# HIFI PICE

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JULY 2017





#### 8 products of the year and most wanted components

in just 2 years by preserving relative phase relationships in a signal



"The Stereo Times Most Wanted Components 2015 Award" (USA) - Stereo Times



"Tellurium Q have surpassed themselves here. It is often said that all cables colour the sound of a system to some extent, but the Silver Diamonds do it to a lesser extent than any other product I've heard so far."

- Jon Myles, Hifi World 2015

"But perhaps their reticence is understandable when the product sounds as good as this - after all, why let others in on the secret? Used in a variety of systems the Black Diamonds consistently revealed a wider percieved bandwidth, bigger soundstage and the ability to present transient details in an effortless fashion."

- Awards Edition, HiFi World 2015

"The Tellurium Q company has once again proved their products belong at the top of current cabling offerings. No matter how secretive or even mystic their approach may seem, the indisputable fact is their cables show a level of reproduction quality so far unheard of."

- Mono & Stereo, 2015

Find out why Tellurium Q® cables are achieving an audio cable grand slam from the publications below. Why not contact Tellurium Q or one our many dealers, now.













**EDITOR** Stuart Smith



Welcome to the latest edition of Hifi Pig Magazine where you'll find a whole load of Hifi News, reviews and lots of interesting music news and reviews

We're now in the run up to what we believe will become the premier Hifi and lifestyle show in the UK, The Indulgence Show, where Hifi Pig will be doing its usual in-depth coverage and this year, as a bit of a departure from the norm we will be hosting our own room...with a twist.

Between 3.30 and 6pm on the Saturday 30<sup>th</sup> September everyone attending the show is invited to join us in the Cognac Suite where we will be hosting what we hope will be a fabulous event. There will be a live DJ (The incredible Fray Bentos who has a residency at the famous Dogstar in Brixton) playing through a world class Hifi set up, plus goodie bags for you to take away and the chance to win some really great prizes. We're also planning to stream the event live so don't miss out on this great event at what is already lining up to be a truly memorable show.

See you there!



### **WELCOME**

HIFI REVIEWS Dan Worth and reviews.

Janine Elliot We're now in the run up to what we believe will be

Dominic Marsh

Ian Ringstead

Linette Smith

MUSIC REVIEWS John Scott

James Fleming

Stuart Smith

Lauren Coombes

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### **GADGETYNEWS**

www.gadgetynews.com
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Your only chance to hear a spectacular system worth in excess of half a million pounds from FM Acoustics and Vertere PLUS EVERYTHING ELSE AT THE SHOW FOR JUST £15





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For more details and a full list of exhibitors www.indulgenceshow.com

### Click And Go

#### Hifi News

#### Hifi Reviews

**Pro-Ject 6 Perspex SB Turntable Package** 

The Audio Files AT-LP5 1PT Turntable and Cartridge Package

**Innuos Zenith MK2** 

**Prism Sound Callia Dac/Preamplifier** 

**Auralic Aries** 

**Russ Andrews Power Purifier** 

# Music News and Reviews Gadgety Reviews

**Vodafone Smart V8** 

**STM Kings Backpack** 

Ben Q BL2706HT

Pioneer XDP-30R DAP

**Hohem HG5 Pro Action Cam Gimbal** 

**AOC Agon AG272FCX Monitor** 

F-Secure Sense Secure Router





### Let the Music Flow



# Bringing recording studio sound into your home with the Merging NADAC Player





With over 25 years experience, based in Switzerland, Merging Technologies is the world's foremost manufacturer of high resolution digital audio recording systems. Their list of customers reads like a who's who in the recording industry and recordings made with their systems regularly receive the prestigious Grammy® Award, with no less than 27 nominations in 2017!

The Merging NADAC player brings music as it was recorded in the studio into your home, with the best music player available combined with the best-sounding DAC with Roon Core software built in. You can access your entire music library from a tablet with the Merging NADAC connected directly to your amplifier, active speakers, or via headphones for the purest sound ever.

To audition the beautiful Merging NADAC player call us on 01252 759285 or email steve@ultimate-stream.co.uk

ultimate-stream.co.uk

































# Media Partnerships at The Indulgence Show



Leading publications, What Hi-Fi?, Hi-Fi+, Hi-Fi World and HiFi Pig have all confirmed their involvement with The Indulgence Show – the UK's newest and brightest event, that brings quality audio to London.

Hi-Fi+, Hi-Fi World and HiFi Pig are each presenting a floor of the Audio London zone, plus there'll be subscription offers, events and features presented by some of the magazines to provide additional and compelling reasons for their readers to visit to the show.

As part of the 'event that presents three shows in one', Audio London occupies the Mezzanine, Second and Third floors of the Novotel London West Conference Centre, running alongside the headroom and Pure Pleasure zones. HiFi Pig will be focused on the Mezzanine Floor, where brands such as Naim, AudioQuest, Cabasse and The Chord Company are exhibiting. The second floor, with exhibitors including PMC, Chord Electronics, Monitor Audio and Arcam, sees Hi-Fi+ as the media presenter. On the third floor, Hi-Fi World will be in attendance alongside Michell, ProAc, Longdog Audio and Innuos.

What Hi-Fi? has also confirmed its attendance at the 2017 Indulgence Show, with a presence that includes a hi-fi help area and subscription offers.

What Hi-Fi? will be taking an area on the Champagne level near the headroom zone. The editorial and review team will be on hand to answer show visitors' questions on all things hi-fi, be it streaming, high-res, turntables or system matching.

Vernon Hamblin, show organiser, says, "We are delighted by the commitment of the media to The Indulgence Show's second year and are very pleased that they were encouraged by the success of the first year's show, which brought a quality audio show back to London for the first time in around a decade." He continues, "With a combined readership that reaches into the tens of thousands in print and millions online, it is a tremendous boost for the event and we look forward to welcoming the readers of these excellent publications to Hammersmith at the end of September. For potential exhibitors, it's another very good reason to book space at the show."



### Kralk Audio Loudspeakers



Loudspeakers built with passion for people who love music.

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# PMC Opens Sales Office In Nashville USA



PMC is marking a significant expansion in its U.S. operation with opening a new office and demo facility in Nashville, a city renowned for its musical heritage.

With a client roster that already includes acclaimed music and film industry luminaries such as Grammy Award winners Thomas Newman (Skyfall), Tommy Vicari (Finding Dory), Tony Maserati (Beyonce, Lady Gaga), Pete Lyman (Ben Harper, Dandy Warhols) and David Reitzas (Madonna, Elton John), PMC is keen to improve access for the music makers in Nashville to its extensive range of professional monitor products, including the larger models such as the IB2S-XBD-A and the new MB3-XBD and BB6 monitors.

Dave Cobb, Nashville based double Grammy award–winning record

producer and Pete Lyman, co-owner and head mastering engineer of LA based vinyl mastering studio, Infrasonic Sound, cut the ribbon to open the Nashville office. Inside, visitors will be able to demonstrate the entire spectrum of PMC monitors, from compact to the large systems, and even use the facility to mix their own projects in a fully operational studio.

"We want to expose as many people as possible to the power and clarity of PMC products, especially our flagship models that are best heard in an acoustically accurate studio environment," says Maurice Patist, PMC USA's President of Sales and Marketing. "We hope that recording professionals will come in and really put our monitors to the test by mixing their own projects through them. We

will also be running events with local music technology colleges so that the next generation of audio engineers can experience PMC quality for themselves."

The new Nashville office and studio will be headed by PMC USA product manager Jordan Shirks, who joined the company's US team in 2015 after spending six years with console manufacturer API. A Nashville native, Shirks has extensive music industry contacts and is widely respected as a

producer and engineer.

Peter Thomas, owner of PMC adds his thoughts, on the new office, "Nashville isn't just country music any more, it's one of the most important and influential places in the world for the development of new music. It is aptly called 'Music City', as it is a centre for pop, rock, bluegrass, jazz, classical and pretty well every other genre of music. That's why we decided to open our new US office in the city, where a new generation of studio owners, producers, engineers, composers and singer/songwriters are flocking, making it one of the most vibrant scenes in the USA. PMC is delighted to be part of this growth and we're looking forward to an exciting future in this exciting city."





### The Classic



### An Instant Classic

**The Classic** was released to celebrate Pro-Ject Audio Systems' 25th Anniversary. This retro-inspired turntable has been designed from the ground-up to combine timeless aesthetics with modern technology and audiophile sound performance.

The striking frame design is available in three wood finishes, and provides clever decoupling between the acoustically treated aluminium platter and the motor.

The new motor is powered by a built-in generator, for a consistent performance, and drives a sub-platter that sits atop a precision-engineered main bearing.

The all-new 9" Classic Tonearm is made of aluminium and carbon fibre, for unrivalled rigidity while retaining a low mass. The arm benefits from a new bearing system for completely free movement and is supplied as standard with an Ortofon 2M Silver cartridge.

Available Now for £799.00 (UK SRP)



# Focal Launches Sib Evo For Home Cinema



Sib Evo is the second generation of Focal's Sib line. With this new line featuring Dolby Atmos technology, Focal say that they are "once again sparking a revolution in the home cinema market".

The strict minimum for Dolby Atmos is a 5.1.2 system, and Focal wanted to integrate this technology into the new generation of Sib & Co loudspeakers, the Home Cinema range they launched in 2002. The 5.1.2 pack is composed of two loudspeakers equipped with an additional speaker driver on the top featuring Dolby Atmos® technology.

This new-generation "enabled loudspeaker" was designed to reproduce both horizontal and vertical waves (towards the ceiling). The major innovation of this technology lies in the reflection of sound waves off the ceiling towards the listener using an extra speaker driver on top of the loudspeaker.

## KODA Release New Loudspeakers



KODA, the Polish producer of loudspeakers and audio equipment, has introduced four new speakers in its: floorstanding AK-48F, center AK-48C and surround AK-48S and the KODA EX-569F which draws inspiration from the EX line, their range that was popular in the early 90's.

All models are sold separately which gives an option to build a stereo system and expand it to multi-channel at any time.

Construction Details and Features

> Rigid enclosures made of highdensity MDF boards: 18mm for the front baffle and 12mm for the other walls:

- > Vinyl coating with wood-like texture;
- > Center and surround speakers equipped with wall mounts.

KODA AK-48F only

- > Pure titanium tweeter is able to reach up to 30kHz
- > Utilises a low-turbulence bassreflex port on the front to allow placing the speakers nearer to the back wall;
- > Two 8" woofers:
- > Equipped with adjustable spikes to provide isolate the speakers from the floor
- > Provides bi-wiring / bi-amping connectivity





### We believe that LESS IS MORE





# James Loudspeaker Unveils Q-Series Floor-Standing Speakers

James Loudspeaker, designers and manufacturers of entertainment products for both residential and commercial applications, has announced the introduction of the Q-Series floor-standing loudspeakers, a built-to-suit array of three models.

In addition to three standard models, Q-Series speakers can be custom sized and finished to meet the exact needs of any environment.

Leveraging the technology in James' flagship BE-Series in-wall speakers, all three Q-Series models employ a rigid, reinforced MDF enclosure, a grille made from coated aluminium bar stock and the signature James Loudspeaker 1-inch Beryllium quad

tweeter array. Aesthetically they are inspired by the shape of beautiful Quartz crystals found in nature.

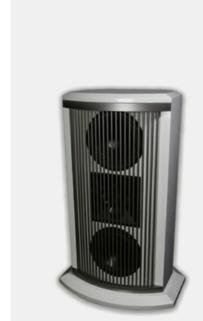
Q60: The Q60 has been engineered to use two amplifiers (bi-amplification), one for the full-range portion of the speaker and another for the internal 12-inch down-firing aluminium cone subwoofer. Above the 12-inch subwoofer, which features a 3-inch voice coil capable of handling 1000+ watts of power, the Q60 utilises a 3-way system comprised of two 8-inch woofers, two 6.5-inch midranges and the Beryllium quad tweeter array. MSRP \$15,000 US (each)

Q48: The Q48 implements the same bi-amped system and 12-inch

subwoofer as the Q60, utilising a pair of 8 inch woofers, two 5.25-inch midrange drivers and the Beryllium quad tweeter array. Like the Q60, the Q48 is fully customizable in terms of finish and even physical dimensions if necessary. MSRP \$10,000 US (each)

Q30: Like the Q60 and Q48, the Q30 features the Beryllium quad tweeter array. The 8-inch midrange and 8-inch long-excursion woofer all feature aluminium cones with Santoprene™ rubber surrounds. MSRP \$6,000 US (each)

All Q-Series speakers are built in James Loudspeaker's Napa, CA USA factory.















GRYPHON MEPHISTO

### Bluesound Now Shipping Audio Nec RT100 Wireless Speaker AAD2 Amplifier



Bluesound who make a wireless multi-room music system that supports hi-res audio, have announced the immediate availability of the RT100 Wireless Speaker Link. The RT100 is an accessory that allows for the addition of a non-wireless active subwoofer to almost any system without the hassle of cabling. It is available now with a recommended retail price of €129 EU and £99 GBP.

Using point-to-point technology, the RT100 allows users to wirelessly pair any active subwoofer with the Bluesound Pulse Soundbar. To pair with a Bluesound Pulse Soundbar, simply connect the RT100 to a subwoofer via analogue, press the pairing button, and then complete the process using a smartphone or tablet. For users of the Pulse Soundbar and Pulse Sub the process is built-in and the RT100 is not required.

The Bluesound SUB can be paired with any Bluesound Player with the

addition of one RT100 Wireless
Speaker Link. As a full-range device
with both transmitter and receiver
functions, users can connect one
RT100 to any Gen 2 Bluesound
Player or an existing stereo system
with a USB (transmit only) or
analogue input, and a second RT100
to any active subwoofer to wirelessly
stream audio with added bass while
eliminating cables.

"The RT100 Wireless Speaker Link is the perfect solution for adding a non-wireless subwoofer to their Bluesound music system.", commented Greg Stidsen, Director of Technology and Product Planning for Bluesound. "Customers can also use multiple RT100's to connect their stereo and powered speakers without the need for messy cabling. Either way, the RT100 Wireless Speaker Link will provide a great benefit for a modest investment."

\*Availability and retail price may vary by countries.



The AAD2 is Audio Nec's latest stereo amplifier operating in class D, with discrete components and with an oversized 2P4P linear power supply. It also incorporates R2R DACs, requiring no modulation cables, allowing for the musical signal to remain digital up to amplification stages.

Audio Nec told us "By placing the digital / analogue conversion in the amplifier, the only analogue connections are the speaker cables. Radio frequency and electromagnetic disturbances are thus limited to a minimum. Its totally balanced design, with a discrete components topology and with an oversized power supply, give a very lively and warm hearing without any feeling of limiting power or stress. Every detail, every micro information is reproduced with high precision and exceptional harmony".

Functioning in Class D, the AAD2's efficiency is close to 95% and produces very little heat as it is energy efficient both at rest or during intense use. The AAD2 amplifier has a touch screen on the front panel for all controls. It is also available as an integrated version with the AAD2i that has exactly the same characteristics. The AAD2i also incorporates a volume control stage.













### CALA® MULTI SOURCE RECEIVER

Introducing our latest receivers - the CALA CDR and CALA SR. Sharing the same ingenious fully digital design principle, both models deliver exceptional sound quality from both digital and analogue audio sources: Hi-Res music streaming from NAS servers, Internet radio and music services, Bluetooth, FM, FM-HD and DAB+ radio, phono and analogue input, digital inputs and outputs for external sources and - in the CALA CDR - a CD mechanism. Created using only the finest materials with a sleek, button-less facia, these latest CALA models offer true audiophile design philosophies combined with simple yet innovative control via either the T+A FM1000 remote control or the T+A Control App. The result is two systems that deliver exceptional performance and look amazing in any environment.



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Hand built in Germany, the CALA® from T+A is available in the UK now.

For more information or to arrange a demonstration, please contact:

Kog Audio
PO Box 5260 · Coventry CV4 0GB
Office: +44 (0)24 7722 0650
Email: info@kogaudio.com
Web: www.kogaudio.com

#### **NEWS**

### Russ Andrews Introduce The Supplier Power Supply



Russ Andrews is introducing The Supplier, a replacement DC power supply to upgrade a large selection of popular hifi products, and, claim Russ Andrews, "improve the musical performance of the connected device".

The Supplier has been developed to work with a variety of different products and is ordered direct from Russ Andrews by specifying which third-party product it is to be used with. An ever growing list of products, for which a model of The Supplier is made, can be found on the Russ Andrews website and customers can also contact the company with requests for a unit compatible with their product if it is not listed. The correct DC voltage output, with a correctly terminated linking cable, which fits into the high quality XLR output socket, will be supplied. The 0.25m standard length link cable may also be ordered in additional lengths to accommodate individual system set ups.

Based around a heavily modified Switch Mode Power Supply, that has been rewired with Kimber cabling and fitted with Kimber Kap and Panasonic audio-grade capacitors, The Supplier, which is also fitted with the company's Silencer mains filter, is available in 5v, 9v, 12v, 15v, 19v and 25v variants and has a 60W rating. It can be used with any AC mains input from 90V to 260V, ensuring worldwide operation is possible.

Russ Andrews, chairman and technical director, says, "Some people are surprised when they learn we use a switch mode power supply, thinking them inferior to the traditional linear supplies. I've done extensive evaluations of both types and, while it is true that linear is often better, it's not always the case and the switch

mode unit specified for The Supplier is one such example – it sounds considerably better than many linear supplies." He continues, "With the modifications we've made to it, this unit provides a very powerful upgrade for users of the popular DACs, headphone amps, phono stages, streamers and turntables for which it is designed."

The compact enclosure, 150 x 53 x 210mm, features UL approved custom-casework, a high-gloss acrylic faceplate with hidden LED indicator and a substantial IEC connector on the rear panel for use with a mains lead of the user's choosing.

The Supplier is available now and costs £449. It comes with a two-year warranty and is part of the Russ Andrews 60 day money back guarantee programme.







www.**audiohungary**.com

# PS AUDIO Release DirectStream Update For MQA And Tidal



PS Audio has announced an update which provides Bridge II-equipped DirectStream, DSJ, and PerfectWave DACs with full unfold of MQA up to 192 kHz/24 bit, and provides access to the streaming service Tidal.

Last year, PS released the Torreys OS upgrade which created a Roon Endpoint in the Bridge II, making DACs with the Bridge II fully Roon Ready. Last month, PS released the Huron OS upgrade, providing improvements in sound quality and functionality for the DirectStream and DSJ DACs, and laying the groundwork for this release of new Bridge II code.

As always, these updates were provided to owners of PS Audio DACs at no charge. All PS Audio DACs are future-proof, offering owners the opportunity to download upgrades which will improve sound quality and functionality, and provide new features.

Bridge II updates can be initiated from the front panel of the DirectStream, DSJ and PerfectWave DACs. No external data cards or sticks are required; once initiated, the update downloads automatically over the user's network.

# IsoTek Builds On Polaris With EVO3 Corvus



IsoTek, provider of power conditioning solutions for hi-fi and home cinema systems, has launched the next generation of the Discovery Series: the EVO3 Corvus main conditioning block.

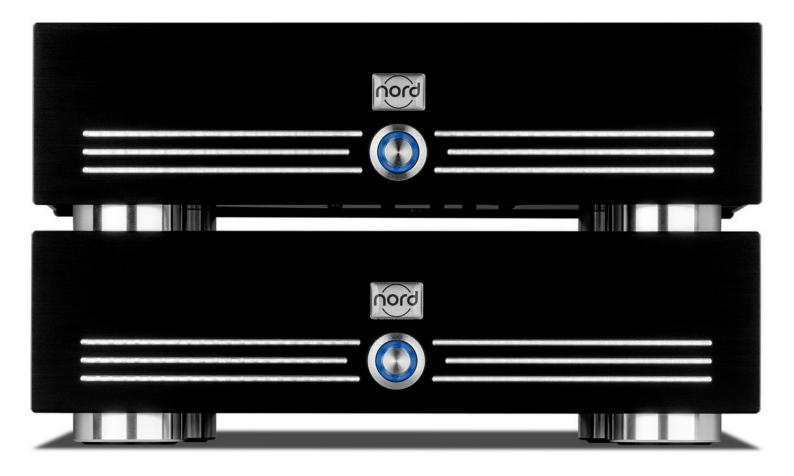
The EVO3 Corvus is an evolution of IsoTek's award-winning Polaris design, reconfigured to feature nine output sockets with an upgraded amperage rating to allow 3680W of continuous power. Also included as part of the price is a 1.5m Premier power cable. The EVO3 Corvus has a unique delta filter topology ensures class-leading filtration of both Common Mode and Differential Mode mains noise, delivering super-clean power to nine outlets - each one independently isolated to prevent cross-contamination. In addition, 13,500Amps of instantaneous protection in provided, safeguarding

valuable equipment via IsoTek's unique sequential and repeatable protection system. Priced at £695.00, the Corvus aims to be a cost-effective upgrade to any audio or audio-visual system, with the goal of improved performance, protection as well as being great value for money.

The EVO3 Corvus is a compact power distribution strip measuring 363mm in length, 146.5mm wide and just 45mm high. It features nine individual outlets which reference back to the central PCB. Most power cleaners of this style join output sockets together, running each in series, this is an error as Differential Mode Noise created by your connected electronics will cross contaminate from one output to the next. Corvus wiring schematic prevents this.



# WORLD CLASS HYPEX AMPLIFIERS AT REAL WORLD PRICING! 250W Hypex NCore £749



Operating with ultra low noise floor and exquisite bass control, revealing palpable breaths, finger plucks and decaying notes delivered by the mids and treble.

Levels and layers of detail, dynamics and sound stage are breathtaking, with the ability and current reserves (28A) to drive the most demanding speakers down to 2 ohms.

Many of our sales are coming from customers "downgrading?" from large traditional Class A and A/B powerhouses from McIntosh, Copland, Accuphase not to mention modern players like Devialet and the NAD Masters M22 etc. with very positive feedback, slightly embarrassing! In other words seasoned wealthy Audiophiles who have been playing the game for 30 odd years!

And I can assure you they are know nobody's fool!

We also have customers wanting a cooler running amp for the summer only to find an unexpected level of performance and naturalness compared to their Class A amps.

We Now have a Chassis to Match the World Class Sound in the SE Version.





# iFi Pro iESL Headphone Energiser



iFi adds to its flagship 'Pro' range of compact audio components with the Pro iESL headphone energiser a device designed to "make the most of electrostatic headphones".

Electrostatic headphones, such as those made by Stax, are notoriously tricky to drive. They need more power than regular dynamic headphones, delivered in the right way to ensure their electrostatic plates are properly 'energised'. Most amps deliver neither the EHT (Extra High Tension) voltage nor the required audio voltage to enable electrostatic headphones to perform at their best.

The iFi Pro iESL can be driven by any high-quality integrated amp or power amp, or paired with iFi's Pro iCAN headphone amp, to deliver audio signals that are fully optimised for electrostatic headphones such as those from Stax or KingSound, or

Sennheiser's Orpheus. It can also be used to 'transformer-couple' high-end dynamic headphones – Focal Utopias, for example – to enhance sound quality.

Key features

Hand-wound permalloy core transformers

Bias voltage generator delivers fully optimised output signal

Capacitive battery power supply ensures a perfect bias voltage source

Qquality circuit components throughout, including WIMA capacitors and Vishay MELF resistors, plus gold-plated silver and sealed-silver contact relays

Impedance, bias and termination matched to the connected headphones

### Cary Audio Partners With Roon Labs



Cary Audio has announced their partnership with Roon Labs. As of now, both Cary's DMS-500 reference network audio player and AiOS all-inone network receiver are certified Roon Ready.

All units now shipping will have Roon Ready pre-installed and all current DMS-500 and AiOS owners can update their firmware free of charge to bring it up to Roon Ready specifications. Additionally, all new units will come with a 60-day free subscription to Roon. Current owners can also contact Cary Audio to take advantage of the 60-day free subscription to Roon.

Cary Audio told us: "The DMS-500 and AiOS products live up to our promise of continually adding major enhancements and features to our customers at no additional charge. Roon Ready is the latest of these enhancements following our MQA certification as well as other added streaming services. We will announce another new fantastic streaming service soon".













"I felt I was listening to a more lifelike rendition of the music...good vocal projection combined with tight timing and a natural tonality make this cable extra special" **Tony Bolton** 

OUTSTANDING"

Chord Signature Tuned ARAY HI-FI WORLD November 2014

Demonstration cables available from all good Chord retailers. Find your nearest at www.chord.co.uk

Hand built in England by music lovers. Enjoyed by music lovers all over the world. Now listen...





#### **NEWS**

### Avantgarde Acoustic Win German Brand Award 2017



Loudspeaker manufacturer Avantgarde Acoustic has been awarded Gold in the German Brand Award 2017.

The high end manufacturer from the Odenwald has made it into "the elite of the German brand world". On June 16th they attended the awards in Berlin. It is one of the leading awards for successful brand management in Germany. Avantgarde Acoustic won in the category of 'Industry

Excellence in Branding', the award being given by an independent jury of renowned market experts. "A great honour," commented Managing Director Holger Fromme (pictured below with his wife Beate) after the awards ceremony in the DRIVE. Volkswagen Group Forum. The manufacturer of luxury loudspeakers has been providing directional horn systems for over 25 years. Now the hfi company has been recognised outside of it's own industry. This

allows the small family company to finally measure itself with the big players.

The Jury released the following statement: "Avantgarde Acoustic is regarded as the world's most important manufacturer of horn speakers, simple, straightforward and absolutely precise – as is the case, the functional, extremely high-quality product design is derived from the intended use Are presented perfectly and harmoniously by the puristic, powerful and sensual aesthetics of the brand design. This is pure performance on a whole level".

Innovative brands, consistent brand management and sustainable brand communication: The German Brand Award is one of the most important awards for excellent brand competence. "We understand the German Brand Award as an important acknowledgement of our commitment to building the best loudspeakers in the world," said Holger Fromme after the award ceremony with over 200 invited guests from the worlds of business, politics and the media. Previously, Andrej Kupetz, Chief Executive, emphasized the high standard of the competition: "Our aim: to discover, present and award award-winning brands and brands."

Avantgarde Acoustic has won several important awards in a very short time. In addition to the Plus X Award and the IF Gold Award, Avantgarde Acoustic has received the EISA Award (Product of the Year) and the Red Dot Award. In 2016 the German Design Award Special for "excellent product design" of the ZERO 1 model followed, plus Avantgarde Acoustic has been accepted as a member of the German Design Council. Under the title "Unique. Valuable."





We live in an electrically noisy world. Cell phones, computers, wifi networks, the fridge and even your equipment itself can all add various types of noise & interference.

Yet we expect our hifi & home cinema systems to deliver maximum performance regardless.

Combining power cables and an innovative modular distribution system with optional per socket filtering, Eos has been designed as a complete power management system.

Think of it as the clean power 'foundation' for a great performance from your music and movies.



# Furutech's New Destat III Released

Japanese cable and accessories manufacturer Furutech continue their assault on the various unwanted 'intruders' that can get in the way of peak hifi performance. The new destat III aims to eliminate dust and static from analogue and digital media, from audio and video components and, claim Furutech, from pretty much anything.

The destat III is the third generation model of Furutech's original destat. Furutach say "it removes dust and static charge from any and all audio and video media in just one 15-second treatment". Hold Furutech's destat III over your chosen media and press one button. In just 15 seconds, the fan removes dust while a balanced ion flow generator releases a balance of positive and negative ions to eliminate static.

As any fan of high-performance audio knows, static charge builds up on analogue and digital discs. Whether vinyl, CD or DVD, this charge constitutes unwanted electrical interference as well as attracting dust, both of which can lead to distracting noise and compromised sonic performance. The new destat III delivers about 30% more "zapping"

power" that its predecessor, the destat II. It has also been restyled with a more ergonomic design and now runs on AA batteries. A safety circuit prevents any small electric shocks from the balanced ion flow generator.

So, say Furutech, why stop at just your media? "Almost every component in a hifi or AV system will benefit from eliminating its static charge (best to switch them off during treatment). You can also use the destat III on power cords, speaker cables, interconnects and any and all accessories that include metal components such as record clamps".

The Furutech destat III is available now priced at £299 (including VAT).





# AVID Open New Design and Training Facility



AVID has purchased a new site in Kimbolton, Cambridgeshire close to its existing factory.

In business for over 20 years, the company has recently experienced a period of significant growth, registering its best trading year in 2016 and expects this trend to continue.

Conrad Mas commented "With expansion into new markets and a strong distribution network the time was right to increase our capacity. The new property allows our present building to become wholly manufacturing, whilst the new building gives us a dedicated training and demonstration facility, allowing us to show our expanding product range."



### MC Step-Up Transformers Phono Amplifiers Pre Amplifiers



#### **NEWS**

### Meters Music Introduces the 'M-Ears' Earbuds

British music and sound specialists, Meters Music, have announced the launch of the new M-Ears in-ear headphones, created in collaboration with U2 bassist Adam Clayton.

The M-Ears' sound performance was developed in close collaboration with Clayton. Speaking of his creative partnership with the Meters team, he said, "I love the Ashdown team's approach to sound. I've been using their bass amps in the studio and on tour with U2 for years now, and the sound I get from them is superb. So, I was very happy to work with them on the development and tuning of their new 'M-Ears' headphones."

The M-Ears are the latest addition to the Meters' 2017 audio range – which began with the OV-1 headphones. The Meters Music team also trades in the pro audio/musical instrument sector: in its guise as parent

company, Ashdown Engineering, the team creates bass and guitar amplifiers for many popular musicians, such as Sir Paul McCartney, Foo Fighters, Biffy Clyro, System of a Down and, of course, U2.

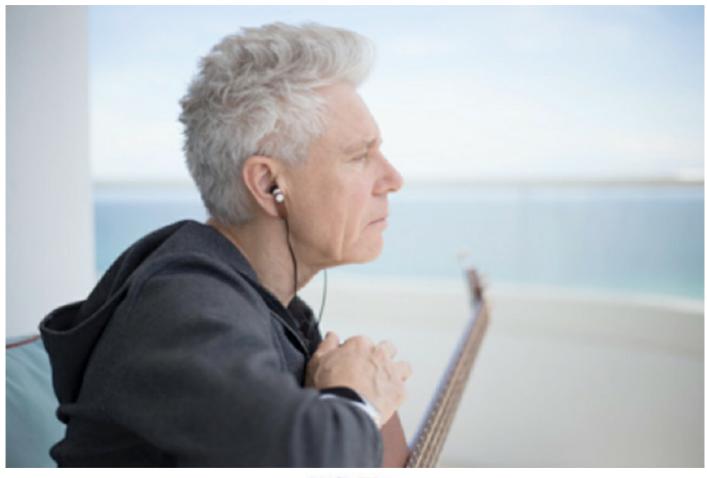
Speaking of the development of the M-Ears, Meters CEO Mark Gooday commented, "We collaborate closely on sound with the world's finest musicians, so we know Adam well. When we decided to develop the M-Ear headphones, I knew the quality of his musicianship, and trusted his ears completely, so I asked him to advise and help determine the sound of the final design. The results are every bit as good as I'd hoped."

The Meters team created a considerable number of samples, each tuned differently and with varying performance characteristics.

Having tested them all at home and while on tour with U2, Adam Clayton picked the final version which is available now as the Meters M-Ears. He says, "I listened to a whole range of samples they gave me for testing, and eventually chose the version now launched as the MEars, because it had everything you want: precision, clarity and musicality."

The M-Ears feature leather styling, which comes in three colours – Black, Tan and Red. They utilise magnets that clip the two earbuds together when you're not using them. These magnets are strong enough to hang on the back of your neck while not in use, for a completely tangle-free headphones experience.

Costing just £49.99, the M-Ears aim to temper value for money with a professionally endorsed sound.







### PLATINUM B-40 SE v.2



www.TAGA-AUDIO.com

#### **NEWS**

### Lindy Electronics Release 4K Fibre Optic HDMI Hybrid Cable



Lindy Electronics, a European producer of IT and AV connectivity solutions has released a 50m 4K Fibre Optic HDMI Hybrid Cable – combining the advantages of a fibre optic cable with slimline copper cabling. Its robust design allows it to transmit UHD HDMI signals with no interruption – for optimal high speed performance.

The Lindy Fibre Optic Hybrid HDMI Cable is designed for both home and professional use. Thanks to fibre optic technology, the cables can transmit up to 4K resolution signals over extended distances. With no compression or signal degradation, pure digital signals are sent directly from the source – for maximum audio

and visual output. Whilst standard copper only cables limit the distance of digital signals, the HDMI Hybrid cable features H-PCD (Hard-Polymer Clad Fibre) glass fibres for long distance, high resolution transmission.

This cable supports both 3D 1080p and 4K resolutions – allowing for up to four times greater resolution than the 1080p standard. For those who opt for AV excellence, the cable also supports Dolby True HD and DTS-HD Master Audio for up to 32 channels.

The Lindy 4K Fibre Optic HDMI Hybrid Cable Range Begins At £209.99

# PureAudioProject Quintet15 Wall of Sound Open Baffle Speakers

PureAudioProject say that their 7' X 21" Quinitet15 "takes the clarity, realism, and the emotional impact of music to a true 'wall of sound' musical experience". They boast eight audiophile-grade 15" woofers and a selection of wide range drivers.

PureAudioProject's Modular Open Baffle Concept also ensures an easy upgrade path to Quintet15 for any Trio15 owner. A new frame, four more woofers and baffles, the same or upgraded main drivers and a few changes to the Leonidas crossovers, is all that is required for the transition.

With Quintet15 customers can choose from a variety of world's topend wide range drivers such as TB W8-1808, PAP-Horn1, Voxativ AC-1.6 and 2.6, the wood cone AC-PiFe, the Field Coil AC-X, AER BD-1 and more...

More Features

Modular Aluminium Frame

15" Woofers: 8 x audiophile grade open baffle woofers, OB-A15NEO

Passive Crossover: 'Leonidas' XO, configured to the specific main drivers

Active Crossover: PAP-C1 (Analogue) or miniDSP

Baffles: Piano Gloss, Genuine German Oak (handcrafted), custom

Size: Hight 7', Baffle Width 21.26"

Assembly or upgrades do not require technical skills except of a use of a screwdriver and an Allen Key.

Price starts from \$6,990

Shipping within 4 weeks.

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Musicarch (Dundee) 01382 523412 | Audio Emotion (Fife) 01333 425 999
Homesound (Edinburgh) 0131 662 1327



### Richer Sounds To Start Distributing ECLIPSE TD-508MK3 Loudspeakers



ECLIPSE, the high-performance loudspeaker division of Fujitsu Ten, has joined forces with British AV retailer Richer Sounds, making their TD-508MK3 accessible across its store network.

The collaboration has made it easier to experience ECLIPSE's TD-508MK3 loudspeaker (£960) with selected stores (Southampton, Weybridge, and Chelsea) holding demo samples for audition.

There are 3 ways to order the TD-508MK3:

- From any Richer Sounds store in their 53-strong retail network.
- Online at Richer Sounds' website.
- By calling the dedicated telesales centre.

# PMC R&D Dept Using Advanced Laser Measurement System

PMC has invested in advanced laser measuring equipment for its research and development department, to help facilitate a more "holistic approach" to future drive unit and cabinet designs for improved low frequency performance.

Known for its ATL (Advanced Transmission Line) bass loading, the R&D team, headed by Oliver Thomas, is now equipped with a state-of-the-art tool that will enable them to refine this further.

Using the recently installed advanced laser measurement system, manufactured by Klippel in Germany, the development engineers can measure the mechanical parameters of the loudspeaker drive units with far greater accuracy than was previously possible. This permits the development of new drive units, the performance of which can be tailored to exactly suit the application in which they will be used. PMC take a whole system approach to speaker design. In addition to more accurately determining the drive unit's electromechanical performance, known as the Thiel/Small Parameters, the company can also measure the interaction with the ATL. By mounting a prototype drive unit in the prototype ATL and using the laser to measure the mechanical movement of the drive unit in situ, the R&D team can make adjustments to both elements in tandem.

As Oliver Thomas explains, "PMC is renowned for its low frequency



performance through the application of the Advanced Transmission Line and so it's an area of system design we obviously spend a lot of time on. Using our new laser measurement package, we can accurately measure what is happening with the cone movement at very low frequencies when mounted in the ATL." He continues, "From an engineering perspective this provides knowledge that we can use to fine tune the drive unit and ATL design in parallel and in real time. The advantages for us of this holistic approach are tremendous in the development of ATL loudspeakers and will enable even more accurate and transparent loudspeakers to be developed for our professional and domestic customers."





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### Townshend Audio Allegri+ Preamplifier



The preamp/control unit is "the heart of any hi-fi system". Townshend told us: "The Allegri+ Passive Autotransformer preamp is a very small control unit with a very big heart".

Max Townshend went on to explain further:

"The nature of the transformer design eliminates the problems usually associated with resistive passive controls. At the zero dB setting the input signal is directly connected to the output. This means that the output impedance of The Allegri+ is the same as the output impedance of the source component".

"Further, the input impedance of The Allegri+ is equal to the input impedance of the power amplifier at

this setting. At -6dB (output voltage half the input voltage), the input impedance of The Allegri+ is four times the input impedance of the power amplifier and the output impedance of The Allegri+ is one quarter of the source impedance. At -20dB (10 to 1), the input impedance of The Allegri+ is one hundred times the power amplifier impedance and the output impedance of The Allegri+ is one hundredth of the impedance of the source component. It is thus clear that the interconnect cable capacitance will have no effect on the performance of The Allegri+".

There are no coupling capacitors or active devices in the signal path in The Allegri + and there is no power supply. The Allegri+ Passive Autotransformer has a six position

input selector, a mute switch and a 24 position volume control with intervals chosen to cover a wide range of volume levels in different systems. Its autotransformers are wound with Townshend Audio Fractal-Wire™ and laminated with ultra-thin mU metal laminations. There are six pairs of gold plated stereo phono inputs and two pairs of outputs and a 3.5mm input jack on the front panel. The case is made of anodized aluminium. Unlike many conventional passive controllers Townshend say that the Allegri+ matches the impedance requirements of source and amplifier.

DC coupled with no capacitors in the signal path.

There is a 5 year guarantee.





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# WyWires Are Now Shipping Power Broker Diamond Series With Juice HC Power Cord



The Power Broker is a high-current power strip, with 8 NEMA outlets hand-wired by WyWires using their proprietary formula. Housed in an exotic wood box, hand-crafted by Daedelus Audio, who has partnered with WyWires on this project.

The Power Broker is now available in three quality levels:

The original Power Broker, which includes the Silver Series Juice II HC, a high-current power cord specifically designed for this project.

Platinum Series Power Broker, includes a Platinum Series Juice II HC Power Cord

Diamond Series Power Broker, includes a Diamond Series Juice II HC Power Cord

For videophiles, WyWires also claim that "the Power Broker also dramatically improves performance of your big screen monitor".

Specification:

Available in American Walnut or Eastern Rock Maple with a

Fiddleback Maple CNC-machined top plate

8 High Conductivity 20-Amp outlets; each outlet is effectively isolated from the others

12 AWG Asymmetrical Litz, cottonwrapped internal wiring using WyWires' proprietary Litz copper wire formula

Main unit is equipped with vibrationdamping Isonodes

Separate anti-vibration base unit constructed of pressure-laminated American Walnut and Maple with four spiked feet

Includes a 6-foot Juice HC (High Current) integrated power cord (Silver, Platinum, Diamond)

Diamond Power Broker includes Furutech GTX outlets.

Pricing:

Power Broker AC Distributor with:

Diamond Juice II HC Power Cord: \$4495 USD (6 feet, \$325 per foot additional)

Platinum Juice II HC Power Cord: \$3495 USD (6 feet, \$120 per foot additional)

Silver Juice II HC Power Cord: \$2499 USD (6 feet, \$65 per foot additional)

### Emotiva Releases Two New Airmotiv Loudspeaker Models



Emotiva Audio Corporation announced today that two new Airmotiv loudspeaker models are available through the company's website and authorized Emotiva dealers.

New to the lineup are the three-way Airmotiv T2 (\$999/pair), which is the second and larger double 8" tower model in the series; and the Airmotiv C2 (SRP: \$369), the second and larger Airmotiv center channel model with two 6.5" woven fiber woofers, one 6" woven fiber midrange driver, and two 25mm folded ribbon tweeters.

"Since shipping our first Airmotiv models last year, the line continues to be one of our most successful series to date," said Dan Laufman, President and Founder, Emotiva Audio Corp. "I have no doubt that the T2 and C2 will only fuel the momentum because, like all of our Airmotiv models, they can go head-to-head with comparably designed speakers costing drastically more, let alone competitors at our affordable price points."

The Airmotiv loudspeaker line is engineered and positioned to be a complete sound solution for contemporary hi-end audio systems. All models feature modern elegant black faceted baffles, with critically braced high quality MDF cabinets and magnetically attached grills.





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## Keith Monks Launches Two New Record Cleaning Machines



Keith Monks Audio is celebrating the record UK sales of vinyl with the launch of two new Record Cleaning machines – the new discOvery Redux and the new discOvery microLight.

The new revised microLight (Pictured below) is the smallest ever Keith Monks RCM and is the smallest precision record cleaning machine ever. The new microlight Redux is a modern version of the traditional 'Keith Monks' which is smaller, lighter, quieter and it includes an auto stop function.

Keith Monks told us that their machines bring "the original record cleaning technique developed with the BBC, the US Library of Congress and the British Library National Sound Archive in a modern, easier and more affordable package. Clean fluid for each record and a single point vacuum system for maximum efficiency where contact is via a clean thread ensuring no cross contamination".

Both new models can clean both sides of an LP in around 3 minutes and are supplied with Keith Monks discOvery precision 12" LP wash brush and Pyr/\Mat stay-clean mat. They also use a SuperSilent, super reliable Medical grade suction pump imported from Germany. The discOvery Redux has a new compact

low profile cabinet with a premium carbon finish and has everything built in: hand pump applies fluid straight onto the record through the brush holder, just like on the pro Monks machines. The Keith Monks micrOlight is super compact, Keith Monks say it is the world's smallest ever precision Record Cleaning Machine – just 16.5" (42cm) wide.

## Prices:

Keith Monks discOvery Redux — Retail GBP 1995, Euro 2395, US\$ 2995

Keith Monks micrOlight — Retail GBP 1795, Eur 2095, US\$ 2495



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"Erleuchtet"



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"textura, dinâmica e riqueza harmónica"



"el más completo exponente de lo mucho que ha avanzado la reproducción digital"



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"IFA-Highlight! 6 von 6 Punkten"

# Amare Musica Announce New Amplifiers, Octogenus Diamond



Amare Musica Release New Mono Block Amplifiers, Octogenus Diamond.

The Octogenus Diamond Mono Power Amplifier is designed around Russian DHT GM70 triode, Driver tube is 300B, output power is 80 Watts in pure class A.

Amare Musica told us more: "For volume regulation we use custom solution, it's made by a set of relays and precision non-inductive resistors. All power supply's including HV are stabilised. Main PCB is hardened and contains top components like PTFE sockets, WBT speaker terminals, coupling capacitors tin foil/ paper-inoil/ pure silver leadout made by Jensen, Mundorf caps in power supply, precision non-inductive resistors, custom made aluminium chassis with Franc Audio Accessories feet. The feet are anti-vibration. ceramic disc tablets".

## McIntosh Group Names Jeff Poggi As Co-Chief Executive Officer

McIntosh Group, parent company of audio brands McIntosh, Audio Research and Sonus faber, has announced the appointment of Jeff Poggi to co-Chief Executive Officer and Board member.

Alongside Charlie Randall, Poggi will lead the strategic development of McIntosh Group, in particular the Car Audio segment that is a key growth opportunity for the Group. Poggi will also lead the development of the Lifestyle sector and will directly supervise the Sonus faber, Sumiko and Audio Research brands.

Prior to joining McIntosh Group, Poggi worked at Bose and Harman for 20 years. He is a well-known figure in the Car Audio industry: he led the General Motors account at Bose and subsequently was Vice-President of Sales and Marketing for the Car Audio business unit at Harman. Poggi also brings experience in the high-end audio space as he most recently was Vice-President and General Manager for the Luxury Audio business unit at Harman. Poggi is an Engineer by trade; he received his Bachelor's degree in Mechanical Engineering from Worcester Polytechnic Institute, and his Master's degree in Industrial and System Engineering from Georgia Institute of Technology. He also received his MBA from Duke.

Poggi has been a key figure in the industry and instrumental in the

development of the car audio business. He has managed large global teams and is a highlyrespected business leader. "Jeff will add a great deal to the roll out of our Car Audio strategy," said McIntosh Group President & CEO Charlie Randall. "Jeff is a very talented and charismatic business leader, who will enhance and further structure the management team to achieve our common goals," added Dominik Zwerger, representative of shareholders LBO France. "With Charlie Randall and Jeff Poggi, we have the perfect mix of managerial skills in order to continuously succeed in the Audiophile and Lifestyle sectors, as well as developing key shareholder value in the Car Audio segment," added Roberto d'Angelo, representative of Yarpa spa.









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## **NEWS**

McIntosh Announces The MA9000 Integrated Amplifier



McIntosh has announced the MA9000 Integrated Amplifier. Their largest integrated in both size and power, it offers 300 Watts per channel and combines amplifier and preamplifier into one unit.

McIntosh went on to tell us: "There's enough inputs and outputs on the MA9000 to last a lifetime. The 10 analogue connections are comprised of 2 balanced and 6 unbalanced inputs plus 1 Moving Coil and 1 Moving Magnet phono inputs. Both phono inputs feature adjustable loading for fine tuning of vinyl playback. All unbalanced analogue connectors are made from premium gold-plated solid brass for superior signal handling and grounding. On the digital side, 2 coax, 2 optical, 1 USB and 1 MCT input are all housed in our new DA1 Digital Audio Module; the DA1 can be easily replaced by future modules to keep the MA9000 up to date as new digital audio formats and technologies are developed. The DA1 utilizes a powerful 8-channel, 32-bit Digital-to-Analog Converter (DAC) used in Quad Balanced mode. High resolution DSD256 and DXD 384kHz is supported via the USB input while

the coax and optical inputs will decode music up to 24-bit/192kHz. All inputs can be given custom names for user-friendly system control and configuration".

The MA9000 features also features their new McIntosh Monogrammed Heatsinks™ that are made from "high quality materials with excellent thermal conductivity properties". They are "so efficient at dissipating heat that they warrant bearing the McIntosh "Mc" logo". They also have a higher quality finish thanks to a new manufacturing process. They are connected to advanced high current output transistors that eliminate thermal equilibrium lag time (or warm-up time).

New, more powerful control microprocessors have been used in the MA9000 to improve overall system operation. Some of the latest audio-grade circuit components have also been utilised. At 300 Watts per channel, the MA9000 has enough power to properly drive "virtually all loudspeakers" and the McIntosh Autoformer guarantees the speakers will always receive that full 300 Watts regardless if they have 2, 4 or 8 Ohm

impedance. Other McIntosh features included in the MA9000 are:

Power Guard® that monitors and adjusts the sound wave to prevent harsh sounding distortion and clipping that could damage the speakers

Sentry Monitor™ is McIntosh's fuseless short-circuit protection circuit that disengages the output stage before current exceeds safe operating levels and then resets automatically when operating conditions return to normal

Home Theatre PassThru that allows for integration into a home theatre system

A discrete, eight-band tone control that allows for advanced manual analogue adjustment of favourite recordings

Power Control to send power on/off signals to connected McIntosh components for easy system power up and shutdown

Patented Solid Cinch™ speaker binding posts that easily but securely attach the speaker cables to prevent them from coming loose and possibly causing a short; the binding posts are also gold-plated

The entire unit is wrapped in the classic McIntosh aesthetic with blue watt meters, a black glass front panel, control knobs, illuminated logo, aluminium end caps with built-in handles and a polished stainless steel chassis.

Suggested retail price (VAT, shipping and any customs duties related to current standards of individual countries are excluded): \$10,500 USD



## **Some Follow**

others



## **The Sound of Science**

The Leedh E2 loudspeaker system and its dedicated subwoofer are the culmination of years of intensive research into the fundamental principles into the way the human ear perceives sound, the way that sound is generated and how the inherent problems with conventional drivers can be overcome.

We believe that Leedh E2 offers music lovers looking for the very best in sound quality the ultimate listening experience, offering a level of fidelity previously unattainable and unimaginable with conventional driver technology, which has changed little in decades.

LEEDH designers have developed a new type of electrodynamic loudspeaker, the Acoustical Beauty Speaker. This technology does not contain a soft iron pole in the motor, a foam edge, or a spider in the suspension, because these three components produce the majority of sonic imperfections found in all traditional speakers.

The purity of each wave of sound reaching the listener is the zenith of the unique and innovative way the drivers in the loudspeakers are designed, bringing the concert hall into your living room.

## **Leedh - The Sound of Science**

For more information on this exceptional loudspeaker technology CLICK HERE to visit our website

www.leedh-acoustic.com or email Gilles.Milot@Acoustical-Beauty.com

## PMC Appoints Ian Sutton As UK Divisional Director

PMC has appointed Ian Sutton to the position of divisional director, to head up a newly formed UK distribution business and bring close focus to this important area of expansion for the company. The following is from the PMC press release.

Sutton, who has spent the past 13 years working for Bowers & Wilkins, started in the newly created role on 3rd July and is based at the company's head office, Holme Court, near Biggleswade.

PMC, which has long held the UK distribution rights for the Canadian electronics brand, Bryston, is reorganising its business structure in its home market to facilitate further distribution arrangements. During the first half of 2017 the company added

the German high-end electronics brand, AVM, to its portfolio and announced the launch of the first PMC designed and built domestic amplifier, the cor integrated. Each of these product ranges, plus the UK loudspeaker sales, will be incorporated into the new UK distribution business, operating as a separate profit centre from the PMC manufacturing business.

Sutton will report directly to PMC's owner and managing director, Peter Thomas, and will in turn have management responsibilities for the UK sales team, comprising the well-known figures of Tom Barron and Craig Sowerby. It is expected that the division will grow in numbers as the company is appointed to distribute additional brands in the UK market.

Commenting on his new role, lan Sutton says, "It is very exciting to be appointed to this role within such a dynamic and forward thinking company. I have long admired PMC as a brand and as a company that's not afraid to challenge the norm and this decision to increase the complementary brands on offer, and build a separate division, underlines that 'go-getting' attitude that is so much a part of PMC." He continues, "The opportunity to manage the process of creating a new audio distribution business within the UK is one I am relishing. I am also looking forward to working with the existing team, which is so well respected throughout the country, and I know they will be keen for us to all work together to make a real success of the new venture."

Adding his thoughts, Peter Thomas, says, "I am delighted that Ian has agreed to join us to help steer the new UK distribution business. His tremendous levels of experience and excellent rapport with the UK retail channel are sure to be of significant benefit to the business as we work to further increase penetration of the Bryston and AVM brands, plus the core PMC loudspeaker business. I look forward very much to working closely with Ian over the coming months and years as PMC enters this next chapter of its development."







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## VPI Cliffwood Turntable Launched

Good friend of Hifi Pig, Mat Weisfeld, of VPI got in touch to tell us about their new, entry level turntable, the Cliffwood: "For 40 years we have built turntables in American and kept it in the VPI family. For almost 30 of those years we have built our turntables in Cliffwood, New Jersey".

"With us reaching a more entry level market we are still able to make our products in Cliffwood, New Jersey. Most companies when making entry level products source their components outside their country of origin. This is why we celebrate our heritage and our VPI workers by naming this turntable after the place they are built".

"We are also excited to be teaming up with our friends from Brooklyn, Grado Labs! VPI engineered a cartridge shell specifically for the Grado Green stylus to make it easier to mount and contribute to the sound signature. The VPI/Grado Green will be the factory standard mounted cartridge on all VPI Cliffwood turntables".

The Cliffwood will retail for 900 USD and will initially only be available for the US market but will later be opened to the global market. The tonearm is a 9" machined aluminium gimbal. Estimated shipping is end of July to early August.



## SPS-500 Launch Completes SOtM's Newest Trio

SOtM have officially launched their brand-new power supply, the sPS-500. It joins their latest components, the sMS-200Ultra Mini Network Player and tX-USBUltra USB Hub and Regenerator, completing the brand's "ultra trio".

With special noise removing technology, the sPS-500 is a fan-less power supply specifically designed for high-end audio systems. It can handle a wide range of AC power inputs, with selectable output voltages of 7Vdc, 9Vdc, 12Vdc and

19Vdc. Further flexibility is available through the unit's 50W output.

The component's design is similar to the sMS-200Ultra and tX-USBUltra and several other SOtM components are compatible with the device, including the sMS-1000SQ, sDP-1000EX, and sMS-200. The sPS-500 can also be used with any audio

components that fit the power specifications.

SOtM's sPS-500 Power Supply is currently available to order in the UK and retails at £550. A bundle pack with an AC power cable will be available soon.

## **Key Features**

- -7Vdc, 9Vdc, 12Vdc, 19Vdc selectable output voltage
- -Eliminate noise generated by powered devices
- -50W output power for NAS, fan-less audio PC and others
- -Support worldwide AC input voltage
- -Output short, over temperature protection





## Wire on Wire

## Experience 680

**Reference Audio Cable** 



UK patent pending GB1602578.5

EU Registered Design No. 00254417

The Experience680 from Wire on Wire is a reference-level audio cable. With its REDpurl™ variable geometry (UK patent pending), it uniquely permits the user to alter its wire spacing, allowing the character of the interconnect to be tuned.

## Experience680

The Experience 680 uses carefully chosen PTFE-insulated silver-plated copper conductors. Different diameter multi-stranded conductors add dynamic weight and timbre throughout the frequency range, whilst capacitance is kept low, thanks to our REDpurl™ geometry.

Wire on W

Of course, there is no need to do anything with our cable; it performs beautifully straight out of the box. However, if you think you would like to make changes, the REDpurl™ geometry allows you to alter the wire alignments, changing capacitance and inductance at individual nodes along the cable. It is up to the listener to say which they prefer, but being able to make a difference can be profoundly important when it comes to creating an involving personal experience.

Conductors: Silver plated copper

Insulation: PTFE

Capacitance: 69pF/m variable

Connectors: WBT 0114 phono plugs

Geometry: REDpurl™

For further information contact:
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## Kraftwerk Upgrade PMC Monitors To Create 9.1 Dolby Atmos System

Electro pioneers Kraftwerk recently upgraded their PMC monitoring system to a 9.1 Dolby Atmos set-up so that they could compile 3-D Kraftwerk Concert, an audio/video documentary collection that was released at the end of May 2017.

Kraftwerk said that they chose PMC twotwo monitors "because they perfectly complement the existing PMC IB2S system, which was installed in Kling Klang Studio in 2004".

Over the last five years the German band has toured a selection of its classic albums in full, putting on lavish 3D multimedia art performances in leading museums and art galleries around the world. Material from these concerts forms the basis of the new release, which is available in six iterations including a deluxe version in a box with four Blu-Ray discs and a 228-page art book, a vinyl collection and a CD set.

As long-term PMC users, Kraftwerk already had a 5-channel PMC IB2S monitoring system in their Kling Klang Studio in Dusseldorf. To bring the system up to 9.1 Atmos specifications, the band invested in a pair of PMC twotwo.6 and a pair of twotwo.8 speakers, plus a PMC twotwo Sub2 active subwoofer. With this new set-up, Kraftwerk could rework a huge collection of audio material.

The decision to upgrade to a Dolby Atmos setup using additional PMC

monitors was made by Ralf Hütter and Fritz Hilpert, who was responsible for the 3D and 2D audio mixing. The choice was an obvious one, given that they were already very happy with their existing IB2S system and wanted "monitors that complemented its signal accuracy, excellent dispersion and unparalleled level of image integrity".

Released through Parlophone, 3-D Kraftwerk Concert features eight classic Kraftwerk albums in chronological order. These include

Autob ahn (1974).Radio-Activity (1975),**Trans** Europe **Express** (1977),The Man-Machine (1978),Compu ter World (1981),Techno Pop (1986),The Mix (1991)and Tour De France (2003).

All eight albums were filmed and recorded between 2012 and 2016 on the band's 3-D World Tour in locations such as MoMA (New York), The Tate Modern Turbine Hall (London), Akasaka Blitz (Tokyo) and the Sydney Opera House.

Kraftwerk are currently performing their acclaimed 3-D live show as part of an extensive European tour that includes 17 dates in the UK and Ireland. These represent the band's first live UK concerts since the Tate Modern in 2013.







## Aequo Audio presents: the Ensis loudspeaker

The Ensis was developed to fulfill one of the most cherished wishes: to fully satisfy both the ear and the eye with a stylish, compact and truly full range high end floor standing loudspeaker. The three-way cabinet design resembles a musical note. Each component is engineered to deliver exceptional clean sound and live-like precision in reproduction. Its unique qualities satisfy the most critical listeners, but most of all ensure you of long hours of listening pleasure!

## Gold Note Release First Pre-Amplifier, The P-1000



Designed for "high demanding audio systems", Gold Note's P-1000 is a Class-A preamplifier born with a completely new proprietary Six Gain Stage design with relays and Optical Encoder volume control.

P-1000 is powered by a Triple Linear Transformer power supply and features 10 independent analogue stereo inputs: 5 balanced XLR + 5 RCA. (digital input available on demand)

The P-1000 belongs to the new era of Gold Note electronics, "combining performance and technology". The new design allows the user to quickly select any function:

Mono/Stereo

Left/Right channel swap

Absolute phase Swap

Over-boost

Fine Balance tuning

With its large colour display showing all information, P-1000 becomes the "control point of your stereo system"

## JBL Update Classic Studio Monitor In Celebration Of 70th Anniversary

JBL is celebrating 70 years in sound with the return of its compact three-way monitor design from the 70s...

Karma-AV is delighted to announce the UK availability of the JBL 4312SE monitor, an update to the brand's classic 3-way 12" compact studio monitor lineage. Lovers of all things retro will adore the rejuvenation of a design that did so much to establish the brand in the hearts and minds of studio musicians and engineers in the 1970s. Created as a limited edition by JBL to celebrate its 70th anniversary, the 4312SE reprises the driver configuration and aesthetics of the renowned 4310/4311 studio and L100 'Century' hi-fi monitors from the 70s, and 4312 from the 1980s.

Just like its predecessors the 4312SE is designed and assembled at the home of JBL in Northridge, California. Supplied in matched mirror-image pairs to maintain detail, coherence and image quality whether placed horizontally or vertically with the tweeters aligned inside or outside, the versatile 4312SE is engineered for a wide range of environments and systems in keeping with its studio heritage.

The 4312SE's famous 3-way configuration has been refreshed with JBL's latest transducers including a 12-inch (300mm) 1200FE-8 Agua-Plas®-coated Pure

Pulp cone woofer, 5-inch (125mm) 105H-1 Polymer-coated Pure Pulp cone midrange, and 1-inch (25mm) 054ALMg-1 Aluminium/Magnesium Alloy tweeter with waveguide. Front panel mid and high frequency trim controls, a bass reflex enclosure with front-firing port, binding post speaker terminals, and a black wood grain finish with removable black cloth grille complete the system's 'iconic' pro-audio character and high performance specification.

The 4312SE's Special Edition livery features 70th anniversary badges fixed to each speaker and an anniversary certificate recording the speakers' serial numbers and the signatures of the system engineer and factory assembly technician.

The 4312SE will retail for £2500.





## Technics SU-G30 Network Amplifier Launched



Technics have released their new amplifier with built-in network player for the "new generation of audio".

Borrowing its design philosophy from the Reference Class, Technics say that: "the SU-G30 delivers uncompromising sound quality for a premium, next-generation listening experience. Designed to reproduce the natural and delicate nuances of music, the SU-G30 performs beautifully with both original digital and analogue sources".

They explained further "Jitter is a major cause of distortion in digital systems, and is caused by mis-timing in the master clocks used in digital-to-analogue conversion. To eliminate

the degradation of sound caused by jitter, the SU-G30 utilises an original jitter reduction circuit, reducing jitter across the entire frequency range. The JENO (Jitter Elimination and Noise-shaping Optimisation) engine works with a newly-developed high-precision Pulse Width Modulation (PWM) conversion circuit, which optimises the noise-shaping speed, degree and requantysation number and the PWM gradation, to convert high-resolution signals to PWM without causing any damage to the dynamic range".

The high-speed GaN FET (gallium nitride) driver device allows the length of the large current carrying signal path to be shortened, thanks to the

construction the amp with a single push-pull configuration. The SU-G30's LAPC (Load Adaptive Phase Calibration) optimises the impulse response and utilises correction processing. The hybrid power supply reduces switching noise while maintaining driving power.

The SU-G30 is also equipped with a Bluetooth® function that supports aptX® and AAC. It also includes the MQA (Master Quality Authenticated) technology, which enables playback of MQA audio files and streams. In addition to DLNA and USB playback capability, the SU-G30 supports TIDAL, Spotify Connect and vTuner.



## Goldring Release New MM Cartridges

Goldring is starting to ship its new E Series Moving Magnet cartridges which, they say, are "a range of high performance, premium quality, British designed products for the resurgent turntable market".

They went on to explain more; "The E Series, is a range of three cartridges which are designed to deliver the accuracy of the original recording, to maintain the creative nuances, and to communicate the musicality and rhythm the artist intended the audience to hear. The Goldring E Series are optimised for the medium to high mass tonearms found on the majority of reasonably priced turntables".

"All cartridges in the range use Magnetic Duplex Technology™, which lowers crosstalk and hence increases stereo separation. During the record mastering process the cutting lathe records stereo information as a 'V' shaped groove which has perpendicular side walls angled at 45 °. Conventional moving magnet cartridges use a single magnet that interacts with two vertically mounted coils to produce a stereo signal from the groove. This can introduce crosstalk and so only offers a modest amount of stereo separation. The Goldring E Series cartridges feature a special dual magnet arrangement. Magnetic Duplex Technology™uses two low mass magnets which interact only with their partnering pickup coil, angled at 45 ° to match the cutting head arrangement. This enables the cartridges to more accurately trace the record groove because they

precisely emulate the geometry of the cutting head, making for better stereo separation and a more accurate, involving and musical soundstage".

The E Series

Featuring spherical styli with a choice of cantilevers, the E1 and E2 models are intended as an improved replacement for any budget, pre-fitted or obsolete cartridge. The E3 model with its refined elliptical stylus is "a worthwhile upgrade for those wishing to squeeze even more information and detail from the record groove".

The E1

Features a bonded, spherical (0.6 mil) stylus with a round shank. This makes the cartridge "extremely forgiving of set-up adjustment". Also features a carbon bre reinforced ABS cantilever tube, an effective alternative to more premium aluminium or boron materials.

Approximate Retail Price £60 €70

The E2



Features the same stylus profile as the E1 but with the additional benefit

of an upgraded aluminium cantilever. This is both stiff and light weight.

Approximate Retail Price £80 €100

The E3



Utilises the same aluminium cantilever but benefits from a superior bonded, super-elliptical (0.3 x 0.7 mil) stylus. This gives it better high frequency groove detail retrieval ability over ordinary elliptical (0.4 x 0.7 mil) or spherical (0.6 mil) styli due to its smaller front to back radius.

Approximate Retail Price £100 €130

The Goldring story began in 1906 with the manufacture of clockwork motors, springs and steel needles. This expertise was utilised in the 1920s for the production of Goldring Soundboxes, and later electromagnetic gramophone pick-ups, and carried on into the 21st century with the release of the flagship Legacy Series moving coil phono cartridges, which are still handmade in Hertfordshire, UK.







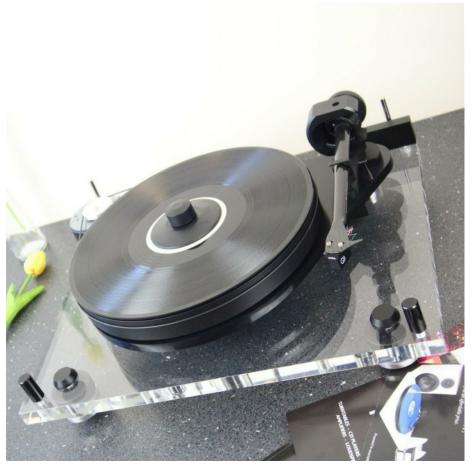
# Pro-ject 6 Perspex SB Turntable Package

## By Ian Ringstead

Pro-Ject make a huge range of turntables to suit pretty much all pockets. Today Ian Ringstead takes a listen to the £1400 Pro-ject 6 Perspex SB Turntable Package.



## PRO-JECT 6 PERSPEX SB TURNTABLE PACKAGE



Straight away
it was obvious
that this
turntable was
a good design
as it gave a
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reasonably
deep sound
stage

have been a huge fan of Pro-Ject turntables ever since their introduction back in the nineties. As a company, Pro-Ject never rest on their laurels and are constantly introducing new and innovative models to the range. The choice can be daunting at first glance, but there is logic to it and they certainly cater for all tastes and pockets.

The Pro-Ject 6 Perspex SB is an update of the original Perspex 6 with some radical design improvements. It comes with a new perimeter drive belt mechanism where the motor sits in its own pod in a dedicated cutout at the back left of the plinth. The cut is lined with damping material to cut down on resonance issues. The AC motor is in a smart looking machined metal housing that has its own speed control incorporated and is controlled by a simple push switch that actuates speeds of 33 1/3 and 45. You just push the switch to engage the speed and if you press it for a second or so it will change speed. To stop the motor simply hold the switch down and the platter will stop rotating. The motor has been designed to offer better speed stability through the electronic circuits incorporated in the motor pod housing allowing for a stable speed unaffected by mains fluctuations.

The plinth is superbly engineered from Perspex and incorporates the sub-chassis; platter and TPE damped aluminium coned

feet. The sub-chassis is unusual in that it is made from Corian which I remember from years ago being used in a Technics turntable. The Corian has great isolation properties and so suits this design very well. The other unique part of the design is that the sub-chassis is isolated from the Perspex plinth by using magnets so creating a floating platform. The platter is a vinyl/mdf sandwich that is accurately balanced for excellent speed accuracy and rotation the same as car tyres and wheels are balanced to run smoothly.

An inverted bearing is used which has a stainless-steel axle with a ceramic ball and is greased to allow smooth running with minimal wear. Like many of Pro-Ject's designs the platter is topped off with a vinyl layer to act as the interface with the record. Finally, the platter has a threaded spindle so you can use the supplied screw on record clamp.

The arm supplied is the excellent Pro-Ject 9cc as fitted to my Extension 9 turntable and is a very successful design which I can vouch for. The phono cable supplied is detachable from the rear of the deck and is the Connect-IT E, a good quality lead which can be upgraded if you so wish. Finally, a nice dust cover is supplied to protect the unit when not in use.



## PRO-JECT 6 PERSPEX SB TURNTABLE PACKAGE

Not only does the 6 perspex SB look great, it also sounds great. After unpacking the deck and setting it up (which took about half an hour) I sat back to enjoy my records. Henley kindly supplied an Ortofon 2M Bronze moving magnet cartridge which at £200 is a good starting point. You can buy the deck from Henley Audio as a package deal with either the Ortofon Quintet Bronze or Black moving coil cartridges and save between £190 and £254. I can vouch for both cartridges as a I use a Black and used the Bronze recently for another review.

The great thing about the design is that it allows for tweaking if you so desire. I experimented with a better arm lead and used my Pro-Ject 9 turntable weight instead of the screw on clamp. Both of these reaped rewards in performance.

## The Sound

Straight away it was obvious that this turntable was a good design as it gave a very clear and reasonably deep sound stage. If I had put my Quintet Black on it would have improved again, but I wanted to see what a decent moving magnet could offer. I tried the deck through several amps and speakers varying in price from about £1000 to £3600 for the amps and about £800 for the speakers. The deck worked well with all of them and did not disgrace itself when paired with the Densen 150 amp I am currently trying out. Speakers were either my

resident Triangle Titus EX or floor standers from TAGA.

I tried all genres of music and dug out some records I hadn't listened to for ages. I have a large collection of vinyl going back 40 years and it surprises how well a lot of older albums were recorded. Bands from the seventies, Yes, AWB, Led Zeppelin, King Crimson, etc. all sounded good and it was easy to hear the interplay of all the musicians and their individual instruments placed in a coherent and believable sound-stage.

I recently attended a live concert of the Messiah, a favourite choral work of mine and it reminded me how important it is to regularly listen to live music. I was sat on the front row, not an ideal position you might think, literally a few feet away from the musicians and conductor. Normally in a concert hall I would prefer a seat mid stalls or balcony, but it amazed me how good it sounded even close to and I could clearly hear all the singers and musicians located perfectly. Going back to the Project in my system, this did a similar thing like any good component should do, but not all are equal. As I mentioned earlier I played around with the deck by putting a much more expensive silver interconnect on it. This upped the game in detail and I would recommend this to anyone if they buy this deck to try. I did this with my Project 9 and the difference was well worth it. The record weight also improved the bass and clarity to a degree, but the screw on clamp works well. It just

takes longer to screw and unscrew as opposed to the weight's simple placing on and off.

The Isolation system worked well and placing the deck on my rack gave no issues, even when playing music loudly.

Overall the Project 6 Perspex SB offers a lovely looking package that is easy to use and allows for improvements to boost its already good performance much further.

## AT A GLANCE

Build Quality: Excellent build and finish Sound Quality: Detailed, clean and transparent with good sound staging that can be tweaked to take it further

Value for Money: Excellent considering the competition is tough at this price point. Even better when you factor in Henley's package deals with the Quintet moving coils

### Pros

Great build quality, excellent looks and very good sound to boot. Tweakable, a plus point for enthusiasts wanting to experiment

### Cons:

The screw on clamp slows things down; I'd have preferred a weight instead

Price: £1400 without cartridge









# The Audio Files AT-LP5 IPT Turntable and Cartridge Package

By Ian Ringstead

Audio Files take a standard Audio Technica AT-LP5 turntable, add a new arm and carry out other modifications and offer a stylus upgrade to the standard cartridge. Total costs including the stylus upgrade is £835, Ian Ringstead listens to see if this is a worthwhile route to take over the original AT-LP5, available at time of review available for £319.



## THE AUDIO FILES AT-LP5 IPT TURNTABLE AND CARTRIDGE



Audio Technica have been known to me for over 40 years and was a favourite range of cartridges and accessories I sold in my retail days. Whilst visiting the Stylus Show at Manchester I came across a room that was being shared by Audio Technica and The Audio Files a company new to me. They were eagerly demonstrating the differences between a standard AT-LP5 and there modified AT-LP5 IPT. What's the difference you may ask? Well the philosophy behind the AT-LP5 IPT is that the standard AT-LP5 which is highly regarded could be improved upon without spending a fortune.

Gary Hargreaves of Audio Files explained to me what they had done. Basically, they take the existing arm off and replace it with an OEM Audio Origami AO202 tonearm based on a Rega 202. This isn't just substituted but carefully mounted with a machined acrylic arm board for accurate alignment and a superior arm lead supplied made from Van Damme silver plated cable and Neutrik RCAs...a cable and plug combo I have used myself, to great effect.

The platter is damped with constrained sub layer materials that control any ringing present in the current standard platter very effectively. The plinth isn't touched because this would have increased the costs to a point where the price would have been uneconomical. A modified design is all well and good but you must know when to draw the line on the upgrades. Sometimes overkill can destroy any gains made. The cartridge fitted as standard is the AT95E moving magnet, a fantastic little budget cartridge, of which I sold hundreds as it is such a gem for the money.

For £350 the standard AT-LP5 is an excellent direct drive with the nearest rivals being models from the likes of Technics with their SL 1200/1210 DJ turntables. These were the absolute standard by which all other direct drives were measured and compared. I sold hundreds to aspiring bedroom DJ's and club DJ's in the 80's and 90's and they were bullet proof. The AT-LP5 although not as solidly engineered ( it is a lot cheaper) still presents superb value for money. It even has a built-in phono stage for MM cartridges. You can also digitize your records onto a computer if you so wish via the USB port.

## Sound

How does it sound. The standard version is very competent and easy to use with good pitch stability, something you would expect from a direct drive motor. Compared to belt drives in this £350 price sector it's great value and should last for years, with minimal servicing. Set up is a doddle and speed change between 33 and 45 a cinch. It may not be the most refined sound I've heard, but there was plenty of detail and sound staging was solid and well defined.

Switching to the AT-LP5 IPT was a revelation in terms of improved clarity brought about by the improved arm and damped platter of course. It was like (excuse reviewer clichés) a veil had been lifted from the speakers allowing the listener to appreciate the sound far more accurately. As if this wasn't enough, next came the interesting bit; I substituted the standard AT95E stylus for an AT95P paratrace stylus. What's the difference you might ask? The paratrace stylus, although not a new design, is not unlike the Audio Technica's

Compared to belt drives in this £350 price sector it's great value and should last for years, with minimal servicing



## THE AUDIO FILES AT-LP5 IPT TURNTABLE AND CARTRIDGE

SLC special line contact using an ultralightweight stylus tip ground to a high level of precision, AT have achieved a combination of low distortion rate with fuller frequency reproduction during playback. This stylus tip extracts every possible piece of information from the grooves on a record. Unlike AT's SLC the paratrace is a lot cheaper at £140. When doing the comparison, it took only a second to realise the amazing difference. The sound stage suddenly grew in depth and width with so much more detail on offer. Top to bottom frequencies were faithfully reproduced and clearly portrayed, comparable to more expensive turntables I have heard and used. Yes, my Project Extension 9 with Ortofon Quintet Black (which has a shibata stylus) does sound better and with more oomph, but it is three times the price. I will at some point try the AT95E on my Project and compare it with the paratrace stylus. An irresistible option.

## Conclusion

I love products that don't require the hearing of a bat to hear differences. After all my years in hifi I have learned that if a product is any good then it will shine through, and be obvious straight away. It's like drinking a good wine, you just know when it's quality. I can fully empathise with the design behind the paratrace stylus because it's obvious that a correctly shaped stylus will track the groove far better than a cruder profile. The

micro groove of a record is a complex journey to undertake for any stylus and the paratrace seems to follow it better than many. The beauty is that the results can be so easily heard by just changing the stylus assembly, it's that simple. If you have ever seen a highly magnified photo of a stylus in a record groove you realise what a job it has to undertake traveling at high speed under immense pressure.

Once heard, like any great product it's hard to go back to the inferior version. I recently discovered this with speaker cable, namely the Tellurium Q Black II when substituted for the original Black. HD video as opposed to standard definition... no contest. So, there we have it, not only an audibly superior turntable upgrade, but also a brilliant stylus upgrade. I heard the AT-LP5 against the AT-LP5 IPT on two occasions and it was the same both times, a worthwhile and immediate difference. Whether it was Michael Jackson, Heaven 17, progressive rock, jazz, etc, I enjoyed the results of the AT-LP5 IPT and especially once the paratrace was fitted.

As a package, the turntable is so easy to use and uncomplicated, so no great skill is required to set it up or use. Compared to many decks out there this will please any users without the necessary abilities or desire to delve deeper. Technophobes rejoice; being a direct drive deck there is no

worry over belt wear or speed stability. It really is a fit and forget unit that will give you years of reliable, low maintenance use and satisfaction. Isn't that what we all want?

## AT A GLANCE

Build Quality: Excellent with a well-executed upgrade of arm

Sound Quality: Excellent, open and detailed with good pitch stability

Value for Money: Brilliant

### Pros

Fantastic upgrade from the original giving the deck a new lease of life to really show its abilities in an affordable package. The output lead can be upgraded as far as you wish to go. The paratrace stylus is a nobrainer upgrade and I feel a mandatory purchase. A very competitive addition to the sub £1000 area of quality turntables and stiff competition for some more expensive models too.

Cons:

Nothing for the money, hard to fault.

Price: £695 with free shipping Paratrace stylus £140.

Ian Ringstead









## Innuos Zenith MK2

## By Dan Worth

Dan Worth takes a look at the Innuos Zenith MK2 an all in one streamer, CD ripper and SSD storage unit costing from £2299 depending on storage capacity chosen.





O what is an Innuos Zenith MK2? I hear you ask? Well, it's an all in one streamer for local files and streaming services such as TIDAL, Spotify and Qobuz, Internet Radio as well as a CD ripper. The ripper itself stores music ripped in the FLAC/WAV formats to an internal solid state hard drive of a size designated during purchase. Available options are 1TB, 2TB and 4TB.

Whilst expecting the Zenith MK2 for review I was somewhat sceptical to the benefits of it over the various Vortexboxes which I believed the Innuos Zenith MK2 was based on. I have previous experience with VBs – having built and tried many, which range from basic installations on standard PCs to more bespoke hardware installations and multiple linear power supplies.

Despite many believing that "bits are bits", unfortunately there's a whole world of "nasties" that go with them that influence the sound quality throughout the Hifi chain such as power noise, jitter and high-frequency EMI. Many think that a simple galvanic isolator would just turn any computer into the perfect digital source...if it was only that simple.

Innuos say that a digital source should remain as transparent as possible, allowing the amplifier and speakers to imprint their own signature as per the end user's tastes. In order to achieve this, Innuos first target for the Zenith is the power supply. They design the Zenith so that rather than producing a lot of power noise and then trying to clean it up, they implement critically chosen parts for a triple linear psu design that is inherently clean to begin with and specifically implemented.

"We had to go through a very detailed oscilloscope for measurements. We have literally tested dozens of system boards and the noise patterns you get vary wildly between them. Some are absolutely dreadful and should never be used for audio. The key innovation here is our triple-linear power supply, designed and manufactured inhouse. By providing three independent linear power supplies that separately power key components of the system, they prevent the power noise those components produce from contaminating the power circuits for the outputs, both USB and Ethernet. The triplelinear power supply design contains ultra-low noise regulators (40uV) and specialised audio capacitors (Nichicon MUSE) that further help maintaining the transparency and realism of the Zenith. This is then complemented by using medical-grade mains filters, that both filter the Common and Differential Mode noise coming into the Zenith from mains as well as preventing any noise produced by the Zenith itself to contaminate the remaining Hifi chain." This approach would inevitably clean the USB and Ethernet channels providing very clean digital outputs. Isolation transformers on the Ethernet ports also help keep some of the noise traveling through the Ethernet cables at bay. Connecting a streamer as I did with the Aurelic Aries Mini using a short Ethernet cable to the 'Streamer' port on the Zenith provided better sound quality than connecting the streamer to a my router or switch, even though both are already on linear supplies, the quality of the Zenith 2's in-built psu, onboard single routed Ethernet switch and linear NAS function made for a better all round performance feeding files directly from the internal SSD and clean pass-through of internet ensuring a cleaner signal from the supported streaming services.

Innuos say that a digital source should remain as transparent as possible, allowing the amplifier and speakers to imprint their own signature as per the end user's tastes



## This is another advantage of using the SSD on the Zenith – playback is instantaneous

These benefits, along with the extensive internal vibration control and isolation would all be worthless if it wasn't for the expertise of Innuos when it comes to software implementation. From the motherboard BIOS to the Operating System kernel and audio sub-systems, they have optimised settings to extract as much musical performance as they can. One key feature in this area is the 4Gb RAM buffer available for memory playback on the Zenith 2. This means when the user plays a track, it gets loaded almost instantly to the system memory from the SSD and then played directly from there. This is another advantage of using the SSD on the Zenith as it makes this transition imperceptible – playback is instantaneous. The onboard TEAC drive is a more bespoke version with unlocked firmware, ready for InnuOS' tweaks to enable more efficient and effective ripping with less errors.

## InnuOS - innuOperatingSystem

Moving on to the software installed on the Zenith MK2. I had initially mistaken this for a tweaked version of the Vortexbox platform until having an in depth conversation with Managing Director Nuno Vitorino. The complexity and intelligence of the operating system is presented in the most classy and user friendly manner, which deserves its own in-depth look here. The software is an absolute breeze to use and each feature has self explanatory options, leaving the unit without the need of an operating manual. There is also a lengthy video on YouTube showing off the InnuOS platform, posted on the Innuos channel with Innuos saying: "One of our key values is listening to our customers and providing them a great user experience. Through direct contact with customers with our Zen Mk.I systems, which were based on Vortexbox, we noticed a number of shortcomings:

Users required a PC/Mac to manage their music library (adding, deleting or changing music data). The applications to do this can be quite cumbersome for those who are not technology-oriented and we needed frequent remote support sessions to help our customers do this. They were very slow to save changes as users generally did this from Wi-Fi connected laptops.

More and more customers don't have a PC anymore, only a tablet. This made it impossible for them to manage the music library.

Every time the server could not recognise a CD, it created an Unknown Album that was a

real pain to identify later. This required the above tools to do the change itself.

Customers with Classical music were often affected with missing metadata and they could only make changes after the CD had been ripped. They then needed a PC to do such changes.

When copying files ripped on Mac systems, particularly Classical music, they could have very long filenames.

People had very disorganised music libraries as essentially they just copied files and folder to the Music folder. This meant duplicates and lots of incomplete metadata.

If customers didn't realise their Internet connection is off, the system would create a whole lot of Unknown Albums. One of our customer ripped 150 discs before he realised the server was offline. This meant deleting everything and ripping again.

Different network settings made sometimes difficult to find the systems on the network, leading to a lot of frustration.

The User Interface was very technical and most people did not understand the options available and we're displeased with how it looked

I can relate to these customers concerns as I have had a lot of experience with Vortexboxes and like using any PC, people have to perform constant maintenance and coercion in order to keep the system working well whilst waiting for the next tantrum.

Rather than telling their customers to brush up on their technological abilities and or offer continued support for what they considered a somewhat fragile environment to use consistently, the company who have a great team of software developers and technicians give birth to the Innuos.

What InnuOS has achieved is an operating system that sits lightly on the system hardware and over its two and half year development has been refined extensively to be as comprehensive as possible, integrating features such as TIDAL, Spotify, Qobuz, CD ripping, album management, network integration and more, with the most straight forward of GUIs that I have ever had the pleasure of using. Calculating all nerdy type processes and individual key strokes firmly in the background, with the end user visualising only the key component task features on screen.

Currently – typing 'my InnuOS' in on a google search brings the user to the control



software, which can be accessed by any PC/Mac, tablet or phone connected to the same network as the player. InnuOS are in the process of producing an app to replace this function on portable devices for completeness but the operations of the software will remain consistent.

Once loaded the software sees the player on the network immediately and the user can begin to utilise all the functionality of:
Assisted Ripping mode – In this mode, rather than the system ripping a CD immediately with whatever metadata it found, the user is presented with the metadata and is able to change all of it, including cover art, before the CD rips. This is particularly useful for Classical or World music

Rip to WAV or FLAC – Ripping to both WAV uncompressed format and FLAC with zero compression depending on user's requirements (FLAC is more compatible) Quarantine - Whenever there is an issue with either a CD or music being imported, it goes into the Quarantine section rather than the Music Library, so that the Music Library is kept nice and tidy. This way, the user knows which music needs some attention. If the ripping mode is Automatic and the server can't find metadata for it, it shows as an Unknown Album. The user can then play the music directly on the tablet to help it recognise the album and edit the information directly. Once saved, it's then moved to the Music Library. If a CD is ripped twice, it's marked as a duplicate. If the server is offline when ripping, then it's marked as offline and the user can simply click a button to retrieve all the metadata again.

Import – This is one of the most complex engines on the system. TheImport engine allows users to import music from USB, NAS, another music folder or music placed in the Auto-Import shared folder on the server. The Import engine then as a number of (growing) rules to apply to the files as it imports. These are just a small number of rules applied:

Organise based on the file quality (compressed, CD Quality or High – Resolution) and structure them in different folders accordingly.

Automatically create a consistent Artist/Album folder structure.

Import files contained on a zip or tar file (which is usual with downloads from high-resolution music stores such as Qobuz or Linn Records).

Shortens potentially long filenames and removes problematic characters that can cause problems.

Detects if the album already exists with the same quality on the music library. If you have an album in CD Quality and add the album in High-Resolution, the system knows and adds the respective tag to the album such as [HD96] for a 24bit/96KHz high-res file

Music Library – Allow to browse and change the metadata for the music already stored in the Music Library from any tablet, smartphone or PC/Mac Backup – Allow to backup the music library to either an external USB drive or to a NAS automatically. The automatic backup is actually based on storage rather than time. So instead of backing up once a week, for example, it backs up every time you add the equivalent of 50 CDs. This way, it will do frequent backups when you are adding a lot of music and them do it a lot less often when the user is adding only a couple of albums per month.

Intricacies of guitar strings across the two albums and the complexities of Derrin Nuendorf's guitar was very much a treat to listen to





The interface itself is so comprehens ive yet so simple to use and all features and functions are literally idiot proof and self explanatory

### Fit and Finish

The casework to the unit is very nice, with a contoured front fascia and simplistic approach, a single CD slot and power button with indicator LED (which can be changed to any colour on a software level to match other equipment) are the only pieces of hardware adorning the front panel. To the rear there are two LAN sockets for Ethernet connection from the router and to route in a separate streamer, rather than connecting that direct to the router. There are two USB sockets, one for the audio output and another for a USB backup drive for safe storage of a duplicate library containing all ripped files that reside on the internal SSD. Internally the main board sports a powerful processor and plenty of memory for quick operation of all remote app functions and boot up speeds, along with a TEAC ripping drive and a solid state hard drive. The multirail power supply on board runs from a large toroidal transformer with multiple layers of regulation and a large bank of smoothing caps in order to keep things ultra quiet and precise.

## Setting Up

Setup is just so simple with the Zenith 2. The Squeezelite embedded software (which sits inside InnuOS) for audio playback piggybacks two main control apps (separate to the My InnuOS Software which is for system management), Orange Squeeze for Android users and iPeng for iOS customers. These apps are the current best way for controlling playback and integrate all playback features into one handy remote app. I used the iPeng app on my iPad and I must say it's brilliant, version 9 is much more intuitive than older versions I had previously used in a past life with Squeezelite.

If you have a NAS drive already, this is the easiest way to get up and running by transferring files across the network to the internal storage. Ripping CDs is done into either FLAC or WAV.

The setup of TIDAL, Spotify and Qobuz is easy, clicking on the apps side tray allows for the installation of the apps and simply entering the user account name and password gains access to all pre-saved playlists and the full experience of searching for music, with all other menu functionality available by simply going back to the main menu leaving the current playlist (in iPeng) visible on the right hand pane of the screen for track skipping and pausing etc. The interface itself is so comprehensive yet so simple to use and all features and functions are literally idiot proof and self explanatory,

which is a god send in this day and age for the technophobe.

A fixed volume output or variable (max volume is bit perfect according to Innuos), along with designated parameters for bit depth, sample rate, album, artist and genre options along with many more less significant features, all to be configured with a few touches proved to be extremely quick with no lag to the system, even during playback due to the Zenith MK2's powerful CPU and memory abilities. To boot – Internet radio stations on average took less than a second to begin playing, which from a friends perspective is much faster than his MK1 version although we are in differing parts of the country and with bandwidth considerations, still worth noting. When choosing music the app offers fantastic visuals with artwork showing for all radio stations as well as InnuOS ripped albums with all accompanied metadata. InnuOS will also tag non previously tagged albums that the user sent over to the InnuOS' storage folder from another drive. With a three cable setup (power, USB and Ethernet) alongside the downloading of the corresponding app for either Apple or Android, setting up the Innuos Zenith MK2 was an absolute breeze.

## The Sound

On first inspection the sound of the Zenith 2 was surprisingly good as mentioned above, I ripped a couple albums and played music from my NAS and TIDAL, I compared the sound with my modified Mac Mini which has been a reference source of mine for sometime now, outperforming many other front end gear during the time I've owned it. I found the two to be different in character but struggled to find big performance differences between the two through either the DiDiT 212 SE or Mytek Brooklyn DACs. There was a touch more refinement and depth to the Mac than that of the Zenith 2 which provided a soundstage of fantastic separation, clarity and body to the music, presenting a firm controlled weight and good raw timbral qualities.

Chris Jones' 'Long After Your Gone' had a wonderfully controlled fluid bass performance allowing for vocals to stand in good height within a central focus which made sense musically and gave great bandwidth of the vocals. The lovely way the Zenith 2 does separation gave air to guitar strings and decays, which were obtainable through the player in a very clear non-artificial manner, giving insight into the acoustic arena and mic setup.





The same was very apparent on Fink's live albums, where in fact over my usual setup I was more taken by the vocals, especially for their strong positioning within the soundstage, the lesser amount of depth seemed to allow the singer to stand more proud so to speak, never dominating the performance but simply stated a more commanding role rather than forwardness. Intricacies of guitar strings across the two albums and the complexities of Derrin Nuendorf's guitar was very much a treat to listen to, masking of micro details was very little and almost came up to spec with my Mac setup during my initial listening tests, the smaller details in recordings generally have a way of flavouring a performance as their ability to shine controls micro tempos, which add to a sense of overall flow.

Masculinity in tone and or delicacies contained within the vocal palette portraying much of the emotional quality of a performance along with the intensity of good dynamics kept the music interesting and explorative. Although the micro details were very cleanly and clearly expressed their dynamics (micro dynamics) were not as strong as say the Mac, but then the added refinement of the whole picture may be why they are easily or easier to determine, the Zenith 2's raw and honest quality is infectious and again, neither worse nor better, just a little different and I am splitting

hairs and doing some very critical listening between it and the highly specced one of a kind Mac.

Micro details and micro dynamics really do not necessarily go hand in hand, many people mention both in sentences as if they do but in my experience they don't, a micro detail can be present and just like any other more defined detail can be either dynamic or not. I would say that the smallest of details in the Zenith 2 were very marginally masked by the foreground, although I haven't heard anything that stands out to me that I can say does a far better job for around about the £2k mark, so I feel that my own personal comparisons to the one of a kind Mac needs to end here. For my own personal information though the test was very informative, proving that areas of the Zenith's sound lit a chord with me that I feel was very beneficial indeed.

Bass performance with the Zenith 2 is equally very interesting, I adore the way the bass doesn't feel as if it's been crumpled into a heap at the bottom of the soundstage, a kick drum hit has a realistic height and a density of tone, then after you here the room interaction within a split second and any lower frequency or accompanied drum strike lower its position in the soundstage to convey a more exacting frequency – the room becomes quickly filled with great

## Setup is just so simple with the Zenith 2



What I appreciate is how it doesn't mollycoddle the music much, allowing for a little more rawness or truthfulness, which in turn characterises individual pieces of music very well

rhythm, as if the tone and frequency is within an artificial three dimensional grid, allowing for each beat to be considered relative to its natural aural take and physical feel of the note.

Playing some electronic music showed that immediacy of a strike and flow of deep rolling notes were timed terrifically without any unwanted sag or looseness.

Loreena McKennitt, one of my favourite female vocalists has a 'Live At The Alhambra' album and one of my most favourite tracks is 'Raglan Road'. In order to nail this one a system has to be able to control the upper midrange peaks especially and deliver subtleties which allow her voice to retain its beautiful yet powerful tone. I've had the Zenith 2 running for a little while now and it's really coming on well, maybe in its initial days of listening its refinement could be called into question and possibly some remarks I made earlier in this review could have been slightly tweaked to the more favourable side, but that's the nature of the review process and it's progression.

Now the unit has settled into its stride a little more – what I appreciate is how it doesn't mollycoddle the music much, allowing for a little more rawness or truthfulness, which in turn characterises individual pieces of music very well – essentially very transparently. In this case Loreena's vocal, so proud it stood in the centre stage that I felt the true realism and honesty of the piece, which with the little added refinement that came on after a couple weeks of playback, aligned the characteristics of the unit further.

I must admit, I am sitting here a little confused as to how Innuos have managed this, being similar in functionality and implementation as a Vortexbox based systems essentially and also running the common Squeezelite software on a hardware package that to me doesn't have fancy clocks, TCXO's, separate USB cards, SATA filters, RAM filters or pure silver internal power wiring, leads me to believe that what Innuos achieve hardware-wise with synergy, noise control, the implementation of a very nice linear power supply and their own custom designed software and firmware is nothing short of impressive. It's not the individual parts that make the difference but the combination of the whole.

I turned to TIDAL next and went through some of my playlists and took a few journeys exploring new music into the small hours and I must say I was captivated. At low listening levels, resolution remains strong, I'd imagine some decibel decreases in dynamic abilities at the lower volumes but everything still seemed really quite relative. The presence of the vocal at these lower levels was great, I really can state that the ability to convey some emotion and tangible feeling when the lights are down low and everybody is in bed is fantastic.

All too often have I listened to equipment that does well during the day, struggling at night at much lower levels (not just speakers but electronics also). Complex passages tend to smear, with under dynamic and blunted edges, causing many others, along with myself to turn to the headphones, well not here folks, I can still even depict real space around instruments.

Note: make sure in settings that volume level is set to fixed output in iPeng or turned up full (bit perfect) in order to achieve greater lower volume listening pleasure.

Before submitting this review to the Oracle (Stu) I had the opportunity to get a good listen to the Zen MK1 with a Teddy Pardo and Paul Haynes power supply. The Paul Hynes supply sounded better but was more expensive and surprised I was at how much more aligned the sound was with a better supply, giving better timing and noise floor than standard. Both Zen and Zenith have the same feature rich abilities, it's just the levels of performance that vary. The Zen is a very capable unit but the Zenith is a true leader for the brand delivering a level of performance that Innuos can be proud of calling their flagship model.

Note: both units worked out of the box with an Audiobyte Hydra Z and Gustard U12 SPDIF converters, giving better control, focus and timing.

## Conclusion

If anyone wants to say, it's just a Vortexbox then please do, as I did, then get one, then plug it in then turn it on, then listen to it and then repeat the first statement – if you can! If I felt that this piece of equipment was just a hyped up and rebranded commodity, I would say to just send the unit back with an accompanying note to express my feelings. I chose to except the Zenith MK2 for review as I had instant scepticism and the best way to deal with scepticism is to be open minded and try things out – there's nothing worse than an uneducated know-it-all!

The Zenith isn't just another streamer, it has its own personality and that's Important. Innuos have designed a complete fuss free digital front end, that combines carefully chosen hardware and sophisticated software



into an easy to use product which has honesty and transparency at its heart. The sound of a Zenith 2 is transparent, honest and truthful and any system that reflects a balance that the user is happy with will benefit from its implementation. Setup and usage is easy and playback and library management is straightforward and intuitive. What I adore about the Zenith MK2's usability from Innuos is that it's not a celebration of what can be achieved in the future, it's a celebration of what can be achieved right now.

## AT A GLANCE

Build Quality – Simple stylish looks, solid and heavy, well damped also.

Sound Quality – Fantastic transparency, strong detail and presence, great soundstage separation. Value For Money – A little pricey when it comes to the higher capacity models but the base model works well for me considering its feature rich software and sound quality. A 1TB drive should be ample for most.

### Pros:

Wonderfully engaging musical sound Feature rich software package Easy implementation into any system and network

## Cons:

Higher capacity models can be a little expensive Only comes in black

(Possible silver version in mid 2017)

### Price:

Innuos Zenith MK2

1TB - £2299

2TB - £2899

4TB - £4599

Dan Worth

The Zenith isn't just another streamer, it has its own personality and that's Important









## Prism Sound Callia DAC and Preamplifier

## By Janine Elliot

If you have experience in pro audio then the name Prism Sound may not be unfamiliar, but now the company are taking their professional credentials into the home audio marketplace. Janine Elliot takes a listen to their £1795 Callia DAC.



## PRISM SOUND CALLIA DAC AND PREAMPLIFIER



Prism Sound is a company I didn't know much about, though actually I have been using some of their gear for many years. Initially a professional audio company specialising in DACs that grace many studios around the world, this company also bought (on April Fool's day in 2008) a digital editing system called SADiE that I had been using at the BBC since the Noughties, a system both loved and hated by Studio Managers.

Prism Sound was set up in 1987 by two electronics engineers; Graham Boswell and Ian Dennis. The pair met in 1981 while working on digital signal processing (DSP) technology at British mixing desk manufacturer Rupert Neve & Company. Their work on DACs has not gone unnoticed, winning the Queen's Award for International Trade in 2011 and it is good to see that they are now extending their knowledge into the domestic hifi fraternity. The Callia is their latest offering for the home, though using technology taken from their professional products. This curvy 2/3 pint-pot sized unit only lacks a remote control to get me really excited, although it does allow automatic selection of input type. Only the large and small potentiometers for line and headphone output respectively meant you occasionally needed to lean forward to turn a dial. The design goal for CALLIA was to provide excellent audio in a sophisticated but easy to use box for home use, and they certainly have succeeded in this respect, and all for a very reasonable sum of money.

The supplied instruction manual doesn't let you know much about the product, though it gets you up and running quickly, but the unit comes complete with probably the best looking USB stick containing comprehensive manual and more importantly the drivers required for operating from your PC or Mac, plus updates. Coax and optical inputs allow up to 24bits and 192kHz plus DSD64. Whilst the USB input allows PCM up to 32bit/384kHz and DSD64 and DSD128 any sampling rates higher than 192 are reduced to levels at or below this using a high performance decimation filter. So for a 384kHz source, for example, it will be converted to 192kHz. In addition to the DSD64 (5.6448 Mbit/s) and DSD128

(11.2896 Mbit/s) bit rates, the Callia also supports the 48kHz-derived rates of 6.144 Mbit/s and 12.288 Mbit/s. The Callia uses an AMD Cortex processor for the USB side of things, and rather than today's addiction and convenience of ESS Sabre or Texas Industries DSP chips, it uses the Cirrus Logic CS4398, though all bit different from Boswell and Dennis's early days in digital work at Neve when everything was designed from the box up. The design is fully-balanced throughout with an excellent headphone amplifier.

Arriving in a posh cardboard box that would put any Apple presentation carton to shame, the important electronics are no less attractive; a curvy grey coloured front panel (reminding me of an Arcam of old) with enough blue LEDs to light up a Christmas tree, that either illustrate the digital credentials of your chosen source, or hold hands around the volume controls for both line out and headphones. For the line output the number of lights depends on how high you set the controls; this is a functioning work of art that makes the unit disappointing to look at when it is switched off. The power switch on the right also acts as a selector for your digital source. Sources include the usual choice of Toslink optical, S/PDif coax and USB. The first four LEDs indicate the three sources with the first LED showing whether selection is automatic. The last 6 LEDs on the front will indicate digital format and bit rate specifically showing "DSD", "x2", "x4", "44.1", "48" and "24bit". So, for 24 bit 192kHz it would indicate "x4","48" and "24b". Whilst this may look very pretty it's a bit trying to work out the time on a binary watch. A simple 2-line display would be much easier in my opinion. Interestingly the DSD signals are internally converted to PCM before decoding to analogue (DoP; 'DSD over PCM'). Prism Sound Chief Technology Officer Ian Dennis writes much about their choice of decoding in the Callia, and hints that most DACs will convert from DSD to PCM before decoding to analogue, something I had suspected when reviewing another DAC a while back. Certainly the design of this DAC made all inputs I tried work well, with the sound quality and design showing their background in professional

Arriving in a posh cardboard box that would put any Apple presentation carton to shame, the important electronics are no less attractive; a curvy grey coloured front panel with enough blue LEDs to light up a Christmas tree



## PRISM SOUND CALLIA DAC AND PREAMPLIFIER

I was instantly drawn to the music it decoded, but I personally would have chosen a name Timios, meaning "honest"

audio, as well it should. That includes the four dip switches on the rear. The first switch disables the front volume control and sets the unit to a fixed output level. I personally liked this as the unit is not acting as a preamplifier. Switch 2 controls the amount of head-room when in DSD playback mode. When this switch is set to "on" the output is +3.1dB, meaning that any peaks of output won't be clipped, though noise floor is that much less. The last two switches are for optimising the headphone impedance.

Usually the line output will be muted when connecting headphones, but even that can be disabled if you wish on one of the 4 permutations of the last two dip switches. Trying both 40ohm and 300ohm headphones I found the headphone amp worked well. The unit accepts any mains voltage between 90V and 250V, so no mains voltage selection is required.

## Sound

The word Callia is Greek for "very beautiful" and I hoped that all I heard would be beautiful. Indeed I was instantly drawn to the music it decoded, but I personally would have chosen a name Timios, meaning "honest". The DAC is very honest, with plenty of attack and detail, not adding anything or taking anything from the music. I did feel, however, that the vocals were the definitive point on whether this unit was 'beautiful', and on a number of times I felt that midrange frequencies – particularly vocal range - seemed very slightly weak and made my own new album 'Boxed In' rather light in the vocal range; quite surprising me and making me sound even worse than I already think I am! Violins - within this frequency range - were extremely clear and entertaining and soundstage was captured as honestly as a professional sound engineer in a studio using Prism Sound professional gear would expect. The headphone output is surprisingly good and the balanced architecture means that the unit works well as a preamplifier in its own rights, if only it had a remote control.

Playing the Binaural Chasing the Dragon "Espana – A Tribute to Spain" album gave a sense of three-dimensionality that I hadn't heard from other DAC/headphone amplifiers. The clarity in all frequencies and quick speed from the instruments, particularly pizzicato strings and percussion just gave a better binaural experience through my closed-back 43 ohm Audio Technica W1000 headphones than I have heard to date. Those cans have a clear and open mid and top, though some might find them slightly recessed in the bass line, though it does mean that bass is crisp and clear. The headphone section might me an add-on for the Callia, but to be honest it surpasses many headphone amplifiers I have had the pleasure of listening to over the years. As musicians turned the page at the end of each piece of music it allowed me to gain a closer relationship with all that was going on around my head. Clarity in the high frequency region was excellent. Only lowest bass seemed economical at times.

Dire Straits "Telegraph Road" from 'Love over Gold' is one of those tracks any prospective hifi purchaser in the latter years of the last century would have used to audition separates in Lasky's or Comet. The track has 'pin-sharp' guitars and cymbals, and deep bass drum bursts that would test any woofer. The Callia's clarity meant the infamous bad edit at 3'37" with a shift across the soundstage mid verse was even more annoying than it was when I first heard it. Turning to the +14dBu XLR output into my balanced Krell gave for an even greater sense of clarity and power. This miniature unit was not anorexic when it came to engagement, detail and speed. This unit ensured nothing was added or taken away. The decaying long "A" on the strings linking the second half of the 14 minute movement was not an afterthought in the music. I could hear and understand why Mark Knopfler put it there, though wish I had the patience to play a single note on the violins for over 6 minutes. This sound bite was separated from the rest of the music as if I had my own 48 track studio in my living room to pre-fade each nuance individually. I could focus in on all the individual sounds, rather than just hearing a 'mix' like many a DAC. Handel Organ Concertos Opus 4 (Academy of Ancient Music Richard Egarr, Harmonia Mundi 24/88.2) have many a conversation between the light flute organ melody and the heavy strings, giving an enchanting and relaxing performance, only hindered occasionally by the harmonics between some notes on the organ that resonate on an ancient organ that has perhaps seen better days. This work from around 1733 might have been aimed as interlude entertainment





## PRISM SOUND CALLIA DAC AND PREAMPLIFIER

between acts in Handel's popular series of oratorios, but this recording makes them centre stage as works in their own right. Whilst Egarr might have trained as a harpsichordist, his playing is beautifully poetic and detailed. The close mic'ing at St Jude's Church in London of the English portable or 'chamber' organ with its four stops and characteristically sweet tone, it could be perhaps described as just a box of treble and bass recorders. Its delicacy of performance is particularly clearly heard through the Callia, though not putting me off listening. This is no Westminster Cathedral organ, and the Callia is honest enough to maintain it that way, with a speed and clarity that makes it easy to pick out tonal and mechanical errors of that organ. Only the noise of passing traffic outside the venue where it was all recorded was not as audible as I had heard in my choice headphone amplifier. Bass was perhaps not quite as generous as I would have liked, though one's attention to the mid and high frequency detail and clarity meant that I didn't really miss it. The accuracy and ease of production of the music was something I heard in all that I played. Much of this can be down to the lack of jitter. In order to help create that perfection in digital conversion the unit employs their CleverClox hybrid digital phase-locked loop (DPLL) clock circuitry, which I remember from their Atlas USB multi-track audio interface. Indeed, much of the circuitry is taken from their Atlas, Lyra and Titan professional products.

### Conclusion

At £1,795 this is an excellent price for a combined DAC and headphone amplifier, even passing well as a preamplifier, and with balanced and coax output. A repeating observation as I reviewed this unit was of a sound that crystal clear and fast with nothing added or taken away from the music, meaning imperfections in the recordings can always be heard, which can be a bit annoying if you want just to be entertained,

but ideal if you are a sound engineer. I must stress that this didn't make the sound clinical, rather that it is detailed and accurate. Only vocals could have been a little more forthright.

If you want a slower, more relaxed and coloured sound then you need to go elsewhere, but for something that sounds this good and looks stunning as well, particularly with all the blue lights, then this may well be your best choice to decorate the music room.

## AT A GLANCE

Build Quality: Excellent build and good curvy looks, with attention to using good quality connectors and lots of lovely blue lights. That curvy aluminium front might look a bit "plasticky" to some

Sound Quality A very accurate and detailed sound, better than many DACs at higher price. A very able headphone amplifier, working with both low and high impedance drivers

Value For Money: At £1,795 this is a very able machine in a small package. I strongly advise you give this machine a listen

## Pros:

Fast response

neutral presentation of all types of music excellent clarity across all frequencies and using all digital formats Open soundstage to pin-point each instrument and voice

### Cons:

Could sound clinical to some, and mid-range can lack some detail
No DSD256 might upset a few

Price: £1795

Janine Elliot

# I must stress that this didn't make the sound clinical, rather that it is detailed and accurate









## **Auralic Aries**

## By Dan Worth

Auralic refer to the Aries as a "bridge"; basically a digital device which refers to a networked music library from the likes of a NAS drive, or by use of an external USB hard drive, connected directly to the Aries. What we have come to know more lovingly as a streamer – although you could argue that they are usually an all in one device, often with an on-board hard drive and with analogue outputs from it's on-board DAC. Dan Worth takes this £1495 box of tricks for a whirl.



## **AURALIC ARIES**



The difference between the Aries and a standard build streamer is that it has only the ability to output a digital signal – bridging the gap between library and DAC. The Aries boasts dual FemtoClocks, for the USB audio input and the digital outputs, a low noise internal design to eliminate jitter and Auralic Purer-Power™ based 10uV low noise external linear PSU. A whole host of supported music services are available and a fully featured and easy to use App for Android and iOS devices – necessary for operation of the Aries as opposed to the included remote, which controls more basic features of playback.

Aries is powered by Auralic's own Tesla hardware platform that includes a Quad-Core ARM Coretex-A9 processor running at 1GHz, 1GB DDR3 onboard memory and 4GB internal storage...for those who are interested. For the workload that the Aries has on its plate the specifications are overkill and the system runs very smoothly, although startup is fairly lengthy, allowing the ARIES to simply go to sleep when not in use is the most sensible way to use it day to day and with extremely low power consumption...so not a worry as far as energy bills are concerned.

The Tesla platform has a calculation ability of 25,000 MIPS, more than enough to decode a vast spectrum of audio formats, including AAC, AIFF, AIAC, APE, DIFF, DSF, FIAC, MP3, OGG, WAV, WV and WMA. Auralic has chose this platform for a long term supporting consideration, the feature planned include DSD upsampling, room acoustic treatment and other acoustic DSP function.

By using OpenHome structure which is adopted by UK-based streaming solution manufacturer linn, ARIES, as well as all other lightning based products, supports several advanced functions such as ondevice playlist that allow control software to turn off during play and the complete supporting of a multi-room system.

Streaming Services Available

local uPnP/DLNA library content from NAS or PC/MAC
TIDAI, Qobuz and WiMPonline streaming
Internet Radio
AirPlay and Songcast
USB hard drive files
RoonReady

## Media Server Compatibility

Built-in lightning Server Minimserver, Twonky, Asset UPnP, JRiver DINA/uPNP compatible server software

## Inputs

RJ45 Gigabit Ethernet Dual-Band WiFi connection USB 2.0 High-Speed for external disk

## Outputs

USB 2.0 High-Speed for compatible DAC\*\* AES/EBU, Coaxial, TOSIINK

Though larger than its little brother (the 'Aries Mini) Aries is still a wonderfully compact device at 25cm x 20cm x 7cm and weighs a mere 0.8kg (in no small part due to the off-board linear power supply), this allows ARIES to be easily implemented into any system. Pop it in a cupboard, under a rack, behind another piece of equipment or simply throw a towel over it, many options are available – so you don't have to look at it! Now I'm not saying that it's going to make you cry when you open the packaging, but beware, it's not going to win a 'sexiest at show' award (although we have given Auralic the 'Hifi Pig loves You' award at Bristol this year).

Removing the Aries from it's packaging and feeling it's sumptuous plastic body won't get the juices flowing either. The half router, half freeview box design has a lot to live up to if you shop with your eyes but be patient, the best is yet to come, this Hunchback of Auralic has a generous heart.

The Sound

# The sound of the Aries is remarkably clean, remarkably detailed and remarkably sincere



## **AURALIC ARIES**

The bottom end received by the listener is intuitive, controlled and very detailed

The sound of the Aries is remarkably clean, remarkably detailed and remarkably sincere. From the outset with the already well run in review circular, the Aries will grab you, seat you and firmly glue you to your listening chair for substantial amounts of time.

Its musicality has an honesty about it. With the noiseless, grainless and clean sound, poorer recordings won't get the benefit of a coloured glow to round the rough edges, but anything better than adequate will engage the listener wholeheartedly.

listening to Prince's 'Purple Rain' gave me a notion of complete envelopment, far more accomplished than the already musically satisfying Aries Mini I reviewed a while back and during any out of phase, widely dispersed tones and layers the centre stage maintained incredible focus. Front spread was also very good and promoted excellent dynamics to the boundaries of the room. which my speakers are around four to five foot on each side away from the walls. Bass response is equally as satisfying, in fact I am scratching my head as to how the lightweight, plastic, adorable only from a certain angle in the correct light, Aries can really sound this good. Given that Auralic purposely used a plastic enclosure in order to use a high powered aerial, I'm forgiving the exterior due to its endearing sound quality. If first impressions can be deceptive then the Aries is the epitome of the popular phrase.

The bottom end received by the listener is intuitive, controlled and very detailed. Playing either london Grammar's 'Hey Now' or Urban Species' 'Blanket' allowed me to easily discern each and every subtle change in note. Good extension with tempo driving the music along combines this detail with good flow and bounciness.

Delving up into the midrange, the tighter detailed upper mids pave way for vocal extension to be beautifully pure, conveying a good representation of natural range. A very slight forwardness in the midrange allows for these vocals to be very well pronounced. Well tuned and versed, the Aries is somewhat of an accomplishment at its price.

Whilst vocals stand true, the other elements of the midrange behave as I would have liked from a unit of this price. Transparency in the midrange gave good structure and depth to live performances, involving me deeply into the music.

Climbing up the frequency ladder the upper midrange only ever became rough and etched when listening to a few bad recordings, which I enjoy very much for their lyrics and am happy to accept. Overall a very clean and open upper midrange, with enough control to keep the vixens of vocals tamed and busy music well separated. Top end air is wonderfully apparent in the Aries, I remember the top end of the Aries Mini being a tasty plate; if not refined or as airy, it had personality. The Aries has bags of personality, along with the additional refinement and inner details that two properly implemented Femto clocks should produce. A more accurate display up top gives the listener the experience of hearing all the fine delicacies and acoustics in their music. More can be obtained in higher-end products, but unlike some other high-end products sometimes more is less, leaning towards a more stringent and analytical performance. The Aries gives enough detail that the listener feels well fed and at the same time the music is tastier and easier to digest.

I've been using an Innuos Zenith 2 for some months now after producing a review for it which will be live in conjunction with this review. My reasons for mentioning this is that one feature of the Innuos is that it has an onboard 'Streamer' IAN Output. Basically an Ethernet internet connection output which allowed me to plug the Aries into and use the Innuos as the router, switch, internet passthrough for my streaming services and a directly link to my music library saved on the Zenith's internal SSD. All of this covered by Innuos' triple linear PSU offers an incredibly strong platform for the Aries to work with. Coincidently Auralic UK set the Aries up piggybacked off the same Zenith in demonstrations, at shows and dealerships and the combination of the two takes each unit to the next level with a combined price of £4000. So how does the Aries sound now? Even more accomplished!





#### **AURALIC ARIES**

I'm now hearing more detail, with a far blacker background. Taking all the noise out of the chain of command with standard routing options gives a confidence to the Aries whether playing Qobuz or Tidal – and from the direct onboard library of the Zenith, this is where things really get serious. The sound gains more resolution and bass premise, the tightness of the Aries alone gains a little more weight with it's umbilicalled partner and dynamics get a nice helping hand also. But for me the most stand out attribute of the combination was the soundstage.

Everything is more easily discernible and vocals become more expressive, adding a nice touch of emotion along with standing more confident in the mix. What really engaged me was the additional structure of the soundstage, where depth was good before it was now more complex. During Fleetwood Mac's live version of 'Big love' the way the guitar moved throughout the left rear of the stage and forward again during the solo was incredibly smooth and concise, sort of in film where there is a higher frame rate which allows the viewer to to see more of what's going on in a more detailed and fluid manner.

Studio mixed Pop Music and Electronic music is always a fine test for how well an item can stage around the listener and into the rear of the room simply due to the way it's recorded. The Aries already showed good detail encapsulation in this area and with the addition of the Innuos this area gained additional strengths... it's a shame that Auralic don't build a Universal Player because music and films would work exceptionally well with their digital expertise in a 2 channel system, which for most of us who prioritise Hifi look towards in most situations where a theatre system cannot be accommodated or wanted. I could imagine sitting here watching some of my favourite movies with a 2 Channel sound quality so strong.

Conclusion

Auralic seem to be creating a bit of a trend here – they are producing some digital equipment which is just so well voiced that wherever in the range your budget gets you feel assured that what you will receive is a musical piece of equipment that won't disappoint for the price.

Retaining musicality whilst extracting more accuracy and detail retrieval is not the easiest of tasks. Reducing jitter, laying out circuitry, planning out PSUs, choosing components etc all have dramatic effects on a digital signal which is not as robust as some people may believe. Approaching this without care and plenty of R&D could make for the cleanest sound ever, but without personality it's nothing short of a flop. The charisma the Auralic products seem to obtain speak volumes about their designers and how measurements alone cannot produce music with heart and soul, so to the Auralic team I salute you for never putting the music second.

#### AT A GIANCE

Build Quality: A bit plasticky and not so pretty. looks better from a few feet away

Sound Quality: Wonderfully clean, and beautifully musical

Value For Money: I would be very satisfied of the price it's this level of performance

Pros:

Strong detail
Excellent vocals
Great dynamics
Huge soundstage
Above all musical

Cons:

Plasticky build Not the most appealing visually Remote looks basic and bland (most will only use an app)

Price: £1495

Dan Worth

Everything is more easily discernible and vocals become more expressive, adding a nice touch of emotion along with standing more confident in the mix









# Russ Andrews Power Purifier

#### By Janine Elliot

The Russ Andrews Power Purifier is a modular power conditioner that you can have fully loaded from the off or choose the base unit and add to as and when you feel the need. Janine Elliot pops it on her rack and experiments with the £329 (base unit) £1107 (fully loaded) box.





ains noise can sometimes be the biggest destroyer of sound quality in a system, and equally, some mains conditioners can do the same; altering EQ, reducing dynamic range, and narrowing soundstage. Where I might get excited about new hifi products, these are usually exotic turntables or honest sounding amplifiers of one form or another. Mains conditioners are likely to be last on my list, despite me having designed and regularly using them. The Russ Andrews Power Purifier is different to anything I have seen before and raised more than a few sparks of interest by me at a recent hifi show, so I requested to review the product.

This is not a "one size fits all" product, but rather it is one that you can tailor to your own finances and audio-visual needs and 'add-to' when necessary. This single box has space to accumulate different mains calming devices that you simply plug in yourself and stick down to the base of the unit with double-sided tape, that when joined together are there to combat the three major areas of mains contamination; spikes and surges, mains noise and Wi-Fi interference. All in a single 226mm x 68mm x 243mm plastic box with a high-gloss acrylic face panel with central blue indicator just so you know it is doing its job. Costing £329 it comes as standard with the Russ Andrews UltraPurifier™ filter and SuperClamp™ surge protection. You can tailor your PowerPurifier by adding extra filtering as and when your budget and needs allows, meaning a MegaClamp, a mains Zapperator and up to four ClarityMains can be fitted to the PowerPurifier. The review sample came complete with all options carefully attached. Russ Andrews will even connect all the additional filters you buy for free, just charging for the postage, though the Allen key supplied allows you to easily and quickly

open the box to do all the work yourself, should you so wish.

Having recently celebrated their 30th anniversary, Russ Andrews is a name most hifi audiophiles will be aware of, from a humble small cabin in 1986 to their present empire and major presence at hifi shows. As well as a growing range of accessories to cater for most audio needs, they have particularly specialised in mains improvement products, all with great names and equally great claims.

Each element you attach has different uses. The PowerPurifier itself comes complete with two components; their UltraPurifier™, a basic broadband power conditioner, and their SuperClamp™. This part provides very rapid reaction to over-voltage spikes on the mains. RA recommends you replace this every five years to maintain its effectiveness. From the basic set up you can also add the following components;

The MegaClamp (at £180) which offers enhanced spike and surge protection, which is many times more effective than the SuperClamp. This unit will also last indefinitely.

The Mains Zapperator is a mains conditioner that deals with very high frequency noise that is particularly caused by wireless computer networks. At £142 extra this can be added to your Purifier.

The Clarity Mains is a mains conditioner that utilises "Coherence Technology", and up to four of these boxes can be added to the PowerPurifier, with each one costing you a further £114. The "Coherence Technology" was introduced by Russ after he was approached back in 2007 by a US designer

The Russ **Andrews Power Purifier** is different to anything I have seen before and raised more than a few sparks of interest by me at a recent hifi show



The **PowerPurifier** works passively, meaning that it doesn't have the drawbacks of some other mains filters things like loss of musicality and reduced dynamic range

who had an audio device that claimed to help to reduce noise in signals. The Clarity Mains helps to reduce noise of the mains supply. Whichever boxes you decide to add to your Purifier, each one comes with its own coloured connector, and which can only fit into its respective coloured socket, meaning that assembly is easy. Just remember that when you stick the boxes using the doublesided tape, you cannot re-position them later! Their UltraPurifier™ filter also appears in the RA catalogue as a separate unit or built into products such as their 8-way Power blocks, largely due to its clever 'shunt' filter design, meaning that there are no components between the supply and the hifi or video equipment. It can simply be added where you want it to work. As a result I have found these designs have a much more mannered result than many a "conventional" mains conditioner that can change the audio frequency response or dynamic range, resulting in them sounding far different even if at times that might make the sound more 'exciting' and therefore temporally more desirable. What actually set this unit more desirable for me was that the dynamic range didn't shrink, moreover that it expanded, and using with video made colours clearer but not unreal as they can when you press the "dynamic" option on your TV or projector.

When I first saw their £301 mains plug with MiniPurifier and MegaClamp, and felt that while it might work well, its small size and plastic body wouldn't inspire me to part with that sort of money. So whilst this unit under review now might be over 3 times size its basic setup only £18 more, this is amazing value and still a reasonable £1107 when fully charged with all the extras. Its design is more

advanced and for me much more tempting, particularly as you can configure your own specification. Since it was not built into a 4 or 6 way mains extension lead it meant that testing the unit was far easier for me, as I could plug it in or not to hear the differences, without switching on and off all my hifi. Being based on the use of shunt-connected mains filters, it meant the devices could effectively 'suck' the interference out of the mains without actually coming between mains and audio equipment, thus less likely to turn into a glorified tone control.

For the review I had all the ingredients at my disposal, including 4 Clarity Mains blocks, and I tried different recipes to see how effective each part was, making a meal of assessing whether there were differences. I used my Slee power amplifiers with Townshend Rock 7 turntable and the Prism Audo Callia DAC as one of my systems, and Pre Audio turntable into Manley phonostage and modified vintage Leak Stereo20 power amplifier as the other.

#### **Testing**

I wasn't able to create any audible spikes when testing; even after playing about with my fridge and other 'noise' creating artefacts. After many years of trying to create the perfect audio listening space that part of my mains is thankfully house-trained. However, my mains isn't the cleanest, though thankfully modern power engines built into hifi separates can improve things, as does my own mains conditioner. Removing my own conditioner to try another product was like weaning my children off their favourite food to try another brand. Initially I needed to remove all conditioning completely to get







used to that sound and then try the RA. Playing music I knew well, including recordings I had made or been in the studio when they were produced helped me to know what I should be listening for.

The PowerPurifier works passively, meaning that it doesn't have the drawbacks of some other mains filters - things like loss of musicality and reduced dynamic range. The latter degradation is something I have noticed with many conditioners I have tested over the years. In some respects this type of unit is harder to review, because you don't actually want to hear any audio changes. rather you want the audio to be cleaner and not affected by external influence. Listening to my aged Dire Straits 'Brothers In Arms' illustrated to me straight away just how good this device was at showing detail in the source material; through my brilliant PreAudio Tangential tonearm the space and clarity of the brilliantly engineered album showed me just how well this device was working in the background; no extra bass, extra mid or treble, or compressed audio, just a pin-sharp clarity made even more apparent by the improved signal to noise ratio. The soundstage didn't seem overenlarged, just more realistic. The bird noises and the punchy drum influxes in "Ride across the River" were well placed precisely across the 10 foot stage that is my living room. Compared with no audio taming devices I noticed an improvement in the focus of the

audio. For example, David Gilmour's "Then I Close My Eyes" (from 'On an Island'), I noticed improved position in the landscape between the ride cymbals, muted trumpet, cello, acoustic guitar and backing vocals; this is a thickly textured but very laid back track, and I could easily close my eyes and imagine I was indeed on some deserted island with no infestation of audio snow or hail. Interestingly I didn't find the unit added any tonal character of its own, as some mains conditioners can do. In an ideal world you want the unit to be tonally transparent and allow the equipment to work as well as it did in the designers' laboratory.

Listening to FLAC and DSD files can often still come across as brittle or clinical compared to my choice vinyl or reel to reel, but even listening to albums such as the Sir Simon Rattle Sibelius Symphonies from Berliner Philharmoniker or the 24/192 remaster of Eagles Hotel California, sounded surprisingly transparent and lifelike via the mains conditioner.

On to Mike Valentine's Big-Band Spectacular, an album performed with such precision in terms of both performance and sound quality, available in vinyl and digital and now reel to reel formats. The massive soundstage at the Air Studio's was brought into my own living room, and the Leak Stereo 20 just opened up in a way I hadn't expected it would. The aged ECC83/EL84 unit gave of

What actually set this unit more desirable for me was that the dynamic range didn't shrink, moreover that it expanded



Honesty was the name of the game here, with a noticeable reduction in "noise" itself in a way that even Harold would be smiling, with great speed and cleanliness, and even more focus and musicality. The sound was as realistic as I remembered in the studio. Nothing was added or taken away from the music. That was great news to me. But I could hear a greater noise floor than I had imagined the Leak could give, and improved space and depth between instruments. This was like getting a new set of glasses; the images were clearer and cleaner, though I was still looking at all the same objects.

Turning appropriately to video, I found the Purifier produced cleaner colours and definition, but not like turning on the "dynamic" button on your television or projector, as some mains conditioners might. Honesty was the name of the game here, with a noticeable reduction in "noise" in the picture.

#### Conclusion

Even fully loaded with all the units at just over £1000 this mains purifier is highly recommended for the price, and even better that it comes with a 60-day trial, so if you are not convinced then you can return it. Where so many conditioners fail by changing the

audio or video this unit just tidies it up. Tackling three areas within a single box is a highly favourable aid to taming your mains.

#### AT A GLANCE

Build Quality: Simple acrylic design but well made, and easy to get inside to add components

Sound Quality: Honest and open portrayal of your music and video

Value For Money: At £329 for the base model and £1107 when fully loaded it is very reasonable, and best of all leaves you in charge of how much you wish to spend

#### Pros

Helps to tackle the 3 major areas of mains contamination.

Improvements in definition and transparency of sound.

Add components as and when you wish

Cons

Not at this price

Janine Elliot





# EU/UK Tour Dates From Prawn!

Following on from the release of their critically acclaimed album, 'Kingfisher' (released 12th August 2014 via Topshelf Records), and two successful EU/UK tours with Gnarwolves and Brighter & Hindsights respectively. Prawn are set to come back to the EU/UK with The Flatliners. The spring tour is set to start on 21st September in Europe and will hit the UK from 12th October.

New Jersey based emo rock quintet, Prawn, formed in 2007 and after self-releasing their estimable full length 'You Can Just Leave It All' in 2011, had the album re-released by Topshelf Records (home to the likes of: Braid, Field Mouse, Diamond Youth and more). The band have since released two more LPs, most notably their last album 'Kingfisher', which entered the Billboard 'Heatseekers Chart' at No.16 upon release.

'Kingfisher' calls to mind bands such as The Appleseed Cast, Brand New and American Football, but never sound like they are replicating one specific sound. Prawn excel at producing songs that are extremely recognisable, but more importantly they still exhibit masses of originality. This is what made 'Kingfisher' one of the most extolled releases to come out of the so called 'emo revival' scene in 2014. However, Prawn are far more than just another emo band; They imbue their emotive and exigent vocal style with ambient post-rock infused instrumentation, and in doing so Prawn have invigorated a genre which is, more often than not, plagiarised from the seminal 90's founders of the scene that the band take influence from.

Since their formation Prawn have extensively toured across the US playing with the likes of A Great Big

Pile Of Leaves, Into It. Over It., Foxing, The Hotelier, Dikembe, and The Jazz June. Similarly, the band have previously made three visits to the EU and UK where they have consistently made a huge impact on eager audiences, acquiring new fans with every show by exhibiting their unique flavour of plaintive yet urgent emo rock.

The band also have recently been in the studio with Will Yip (Title Fight, Pianos Become The Teeth, Whirr), hinting at the possibility of new material on the horizon. Prawn have been moving from strength-to-strength with every release and this tour will provide an opportunity to potentially hear new material and to finally see why they are presently one of the most talked about bands in the scene.



#### TOUR DATES:

Thu 21 Sep France Paris @ Le Gibus

Fri 22 Sep Belgium Diest @ JH Tijl

Sat 23 Sep Holland Amsterdam @ Sugarfactory

Sun 24 Sep Germany Hamburg @ Hafenklang

Mon 25 Sep Germany Berlin @ Cassiopeia

Wed 27 Sep Germany Dresden @ Scheune

Thu 28 Sep Germany Hannover @ Bei Chez Heinz

Fri 29 Sep Germany Nurnberg @ Desi

Sat 30 Sep Czech Prague @ OO7

Sun 01 Oct Austria Vienna @ Arena

Mon 02 Oct Hungary Budapest @ Durer Kert

Wed 04 Oct Slovenia Ljubljana @ Gala Hala

Thu 05 Oct Italy Seregno @ Honky Tonky

Fri 06 Oct Switzerland Lucerne @ Sedel

Sun 08 Oct Germany Munich @ Kranhalle

Mon 09 Oct Germany Stuttgart @ Keller Klub

Tue 10 Oct Germany Cologne @ MTC

Thu 12 Oct England Brighton @ The Hope

Fri 13 Oct England Southampton @ Joiners

Sat 14 Oct England Bristol @ The Exchange

Sun 15 Oct England Manchester @ Rebellion

Tue 17 Oct England Newcastle @ Think Tank

Wed 18 Oct Scotland Glasgow @ Stereo

Thu 19 Oct England Leeds @ Brudenell Social Club

Fri 20 Oct England Nottingham @ Bodega

Sat 21 Oct England London @ The Dome

Sun 22 Oct England Kingston @



# Penetration Announce UK Tour Dates!

First generation punk act Penetration celebrate 40 years as a touring and recording band with an autumn UK tour. Having played their first London show at the legendary Roxy club in April 1977 before releasing 'Don't Dictate' as their debut single that November, the group deem 2017 to be not only their own 40th anniversary, but also that of when punk hit the provinces.



A dozen dates in October/November will feature a set that traces the musical path taken by the band from its origins, including early demo songs, right up to 2015's triumphant comeback album, 'Resolution'. It will work through their repertoire in chronological order.

The show will be road-tested with a performance at The Exchange in North Shields on 25th August, part of a two day Punk In The Provinces extravaganza during the Whitley Bay Film Festival.

Autumn tour dates:

21.10.17 LIVERPOOL O2 Academy

22.10.17 GLASGOW Broadcast

26.10.17 LONDON O2 Academy Islington

27.10.17 BRIGHTON Lewes Con Club

28.10.17 BRISTOL The Fleece

03.11.17 EDINBURGH Mash House

04.11.17 NEWCASTLE Cluny

09.11.17 SHEFFIELD O2 Academy 2

10.11.17 PRESTON The Continental

11.11.17 DERBY The Hairy Dog

16.11.17 BIRMINGHAM O2 Academy 3

18.11.17 STOCKTON Georgian Theatre

The Birthday Massacre have

# The Birthday Massacre Announce UK Tour!

announced a UK tour to promote their new album, 'Under Your Spell'. The itinerary is as follows:

24.10.17 LONDON O2 Academy Islington

25.10.17 MANCHESTER Ruby Lounge

27.10.17 EDINBURGH Opium

28.10.17 WHITBY Goth Festival

29.10.17 GLASGOW Ivory Blacks

31.10.17 BRISTOL Fleece

01.11.17 READING Sub 89

02.11.17 SOUTHAMPTON Engine Rooms

03.11.17 WOLVERHAMPTON Slade Rooms

'Under Your Spell' was released on

9th June by Metropolis Records.



'Under Your Spell' is the 7th album by the Birthday Massacre, and with it comes eleven songs that reveal a side of the Canadian band that audiences may not be familiar with. Driven with the band's signature, unique blend of spiralling synth melodies, walls of guitar and evocative vocals, the new songs range from dark, aggressive anthems to danceable, pretty pop and hit all the bases that audiences have come to expect. However, there is also a rawness to the emotion expressed, an openness and vulnerability that feels new.

One thing that is clearer than ever, however, is the tight bond that exists between the band members and their willingness to explore heartbreak and loss together. With these songs, they have entered the darkness of their most fragile emotions and returned with a cohesive and detailed musical portrait that captures both the anger and hope that exist within a moment in time.

The Birthday Massacre continue to make music that is unique to them, once again managing to create an album that somehow feels so familiar, yet challenges the listener to continue alongside them on their everchanging, ever-growing journey.



# White Reaper's Deep Purple Cover!

Following on from the April release of their new album 'The World's Best American Band' on Polyvinyl Records, Louisville indie/garage band White Reaper have announced a short run of EU/UK tour dates for this October. The band will be playing the following dates:



23-Oct-17 / UK / Brighton – The Prince Albert

24-Oct-17 / UK / London – Sebright Arms

25-Oct-17 / UK / London – Old Blue Last

29-Oct-17 / Germany / Hamburg – Nochtwach

30-Oct-17 / Germany / Berlin – Musik & Frieden

31-Oct-17 / Germany / Cologne – MTC

More dates TBA

A video for the latest track "The World's Best American Band" has just emerged too. One of the album's centrepieces, the Simon Younganimated video for the title track premiered recently with Funny or Die.

Make sure to come out and see why people are singing the praises about this band, like when NPR caught them at this year's SXSW... "White Reaper's latest single is called 'The World's Best American Band,' which might seem a little hyperbolic until you've seen it live."

# The Black Angels' New Video And Tour Dates!

The Black Angels have shared a video for their latest single 'I'd Kill For Her', at Consequence of Sound. Produced by Phil Ek (Father John Misty, Fleet Foxes, The Shins), the band's new album 'Death Song' features some of the heaviest music these psych-rockers have ever put to wax – slow-burning, menacing fuzz meditating on the realities of society and devotion. On "I'd Kill For Her,' lead singer Alex Maas steps inside of the mind of a man driven by the belief that there's beauty in brutality.

See The Black Angels live in the EU / UK this September

(Supported by A Place to Bury Strangers)

6 Sept – Piraeus Academy – Athens, Greece

7 Sept – Principal Club– Thessalonik, Greece

9 Sept - Tavastia - Helsinki, Finland

11 Sept – Debaser Strand – Stockholm, Sweden

12 Sept – Parkteatret – Oslo, Norway

13 Sept – Pumpehuset – Copenhagen, Denmark

15 Sept – Muziekgieterij – Massricht, Netherlands

18 Sept – Les Docks, Lausanne, Switzerland

19 Sept – AB Ballroom – Brussels, Belgium

20 Sept – Paradiso – Amsterdam, Netherlands

22 Sept - Forum - London, UK

23 Sept – Liverpool International Festival of Psychedelia – Liverpool, UK

25 Sept - SWG3 - Glasgow, UK

26 Sept – Institute 2 – Birmingham, UK

27 Sept – Trinity – Bristol, UK

29 Sept – La Cigale – Paris, France

30 Sept – Luxor – Cologne, Germany

01 Oct – Colombiatheatre – Berlin, Germany





### Album Review: Theatre Of Hate's 'He Who Dares Wins'

An irony of ironies: since the advent of punk rock, a movement rooted in destabilising the establishment, it has become established that virtuosity ≠ authenticity + quality. Though it must be said, even without the Sex Pistols, Clash et al, Yes, Emerson Lake & Palmer, and their ilk were doing an excellent job of making that point...

There's a school of music fan though, as uniform and oppressive as any educational institution, that believes amateurism = authenticity + quality.

He Who Dares Wins, spanning 5 discs and over 30 years, charts Theatre Of Hate's rise from charming and ambitious

amateurs, to powerful purveyors of gothic might. And proves that amateurism does not necessarily equate to higher calibre music.

Even the space of just 8 months between the January 1981 show that makes up disc 1 and the September show of that year that is disc 2 makes all the difference. Where vocalist Kirk Brandon struggles to convincingly hit the high notes on Original Sin on disc 1, just a few short months later his voice has stepped up to the plate admirably.

And a generation later, on 2007's disc 3, cloaked in ghostly reverb, Brandon's voice is hitting those notes with all the powerful ease of a dictator commanding his troops. His openthroated bellow a far cry from '81's comparatively weedy attempt.

But the later shows of 2007 and 2012 represented here aren't all spit and polish. The bass retains all the punk-inflected rattle of the earlier shows. And Brandon's guitar keeps its trebly piercing quality, while sacrificing none of its clarity.

Theatre Of Hate's music carries all the majesty of a gothic cathedral's steeple. Where many an indie band of their time wallowed in their own ineptitude, Theatre Of Hate strived to further themselves. Not just as musicians, but as creators.

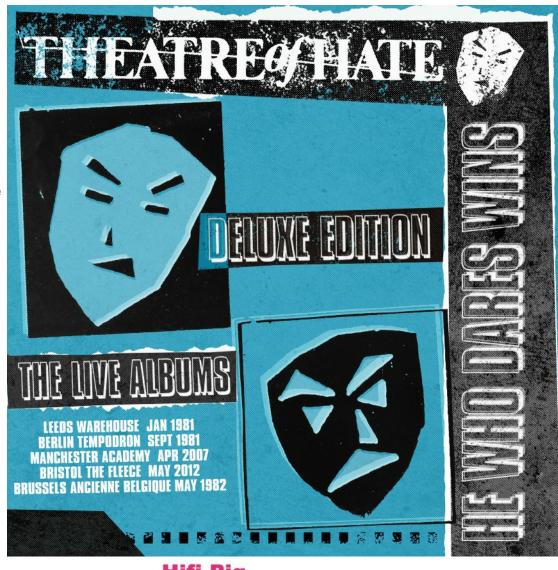
Virtuosity ≠ creativity. There's scarcely a lick across He Who Dares Wins 5 discs that falls into the Yngwie Malmsteen category of virtuosity. And

if there were, the record would have suffered for it.

It's what you do with what you've got that counts. It must be conceded that less is not always more. Just like it must be conceded that more is not always better. Theatre Of Hate are masters of leaving space, letting their impeccable rhythm section carry the tunes and utilising the guitar and saxophone as tools to alter the dynamics of their music.

Rarely is there a band that is this good so far into their career. One thinks of Swans and their run of excellent albums in recent years. Theatre Of Hate have proven themselves on this boxset that, at the very least, they're an incredible night out.

by James Fleming





### Album Review: Pere Ubu's '20 Years In A Montana Missile Silo'

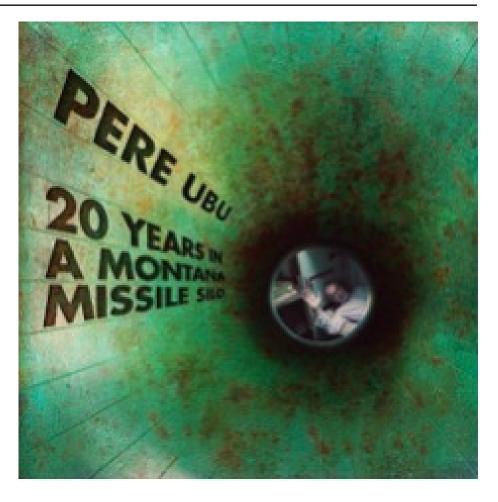
If Marvel Comics' Man-Thing made a record it would sound dangerously close to 20 Years In A Montana Missile Silo. Sci-fi synths swirl and soar over Creedence Clearwater Revival-style swamp rock, topped off with David Thomas' idiosyncratic warbling yelp. Pere Ubu are one of those rare bands who are – as John Peel put it when referring to The Fall – "always different, always the same."

Ubu coined the term "avant-garage" to describe their welding of two seemingly disparate strands of weird into their own iconic sound. And it's through the push and pull of those polar genres, upping the avant-garde on one record or, as on 20 Years In A Montana Missile Silo, bringing the garage-rock to the fore, that Pere Ubu have succeeded in the nigh impossible – always sounding like themselves, but never repeating past successes/failures.

Unorthodox is the word. Weird is too easy a dismissal of the music on 20 Years In A Montana Missile Silo, alternative too dull a term. This melding of that most grassroots a genre as garage-rock with the intelligence of the avant-garde and musique concréte is an UNORTHODOX use of both styles.

Monkey Bizness opens the record in a decidedly The Modern Dance fashion. Eerie synths slime over a riff that'd put the rawest of garagedwellers to shame, and Thomas' voice sounds as thrillingly alien as ever.

But, there's age in his voice now. Thomas is on the wrong side of sixty these days, and the cracks are starting to show. Making the record all the more compelling. This is the



sound of a veteran. A veteran with experience to pass on to the young whippersnappers trying to usurp his crown of unorthodoxy.

Where the likes of Black Keys have brought garage-rock to the Enormodomes and Radiohead have dragged the alternative into the stadiums, Pere Ubu have reined both in and rather than smooth out the edges, they have sharpened the edges' serrated teeth.

There are softer moments, The Healer's strummed acoustic guitar and Thomas' twisted croon of "oh and I see too much," betray 20 Years In A Montana Missile Silo's maturity while venturing out into uncharacteristic waters for Pere Ubu. It's juxtaposed on either side by Toe To Toe and Swampland, two of the record's hardest hitting tracks. Both tracks short-sharp-shocks running under two minutes each.

It's in the second half of the album that things wander off deeper into the

marshland. Plan From Frag 9's drums forsake the beat in favour of atmospheric tom-toms. Howl's repetitive, bluesy riff combined with Thomas' desperate, echoing 'l'm gonna howl for ya baby!' invokes the souls of passed on garage-rock vocalists like Lux Interior. Before Red Eye Blues' synthesiser freak-out halfway through it's 1:52 running time sends us from the swamp into the stratosphere.

As Thomas' ghostly voice fades out repeating "hold me close..." on 20 Years In A Montana Missile Silo's closing track Cold Sweat, a stark contrast with the rollicking starting point of the aforementioned Monkey Bizness, we have passed through the swamp to the stratosphere and all points in between in the space of a single rock n' roll record. Long may Pere Ubu continue to bring us on such wondrous journeys.

by James Fleming



# Procol Harum – The Queen's Hall, Edinburgh

It doesn't seem that long ago that the idea of rock stars in their seventies seemed ridiculous; rock and roll was a young man's (and occasional woman's) game. The boring old farts that punk had come to blow away in 1976 were barely in their thirties, and the punks themselves are now pensioners. Over the last few years I've seen some tremendous gigs from septuagenarian rockers: Daevid Allen and Gilli Smyth in Gong, Bryan Ferry, Roy Harper, Al Stewart – all turning in performances that belie their years.

As Gary Brooker shuffles on stage, it seems at first as if he he is carrying his own years a little more heavily than any of those mentioned above. I'd read that he had injured his head in a fall during the interval at an earlier gig at The Royal Festival Hall, reappearing for the second half with his head in bandages. There are no bandages tonight, but he does seem a little frail. Arranging some lyric sheets on his piano, Brooker explains that he needs these for the material from the new album, Novum, as tonight will be the first time that he has played them since they were recorded. This is not strictly true as a couple of the songs got an airing at that Royal Festival Hall gig but tonight will be the debut for most of them.

As Brooker is the only original Procol Harum member in the band's line up these days, it would be tempting to dismiss the others as mere hired hands but guitarist Geoff Whitehorn and bassist Matt Pegg have been with the band since the early 1990s and keyboard player Josh Phillips has also served time since 1993, leaving then rejoining in 2004. Even new boy drummer, Geoff Dunn has

more than ten years service. So, this "new" version of Procol Harem is actually more established than the original.

The set opens with the first song from the new album. I Told On You is a driving rocker, led by crunchy guitar riff from Whitehorn. Brooker's voice is perhaps a little more fragile than in days gone by but it is still unmistakably his own. Next up, we are taken back to 1967 and the band's second single, Homburg with its distinctive Hammond organ lines. The remainder of the first set focuses on the new album, on the whole a fine selection of songs, written by Brooker and former Cream lyricist, Pete Brown. Brooker mentions that Josh Phillips has a wonderful new Yamaha keyboard which can make just about any sound you can imagine. Puzzlingly, Phillips has chosen to make it sound like a particularly horrible 1980s' digital piano which, in my opinion at least, detracts from many of the songs on the new album. The songs themselves though are fine and the first half of the gig serves as a showcase for them. Highlights include the weary tale of Last Chance Motel and Image Of The Beast. Only the subpar Chas And Dave knees up of Neighbour lets the quality slide a little. The first set ends with one of Procol Harem's most enduring songs. A Salty Dog. Brooker's opening piano chords are slightly stilted but Geof Dunn captures original drummer BJ Wilson's distinctively lop sided drum fills perfectly.

The second half of the show mines the band's back catalogue for gems, Wall Street Blues featuring Phillips' Hammond organ. "We used to play the big place down the road and arrive in limousines" says Brooker before launching into Grand Hotel. This time he arrived on the shuttle bus from the airport; the hedonistic exploits told in Grand Hotel are a

distant memory. All to soon we arrive at the final trio of songs: Whisky Train, Conquistador and The Only One. The encore is, of course, inevitable. Perhaps no other band has been associated with a single song like Procul Harum have with A Whiter Shade Of Pale. It's an association that I'm sure Brooker is perfectly happy with - his wife walked up the aisle to it when they were married. Classics are classics for a reason and the song retains all its magic, even after fifty years. On the evidence of tonight's performance it looks like Brooker and the band have a good few years left in them vet.

Set List

I Told on YouHomburg

Image of the Beast

Don't Get Caught

Neighbour

Last Chance Motel

Sunday Morning

Can't Say That

A Salty Dog

Wall Street Blues

Pandora's Box

An Old English Dream

**Grand Hotel** 

As Strong as Samson

Cerdes (Outside the Gates Of)

Whisky Train

Conquistador

The Only One

Encore

A Whiter Shade of Pale

John Scott



# Live Review: Grand & Cúla Búla @ The Quays

Bathed in blue stage lights, with the ageing pipes of an old church organ looming impressively over them, Cúla Búla towered over the crowd upstairs at The Quays on a stage built at least seven feet off the ground.

But never did they give the impression they were looking down upon us. No delusions of grandeur here, barely even a performer/audience barrier. Clad in ripped jeans and a grubby jumper, vocalist and tin whistle-ist Bisckits Musicman – through audience manipulation that would make Enormodome veterans green with envy – had the crowd stomping all over the fine line between traditional Irish dancing and moshing.

Bassist Luke Longarms hopped down from his perch stage right to demonstrate the finer points of ceilí dancing with Musicman. Dance steps that were an enthralling cross between drunken frog-lurching and waltzing, kept in time by Tadhg Kelly, who's impeccable drumming lead the band through rhythmic variations of trad, through punk, to reggae-inflected grooves.

And the crowd moved with Cúla Búla through these off-kilter shifts, flinging bodies and limbs in time with the ever-changing beat. A sweat-soaked mass of flying hair and ravaged livers.

The times they have a-changed. Ergo, therefore, and hence, the folk music of the people has to have changed with it. Cúla Búla are here to play that music.

Celebrating in plainspoken, humble terms the virtues of Cans At Dawn and the reinvention of the traditional as something modern. When Musicman played Cliff Burton's iconic bass riff from Metallica's For Whom The Bell Tolls on his tin whistle, a roar of recognition/approval rose from the congregation. Living, singing, dancing proof that the lines between sub-cultures have become so blurred as to be almost indistinct.

It has been noted that the future of music lies in the fusion of seemingly disparate genres together into something simultaneously futuristic and classic, just like Cúla Búla's trad remix of Metallica. Or their rugged folk-punk reimagining of House Of The Rising Sun. The future of the folk is in Cúla Búla's safe, virtuoso hands.



Grand exceeded all the expectations that their self-deprecating name set. Melding everything wonderful about roots music into a sound crisp and clear as an un-muddied lake, the seven instrumentalists on stage succeeded in perfectly complementing each other's playing, rather than descending into a cacophonous wall of mushy sound.

They didn't take to the stage until the witching hour and their party raged on into the wee hours of the morning. And though the floor was slick with beer-sweat and packed to capacity with bodies who had long since abandoned dancing in favour of rhythmic thrashing, still we shouted for more.

Grooving loose as a pack of wild animals, Grand tore through a setlist of some of the finest original rootsmusic material on the Emerald Isle. They delivered the pure, raw adrenaline thrill of the finest rock n'roll without an electric instrument having to grace the stage.

Larynxes were shredded shouting "HI-DEE-HI-DEE-HI-DEE-HO!" during a storming rendition of Cab Calloway's Minnie The Moocher. Feet moved so fast on the floor it's a wonder someone didn't tear a ligament. All the while, Grand's irresistible groove carried the audience along on a cloud of pure iov.

"Move me, move me!" implored vocalist Phil on one of Grand's original songs. And how anyone could not be moved by the immediate and intense bond between Grand and the crowd is beyond comprehension. For who can resist the sexual sound of a muted trumpet, hoisted into the stratosphere by the pure sound of a double bass?

Well, no one bothered to try and find out if they could resist it. We soared through the night in a haze of dance and song. A real sense of community pervaded the venue throughout the night. That wonderful synergy where everyone knows that everyone else is simply out for a good time and no one's going to fuck it up for anyone else. 'Twas a beautiful thing to behold.

But it wouldn't have happened without the bands. Without them and their arsenal of finely-honed tunes, there would have been no night at all. Just that horrible feeling of the absence of craic.

by James Fleming



# Martha Wainwright – The Caves, Edinburgh

Martha Wainwright is a songwriter. Her father, Loudon Wainwright is a songwriter. Her mother, Kate McGarrigle was a songwriter. Her brother, Rufus Wainwright and halfsister Lucy Wainwright Roche are songwriters. Her aunts, Anna McGarrigle and Sloane Wainwright are songwriters. Her cousin Lily Lankin is a songwriter. There is a picture developing here; although not so much a picture as a family album. The Wainwright family have, in fact, recorded several family albums: writing songs with, and about, each other - often with a devastating honesty, sometimes using words as weapons to wound. Her parents' marriage and divorce is welldocumented in song. When Martha spent a year living with her father, at a time when she was a selfconfessed difficult teenager, he wrote a song called I'd Rather Be Lonely. Martha responded with a song of her own entitled Bloody Mother Fucking Asshole. And yet, it has been said that the the only offence that can be caused in the Wainwright family is to write a poor-quality song. Songwriting is in Martha's bones and she is clearly her father's daughter; she shares his smile and she does that weird kicky leg thing when she sings, just like he does. Fortunately, she hasn't inherited that other weird thing he does with his tongue; Rufus got that particular gene.

Martha opens tonight with a song of her mother's, I Am A Diamond. Its lines "I am a woman, I aim to achieve, I'll eat the apple that was offered to Eve" seem a fitting mission statement for tonight's performance. Next up from Martha's new album Goodnight City is the opening track Around The Bend. When I first saw one of her father's gigs, he had just recorded a song, Five Year's Old,

about Martha's fifth birthday party. It seems unlikely that her line "I've been doing too much blow" is a reflection on the increased effort required to extinguish the growing number of candles on her birthday cakes as she gets older, but it is a song about getting older and wiser. "I've been doing too much blow, but now I only do the show. I just want to get paid, I never get laid, they're too afraid".

Traveller is a beautiful, uplifting song about a friend dying from cancer, of his journey carrying on after he passes. Franci is, as Martha tells us " written for a child that I can hear right now"; her kids, seven year old Arc (short for Arcangelo) and three year old Francis, have arrived today from New York and are peeking out from a little doorway at the rear of the stage. Backing singer Robin rushes off for a quick spot of babysitting while Martha and the rest of the band carry on with Breathing All Over You from her second album I Know You're Married, But I Have Feelings Too.

A slight amount of confusion breaks out when the kids seem unwilling to allow Robin to return to the stage and so they are brought out onstage for an unplanned performance of a song called Maybe by Arc – after the show, Martha is keen to scribble the addition onto the set list I've stolen from the stage. Arc is a natural performer, perhaps one day he will extend the arc of the Wainwright dynasty even further and I'll write a review that starts: "Arc Wainwright is a songwriter. His mother, Martha Wainwright is a songwriter..." Franci, meanwhile, is content to roll around the stage and climb on the monitors. which was good enough for Jim Morrison so is perfectly fitting for a three year old.

Show well and truly stolen (and Martha clearly wouldn't want it any other way, although she tells the kids to get back in the dungeon and play with the shackles), we get back to

business with a selection of songs from throughout Martha's catalogue. Her band, Robin Dann on vocals, Thom Gill on keyboards and guitar, Phil Melanson on drums and Josh Cole on bass provide a subtle, understated backing for most of the show before getting a little more gritty on the last few numbers.

Franci gets another song dedicated to him, the gorgeous Francis written by Rufus. Martha tells us later that it had not escaped Arc's attention that his brother had two songs written for him on her new album, so Window was written for him. The band leave the stage for a couple of solo numbers and a duet with Thom Gill of a song that Martha wrote with Ed Harcourt. It is the highlight of the show, but unfortunately goes unnamed and doesn't appear on the set list.

A powerful version of Leonard Cohen's Chelsea Hotel #2, followed by Martha's own Window and Factory bring a cracking set to a close. Martha has come a long way since she was five years old and I can't wait to hear where she's going next.

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## **Vodafone Smart V8 smartphone**

The Vodafone Smart V8. Is the new smartphone from the red network. I was there at its launch and it felt pretty decent. How does it fare when I'm sober though?

The Vodafone Smart V8 is more like the Ultra's than the Platinum. In fact, it fits rather nicely between the Ultra 7 and Platinum 7.

Thankfully, for those looking for smartphone with big specs and small price tag, the

V8 edges more towards Ultra pricing than the premium Platinum.

How does it perform?

### Vodafone Smart V8 build quality

Before I was given one to run away with (and return) I was really impressed when my Tech Addict buddy, Gareth, slapped the V8 in my hand.

It really feels like an expensive phone.

The front face is made from toughened 2.5D Dragontrail glass.

Its rounded edges are pleasing to the digits and makes for enjoyable touchscreen swiping.

The ZTE-cobbled Smart V8 has a diamond cut full metal body which gives it a good weight.

The rear composite shell has a brushed effect finish and is embellished by textured plastic top and bottom panels. It looks good and feels good.

The official colour is Cold Metal. I'm sure that I saw them play my local back in the 80s...

Below its 16MP camera sits a fingerprint scanner. I really love this positioning.

The 5.5-inch screen sits in a fairly slim and light body, measuring just 7.99mm thin and weighing in at 166g.

16:26
SUNDAY, 13 AUGUST

That display boasts Full HD resolution (1080 x 1920 pixels) at 401 pixels per inch, which is pretty decent to be honest.

Above the screen sits the 8MP front facing selfie snapper.

On the sides you get a volume rocker on one, and the power button on the other.

The bottom has a microUSB (oddly, not USB-C) flanked by speaker grilles.

The top edge keeps the home fires burning for the standard 3.5mm headphone jack.

# Vodafone Smart V8 performance

In engine bay of this smartphone is a Ford Flathead V8 which gives the phone its name.

Actually, that would be silly. The V8 is much more realistically powered by the Snapdragon 435 SoC (1.4GHz Octacore). This is mated with 3GB of RAM and 32GB of internal storage.

There's also a memory card slot just in case things get snug over there in appsville.

Keeping everything powered up is a non-removable 3,000mAh battery.

#### **Display**

The phone's full-HD display is surprisingly crisp and detailed. I even

convinced friends that it was Quad-HD for quite a while.

It's good and bright. Not only that, the colours really pop more than the keyONE which has been my daily driver since picking it up.

I very much doubt that there's a phone in this price bracket with a much better screen.

## **Vodafone Smart V8 smartphone**



#### **Software**

The Vodafone Smart V8 is loaded with Android 7.1.1 Nougat operating system. It will get Android O when it is released later this year. However, I wasn't able to ascertain how soon after release.

Nougat is good though. You get to be able to respond to notifications from within the notification panel itself, as well as multi-apping in Split Screen mode.

Further features include Google Voice Typing, Glide Typing, Tap and Pay, Message+, Duo video calling and the Google Fit app.

I love the fact that Vodafone have left the user interface pretty well alone. It looks and feels like stock Android which, for me, is brilliant.

Of course, there are some customisations with things like the camera app (taking a leaf out of the iOS style book) and the launcher.

The latter, brings up handy tips if you swipe right. This could be confusing for the likes of me who was expecting Google Now.

Swiping left from the homescreen brings you a page with a little Vodafone hub widget already placed. This has shortcuts to your My Vodafone account, Vodafone Wallet (if installed), etc.

#### Fingerprint Sensor

The fingerprint sensor works really well.

You are able to add up to five fingerprints – handy if you let your kids play games on your phone, for instance.

The fingerprint reader can also be used to access your Private Space, lock apps, answer calls, take photos or to drag down the notification panel.

If you don't use the fingerprint sensor then you can activate the Double Tap to Wake feature.

The Smart Lock can be activated in order to keep the phone unlocked in trusted places, when trusted devices are connected to it or when a trusted face or voice is recognised.

#### **Cameras**

The main camera is very responsive and has a large number of settings and filters, including an automatic HDR mode, super night, slow exposure, multi-exposure, time lapse, slow motion, slow exposure (for capturing water



## **Vodafone Smart V8 smartphone**

flow, car trails or star trails) and panorama.

To be honest, I've only rattled off a few shots in fully automatic mode. However, I have a feeling that this is how most people will use the camera on the V8.

Focus occurs quickly with Phase Detection Auto Focus technology and there is a dual flash.

A quick launch feature (double tap the volume key) gets you ready to shoot quickly.

You can get pro results by making use of the level guide and metering features if you are so inclined. The GIF Maker (using up to 50 photos) is fun for your socials. I can also see the Collage Maker being a winner for Facebookers, Instagrammers and Tweeters alike.

Video recording is limited to 1080p. You were really expecting 4K at this price point?

When shooting selfies, you can make use of the wide selfie mode, smile detection, V gesture and beauty face features.

I have been kind to you all and not posted any of my narcissistic gurning on here.

#### **Battery**

The Vodafone Smart V8's 3,000mAh battery is a good capacity in all. You should be able to reach the end of the day before it needs a recharge.

However, if things start looking a bit sketchy on the charging front, you can make the most of the power reserves by the using the Power Manager feature.

The Smart V8 is Qualcomm QuickCharge 2.0 compatible. This is great news, although you will need to purchase a quick charger separately to make use of that particular feature.

### Vodafone Smart V8 review conclusion

The V8 feels nice and that screen is something to behold.

The camera is impressive too, even in auto mode. Those that get caught up in Specification Top Trumps might be sniffy about the Snapdragon 435. In the end, it's their loss.

Yes, it is pretty entry level but it still performs well and gives you easily a day from a full battery charge. People have sniggered at the 635 chip in the keyONE but most days I don't

have to recharge when I go to bed. This is really handy for folk like me that are almost constantly updating their social networks.

True, if you like your mobile games graphically intensive this might seem the one for you. However, friends have tested it and it actually booted games faster than the Nexus 6P – and played them!

Additionally, what if I told you that the V8 on Pay As You Go plus a Nintendo Switch still comes in at under £450?

Just one question though, Vodafone. Why microUSB and not USB-C?

That aside, I really think that Vodafone might well have a



contender for best budget blower for 2017.

## Vodafone Smart V8 price and availability

The Smart V8 retails for £160 on PAYG. Told you it was a bargain.

Alternatively, opt for the £19 per month contract and get unlimited texts, 500 minutes and 500MB of data.

Overall score 8.3

**Build quality** 8/10

Design 8/10

**Ease of use** 8.5/10

**Performance** 8/10

**Value** 9/10

## **STM Kings backpack**

STM make awesome bags. I actually own two. So, when they asked if I wanted to take a look at one of their latest, I jumped at the chance.

I have been using an STM Drifter for the last 18 months and love the thing. When I need to look a little more professional I also own an STM Trust messenger bag. That one is coming up to being a year old soon.

Neither of the bags I have in regular use (the Drifter is used at least 5 days a week) look any worse for the wear.

What I like about STM bags are the many pockets, and the little details.

How does the Kings laptop backpack stack up?

#### STM Kings design

This laptop backpack has been designed to accommodate 15-inch laptops plus cables, a tablet and other stuff that you might need.

Being gadgety, we need to take lots of stuff. So, we need many pockets. The Kings does not disappoint.

#### **Pockets aplenty**

On the front, there are two pockets – one smaller pocket at the top and another pocket with the zipper facing off to the right.

This larger pocket can perhaps take a couple of shorthand pads or paperback books. There are also pen slots in there. You could even slip in a slender tracking device in to the smaller internal pocket.

After using the Kings for a few days I discovered a further two side pockets. These are angled towards the wearer. Handy for sunglasses and the like.



Moving onto the bigger pockets, STM really thought about your tech when it came to the Kings.

There are two pockets that will take tablets or notebooks.

The main pocket will be the home for your laptop.

This features the new SlingTech protection.

What this means is that, instead of your laptop resting against the bottom of the bag, it's actually suspended. So, no more clunking your laptop down against the floor when you put your bag down.

But wait, there's more!

If you look at the inside of this main pocket, you may notice some orange cable clips that follow alongside the edges of that pocket.

Following this cabling path down to the bottom of the bag and you'll find a smaller pocket nestled against the left side.

This pouch is designed to house your portable charger, making it easy for you to charge your mobile devices.

My recently acquired charger is a beast though so I made use of the "Stash" bag. If you have a more compact power bank, the Stash bag would happily look after cables and the like instead.

Oh, there are also little metal grommets that allow you to pass cables from your charger to the pocket where your devices will live. Yup, charging on the go without having to just bundle everything in the main section.

In all, there are 12 pockets!

#### Construction

The outer water-resistant polyester shell has a canvas-y feel to it. It feels purposeful, without being too utilitarian.

## **STM Kings backpack**

The Kings features "breathable Airmesh fabric" which helps to ensure that your back and shoulders won't get sweaty.

As you would expect, the arm straps are padded and don't cause any issues from rubbing.

The main tech compartment benefits from extra padding on the corners, as well as having that clever SlingTech.

The curvy straps, including an adjustable sternum strap makes for comfy lugging.

# STM Kings performance

The front main pocket is typically cavernous. Great for picking up some last minute groceries or for stowing your gym kit, if you are that way inclined.

The cable routing is a genius idea. I had my USB-C cable threaded to the front top outer pocket so I can charge one of my phones. The other output from my power bank was used for a microUSB-ended cable. This was threaded to the rear to supply juice to my Shield tablet. Neat.

I really do like the suspended SlingTech of this backpack. Too many times have I misjudged how far away the floor is, or how heavy my bag is, only to crunch my Yoga 2 Pro to the deck.

STM really do put a lot of thought in to their designs. Although, one thing my Drifter can do that the Kings can't, even though the Kings is technically bigger, is fit a 12-inch record (vinyl to you crazy

kids) in its mailer box. Yeah, I tend to get records delivered to work instead of home since the time I came home to see one 'posted'. By that I mean one corner of it was shoved in to the letter box leaving the other 90% of it hanging out in the elements.

The Drifter can take a record easily, but this is mainly due to it

The straps are comfy and well adjustable. The Kings is also slightly curved which also helps with the comfort rating.

The side pockets will take a water bottle. I am guessing that the designers just didn't want an unsightly plastic bottle outside their lovely bag.



# STM Kings review conclusion

When/if my Drifter finally decides to retire I would gladly have a Kings.

It looks great, feels great and takes a great deal of stuff. Stuff That Matters (STM).

If only it could take an LP that's in its card mailer, then it would be perfect.

having just one large main compartment. The Kings has two.

Is the Kings perfect? Well, not quite. I am now used to having a little external pouch for a bottle and another for a brolly. Are these deal breakers? Hell no! The Kings more than makes up for those little niggles.

#### **Comfort**

I have had the Kings loaded with laptop, tablet, DSLR camera, action cam and gimbal, pens, cables, charger, notepad, jacket and brolly and happily walked for a couple of hours across town.

# STM Kings price and availability

The Kings pack comes in botanical green, china blue, tornado grey, and desert brown.

You can grab one now from Amazon UK for £99.

Overall score 8.8

**Build quality** 9/10

**Design** 8.5/10

Comfort 9/10

**Performance** 9/10

**Value** 8.5/10

## **BenQ BL2706HT business monitor**

When BenQ asked if I'd take a look at their BL2706HT business monitor I said yes, and then almost immediately regretted it.

Now, that's not to say I don't rate BenQ's monitors. Far from it. You just have to look at the previous panels we've had through here. Most, if not all, do exactly as they promise.

But, and be honest now, how many of you would get excited by waiting for a "business monitor" to arrive? Perxactly.

So, was it worth the wait or as bland as it sounded?

Read on gadgety faithful.

# BenQ BL2706HT design

The BL2706HT is a 27-inch monitor. Even though it has been designed with offices in mind, it looks pretty good.

You have a "frameless" design – so extremely skinny bezels on three sides and a neat looking stand.

The edge-to-edge full HD IPS panel saves you around 40mm of real estate. That's got to be worth something, right?

The stand gives you all manner of adjustments, not to mention the option to spin it to portrait. Inputwise you get the standard HDMI, VGA and DVI. Remember, this has been built with work in mind.



It might not be white-knuckle ride mind-blowing, but it is a decent looking monitor. I am digging the coloured highlights in the stand cut-out and hook at the rear.

# BenQ BL2706HT performance

The 16:9 ratio 27-inch full HD

(1920×1 080) IPS panel is equipped with an anti-glare matte finish that actually works.

Even in full view of sunlight, the screen remains viewable.

Contrast is impressive and colours come

through crisp and clear.

#### **Ergonomics**

As alluded to early, the stand allows for 140mm of height adjustment, 45-degrees of swivel in either direction and 20-degrees of backwards and 5-degrees forwards.

Frankly, that's something I only expect from more expensive monitors. Add in

to that the option of having it portrait or landscape orientations, then the BL2706HT is already looking good.

Furthermore, you are also given a 178-degree viewing angle. Now, I haven't measured this myself, but you could easily get a bunch of folk around this to show off your latest PowerPoint presentation and



## **BenQ BL2706HT business monitor**

all will be able to be amazed by its glory.

#### Eye care

By now you should be used to the fact that BenQ tends to pack their screens with stuff that's kind to your peepers. Well, the BL2706HT is not different.

Granted, this might be a budgetfriendly office monitor but it still packs a flicker-free display. This means your boss can get more hours out of you though, thanks to that pesky steady light source.

There's also Low Blue Light. You get to choose between Multimedia,

Web Surfing or Office.

Blue light has been connected to sleep disruption, amongst other things.

#### Gaming

With a 6ms typical grey-to-grey response time I wasn't expecting much.

However, for jumping on for a quick game at lunch time, it's not bad.

I wouldn't want to spend hours on it gaming, but those who hop on and off between writing blogs, say, it's capable.

Competitive gamers might want more though.

In-game colours are vibrant and the contrast is ok, especially as this is supposed to be something for the office.

## **BL2706HT review** conclusion

If this was strapped to my office desk, I would be more than happy.

The BL2706HT is adjustable and possesses excellent viewing angles.

Editing video and stills on it has been trouble free. This is partly due to the decent colour reproduction and contrast, but also the anti-glare finish.

It might not be up there with the gaming monitors I've tested, but

the BL2706HT makes a decent fist at first person shooters.

All-in-all, I find very little to knock about this office-friendly display.

## **BL2706HT** price and availability

Now, this is where everything I've said comes in to focus.

You can buy this monitor now from Amazon UK for £190!

Yup, 27-inches of Full HD on a fully adjustable stand for less than 200 notes.



Overall score 8.3 Build quality 8/10 Design 8.5/10 Ease of use 8.5/10 Performance 8/10 Value 8.5/10

## **Pioneer XDP-30R DAP**

# We liked the Pioneer XDP 100R, even at £500. Can the XDP-30R fill us with similar joy for less money?

Digital audio players (DAP), to some, might seem like a regressive move. We had portable cassette players, portable CD players, portable MiniDisc players and then MP3 players. But then we had smartphones.

So, why go back to carrying a phone and a music player?

Some of the more recent phones can play high-resolution files and even pack a decent DAC (digital analogue convertor) or two.

The thing is, most specialist DAPs will leave the average smartphone dead in the water.

# Pioneer XDP-30R design

The angular 2.5- x 3.7- x 0.6-inch (WxHxD) aluminium frame is reminiscent of other portable DAPs, which is no bad thing.

Along the top you get the option of 2.5mm 4-pole balanced and regular 3.5mm headphone jacks as well as the power button.

On the right side you have the volume wheel and lock switch.

Over on the left side there's the play/pause, forward and reverse buttons and a pair of mini SD slots.

On the bottom edge is a microUSB port for charging and slinging more tunes on the player.

The front is dominated by the 2.4-inch touchscreen display. Whereas around the rear well, what can I say? Curiously, they have gone for a white plastic back on the silver version. The black version is all black, except for the gold bits.



It looks nice, feels nice and doesn't weigh a tonne, tipping the scales at a mere 120g.

# Pioneer XDP-30R performance

As you would expect from a specialist DAP, the XDP-30R will play PCM files up to 32 bit/192kHz and double speed DSD. Also, thanks to an August update, it will even unpack your MQA files and play them too.

It doesn't only have to be files stored on the player either.
Streaming is taken care of by Tidal, Deezer and Tunein support being built-in.

#### **Storage**

As with the XDP-100R, in-built storage is a tad stingy at only 16GB. Sling a few FLACs on there and you'll soon be out of space.

However, thanks to those two mini-SD card slots you can boost the capacity by another 400GB of memory. That should be enough for most music-lovers on the go.

#### File transfer

Plug the player in to your PC via the USB port and it appears as a mass storage device.

Simply copy your album folders across to the XDP-30R and William is your mother's brother.

#### Line out

If you want to plug the player directly in to an amp, you can.

You can even bypass the integrated volume control so that the amp becomes the master.

Just, if you decide to do this, make sure your headphones are no longer plugged in.

De(a)finitely ensure you're not wearing the headphones.

You can even hook up the XDP-30R to your system wirelessly via Bluetooth.

#### **DACs**

... and here is where the magic happens.

Under the hood are the tasty twins – SABRE ES9018C2M DACs. They are accessorised by a right lovely pair of ES9601 amplifier chips. The channel layout is kept symmetrical to help stereo imaging.

Pioneer obviously cares and has gone to the trouble of specifying two clocks: one for the 44.1kHz family of sampling rates and the other for 48kHz and its multiples.

According to those in the know, this reduces jitter errors. For the likes of me, this should result in better sound.

## **Pioneer XDP-30R DAP**

#### Other mention-worthy stuff

The 1630mAh battery gives around 15 hours of use before needing a recharge. Naturally, this will be plus or minus depending on headphones and volume levels used.

If you want to keep the Pioneer in your pocket or bag, there's an app for that. This dedicated app allows the unit to be controlled from your phone.

Controlling the volume with that lovely wheel is precise and enjoyable.

#### In use

The 2.4-inch touchscreen is big enough, just about. Its 320 x 240 resolution handles song titles and the like well. Album art is a little blocky, but it's not bad enough for it to be a deal-breaker.

The important thing is that the screen is responsive. It reacts well to scrolling and selecting.

Although, it did take me a few attempts to punch in my home's Wi-Fi password. The reason for this is that the on-screen keyboard has, to me, an odd way of flicking between upper and lower case.

You see, you have to select the letter and then hit the shift key. I'm sure it's in the instructions somewhere but, I'm a bloke.

#### Sound quality

The XDP-30R offers a number of filter and EQ settings to play around with. None of these dramatically hassle your audio, but you may find having a quick play worthwhile. At least Pioneer realises that we all have slightly different expectations from our audio.

The gain setting is a useful touch, especially if you wear, let's say,

full cans in the home and IEMs when out and about. Using the gain enables you to get better matching between the XDP-30R and your headphones.

If you find that the output isn't loud enough, head here first.

#### **Tracks**

'Money' from Pink Floyd was on first, totally randomly. The cash register rang through crisp and sharp, but not harsh. Then, Roger's bassline slinked in - expressive, round with plenty of air around it.

Selecting Fleetwood Mac's 'The Chain' and the clear and crisp attitude continues..

The pocket Pioneer does a great job in retaining detail. The player has good musicality with instruments allowed their own space whilst remaining in concert. keeping a steady hold of the song's various instrumental strands.

Vocals are equally looked after. Whether its Clutch vocalist Neil Fallon growling through 'Blast Tyrant' or Kate Bush taking us through a summer's day in Aerial.

Most noticeable in rockier and punchier tracks is the XDP-30R's almost laid-back personality. This isn't always a good thing.

There seems to be an almost lack of urgency in some tracks. I'm not saying that it doesn't sound nice. In fact, that's exactly how it

It's not lacking in dynamism, it just seems to smooth the edges a little bit too much for

sounds. Nice.

some of the music I listen to.

I moved between Oppo PM-1 (open back full headphones), Oppo PM-3 (closed back full headphones), Noble Savanna IEMs and the player was able to drive them all remarkably well. The amps in this little unit do really well.

## Pioneer XDP-30R review conclusion

I have really enjoyed my time with the XDP-30R.

It does perform really well, looks great and has all the right kit. The player is easy to use and, typing aside, intuitive to navigate.

For me, the XDP-30R might be too nice. Saying that, if clarity, emotion and smooth delivery are top essentials, you really should check out the XDP30-R

#### Price and availability

You can buy the XDP-30R right now for £350.

#### Overall score 8.3

**Build quality** 8/10

**Design** 8.5/10

**Ease of use** 8.5/10

**Performance** 8.5/10

**Value** 8/10



## **Hohem HG5 Pro action cam gimbal**

Hohem wasn't a brand at the forefront of my mind, I will be honest. But their HG5 action camera gimbal looks pretty good.

I've been considering buying a gimbal to help improve my video capturing. Lucky for me then that

Hohem Tech released the HG5 Pro handheld gimbal earlier this year.

It not only boasts full 360 degree movement through 3-axes, but an app remote control.

Let's see how it handles.

### Hohem HG5 Pro design

The HG5 Pro can be used with the GoPro Hero 2, 3, 4, 5 models and will work with other cameras of a similar size and weight.

I have been using it with the iSAW Edge.

The gimbal is actually presented in a neat semi-hard case. You may have noticed that I have removed a thin section of the padding from the case. This is so I could squeeze the gimbal in with my camera mounted. I believe the GoPros are a little shorter so this wouldn't be an issue if you have one of those.

I have the orange version (as you can see) here for review and, against the black of the rest of the device, looks very cool.

The metal handle is diamond-cut and offers decent grip. This

unscrews and houses the 2000mAh rechargeable and removable battery.

The battery is charged via a microUSB port on the side of the handle. They even include a cable in the carrying case.



At the base of the handle is a standard thread to allow the HG5 to be mounted on a tripod.

The whole thing feels substantial and it has prompted a number of admiring inquiries when I've used it

# Hohem HG5 Pro performance

Having never used a gimbal before, it took a few moments to get to grips with it. Yes, there are instructions, but where's the fun in that?

It is remarkably easy to use.

Firstly, I found its 3-axis stabilisation really impressive.

Being able to move around easily whilst not really having to concentrate on keeping everything steady is unusual at first. But, you soon get used to it. Even more-so, in fact, you become reliant on it.

The 5-way joystick control is a huge bonus. This allows you to smoothly pan the camera through 360-degrees as well as being able to sweep up or down.

I have shot some test video which you can find on GadgetyNews .com. The gimbal pans really smoothly using the joystick.

Also, my usual shakycam technique has almost totally been removed.

That's thanks to the gimbal.

#### Modes

You can access three different modes through a single, double or triple press of the joystick button.

- Panning Mode: The action camera can move to left or right smoothly by hand.
  The pitch and roll directions are fixed.
- Panning and Pitching
   Mode: The action camera
   can move to left or right
   and pitch up and down
   smoothly by hand. The
   rolling direction is fixed.
- Lock Mode: The action camera stays in its current orientation. The panning, pitching and rolling directions are all fixed.

## **Hohem HG5 Pro action cam gimbal**

#### **Hohem Gim Set app**

What would a piece of gadge be without an app?

Well, the Hohem HG5 Pro has one. This app allows you to control the gimbal remotely. Furthermore, it allows you to customise a variety of settings too.

The app syncs with the gimbal via Bluetooth.

In the app you get a virtual joystick which commands the same movements as the device's own joystick. It also has a shortcut for 180-degree panning.

It also has a shortcut for 180-degree panning.

You are also able to access the three modes mentioned earlier. These all really come in to their own if you're using the HG5 on a tripod.

Finally, but perhaps more importantly, the app also allows you to personalise a whole raft of parameters.



These include Follow Speed, Joystick Speed, and Follow Dead Area settings. The latter has nothing to do with zombies, bythe-way.

## Hohem HG5 Pro review conclusion

Impressive. Yes, Hohem has impressed me with their HG5 Pro gimbal.

As soon as I unzipped the case I thought that this was going to be a class bit of gear.

Holding it, it feels quality.

In use it is intuitive and does exactly as it promises.

However, where the HG5 Pro proves its worth is through your videos being smooth, stable and almost professional looking.

# Hohem HG5 Pro price and availability

The HG5 Pro is available right now in orange or green from Amazon.

It is currently priced at £190 with free delivery if you've got Prime.

Overall score 8.6

**Build quality** 8.5/10

**Design** 8.5/10

**Ease of use** 8.5/10

Performance 8.5/10

**Value** 9/10



## **AOC AGON AG272FCX curved monitor**

We had the 35-inch AG352UCG AOC gaming monitor in recently. Since then, AOC released the Agon AG322QCX and AG272FCX. We have been gaming with the smaller of the two.

Both of the new monitors landed on the shelves in May. The only difference between the two lies in the screen size and the resolution.

The AOC AG272FCX features Full HD resolution, a 27-inch screen, 144Hz refresh rate, AdaptiveS ync (FreeSync), and extensive ergonomic options as well as numerous exclusive gaming features.

# Agon AG272FCX design

The design of the AOC Agon AG272FCX is shared across the current Agon line. This is a good thing.

You get the handy flip-out headset holder. The weighty arched tripod stand terminates in a carrying handle at the top.

The stand also offers a range of ergonomic options including 30 degrees of swivel to the left and right, -5.5, 28 degrees for tilting, and up to 110mm for height adjust.

There's the option for mounting using its VESA 100 x 100mm pattern.

As with the 35-incher we had, the bottom bezel and the stripes at back have RGB LED lights that you can choose to match your rig.

Making it look more streamlined is the AOC "three-side frame-less" design.

# Agon AG272FCX performance

The AG272FCX's MVA panel

offers impressive 178-degree viewing angles. Furthermore, gamers will appreciate the 4ms response time and 144Hz refresh rate.

This 27-inch AOC display is also loaded with FreeSync tech which is great news for those rocking compatible AMD graphics



They also have three different levels of brightness.

Connectivity comes by way of two HDMI, one DisplayPort, and one VGA port. There are also two USB 3.0 ports, one of which has fast charging capacity.

Additionally, there is an audio line-out, and a microphone line out/in port. Rounding things off is the audio line-in port for the 2x3W built-in speakers.

The monitor comes bundled with one of AOC's QuickSwitch keypads. This controller allows you to effortlessly run through the OSD settings and its features. It also enables you to swiftly switch between the viewing presets. cards.

Being an Nvidia gamer, I was not able to enjoy the dynamic refresh rate on this occasion. I should really look in to building an AMD rig for times like this.

The AOC Agon AG272FCX FreeSync monitor is flicker-free and offers the AOC Low Blue Light Filter which eliminates the harmful blue lights and allows you to play for hours to an end without straining your eyes.

#### **Image quality**

AOC haven't let us down yet and they continue to bring the goods with the AG272FCX.

Contrast delivers incredibly deep inky black tones. Colours are

## **AOC AGON AG272FCX curved monitor**

vibrant and cover 100% of the sRGB gamut.

Moreover, add in the 4ms response time and 144Hz refresh rate and you've got all the important boxes ticked.

The AOC Agon AG272FCX, of course, packs AOC Shadow Control, Low Input Lag Mode, and customisable gaming modes.

The shadow control feature offers increased visibility in the dark scenes of the video games by brightening up the screen when it's needed. Low input lag mode further decreases the input lag for the most responsive gameplay.

Depending on the genre of the game that you're playing, you can use the already calibrated picture settings for difference scenarios such as Racing, FTS, and RTS, or you can make your own.

The curvature of the display isn't that aggressive either. At only 1800mm it doesn't distort your view pleasure but is still enough for an improved immersive gameplay experience.

#### Gaming

As mentioned earlier, I was not able to enjoy the benefits of AdaptiveSync. However, the AOC AGON AG272FCX proved to be a

smooth performer without it. I can only imagine how much better FreeSync would make the experience.

Some classic Black Ops II action with everything ramped up proved slickly presented.

Backgrounds whizzed by and rendered quickly.

Moving on to Rocket League and the colours really do pop in this cartoon-y carball game.

This is a fast moving title and I didn't notice any nasty tearing, stuttering or blurring even without the aid of FreeSync.

Responsiveness was impressive across the board.

## Agon AG272FCX review conclusion

The AOC Agon AG272FCX offers everything that most players will need for an immersive gaming experience.

While the high-contrast and colour-accurate VA panel ensures great image quality, the high refresh rate and FreeSync tech provides a fluid performance.

The subtle curvature allows the AG272FCX to be used as a regular monitor without the need

for compromises. Saying that, this is a gaming monitor and, as such, does a really good job at it.

Granted, most pro gamers will still prefer a TN panel monitor due to the faster response times but most of us will still get a lot out of this display. Even more-so if you have an AMD GPU.

If you want some G-Sync action with added 4K in a 27-inch monitor, check out our review of the AG271UG.

# Agon AG272FCX price and availability

You can buy the AG272FCX now for £339 from Amazon.

Overall score 8.5 **Build quality** 8.5/10

**Design** 8.5/10

**Ease of use** 8.7/10

**Performance** 8.5/10

**Value** 8.5/10



## **F-Secure Sense secure router**

I was invited to visit Helsinki, Finland, to learn about F-Secure's new home security device. This is the first hardware product from the company best known for anti-virus software, and it's called Sense.

The trip wasn't only enjoyable, but I also felt that I learned quite a bit. Mostly, how unsecure most of our Internet of Things (IoT) are.

F-Secure's Chief Research Officer, Mikko Hypponen, explained that a firewall is the only way to protect the connected home.

You know the kind of things; smart devices such as alarms, cameras, switches, washing machines or pretty much anything that connects to the internet.

In fact, Mikko believes that every appliance we buy will be online in a few years' time.

Not only because we'll expect everything to have an app, but because vendors will be able to use or sell the analytics.

## F-Secure Sense design

The anti-virus Fins obviously were looking for an original design for Sense.

The white, typically Scandinavian, clean design will fit in with most homes.

The front panel even hides a neat display. This usually shows the time but will also indicate other things too.

Simple and effective.

Around the rear are 4 Ethernet ports (3xLAN, 1xWAN) and a USB 3 port. There is also a little blue button that comes in to its own during set-up.



The Wi-Fi specification is good but not necessarily class leading with 802.11a/b/g/n/ac 2.4GHz, 5GHz, AC 1750.

It's a well-made, good looking wireless router.

#### Sense set-up

You set Sense up via an iOS or Android device.

Simply install the Sense app and then follow several easy steps to create the Sense network.

Once you have downloaded the app you need to press the blue button on the router.

Sense will then display a four-digit code. Just input that code into your phone.

You can rename the Sense Wi-Fi network name and change the password. It will be of no surprise that the suggested password is real secure – but hardly memorable.

The device you use to setup Sense becomes the sole admin device. It's good to keep that in mind.

Once I was up and running, I started connecting devices to the Sense network. Each device you connect shows up as a protected device in the Sense app.

When you click on the device you can see what threats have been

blocked on that device as well as any tracking that has been blocked.

It shows you the basic device details including IP etc, and you can block the internet from each device individually.

There are very limited settings available through the app. Unlike other routers, you can't get to further features via a web browser version. The app is it. I guess it's more secure that way.

You can, however, set a few network things: IP address, DHCP range. There is the option to configure port forwarding.

You can also set the brightness of the display, which normally just shows the time of day.

The app is really easy to navigate and setting Sense up shouldn't really take more than 10 minutes-or-so.

#### Sense performance

Sense creates a secure WiFi network within your home network.

You get the usual 2.4GHz and 5GHz frequency options, which is cool. I am using the Sense router purely for my networked cameras, Echo Dot and anything else in a Smart Home stylee.

## **F-Secure Sense secure router**

During use the Sense performs just As you can imagine, while we as you would expect any other router would.

As you can imagine, while we were at F-Secure HQ, a number these were brought up during the service of the sense performs just as you can imagine, while we have a property of the sense performs just as you can imagine, while we were at F-Secure HQ, a number to the sense performs just as you can imagine, while we were at F-Secure HQ, a number to the sense performs just as you can imagine, while we were at F-Secure HQ, a number to the sense performs just as you can imagine, while we were at F-Secure HQ, a number to the sense performs just as you can imagine, while we were at F-Secure HQ, a number to the sense performs just as you can imagine, while we were at F-Secure HQ, a number to the sense performs just as you can imagine, while we were at F-Secure HQ, a number to the sense performs just as you can imagine, while we were at F-Secure HQ, a number to the sense performs just as you can imagine, while we were at F-Secure HQ, a number to the sense performs just as you can imagine, while we were at F-Secure HQ, a number to the sense performs just as you can imagine, while we were at F-Secure HQ, a number to the sense performs just as you can imagine, while we were at F-Secure HQ, and a number to the sense performs just as you can imagine, while we were at F-Secure HQ, and a number to the sense performs just as you can imagine, while we were at F-Secure HQ, and a number to the sense performs just as you can imagine, while we were at F-Secure HQ, and a number to the sense performs just as you can imagine, while we were at F-Secure HQ, and a number to the sense performs just as you can imagine, while we were the sense performs just as you can imagine, while we were at F-Secure HQ, and a number to the sense performs just as you can imagine, while we were the secure has you can imagine have a number to the sense performs just as you can imagine have a number to the secure have a number to the secure has you can i

Wireless range is better than I was expecting for something with internal aerials, to be honest.

Testing its ability to detect and block malware, however, is tricky. The main reason being that I am a tad gun shy at exposing myself to malware, funnily enough.

Thankfully, F-Secure has two test domains unsafe.fstestdomain.com and gambling.fstestdomain.info.

Their URLs are self-explanatory: The gambling one allows a page to load fine, because Sense doesn't block gambling. However, with the unsafe URL, the Sense router blocks the URL on all my devices.

Unfortunately, from what I can tell from the app, there's no way to whitelist a blocked URL.

You can see all the details in the app but it won't let you whitelist it. This probably won't actually be an issue for most, but I think having this as an option under an 'Advanced' tab would be a nice touch.

#### Missing links

While the Sense stands as the most advanced consumer security router you can buy now, there are still bits missing. Things that we come to expect on our standard routers.

For a start, just 3 LAN ports is a bit stingy.

Granted, some of these features will have been dropped as security risks. Although, some appear to have been left out in order to get the product to market to beat competitors. For instance, I know BullGuard's Dojo isn't the same, but it still is there to protect your IoT.

As you can imagine, while we were at F-Secure HQ, a number of these were brought up during the Q&A. The general response was that it was coming soon, but without a specific time-frame.

The ones that stuck out for me were:

- The device has a USB port but at the moment no USB host facility like NAS etc.
- Lacks port aggregation for compatible NAS (a shame as they showed how easy it was to hack a QNAP NAS like mine!)
- No quality of service (QoS) settings
- Missing a guest Wi-Fi option
- No WPS to be fair, this is most likely a deliberate move as WPS is a major security risk

## F-Secure Sense review conclusion

I will admit right now, I am no cyber security expert. I am, however, aware of the risks our love of connected devices poses to the average household.

At the heart of most new tech, is that it's designed to work with little or no technical expertise. Unfortunately, our trust in gadge

could leave us open to having these gaps exploited.

This is where the Sense router comes in. Again, with little or no firewall knowledge, homes can secure themselves against nefarious techies.

Let's face it, with the recent news that many Virgin, BT, Sky and TalkTalk routers have a serious security issue, it is obvious that we can't simply put our trust in our service providers.

We also have practically daily news of cyber security issues – the likes of WannaCry and Petya, for example. It certainly seems like we need something like the F-Secure Sense fighting our corner right now.

It might be lacking some things you'd expect from a top router, but then it packs peace of mind.

## F-Secure Sense price and availability

You can buy the F-Secure Sense right now direct from F-Secure for £169.

That price includes a 1 year subscription (value £102) to all security features at home and on the go.

Overall score 8.7

**Build quality** 9/10

**Design** 8.5/10

Ease of use 9/10

Performance 8.5/10

**Value** 8.5/10

