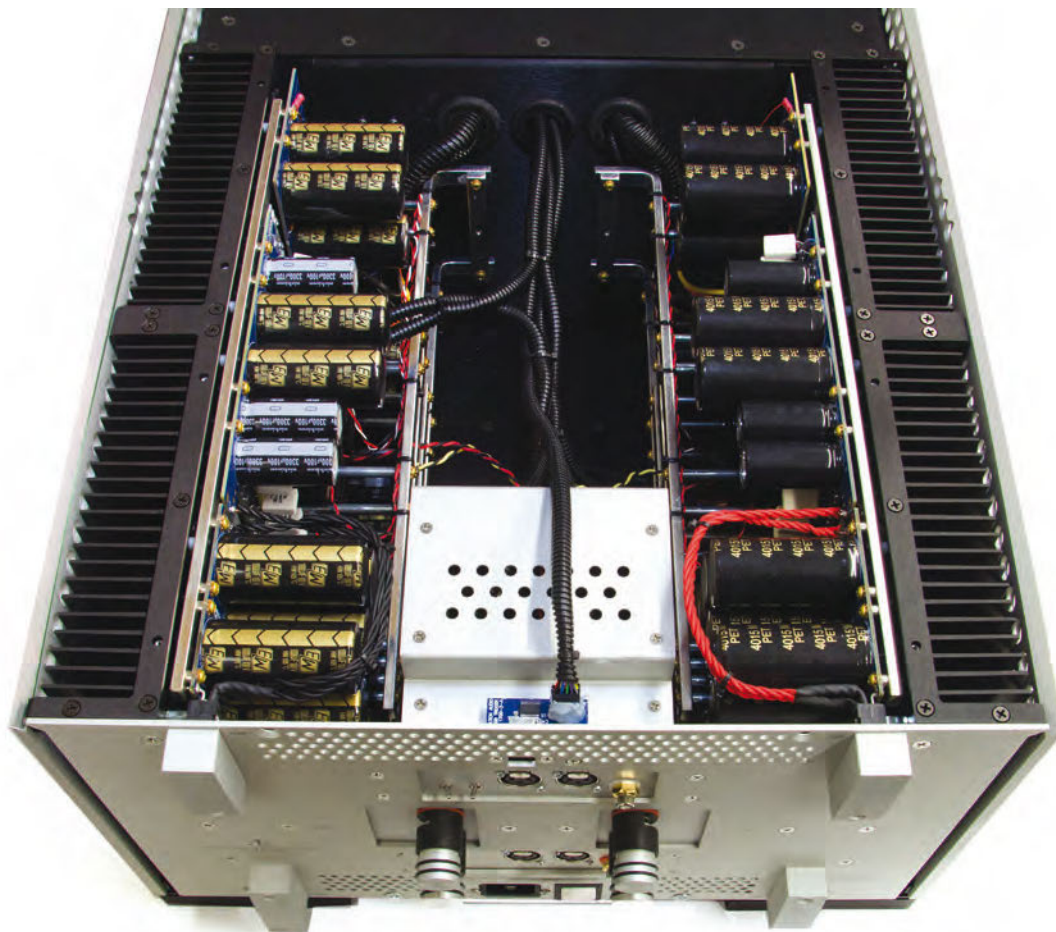
of power (or more) have been on the audiophile circuit for some time. Using FETs in the input stage is not unheard of, although the use of rare and long-discontinued audio-special FETs is another matter. Even making an amplifier by adding together a collection of modules has been done before, albeit with mixed success. But what's different in the Constellation design is how it delivers that power.

This is an amplifier that uses all of the strengths of a balanced amplifier (such as a low noise floor, greater dynamic range, and an ability to use long cable without significantly changing the sound), and combines them with the refined and sophisticated sound of a single-ended design. Instead of the usual arrangement of P-type (Positive-Negative-Positive) transistors handling the positive rail of the balanced line, and N-type (Negative-Positive-Negative) transistors handling the negative rail, the Hercules II modules are two single-ended amplifier designs, ending in N-type transistors in the output stage. This design has significant advantages over other circuits, because N-type and P-type transistors behave very differently, and that difference undermines the sound quality.

Constellation's amplifier design has an additional advantage to the circuit: it makes it inherently stable into all kinds of loudspeaker loads. As a result, Constellation Audio could remove the Zobel network, commonly found on amplifiers as a form of high-frequency protection circuit, for even better performance.

By making a set of single-ended N-type circuits, and stripping away the Zobel network, Constellation Audio discovered it had cracked the code to making small Class A amplifiers in very large packages, and combining the refinement and pace so loved by small-amp aficionados, with big amp range and scale. A perfect partnership.

Of course, this perfect partnership in the power amplifier only really works if every component in the chain is as uncompromising in intent as the Hercules II. In most cases – make that ‘in all cases’ – this would mean a Constellation preamplifier, such as the £65,000 Altair II in the Reference line. A good part of this is because that aforementioned input FET stage (more accurately a servo-controlled input FET stage) is functionally identical to the one found in the Virgo or Altair ►



► preamp lines, and as a consequence Constellation took the extremely clever idea of making a 'direct' input, alongside the balanced and single-ended inputs, which completely by-passes the input stage of the Hercules II in favour of the output stage of any Constellation Virgo or Altair preamp. The removal of an additional stage in the chain makes a clear difference, and for most people with full-range speakers, a clear improvement, too.

Similarly, the choice of loudspeaker and source must be of the absolute best, too. This is not a stark or revealing amplifier, but when you are creating a system that delivers this quality of performance, it deserves (rather than demands) full-range loudspeakers up there in the absolute reference class and a source (or sources) that highlight what the amps are capable of.

That speaker choice probably means big Magicos, or Wilsons, or YGs, or some equally top-of-the-tree transducer. Yes, you will get to hear what a pair of extremely good standmounts can do when fed the best possible signal, but if you have that best possible signal, you should put it to good use. Source wise, Constellation's own 'stellar' contributions

notwithstanding, you will be in the upper atmosphere of digital or analogue, at top dCS, Metronome, or Meitner levels to realise the potential of the Hercules II. Ultimately, the Hercules II is a world-class product and should be used in among its world-class peers.

We could focus even more on the technology, the system matching, even the 'dream team' that made the Hercules II. But after listening to the amplifiers for any significant amount of time, all of that melts away. In fact, all that remains is the 'small amp sound, big amp power' mantra, because that is precisely what the Hercules II does, and does brilliantly.

Put simply, the Hercules II makes a sound without any of the compromises we have become so used to in amplification. We forgot why we loved that sweet-sounding valve amplifier, because along the way we came to desire amplifiers that could drive a loudspeaker well and serve up bigger and better dynamic range at higher volumes with more demanding loudspeakers. But with the Hercules II, you gain both sides of the equation, the grace, the speed, the charm, the inviting magic of a small, deft single-ended tube amp, with the unshakable authority of seemingly endless power. ►



choice HI-FI
Hi-Fi Exceeding Expectations

“But I heard it, and I can’t afford it, so I get to live the rest of my life as a schnook.”

► Musical examples of what the Hercules II is doing are simple to find, because your reference points to what’s sonically possible are being pushed back. I sat enthralled to the sound of a 1950s Decca recording of *The Pirates of Penzance*, shocked at just how the years melted away. I sat listening to ‘Royals’ by Lorde [*Pure Heroine*, Universal] wondering if even she knows how good that mix can be, and I sat listening to ‘Church’ by Lyle Lovett [*Joshua Judges Ruth*, MCA] imagining a set of faders in front of me. I know all of these recordings extremely well, as I’ve used them (and many others) as test recordings, often for years on end. And they all came up shiny and new, like it was the first time I’d ever heard them. Because, in a very real sense, it was the first time I’d truly heard them.

Another way of looking at this is there are no musical examples worth citing with the Constellation Audio Hercules II, because every piece of music you play will be its own musical example. Music comes to you new, and fresh, and alive, with effortless dynamic range, quicksilver pace, timbral precision, and the sort of sonic performance that makes you play recording after recording, inviting you to listen to more genres and more styles of music.

Every aspect of audio performance was just another box to be ticked off in the ‘best ever’ list. Best ever dynamic range – tick! Deepest, widest, highest soundstage – check! Most detailed – got it! Most transparent – OK! Most revealing – probably yep, that too! Here though is an interesting aside. The Hercules II can be revealing of component quality: if a link rest in the audio chain is flawed somehow, the flaw will show through, but the Hercules II doesn’t highlight that flaw. This can be mistaken for inherent warmth to the sound, but that’s wrong. It’s like the difference between honesty and stark honesty: if you don’t know the difference, when your wife asks “Do I look big in this dress?” hire a divorce lawyer.

As I said at the outset, this is the best amplifier I have ever heard. That makes it easy and difficult to review. Easy, because ‘it’s the best amp, ever’ in gushing prose isn’t hard to write. But it’s also difficult, because the descriptions of how it sounds ultimately become trite, as it just sounds better than everything with a plug I’ve ever heard before. I feel like someone who has spent their life eating Big Macs suddenly trying to describe the best steak in history.

TECHNICAL SPECIFICATIONS

Type: solid state stereo power amplifier

Inputs: 4x XLR (2x Balanced, 2x Constellation Direct),
2x RCA phono

Outputs: Metal binding posts

Power Output (8Ω): 550W (1kHz @ 1% THD+N)

Power Output (4Ω): 750W (1kHz @ 1% THD+N)

Power Output (2Ω): 1kW (1kHz @ 1% THD+N)

Frequency Response: 10Hz-100kHz +1/-0.5dB

Gain: 32dB

THD+N: <0.05% (1kHz @ rated power)

Output Impedance: 0.05Ω

Damping factor: 150 (8Ω load)

Input impedance: 10kΩ unbalanced, 20kΩ balanced

Output noise: <500μV, -100dB@250W

Dimensions (WxHxD): 48.26 x 33 x 81.3cm

Weight: 100kg

Price: £85,000

Manufactured by: Constellation Audio

3533 Old Conejo Road, Suite #107

Newbury Park, CA 91320

URL: www.constellationaudio.com

Tel: +1-805-201-2610

Distributed in the UK by: Absolute Sounds

58 Durham Road,

London SW20 0TW

URL: www.absolutesounds.com

Tel: +44(0)20 8971 3909

There’s only one downside for the listener – where do you go from here? OK, there are always the Hercules II mono amplifiers. And yes, this is probably the ultimate in First World Problems. But if you spend some time with the Hercules II, whatever you listen to after that is going to be something of a disappointment. It’s a ‘Plato’s Cave’ moment – if you have spent your life staring at shadows on the wall of your cave, only to turn round one day and see what the real world is like, it’s hard to go back to the shadowplay. That is how I feel about the Constellation Audio Hercules II power amplifier: I can try and pretend otherwise, I can even try to forget what I heard from this amplifier, but I heard it, and I can’t afford it, so I get to live the rest of my life as a schnook. +



beauty is so much more than skin deep.

Cyrus Audio Systems are high-end hi-fi components of truly extraordinary sonic capabilities. Inside every unique hand-built Cyrus chassis beats the heart of a real musical soul.

Cyrus Amplifiers have the power to fill rooms without strain. Ergonomic styling with a minimal footprint to fit into the modern living space. Leading edge analogue and digital technologies and unique construction combine to deliver breathtaking performance right across the audio spectrum.

A culmination of over 30 years' expertise designing class-leading and award-winning hi-fi systems.

From a single box solution to a multi-component, upgradeable array delivering the very best that the worlds of analogue and digital music sources have to offer the discerning audiophile.

Aspire to own one of the world's finest audio brands. Cyrus.

Build a better music experience. Visit our website for more information:



www.cyrusaudio.com

CYRUS

SPECIAL SYSTEMS OFFER (UK) Buy a 6 DAC or 8₂ DAC with a CD t or Stream X Signature from only £1,500 until 31.08.15. SEE WEBSITE FOR DETAILS OR CONTACT YOUR DEALER. Model shown: 8₂ DAC Stereo Integrated Amplifier with on-board DAC.

WHAT HI-FI?
SOUND AND VISION



WHAT HI-FI?
AWARDS 2014

Turntables
Best turntable £800+
Clearaudio Concept



HI-FI WORLD
VERDICT 



Zanden 8120 Power Amplifier

by Roy Gregory

All should be right with the world: I'm looking at (and listening to) a stereo amplifier sporting four KT-120 output tubes and delivering 100 watts per channel. This is a topology that delivers the fluidity and dynamic integrity that mark out the better tube designs, combined with enough power to handle real-world loudspeaker loads. And the 8120 is a Zanden amplifier, too: its cuboid form factor, and frosted acrylic front and rear panels, are both understated and ineffably stylish. Has there ever been a more attractive amplifier?

However, lingering on the horizon is a dark smudge that I just can't ignore: with a single pair of push-pull power pentodes (or kinkless tetrodes) per channel, amps generally manage to present their considerable musical merits in cost-effective packages. They deliver a real musical bang for your bucks. Except that, as beautiful, as capable, and as flawless as this amplifier undoubtedly is, the one thing that the Zanden 8120 definitely is not, is affordable. At £19,900, you'll do well to find another tube amp that charges this kind of money for 100, non-triode watts. ▶



“Its sense of locational order and its ability to create a single coherent acoustic space is exceptional.”

► Sometimes though, no matter how familiar the ingredients might seem, great products invariably deliver more than the sum total of their parts. The Zanden is a case in point. First, at over 45kgs, the 8120 is no lightweight. Now, lift the lid – necessary to insert the four ECC82s and four KT-120s – and the amplifier’s unusual, boxy shape starts to make sense, the tube bases being mounted on a stepped steel chassis perched atop a solid block of electrical hardware. No wonder the 8120 seems so dense – there’s virtually no air inside.

Despite its conventional topology, with a phase splitter feeding a gain stage that’s directly coupled to the output tubes, the sheer bulk gives you some idea of just how much hardware has gone into the power supply, which features film-caps throughout and multiple stages of choke regulation. In addition, considerable effort has been expended on shielding the signal path, while Zanden also makes use of a high-tech, high-frequency absorbent material to further protect the audio signal from external interference. Standard inputs are single-ended RCAs, although you can specify balanced XLR’s as a £995 cost option. The output stage employs a factory set bias voltage, which guarantees maximum power output, but also means that – unlike some superficially similar amps – you cannot substitute ‘equivalent’ tubes, such as KT88s or 6550s. Finally, the 8120 is also available with source switching and a volume control, in the shape of the 6000 integrated amp.

Zanden’s products have always had an uncanny ability to fasten onto the message, the core, the attractive quality that makes great music so compelling. The CD players do it with digital and the phono stages most definitely do it with analogue – both bringing a natural immediacy, presence, and directness to proceedings. More recently, the 3100 line-stage has exhibited a similarly direct connection to the performance, but at least as far as Zanden’s amplification goes, the 8120 takes things to a whole new level, not that you are necessarily going to appreciate that from the word go. One of the things that makes all those classic push-pull stereo amps so appealing is their sense of purpose, the way they drive the performance forward, pulling you in, and carrying you with it. Put on the Zanden and it sounds almost reticent with none of that cock-sure punch or urgency that you might expect. Instead it sounds relaxed, unforced, almost limpid, with an unflustered air of calm composure. There is nothing overt

or obviously impressive about the performance of the 8120, nothing to point a finger at or hang its character on. In fact, its most remarkable feature is its total lack of remarkable features.

Let’s start with its imaging: at first, it’s easy to assume that this Zanden amp is recessed or laid back, but what soon becomes apparent is that what you are hearing is a soundstage that’s not just set beyond and away from the speakers, it’s all back there together. Nothing steps forward or suddenly emerges from a drive unit to disturb the spatial continuity, an intrusion that you only really notice once it has been removed. Normally, we compensate for such aberrations, but the 8120 totally eliminates the need. Its sense of locational order and its ability to create a single coherent acoustic space is exceptional. Instruments stay planted in space, defined in all three dimensions, with no tendency to rise or step forward with pitch or level. Yet at the same time that presentation is utterly natural and unexaggerated; there’s nothing that screams, “Just look at this soundstage!” Instead, you find yourself taking it for granted – right up to the point where you listen to a different amp that can’t match the 8120’s spatial aplomb – and which suddenly sounds horribly contrived and false as a result. If you want the perfect example of the Zanden’s natural perspective and spatial stability, look no further than Barbirolli’s EMI/Hallé recording of the Karelia Suite and the way that the whole spread of brass instruments manages to stay, not just precisely located across the rear of the stage, but also at exactly the same height. Now try that with a few other amplifiers...

This quality of natural expression extends into every aspect of the 8120’s presentation. It might lack the obvious appeal of those amps you assume to be its peer group, yet at the same time it is seductively listenable, engaging, and astonishingly satisfying. Far from lacking drama or excitement, what you’re hearing here is the reverse of what you might well expect. Rather than driving the signal, imposing its will on proceedings, it’s the signal that’s driving the amp. The Zanden enjoys a rare agility when it comes to tracking the musical demands presented at its inputs, responding to rather than limiting or ‘managing’ their twists and turns. Instead it allows them free rein, both in terms of tempo and dynamic range: strings soar, brass punches, voices are free to growl, grate, purr, or pierce. Percussion can be truly explosive – but at the same time it has texture and subtlety, whether it’s the ►



KOG AUDIO

www.kogaudio.com info@kogaudio.com 024 7722 0650



The new Silver Diamond cables from Tellurium Q

“A pure revolution ...

I just couldn't stop marvelling at the performance levels they brought to all music material.”

“The Tellurium Q Silver Diamond speaker cables represent a major achievement in the realm of state of the art loudspeaker cabling. The way they manage to combine phenomenal resolution, transparency and natural tonal colours, while sounding extremely analog and coherent, top to bottom, is almost unbelievable.”

“It was hard to concentrate on the sound and analytically observe its characteristics because I was so drawn into the music performances that it left me speechless.”

MonoandStereo.com June 2015

Tellurium Q®

Audio products specifically designed to combat phase distortion

At Kog Audio, we select the most exceptional products in order to give music lovers unmatched enjoyment, and build systems that will exceed expectations and provide pleasure for years. Please visit our website for information, links and reviews for all our products.



MELCO

VTL

AVALON

Silberpoint

EXOGAL

Tellurium Q®

Russell K.

VIAVA audio

SPIRAL GROOVE

estelon

▶ low rumblings of a timp filling out murmuring strings or the subtle insistence of the brushwork anchoring an extended, meandering Coltrane solo. Changes in tempo are clearly apparent, as are rhythmic patterns, while contrasts in tonal shading or musical mood are effective without being broad-brushed in bold. The musicians and the music are given their own voice. Instead, rather than any diminution of expressive range or compression of shade, what's missing is the edge and glare, the subtle hardening on transients, and the clipped harmonics that so often pass for speed and excitement. Music through the Zanden seems neither fast nor slow – it just seems right, whether it's Art Pepper's measured, grindingly dirty groove of 'Las Cuevas De Mario' or the jaunty, up-beat 'Smack Up' (from the Boplicity album of the same name).

The Zanden's grasp of pace and tempo is remarkable – and utterly effortless. It lays bare the evolution in Berglund's

readings of the Sibelius symphonies, his shift from textural and tonal contrasts to a more dynamic and dramatic presentation. At no time are you left wondering why his later readings, which are so much bolder, are also less enjoyable. While the 8120's spatial coherence, rhythmic flexibility, and unconstrained dynamics are the most apparent markers of this amplifier's special musical abilities, it is its sheer, unobstructive musical fluency that really sets it apart: the innate sense of balance that binds those special, individual attributes into a single whole that manages to make such perfect musical sense.

We are collectively so used to the 'language' of audio amplification, that if it's absent then we miss its accent, just as if you habitually take sugar in your tea, you are instantly aware, almost before the drink reaches your lips, if that sweetened taste sensation isn't there. This Zanden allows us – or more properly, invites us – to enjoy a paradigm shift. Instead of ▶



AURALiC[®]

inspire the music

Quad-Rate DSD comes to VEGA & ARIES

Same hardware, new software
Contact us to get your free update*



*VEGA units with SW version below 2.0 requests a factory firmware update to enable this function.
Free update period will end by 1st October 2015. Please contact support@auralic.com for detailed information.



AURALIC LIMITED | 声韵音响
1F Building No7, 1A Chaoqian Road, Beijing, 102200, China
12208 NE 104th St. Vancouver, WA 98682, United States
<http://www.auralic.com/> info@auralic.com
TEL: +86-(0)10-57325784 (CN) TEL: +1-(360) 326-8879 (US)

AURALiC[®]
inspire the music

Sarum Super ARAY

*"If you couldn't hear the differences
between these network cables you either
weren't listening or you are in denial"*

Roy Gregory, The Audio Beat

Sarum
Digital
SUPER ARAY

Designed and built to order in England by
music lovers. Enjoyed by music lovers all
over the world.

The Chord Company Ltd, Millsway
Centre, Amesbury SP4 7RX, UK

To get more information and find your
nearest retailer, please call us on:
+44 (0)1980 625700 or visit:

www.chord.co.uk

THE
CHORDTM
COMPANY

Designing & hand building



in England since 1985

▶ viewing the recording through the lens of the system playing it, this amp advances the perspective, revealing the music through the window of the recording. It removes the means of (re)production from the process, eliminating so many of the intrusive mechanisms that so often bracket audio performance that we've almost come to rely on as way markers. For any audiophile who hears live, acoustic music on a regular basis, the 8120 will come as both a shock to the system and a strangely familiar experience. But once you recognise what it's doing and reset the filter of your expectations... boy, are you going to love this amp!

Does that mean that the Zanden doesn't 'do' rock music? Well, yes and no. Yes, it absolutely does 'do' rock: just listen to the insistent urgency it brings to John Cougar Mellencamp's 'Paper In Fire' [*The Lonesome Jubilee*, Mercury], or the effortless way in which it sorts out and propels the loose-hipped and disjointed rhythms of Talking Heads' 'Born Under Punches' [*Remain In Light*, Sire], to appreciate how its agility and unfettered dynamic response brings this music to life. No, it doesn't have the edge and glare that you'll be used to, probably leading you to advance the volume control, in search of those familiar failings.

Which brings us to, not so much the 8120's failings as the edge of its envelope. As astonishingly musically adept as this amplifier is, it isn't perfect. Its deepest bass doesn't have the absolute air, transparency and authority of a pair of Karan monos and, although it's undoubtedly quick, it doesn't have the sudden dynamic response of the Siltech SAGA. But both those options are going to cost a lot more than the Zanden, so the modest shortfall is more than acceptable. What those amps also offer is power – and lots of it. The 8120 generates 100, very musical watts – but 100 watts is still only 100 watts, which means that you need to choose your speakers with that in mind, rather than simply assuming that because the Zanden is a pricey piece it will drive anything. Having said that, this amp is hardly limp of wrist and it will drive most real world speakers with a grace and authority that will surprise and delight. I used both the Focal Scala Utopia V2 and the diminutive but awkward B&W 805D2 during the review, both with conspicuous success – just so long as I didn't allow the amplifier's lack of additive 'drama' to lure me into listening at louder than usual levels. It might seem obvious, but the trick here is to listen to how loud the music is, rather than how loud it sounds. It's an issue that is compounded by the amp's essential honesty: it let's you hear the dynamic range that's on the recording – which is great if it's a good recording, but not so great if it's a compressed and muffled 'radio mix'. We already know that the 8120 will play loud with grace and some considerable enthusiasm. Just don't

expect it to play REALLY LOUD with the same aplomb – or inject a sense of life and dynamics where there aren't any.

Few amplifiers in my experience are as adept as the Zanden 8120 when it comes to performing the sonic disappearing act that makes long term listening so rewarding. How does this Zanden amp sound? Not the way you expect it to. It's clean, modern lines bely its natural, warm, fluid, expressive character: its push-pull output stage isn't reflected in a rigid, overly tight grip on musical proceedings, a lack of air, or any stripping of harmonics: its single pairs of output devices certainly contribute to its rhythmic and dynamic coherence, but its 100 watt rated output isn't the impediment to dynamic range or musical authority you might expect. In fact, it's the temporal, spatial, and dynamic coherence, the sense of natural tonality, natural perspective and stable presentation that help make the music made by the Zanden so special. SET aficionados will glory in its rich tonal palette and relaxed sense of musical flow, push-pull devotees will love its control and transparency, focus and organization – while solid-state advocates will be disconcerted and besotted in equal measure. They say that beauty is in the eye of the beholder, and this is definitely one beautiful looking and sounding amplifier. But there's none of the louche, in your face brashness of a Scarlet Johansson here: nor the painfully thin, overly earnest awkwardness of an Anne Hathaway: and you can forget about the hard, brassy exterior of Angelina or the calculating, emotional constipation of Nicole. This is a beauty that embodies hidden depths, a quality that's a cut above the norm. If this amp were a movie star, it would be Ingrid Bergman: subtle, under-stated, elegant, and classy – definitely a keeper. +

TECHNICAL SPECIFICATIONS

Type: Stereo power amp with push-pull output stage.

Tube Complement: 4x 12AU7/ECC82, 4x KT-120

Inputs: 1pr single-ended RCA

1pr balanced XLR (optional)

Input Impedance: 100kOhms (RCA), 7kOhms (XLR)

Rated Output: 100 watts/channel

Dimensions (WxHxD): 426 × 316 × 379mm

Weight: 46.2kg

Price: £19,900 with RCA input

UK Distributor: Audiofreaks

Tel: +44(0)208 948 4153

URL: www.audiofreaks.co.uk

EarPlay



HEGEL H160

The new integrated amplifier from Hegel is one of the most versatile and well sounding music reproducers on the market. It enables you to connect all kinds of analogue or digital sources, even streaming with Apple AirPlay or DLNA - and uses Hegel's proprietary technology to make AirPlay and DLNA streaming sound better than you thought possible. The H160 is a virtual power house, with 2*150 watts and a very stable design. This might be the only high end piece of electronics you need in your system.



Derby:	Musicraft
Edinburgh:	Loud & Clear
Kent:	Igloo Audio
Hegel:	www.hegel.com

GamuT D3i & D200i preamp/power amp *by Jason Kennedy*

I have some history with the GamuT D200 power amplifier; the original version was my reference amplifier for many years and powered at least two generations of Bowers & Wilkins 802 Diamond speakers. I liked it a lot, but somewhere along the upgrade path to MkIII status, it began gathering dust and I let it go. Hearing the latest D200i brought back what I loved about this Danish beast.

GamuT makes two power amplifiers, of which this is the stereo option. The M250i is an even more powerful monoblock, but the as the name suggests, the D200i's delivers a healthy 200W in its own right. GamuT amplifiers use a single high-current MOSFET output transistor per channel, where most other solid state amplifiers use multiple output devices and if these differ in their electrical characteristics, distortion creeps in. Manufacturers therefore tolerance their output devices as tightly as possible; Naim takes this to its logical extreme with its Statement amps, where each set of output

transistors are made from adjacent pieces of silicon from the same die – but that is clearly a pricey approach.

The reason that solid state amps have multiple output devices is because this gives more power and more power needs more heat dissipation. So how does GamuT get away with using only one device? I asked engineer Benno Baun Meldgaard this question and he explained that they use industrial transistors that were developed for motor control and welding, and are even able to handle 400 amp peaks. This type of transistor is not available in the usual complimentary positive and negative pairs (PNP and NPN), but just NPN or 'negative' and GamuT had to do a lot of work to stabilise two of these devices for each channel, effectively turning them into a pair. To Benno's knowledge, Constellation Audio is the only other company that does this and then with multiple pairs rather than one.

The latest D200i now has a single emitter resistor network, which consists of three paralleled 0.12ohm resistors, creating a combined resistance of 0.04ohms. That is about 5-10x lower than most amps. The transistors themselves are of higher quality and the power supply has been reconfigured with better parts and a quieter transformer than before. Rectification is now balanced and has twice the capacity, in the process halving resistance and lowering noise. Finally, the internal cabling has been changed to GamuT's Wormhole speaker cable, an unusually thin type for a high power amp maker.

GamuT only makes one preamplifier: the D3i. This is described as a dual-mono design and has both balanced and single ended inputs and outputs on its substantial yet not overly weighty carcass. One pair of the RCA phono ►



► inputs is marked RIAA with a matching legend on the backlit front panel. However, as things stand it does not connect to a GamuT phono stage, which is still in development but should be available by the end of the year. At present, this input functions as a balanced input on RCA sockets; it works with an XLR to RCA cable, wired positive to centre pin and negative to the collar, plus a flying earth lead screwed under the ground connector. This configuration can also be used with any balanced line level input. The HTH/home theatre input can be used in bypass mode for combined stereo and multichannel systems.

I kicked off the listening by using the D200i with the Townshend Allegri passive controller; this proved a nostalgic experience because despite the many changes to the amplifier and to my system since I last used a D200 the same character was evident – an effusive vivacity made possible by excellent dynamics and the authority of serious power reserves. This, however, is not a leaden muscle amp and it doesn't sit on the music in the way that so many do; instead, it infuses the music with life and energy, giving orchestral works the vitality they require if they are to move you fully. The D200i has a slightly sparkly, bright sound compared with my regular ATC P1 power amp, and this quality requires a suitably

calm, maybe even restrained loudspeaker to make a good match. The PMC fact.8s are very open and revealing, but not quite as good a choice as the Bowers 802Ds were. However, they do allow this amp to pull tons of space and 'air' out of recordings like Gregory Porter's 'No Love Dying' [*Liquid Spirit*, Blue Note]. This seems a little crisper than usual, but you can also hear more detail so it's hard to say whether the amp is revealing or adding it.

Chris Jones 'Roadhouses & Automobiles' [*Roadhouses & Automobiles*, Stockfisch] is a rather more polished recording and here you can appreciate the effects that have been used on his voice and those of the backing singers. In some respects the D200i has valve like characteristics with transistor style control. It doesn't have the smoothness of a good valve amp but it has a lot more grip, albeit not in a way that gets between listener and music. It doesn't, for instance, match my ATC P1 for low end extension and grip, but has a far more open and dynamic style, it delivers detail better than power but that serves the music extremely well.

Adding the D3i preamplifier to the mix opens out the soundstage even further. This is because the strict dual-mono preamp design yields extremely high channel separation, which in most cases results in a wide soundstage; consequently, the speakers should be toed inwards further, to create correct width. This will result in a soundstage with even more depth and precision. Depth of image is particularly good with Javier Perianes playing on Manuel Blasco de Nebra's Piano Sonatas [Harmonia Mundi], while the reverb is massive and the richness of tone beguiling. Timing appears not as strong as it is with the Allegri, but a passive preamplifier will typically create a small phase shift depending on volume setting, so changing to a buffered preamplifier will actually result in a linear phase behaviour. The potential for high frequency attenuation in a passive preamplifier is a consideration, too.

Taken as a pair, the GamuT duo put on a fine show. 'Goodbye Pork Pie Hat/Brush With The Blues', from Jeff Beck's *Live at Ronnie Scott's* [Eagle Records] is not short on scale and has oodles of detail, which makes for a ►



If your hi-fi dealer loves vinyl,
he will play it on a VPI Prime.

Don't settle for second best.





INTRODUCING

ODIN 2

TRANSCENDING SONIC BOUNDARIES

Total Signal Control

HOLO:PLUG® Technology

Dual Mono-Filament

NORDOST

MAKING THE CONNECTION

Distributed by Atacama Audio

T. 01455 283251

E. post@atacama-audio.co.uk

www.nordost-cables.co.uk

Made in USA





“The GamuT pair, especially the D200i, manage to combine power with tonal subtlety.”

► truly electric atmosphere that seems more than a small club like Ronnie's could contain. What I really like, however, is the way that these amps focus on the playing more than the sound; this apparently obvious aim is not always achieved by high-powered amplifiers, but here the combination of light-handed control lets you hear all the elements in the mix in perfect balance.

The GamuT pair, especially the D200i, manage to combine power with tonal subtlety – a quality that serves whatever music you want to play very effectively. The D3i is not the most relaxed or natural-sounding preamplifier on the planet, but it can produce a vivid and entrancing sound that lets you hear the meaning in the music. It is extremely good at resolving reverb and timing, though not in the front league, is certainly not sluggish. With Barenboim's *Beethoven For All* Symphony No.1 in C, Op.21 [24/96, Decca], the orchestra really breathes (again!); it's too big for the room, but you get a strong sense of the power and dynamics on tap. Some might want a bit more authority – essentially more power in the bass – but that is very difficult to achieve without undermining musical flow, something at which the GamuT pair excel. Stiffer power amps give a Beethoven symphony gravitas, but if you are after the joy alongside the 'Sturm und Drang' the GamuT have the upper hand.

The GamuT D200i retains the combination of musicality and power that kept me listening long into the night. It is more transparent than before and, when partnered with the D3i, makes for amplification that put music under its spell. Those looking to shake the furniture may have to look elsewhere, but anyone who wants to be spirited away should lend GamuT an ear. +

TECHNICAL SPECIFICATIONS

GamuT D3i

Type: J-FET NPN line-stage preamplifier

Analogue inputs: Four pairs of single-ended inputs (via RCA jacks), one pair of balanced inputs (via XLR)

Analogue outputs: Two pairs of balanced outputs (via XLR connectors), one pair of single-ended outputs (via RCA jacks), one pair of single-ended Tape Outputs (via RCA jacks)

Input impedance:
20kOhms single ended

Output impedance:
75 Ohms single ended

Bandwidth: 5Hz-100kHz

Gain: 5dB

Distortion THD+N: <0.0008% (/2Vrms)

Signal to Noise Ratio: 110dBA

Dimensions (HxWxD): 108 x 430 x 410mm

Weight: 12kg (packed)

Price: £5,499

GamuT D200i

Type: Single pair NPN MOSFET output device transistor power amplifier

Analogue inputs: One pair balanced (via XLR connectors), One pair single ended (via RCA jacks)

Analogue outputs: Two pairs of speaker taps (via 5-way binding posts)

Power output: 2x 220 Wpc into 8 Ohms,
2x 400 Wpc into 4 Ohms,
2x 700 Wpc into 2 Ohms

Bandwidth: 5Hz-100kHz

Dimensions (HxWxD): 155 x 430 x 390mm

Weight: 34kg

Price: £9,299

Manufacturer: Gamut A/S

URL: www.gamutaudio.com

UK Distributor: Sound Fowndations

Tel: +44(0)118 981 4238

URL: www.soundfowndations.co.uk

SCANSONIC **HD**

MB-2.5 | - Slim floorstander

The MB 2.5 has a solid foundation in the Nordic design tradition. It is simple, sleek, elegant and visually square when seen directly from the front, and curved and organic when seen from an angle.

The rounded edges of the cabinet reduces diffraction and minimizes the sonic imprint on the frequency response. It does not matter if your home is modern or classic, the timeless design of the MB-2.5 will fit in any home.

You won't find anything close to doing what the MB-2.5 do for the money

Allan Sircom, Hi-Fi+, Maj 2015



Primare PRE60/A60 preamp and power amplifier

by Alan Sircom

Primare's reputation is largely built around its range of amplifiers. Although its disc players, streamers, and DACs are beyond reproach, it's the amplifiers that people most associate with the brand, and for good reason. The PRE60 and matching A60 represent the present top of the Primare tree. And it's a fine tree, too.

The PRE60 and A60 are the first seriously high-end amplifier products released by Primare in some time, and that's

not simply high-end in terms of price. The PRE60 is every bit a 'now' product, as it stands between the all-digital hub of tomorrow and the all-analogue line preamp of today. The only omission is the phono stage of yesterday afternoon, but Primare makes the R32 MM/MC stage for that purpose. The PRE60 runs in fully balanced mode – it may have four single-ended line inputs, but these are 'up-converted' to balanced mode internally. On the digital side, the PRE60 features an XMOS-USB input alongside the usual slew of optical and coaxial S/PDIF digital inputs, and feeds all signals through a Burr-Brown sample rate converter to upsample data to 24-bit/192kHz to then output to a Crystal DSD-chummy Delta-Sigma DAC. There is also an Ethernet port and wireless LAN connection, which allows UPnP/DLNA network streaming, vTuner internet radio, and is all controlled via Primare's very natty app. If this all sounds





► familiar to regular readers, that's because the PRE60s digital stage combines the DAC30 DAC and NP30 network player we are so fond of here. If your audio source is now either a computer or a network, think of this as these two devices combined with a really good balanced gain stage, the attractive fluoro display on the front panel notwithstanding.

The A60 is equally interesting. Like the preamp, it's a fully balanced design (once again, the single-ended inputs are converted to balanced operation), and like the preamp it comes in a fairly substantial box, but this 300W power amplifier is not as hefty as you might expect, because it uses Primare's UFPD modules: that's Ultra Fast Power Device, not the University of Florida Police Department. These are better known as Class D amplifier circuits, with two modules per channel and what Primare calls an 'Isolated Power Factor Control' switch-mode power supply. The latter limits two of the current (no pun intended) criticisms of Class D and switch-mode supplies – introducing noise and EMI right in the very place it's least welcome. The amp modules themselves are similar to Hypex modules, which is a good start in audiophile Class D. Nevertheless, Class D and high-end are not yet natural bedfellows, despite all the good work done by Devialet and especially Mola-Mola to prove otherwise.

Primare holds well to the 'first, do no harm' dictum of the Hippocratic Oath (musical edition). The pair leave little in the way of footprints on the music played. All you get is just a slight forwardness to the overall presentation, which gives music a clean, direct, and inspired demeanour. The rest is fundamentally 'right' sounding.

I'm going to toss out a concept here that I've been mulling over for some time - the concept of the 'blameless reference'. This is a product that fundamentally does nothing bad to the signal, is at least as good or better than its peers, and while not necessarily cheap, is not priced to a point where only former directors of FIFA can afford the product. My take here is that pre and power products in this 'blameless' category should cost in the thousands, but not the tens of thousands. The PRE60 and A60 fall into that category, in performance and price.

I mostly used this combination fed by a Naim UnitiServe and into Spondor's excellent D1 standmounts, using balanced cables from Cardas throughout, and the net result of this was to think 'wrap it up, I'll take it!' It had the right sense of scale for playing anything from Steel Pulse to Al Kooper, enough pace to keep up with Burial, and enough musical coherence to flow with Saint-Saëns 'Danse Macabre'. This sounds like faint praise, but there

were no musical interludes that strongly drew me to them enough to point them out in print, and that is a part of the Primare's greatness. Where other systems force you toward one genre or another, and those become highlights, this simply plays everything without grace or favour.

If it's power you want, the Primare delivers it with energy and drive. If it's soundstaging, it's as good as the speakers you use. If it's infectious rhythm, then the music needs some infectious rhythm rather than have it thrust upon the sound. It's that sense of doing a thing, and doing it right that Primare really gets here. That's not damning it with faint praise; that's prizing it for its honesty and integrity.

I'm sensing that people may want more. But in a way, what the really good equipment should offer is not 'more'. We don't need impressive sounds at the high-end; we need instead for hi-fi brands to remember that 'hi-fi' means 'high-fidelity' not 'high-fireworks', and that's where products like the PRE60 and A60 come in. They don't impose their own character upon the source or the speakers. They merely act as neutral platform for a good sound, the kind of neutral platform ►

SERIES V~12

MAGNESIUM TONE-ARM

Based on the multi-award winning Series V pick-up arm, the Series V~12 incorporates the same design and engineering that have made SME a byword for excellence. Coherent musical control is held over the entire frequency range in terms of tonal quality, stability and stereo imaging. Startling dynamic range, neutrality, structurally inert, the Series V~12 embodies every worthwhile feature in a pick-up arm. The 12 inch tone-arm is pressure die-cast in magnesium complete with an integrated headshell to eliminate tone-arm resonances in the audio spectrum and offers a 27% reduction in maximum angular error distortion over 9 inch models. Listening; the benefits of minimal tracking error and harmonic distortion are clearly revealed.



SME

"The best pick-up arm in the world"



- that you can use for anything from cable assessment to just enjoying a good pair of loudspeakers without the amps getting in the way.

There are three small caveats though, all relevant to Class D, although the last has a specific Primare twist. First, the A60 is not in its comfort zone with exceptionally impedance-strangling loudspeaker loads. 'Amp-crusher' loudspeakers from the extreme high-end require the kind of delivery only a toroidal the size of a crash helmet and beefy heatsinks can provide. Next, if you change loudspeakers, always remember to cycle the power (it's good form in general to power down the amp before swapping loudspeakers anyway, but Class D seems to 'map' the loudspeaker load, and if you change the speaker without changing the map, you end up driving through a ploughed field). Lastly, you need to give these the A60 a good thrashing before it gives up its treasures. The first 48 or so hours from new (or after a long break from power) - ugh. It's thin, flat, and uninspiring. Leave it to eat some Volts for a weekend and it's a different amplifier. Oddly, there doesn't seem to be a gradual transition to greatness - it seems to happen instantaneously. One second, 'meh!', the next, it's 'what did you do?'

Of the two, the PRE60 is the standout product, but more by virtue of getting so much right in combination than any marked sonic edge. If you took the DAC, streamer, and preamp as separate components in their own rights, you'd probably have to spend more to get to the same performance level. And let's make it perfectly clear; these component parts aren't exactly mediocre in their own rights. Hell, I was so taken with the NP30 after the review, I bought the review sample, and the PRE60 is every bit as convincing as a complete unit. In fact, I'd put the PRE60's streaming performance ahead of my own NP30, despite it having the same basic modules, because the system gels together so well. The A60 is more than just a good partner for the PRE60; it's an excellent power amplifier in its own right. It works extremely well being fed by a Townshend Allegri passive preamp, delivering the kind of clarity, detail, and dynamic range with which any good preamp can truly shine. But when a double-act is as good as the Primare pair, why break up the band?

Perhaps though, it's the audio industry itself that makes the best accolade for the Primare PRE60 and A60. Go to a show, and see what amps the good-sounding rooms run by the more 'sensible' cable or loudspeaker demonstrators use, and you'll keep seeing these Primare amps cropping up. The fact is, if you evaluate audio equipment by its sound quality instead of amplifier class, the Primare duo come very highly recommended. +

TECHNICAL SPECIFICATIONS

PRE60

Type: Line level preamplifier with built in DAC and streamer

Analogue Inputs: 2x XLR, 4x RCA, RS232, IR in/out, Trigger in/out, RF

Digital inputs: 3x Toslink, 1x coaxial RCA S/PDIF, USB A, USB B, RJ45, WLAN

Digital outputs: 1x S/PDIF RCA

Audio formats: WAV, AIFF, FLAC, MP3, AAC, WMA, OGG, ALAC

Sample rates: 32-192kHz

WLAN b, g, n mode: WEP (64 and 128Bit), WPA & WPA2 (TKIP & AES)

Record Output: 2x RCA

Pre Output: 2x RCA, 2x XLR

Input Impedance: 15k (RCA/XLR)

Output Impedance: 110 ohms

Frequency Response: 20Hz-100kHz -3dB

THD + N: < 0.003%, 20Hz-100kHz, 0dB

Signal to Noise: -115 dBV

Max in /out level: 10Vrms

Gain: 16dB

Dimensions (WxDxH): 43 x 38.5 x 14.2cm

Price: £6,500

A60

Type: stereo power amplifier

Connections: 2x RCA, 2x XLR, 2x WBT nextgen Speaker connectors

Output power:

2x250W 8 ohm, max 610W

2x500W 4 ohm, max 1230W

THD+N: <0.02% (1kHz 250W 8 ohm);

<0.002 (10W 8 ohm)

Signal to Noise: -105dBV

Gain: 26dB single-ended, 20dB bal

Dimensions (WxDxH): 43 x 38.5 x 14.2cm

Price: £6,500

Manufactured by: Primare

URL: www.primare.net

Distributed by: Karma-AV

URL: www.karma-av.co.uk

Tel: +44(0)1423 358846



Accuphase Laboratory, Inc.

"Accuphase equipment is not subject to the whims of market fashion since they are made, above all, to achieve true high fidelity sound reproduction. This is the foremost reason why our products have enjoyed long-run production."

We are delighted to have been the leading UK stockist of Accuphase for over 10 years. A wide range of their astonishing new products are now on demonstration, including the DP-720 player, the E-600 Class A integrated amplifier, and the C-2420 pre-amplifier.



DP-720 Precision MDSD SA-CD Player



E-600 Class-A Precision Integrated Stereo Amplifier



C-2420 Precision Stereo Control Centre (pre-amplifier)

The AudioWorks

Call: 0161 428 7887

Email: sales@theaudioworks.co.uk **Visit:** www.theaudioworks.co.uk

Niewidoczny

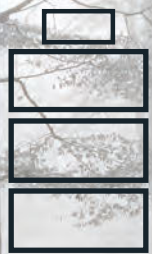


Invisible, the word the Polish manufacturer Audiomica would use to describe their cables. The best a cable can do is to appear not to be there, and we feel that these cables approach this goal like no other.

Entry level cables from Audiomica challenge the very best 'high end' competitors, Audiomica's reference level cables redefine what is possible.

Recalibrate your expectations!

audiomica LABORATORY
Reference cables for your system



www.entreq.co.uk

info@entreq.co.uk

01234 924242

07545 681680

Entreq
Energy transforming equipment



Nature is the best constructor ! ... That's why at Entreq we try to build in the same way .
The result is a natural sound and a flow in the music that is seldom heard .

Curious about Vibb Eaters ... Vibb Eaters use a special Copper, Silver & Silica based mixture to absorb & transfer energy. This includes vibrational, electrical and magnetic field effects . Whether used on top of loudspeakers or the chassis of your electronic equipment you will hear a calmer, quieter more stable presentation to the overall sound. In the case of loudspeakers the Vibbeaters transfer excess vibrations to a point out with the cabinet. In the case of electronics the above also applies but in addition there is the added benefit in also controlling localised magnetic & electrical field effects. This means careful placement is critical in obtaining the best results.

ENTREQ STOCKISTS

Acoustic Arts ... (Bedfordshire)... www.acousticarts.co.uk ... 01582 485316

Lintone Audio ... (Tyne & Wear) ... www.lintone.co.uk ... 0191 477 4167

Martins HiFi ... (Norfolk) ... www.martinshifi.co.uk ... 01603 627010

Sonic Synergy ... (London) ... www.sonicsynergy.co.uk ... 07946 577374

Studio AV ... (Berkshire) ... www.studioav.co.uk ... 01753 863300

Audio Destination ... (Devon) ... www.audiodestination.co.uk ... 01884 243584

Lotus HiFi ... (London) ... www.lotus340r.net ... 07887 852513

Rayleigh HiFi ... (Essex) ... www.rayleighhifi.com ... 01268 779762

Sonic Synergy ... (Swansea) ... www.sonicsynergy.co.uk ... 07971 849474

COMPETITION

WIN! One of five great HiFiMAN portable products must be won!!!

These products from HiFiMAN are so new, they aren't in the shops yet, and we don't have UK prices. But, we've still secured the best new HiFiMAN products for five lucky winners.

Three of you will each receive the new HE400S headphone, expected to retail for under \$300 in the US. This planar-magnetic design is super-efficient and can be driven by an iPhone. Our lucky runner up will receive the latest version of HiFiMAN's HM901 portable digital audio player, the \$1,499 HM901s, which can handle DSD files, supports various purpose-built amp modules, and uses the company's top TAICHI II user interface.

Finally, our star prize is the new reference point, the HiFiMAN HE1000, expected to cost \$3,000. These gorgeous planar magnetic headphones use 'nanometre-thickness' diaphragms, for a sound to rival even the best electrostatics. This competition will be drawn at the first ever London Can Jam at the Hotel Russell in the heart of Bloomsbury at the end of August. +



Competition Question

What diaphragm technology does HiFiMAN use in its HE1000 headphones?

- A. Millimetre-thickness Inductive Coaxial
- B. Nanometre-thickness Planar Magnetic
- C. Micrometre-thickness Electrostatic Panel

Please send your answer – either 'A', 'B' or 'C' – via email to competitions@hifiplus.com, placing the words 'HiFiMAN Competition' in the title. Remember to include your name and address in the email. Alternatively, send your answer on a postcard by Aug 28, 2015 (including your contact details) to "HiFiMAN Competition, Unit 3, Sandleheath Industrial Estate, Sandleheath, Hampshire SP6 1PA".

Competition Rules

The competition will run from July 2, 2015 until August 30, 2015. The competition is open to everyone, but multiple, automated, and bulk entries will be disqualified. The winners will be chosen at random from all valid entries, will be contacted via email (where possible), and their names will be published in the magazine. No correspondence will be entered into. Absolute Multimedia (UK) Ltd. is compliant with the Data Protection Act and UK laws apply. Our policy is such that we will not pass on your details to any third party without your prior consent.

iFi Audio Retro music system

by Chris Martens

A spin-off from the well-regarded British high-end audio company Abingdon Music Research, in a few short years iFi has earned a reputation for building affordable, palm-sized components whose room-filling sound belies their modest size. Given this, perhaps the last thing we might have expected would be something like the firm's new Retro music system—a system that is thoroughly contemporary yet conceived as a fond homage to an earlier period in the evolution of high-end audio.

At the heart of the system is the Retro Stereo 50, a full-sized valve-powered headphone amp/integrated amp with a built-in MM/MC phonostage, plus a high-resolution, multi-input, PCM/DXD/DSD-capable DAC. The Retro Stereo 50 is the first integrated amp iFi has ever offered. Apropos its name, the Retro Stereo 50 features a golden-hued faceplate whose appearance reminds us of classic Marantz integrated amps from the past. Adding to the retro theme, the Stereo 50 comes housed in an old-school-style cabinet artfully fashioned from laminated slabs of bamboo.

The Retro system also marks iFi's entry into another new product category: namely, mini-monitor-type loudspeakers. That's right: the Retro system comes with a pair of small, stand-mount, iFi-designed mini-monitors called the Retro LS3.5s, which are, in spirit if not in terms of actual frequency response curves, a modern-day take on the concept of the classic BBC LS3/5a monitors of yesteryear.

The LS3.5s are a two-way design with slot-loaded, P.G.A.H. Voigt-tuned enclosures. The speaker features wide-bandwidth, 115mm, lightweight treated paper-cone mid-bass drivers that operate as full-range transducers whose output is supplemented by a 28mm silk-dome 'super tweeter'. The enclosures of the LS3.5s are, like the case of the Retro Stereo 50, made of laminated bamboo, meaning that the Retro system's amp and speakers make for a very handsome trio indeed. The total price of the system is \$1,999 in the US or £1,650 in the UK.

The Retro Stereo 50 amplifier is based on a quartet of EL84x valves and a pair of 6X4 valves and is specified to provide 'music' power output of '25W + 25W', the majority of which, says iFi, results from Class A operation. The term 'music power output' indicates that iFi uses a somewhat

uncommon method of measuring and rating the Retro Stereo 50's power output. Rather than testing the amplifier as it drives load resistors on a test bench, iFi instead connects the Retro Stereo 50 to the LS3.5 speakers, plays music through the system at the highest levels possible without inducing audible distortion, then tracks the amplifier's actual voltage swings via a recording oscilloscope. Using this data, iFi calculates an estimated power output figure for the amplifier under real-world music playback conditions. Bandwidth is an impressive 10Hz – 60kHz, while distortion—as valve-type amplifiers go—is comparatively low: < 0.2% @ 2.83v.1W.

The Retro Stereo 50 headphone amplifier section is capable of a stout 7,000mW of output, making this hands down the most powerful headphone amp iFi Audio offers and one of the higher powered headphone amps available on today's market. The amp offers a 'Turbo' output optimised for normal and/or power hungry full-size headphones, and a 'Normal' output optimised for high-sensitivity headphones, earphones, or CIEMs.

The integrated amp is fitted with precision 'studio grade' bass and treble controls that offer ± 8 dB of emphasis or de-emphasis at 100Hz or 10kHz, respectively. Tone control settings are precise and repeatable thanks to click-indexed control knobs that offer ten boost and ten cut settings each. Alternatively, users can remove the tone controls from the signal path by engaging a 'Direct Input' switch. In addition to tone controls, the Retro Stereo 50 also provides two other 'analogue sound processing' circuits: namely, the firm's 3D Holographic sound and XBass low-frequency enhancement systems.

The 3D Holographic system was initially developed for use with headphones, but iFi has since gone on to create a speaker-optimised version of the circuit. The Retro Stereo 50 actually includes both versions of the circuit, engaging the headphone version when headphones are connected, but engaging the speaker version of the circuit whenever headphones are not present. iFi recommends using the lower of its two 3D Holographic enhancement settings for 'Normal Use' when driving the LS3.5s, but recommends the higher-level 3D Holographic setting when the speakers are closely spaced (that is, less than 1.5M apart). Purists can, if they wish, switch off the 3D Holographic circuit altogether.



The XBass system, too, was initially created for use with headphones, but the circuit has also proven beneficial for use with small mini-monitors that might benefit from low frequency enhancement. In fact, the Retro system manual states that, “the iFi Retro LS3.5 speakers are designed with the XBass function of the Retro Stereo 50 as part of (their) overall frequency response...” Thus, iFi recommends applying the lower of its two XBass settings for ‘Normal Use’ with the LS3.5s, and the higher of the Xbass settings whenever the LS3.5s are stand-mounted. The XBass circuit can, of course, be disengaged at the flick of a switch.

The Retro Stereo 50’s phono stage is based on iFi’s successful Micro iPhono phono stage and offers three gain settings: 38, 50, and 62 dB. Moreover, by applying specific settings of the Retro Stereo 50’s click-incremented tone controls, the phono section can dial up any of six possible phono EQ curves: RIAA, CCIR/Teldec, Columbia, Decca, DMM, and EMI (options rarely offered in integrated amps or phono stages at this price point).

The Retro Stereo 50’s DAC section is based upon iFi’s Micro iDSD DAC, but with a few minor changes, one of which involves the addition of an aptX Bluetooth connectivity option.

Like the Micro iDSD, the Retro Stereo 50 DAC can decode PCM and DXD files at resolutions up to 32-bit/768kHz, and can also decode DSD 64, 128, 256, and 512 files. Some might argue these ultra high-res capabilities are probably of more theoretical than practical benefit, since there are few (if any) commercial sources for 768kHz PCM or DSD 256/512 digital audio files. Nevertheless, it’s comforting to know the Retro Stereo 50 is ready for whatever high-resolution developments the future might hold.

The DAC section provides multiple digital filter settings that, in the Retro Stereo 50, are automatically selected in response to the playback contexts at hand. For example, if the Retro Stereo 50 is fed PCM files with sampling rates between 44.1 – 192kHz it will automatically apply a minimum phase/minimum ringing digital filter; however, for PCM files with sampling rates at or above 352kHz a ‘Bit-Perfect’ filter will be applied. Similarly, a ‘pure analogue, no-ringing filter’ is engaged whenever DXD/DXDx2 or DSD files are played. iFi says these filters reduce listener fatigue while addressing “the perception of digital audio as ‘aggressive’ (owing to) the high-frequency ringing and distortion inherent to all standard digital filters and most digital playback systems.”

German Physiks Omnidirectional Loudspeakers



Unique DDD design produces a very wide frequency range from a single driver

Large, deep soundstages well beyond the speaker boundaries

Exceptionally coherent and natural sound closely mimicing the live event

Realistic stereo image more like that experienced in a concert hall

Focused images and correct tonal balance in almost all positions in the room

Very fast dynamics and low level detail resolution from the very low mass DDD driver

Contemporary sculptural styling – priced from £8900

info@audioconsultants.co.uk

4 Zephyr House Calleva Park Aldermaston Berkshire RG7 8JN UK

AC/HFP/86

Model 15 – The New Turntable from SME



Inspired by the Model 10 but emulating technology within the Model 20/3 and 30/2

Sub-Chassis suspended with fluid damping to eliminate any bounce

High density construction resulting in freedom from colouration

Ultimate recovery of the finest details producing a most elegant sound

Compact footprint, simplicity of operation, understated styling

Model 15 with matching SME 309
precision tone arm £6884

info@audioconsultants.co.uk

4 Zephyr House Calleva Park Aldermaston Berkshire RG7 8JN UK

AC/HFP/85



► Last but not least, the system comes with a minimalist remote volume control, plus a surprisingly complete set of accessory cables and adapters. Literally everything you need to go from zero to a fully operational music system is contained within the system's two shipping cartons.

The Retro Stereo 50 is a very fine and highly versatile headphone amplifier, phonostage, and DAC. After all, how many amps can you name that have sufficient power to drive any dynamic-type headphone you could name, are quiet enough for use with sensitive earphones and CIEMs, include hyper-flexible high-resolution DACs, and phonostages that can support MM and MC cartridges and almost any phono EQ curve imaginable? In terms of versatility, the Retro Stereo 50 is without equal and it offers headphonistas a sound that is refined, highly expressive, and very muscular (but never 'muscle-bound').

iFi components have traditionally opted for a sound that conveys natural, 'organic' warmth and that also focuses upon the over-arching sweep and flow of the music. In other words, iFi components take a 'music first' approach to sound that stands in sharp contrast to those products that relentlessly pursue ever-increasing levels of detail and definition at the expense of all else. iFi components, much like AMR's upper-tier products, are all about revealing the coherent musical whole—not a spectacular, but ultimately disjointed-sounding collection of musical pieces and parts

Even so, I found that the Retro Stereo 50 stretches the traditional iFi performance envelope in several important areas—in the process providing a more satisfying and complete musical experience. While not 'analytical', the Retro Stereo 50 does a better and more capable job of resolving fine, low-level details and sonic textures than any other iFi components I've encountered to date. I found the Retro Stereo 50 not only revealed more layers of valuable low-level information than previous iFi models did, but it also captured a wealth of previously obscured reverberant and spatial cues in recordings with the result that the sound became markedly more coherent and three-dimensional. These jumps in performance were discernible both through high-quality headphones and through the LS3.5 monitors.

iFi components have long been famous for 'punching above their weight class', but I discovered that in a qualitative sense, the Retro Stereo 50 also raises the bar for iFi amplifier performance. I say this because the Stereo 50 exhibits certain exuberant qualities of fluidity and quicksilver grace as it plays, so that dynamic contrasts and shadings stand out in sharp, crisp relief, yet at the same time—and somewhat paradoxically—the amp sounds remarkably relaxed and at ease with itself. iFi says the Retro Stereo 50's circuit topology was inspired by classic valve-powered designs from Leak and others and it may be that the old masters knew a thing or two about capturing the essence of the music that we all would ►

“Other top-class systems can also perform this sort of 3D disappearing act, but how many of them cost comfortably less than £2,000?”



► do well to remember. In any event, the Retro Stereo 50 offers more dynamic clout than any sane headphone listener could ever want, and also delivers ample power for purposes of driving the LS3.5 mini-monitors (assuming you don't try to play the little fellows at head-banger volume levels in a large room).

I did not have a chance to try the amp with speakers other than iFi's own, since many of the other speakers I have on hand (e.g., Magnepan 3.7i's) are terribly power-hungry and thus not a good match for the Retro Stereo 50. But even though the Retro Stereo 50 is not the most powerful general purpose integrated amplifier around, nor is it likely to wow enthusiasts with its test-bench prowess, it is wonderfully well-suited for its dual roles as a high-end headphone amp/DAC and as the ideal companion power plant for use with iFi's purpose-built LS3.5s.

To hear some of the qualities I've just mentioned, try listening to the Retro Stereo 50 on Marilyn Mazur's lavishly textured percussion opus *Elixir* [ECM] through a set of superb (but tricky-to-drive) headphones such as the Abyss AB-1266 planar magnetic headphones. What you'll hear is some of the most richly detailed, harmonically convincing, and dynamically explosive percussion-centred jazz around, played with consummate ease, expressiveness, power, and grace.

Similarly, put on most any recording known for its inherent three-dimensionality, such as Christopher Roberts' otherworldly, Asian-influenced *Last Cicada Singing* [Cold Blue] and listen through the Retro system's LS3.5 mini-monitors. What you'll hear is a huge (and hugely compelling) 3D soundstage that effectively makes the rear wall of the listening room melt away, leaving in its place the believable acoustics of the recording venue itself. Granted, other top class systems can also perform this sort of 3D disappearing act, but how many of them cost comfortably less than £2,000—amp, DAC, phonostage, speakers, and even cables included?

iFi isn't kidding around when it says the LS3.5 were voiced with the assumption that the amplifier's XBass system would be used to enhance (and balance) the speaker's low-frequency output. Run the speakers without XBass support and they will tend to sound thin, lightly balanced, and lacking in foundational bass weight and warmth. But switch on the appropriate XBass setting for your speaker placement scenario and the sound immediately becomes

better balanced, more fully 'grounded', and blessed with a just-right amount of engaging warmth. While the LS3.5s will never set any records for deep bass extension (nor would the original BBC LS3/5a's have done), the bass they do produce is taut, agile, and offers quite good pitch definition. The only thing you'll need to remember is that you really must use iFi's XBass system as recommended in the manual in order to make the magic happen with these speakers.

Two other beguiling aspects of the LS3.5s involve their unforced sonic purity and delicacy. I attribute these qualities in large part to iFi's choice to run the LS3.5's 4.5-inch wideband driver as a more or less full-range transducer, with the 1.1-inch silk-dome tweeter rolled in via a first order crossover very high up, so as to act as a super-tweeter. These design decisions mean several things. First, just one drive unit handles the bulk of the music (including fundamentals, plus most partials and harmonics), with no crossover network (or other drive units) getting in the way. Second, this configuration makes for an inherently phase coherent loudspeaker, which helps reinforce timbral purity and the overall sense of focus. Third, iFi has done its homework with its silk-dome tweeter, which sounds very fast, yet also uncannily smooth and delicate. This makes for a scenario where the tweeter is there when you need it (and beautifully so), but that otherwise stays out of the way.

Some readers have already asked if iFi will sell the Retro Stereo 50 as a standalone amp/DAC/phonostage for those who do not require loudspeakers. In the US, at least, iFi will offer the Retro Stereo 50 for \$1,495 and the LS3.5s monitors for \$795/pair, for those who wish to purchase the components separately. Obviously, though, the complete system's bundled price affords buyers considerable savings.

The more I used the Retro system, the better I liked it. In small-to-mid-size rooms it produced a pure, beautifully focussed, and intensely three-dimensional sound that would do many a costly and complex high-end system proud. But happily the Retro system isn't absurdly costly nor is it complex; in fact, it offers what DaVinci might have called the 'sophistication of simplicity'. Bring the Retro system home and, within minutes, you can be enjoying refined and engaging sound through the system's speakers or through your choice of high-performance headphones. +



High End Cable

www.highendcable.co.uk

Please call Dave Jackson on 01775 761880

BRANDS

Acoustic Systems
Analysis Plus
Ansuz Acoustics
Atacama
Audience
Bel Canto
Chord Company
Furutech
HiDiamond
JEFF ROWLAND Design Group
Inakustik
Nordost Corporation
Norma Audio Electronics
Quantum QRT
Raidho Acoustics
Purist Audio Design
Stereolab
STAX earspeakers
Tara Labs
Telos Caps
Townshend Audio

POWER

Audience adeptResponse
Audience Install Cable
IsoTek
Isol-8
Quantum Qx2 & Qx4
QBase
Qv2 & Qk1
Power supply upgrading
Sparkz

Hi-Fi

Atacama Hi-fi Racks
Audience speakers
Raidho Acoustics Speakers
Raidho Rack
Bel Canto Electronics
JEFF ROWLAND Design Group
Norma Audio Electronics
Scansonic Speakers
STAX headphones

DE-COUPLING

CableSpike
Cable Lift
Darkz
MiG's
Panda Feet
Sort Füt & Sort Kones

MORE

Firewire
USB Cables
Digital cables
Optical cables
HDMI
ipod cables
dCS Owners cable upgrades
DIN cables
Jumpers
Sub woofer cables
Auric Illuminator
ECO
Enhancement CDs
Fuse upgrades
Telos caps

TWEAKS

Room Tuning Resonators



Joe Reynolds, President of Nordost, announces, "We are very excited about the launch of Odin 2, which is a major improvement over our flagship Odin cables. The introduction of our patented HOLO:PLUG® technology lifts this cable to a new pinnacle of performance. We have applied all of the knowledge we have acquired over many years of research and development to offer the most state-of-the-art cable solution possible. The response from our beta testers has been overwhelmingly positive, and we can't wait to finally introduce Odin 2 into the market."



High End Cable are proud to sell Nordost's ODIN 2 as well their full range of Cables. We are happy to take in your older Nordost Cables or other Reference cables makes as trade in to help you achieve the level ODIN 2 and others in the Nordost range can offer. Please call Dave to discuss on 01775 761880.

變容

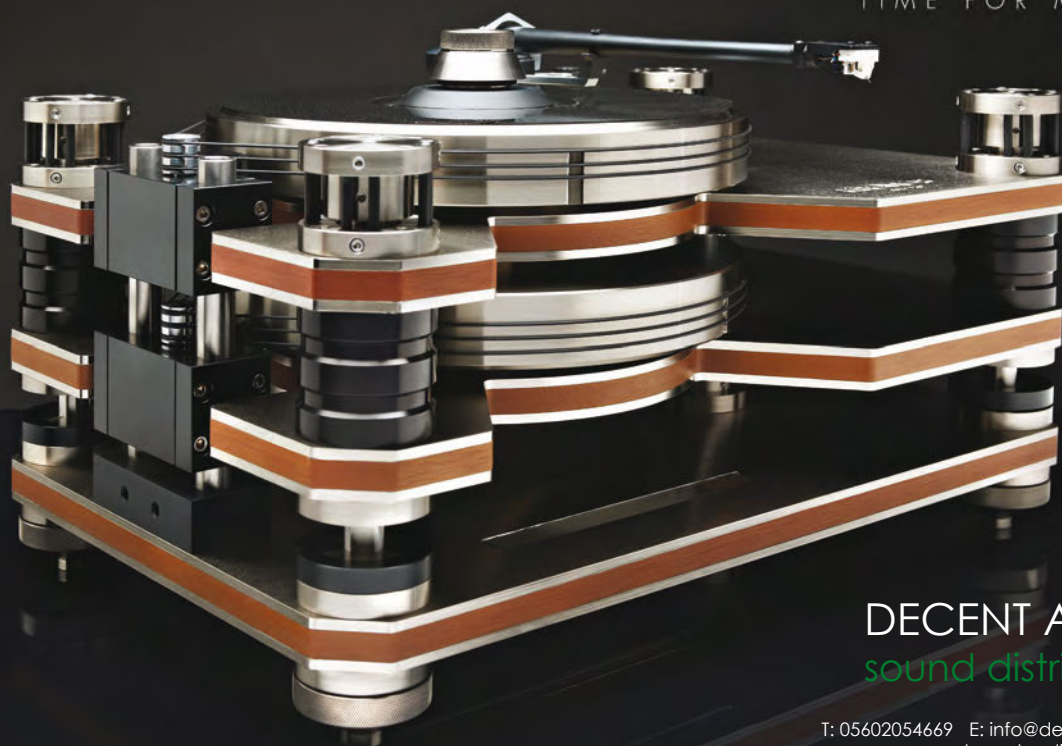
Transfiguration

Transfiguration
Proteus

DECENT AUDIO
sound distribution

T: 05602054669 E: info@decentaudio.co.uk
www.decentaudio.co.uk

KRONOS
TIME FOR MUSIC®



DECENT AUDIO
sound distribution

T: 05602054669 E: info@decentaudio.co.uk
www.decentaudio.co.uk

TECHNICAL SPECIFICATIONS

ifi Retro LS3.5 mini-monitors

Type: 2-way, two-driver stand-mount monitor with P.G.A.H. Voigt-tuned enclosure with rear firing slot port

Driver complement: One 115mm wide bandwidth paper-coned quasi-full-range driver, one 28mm waveguide-loaded, silk dome 'super tweeter'

Accessories: Rubber anti-slip mats, silicon rubber decoupling feet, two sets of removable grilles (beige and black), silver-plated OFHC copper speaker cables with Teflon insulators

Frequency response: 59Hz – 20kHz

Crossover frequency: The wide-bandwidth driver operates full-range (from approximately 59Hz to 8kHz) and thus requires no crossover; the super tweeter rolls in at approximately 10kHz via first-order crossover

Impedance: 4 Ohms

Sensitivity: 90dB/2.83V/1M

Dimensions (HxWxD): 268 × 146 × 226mm

Weight: 3.5kg/each

Finishes: Laminated natural bamboo

Price: \$795/pair if purchased separately; special bundled pricing if purchased as part of the iFi Retro system

ifi Retro Stereo 50 headphone amp/integrated amp/phonostage/DAC

Type: A valve-powered headphone amp, integrated amp, phonostage, and high-res DAC

Valve Complement: 2 × ECF82, 4 × EL84x

Accessories: Rubber anti-slip mats, USB cable, two stereo analogue signal cables (one with RCA jack, one with 3.5mm mini-jacks), coaxial/optical mini-jack-type digital audio adapter), screw-on Bluetooth antenna, power cord and low-noise wall-wart-type power module

Analogue inputs: One MM/MC phono input (via RCA jacks – also user-configurable as a general purpose single-ended analogue input), up three single-ended line-level inputs (via RCA jacks or 3.5mm jack)

Digital inputs: One S/PDIF (configurable as either a coaxial or optical input), one USB port, aptX Bluetooth

Analogue outputs: One 'Normal' headphone output (via 3.5mm jack), one 'Turbo' headphone output (via 6.35mm jack), 4 – 16 Ohm-compatible stereo speaker taps

Supported sample rates:

- Coaxial and optical S/PDIF: 16-bit, 24-bit — 192kHz
- USB: 16-bit, 24-bit, 32-bit — 768kHz, 2xDXD, DSD512

Analogue Signal Processing: Studio-grade tone controls, 3D Holographic sound, XBass low-frequency enhancement system

Headphone Amplifier Power Output: Up to 7,000mW

Integrated Amplifier Power Output: >25 Wpc "music power" into the LS3.5's 4 Ohm load

Bandwidth: 10Hz – 60kHz (frequency response, 10Hz – 80kHz)

Distortion: < 0.2% (@2.83V/1W)

Signal to Noise Ratio:

- Amplifier: >101dB
- MM Phonostage: >90dB
- MC Phonostage: >80dB

DAC Dynamic Range: >113dB

Phonostage Gain: 38, 50, or 62dB

RIAA Accuracy: <0.5dB

Phono EQ Curves: RIAA, CCIR 56/Teldec, Columbia, Decca (FFSS), RIAA (DMM), EMI.

Dimensions (HxWxD): 146 × 268 × 226mm

Weight: 5.8kg

Price: \$1,495 if purchased separately; special bundled pricing if purchased as part of the iFi Retro system

ifi Retro System comprising the Retro Stereo 50 amp/DAC and Retro LS3.5 mini-monitors

Price: £1,650, or \$1,999 US

Manufacturer Information: iFi Audio

URL: www.ifi-audio.com

Distributed in the UK by: Select Audio

URL: www.selectaudio.co.uk

Tel: +44(0)1900 601954

Distributed in the US by: Avatar Acoustics

URL: www.avataracoustics.com

Tel: 1 (678) 817-0573

Edge Electronics NL Signature 1.2 preamp and NL 12.2 power amplifier

by Alan Sircom

Edge Electronics is one of the more low-profile brands in audio, to the point where it is almost 'no profile'. That may be counter to today's connected world, but Edge's products are built more to make good music than to garner Facebook likes.

Edge's NL range of power amps represents the best amps Edge makes. There are just three models in this range; the NL 10.2 and NL 12.2 stereo chassis and the NL Signature 1.2 mono amps. There is also a matching battery/mains NL Signature 1.2 preamplifier. We tested the NL Signature 1.2 preamp and NL 12.2 power amplifier, although there was a brief final check over with the 'smaller' NL 10.2.

The NL Signature 1.2 preamp is a tall, heavy, three stereo, one multichannel line input preamplifier finished in a choice of thick aluminium, or thick aluminium. It uses a pair of 12V gel-type 1.2A/hr batteries, which should be charged for a full 24 hours initially, then once a week if the preamp is used regularly, and about 12 hours if the preamp has lain fallow for an extended period. You should get 10–12 good hours of music replay between charges. You can run the preamp direct from the mains (in its AC position), but this is not its best sounding state. It has both two- and six- channel outputs, but six-channel cannot be driven by the battery. There is no internal six-channel processing. The amp has a central volume control, with no balance option and this is replicated on the remote control. You should take care to turn the volume down when moving between the stereo and multichannel inputs.

The 300W NL 12.2 has the same rectangular look, only writ larger and a lot heavier. With a pair of 1.5kVA transformers inside, 160,000µF worth of capacitors, and a lot of aluminium in the case and heatsinking protecting those bipolar output devices, it's basically two mono amps in one chassis weighing over 50kg. Edge amps are fundamentally single-ended in nature, so there's no point in going near this amplifier with an XLR plug even though there are XLR connections on the latest NL products. Edge also lists a series of conditions about powering up and shutting down the NL amps. Most of these 'riders' are simply down to engineers being obsessive (such as letting the amplifier get warm for three hours before connection), but the one that is worthy of note is to let the amplifier power down for five minutes before plugging or unplugging it is a fairly good one to note, because there is a lot of capacitance inside a meaty power amp like this one.

Now here's the thing. Edge is so low profile that its website is years out of date, which has led people to wonder if the brand even exists anymore. For example, the website lists the NL range as using a laser-bias circuit, that hasn't been used in an Edge amplifier for some time. Instead, the circuit uses a steady-state bias arrangement, and hand-matched NPN transistors throughout. The manuals, too, speak of Edge of old, describing the function of original NL10 and NL12 models. So, we're kind of light on real facts about the latest amps. This is possibly a shame, but it's not an attempt at creating mystique: it's the weird, uniquely audiophile brand thing of being a manufacturer that shuns publicity. Which is a shame, because if Edge raised its profile a little more it would get the reputation it deserves. Certainly in sound quality terms, it's a hidden gem.

The peculiar thing about the Edge sound is this is a Class AB amplifier, but you would never guess this from the way it sounds. That has much to do with the preamp, but the character applies to the power amps, too. It's distinctly Class A operation sound. However, a lot of people get Class A sound wrong from a surface mis-reading; it's warm (as in, the design is inefficient and gets warm), but people mistake that for a 'warm' sound, where in fact it's simply 'unforced' and free from the crossover distortion that some find so vexatious. But the Edge sound is Class A without the heat.

If the Edge is not a 'warm' sounding Class A-like amp, what is it? It's an amp that delivers a fast and dynamic sound. Rachmaninov's 'Symphonic Dances' [Telarc] should bounce along at a fair lick and then hit you with the full weight of the orchestra. Sometimes 'hit you with' is more like 'beat you over the head with', or even 'throw at you'; but here the speed of leading, er, edges and scale to the orchestral sound gives it a perfect balance and timing.



The difficulty with products that accent leading edges is that sometimes such an accent makes it hard to focus on anything else. Edge is one of those rare exceptions that is excellent at portraying leading edges, but doesn't exaggerate, highlight, or push that aspect of musical replay. So, when listening to 'Surfin' by Ernest Ranglin [*Below The Bassline*, Island], the speed of attack gives that Latin-tinged Reggae beat a directness and live feel that it so needs, especially on the guitar runs. However, some systems so accent that attack that it seems like a musical race. Here, it's just Ranglin riffing with the band.

The whole sense of the Edge amplifiers in combination is one of effortless, understated musical replay. This perhaps best comes across as a complete lack of forwardness in the presentation. If that sounds contradictory, think again. It means not only do the Edge amps create a soundstage that falls back from the loudspeakers, rather than push music toward the listener, but the two have a tonal balance that gives the music a chance to shine unimpeded by electronics. This comes across best in the haunting 'Astounding Eyes of Rita' from the album of the same name by Anouar Brahem [ECM]. This has to sound ethereal, but neither too 'up-front' nor too 'laid-back' and the Edge duo nails ►

"The whole sense of the Edge amplifiers in combination is one of effortless, understated musical replay. This perhaps best comes across as a complete lack of forwardness."



Ultra 6

The new reference
equipment support

Ne plus ultra...

Zero-compromise isolation technology
A necessity — not an accessory.

*Stillpoints*TM



"The Stillpoints supports work, and so far they've worked every
single time I've used them.."
Roy Gregory, The Audio Beat - July 2013

To try Stillpoints for yourself, please contact your local stockist.



Analogue Seduction	Peterborough	01733 350878	Lotus Hifi	Weybridge	07887 852513
Audio Destination	Tiverton	01884 243584	Lintone Audio	Newcastle	0191 477 4167
Choice Hifi	Richmond	020 8392 1959	Martins Hifi	Norwich	01603 627010
Criterion Audio	Cambridge	01223 233730	Rayleigh Hifi	Rayleigh	01268 779762
Homesound	Edinburgh	0131 662 1327	Sonic Synergy	Swansea	07971 849474
KJ West One	Marylebone	020 7486 8262	Studio AV	Eton	01753 863300



Distributed by
KOG AUDIO

www.kogaudio.com

info@kogaudio.com

024 7722 0650

“The Edge preamp and power amps have an supremely natural tonal range that is extremely easy to listen to.”



TECHNICAL SPECIFICATIONS

Edge NL Signature 1.2 preamplifier

Type: AC or DC powered line preamplifier

Inputs: 3x single ended stereo RCA, 1x multichannel line RCA

Outputs: multichannel RCA (including LR stereo outputs)

Frequency Response:

5Hz-300kHz ± 0.1 dB

Distortion: 0.005%

Intermodulation: 0.007%

Gain: 21dB

Output impedance: 50 ohms

Dimensions (WxHxD): 38x19x44.5cm

Weight: 20kg

Price: £13,900

Edge NL 12.2 power amplifier

Inputs: 2x RCA single ended

Outputs: 2x four way binding posts

Power output: 300W per channel

Output Impedance: 0.025ohm

Constant current capacity: 56.34A

Frequency Response: Not Specified

Distortion: Not Specified

Dimensions (WxHxD): 38x23x48.3cm

Weight: 55kg

Price: £24,800

Manufactured by: Edge Electronics

URL: www.edgeamps.com

Distributed by: Epicurean Audio

URL: www.epicureanaudio.com

Tel: +44(0)780 556 7630

► that Goldilocks position, with only a slight accent on upper midrange politeness that can make some more harmonically rich sounds a little too smooth at times. But otherwise the Edge preamp and power amps have an supremely natural tonal range that is extremely easy to listen to for long sessions without the least fatigue. This is normally the preserve of tube amplifiers, not of solid-state amplifiers offering such precision and controlled bass depth.

This tonality ties also the Edge into another brand that has recently gone into ‘stealth’ mode – Avalon Acoustics. The NL 12.2 is a perfect partner for Avalon’s loudspeakers; it’s expressive, communicative, fast, detailed, and dynamic, without sounding the least bit forward. OK, so these are properties that should be universally liked, but they are the Edge’s strong points and they perfectly match the qualities of a good Avalon loudspeaker (both on paper, and in reality... we’ve heard them with a pair of current Avalons and they are an ideal match).

I also had the chance to play with the £17,900 NL 10.2 amplifier; which features a smaller transformer, a slightly lower power rating of 225W per channel, a front panel free from slots cut at jaunty angles, and a slightly newer, redesigned power supply. This is more of a slight modification to models than a full revision, however. I’m not sure if Edge will be happy about this, but I preferred the sound of the cheaper, smaller amp. Granted, the big amp’s extra power will come in handy in some systems, but the NL 10.2 is more lithe sounding than its bigger brother. This is not a big difference, and unless you had the two side-by-side you’d never note the improvement, but this is a case where smaller is better.

There’s an immediate dismissal of all things high-end: “oh, you are only buying a brand name!” That doesn’t apply here, thanks to Edge’s lack of profile. Instead, what you get in the NL Signature 1.2 and the NL 12.2 is a civilised, civilising amplifier combination in an uncivilised age. If you have tired of immediate sounding, forward, and brash amplifiers, but have no desire to go in the other direction and wind up with a soft or lush sounding design, these amplifiers have got a seriously competitive edge over many of the rivals! +

ELAC

Klang lebt

[My Music, My Color, My ELAC!]

Loudspeakers with optional Custom Colors



ELAC loudspeakers always hit the right notes. And thanks to our custom lacquer finishes, they can now satisfy even the most exotic tastes. Got a particular color in mind?

With a customized ELAC loudspeaker, you're not just showing your true colors. You're also enjoying the ultimate in sound reproduction – guaranteed ... That's because every ELAC loudspeaker undergoes the same stringent quality checks to ensure that your loudspeakers not only look great, but sound fantastic.

TAD D1000 disc player

by Alan Sircom

Why would anyone buy a disc player in 2015? Actually the market for CD/SACD players is far from dead, especially at audio's higher end. But, it's becoming increasingly difficult for smaller companies to find decent OEM transport mechanisms, so the number of new players is diminishing. TAD – Technical Audio Devices laboratories – is not affected by the present disc-transport hardscrabble, because TAD remains under the auspices of Pioneer Electronics. The fact that the migration away from disc-based music replay has not gained anything like the same traction in Japan as it has in Europe or the US only helps to make a strong case for a new, high-performance, CD/SACD player like the D1000.

There are still a number of extremely high-grade disc spinners made in Japan. We still see Accuphase, Esoteric, Luxman, and TAD, but there are others that are seldom seen beyond Asia. It's a mark of just how seriously disc-based replay is taken in Japan that the D1000 is TAD's 'entry-level' player, despite being built to a standard that most Western audio brands would happily put at the top of their tree.

TAD has recognised the changes in the international market though, by producing a similar DA1000 digital converter, which is essentially a D1000 without the transport mechanism (a lot of the main components – including clock, converter, power supply, and chassis – are common to both designs). The two are not entirely identical; the D1000 retains the CD/SACD transport part, while the DA1000 features a linear volume control, for direct connection to a power amp, and a headphone amplifier (the next batch of D1000s will feature a volume control, too).



Right now though, we are still in a world that would consider the DA1000 to be a D1000 without the SACD/CD player section, rather than looking at the D1000 as a DA1000 with added disc transport. That may seem like a semantic distinction, but it's an extremely important one. It means that currently, the CD/SACD transport mechanism is not vestigial, and the polycarbonate disc is not considered 'legacy' by TAD.

TAD prides itself on extreme clock accuracy on all its digital devices, and the D1000 features a custom-designed UPCG (Ultra-Precision Crystal Generator), suggested to lower the C/N (carrier/noise) ratio from 'around -50dB' in conventional players to -100dB. This suggestion of a clock improving the noise in a system at first appears to be a very different suggested aim compared to the normal jitter-lowering ideas found in other systems, but in effect this points to the same issue from a different direction. TAD opts for a high-precision oscillator because of its comparatively long working life and start-up speed.

This clock is coupled to a pair of Burr-Brown PCM1794A DAC chips in balanced arrangement, which output to TAD's own custom I/V (current-to-voltage) conversion circuit. This custom circuit exists because every I/V conversion system is effectively a trade-off between noise and slew-rate, and ►



MAGNEPAN INCORPORATED

DECENT AUDIO sound distribution

T: 05602054669 E: info@decentaudio.co.uk
www.decentaudio.co.uk



AUDION

A light in the darkness

"It could take me to the venue *and* reveal
the moods therein"

6moons.com 09/12, Audion Silver Night 300B Anniversary

"Music Lovers' Delight" and
"highly recommended"

The Absolute Sound 04/12, Audion Sterling EL34 Anniversary

"proof that you don't have to spend five
figures to attain lovely analog sound"

Tone Audio 01/12, Audion Premier Phono Stage

Audio Counsel
29 Sam Road,
Diggle,
Oldham,
OL3 5PU
01457 875 555
www.audio-counsel.co.uk

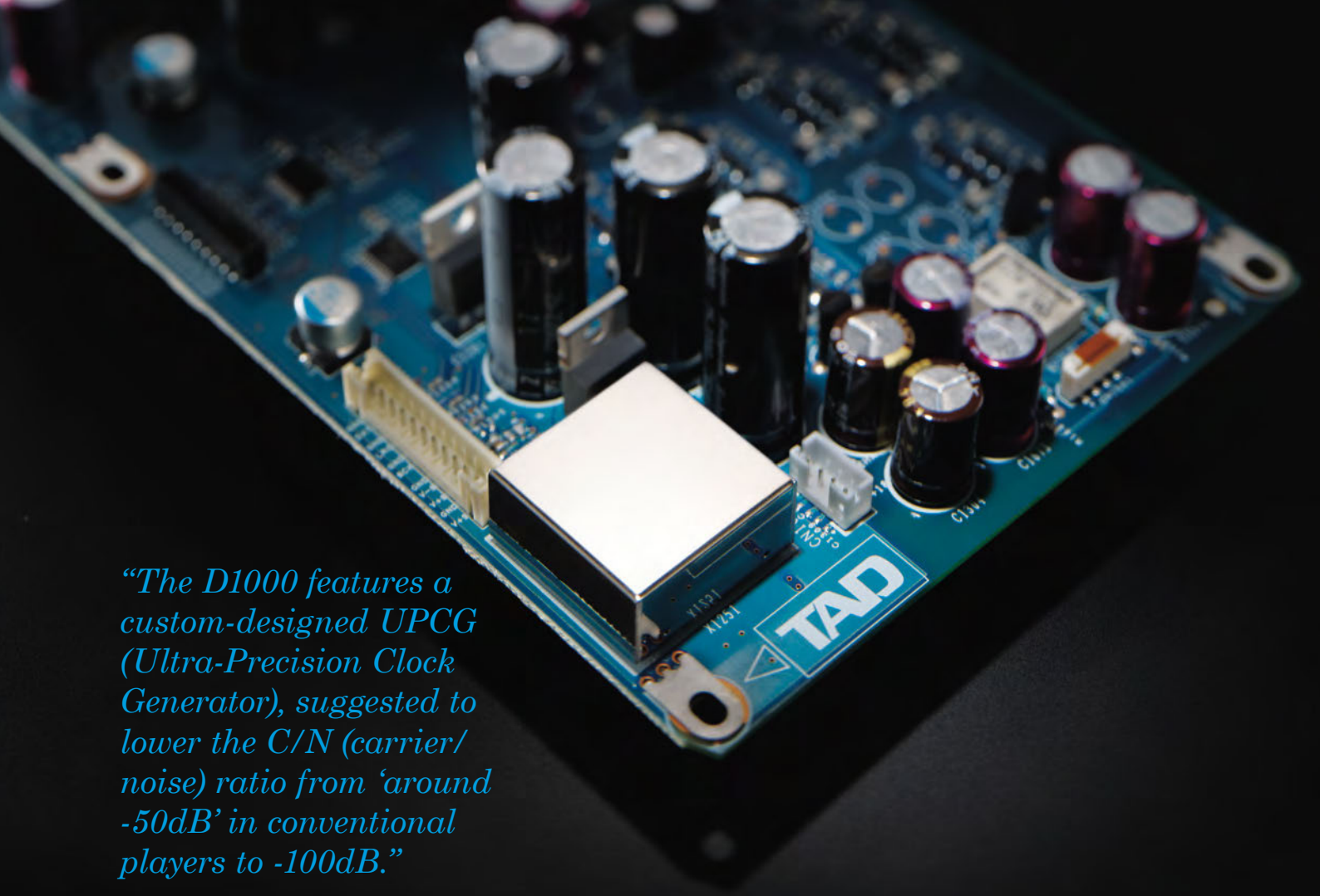
Deco Audio
36 Buckingham Street,
Aylesbury,
Buckinghamshire
HP20 2LH
01296 422 224
www.decoaudio.com

InTune Audio
Unit K4 Drury Drive,
Woodhall Business Park,
Sudbury, Suffolk,
CO10 1WH
01787 311 448
www.intuneaudio.co.uk

Summer House Sounds
Holybourne
Alton
Hampshire
GU34 4HU
0203 198 1792
www.summerhousesounds.com

Distributed in the UK by Note Audio Distribution www.noteaudio.com





“The D1000 features a custom-designed UPGC (Ultra-Precision Clock Generator), suggested to lower the C/N (carrier/noise) ratio from ‘around -50dB’ in conventional players to -100dB.”

► TAD felt all off-the-shelf compromises were making that trade in the wrong direction. The use of a PCM1794A means SACD and DSD signals are not native, however. I’m not convinced this is wrong on moral grounds and, in listening, this conversion did not ‘hobble’ DSD or SACD replay in the slightest.

The shared parts between player and DAC also mean a truly first-rate USB input. This is obviously vital for the DAC, but is increasingly important for the player as an increasing amount of high-resolution audio is only available through downloads. The USB input (somewhat pompously called the ‘Asynchronous USB Communication Engine’) is a completely isolated circuit board in its own right, capable of handling up to 32bit/384kHz PCM and 5.6MHz DSD audio files, if your computer is up to the task. A 2.5GHz Intel i7-equipped Apple MacBook Pro with 16GB of RAM running the latest version of Audirvana Plus was up to the task: currently, Windows users should be able to achieve the same performance with a similarly ‘nails hard’ PC with the appropriate drivers and programs.

The other shared parts are the massive power supply (with a toroidal linear power supply for the analogue bits, a separate feed for the digital domain), and a powerfully built chassis designed to minimise vibration. This chassis is a 8mm thick aluminium design with a very low centre of gravity. Subsystems – such as that aforementioned power supply block, and the transport mechanism – have the potential for introducing vibration or resonance, and TAD mounts these individually and separately to the chassis, using different tools for each job, such as a brass bass plate for the power supply.

The disc mechanism itself is made from aluminium, and is black anodised in the sections where reflections from laser scatter could be an issue. It’s a low vibration system from first principles (even before being mounted to a solid chassis) right down to the servo mechanism. This shouldn’t come as a great surprise, given TAD’s Pioneer connection – the company has long known how to make a high-grade disc transport; just look to the Elite range for examples. The whole device sits on adjustable feet, and the player comes with a thin bar-like remote control: no cheap plastic giveaway here.

Our sample was the UK demonstrator, so any discussions of run in of new models would be guesswork: our one arrived with more than enough miles on the clock to gauge that. We’d class it a ‘top shelf’ device in more than one sense – it’s the kind of product that deserves to be shown off, it’s large enough that it might not easily slot into some of the smaller rack systems, and perhaps most importantly the orange LED indicators are positioned below the transport mechanism, so it’s best viewed straight on rather than looking down on the player.

All of this heavyweight build and fine internal architecture is great, but how does it sound? In a word – captivating! This is the kind of player that makes ►



music first audio

*"...so good
I swear it is
surrounded by
magic"*

Noel Keywood - Hi-Fi World

Pre amplifiers

Moving Coil Step-Up Transformers
and now MM phono amplifiers



www.mfaudio.co.uk

+44 (0) 1424 858260

 **Graham** AUDIO



The New LS5/9...hear the difference[®]
LS5/9 BBC LICENSED
MONITOR LOUDSPEAKERS



Birch Ply Cabinet • Hand Upholstered Internally • Magnetic Grille Cover
'Diaphanotone' VOLT Mid/Bass Translucent Driver • Trafolyte EQ Plate
Aluminium Tweeter Guard • Original British Design
Handcrafted in Great Britain with all British/European Components
Available in Ebony Maccasa, Cherry and Rosewood



LEGENDARY
ENGLISH HIGH FIDELITY

THE LS5/9. ACCURATE, TRANSPARENT AUDIO REPRODUCTION
Call: 0044(0)1626 361168 www.grahamaudio.co.uk



“This is digital, just the best of digital.”

► you realise how good digital audio can be, and makes you also realise why so many people remain ‘unconvinced’ by digital – it’s because they simply haven’t heard digital of this calibre.

Don’t take this to mean the D1000 is some kind of analogue-simulator, trading the insight and detail of digital for a faux turntable-like warmth. This is digital, just the best of digital. It has all the high-frequency extension and clarity of good digital audio, but without the glare and ‘over-sharpened photo’ effect that sometimes brings. This becomes especially noticeable on SACD: ‘Der Hölle Rache’ from Mozart’s ‘Die Zauberflöte’ [Diana Damrau/Jérémie Rhorer/Le Cercle de l’Harmonie, Erato, from *The Perfect Sound* SACD from the 2014 Hong Kong High-End AV Show] should be extended, dynamic, and bold in the treble, as befits the Queen of the Night’s ultimate temper tantrum. Typical CD/SACD replay will pitch that into hardness and brashness, and the usual compensating audio presentation will make it sound like almost saccharine and blunted. On the D1000, we get all of the energy, all of the rage, and none of the impediments.

What you’ll hear irrespective of file format is unforced, but uncompromised detail from the D1000. This is not simply insightful, and not the same thing you get from most digital systems. In base audio terms, the D1000 sound is typified by a big, taut bass, an open midrange, lots of inner detail, plenty of instrument articulation and clarity, oodles of dynamic range, and a huge soundstage with excellent solidity of instruments within that 3D image. But it’s a lot more than that; there’s cohesiveness to the sound that transcends the normal coherence of an instrument across its frequency range. It’s the sense of musicians interacting with one another, whether that’s on a fairly basic four-four level (such as Meg and Jack White playing ‘Seven Nation Army’ [*Elephant*, XL Records]) or a more rhythmically-challenging jazz set (such as the 7/4, 7/8 time switching ‘Optimism’ from the Vijay Iyer trio’s 2012 hit *Accelerando* [ACT]), or the interplay of the Eroica Trio interpreting Brahms’s ‘Hungarian Dance’ [EMI]. You get all the usual leading edge detail, the musicians breathing, the sense of space around the instruments where relevant, but you also get that sense of real people playing together in real time. That is something precious few replay systems do well, and the D1000 makes you realise just how rare and valuable that ability really is.

It would be easy to lump the TAD D1000 in with an all-TAD system, and almost overlook it as a worthwhile standalone front-end in its own right. Easy, but stupid. If CD and SACD are ‘going away’ (they aren’t), then we’ve been saving the best ‘til last, and the D1000 is easily one of the best CD and SACD players on the planet right now. Very highly recommended. +

TECHNICAL SPECIFICATIONS

Compatible Discs: Super Audio CD, CD, CD-R, CD-RW

Digital inputs: XLR × 1, Coaxial × 2, Optical × 1, USB (Standard B type) × 1

Supported sampling frequencies:
44.1kHz–96kHz (optical);
44.1kHz–192kHz (XLR/coaxial);
44.1kHz–384kHz (USB, PCM);
2.8MHz, 5.6MHz (DSD)

USB operating environment:
USB 2.0 high speed

Digital outputs: XLR × 1, Coaxial × 1

Analogue outputs: Balanced stereo XLR, single-ended stereo RCA

Frequency Response: 10Hz–40kHz –1dB (fs 88.2kHz and beyond)
10Hz–20kHz –1dB (fs 44.1kHz)

Signal/Noise ratio: 115dB

THD+N: Not specified

Dimensions: (W×H×D): 44×15×40.6cm

Weight: 18.5kg

Price: £14,995

Manufactured by: Technical Audio Design laboratories
URL: www.tad-labs.com

Distributed by: Nu Nu Distribution
URL: www.nunudistribution.co.uk
Tel: +44(0)203 544 2338

COMPETITION

WIN! A pair of Russell K Red 50 loudspeakers worth £1,100 must be won!!!

We loved the Russell K Red 100, but in a way we love the Red 50 even more. It's a small, easy to listen to, easy to drive, and easy to love two-way standmount loudspeaker, perfect for small houses with big ideas on the way music should sound. The Red 50 is Russell Kauffman's take on the Linn Kan, as demanded by his speaker builder. The Red 50 shares the same tweeter, the same absence of internal damping, same specially made enclosed field ferrite core inductors, even the same PCB for the crossover, with the Red 100. This makes them close family members, but each with a sound that is unique and uniquely entertaining. These are loudspeakers that are designed by an engineer with a long heritage in audio, but designed to sound fun, too.

In black piano gloss, a pair of Red 50 cost £1,100, but one lucky reader will get a pair for free in our fantastic Russell K competition. +



Competition Question

What type of Inductor is specially made for the Red 50 crossover network?

- A. Air Core Inductor
- B. Enclosed Field Ferrite Core Inductor
- C. Ferrite Core Inductor

To answer, please visit Russell K's dedicated competition page at <http://russellk.co.uk/competition.php>. Alternatively, send your answer on a postcard (including your name, address, and contact details) to "Russell K competition, Russell K Ltd, Wentworth House, 81-83 High Street North, Dunstable, Beds LU6 1JJ". The competition closes on September, 3 2015.

Competition Rules

The Russell K Red 50 competition will run from July, 2 2015 until September, 3 2015. The competition is open to everyone worldwide, but multiple, automated, and bulk entries will be disqualified. The winner will be chosen at random from all valid entries, will be contacted via email (where possible) and their name will be published in the magazine. The Editor's decision is final and no correspondence will be entered into.

Absolute Multimedia (UK) Ltd. is compliant with the Data Protection Act and UK laws apply. Our policy is such that we will not pass on your details to any third party without your prior consent.

Exogal Comet DAC

by Alan Sircom

Watch this space! Before long, the Exogal name will be springing up time and again, in the systems of music lovers and audiophiles who know their way around good sound. The Comet DAC is the first shot from this bold 'new' brand, combining digital converter with an output stage of the sort of quality and drive to make it a viable digital hub/preamplifier in its own right. There's a matching power amp to follow. This could be the start of something truly special.

What's with the 'air bunnies' around the word 'new' in the last paragraph? Exogal may be a new player in the game, but it has some very wise heads on those young shoulders. One of those heads is Jim Kinne, and his audio hits include Wadia's highly respected 27 Decoding Computer. The Comet is in essence the distillation of a career (or three) designing ultra-high performance audio devices.

Exogal – like Wadia before it and Chord Electronics today – eschews standard DAC technology, instead using an FGPA (field gate programmable array) for the conversion process. Six of them in fact, each acting as stereo DAC chips for the balanced, single-ended, and headphone circuits as standard.

This array of FGPAs is inherently 'open ended'. It's less of a DAC design set in stone, more of a digital platform capable of significant upgrades through firmware. While nothing is ever entirely 'future-proofed', this inherently upgradable design means your Comet DAC is less likely than most to fall obsolete. Any prospective change is just lines of code: even if tomorrow we end up listening to multichannel music, with those six fully programmable DACs in tow, the task is not beyond the Exogal's reach. We shouldn't play down the amount of work required to write that putative code, but for the end user, it offers some guarantee against your Comet being Last Year's Big Thing.

The other great advantage to a fully programmable array is this allows for custom filter options, and the Comet offers one linear, two minimum phase, and one spline filter. These options are best accessed using the smartphone or tablet app, rather than the teeny tiny remote supplied with the Comet.

Where the Exogal really moves into 'tomorrow' technology is it has a pair of line-level phono inputs, which pass through a custom 24/96 A/D conversion, that is upsampled to 24/384 for internal use. This turns the Exogal into a digital hub. ▶



World-class reference headphones from the Japanese masters...

Fostex



TH-900



TH-600



TH-500RP



Distributed exclusively in the UK by SCV Distribution
www.scvdistribution.co.uk | 03301 222500 | Unit C1, Belcon Ind. Est., Geddings Road, Hoddesdon, EN11 0N1

Enjoy the Music.com

High-End Audio Equipment & Music Reviews • Show Reports
Your Resource For High Fidelity Audio News & Information

High-End Audio Reviews
Audiofile Magazine
High-End Audio Reviews
Equipment & Music Reviews

T.H.E. SHOW
T.H.E. Show Newport 2015

HIGH-END
AXPONA
MONTREAL AUDIO SHOW
2015

2015 International CES

TAVES
TAVES
TAVES
TAVES

BLUES MASTERS
CanJam
ROCKY MOUNTAIN
AUDIO FEST
NEW YORK SHOW
EXPO

california audio show
This site is made possible through support from our advertisers. Please visit their website.

Manufacturers
Abyss Headphones
Alta Audio
Auralic
Ayon Audio
Bowers & Wilkins
Channel D
Conscient Speaker

Share This

Internet Browser
Audophile Internet Browser V12

Core Audio Technology
Gengko Audio
Gryphon Audio
JPS Labs
Krell Audio
Merrill Audio
Modwright Instruments

Nagra Audio
Nordost
Opot Digital
Pass Lab
Stogrand Cables
Stogrand Audio Japan
Toshiba Audio
VAC Amplification
Venture Audio
Vibe Audio

Industry News
Audio Precision GRAS, K&A and AP-515 @ THE Show Newport. Read More
Salk Sound Wells Audio, LampizatCr plus Denonables and Ginkgo Audio. Read More
Emerald Physics speakers, DSPs and Engal at THE Show Newport. Read More
Powerhouse's in An Ambient Way in true high resolution audio. Read More
Merging MADC recording studio quality DAC unit. Read More
Gibson Traneer Headphones For Sport-Minded Music Enthusiasts. Read More

Robyatt Audio
Robyatt Audio's great room at THE Show Newport 2015. Read More
Woo Audio WA-8 battery powered vacuum tube headphone amplifier. Read More
Dan D'Agostino Master Audio Systems and Wilson Audio. Read More
OpenLIVE to offer high resolution music downloads to fans. Read More
Linear Tube Audio 2011 stereo power LINEAR TUBE amplifier and integrated amplifier. Read More
CANADA HiFi June/July issue is now available online for free. Read More

MUSIC
Apple Streaming Music Service: What you need to know about Apple Music streaming. Read More
Angel City Audio VPI, Stogrand and Melody at THE Show. Read More
audioengine
Audioengine AS+ powered speaker, B2 Bluetooth speaker and W3. Read More
—> More Industry News

Apps & Browser
High-End Audio Web Browser
Enjoy the Music.com Android App
Windows Phone 7/8 App

Mailing List
Join our e-Newsletter for monthly site updates and to enter our contests!

Music
This site is made possible through support from our advertisers. Please visit their website.



Startup | Press Releases | YouTube | About Us | Contact Us

www.EnjoyTheMusic.com

10:08



“A lot of audio seems to be initially impressive, where the Exogal slowly, but inexorably, convinces you of just how damn good it is.”

► I was never lucky enough to spend enough time with the Wadia 27, but what little time I spent with it left its mark. It was one of the most natural, unforced, exciting, and detailed converters money could buy, and even today its performance would be hard to replicate. Except the Exogal Comet does just that. It doesn't serve up a clone of the Wadia 27 sound, but it has that same sense of music unconstrained by the electronics being played, especially in soundstage terms. You get a sense of why that 'holographic soundstaging' cliché exists when you hear something like 'Church' from Lyle Lovett's *Joshua Judges Ruth* [MCA]; those handclaps and voices from the choir really do appear in a three-dimensional space in front of the listener, whatever the system.

The Exogal's strongest suit perhaps is that it isn't the most immediately revealing revelation. If that sounds like a contradiction in terms, it's simply that a lot of audio seems to be initially impressive, where the Exogal slowly, but inexorably, convinces you of just how damn good it is. Some will never get this, because they want the ten-second 'wow!' demonstration. Others will realise music is about more than just being impressive and discover their music holds deeper joys. I played 'The Pull' from Richmond Fontaine's excellent *We Used To Think The Freeway Sounded Like A River* [Décor] and felt wrist-slittingly 'uplifted' rather than blown away by the sound, which is precisely how you should feel when listening to this track. High-res is great through the Comet (it will happily play

32/384 and DSD128) but it isn't mandatory, because you find yourself drawn to the music rather than the sound it makes. You can do that to almost any genre or style of music: I even ploughed through some truly wonderful – but horribly recorded – 1970s Ethiopian jazz-funk by Mulatu Astatke ('Yègelié Tezeta' on *Ethiopiquest Vol 4* [Buda]) and the Exogal simply got out of the way to let the groove play on. It also did the same through the digitised line input,

Add the separate power supply, and the difference is immediately justified in the listening. The bass becomes more solid, more authoritative, more 'real', and the stereo image extends even further from the boxes. It's not a vast change – certainly nothing like the difference between most DACs and the Comet, but it just makes the Comet more 'Comet-y'. Put simply, it's a 'no going back' upgrade.

There is one mark against the Exogal – the display. Smack in the middle of the front panel is a little silver square, that most people think is some kind of logo, or maybe some sort of power indicator. Look closer: it's the lone display for source and volume level. This is elegant and discreet, yes, but silver text against a silver background is not high on the readability stakes. If the Comet is used as a DAC only, this is not really an issue, but if the Comet really does take over the role of digital 'hub', this needs to be more clearly marked. It's a measure of how good the Comet really is, though, that I'd be willing to put up with this display without turning a hair. ►

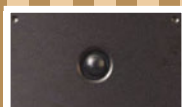
T. 01292 319 416

email: contact@loudspeaker-art.com { website: www.loudspeaker-art.com

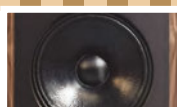
art loudspeakers

THE MODELS

Alnico 6 • Alnico 8 • Alnico 8.3 • Alnico 10 • Alnico 12 (shown)



Custom 35mm Soft Dome HF unit with Alnico Magnet



300mm Bass unit (treated paper)



Art Loudspeakers unique Decolam cabinet construction



220mm dedicated Midrange unit (papyrus cone alnico magnet)



Special in-house veneering process



Downward firing port for ease of placement



DESIGNED & HANDMADE IN THE UK

"In every sense of the word, the Alnico 12 loudspeaker is a true work of art..."

Audio Note Lounge



HIGH END HI-FI IN IRELAND

• Arcam • Audio Research • B&W • Cayin • Classe • Clearaudio • Copland • Cyrus • Devialet • Jadis • Kharma
• Koetsu • Krell • Lavardin • Leben • Martin Logan • Meridian • Naim • Nordost • Prima Luna • Primare • Quad • Raidho • Rega
• SME • Sonus Faber • Spendor • Stax • Sumiko • System Audio • Van Den Hul • Wilson Audio and many more.

ONLY FROM CLONEY AUDIO

The best advice, home installation and after sales service in Ireland - since 1966.

55 Main Street, Blackrock, Co. Dublin, Ireland.

Ph: +353 1 28 88 477 www.cloneyaudio.com



Now open at Tower Records, Dawson St, Dublin 2*

Ph: +353 1 68 75 954

*Tower Records carries a selection of our product range.

CLONEY
AUDIO
HOME ENTERTAINMENT

“Try to find a more complete and more intrinsically ‘right’ sounding digital hub for the same money.”

► We aren't in the comparison review business, but there's something going on here that's worth commenting upon. Right now, the best DAC I know of is, on balance, the Nagra HD DAC: there are probably better ones, but the few I can think of are so expensive they cost about as much as funding a good ol' 1980s South American insurrection. But the HD DAC is not exactly cheap: I'm still clinging to the review sample, but the excuses are wearing thin, and I know sooner or later, I'll either have to man up and buy it (thoroughly Ron Jeremy-ing my bank balance in the process) or find something similar for considerably less money. The Exogal Comet (especially with optional PSU) comes close. Possibly 'close enough' close.

While we're talking of things beyond the Exogal's purview, using it with the masterful Melco N1Z music player is, quite simply, the cheapest way into digital's Premier League. This is a combination that can stand shoulder to shoulder with digital's giants like complete multi-box players from dCS, CH Precision, Esoteric, Metronome, and Nagra. I can't speak to Meitner, MSB, Playback, ReQuest, Soulution, or Weiss, because I've not spent that much time with these player systems (and my experience with Esoteric is somewhat behind the curve), but it's immaterial. The point is, the Melco/Exogal combination has the audio chops to have a dog in the big digital fight, at a price most of these big-ticket contenders might set aside for packing cases. OK, so ultimately, these top-tier players are not ousted by the Exogal, but it puts up one hell of a fight. Where it loses this fight is in bass depth and intensity, and dynamic shading. Reaching for Peter Hurford's organ (snurk, snurk) the sheer scale of Bach's Prelude and Fugue (BWV 548) in D Minor [Decca] is foreshortened slightly on the Exogal next to the really big guns. Also, the headphone output tends to sound harsh at moderate to loud levels, even on comparatively efficient Sennheiser HD25-IIs. But, try to find a more complete and more intrinsically 'right' sounding digital hub for the same money. It's almost impossible.

We keep banging on about the revolution that is taking place in home audio, and the Exogal Comet is that revolution's *agent provocateur*. It isn't the first device that replaces source component, converter, and preamp for a digital generation, but it is the first that makes that move so cogent and does so without any real compromise. If this is the shape of the future, it comes highly recommended. +

TECHNICAL SPECIFICATIONS

Comet DAC

Digital Inputs: AES/EBU on XLR, SPDIF on 75Ohm BNC, Toslink, USB-B, Analog on isolated RCA

Analog Outputs: One Pair Balanced (XLR), One Pair Unbalanced (RCA)

Sample rates supported: 16bit/32kHz–24bit/96kHz (optical); 16bit/32kHz–24bit/192kHz (AES/EBU, coaxial), 16bit/32kHz–32bit/384kHz, DSD64, DSD128 (USB)

Frequency Response: Not specified

S/N ratio: Not specified

THD+N: Not specified

Dimensions (HxWxD): 4.76 × 19.0 × 29.2 cm

Weight: 4.2 kg

Finish: Clear (Silver) or Black Anodized Aluminum

Price: £2,100

Optional PSU

Input Voltage: 85 VAC to 264 VAC

DC Cord Length: 1.5m

Dimensions (HxWxD): 15.24 × 16.5 × 5.72cm)

Weight: 0.91 kg

Finish: Black

Price: £550

Manufactured by: Exogal

URL: www.exogal.com

Distributed by: Kog Audio

URL: www.kogaudio.com

Tel: +44 (0)24 7722 0650



PS Audio DirectStream DAC with Pike's Peak OS

by Chris Martens

Not so long ago the Boulder, Colorado-based firm PS Audio touted its PCM-focused PerfectWave DAC and matching PerfectWave Transport as its premier digital audio products, but all that changed with the arrival of the firm's DSD-centric DirectStream DAC (£5,250, or £5,550, with PS Audio's optional PerfectWave Bridge module installed).

In the years following the PerfectWave DAC's release, PS Audio President Paul McGowan was approached by DAC designer Ted Smith. Smith (who has since become a key member of the PS Audio engineering team) suggested a superior-sounding DAC based on a DSD (Direct Stream Digital) rather than a PCM platform. Once McGowan, along with some trusted cohorts from the Pro Audio/Recording Studio world, had a chance to hear Smith's proof-of-concept DAC circuits in action, the sonic results spoke for themselves, leading PS Audio to embark upon development of the DirectStream DAC. Another key member of the PS Audio team is legendary high-end audio designer Arnie Nudell (creator of, among other things, the classic Infinity IRS loudspeaker); Nudell's expert ears are used to vet new PS Audio design concepts, subsequent product and firmware revisions, and so on.

The operating principles of the DirectStream DAC are fairly easy to grasp. All incoming PCM digital audio data is first converted to DSD format and then upsampled to 10x the standard DSD rate; similarly, all DSD digital audio files are likewise upsampled to the 10x DSD rate. Then, the 10x DSD digital audio data is converted back down to the double DSD rate for playback. Handling all of this up- and down-conversion is what PS Audio calls its 'DSD Engine', which uses an FPGA (Field Programmable Gate Array) as its core processor. No off-the-shelf DAC chips are used in the design.

To drive the outputs of the DAC, PS Audio employs high-speed, fully balanced video switching amplifiers whose outputs are routed through an extremely high quality, wide bandwidth audio transformer that serves, says PS Audio, to provide "both galvanic isolation from the outside world as well as low pass filtering."

All of the above takes place within an extremely low-jitter (and relatively jitter insensitive) environment made possible by the firm's decision to use one single master clock for the entire DAC—a clock that, according to PS Audio, is "designed

to subtend all possible combinations of sub-clocks, from 44.1, 88.2, 48, 96 (kHz), etc. in order to eliminate the need for multiple clocks..." The clock deliberately does not use "classic edge detection techniques on the digital input data," but rather uses "a proprietary method of extremely fast sample-and-recognise technology" that is said to minimise sonic degradation related to "cables, jitter, and the quality of the incoming data source." Moreover, PS Audio has taken special care to avoid noise transfer between sections within the DAC, while paying extremely close attention to circuit board trace layouts to minimise both noise and potential jitter issues.

While this technical description sounds promising, one key question remains: why go with a DSD-centric DAC in the first place? The answer is a multi-faceted one, but let me attempt, here, to synthesise a mini-White Paper PS Audio has provided on the subject. The designers chose DSD as the core platform for this DAC with several thoughts in mind. First, DSD is simple to convert to analogue, requiring only a low-pass filter. Second, DSD is inherently linear and all bits in a DSD stream have the same weight, meaning, says PS Audio's White Paper, "a single-bit error anywhere is barely measurable let alone audible" (something that is not always true with conventional PCM playback). Third, DSD soft clips when overdriven, meaning that a DSD-based DAC should theoretically behave more like analogue magnetic tape, where "signals which exceed the nominal full scale value only get slightly compressed if at all."

The DirectStream DAC provides a card slot for an optional Network Bridge module, plus a range of digital inputs including AES/EBU (via XLR), coaxial and Toslink S/PDIF, I²S, and USB. Two methods of control are provided: a full-colour touchscreen display and a convenient, handheld remote. Many different display views are possible, but the standard one shows the DAC input selected, the sampling rate and bit-depth of the file in play, and the absolute phase setting chosen (the DirectStream DAC allows switching of absolute phase, which makes a significant difference on some recordings).

If the optional Network Bridge is installed, the DirectStream DAC will automatically access the Internet to look up album art and metadata for the files being played and then store that data on an included SD memory card.



“Its sound reminds me of a very high-quality analogue reel-to-reel tape deck, but of course without any tape hiss at all.”

Thereafter, the display will show the appropriate album art and metadata whenever the file is played. The display screen also will temporarily show volume and/or channel balance settings whenever users adjust either parameter. Although the DAC can be set to provide fixed, line-level outputs, PS Audio strongly recommends using the DAC's variable level analogue outputs (either balanced or single-ended) to drive power amplifiers directly, arguing that there is nothing quite like the sonic transparency and purity that results. Consequently, I ran the DAC directly into my reference monoblock amps.

According to its specifications, the DirectStream DAC can handle PCM files at up to 192kHz/24-bit resolutions, but I got a pleasant surprise when I discovered the DAC could happily play the 352.8kHz/24-bit DXD files I had on hand (and it sounded terrific doing so!). The DAC also is rated to handle DSD64 and DSD128 files, which it does with the greatest of ease (but note: it cannot play 'quad speed' DSD256 files).

In the title of this article, I mentioned that our review sample of the DirectStream DAC had PS Audio's latest Pikes Peak 'OS' or 'operating system' installed. I used that phrasing because PS Audio describes its elaborate control firmware for this DAC as being not unlike a full-fledged computer operating system, owing to the extreme volume and complexity of the code involved. To date, there have been three operating system updates for the DAC – all free of charge – and according to Paul McGowan (and others in the PS Audio user community), the Pikes Peak OS represents a bigger sonic step forward than any of the previous upgrades.

The DirectStream DAC is one of the most analogue-like digital audio products I've yet heard. By this I mean that its sound reminds me of a very high-quality analogue reel-to-reel tape deck, but of course without any tape hiss at all. In practical terms this means that when playing well-recorded material, the DAC can and does present plenty of inner detail and dynamic nuance, while also serving up remarkably three-dimensional soundstages, yet it does so without ever sounding as if it is working hard. On the contrary, the DAC consistently conveys a sense of relaxed and unstrained smoothness coupled with full-bodied dynamics that—exactly as PS Audio promised—refuse to veer into raw-edged overload. Perhaps a good word to describe the DirectStream DAC's sound, then, would be 'graciousness', in the fullest and most deeply resonant senses of that word.

Put on truly well recorded material, such as the Nidaros Cathedral Girl's Choir & TrondhiemSolistene performance of Kim André Arnesen's 'Magnificat' [2L music Blu-ray/hybrid SACD] and listen to the way the PS Audio delineates, yet refrains from clinically dissecting, the elements of the music. The DAC effortlessly captures the high, pure, multi-layered and achingly beautiful voices of the girl's choir. Similarly, it beautifully renders the tonality of the accompanying strings; reproduces the deep, powerful, yet very taut voice of the pipe organ; and above all captures the remarkable depth, width, and reverberant qualities of the Nidaros Cathedral itself. In short, the DirectStream DAC serves up glorious musical realism, in a disarmingly casual and almost self-effacing way. ►

the
audio
consultants

To book an audition please call +44 (0)118 981 9891

www.audioconsultants.co.uk

FINE TWO CHANNEL AUDIO SYSTEMS

Edge Electronics Amplifiers

Extremely pure, transparent sound across the entire frequency range

Very high current delivering supremely tight, deep bass extension

Every nuance of tone, texture and dynamics expression revealed with ease

Exceptionally stiff and massive cabinet construction reduces resonance pollution

A level of musicality rare amongst most other reference electronics systems



For further information please visit audioconsultants.co.uk

info@audioconsultants.co.uk

4 Zephyr House Calleva Park Aldermaston Berkshire RG7 8JN UK

AC/HFP/81

A collage of images related to audio equipment and music. The collage includes a close-up of a speaker driver, a turntable with a vinyl record, a person playing a piano, a microphone, and various electronic components like capacitors and circuit boards. The central text reads:

**ROCKY MOUNTAIN
INTERNATIONAL
AUDIO FEST**
featuring CanJam

Presenting 3 affordable systems:
\$500, \$1,000 and \$1,500

October 2, 3 and 4, 2015
Denver, Colorado USA
www.AudioFest.net



▶ Given the DirectStream DAC's internal architecture, you might think it would give 'preferential treatment' to DSD material and indeed it does sound quite masterful when playing DSD files. But the real magic of this DAC may centre on its handling of PCM material—material the DAC gives greater smoothness, fluidity, dimensionality, and elegance than it might otherwise have had. I don't mean to suggest by this that traditional PCM playback methods cannot or do not sound perfectly good in their own right, because they certainly can and do. But if PCM playback has an identifiable 'failure mode' it might be that PCM files can at times sound a bit flat and 2-dimensional, while exhibiting subtly edgy and/or mechanical qualities that tend to hold the listener at arm's length from the music. While I would not tell you that the DirectStream DAC makes these problems disappear with a wave of its magic DSD-processing wand, I will tell you that it makes these sorts of playback problems better—and sometimes eliminates them almost completely.

To see what I mean by those comments, try putting on the Civil Wars' *Barton Hollow* CD [Sensibility] and listen closely to the upper register of Joy Williams' voice. My past experience has been that, on this generally well-recorded album, the top of Williams' range can—at full song—exhibit faint but audible traces of strain and momentary patches of a subtly grating, rough-textured quality (it doesn't happen often, but it's annoying and musically disturbing when it does). Through the PS Audio DAC, however, the performance envelope of the album seems almost to stretch out, allowing room for Williams' voice to soar up high and at elevated levels, but without being marred by audible stress, strain, or bursts of break-up. This is precisely the sort of sonic forward progress you can expect to hear over and over again with the DirectStream DAC.

Because the DAC is very quiet and does a great job of retrieving low-level details—especially small, evanescent spatial cues—it can take ordinarily flat-sounding recordings and suddenly give them a heightened sense of body, shape, and depth. This quality of three-dimensionality, along with the DAC's delightful (albeit improbable) marriage of high resolution and unforced graciousness, is what really defines the sound of the DirectStream DAC for me.

Having praised the DAC for its resolution, smoothness, three-dimensionality, and grace, you might draw the inference that it is highly forgiving of imperfect recordings, but in my experience that really wasn't the case. The DirectStream DAC will improve what it can about mediocre recordings, but it nevertheless exposes them for exactly what they are. What is more, because the DAC tends to clean up whatever it can in so-so recordings, those sonic problems that can't be ameliorated tend to stand out in even sharper relief. While the DirectStream DAC can make good, very good, and great recordings sound better than ever, it cannot and does not compensate for poor or mediocre recordings. In the end, the sonic truth will out.

PS Audio's DirectStream DAC turns the established order of things in the PCM-centric digital audio world upside down and it sounds all the better for it. I have greatly enjoyed my time with the DirectStream DAC, in no small part because it has demonstrated the sonic benefits of a fundamentally different—and perhaps fundamentally superior—method of playing both PCM and DSD digital audio files. For this reason alone I would encourage readers considering DACs in this price range to give the DirectStream DAC a very careful listen. If your reactions are anything like mine, you may find yourself won over by the fresh musical insights this DAC makes possible, even on recordings you once thought you knew well. ▶

PS Audio PerfectWave Transport

As mentioned above, the PerfectWave 'Memory Player Transport' was originally conceived as the companion to the original PerfectWave DAC—the precursor to the DirectStream DAC reviewed here. Interestingly, though, all three components share a common physical form factor and were designed so that they can be stacked atop one another.

The PerfectWave Transport comes from an era when computer-based music servers were not as common as they are today, and when DSD digital audio files were rarely if ever discussed. What PS Audio sought to create was a CD/DVD disc reader/transport that anticipated the sonic benefits of contemporary music servers.

To this end, the key idea behind the PerfectWave Transport was that it would not play digital audio data directly from discs, but rather from a 64MB buffer, which PS Audio termed a 'Digital Lens'. PS Audio states, "It is the fact that you are listening to the stored version of what's on the disc that helps the music sound so lifelike and spacious."

Thanks to this buffer memory, the PerfectWave Transport's DVD disc drive mechanism has ample time to use what PS Audio describes as "a multiple read technique, which reads the data on the disc until it's verified as bit perfect." What is more, the digital audio data is fed into the Digital Lens with, "no clock information attached to (the files)." Instead, the output of the Lens is, "forwarded to the PWT output though a fixed high-precision, low-jitter asynchronous clock."

As a result, the sound quality associated with playback of data from the PerfectWave Transport is fully competitive with that of playback from a well-sorted modern day, PC-based music server. In fact, if anything, the PWT might enjoy a very narrow edge in terms of resolution of low-level musical information. The PWT can read CDs or DVDs on which PCM-format digital audio data (at resolutions up to 192/24) has been stored; the PWT does not, however, play Blu-ray, DVD-Audio, or SACD discs. Even so, the PerfectWave Transport makes a worthy companion to the DirectStream DAC—especially for listeners with very large CD collections. +



TECHNICAL SPECIFICATIONS

PS Audio PerfectWave Memory Player Transport

Type: Solid-state CD transport with memory playback

Disc Types: CD, DVD-ROM with WAV-encoded PCM digital audio files at up to 192/24 resolutions, or DoP-encoded DSD files (note: does not play DVDs, DVD-Audio discs, or SACD discs)

Internal storage: 64MB 'Digital Lens'

Digital outputs: TOSLink, coaxial S/PDIF, AES/EBU, and I²S

User interface: PS Audio remote control plus on-board full-colour touchscreen controls

Dimensions (HxWxD): 10 × 42 × 36cm

Weight: Approximately 12.2 kg

Available finishes: Silver or black

Price: £2,999

PS Audio DirectStream DAC

Type: Solid-state PCM, DXD, and DSD-compatible DAC

Digital Inputs: Two I²S, coaxial S/PDIF, TOSLink optical, AES/EBU, USB, and Network bridge slot

Supported Formats:

- **PCM:** 44.1kHz–192kHz, 16–24 bit
- **DSD:** DSD64 and 128

Analogue Outputs: Single-ended (unbalanced) via stereo RCA connectors, balanced stereo analogue via dual 3-pin XLR connectors

DAC resolution/supported digital formats:

Frequency response: 20Hz–20kHz ± 0.25dB

Distortion (THD + Noise @ 1kHz, full scale): <0.03%

Output voltage: Two user selectable settings, as below:

- **Low output setting:** 1.41 Vrms (+5dBV)/3.15
- **High output setting:** 2.81 Vrms (+8dBV)/5.3Vrms (+12dBV)

User Interface: PS Audio remote control plus on-board full-colour touchscreen controls.

Dimensions (HxWxD): 10 × 42 × 36cm

Weight: 13.5 kg

Available finishes: Silver or black

Price: £5,250, or £5,550 with optional Network Bridge module installed

Manufacturer: PS Audio

URL: www.psaudio.com

UK Distributor: Signature Audio Systems

Tel: +44(0)7738 007776

URL: www.signaturesystems.co.uk

STEP UP TO THE **PHONOSTAGE**



TIMESTEP T-01MC PHONOSTAGE £995



VERDICT

New minimalist phonostage, that sonically, punches well above its weight

FOR

- open and precise
- plenty of emotion
- plays old mono records well

AGAINST

- only available in black

Getting rave reviews from "5 globes and a pound sign", a "recommended" product, and being favourably compared to a "£9,500 phonostage" is not an everyday occurrence for one costing just £995. But then Timestep's T-01MC is no ordinary Phonostage, it has Japanese ultra low noise FETs, PTFE and gold input/output connectors, a custom made transformer with an interwinding electrostatic shield, a silicon steel band and a steel outer case to eliminate hum.



Stereo, Mono & 78 rpm Artisan Noriyuki Miyajima has been making phono cartridges in Japan for more than three decades. Only recently discovered by American and European audiophiles, they have since received rave reviews all over the world and deservedly so.

Every Miyajima cartridge is handcrafted in-house by a dedicated full-time team of six based in Fukuoka.

The cartridge bodies are individually precision-milled from rare and exotic hardwoods including ebony, rosewood and African blackwood (mpingo). These dense natural materials lend a vibrant and natural tonality to the sound.



**Clearaudio Goldfinger - Miyajima - Benz LPS - Denon DL103 - DL-102 mono - Audio Technica AT33
SME Turntables & Tonearms - Oyaide - Furutech - Klipsch - Whest Audio - 78rpm- SL-1200 Mods**

All demonstrated in a relaxing setting with river views! Part exchanges & World wide mail order

Sound Hi Fi Dartmouth Devon 01803 833366 www.SoundHiFi.com





ULTRASONIC
THE headphone company

Luxurious Design Sonic Excellence

www.ultrasone-elite.com

The New Range of Low Distortion Cables From

Sonata VS-1 Samba VS-1



"... so much of Black Rhodium's anti distortion know-how being combined in one cable."

"The Sonata VS-1 is fully loaded with features and should bring positive virtues to almost any system."

HI-FI Choice, June 2015



Find out more and where to buy at:
www.blackrhodium.co.uk/sonatavs1



Sonata VS-1 and Samba VS-1 are fitted with the *Graham White* VS-1 Vibration Stabiliser

"The stabilisers do a great job and offer audible benefits" **Hi-Fi Choice May 2014** www.gnlegacy.co.uk/vs1



"... the Samba easily makes sense of the pile driving bass riff, thunderous drums, searing electric buzz-sawing vocals, enabling previously unappreciated acoustic guitars and congas to come through cleanly."

"These feature-packed cables are a sensibly priced upgrade that will bring positive virtues to many musical styles and systems."

"Thoroughly recommended"
HI-FI Choice, January 2015

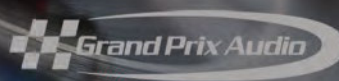


Find out more and where to buy at:
www.blackrhodium.co.uk/sambavs1

+44 (0)1332 342 233 • sales@blackrhodium.co.uk • www.blackrhodium.co.uk • facebook.com/blackrhodium

HMF
SOLUTIONS
 Hi-End Audio Products

Importer and Dealer of some
 of the finest audio systems in the world



www.hmfsolutions.com



[www.twitter.com/hmfinfolan](https://twitter.com/hmfinfolan)



hmfinfo@btinternet.com



www.facebook.com/hmfsolutions



07740 799753

ENIGMAcoustics Mythology M1 loudspeaker

by Alan Sircom

When it comes to supertweeters, normally a brand starts with complete loudspeakers and builds up the registers from there. ENIGMAcoustics instead first burst onto the audio stage with its Sopranino supertweeter, and from there looked down into the regular loudspeaker world with its Mythology M1 standmount. The M1 was designed from the outset to work with the company's unique, self-biased electrostatic supertweeter, which sits atop the two-way box.

The Mythology's main cabinet is a rear-ported rectangular box, sporting a custom-made 178mm polypropylene bass driver (with a 50mm voice coil) coupled to a 34mm silk dome tweeter. These sit in a laminated thin-walled birch wood cabinet, reinforced with toughened glass top and bottom. Because of the dimensions, the appearance of the gently curved matt black aluminium front baffle, and the single column stand it rests upon, the main cabinet looks similar to a Magico Q1. However, on closer investigation, this is a little like saying George Clooney looks like Karl Marx because they both have beards.

ENIGMAcoustics goes down the custom drivers route because it can guarantee tight tolerance of drive units, down to within 1dB of a reference driver. And it also means the tweeter (larger than the standard one-inch soft dome) can be used across a far wider frequency range than usual. This took some considerable research to get right, but it has very obvious benefits; it's not only an extremely efficient design, but it works down into the midrange, meaning the crossover point between treble and bass unit is down

at 1.1kHz. Thus, practically everything from 1kHz-20kHz is covered by the same drive unit, which significantly improves phase characteristics and linearity across the mids and upper registers in the process.

The combination of drive units and comparatively wide baffle means the M1's off-axis performance is extremely good. Because the tweeter takes on such a starring role in the midrange, the bass driver doesn't get to exhibit the darker side of a cone's performance at higher frequencies, and there is little 'beaming'. Audiophiles, especially those who listen alone in the sweet spot with free-space loudspeaker designs, often dismiss this off-axis performance. ►



▶ However, even under those conditions, the effect of poor off-axis performance on the information you receive from first reflections can negatively influence the speaker system's performance, and should always be a key indicator of good loudspeaker design.

The two drive units are paired with relatively complex crossover network, which is both unusual and more complex to design than the more common first-order crossover typically found in this style of ported two-way. Specifically, it uses a third-order network for the bass-treble integration and a second-order network for the bass roll-off. This not only controls the slope of the bass roll-off significantly better than simply relying on the natural mechanics of the drive unit, it provides greater time alignment, and better phase coherence across the full frequency range. This is not the kind of network 'dashed off' in an afternoon, but more the result of painstaking analysis and listening, and as a consequence the network bristles with audiophile Big Names, like Solen, Mundorf, and WBT.

As discussed, the Sopranino supertweeter is pivotal to the design (our own Jimmy Hughes was seriously impressed by the passive electrostatic Sopranino supertweeter, when he reviewed it for *Hi-Fi+* way back in issue 98.), and this is one loudspeaker where reading the manual is important in getting the tonal balance just right. Not only does the supertweeter allow for gain and crossover, but there are positioning indicators that recommend you move the Sopranino slightly forward and back to balance the speaker. This is at once frustrating and fascinating, because the output of the supertweeter is mild, but its impact is wild.

To onlookers, this may seem like audio homeopathy – a dose of nothing doing nothing to the sound – and, in fairness, it takes some time both to tune the supertweeter to the room and attune yourself to the subtleties of that tuning process. In other words, be prepared to follow the instructions to the letter, then repeat the

process once more a few days or even weeks later when you have become more used to what the entire loudspeaker system is doing. Then, and only then, should you go 'off piste' with the manual. For the system, room, position, and my personal listening, setting the Sopranino to 'flat' gain (as opposed to -3dB) and 'high' (12kHz crossover), with the supertweeter back a couple of notches on from the front baffle elicited the best response.

This experimentation process is worth doing because it essentially removes a considerable amount of the influence of the room from the loudspeaker's performance. It's as if the high-frequencies 'flood' stray first reflections and especially residual flutter echoes, allowing the loudspeaker to be itself. It won't make a bad room good, and it doesn't obviate the need for good room treatment, but it does help bring out the best in a good room, and give the loudspeakers 'proper' a better foundation. There's another significant benefit too; you can use this to subtly tweak the soundstaging in the room, making the sound more forward or recessed to taste. This is not homeopathy nor is it radically changing the tonal balance of the loudspeaker; this is just seasoning to taste. ▶



AUDIO-CABI-NET

We believe how a cabinet works, looks and feels is just as important as the sound reproduction from the hi fi equipment housed inside.



National Audio Show 2013 & 14 award winners • Call 01582 450929 or email info@audio-cabi.net to find out more.



PRIMARE'S 60 SERIES – revealing the world of music around you.

It lies within us all, that sense of perfect balance, of all things in harmony. When things simply feel right.

Primare's most revealing products to date, the **60 Series** is the ultimate expression of an ongoing pursuit of that sense of balance and harmony, of simple perfection.

The **PRE60** is a supremely sophisticated control center for sources analogue or digital, wired or wireless. The **A60** reference amplifier employs Primare's groundbreaking **UFPD™** amplification technology for unparalleled power and precision. Entirely designed and hand built in Sweden, they are resounding statements of exemplary quality and performance.

For more, see primare.net.



The sound
and vision
of Scandinavia

karma
audio - visual

Authorized United Kingdom Distributor

karma-av.co.uk
info@karma-av.co.uk
01423 358846

hi-fi+

is now available for iPad and iPhone



hi-fi+ can be downloaded to your Apple iPad easily as a **subscription, single issues** or **back issues**.

For more details visit **www.hifiplus.com** or search for 'Hi-Fi+' on the App Store.

“The unexpected aspect of the M1’s performance is the amount of bass it delivers.”

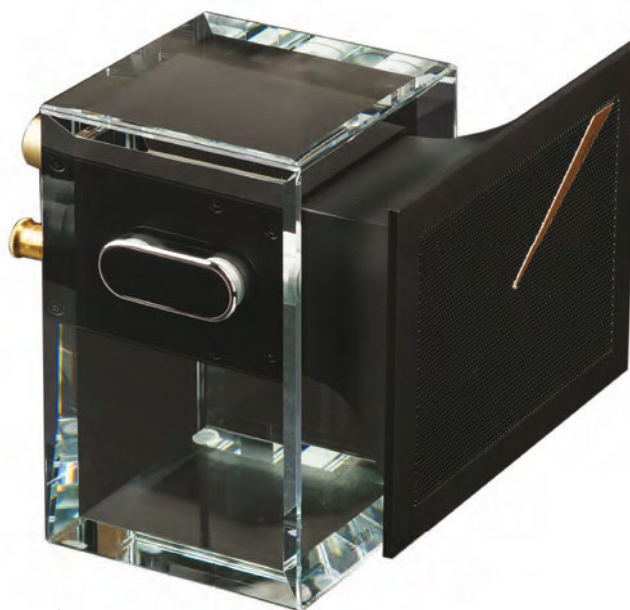
► The complete Mythology M1 system is therefore relatively unfussed by room size, working well both in surprisingly large and surprisingly small rooms. The same could not be said of matching the M1 to partnering electronics – the M1’s tweeter may be efficient, but at 85dB, this is not an especially sensitive loudspeaker, and its four-ohm nominal load is possibly not entirely benign, especially in the upper registers. This was not a loudspeaker that sat entirely comfortably with tube amplifiers, the resulting sound too ‘soft’ in the treble. On the other hand, a good ‘grippy’ solid-state design brought it to life.

The unexpected aspect of the M1’s performance is the amount of bass it delivers. We Brits know our way around a two-way standmount, but they all tend to be a little lightweight when it comes to delivering a full-scale orchestral ‘thwack’. We have come to think that ‘good’, but the M1 – coupled with a beefy power amp – begs to differ. It packs a surprising punch, evidenced by the closing passages of Mahler’s Eighth [Solti, Decca]. This is basically an excuse to throw an orchestra, a choir, and an organ at the listener, and the M1 aces this in the way only big floorstanders can. Floors shake, teeth rattle, squishy internal body parts move around... lovely!

With this mail’d fist comes the velvet glove. For all that force of bass, this is a remarkably subtle loudspeaker too. It’s extremely natural sounding, almost to the point of hiding its light under a supertweeter. As you might expect from one drive unit covering most of the mid and treble, it’s extremely coherent, expressive, and articulate – Martha Wainwright’s ‘Can You Believe It’ from *Come Home To Mama* [V2] demonstrates this perfectly as her voice can be hard to distinguish clearly at times, and the M1 simply opens out this shut-in mix. And, perhaps best of all, the treble stays just the right side of rolled off, a distinct improvement from the often bright, stinging sound of audio systems.

If there is a criticism of the Mythology M1 it’s that this subtlety may be lost on many people, although that feels like criticising an honest design for being too honest. Nevertheless, we have become so used to loudspeakers that try to impress that when we encounter one that doesn’t, we don’t question ourselves – we question the loudspeaker. Instead, think of this as like one of those basically honest, but bass-light, BBC-derived designs, just one that has been given a bass transplant.

The ENIGMAcoustics Mythology M1 needs careful partnering and careful installation if it is to give of its best. Fail to follow these rules, and you will wonder what all the fuss is about. But, if you get it right, you get a different loudspeaker, one that truly delivers the goods. This is a very big, very good loudspeaker hiding inside a relatively small loudspeaker, and it needs that supertweeter and a big amp to realise this. This is a deft, precise, and powerful loudspeaker, and that’s a combination we should all strive for. +



TECHNICAL SPECIFICATIONS

Type: Two-way, rear-ported standmount with freestanding passive electrostatic supertweeter

Drive units: 1x 38mm soft dome tweeter, 1x 178mm polypropylene bass cone

Frequency range: 40Hz–40kHz (w/Sopranino)

Sensitivity: 85dB (2.83V/1m)

Recommended amplifier power: 50–200Wpc

Nominal impedance: 4 ohms

Finishes: Black lacquer, birdseye maple, red makassar

Dimensions (W×H×D): 23 × 38 × 35.6cm (speaker only)

Weight: 19 kg (speaker); 20 kg (stand); 2.7 kg (super-tweeter)

Price: £14,690 w/stands; £13,690 w/o stands

Manufactured by: ENIGMAcoustics
URL: enigmacoustics.com

Distributed by Select Audio
URL: www.selectaudio.co.uk
TEL: +44(0)1900 601954

Transfiguration

Proteus cartridge

by Jason Kennedy

Cartridges are an essential and subtle part of the vinyl replay chain, yet many consider them to be the most significant, the part that makes the most difference. This isn't really the case: turntables and tonearms arguably have more of a bearing (no pun intended) on the absolute resolution of a record player, but cartridges usually have the most obvious tonal character. In the case of moving coils, this is because they are typically hand-made, using materials that are sensitive to variations in temperature and humidity, and because enthusiasts seem to like certain characteristics in their vinyl front ends. All of which is fine if you are trying to create a specific sound, but 'character' in audio hardware is effectively a barrier between the listener and the recording. High fidelity is all about breaking down that barrier. This is an ethos that Seiji Yoshioka, the man behind Transfiguration, seems to understand better than many in the small world of cartridge builders.

Yoshioka-san's company is called Immutable Music. 'Immutable' means 'unchanging', but given the steady evolution of Transfiguration cartridges, it seems inappropriate. Yoshioka-san has been making ring magnet-based MCs since the early 1990s and, while they have remained similar in appearance, the underlying coil and magnet assembly design has been substantially revised and refined. When Yoshioka-san started building cartridges, the ring magnet was a new thing: it is less so now, but the way he uses it produces some specs that are still out of the ordinary. Internal impedance, for instance, is a mere one Ohm: a state of affairs that reflects what must be the bare minimum of coil windings in high purity silver wire, and returns a low, but manageable, 0.2mV output.

The Proteus is the top model in a small but conservatively formed range of MCs. It looks like the next model down, the Phoenix S, but looks are misleading. Although both have a boron cantilever and diamond tip, the one in the Proteus is higher quality; the core is 3S μ -metal, rather than Phoenix S's permalloy, and the lead-out wires are glued down to reduce vibration. Also, the connector pins are rhodium-plated, rather than gold, and a different damper material is used.

Installing and setting up the Proteus is straightforward, except for the fact that its cantilever is very short and a long way from the front of the aluminium body. This makes it hard

to see, but a Petzl head torch makes installation easier, and the threaded inserts are a real boon if you are used to nut and bolt fixings. I started out by installing the Proteus in an SME V arm onboard the Model 20/3 turntable from the same company. If only all arms were this easy to set up!

I gave the Proteus a few hours run-in before listening, and then put on Patricia Barber's *Modern Cool* [Premonition], where the track 'Company' grabbed me and wouldn't let go; it was the scale, dynamics, and textures that did it. I don't think this track has ever sounded more real and vivid. The double bass has so much timbral resonance, and the trumpet so much expression, it's uncanny, and the voice has a presence in the room that makes it seem real. The Proteus produces a lot of extremely coherent and solid energy in a fashion that seems entirely without character. This much is not immediately obvious, but unveils itself over time, because each record you play uncovers so many of disc's own idiosyncrasies.

One of my favourite recordings of recent times is Mike Valentine's direct-to-disc cut of 'The Four Seasons' [Interpreti Veneziani, *Chasing The Dragon*]. You are always aware that it's played on original instruments, but never have those instruments displayed so much depth of tone and character. It's a crude and colourful sound by the standards of modern strings, but no less enjoyable as a result. These instruments are equally adept at portraying the gusts and swells of 'Autumn', that's for sure, because dynamics are outstanding with the Proteus. As is detail retrieval – it's so easy to follow different instruments and voices; for instance, on Leo Kottke's 'The Other Day (near Santa Cruz)' [*Great Big Boy*, Private Music] there are bells, percussion, two guitars, and voice. These are rendered as a group of instruments playing perfectly in time yet available for individual attention should you wish to focus in that way: apparently "there are no chicks in Santa Cruz", by the way.

For contrast, I installed the Proteus in another remarkable turntable, the Rega RP10. This brought the music further into the room and presented it with a degree of stereo solidity that is rare. Now, it was the voices of the Grateful Dead singing 'Crazy Fingers' [*Blues for Allah*, Audio Fidelity] that provided the distraction. Nowhere was this more apparent than on the chorus, where you could distinguish multiple voices and the high degree to which they harmonise. The transparency,



the resolution, and natural unforced nature of this cartridge made it quite difficult to take off a good slab of vinyl, too. This happened with Tom Wait's *Swordfishtrombones* [Island]; I put on the title track and couldn't take the LP off until the last refrain of that side. This album is remarkably well recorded for its genre and era (1983); the vibes, piano, congas, and ultimately the voice are superbly reproduced. There is so much life, nuance, and depth here that your appreciation for the composition and playing is effectively doubled. This repeated itself with virtually every album that I played: check out the horn arrangements on Joni Mitchell's 'The Dry Cleaner From Des Moines' [Mingus, Asylum], because it turns out Jaco Pastorius wasn't only a bass god. Who knew?

That Transfiguration makes neutral, transparent cartridges is firmly established, but in achieving this, Yoshioka-san also transforms a vinyl groove into *the* most effective means of reproducing a musical signal. The Transfiguration Proteus is as good a conduit to the language of music as anyone needs, and is way better than most I have ever heard. +

TECHNICAL SPECIFICATIONS

Type: Low output moving coil phono cartridge.

Stylus/Cantilever: PA (3×30µm) diamond stylus with 0.3mm boron cantilever

Tracking Force: 1.7g – 2.2g optimum 2.0g

Load: >10 Ohms

Compliance: 13 × 10⁻⁶cm/dyne.

Output (at 1 kHz @ 3.45cm/s): 0.2 mv

Weight: 7.8g (without stylus cover)

Price: £3,299

Manufacturer: Immutable Music Inc

Distributor: Decent Audio

Tel: 05602 054669

URL: www.decentaudio.co.uk

subscribe}

hi-fi+



In order to ensure prompt arrival of your copy of hi-fi+, it is best to take out a subscription. This lasts for a year (12 issues) and means that your magazine is delivered to your doorstep as soon as it is published. You'll never miss an issue again!



RATES:

UK, Western Europe & Rest of the World

ONE YEAR SUBSCRIPTION / 12 ISSUES

Within UK, **£50**

Western Europe, USA & Canada, **£60**

Rest of the World, **£80**

TWO YEAR SUBSCRIPTION / 24 ISSUES

Within UK, **£90**

Western Europe, USA & Canada, **£105**

Rest of the World, **£140**

SPECIAL OFFER:

SAVE 16% (1 year subscription)

SAVE 25% (2 year subscription)

TO SUBSCRIBE COMPLETE THIS FORM BELOW AND RETURN TO:

hi-fi+ Subscriptions, Unit 8 The Old Silk Mill, Brook Street, Tring, Hertfordshire, HP23 5EF, UK

OR CALL: +44 (0) 1442 820580 **OR EMAIL:** hifiplus@webscribe.co.uk **VIA THE WEB:** www.hifiplus.com

I would like my subscription to start from current issue / next issue (please delete as appropriate) One year ☐ Two years ☐

ABOUT YOU:

Title

Forename

Surname

Address

.....

Country

Post code/Zip code

Daytime Tel

PAYMENT: UK ☐ Europe, USA & Canada ☐ Rest of World ☐

Cheques made payable to Absolute Multimedia UK Ltd.

Visa ☐ **Mastercard** ☐

Card no

Expiry date

3 digit security number

Switch ☐

Card no

Issue no Expiry date

3 digit security number

Direct Debit ☐



Originators Identification No

4 2 7 0 4 9

Instruction to your Bank or Building Society to pay Direct Debits

Name(s) of account holder(s)

Bank/Building Society account number

Branch sort code

Name and full postal address of your Bank or Building Society branch.

To: The Manager Bank/Building Society

Address

.....

Country

Post code/Zip code

Instruction to your Bank or Building Society. Please pay Webscribe Ltd Direct Debits from the account detailed in this instruction subject to the safeguards assured by the Direct Debit Guarantee. I understand that the instruction may remain with Webscribe Ltd and, if so details will be passed electronically to my Bank/Building Society.

Signed

Date

Bank and Building Societies may not accept Direct Debit instructions for some types of account

The Direct Debit Guarantee

■ This Guarantee is offered by all Banks and Building Societies that take part in the Direct Debit scheme. The efficiency and security of the Scheme is monitored and protected by your own bank or Building Society. • If there are any changes to the amount, date or frequency of your Direct Debit Webscribe Ltd will notify you 10 working days in advance of your account being debited or as otherwise agreed. If you request Webscribe Ltd to collect a payment, confirmation of the amount and date will be given to you at the time of the request. • If an error is made in the payment of your Direct Debit, by Webscribe Ltd or your bank or building society you are entitled to a full and immediate refund of the amount paid from your bank or building society. • If you receive a refund you are not entitled to, you must pay it back when Webscribe Ltd asks you to. • You can cancel a Direct Debit at any time by simply contacting your bank or building society. Written confirmation may be required. Please also notify us.



Peachtree Audio deepblue2 Bluetooth wireless music system

by Chris Martens

If you've followed Peachtree Audio from its inception, several points become abundantly clear. Firstly, Peachtree has always had a fierce desire to make high-end audio accessible for new generations of listeners, many of whom consider personal digital music players, personal computers, or smartphones their 'audio source components' of choice. Secondly, understanding that many listeners—young and old—are put off by the stratospheric prices commanded by some audio brands, Peachtree consciously set out to reduce the high price of the high-end. Thirdly, recognising that space is at a premium not only for college students and many young university graduates, but also for urban dwellers of all ages, Peachtree sought to find ways to make high-end systems more compact, yet still rich in sonic virtues. Put all of these factors together, give them a good shake, and what comes out will be a product much like the Peachtree Audio deepblue2 (\$399, £449) Bluetooth loudspeaker.

To be candid, many traditional high-enders consider Bluetooth and high-performance audio to be more or less mutually exclusive. So, introduce the subject of a single-

chassis, 'stereo' Bluetooth loudspeaker, which is precisely what the deepblue2 is, and you will really see many audiophiles groaning and rolling their eyes. Given the fact that such biases are already stacked against it, can Peachtree's deepblue2 realistically hope to win the hearts and minds of veteran audiophiles? Well, despite all odds, it can and does, largely by winning approbation in the old-fashioned way: namely, by delivering unexpectedly good sound quality and plenty of it at a more than reasonable price.

The deepblue2 is slightly larger than typical Bluetooth speakers and it incorporates both a more elaborate driver array and a considerably more powerful amplifier than many of its competitors. The driver array consists of a left/right pair of 1-inch soft-dome tweeters and 3-inch midrange drivers, plus a single, shared, long-excursion 6.5-inch woofer. Powering these drivers is a stout, 440-watt amplifier.





Following the precepts of the late, great Henry Ford, the deepblue2 comes in ‘any colour you want, as long as it’s black’. The styling and finish of the matt black unit (whose chassis panels are done up in a soft-feel, Nextel-like coating) is simple, elegant, and purposeful—never flashy or ostentatious. In fact, the deepblue2’s ‘all-business, all-the-time’ appearance almost seems to say, ‘Never you mind the glitz; with me, it’s what’s on the inside that counts.’

The deepblue2 provides three inputs: a 96/24-capable optical digital input, a 3.5mm stereo mini-jack-equipped analogue input, and an aptX Bluetooth wireless input. The unit provides five top-mounted control buttons: a Bluetooth input selector/pairing initiation button, an input switching button (for toggling back and forth between the optical digital and analogue inputs), an on/off button, and a pair of up/down volume control buttons. The remote included with the deepblue2 reprises these same control functions while adding two more: namely, a speaker mute button, and a pair of ‘+/-’ bass level controls.

Interestingly, the deepblue2 can be paired with up to five Bluetooth devices simultaneously, so that by pressing the Bluetooth button repeatedly (on the unit itself or on the remote) one can toggle through a series of paired Bluetooth devices (such as a PC, a tablet, a smartphone, and so forth). I found this feature extremely handy and convenient as I have different music libraries and also different music apps on my various Bluetooth devices. The deepblue2 made it simple to switch between my favourite Bluetooth devices at will.

To make operation more intuitive, the deepblue2 features two sets of five multi-coloured, multifunction LEDs loosely aligned with the unit’s top-mounted control buttons, with one set of LEDs facing forward and the other canted upward. The LEDs briefly illuminate in blue whenever volume settings are adjusted (more lights indicating higher volume settings), or they will illuminate in white whenever bass level settings are adjusted (more lights indicating high bass output settings). Further, the left-most set of LED’s also illuminate to reflect Bluetooth pairing status; when the deepblue2 is in pairing mode, the LEDs alternately flash between white and blue, but when appropriate the LEDs will stop flashing and switch to pure blue to indicate pairing has been successful (the unit also emits a gentle ‘beep’ tone to provide an audible pairing confirmation).

Convenience and construction details aside, the deepblue2 is the sort of device that will either succeed or fail on the basis of sound quality, and on that basis our bet is that it will be a great success. Here’s why.

Many Bluetooth speakers, and the marketeers of same, can talk a good game in terms of sound quality, but when the sonic moment of truth arrives many come off sounding thin, brittle, edgy, boomy, compressed, lacking in both bass and treble extension, and may—in the worst cases—not only sound ragged, but grotesquely coloured. It is no wonder, then, that knowledgeable audiophiles are as a rule sceptical of the entire product category. Nevertheless, the deepblue2 is one of the rare exceptions to the rule.

"I don't know
these guys from
Germany but the
sound was
fantastic..."

*Michael Fremer Stereophile,
T.H.E. Show Newport 2013*



ARCONA-SERIES



www.gauderakustik-uk.co.uk
Office +44 1563 574185 · Mobile +44 7967 697990

**Oh ... I Wasn't
Supposed To Eat
Them For Lunch?**

Meaner, smoother, more
dynamic, and not hungry ...
at least for a little while.
DragonFly v1.2 £129

*"... the new Dragonfly is one smooth
customer. AudioQuest has managed
to ... swat their own product off our
Greatest Bits list ... by delivering ... a
more natural and all around simply
better-sounding DAC ... for \$100 less
than the price of the original."*

- AudioStream.com*

DRAGONFLY
USB DAC + Preamp + Headphone Amp

Replaces your computer's existing audio output,
feeding much more beautiful sound to your:

- Headphones and Earbuds
- Desktop Powered Speakers
- AV Receiver, Preamp or Power Amp

*[http://www.audiostream.com/content/
audioquest-dragonfly-v12-usb-digital-audio-converter](http://www.audiostream.com/content/audioquest-dragonfly-v12-usb-digital-audio-converter)

audioquest



GUIDE TO HEADPHONES, EARPHONES & RELATED ELECTRONICS

Downloaded your **FREE** digital
guide to headphones now!



www.hifiplus.com/buyers_guides/

► First off, it offers full-bodied dynamics most other Bluetooth speakers could at best only dream about. For example, I have been listening to the deepblue2 in a roughly 170 square foot office and in that small-to-mid-size space the Peachtree is able to generate uncomfortably high volume levels with no noticeable distortion and without even breaking a sweat. So ample are the Peachtree's dynamic reserves that I'm confident it could also fill much larger spaces with sound—again without showing any apparent signs of strain. Few other Bluetooth speakers could make such a claim with straight faces.

Second, the deepblue2 produces unexpectedly deep (hence the name 'deepblue2'), powerful, and punchy bass. While no one is likely to race out and trade in his or her present subwoofer on a deepblue2, I think there are very few (if any) Bluetooth speakers that could keep up with the Peachtree's low frequency performance. Put on a recording that features electric bass and drums and you'll hear exactly what you would hope to hear: meaty, beefy, soul-stirring bass.

deepblue2's bass is not only potent and ample, but also intelligent and here's what that means. Audiophiles of a certain age will remember when integrated amplifiers commonly included so-called 'loudness contour' switches, whose purpose was to apply compensatory EQ boost designed to help bass levels sound more hearty and better balanced when playing music at lower volume levels. Well, the deepblue2 features a 21st-century take on the loudness contour in the form of what Peachtree calls its Smart Volume circuit. Peachtree observes that, "The human ear is less sensitive to bass frequencies at low volume," but adds that the deepblue2's Smart Volume circuit "automatically adjusts frequency response at the low end of the volume range to compensate for the ear's lower sensitivity." The claimed benefit, according to Peachtree, is that, "you get full and clear sound even at very low levels."



But the benefits of the Smart Volume circuit do not end there. At the opposite end of the loudness spectrum, and especially for those who simply like to crank things up a bit, the Smart Volume circuit will, says Peachtree, "lower peak signals to ensure great distortion-free sound." Although I mostly tend to listen at moderate levels, I've tried the deepblue2 at both very low 'late night' levels and also at 'kick out the jams' levels, and I can report that in both instances the operation of the Smart Volume circuit appears to be blessedly subtle in the actual listening. As a result, one is rarely, if ever, aware of bass boost being applied at low levels or of selective compression being applied at higher levels. All one does notice is that, at low levels, the sense of bass weight and depth remains fully intact, while at higher levels the deepblue2 almost never sounds as if it is running out of steam. Loud or soft, the deepblue2 just sings along, sounding consistently well balanced and unflustered.

Finally, once broken in, the deepblue2 sounds remarkably open and articulate for a product of its type. Let me be very candid, though. More so than many Bluetooth

speakers I've encountered, the deepblue2 really does need its run-in time (as would many other types of high-quality speakers). Straight out of the box our review sample sounded somewhat rough-edged, raw, and ragged—giving an underwhelming account of itself during the first few minutes of operation.

However, the good news is that the worst of the Peachtree's break-in shortcomings faded very quickly—as in about the first two hours or so of use. In the early going, you might find as I did that you can actually hear the speaker's performance improve in real-time (with the sound getting noticeably better from one song to the next). Our review sample continued to improve over the next 10+ hours or so (and it may get even better still), but it has in any event come up to very good form within just a few hours of operation. ►

Oranges & Lemons

of Battersea

Hi-Fi & Streaming
Home Cinema
Multi-Room



020 7924 2040
61-63 Webbs Road London SW11 6RX
www.oandlhifi.co.uk

 **clarity**



The Wand 12in.....

....even more musical magic!

hi-fi Choice
★★★★★
"The Wand certainly pulled something wonderful out of the hi-fi hat.... It sounds completely out of its price class, letting you get lost in music."
HiFi Choice # 383

hi-fi+
"What The Wand brings to the party is excitement, a sense of speed and energy and zest to the LP."
HiFi Plus #112

HI-FI WORLD
VERDICT ●●●●●
"...the low end is a real strength of The Wand as it captures bass lines expertly and never seems to run out of puff or feel it was lacking authority. I would say that it is almost impossible not to fall for The Wand's charms."
HiFi World January 2012

www.thewandtonearm.com

 Best.

info@designbuildlisten.com
Retail and OEM enquires now welcome.



hi-fi+ website



Sign up today to our newsletter for all the latest Hi-Fi news!

Hi-Fi Plus has rebooted its website.

The Hi-Fi Plus website is the go-to URL for all the best the magazine has to offer and more, including news, reviews, features, show reports, all the latest music, and even some unique made-for-the-net features too.

www.hifiplus.com

"The deepblue2 approaches the overall standards of today's nicer compact bookshelves."

► I would say the sound of the deepblue2 approaches the overall standards of today's nicer compact bookshelf speakers, but that may be selling the Peachtree short. I say this because most small monitors are two-ways (with all of the attendant pro's and con's of that format), where the deepblue2 is a three-way design. What this buys for the listener, among other things, is the use of true, dedicated midrange drivers that really don't have to take much responsibility for producing bass. These drivers give the deepblue2 a certain measure of midrange panache and dynamic expressiveness that is uncommon for affordable small speakers in general and Bluetooth speakers in particular.

These qualities become particularly apparent on nuanced and subtly shaded female vocals, such as the delicate and unusually inflected voice of Anne Bisson as heard on "In the Wee Small Hours" from *Portraits & Perfumes* [Camilio]. Similarly, on that same track Peachtree's well integrated tweeters and midrange drivers also let you clearly hear the upper partials and harmonics of the piano softly reverberating within the recording space—again, nicely showing the deepblue2's overall sonic sophistication and refinement.

Similarly, put on a recording rich in textural and transient details, such as "Shenandoah" from the folk/bluegrass/jazz ensemble Ti-Ti Chickapea [*Change of Worlds*, Orchard Park] and listen as the deepblue2 deftly captures the soaring lilt of the electric violin, the tart yet sweet attack of the mandolin, and the sharp-edged plectrum noises as heavily accented guitar notes are played. There are qualities of immediacy, speed, and textural richness here that would be smudged, smeared, or that go missing entirely in most Bluetooth speakers. Plainly, the deepblue2 offers terrific value for money, but let's concede that it will not be all things to all people (which should come as no surprise given its size and very modest price).

Listeners who favour broad, deep soundstages may find the deepblue2 offers excellent rendering of soundstage depth, but for obvious reasons presents relatively narrow and not overly expansive stereo soundstages (except when the listener is seated fairly close to the Peachtree). In future, I would like to see Peachtree add a carefully designed soundstage enhancement circuit such as iFi Audio's '3D Holographic' system or ADX/Riva's 'Trillium Surround' mode, both of which do an effective job of expanding perceived soundstage width.

TECHNICAL SPECIFICATIONS

Type: Self-powered, single-chassis, three-way stereo Bluetooth speaker with sealed acoustic suspension enclosure.

Driver complement: Two 1-inch soft-dome tweeters, two 3-inch midrange driver, one 6.5-in long excursion bass driver.

Amplifier Power: 440 watts

Frequency response: Not specified

Inputs: Wireless aptX Bluetooth input with up to 5 connected devices, one TOSLINK optical digit input, one line-level analogue input (via 3.5mm mini-jack).

Accessories: Manual, remote control, 3.5mm – 3.5mm analogue AUX cable, 3.5mm – RCA analogue cable, optical cable, mains cable.

Dimensions (H×W×D): 230 × 360 × 164mm

Weight: 7.3kg

Price: \$399, £449

Manufacturer information: Peachtree Audio

URL: www.peachtreeaudio.com

Tel: 01 (704) 391-9337

Distributor information: Anthem AV Solutions,

Worth Farm, Worth Lane, Little Horsted, Nr. Uckfield, East Sussex, TN22 5TT

URL: www.anthemavs.co.uk

Tel: 01825 750 858

I would also love to see Peachtree consider a future 'Super deepblue2' model that would be equipped with a high-res USB digital input to make the speaker even more computer friendly (this seems almost a no-brainer, given Peachtree's expertise in the field). Bear in mind, though, that both these hypothetical improvements would fall under the heading of 'making a good thing even better'.

All factors considered, Peachtree Audio's deepblue2 earns our enthusiastic recommendation and a heartfelt, 'Well done!' Sonically speaking, the deepblue2 is so much more powerful, accomplished, and refined than most Bluetooth competitors that it really does seem to have staked out a class of its own. It makes a terrific—and terrifically affordable—starter 'hi-fi system', especially for those who love music, but might not otherwise think of exploring high-end audio. +

hi-fi+

Want regular updates
on the hottest audio
products?

Sign up to our
weekly newsletter!

Go to hifiplus.com
to sign up today



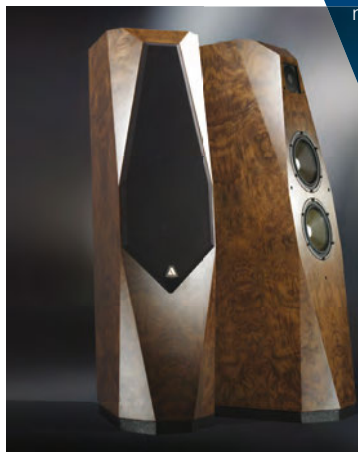
hi-fi+ ADVERTISING INDEX

Absolute Sounds	OBC	Cyrus Audio Limited	25	istereos.co.uk	96	Signature Audio Systems....	13
Aesthetix	17	Decent Audio.....	54 & 62	Karma-AV	81	SME Ltd	43
Analogue Seduction	95	Elac.....	60	KEF	7	Sonata Hi-Fi	97
ART Loudspeakers.....	70	Enjoythemusic.com	68	Kog Audio	29 & 58	Sound Fowndations	26
Audio Cabinet.....	81	Ensemble AG	IBC	Midland Audio Xchange.....	97	Sound Hi Fi.....	77
Audio Destination	96	Entreq UK Ltd.....	46	Music First Audio.....	64	StudioAV Ltd	95 & 97
Audiofreaks	5	Gauder Akustik.....	89	Music Works	45	Synthax	77
AudioQuest	89	GIK Acoustics.....	95	Nordost Corporation.....	38	The Audio Barn	97
Auralic	31	Graham Audio	64	Note Audio	62	The Audio Consultants	
Basically Sound and Vision	96	Hegel.....	34	OPPO Digital UK Ltd	11	50 & 74
BD Audio.....	96	Hidden Systems	96	Oranges and Lemons	92	The Bespoke Audio Company	95
Black Rhodium.....	78	Hifisound	96	Raidho Acoustics	40	The Chord Company	32
Brian & Trevor's.....	96	High End Cable	53	Renaissance Audio	37	The Right Note	19
Choice HiFi.....	23 & 96	Highend Headphone Shop/ HiFi Lounge.....	96	Rocky Mountain Audio Fest	74	Wand Tonearm	92
Cloney Audio	70	HMF Solutions.....	78	SCV London.....	68	V'Audio Hi Fi Consultants ...	97
Crystal Cable BV	2	Infidelity	96	Select	IFC		

SEE,
HEAR
& FEEL

THE **DIFFERENCE...**

studio 



We offer some of the finest music reproduction systems available on the market today, from entry level to elite brands. Our range of products has been carefully chosen to ensure exceptional performance, reliability and value for money.

Simply contact us for more information,



Contact us for more information...

44 High Street, Eton,
Berkshire SL4 6BL
Tel: 01753 863300
www.studioav.co.uk
sales@studioav.co.uk
@studioAVLtd
eton.studioAV

 **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 350878

Analogue Seduction, The Manor House, Manor View,
Whittlesey, Peterborough, Cambridgeshire, PE7 1TF



**You say
"Control Freak"
like it's a bad thing.**

GIK Acoustics treatments absorb more sound than any product on the market. We provide customers cost effective solutions to make every space sound its best. Acoustic panels, bass traps and diffusers direct to customers worldwide. Visit our website for more information and for free acoustic advice.

GIK ACOUSTICS MAKES YOUR ROOM SOUND BETTER.

 **Acoustics**
Solutions. Innovations. Quality.

gikacoustics.co.uk
+44 (0) 20 7558 8976



"...from day one I was hooked by the sonic qualities of this beautiful pre-amplifier!"

← →
Matej Isak ~ Mono & Stereo

— THE —
BESPOKE AUDIO CO



Exceptional audio products, made by hand in England, to your specification, delivered to you for your pleasure and guaranteed for life.
The Bespoke Audio Company – we suit you.

← →
thebespokeaudiocompany.com

subscribe }

A subscription lasts a year (12 issues) and means that your magazine is delivered to your doorstep as soon as it is published



Never miss an issue again!

AUDIO DESTINATION

The Finest Audio Products

- Demonstration Facilities.
- Open and Relaxed Atmosphere.

Opening Hours:
Tuesday to Friday 9am – 5pm,
Saturday 9am – 4pm.

01884 243584
info@audiodestination.co.uk
www.audiodestination.co.uk

Suite 7a Market walk, Tiverton, Devon, EX16 6BL

BASICALLY SOUND



All About the Music
Digital & Analogue Audio Specialists

01362 820800
enquiries@basicallysound.co.uk
www.basicallysound.co.uk

bd

BDAUDIO
Malvern, Worcestershire

Modwright Instruments,
Tune Audio, J.C. Verdier,
Signal Projects, Audionote UK
and much more...

01684 560853
www.bd-audio.co.uk
info@bd-audio.co.uk

brianandtrevors

THE ORIGINAL HOUSE OF HI-FI JUST LISTEN™

"Finally, a new and advanced plinth upgrade for the Linn LP12 reveals more from vinyl and an even better musical performance"



Booplinth

Booplinth LP12 performance upgrades and installation

www.brianandtrevors.com
info@brianandtrevors.com +44 (0) 161 766 4837

choice HI-FI

Hi-Fi Exceeding Expectations
"where dreams meet reality"

The HiFi Exchange
New and Used HiFi

Tel: +44 (0)20 8392 1959
Mob: +44 (0)7768 720 456
www.choice-hifi.com info@choice-hifi.com

HIDDEN SYSTEMS

LEJONKLOU
TOTEM ACQUSTIC
oppo



01252 845400
www.hiddensystems.co.uk

hifi lounge

here to listen...

Visit us in the Beautiful
Bedfordshire Countryside
for all your Hi-Fi needs

www.hifilounge.co.uk
01767 448121
www.highendheadphones.co.uk



Uk's only dedicated
demo facility for
high-end
headphones

highend headphones
Close to the music...

hifisound

Stockton on Tees...the North's
hotbed of audio delights

• Anatek	• Koetsu	• Sonus Faber
• Audenze	• Kronos Audio	• Stax
• Chord	• Lyra	• Sugden
• Clearaudio	• Michell	• Transfiguration
• Dynavector	• Magneplanar	• Unison Research
• EAR	• Naim	• Usher Audio
• Esoteric	• Nordost	• & many more
• Focal JMLab	• Notts Analogue	
• Funk	• Pathos	
• Grado	• SME	

t: 01642 267012 w: hifisound.co.uk
e: simon@hifisound.co.uk

Infidelity

INDECENTLY GOOD HI-FI

Buying hi-fi should be a delight.
If choosing your new hi-fi in a civilised and relaxed atmosphere from a well-chosen selection of genuine performance equipment appeals, then we are for you. Bring along your own records or CDs, we'll provide the coffee, and hear the difference we can make.

9 High Street, Hampton Wick,
Kingston upon Thames, Surrey KT1 4DA
Telephone: 0208-943 3530

Open: 10am – 6pm, Tues – Sat (inclusive)

istereos.co.uk



**BRINGING YOU
SPACE OPTIMISATION+**

**HEAR YOUR MUSIC
NOT YOUR ROOM**

Inside Hatfields Furnishers
Peartree Rd Colchester CO3 0LA
01206 731236 istereos@hotmail.com

Your ad could be here!

Tel: **+44 (0) 1425 655255**
Mobile: **+44 (0) 7900 252975**
Email: **tom@hifiplus.com**



MidlandAudioxchange

The Old Chapel, Forge Lane, Belbroughton, DY9 9TD

Tel: 01562 731100

www.midlandaudiox-change.co.uk

sales@midlandaudiox-change.co.uk

HI-FI VINYL STREAMING

OXFORD AUDIO CONSULTANTS

telephone
01865 790 879

e-mail
info@oxfordaudio.co.uk

web site
www.oxfordaudio.co.uk







Rock Solid Sound Systems

T: 01403 782221

M: 07950 274224

E: info@rocksolidsounds.co.uk

W: www.rocksolidsounds.co.uk

Billingshurst, Sussex



APPLAUSE

west hampstead london

0330 111 5653 www.sonatahifi.com

studio AV

One of the UK's
TOP 5 High-End
Hi-Fi dealers

www.studioav.co.uk
01753 863300



the audiobarn
ESSEX HERTFORDSHIRE LONDON

01279 454 860
www.theaudiobarn.co.uk

**Electrocompaniet Launch New
Turntable & Balanced Phono Stage**

Specialists in Vinyl & Hi-Fi and giving
great Sound/Pound.

Ex-demo items etc. Home visits
and Streaming.

E/C ECG-1



Tel: 0117 9686005

Email: icvhifi@yahoo.co.uk

www.v-audio.co.uk

subscribe }

A subscription lasts a year (12 issues) and means that your
magazine is delivered to your doorstep as soon as it is published



Never miss an issue again!

**Your ad
could be
here!**

Tel: +44 (0) 1425 655255

Mobile: +44 (0) 7900 252975

Email: tom@hifiplus.com



**Simply the best Class A Hybrid
Integrated Amplifier money
can buy this Christmas...SV-237**

For more details please visit us
www.vincentshop.co.uk
or give us a call
020 8374 3958
079 8361 9671
sales@vincentshop.co.uk

Vincent
People & Music

record reviews

How To Read Them

The information contained in the record reviews is presented in the following way. Albums are identified by label and – where possible – serial number. Beneath this you will find one or more icons which denote the available formats for the recording. The first icon refers to the format reviewed.

The ratings at the bottom of each review reflect the reviewer's opinion of the recording quality, and musical merits of the album. You'll soon realise that a great many musically significant albums offer less than wonderful sound. Don't let it put you off! For your information, the scale rates a standard, good quality pop recording as slightly below average.

This issue's featured reviewers are:

DD – Dennis D Davis

JK – Jason Kennedy

NR – Nicholas Ripley

AS – Alan Sircom

	CD		120g LP
	Gold CD		150g LP
	HDCD		180g LP
	XRCD		200g LP
	Double Disc		10" LP
	DVD		Availability As S/H LP
	SACD		Vinyl Double Album
	Hybrid SACD		45 RPM
	Multi-Channel		Download
			High-Res Download



Rainy Omen

Finland

Hubro



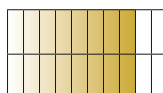
None of the members of Finland hail from that chilled out place; they are Norwegians to a man. The line-up consists of two members of In The Country, keyboard player Morten Qvenild and drummer Pål Hausken, joined by guitarist Ivar Grydeland (Huntsville), and bass and electric guitarist Jo Berger Myhre (Splashgirl). There are five tracks on *Rainy Omen*, four of which being written by an individual musician, while the title track is a collaborative effort between the two guitarists.

Qvenild's 'Dust Drive' features intersecting guitar loops with long keyboard chords typical of his style. It's followed by Grydeland's 'George Lumineux', which is the highlight of the album, with its Tortoise influenced drum and bass underpinned by deep low notes. The melodies are delivered in clear, if not obvious fashion, by guitars and keyboards; it's post rock but with a distinctly nordic vibe.

Myhre's 'Magnetic Sail' is down tempo, radiant, and achingly beautiful, with lap steel providing the emotional undertow. The longest piece, 'The Low Voices', is also the densest, a proper shoe gazing, full immersion, yet unpredictable guitar fest. Finally the title track provides a moody organ-powered modal finale that rounds off an album you don't want to end. **JK**

RECORDING

MUSIC



Minstrel in the Gallery 40th Anniversary: La Grande Édition

Jethro Tull

Chrysalis



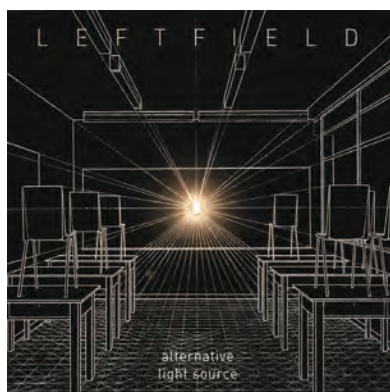
By the middle of the decade, Jethro Tull's Ian Anderson was the undisputed king of 1970s rock flautists, although in fairness, he didn't have a great deal of competition! Originally released in September 1975 on cassette, 8 track, LP, quadraphonic, and reel to reel, *Minstrel in the Gallery* was codpiece rocker Anderson and his merry band's eighth studio release and the last for bassist Jeffrey Hammond-Hammond. This edition contains a stereo remix/remaster of the original album tracks, plus seven alternate versions of certain songs, as well as a live performance from Paris in July 1975 that combines some of the new numbers with material from Tull's back catalogue. This includes great versions of 'Aqualung', 'Skating Away...', 'Cross Eyed Mary', an extensive flute solo on 'My God', and a collection of segued numbers including 'Living In The Past'.

There are also two DVDs of the same material in surround and 24/96 LPCM stereo, as well as a flat transfer of the original Quad release on a DVD. As ever with current Jethro Tull reissues, you get in depth background stories about the making of, including building the legendary Maison Rouge mobile studio they took to Monte Carlo to record this album. **JK**

RECORDING

MUSIC





Alternative Light Source

Leftfield

Infectious Music



In the 1990s, progressive house/electronica superstars Leftfield (basically, Neil Barnes and Paul Daley) could do no wrong. The duo's first album, 1995's *Leftism* went platinum, won almost everything it could, and shook apart the bass cones of many an audio system. This was followed by another platinum disc in *Rhythm and Stealth* in 1999, and then... nothing.

The duo split in 2002, but Barnes began touring under the Leftfield banner five years ago and rumours of a new album began appearing. Finally, this year, the 11-track *Alternative Light Source* appeared. The problem with dance music is it dates fast, but Leftfield albums always had staying power. The new album combines more considered tones with the powerful head-melting beats of old. The least successful track on the album is the title track, which slow builds from Tangerine Dream to an fast, echoy Orb chill-out vibe. But tracks like 'Little Fish', 'Storm's End', and especially 'Bilocation' more than make up for the shortfall. OK, so nothing will ever surpass 'Phat Planet' or 'Afro-Left', but *Alternative Light Source* is more than just filler or an attempt to reboot a career.

Buy it – especially on LP – play it loud and enjoy. **AS**

RECORDING
MUSIC



Switzerland 1974

Soft Machine

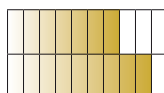
Cuneiform



Soft Machine reformed in late 1973 with Alan Holdsworth on guitar, Mike Ratledge on keyboards, saxophonist Karl Jenkins, and the rhythm section of John Marshall on drums and Roy Babbington on bass. This band marked a departure from the Robert Wyatt era Soft Machine with a distinctly jazz rock feel that reflected the work of the Mahavishnu Orchestra, Return to Forever, and Holdsworth's former outfit, Nucleus.

The concert presented here on both CD and DVD was performed at the Montreux festival in July 1974, where they shared the bill with Billy Cobham's Spectrum among others. It followed tours in Europe and North America and preceded the recording of *Bundles*, the first studio album by this combo. It finds the band in stonking form: Marshall's drumming is storming, Babbington's bass muscular, and the lead musicians combine jazz skills with rock sensibility that puts them up there with the best in class. The opener 'Hazard Profile' is a near 17 minute show of strength and noodling, but it gets better, and the tracks get shorter, so it must have been the warm up! The sound is a little distorted on occasion but, for the most part, manages to convey the energy and imagination of a group at the height of its powers. **JK**

RECORDING
MUSIC



Progeny: Seven Shows from Seventy-Two

Yes

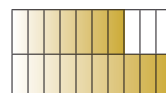
Rhino



This chunky box set charts the seven shows that Yes played on the north American leg of a world tour in October and November 1972, each event presented across two discs within a mini gatefold cover. The tour supported the release in September of *Close to the Edge* so these shows feature material from that album as well as *Fragile*. The line up is as per those two albums save for the introduction of drummer Alan White who was drafted in to replace Bill Bruford when he left in July to join King Crimson.

The set list remains the same for all seven gigs and some of the material was released on *Yessongs*, but this box of the best stuff from a band at pretty much the top of its game is rather more than that triple vinyl album could contain. There are nine songs in each set with those not from *Close to the Edge* including 'Roundabout', 'Heart of the Sunrise', and 'Yours Is No Disgrace', all of which reveal just how good a live band they were with Steve Howe taking winning honours for his solo on the latter. Sound quality is variable but surprisingly good on the whole, there are a few rough moments but little to distract from the quality of performance. **JK**

RECORDING
MUSIC





Chet Baker

Chet Baker

Sam Records 74020

Chet Baker's recordings in Paris during 1955 and 1956 are among his best, yet have remained unknown except to the most avid collectors. Originals are rare and expensive, leaving music lovers with a vinyl fix to make due with a box of reissues from Spanish label Fresh Sounds. That situation changed when tiny Sam Records stepped up and produced a stunning series of reissues that look, sound, and feel, if anything, better than the originals. This EP completes the series, documenting an octet session recorded on March 15, 1956.

The EP is presented as an exact duplicate of the original down to the fold-over cover and French liner notes. The only thing to set it apart is its crisp newness and the disclosure on the back cover (the only English printing) that the reissue comes from Sam Records. I recently read that jazz music has now taken over the distinction as the smallest slice of the recorded music sales pie. Despite that small market for recorded jazz, this gem is destined to fetch a healthy dividend on eBay some day for someone foolish enough to sell it. Fred Thomas continues to put his neck on the line with these reissues of relatively obscure jazz titles. Highest recommendation for music and packaging. **DD**

RECORDING
MUSIC

Deep In The Night

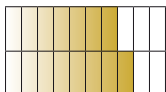
Etta James

Pure Pleasure PPAN BSK 3156

Etta James kept belting out her rhythm and blues and rock and roll music, touring constantly, right up to the time she passed away in early 2012. *Deep In The Night* was released during what now seems like a bizarre twenty-year lull in her popularity. Her releases on the Chess/Argo label throughout the 1960s cemented her reputation, but she worked in comparative obscurity for the following two decades until she was 'rediscovered' in 1988. That obscurity should not detract from the high quality of the recordings she produced in the 1970s and 1980s – especially this Jerry Wexler produced set for Warner Brothers.

More rock than rhythm, James goes with the flow of the times and succeeds without pandering. She makes Alice Cooper's 'Only Women Bleed' her own, puts some guts in the Eagles' 'Take It To The Limits', and stands toe to toe with Janis Joplin on 'Piece Of My Heart'. One can't help wondering how Janis would have fared had she been gifted with Etta's lifespan—aging is a tough racket in the rock business (especially, it seems for female performers) and few had Etta's energy to hit the road so well for so long. Pure Pleasure's excellent reissue of fine effort is a great testament to one of our most underrated female musicians. **DD**

RECORDING MUSIC



Creation

Keith Jarrett

ECM

Released to mark the pianist's 70th birthday, *Creation* differs from the majority of Jarrett's former solo albums. Rather than being an album of a single performance, Jarrett choose the numbers from concerts in Japan, Canada, and Europe. They remain improvised pieces, but Jarrett has curated *Creation* to make a kind of best of 2014.

The track titles include the place, date, and venue of the performances. It's interesting to note the different feel that some of the venues bring to pieces; Tokyo seems to have a distinctly positive vibe, for instance. The music has a very different feel to previous releases; the background seems almost totally silent and there is no applause. This is no bad thing, because applause has caused dramatic changes in level on previous albums, and when you have turned up the system to appreciate a subtle piece, the crowd going wild is a shock.

Creation is a cooler sounding record than previous solo releases. It has the usual ECM transparency but lacks atmosphere, possibly a result of the spotlight nature of the production. But, with a couple of exceptions, this is beautiful, open-hearted, and honest playing that makes you realise how accomplished and thoughtful Jarrett has become. **JK**

RECORDING MUSIC





My One And Only Thrill

Melody Gardot

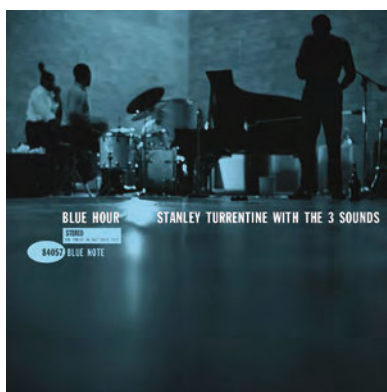
ORG 161

180g 45 RPM

Hit by a truck while riding a bicycle at the age of 19, the severely injured Gardot used music as a healing therapy; she composed and recorded her first music from the hospital bed. She has gone on to release several albums on Verve and Decca, with the help of super producer Larry Klein. *My One And Only Thrill*, released in 2009, was Gardot's second release on the Verve label. Comprised of her own compositions, with the exception of 'Over The Rainbow', the album established Gardot as one of today's most gifted singer-songwriters. Each of her compositions is a gem.

I'll admit that when the CD first appeared it did not capture my attention, and I dismissed it as just another jazz/pop vocal set. Indeed, Gardot's voice and delivery shares many similarities to other pop singers. But Ying Tang has a gift for singling out worthy female vocalists (including Vanessa Fernandez, Ella, Nina, Astrud Gilberto, and Marianne Faithfull) for his labels ORG and Groove Note. His brilliant reissue of this album on two slabs of 45 RPM vinyl made me take a closer listen to the brilliant and moving lyrics. Although this is a gorgeous sounding LP, it's the music I'll return to time and again when the lights are turned low. **DD**

RECORDING
MUSIC



Blue Hour

Stanley Turrentine with the 3 Sounds

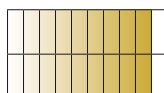
Music Matters 84057

180g

This LP is making its first appearance on Music Matters. It's not one of the 'iconic' Blue Notes, and it's not on the cutting edge of jazz innovation. But truth be told, cutting edge is not where Blue Note made its mark. What this LP does represent, and what Blue Note did very well, is great soul jazz from Blue Note's stable of solid talent. This 1960 recording features Turrentine as a 26 year old leading the "3 Sounds" (Gene Harris on Piano, Andrew Simpkins on bass, and Bill Dowdy on drums) in one of Blue Note's finest bluesy releases of classic jazz tunes familiar to any jazz fan.

'Gee Baby Ain't I Good For You' is played at such a deliberate tempo that you're on the edge of your seat—any mistake at this pace would be glaring, but such anticipation is thankfully disappointed. Turrentine's soulful wails have never sounded more like Illinois Jacquet, and Gene Harris' piano fills are masterful. Recorded by Rudy Van Gelder, this stereo version is well balanced, and Turrentine's horn is captured to perfection. The slightly splashy trademark Van Gelder piano sounds demands accurate cartridge set-up, but once dialed, in this LP rewards with top-notch sound to match its musical charms. **DD**

RECORDING
MUSIC



The Last Waltz

The Band

Mobile Fidelity UDSACD 2-2139

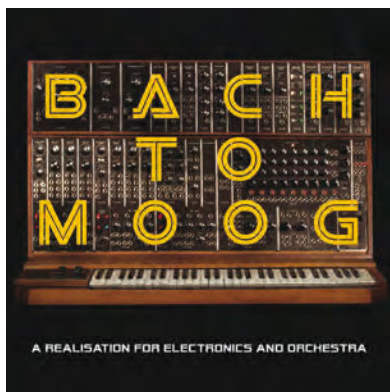
SA CD

It was Thanksgiving in 1976 and one of the greatest concerts of all time was unfolding at San Francisco's Winterland Ballroom. Two miles away, events conspired to prevent me from using my coveted \$25 concert ticket. Fortunately, this new release from Mobile Fidelity goes a long way in making that disaster fade further into memory. For those who've never seen the film, or owned the three LP set, *The Last Waltz* documents the farewell concert of The Band. Compressed here to two hybrid SACD discs, the concert includes performances by Eric Clapton, Emmylou Harris, Joni Mitchell, Van Morrison, Muddy Waters, Neil Young, and of course, Bob Dylan.

Unlike most multiple album sets, *The Last Waltz* sold well, but the cumbersome packaging did not hold up well and the oil embargo vinyl did not make for trouble free surfaces. Not so with Mobile Fidelity's two-disc set, which includes its usual foldout sleeve along with a separate booklet and slipcase box. In addition to being more durable than the original, the sound of the reissue is outstanding (given the venue). Furthermore, this type of sprawling project invites you to skip around among concert performances—the original running order is far from sacred. Another home run from Mobile Fidelity. **DD**

RECORDING
MUSIC





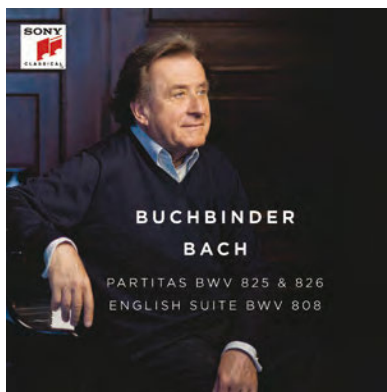
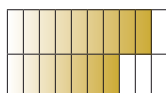
Bach to Moog

Craig Leon, Jennifer Pike,
Sinfonetta Cracovia
Sony Classical

It's 50 years since Bob Moog built his first Moog Modular synthesizer, and ten years since synth pioneer Bob Moog's passing. *Bach to Moog* is an homage to both.

Craig Leon arranges nine Bach pieces – ranging from Goldberg variations to the whole of the fourth Brandenburg Concerto (including the Toccata and Fugue in D Minor), and sets the new Moog Modular 55 Synthesizer in among the Sinfonetta Cracova, with Jennifer Pike as principle violin. Some of this is direct synthesizer meets orchestra, some treated instruments, some untreated, and some mixed up live sounds.

I've always thought the Moog synth lends itself toward Bach (due in large part to Wendy Carlos' 1968 *Switched On Bach* LP), because it can have a delicate, harpsichord-type air (alongside the flubby, spacey, weird sounds that most associate with the instrument). The sound of *Bach to Moog* is hard to define, because it's not the most airy or live sounding recording, but it has a distinct feel of trying something new and old at the same time. It's very much a niche recording, but I think it's great, and everyone who cut their classical teeth on *Switched on Bach* will probably think so too! **NR**

RECORDING
MUSIC

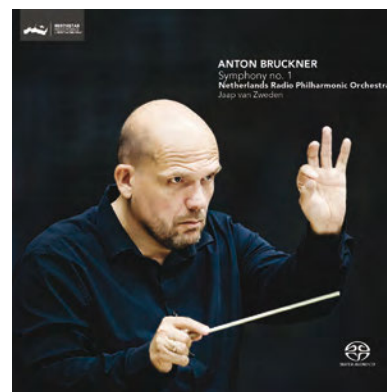
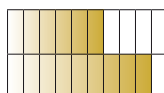
J. S. Bach
Partitas BWV 825, 826
English Suite BWV 808

Rudolf Buchbinder, Piano
Sony Music

Austrian pianist Buchbinder is perhaps best known for his work on Haydn, Beethoven, and Brahms piano works. You might be forgiven for thinking Bach might be too Baroque for such a player, especially as he's not of the 'period instrument' school and plays in a fairly robust style.

And you would be wrong. His style is more than just fluid and dynamic; his playing here is deeply formal and precise, with a sense of almost architectural structure. He approaches all eighteen movements here with both a technical expertise and a lyricism that works beautifully. You can tell he's not wishing the piano were a harpsichord, and some more modern dynamics enter into the music, but this works extremely well in context, serving to make Bach appear more alive to us moderns.

If there is a criticism, it's in the recording. This may reflect the drive to showcase the precision of Buchbinder's playing, but it also sounds too dry, too close-mic'd, and almost compressed – like it's a minor skirmish in the Loudness Wars. This is a shame; placing this recording in its own acoustic space would transform it into something really special. As special as the playing itself. **NR**

RECORDING
MUSIC

Bruckner Symphony 1

Jaap van Zweden, Netherlands
Radio Philharmonic Orchestra
Challenge Classics

The Netherlands Radio Philharmonic Orchestra under conductor Jaap van Zweden is running through a Bruckner symphony cycle. Bruckner is 'on trend' at the moment and a lot of people are running through his works, some good, some not so good. What makes this so special?

First, this is the original 'LinZ' scoring from 1866, rather than the later 'Vienna' version from 1890, and it sounds more authentic as a result. Second, although this cycle is a bit mixed, van Zweden seems more comfortable with the earlier Bruckner symphonies. He summons up more of the 'saucy maid' Bruckner ('saucy maid' is the nickname Bruckner gave to this symphony) than the more monumental works later in his career.

However, the big bonus here is the sound quality, regardless of whether used in multichannel or stereo, SACD, or simply CD. It's a truly sublime recording, at once detailed, spacious, and clean. There is a strong sense of ambient information, sweeping orchestral moments, and plenty of dynamic range on show, too. Classical music doesn't get anything like the kind of airplay it should receive today, even at hi-fi shows. Which is a shame because this is truly demonstration quality sound. **NR**

RECORDING
MUSIC



Franz Schubert: Sonatas, Impromptus, Moments Musicaux

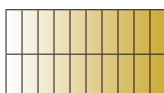
András Schiff
ECM

András Schiff plays Schubert here on a four-pedal Brodmann fortepiano from 1820. This instrument has a different tone to a modern piano (especially with the inclusion of a moderator pedal that mutes the attack of notes by inserting pieces of cloth between the hammers), and is disconcerting on first hearing. In fact, it's a testament to the skills of ECM Tonmeister Stephan Schellmann, who manages to bring out the subtlety of both player and instrument without making the latter sound dull. Schiff's playing is deft and lyrical, never trading grace for intensity, and the selection across the two discs is perfectly balanced.

Most will have heard these Schubert pieces on piano (typically by Brendel, Kempff, or Uchida) and these are magnificent works. But there is something about hearing them played on the fortepiano that gets you closer to the inner grace of the music that just doesn't quite come through on the pianoforte, no matter how skilled the player. To some, this may change the way we think about Schubert!

Marks away for the packaging, though. The sleeve is strengthened by some insert cards, but the typically minimalist ECM approach could still do with a jewel case! **NR**

RECORDING
MUSIC



Gustavo Leguizamón El Cuchi Bien Temperado

Pablo Márquez (gt)
ECM

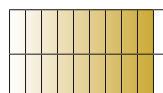
Gustavo 'Cuchi' Leguizamón (1917-2000) was an Argentinian polymath; at once a poet, composer, guitarist, and pianist. He managed to blend traditional Argentinian song styles with classical compositional techniques, and you can hear everyone from Ravel to Schoenberg in his music.

Pablo Márquez uses 'Cuchi's' music as a base from which to build an Argentine 'Well Tempered Clavier' for the guitar, moving through and never once repeating the major and minor keys across the 17 tracks in this beautifully-recorded album.

This is perhaps the most unique album you should buy this year. You'll hear jazz, flamenco, elements of tango, the sounds of the pampas, folk dances, and the genuinely indefinable in here. No single track stands out, because they are all so uniquely and emotionally powerful, like fado without a singer, or like a film score to a bittersweet movie about love and loss and dancing.

It's an evocative, sometimes melancholic set, masterfully played. This is such a labour of love for Márquez that I'm not entirely sure whether this should join the classical guitar canon, but as a slice of guitar mastery, played as well as its recorded, it's hard to beat. **NR**

RECORDING
MUSIC



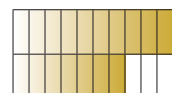
Wagner – Der Ring Des Nibelungen

Georg Solti, et al
Decca (16 CD set)

There's not much that hasn't been said about the epic Decca/Solti/Wagner Ring cycle. Recorded at the end of the 1950s with the finest musicians, singers, and recording engineers, this has become (appropriately, under the circumstances) the stuff of legend. And it gets re-released and remastered every few years. There have been at least six remasters and reissues in the digital age, and doubtless more will follow in the era of streaming!

For now, though, this is the one to go for. Look out for the white-boxed 16-CD version that has just been released. Why? Because it is the 2012 remaster, with all the extra features of that version (two disc introduction, written commentary by the late John Culshaw, synopses, photos of the session, and downloadable libretti on the accompanying CD-ROM), and is roughly a third of the price of the same set three years ago! The 2012 transfer is still not quite a 'back to the master tape' full remaster, but it is about as good as the technology gets, and you'd need to find a mint first pressing LP to better it. This is not simply an historic recording, not simply an outstanding rendition of the Ring cycle – it also just happens to sound damn good as well. A must buy, especially at the price. **NR**

RECORDING
MUSIC



Album of the Month:

Frankie Goes To Hollywood – Two Tribes 12"

by Alan Sircom

Sometimes you have to break the rules. This may be a classic, but it isn't an album. Back in the 1980s, and beginning with New Order's 'Blue Monday' in 1983, there was a spate of 'indie' bands making extended and remix 45rpm 12" singles. This followed in the tradition of disco acts adding seven minutes of handclaps and funk guitar to three-minute dance records in the late 1970s.

What began as a convenient break for DJs, an ego-extension for some bands, and the chance for a record label to sell the same music twice over, could have easily become a footnote in musical history, were it not for one visionary producer, Trevor Horn. Horn first appeared on the musical radar as one half of synthpop duo The Buggles ('Video Killed the Radio Star'), subsequently joining Yes, helping reboot Yes as producer on *90210*, co-founded The Art of Noise, and ZTT Records.

ZTT had the skills, and it had some good acts, but what it really needed was a complete 'knock it out of the park' hit maker. That hit maker arrived in the shape of unsigned Liverpool act Frankie Goes To Hollywood. Quickly snapped up by ZTT, their first hit 'Relax' reached Number One in the UK charts in early 1984, despite being banned by the BBC. For the next single, 'Two Tribes' out in the Summer of 1984, the ZTT machine went into full swing, producing not simply one seven-inch and one twelve-inch single, but a whole slew of different collectable mixes, and one of the most iconic T-Shirt marketing campaigns in history. The streets were filled with people wearing 'Frankie Say...' shirts.

The marketing machine worked. Not only did 'Two Tribes' reach Number One in the UK charts and stay there for nine weeks, but it rekindled interest in 'Relax', and FGTH was the first group in almost 20 years to simultaneously hold the Number One and Number Two chart positions.

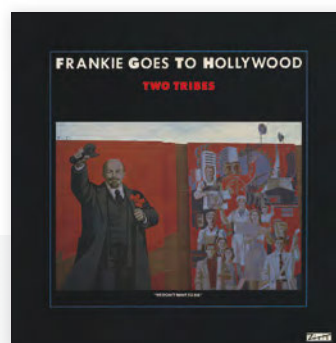
The multiple remixes were not simply marketing, or an attempt to keep the record in the charts. It was because Trevor Horn is a perfectionist. He kept going back to the original 'Two Tribes' recording, knowing he could get more from it, and knowing that the 12" 45rpm single is capable of extraordinary dynamic range. This ultimately resulted in the 'Annihilation' mix, although later mixes ('Carnage', 'Hibakusha') were also released.

Capitalising on early-1980s fears of nuclear war, this mix of 'Two Tribes' began with an air raid siren and, alongside Holly Johnson's distinctive lead vocals featured additional spoken vocals from the late Patrick Allen (who was the voice of the UK's creepy 'Protect

& Survive' Civil Defence videos) and Chris Barrie (now better known as Arnold Rimmer from TV's *Red Dwarf*), who impersonated then US President Ronald Reagan. This quotes everything from 'American Pie' lyrics – "singing this'll be the day that I die" – to Adolf Hitler's court address after the Beer Hall Putsch. 'Two Tribes' (in all its guises) received an Ivor Novello award in 1984 and went on to sell more than 1.5m copies.

But, it's the dynamic range that Horn used to such great effect. A full orchestra, powerful cymbal crashes, and a synth bass drum that could tear a loudspeaker driver out of its basket, all makes it the best-kept secret in an audiophile's arsenal. I first heard 'Two Tribes' in a hi-fi perspective almost a quarter of a century ago, in the home of a reviewer who had just moved across to working for a Japanese multinational. Playing this through a pair of Townshend Sir Galahad loudspeakers and playing it on a Rock Reference was an audio experience I will never forget.

If you can find a copy of 'Two Tribes' today, ignore the 1980s politics, and bask in what a good 12 inches can do for you! +



Recorded: 1983-1984

Released: 4 June 1984

Label: ZTT

Writers: Peter Gill, Holly Johnson, Mark O'Toole

Producer: Trevor Horn



ONDIVA™

'The nicest loudspeaker you'll ever hear'
'easy to drive, easy to listen to, easy to love'

Alan Sircom, Hi-Fi+, issue 124



MADE IN SWITZERLAND

Alan Sircom, Hi-Fi+ further states:

'plays like a large, full-range speaker'
'room-filling, with a sense of scale that
borders on the uncanny, and is a delight to hear'

The 'solidity of the image within that soundstage'
and the effortless handling of the most demanding transients
must be heard to be believed.

Those who have heard it want to trade in their floorstanders.

ensemble®

ENSEMBLE AG, PO Box 215, 4147 AESCH, Switzerland ☎ +41 61 461 9191 📠 +41 61 461 9325



"The reality is the Krell manages to make good sounding recordings sound very good indeed" - Alan Sircom, hi-fi+, March 2015

EVERY LITTLE THING IT PLAYS IS MAGIC



VANGUARD IS A BOLD MUSICAL STATEMENT.

The Vanguard, joining the ranks of the Krell line of amplification, is the advanced component destined to bridge the worlds of traditional high-end audio and digital media.

For devotees of the brand, as well as newcomers to the best of music playback in the home, the Vanguard is a powerhouse able to deliver authentic, natural sound with grace and command.

Vanguard incorporates a 200-watt-per channel amplifier and a Class A preamplifier in a compact chassis that borrows its design and construction

from the Krell Foundation preamp/processor. High-quality WBT speaker cable terminals provide secure connections. Vanguard will drive any speakers to which it is connected.

Analogue inputs include three stereo and one stereo balanced. Crucially, Vanguard can accept sources fed by an optional digital module with USB, HDMI, coaxial and optical inputs, Ethernet for system integration, controlled through dedicated iOS and Android apps, as well as wireless apt-X Bluetooth streaming.

The Vanguard is both bold and musical, the statement is up to you.



absolute sounds ltd.

International Distributors & Consultants of Specialised Hi-End Audio & Video Systems
58 Durham Road, London, SW20 0TW T: +44 (0)20 89 71 39 09 F: +44 (0)20 88 79 79 62
W: www.absolutesounds.com E: info@absolutesounds.com

