

HiFi PiG

MAGAZINE

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Care Orchestra Deep Breath EVO

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- HiFi Plus Awards edition

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"These really are the bargain of the year."

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"The results will amaze you"

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MICHAEL FIDLER

Michael Fidler is the man behind Classic Audio whose Spartan 10 phonostage [we reviewed here](#). Here we speak to him about his background, his current project and projects that are in the pipeline. His responses are published in full.

ELIZABETH GOULD

Martins HiFi, is a family-run business, based in Norwich in the UK. The shop was established in 1968. We catch up with Elizabeth Gould, their Managing Director.

MADS KLIFOTH

HiFi Pig speaks with Mads Klifoth of Danish loudspeaker manufacturer Audiovector.

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PETER BRONDER

Peter Bronder has a somewhat illustrious career in opera having studied at the Royal Academy and National Opera Studio and then taking lead roles around the world. HiFi Pig has a chat with Peter about music, performing and more.

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Michael Fairbairn and John Scott step out to witness the worship of satanic-metal japesters, Ghost. Will they be grabbed by the Ghoulies? Read on to find out.

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EAR FILLERS

The tracks that were on heavy rotation at HiFi Pig HQ during the last month, lovingly crafted into a neat and tidy Qobuz playlist for you to enjoy any time of day. Or night. We've put together a bit of info' on each of the tunes and the bands involved but if you can't wait to hear what's in store then...[HIT THIS LINK.](#)

EAR FILLERS

Compiled by Rob Nixon



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PAUL KNIPE

Paul Knipe is the owner of Solid-Sounds, a well-established business creating bespoke HiFi/AV furniture & turntable accessories including its innovative Linn LP12 PRISM™ plinth and the revolutionary Rota-Jig™ service jig. In this interview we chat about their Open Baffle loudspeaker concept.

HP: Why are there so few commercially available open baffle speaker designs?

PK: It's a question we were asking ourselves given the amazing performance they can offer. The truth is that most of the currently available commercial open baffle (dipole) speaker designs need to be physically large and therefore tend to dominate the listening space. Our experience is that most listening rooms simply can't accommodate 6ft tall, 3 ft wide speakers which permanently sit out from the front wall to work properly. With these established open baffle speaker physical demands it's no great surprise that the large speaker manufacturers tend to accept the inherent issues boxes bring to a speaker's performance and concentrate on box based speaker designs.

HP: Why have Solid-Sounds decided to explore open baffle design?

PK: The concept of the open baffle speaker design has intrigued us for some time, especially how it can create a greater sense of air in the soundstage and deliver sound with speed that most box speakers simply cannot achieve. Aesthetics are a key priority within our products alongside performance (of course) and we were drawn to the striking design possibilities when you don't have to factor a box into the speaker's design. We decided to explore ideas around creating compact open baffle speaker which retained the hallmark open baffle sound but without the imposing footprint; however we went further and explored ways of making our design resemble a piece of contemporary art that's as far removed from a traditional box



speaker as possible.

Given that this was an experiment where we navigated our way through uncharted territory of room friendly open baffle speaker design it seemed only right to call our design the 'EXPLORER'.

HP: How did we overcome the challenges when creating the EXPLORER?

PK: FRONT & REAR WAVE SEPERATION: A dipole wave pattern is similar to a figure of 8 with sound emitting equally both forward and backward. This wave pattern is in complete contrast to a box speaker which captures the rear firing sound waves in the box then seeks to retain and manage it. Where the forward and rear waves of an open baffle speaker meet at the edge of the baffle a cancellation of certain frequencies is produced (determined by how big the baffle is). This has benefits in that dipole speakers don't have the usual issues with room interaction at the side walls as the majority of output is directed forward and backward emitting very little sound to the side. The challenge is that the cancellation creates a gap in the frequency response that would be noticeable if left unmanaged.

We love circles and symmetry but it is not your friend in the dipole speaker design process as it can emphasis the aforementioned cancellation effect thereby creating a 'hole' in the sound. Our EXPLORER design addresses this by using a circular front baffle then a combination of two differing depth rear wings and the top of the low frequency module to create an uneven distance for the separation of the opposing waves. The wings on the EXPLORER essentially create a larger baffle without the front baffle being widened. This neat solution has meant we were able to retain the contemporary circular aesthetic at the front whilst still addressing the unavoidable dipole baffle cancellation.

FULL RANGE DRIVER LIMITATIONS: The 8" driver used is a full range driver but the reality is that the high frequency output didn't quite have the sparkle we wanted so in stepped the rather cool looking up firing ambient tweeter. The $\frac{3}{4}$ " tweeter is carefully positioned directly

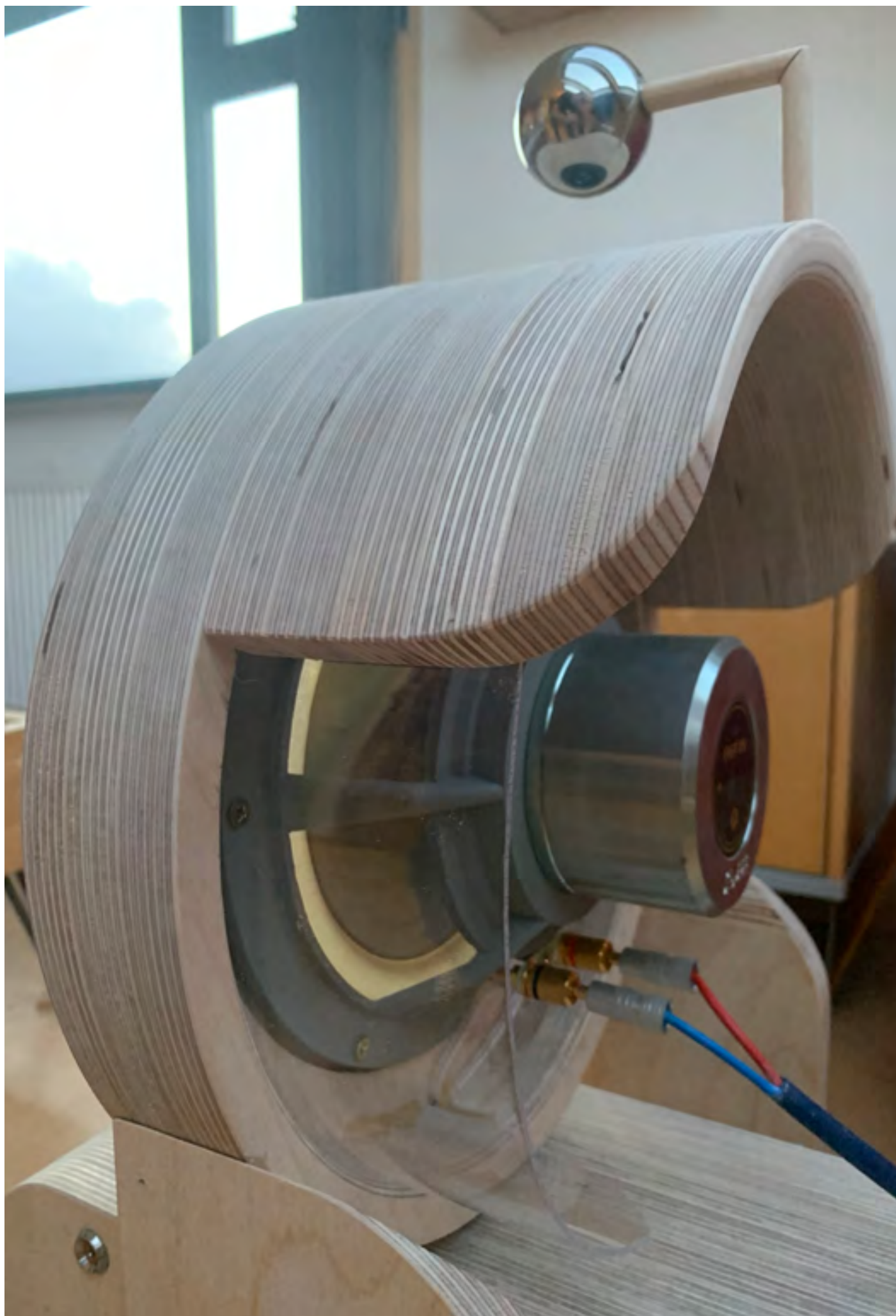
above the voice coil of the full range driver in the rear wing to ensure perfect time alignment. The funky stainless steel omni globe deflects the sound 360° to disperse the sound in an omni-directional pattern that further increases the sense of space in the soundstage. To retain the crossover free design of the mids/highs the omni tweeter is protected by a simple single high quality capacitor.

FRONT WALL INTERACTION: The acoustic properties of a dipole speaker demand space behind it to breath, that is a non-negotiable which has historically made them hard to accommodate in smaller listening spaces. 3ft is a well-established minimum distance but this creates a major problem for most audiophiles listening spaces as this isn't practical as a permanent set up. How did we overcome this? With wheels of course! The EXPLORER can be easily wheeled into its ideal location for critical listening then locked into place with its retractable spikes. Once the listening session is over simply dis-engage the spikes and wheel the speaker out of the way until the next session.

As a side note most box speakers perform at their best when placed at a similar distance from the front wall so the misconception of only open baffle speakers needing this amount of space is not 100% accurate.

FAST BASS: Everyone loves bass but quality bass that is both fast and textured is something to behold. Open baffle bass has a unique quality as it is completely free from cabinet resonances, suffers no zero port chuffing and has speed that means it can keep up with any musical instrument. The challenge is that to achieve substantial bass in an open baffle design normally requires large diameter drivers (typically 12", 15" or even 18") so when large drivers are front mounted inevitably it makes the speakers front profile too wide to be considered room friendly. It was really important for us to minimize the width of the speaker so we used a folded baffle design often referred to as a ripole design. The transverse mounted 12" woofers are mounted in a module that allows the woofers front and rear outputs to be directed forward and backward achieving the important wave separation mentioned earlier but without a wide front profile. The low frequency module is de-







coupled from the rest of the speaker by sitting on substantial sorbathane isolation feet.

POWER & TUNING: The EXPLORERS are currently run using bi-amped configuration of a low output valve amplifier for the mids/high frequency given their 96db efficiency and a 400wpc class D amp for the two low frequency modules. Subwoofer crossovers, time delay and parametric EQ are achieved with a minidsp 2x4HD.

THE SOUND: Open (no surprise there), textured, engaging and holographic. The speakers achieve that all important disappearing act synonymous with great speaker design. The vocal reproduction is without doubt one of the designs strongest attributes however the frequency response offers a sound that can cope with most genres from Jazz through to the hardest hitting

electronica.

HP: What next?

PK: As the speakers name 'EXPLORER' suggests this experimental design continues to evolve seeking to explore what is possible in this exciting field.

Will the EXPLORER become a commercial available product to buy? If there is enough interest in the design then yes that is certainly possible however there would be a few changes needed for this to happen such as making the low frequency modules active. The EXPLORER concept is here to stay but by its nature it will continue to evolve searching for even better open baffle sound and unique aesthetics.

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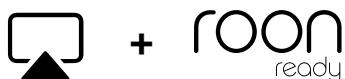
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DAVE MORRISON OF ISOACOUSTICS

Dave Morrison is the founder and president of acoustic isolation specialists ISOAcoustics. HiFi Pig talks to him about the company and the products.

INTERVIEW

HP: What's the history of IsoAcoustics? Who were the key people involved and what were their backgrounds?

DM: I worked at the Canadian Broadcasting Corporation in Toronto for 20 years, and a good deal of that time working on the design and construction of facilities for radio and television. I was on the design team for the construction of the Broadcasting Centre for 4 years, and when it was completed, it was the world's largest multimedia centre at 1.72 million square ft (160,000 m²).

At one point in the late '80s, we were renovating a radio drama studio and installing PSB speakers in the live studio space. I had the opportunity to meet Paul Barton, the founder of PSB, and told him I was really impressed with the speakers and had purchased a pair

for my home. When I told him I was bringing some equipment home to set them up he offered to stop in for a visit and lend a hand.

That evening Paul described the speaker design challenges and his testing at the National Research Council (NRC) in Ottawa, and at one point made a comment that really resonated with me. "The largest variable is out of my control", and he went on to say it's the placement and what people do with the speaker makes an enormous difference. As we moved the speakers and made small adjustments, we could hear the differences and watched the graphic changes to the pink noise signal. It was like a sailor learning to read the puffs of wind over the water and feeling the eddies forming off the sails of another boat. I was hooked.

Over the years I prototyped

numerous designs that provided flexibility and control in speaker placement and as I spent more time on isolation and dampening concepts, I found I could tune and adjust the results over various weight ranges. In my recording space, I could hear the differences in the fundamentals throughout the audio spectrum, but the changes in openness and natural space was the real emotional driver for me.

I booked time at the NRC and took my prototypes along to test and better understand what I was hearing. I continued to build prototypes and tested them in professional facilities and with audio engineers. The response was always enthusiastic, as it moved from a personal hobby and passion to something I thought I could patent. Once the patents were filed, I presented the prototypes to several studio monitor manufacturers and two of them wanted to license the design. I soon realized that as these isolation stands would be a small side-line for these companies they could soon be set aside for other developments. Instead, I decided to do it myself, and with a goal of expanding into the Pro and Home markets, IsoAcoustics was born.

January 19, 2012 (ten years ago) we presented our first ISO-L8R155 demo at the NAMM show in Anaheim, California. Since then, we have grown distribution in over 70 countries for both the Pro and Home markets with a growing inventory of award-winning products. This is a family-operated business with my two sons, Paul and Sean, playing key roles in our operation and development.

HP: My first exposure to IsoAcoustics was with the ISO Stands and when I was sent them for review I was told that the same products were being used in diamond mines; what was the connection there?

DM That was an interesting story relayed to us by our distributor in Israel. He sold significant quantities of ISO Stands, on numerous occasions, that were being used with diamond cutting equipment as they are apparently very sensitive to vibration. I was curious to find out more about the details and application, but the customer wasn't prepared to share any information. Those kinds of tangential applications



come up from time to time.

HP: You have a good deal of focus on the professional market; how important is that market and how do the home and pro markets crossover?

DM: The pro market was the logical place for me to focus, in the beginning, having spent so much time in the broadcasting environment and working on the design and construction of radio and television facilities. I could focus on the performance fundamentals, to develop products that were flexible, adjustable, and cost-effective for studio monitors in professional settings and small project studios. I tested the original concepts in production environments and got valuable feedback from highly respected professionals and recording engineers. The initial five models would cover most of the studio monitor variations and could be made available in any colour, as long as it's black.

In the years I worked for the Canadian Broadcasting Corporation, I was very familiar with the work being done by the scientists at the National Research Council (NRC) in Ottawa. As my designs evolved, I made many trips to the NRC to test my prototypes, identify how they were performing and quantify the results.

I have always been fascinated by the interaction between speakers and their supporting structure... the boundary condition, and this



INTERVIEW





has evolved to include other audio equipment. The plan has always been to develop products for the home market, but I viewed the pro side to be the best place to start, get traction and develop the initial concepts.

HP: Are the products for home and pro similar or are there fundamental differences?

DM: Pro and Home are very different markets with different expectations regarding materials, finishes, price sensitivity, and even the common lexicon of words used to describe appearance, purpose, and results. IsoAcoustics products have been developed respectively for either the pro or home markets, and we have maintained separate products and distribution channels from the beginning.

The core essence of all the products are founded on the same principles but the applications, aesthetics, and tuning will be altogether different. For instance, the Aperta is very similar to the ISO-155 stand but with its more rigid aluminum frame, the Aperta is a more premium product in both aesthetics and acoustic performance. The OREA and ISO-Puck are similar

products with the basic ISO-Puck developed for the Pro market and the more aesthetically pleasing OREA models for the Home market are tuned to be stronger performers but work over a narrower weight range. These customers typically pay closer attention to weight details.

HP: What can you tell us about the technology used in IsoAcoustics products?

DM: There is a long standing principle that suggests a speaker cabinet needs to be rigidly held in place to get accurate performance, resulting in spikes and mass becoming de rigueur. Newton's third law of reciprocal motion illustrates that as the speaker cone is driven forward the speaker enclosure is pushed back resulting in the net movement of the cone being something less than observed if the cabinet is held firmly in place. Isolation solutions got a bad rap as they traditionally provided vertical isolation but did not provide adequate lateral support which resulted in losses, particularly at the bottom end, with high energy and the long wavelengths.

A single homogeneous material such as foam,



rubber, Sorbothane, etc. can only mitigate the transfer of energy over a narrower frequency range for a given weight and therefore may provide only limited benefit. The IsoAcoustics design incorporates two elastomer elements and a connecting insert that can be tuned to cover the entire audio spectrum for a given weight range. This is an effective assembly as there isn't a single path for energy to travel between the speaker and the supporting surface. With a suction cup-like engagement with the supporting surface and the speaker enclosure, combined with the internal lateral engagement, we hold the speaker in place and maintain accuracy across the entire audio spectrum. Testing in the anechoic chamber validates that our products do not colourize the output and when compared with the control speaker on spikes, our products remain within the standard run to run variation of 0.3 dB.

So, if the IsoAcoustics products do not show any variation or benefit in the anechoic chamber, what are they really doing, and what are the differences we hear? First of all, it is critical that we do not colourize or skew the audio output in anyway so the audio engineers finaliz-

ing their mixes, master engineers making their final adjustments, our OEM partners integrating IsoAcoustics into their products and the end customers all have confidence that we are not biasing the acoustic results in any way. The anechoic chamber doesn't illustrate how we can improve a speaker's output, perhaps by passively smoothing out the inherent peaks and valleys in its voicing and delivery, but rather validates we haven't altered the speaker manufacture's reproduction of sound.

There are 3 fundamental aspects to consider relating to the placement of a loudspeaker and its engagement with the supporting surface:

1. Exciting the supporting surface – probably the first thing people think about when putting a speaker on a desk, shelf, or floor. Is the speaker exciting this surface and is this surface radiating dissonant sounds that cloud or smear the speaker's output?

2. Energy is conducted through the supporting structure – causing anomalies in the listening space, is conducted into other audio components, causes feedback in phono cartridges,

and upsets our neighbours in adjacent spaces. As sound travels more than ten times faster through a dense structure compared to traveling through air, we perceive the sound reaching us through the floor before it acoustically excites our auditory system.

3. Energy is carried to the supporting surface and conducted back up into the speaker enclosure – like bolting a pipe to the wall and hitting it with a hammer. Energy is conducted down the pipe, hits the wall and the inverse wave travels back along the pipe. This reflected energy, and its inherent timing differences, cause cloudiness or smear in the speaker audio output, and any artifacts that are similar in both channels are perceived to be in the middle causing the phantom image to collapse and become two-dimensional.

Some form of resilient material or elastomer is needed in this boundary condition to mitigate or dampen the transfer of energy to and from the supporting surface. Any form of rigid material, in the form of metal, ceramic, wood, plastic, etc. regardless of its composition or contact area will conduct to some degree. Regardless of how these materials are combined and shaped, there is still conduction between the structures. There is a common belief that a cone-like shape or spike will drain the energy out of a speaker and not allow it to flow back up into the enclosure, and anyone familiar with basic electronics will recognize that this shape is similar to the symbol for a diode which has this one-way only function. Rigid materials conduct energy, and you need some form of elastomer or resilient material to mitigate this transfer.

The IsoAcoustics patented design incorporates this three-part construction to manage the energy between the speaker and the supporting surface, and its internal construction provides lateral support to maintain stability and acoustics accuracy. Our products have an internal bias and should be installed with the IsoAcoustics logo facing forward or 180 degrees to the rear for greater clarity and focus. This is not done to allow the isolator to move forward and back in sympathy with the travel of the speakers transducers, but rather to over build them in the off-axis direction to negate the natural circular oscillations that can occur in symmetrical, resil-

ient materials.

Our goal is not to be the world's best industrial isolator, but rather to deliver the best products to complement the performance of speakers and audio equipment across the audio spectrum... in the same way, modern high-performance radial tires complement today's advanced racing cars, high performance cars, as well as the most basic cars on the street.

HP: Currently the big buzz in audiophile circles on social media is all about isolating kit rather than the previous advice being to spike pretty much everything. What are your opinions on the use of spikes and the like and what improvements do you feel isolation brings to the audio party?

DM: We refer to our devices as isolators as that's the common term for this type of application. However, I believe this is an oversimplification of what our products are, what they do and it attracts the preconceived biases towards isolators, based on applications in the past. IsoAcoustics products compliment all speakers, from the very basic to the most advanced, by managing the interaction of the speaker with its supporting surface and bringing out greater clarity and openness throughout the entire audio range.

Our hearing is very acute at discerning information and we create a 3-Dimensional perspective with accurate sound source location abilities. The reproduction of the soundstage with an open and natural airy presence is very comforting and familiar. This is probably the biggest difference listeners experience with our products, as they continue to listen closely to the fundamentals to hear more accuracy in the bottom end, more clarity in the vocals, better definition of the parts through the mid-range, the timbre, metal, and sparkle in the upper ranges.

Spikes on the other hand are very effective at penetrating the pile of thick carpet and connecting to the binding or hard surface below. On a hard surface constructed of concrete or wood they offer only limited benefit to the boundary condition connection with this reduced engagement and concentrated point-loading, however it is still a rigid mechanical connection and there

INTERVIEW

is still conduction of energy to and from the supporting surface.... and they make a mess of decorative flooring.

We also have Carpet Disks with 15mm spikes that can be used with the GAIA and GAIA-Ti-tans to connect into deep pile carpet.

HP: We use your Gaia footers on our Audi-ovector speakers onto a suspended floor with a void beneath and they work very well, are there circumstances when the footers in particular work best? Conversely, are there situations when you would recommend not using the footers?

DM: The first place people think of isolation is on wood or suspended flooring, again relating back to concerns of exciting the supporting surface. On many occasions, people have approached us at shows to say they have concrete floors on-grade and suggest there is nothing our isolators can do for them. This of course is based on the belief that the speakers are not going to excite the mass of this concrete slab and therefore there is no benefit to be gained by using our products (point #1 from the list above). But in fact, energy from the speaker is conducted through this listening space, and beyond, and is being reflected back from the concrete surface and conducted back up into the speaker enclosure, causing cloudiness and smear.... and the biggest difference this individual will experience is the openness of the soundstage, and that natural sense of spaciousness and clarity.

The short answer to your question is the IsoAcoustics products will deliver consistent results on any reasonable surface regardless of the materials, construction, and related challenges. If, however, you're planning to place your speakers on a trampoline, I'm afraid there's not much we can do for you.

HP: The argument for isolation for speakers, turntable, and perhaps CDs and valve amps is clear, but how important do you feel isolation is for other items in a HiFi rig?

DM: The logical place to start is with anything that has transducers, drives, motors, valves/tubes, transformers, and any kind of mechani-

cal system, but it's startling how time and time again we hear a remarkable difference when isolating equipment that is entirely solid state. Solid state circuitry, printed circuit boards, dielectrics, and capacitors can also be susceptible to microphonics.

HP: What products do you personally use at home from the IsoAcoustics range and with what products?

DM: I have Focal Sopra N2's on GAIA's in the family room with NAD and Naim components on OREA's and a VPI Prime table on DELOS. In my music room, I have Dynaudio BM studio monitors on Aperta's with Fender and Line 6 guitar amps on Stage 1 boards, and a Fishman amp on an Aperta 300 stand.

HP: Anything you are at liberty to share?

DM: We currently have solutions available for a wide variety of applications including studio monitors, subwoofers, components, turntables, and speakers ranging in size from small bookshelf to large 620 lbs (280 kg) floor standing speakers. Selecting the right IsoAcoustics product can be challenging for consumers, so we developed a Product Selector application that includes a database of over 5,000 makes and models. Customers can find the right product for their application and identify if an alternate thread size or adaptor is required. When a model is not included in the database, a wizard can make a product recommendation.

We are pleased to be working with a growing list of manufacturers in both the Pro and Home Audio segments to integrate IsoAcoustics into their speakers, equipment, or furniture. These OEM partners are integrating our existing products, or in some cases, incorporating custom solutions we have developed for their specific needs.

Aside from that, we are always working on new ideas, and developing new products.

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PAUL TIERNAN

INTERVIEW

NVA was a small but well respected UK-based manufacturer with Richard Dunn at the helm. With Richard now sadly passed, a new team headed up by Paul Tiernan is in charge. HiFi Pig has a chat.

HP: You took over Nene Valley Audio (NVA) after the death of Richard Dunn which is a tough act to follow. He had his quirks, but personally I always sort of admired his unswerving desire to plough his own furrow and do business his own way. What made you want to take over a business where the man was very much the brand?

PT: At the heart of NVA is a very, very good sounding amplifier that deserves to get heard. I wanted to improve build quality and customer service and I know that there is an opportunity to get NVA to a wider audience without sacrificing the brand's principles, thanks to advances in e-commerce and social media.

In any case, I like businesses (and people) with a strong mindset. The industry is not

advanced by those who always conform with what has gone before. And, I'm comfortable with NVA's history; regardless of personalities, the amps have always had a good following and even those who disliked the old 'NVA way' will be curious about what's happening with it now. I think it's fair to say that the company will be more accessible, to a wider audience, than it might have been in the past. I'm excited about what is possible...

HP: Richard left a solid range of products, what have you done to build on the existing products in the range? How have the amps changed?

PT: To start with, we simplified the range. There were seemingly infinite options, but such a large 'menu' is costly to implement and confusing for potential customers. We looked for

INTERVIEW

universality of significant parts – transformers, capacitors, cases – and implemented a range where points of entry and options for upgrade would be obvious. Most of the amps can now be upgraded without the customer needing to part exchange.

Currently, most of the amps still look the same on the outside, but inside the cases there is a big leap forward in quality; Toroidy Audio Grade transformers, Vishay capacitors, Seiden attenuators, silver plated wiring, and new amplifier boards that are made in the UK using the latest 'selective soldering' technology. This quality of parts is only usually found with far more expensive price tags, and I've no doubt that the amps that are now coming out of the NVA workshop are the best that the company has ever produced.

HP: What have you not touched with regards the products?

PT: The principle of the simplest possible circuit with very high quality power supplies, remains, and always will. The only components that we changed on the new amplifier boards were

either to upgrade specification, e.g. for longer life, or to replace component values that had become obsolete. The open, extended and pure sonic signature of NVA is very much intact and, thanks to the numerous improvements in component quality, it's the best it has ever sounded.

Currently, the cases are the same (manufactured by a company that supplies display cases for the Natural History Museum), but the new integrated amplifier is in a satin matt black finish that we think will be very popular.

We've also retained the Class II construction and captive mains leads (much to the disgust of those who sell £1,000 power cords!).

HP: Which is your favourite model and why?

PT: It's a toss-up between our £995 starter bundle (P50 pre-amp, S80 power amp, interconnects and speaker cables) and our SA (stepped attenuator) version of the P50.

If you use easy to drive, reasonably efficient speakers, then the starter bundle is possibly all you'll ever need – the sonic signature of NVA is



consistent throughout the range, and the quality of parts is no less than those in the amps with larger power supplies. There's nothing more satisfying than hearing from someone who is loving life with their £10k horn speakers driven by our starter bundle!

Further up the range, the stepped attenuator option that we are now fitting in our passive pre-amps is one of the most transparent that we have ever heard, at any price. We've had several people tell us that they have sold their very high-end passives to buy the P50SA, instead. It took hundreds of hours of listening to come up with the best combination of components and it is one that is made only for ourselves.

HP: NVA has a very loyal customer base built up over the years, how will you continue to service these customers and what will you be doing differently?

PT: We've been able to provide service and repair for all of the earlier NVA amplifiers and, wherever possible, we've offered upgrade options that bring older amplifiers much closer to the current models. This has been very popular. We've also offered some very special limited edition models for members of our Hi-Fi Subjectivist forum, in recognition of their long-term support of the brand.

Digital media now makes it easier for us to stay in touch with our customers, and we talk regularly, through our website blog and newsletters, through our forum and through our Facebook and Instagram pages.

Our new website is an excellent resource for existing and new customers; including user instructions for each model, an extensive archive for heritage models, plus articles that explain how to optimise and upgrade your system.

HP: Will you be continuing the same business model as Richard and selling only direct to customers, or will you look at using a more traditional distributor-led business model?

PT: We prefer to sell direct to customers, with a 30 day home trial and the option to 'buy now, pay later' which means that you can hear NVA

in your own system, in your own room, without upfront payment. We think it's a win-win; we achieve a slightly better price than a dealer would pay us, and you pay considerably less for our amplifiers.

Please understand that we are definitely not saying that dealers are making too much money! They have invested tens (often hundreds) of thousands of pounds in their premises, and they have lots of other fixed costs, including staffing. Dealer margins (and ticket prices) have had to increase to compensate for reduced volumes.

What we are saying, though, is that the internet gives us an opportunity to give customers a different deal. We think that many people will welcome that option. Customer choice is good, we think.

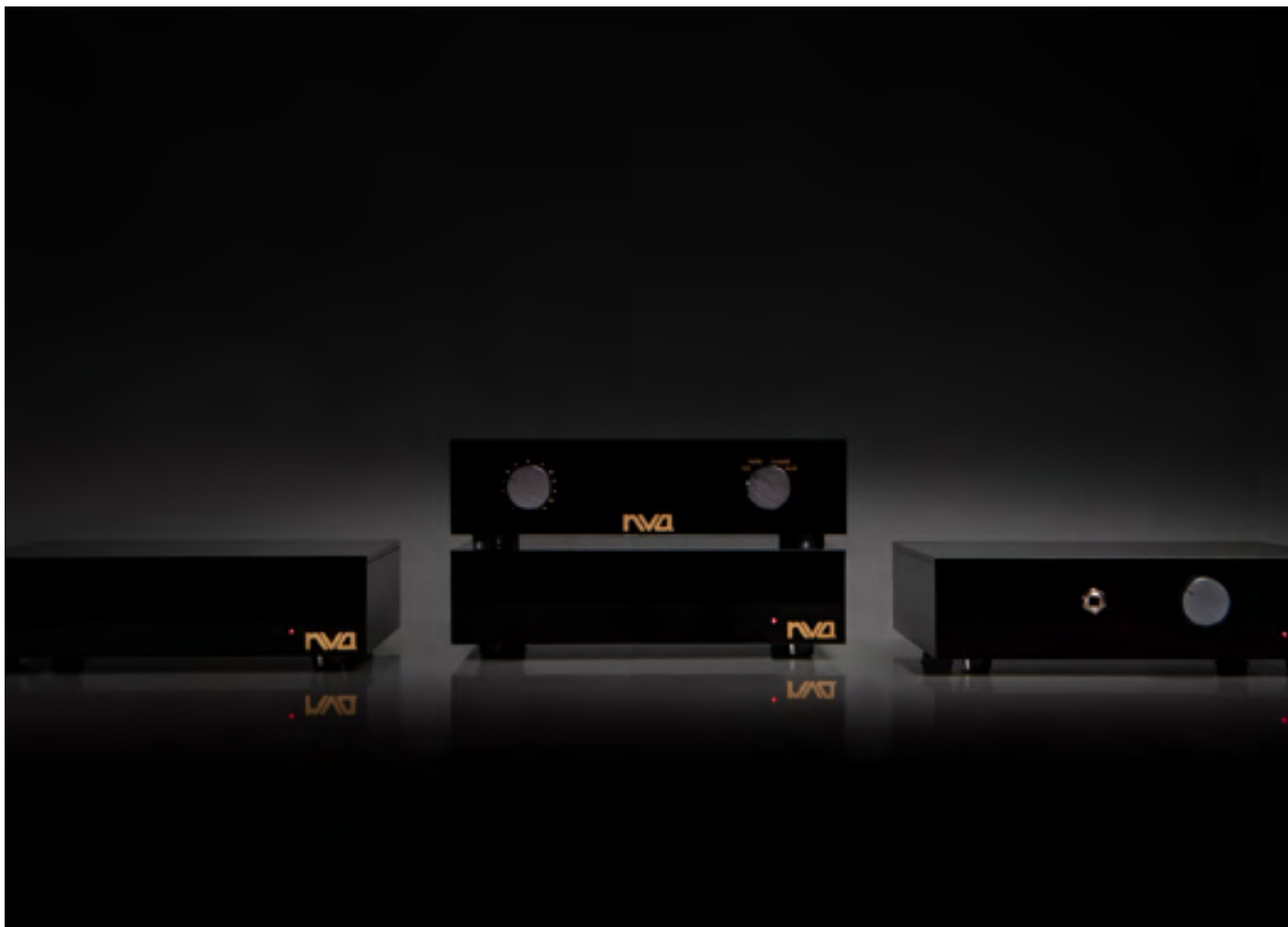
You can also find us at the leading UK shows; we are planning for the North West Audio Show, as I speak.

HP: I recall some particularly quirky speakers that NVA produced called The Cubes – I heard them and have to say that I was wholly underwhelmed at the time. Do you have any plans to bring these to market and if so will you be changing their make-up?

PT: When you hear Cubes in a suitable room, then I promise that your 'whelm' will overflow! We will have our upgraded version of the Cubes on demonstration at shows, this year, featuring a more efficient mid / bass driver and a choice of two finishes. They are a sealed box, minimalist crossover design that delivers a large and 'alive' sound-stage and deep but controlled bass; they have plenty of meat on the bone!

HP: Looking at your current website, NVA still demand that you use only NVA speaker cables or risk voiding any warranty. Can you explain the reasoning behind this? How do customers react to this demand?

PT: We think of the speaker cable as part of the amplifier circuit, and our own low capacitance cable is the perfect electrical match; NVA amps sound and operate at their optimum with NVA cable. We have deliberately not tried to create an amplifier that is unconditionally stable;



we don't deem that necessary or desirable for domestic hi-fi equipment, but that means if you use a high capacitance cable it can send the amp into oscillation.

Richard previously published a list of compatible cables from other manufacturers, but he found that customers could have difficulty with this, not least because not all manufacturers express their specifications to the same parameters. When Richard changed the warranty conditions to specify that NVA cables must be used, warranty claims dropped by 90%.

How do customers react? If they get what NVA is all about, then the cable stipulation makes sense to them. They use the cables that we supply with their amp (all our amps now come supplied with free speaker cable), they sell their existing cables and they pocket the cash. I did the same when I bought my first NVA amp! The speaker cable stipulation is there to achieve the best sound quality and ensures maximum lifespan of the amplifier.

HP: Do you have any new products lined up for the NVA range of products?

PT: We have an all new integrated amplifier and the launch of our upgraded Cube speakers.

The new integrated amplifier is a 70 watt design in a wide acrylic case, with a black satin matt finish that is easy to care for and looks very elegant. There will be 2 versions, one with a single 250va power supply and a high-end version with twin power supply (total 400va) and a step attenuator volume control. Customers will be able to upgrade from the base model, at any time, by paying only the difference.

The upgraded Cube speakers will be available in our traditional gloss black acrylic, and also in high quality birch-ply with an attractive veneered finish. We have sourced a mid / bass driver that is designed to work at it's best with a very simple crossover – just a high-grade capacitor and a padding resistor to protect the tweeter – which gives remarkable levels of clarity for a box speaker.

[Come along and hear all of them at the North West Audio Show.](#)

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MICHAEL FIDLER

INTERVIEW

Michael Fidler is the man behind Classic Audio whose Spartan 10 phonostage [we reviewed here](#). Here we speak to him about his background, his current project and projects that are in the pipeline. His responses are published in full.

HP: What did you do before you launch Classic Audio?

MF: Quite a few different things! Going back to when I was a teenager I was very much into electronics and used to repair and re-sell HiFi equipment for a bit of spare cash and fun during the holidays. Around that time I was working around one day a week at a small electronics company not more than a few miles away from where I'm based now which encouraged my interest in the field, particularly the practical aspects of putting things together properly. I used to make my own audio projects during lunch hour using the tools they had.

Unfortunately there was a lot of pressure to go to university, which really wasn't for me, so I ended getting shoehorned into the system by the spreadsheet monkeys, and then leaving

at the end of the second academic year having conscientiously objected to completing a management module! I like to investigate things as far as I see fit, and don't get on well with the idea of doing academic exercises before moving onto the next topic when things seem like they're just about to get interesting. I did enjoy the group projects building practical things and writing them up, but it was soul destroying for me to have to learn and then mentally throw away things that I knew I'd never use. I hated school, but loved making things, so looking back going to university was definitely the wrong choice for me.

I did a few odd jobs to get by and moved down to the South Coast to stay with my Grandfather who needed someone in the house to help out and look after him, which worked out very fortuitously for both of



us. Eventually I ended up working nights in a care home for a year or so as I could be around during the day, but I had a good sized garage and workshop to build speakers and little odds and ends in.

After my Grandfather died I decided I'd had enough of working in care. I got a temporary job running a shift on weekend nights in a rubber factory with a very nice Polish chap, who always had something wise and interesting to say, who I'm still great friends with. It was brilliant fun. So much fun that I stayed there for two years. There were forklift trucks to drive, complicated machinery to run, and best of all, no management around to tell us how to do the work, so no-one bothered us as long as we got the work done. We all went home in the morning together feeling like we'd accomplished something every day. Having all the weekdays off to muck around and read about interesting things was also a big plus. It was very dirty, but we had a great close team of people who I got on with and probably the best job I've had as far as I'm concerned for that reason! Nothing good lasts forever though, and as the working conditions got worse and the people we were in charge of started to vary in quality I decided it would be best to pack it in and use my portfolio of personal projects to get into electronics

professionally after a 5 year hiatus.

Once I handed in my notice at the factory, I got a job at a local marine electronics company, a wonderful place with great people, perfect for me as the work was varied, practical, and everyone was in the same environment together. Due to my own poor decisions, however, my health had been deteriorating quite rapidly up to that point, and after a big scare and a trip to intensive care I had to hand in my notice and move shortly afterwards to London to stay with family and recover. Looking back, that's the one thing I regret the most, as it was a very interesting smaller company with great direction; there would have been a lot of opportunities to do a lot of things that would have made for an excellent work day.

After convalescing in London I got a job working with avionics at a well known giant and bought my first property. The money was good, and thanks to COVID it was only for four days a week. Sounds perfect, right? It wasn't up my street at all! We were stuck doing the same thing every day, inevitable for a large organisation. Probably the worst part was having to constantly deal with the symptoms of the same issues over and over again while knowing that the root causes would never be addressed.

Design was by copy and paste with zero creativity, resulting in unholy patchworks of outdated electronics inside supposedly state of the art technology. There were much better ways to do things, but due to project funding and development deadlines freezing these barely working patchworks into permanent production, through the wonders of the product approval process for avionics, there was no possibility to even try these. We only dealt with the inevitable consequences of the patchwork coming apart at the seams. Intensely depressing. Not all the time, though. It was amusing watching the management sweat it as hell broke loose every now and again when simple things like stated component tolerances that hadn't been accounted for in the design process, due to the circuitry being 'already approved' caused things to grind to a juddering halt on the production line!

HP: What was your motivation to go out on your own?

MF: Firstly, because I thought that I could offer a good range of products, for the right price, with enough fresh ideas to turn a few heads in my direction. Analogue audio design at line level seems to have become a little stagnant over the past 20 years without much in the way of new ideas. As an analogue designer I love daydreaming about the architecture of these things, not so much the marketing qualities of the individual components themselves. The beauty of circuit architecture, topology, is that it's very economical. You come up with the idea once, do the layout, get it to work, and then it's free to build. It's a great way to offer excellent performance for a very attractive price, and usually you can work your way around using expensive parts. A lot of people seem to want something a bit unique and special that can really connect them to their music, but don't want to have to pay the correspondingly high price tag. If I can spend my time fulfilling those desires, then that's time well spent as far as I'm concerned.

I see myself as very different from the mainstream, entirely motivated by objective results as opposed to subjective impressions. I think the music is the art and audio equipment is the science. I do like a nice subjective experience, but I think that comes about by designing circuitry that meets a very high standard

of objective performance on the test bench, so long as you don't design it just to work well when connected to a distortion analyser! Swiftly dismounting from my favourite hobby-horse, I'll tell you there's a good deal of interest out there regarding the gory details of how these things work to make an objective difference, mysticism aside. I think there's a real market for this approach, especially if you can involve the customer in how it's done and make them feel a part of what they're buying with a good technical description. I'd love to conquer both the objective and subjective domains, but it's impossible to please everyone so I'm focussing mainly on the former and leaving others more qualified make comments regarding the latter, as far as my units go.

Secondly, to have complete control over what I'm doing and how I'm treated. After my last job I really had enough of working for managers. Some are really good and leave you to it, but sadly those ones tend to get promoted, and you then get stuck with someone who ticks all the HR boxes, but royally messes things up and then tries to put the blame on everyone else. If you're an eccentric character and don't tolerate interference well, like me, then you can become an easy target for this sort of thing. From my perspective it's tough to be out on your own, but even worse to be at the mercy of corporate whims. If I make a mistake I want to be able to hold myself responsible, if someone else makes a mistake then I don't want to be caught up in the sort of vindictive blame games and human resources dobbing that goes on in The Workplace (registered trademark). Some people can shrug it off and say that "we're getting money for old boots, don't take it to heart, nod, smile, and enjoy your time off", but the same part of me that loves to daydream about analogue circuits ruminates on these things and makes them intolerable. I just can't bring myself to do something like that for 40 hours a week. I spent my time off working on the Spartan 10!

This holds especially true for my approach to research and development, I like to take my time with these things and explore all the possibilities, rather than stick to deadlines. I can't deal with nagging doubts that I might not have done my best with something close to my heart like the audio circuits I design, so I have to keep

going at it until I'm sure it's as good as can be. Being dragged off something that's starting to look really promising because it's 'good enough' won't do at all! I also would like to own my ideas and designs, as opposed to being a cog in a bigger machine and let an entire organisation take credit for my work.

I'd saved up for a nice car to drive around in by the end of 2021. I could have decided to get the car, but drive it to a job I didn't enjoy, or use the money as a float to accelerate development of Classic Audio products full-time and hit things as hard as possible in 2022. I suppose I'm getting less and less materialistic. I like living a frugal lifestyle and don't mind a year of gruel for breakfast if it means doing something that's meaningful to me. It hasn't been easy so far, there have been a fair few setbacks, but the feedback that I've got from the few people who've taken leaps of faith and bought my products so far has meant the world to me. If more people enjoy what I'm doing and there's food on the table, then I don't mind if I'm being rolled around in a wheelbarrow! Ultimately it boils down to whether or not I want to work for 'the man' or customers, and whether I'll be able to look myself in the eye for the remainder of my days without giving this my best shot.

HP: What products have you launched so far?

MF: So far it's just the Spartan 10, a moving magnet phonostage with low frequency crossfeed. I've got a few designs on the go at the moment to juggle with, but I'm putting priority a moving coil version of the Spartan 10 with a low noise discrete transistor input stage, balanced outputs, along with the option to have the low frequency crossfeed be variable, as well as defeatable via a panel switch to suit all tastes. I have received more questions about whether I'm going to do a moving coil version of the S10 than questions about the S10 itself, so this needs to be pursued ASAP. I'm doing more research into power supply design as well so will include what I've designed so far into the moving coil phonostage.

HP: Your first product is the Spartan 10, what sets your design apart from others?

MF: Quite a few things. The first thing from my point of view is the low frequency crossfeed circuit that bridges the channels together at low frequency to reduce that 'road noise' that's most apparent with headphones on. I've implemented this in various ways before, with likewise varying degrees of complexity and efficacy, without much correlation in terms of effect to be quite honest, but had the idea of doing the bridging inside the subsonic filter instead of a separate stage, which makes for a very efficient circuit indeed. I thought this was good enough to make for a small phonostage with a difference, and during the design process came up with a few more tricks to improve on the then otherwise contemporary double-stage architecture that I started with.

Before I start waxing lyrically about various distortion reduction techniques, I'd like to touch upon how important I think overall linearity and headroom is in a phonostage design. The signal generated by a moving magnet cartridge is very unfriendly from an electronics perspective. It's a high impedance source that's very susceptible to amplifier noise, and has an output that doubles in voltage each time frequency doubles. This means that the high end has a voltage level some five to ten times higher than the mid-band where our ears are most sensitive.

Most surface ticks and scratches occupy the high end, so their level might be some ten times higher than the audio in the low end and mid-band. The RIAA curve equalises the high end down and the low end up to compensate for this, after amplification. Because the RIAA curve attenuates high frequencies and boosts low frequencies it partially hides harmonic distortion. Harmonic distortion, however, is always accompanied by intermodulation distortion. Intermodulation causes higher frequencies to interact and generate lower frequency distortion products when more than two frequencies are present, for example when listening to music.

When we're dealing with a moving magnet input with lots of high frequency content at levels, well above the rest of audio band, then there's a lot susceptibility for intermodulation distortion. The subjective effect of this is a clouding of the mid-band, as these complex distortion

products will start to mask low level detail. It's essentially like a dynamic noise floor that rises up in the low and mid band whenever there's high frequency content present. This also applies to surface clicks and pops; little ticks and clicks that might only exist above 10kHz, being attenuated by a factor of five or more by RIAA equalisation, will be getting demodulated by any non-linearity, generating artefacts right in the middle of the audio band. Because the RIAA curve hides harmonic distortion by attenuating the high frequencies where the harmonics exist, the corresponding intermodulation distortion that exists below the high frequencies with music is always much higher in phonostages. Therefore it's extremely important for harmonic distortion to be as low as absolutely possible.

The first innovation was to apply my knowledge of complex filter design into splitting the gain between the two stages. In most of the other big name designs out there, the first stage does all the work, and the second stage just buffers the subsonic filter that sits in-between onto the line output, while providing a bit of positive feedback to flatten the filter response. The latter is an easy design job if it has no gain; component values can just be pulled out of textbooks and online calculators. Moving back a bit, a gain factor of one hundred times at 1kHz is quite a lot of work for that first stage to do, and this can be seen as distortion rises when the RIAA curve requires more and more gain from the input amplifier, that correspondingly receives less and less of the negative feedback that it needs to remain linear enough to give a good performance. The result isn't awful, but it's certainly not great.

I decided to have a go at moving some of the gain from the first stage into the second stage after the subsonic filter. This made the filter design rather difficult; some very complicated maths is involved, and even after that the component values need a good deal of trial-and-error adjustment, but eventually I got it sorted and moved seven decibels of gain from the first stage into the second stage. The mid-band and low frequency distortion halved, so I knew I'd got something for those tedious hours.

Putting the final bit of gain in the second stage, downstream of the subsonic filter, also meant that subsonic disturbances couldn't occupy any

of the final headroom, like they do in the conventional designs where they get amplified up to full level alongside the wanted audio in the first stage. You could also argue that there's less subsonic intermodulation distortion too, as the first amp has less gain and is therefore more linear right where the gain is the highest in the subsonic region. I haven't tested this yet, though!

I'd originally planned to use one 5532 dual op-amp per channel so as to get both stages in one IC. It became clear that if I wanted the absolute best noise performance, short of having to resort to some rather complicated dark arts that make the cartridge load resistance out of simulated resistance generated from another amplifier output as opposed to a real load resistor, I was going to have to deploy the 5534 opamp.

The 5534 isn't seen often in consumer audio, as it's only available as a single device per package and requires external frequency compensation components to maintain stability at low gains. It's also more sluggish and less linear than the 5532 when compensated. Essentially it has to be slowed down so it doesn't become a radio frequency oscillator, which isn't a very good look for any audio amplifier! The 5532 gets around this by running the tiny input transistors at higher current and adding linearising resistors to allow the input network to work harder at high frequency to offset the heavy compensation. Both of these techniques reduce distortion and increase speed, but the higher current means more current noise; bad news for a high impedance moving magnet cartridge, and the resistors add their own inevitable voltage noise. The 5534 has neither of these, so has very good noise performance, but has more distortion than the 5532 when compensated to make it stable in a traditional series feedback RIAA equalisation network that returns the gain to unity at high frequency by delivering maximum feedback. I was shooting for well under 10ppm THD, so needed to find a work around.

I decided to try my hand at removing the external compensation completely and allowing the 5534 input amplifiers to retain their sprightly characteristics at high frequency, and instead target the RIAA equalisation network. Passive

RIAA was a bad idea as it threw away valuable gain that could be used to otherwise correct circuit distortion, threw away equally valuable headroom at high frequency, and finally made the amplifiers work a lot harder and therefore distort more to create the extra voltage lost in the passive network. Think loss of detail due to intermodulation distortion. In passing, I'd like to mention that I think passive RIAA equalisation is a modern fad brought about by the fact that it's shown on the 'sample circuits' on opamp data-sheets, so is easily copied with minimal design effort, but really it's just grossly inferior in every aspect!

I was using an active network straight away for these reasons, and with active RIAA networks, negative feedback increases with frequency to 100% at about 200kHz where the amplifier stops following the RIAA curve. This was undesirable as it would make the more linear uncompensated circuit horribly unstable. I instead altered the RIAA network so as to limit the feedback to 27% at 54kHz, and then used an extra 'correction pole' downstream to follow the curve from 54kHz. Reducing the maximum negative feedback kept the amplifier beautifully stable, while also halving distortion and more than doubling speed compared to compensating it; a very nice result that ensures a crystal clear mid-band completely free of intermodulation veiling, and as far as I'm aware, the first time this has been done.

Speaking of RIAA equalisation, it was important to realise as high an accuracy equalisation network as possible without using too many expensive high precision capacitors. It's easy to design an amplifier with a flat frequency response, but quite difficult to design an amplifier that accurately tracks a non-flat frequency response such as the RIAA playback curve. The RIAA curve was implemented as a well-defined standard some 67 years ago so as to match the frequency power distribution characteristics of recorded music to the frequency power distribution of noise and level limitations inherent to vinyl records, with the aim of getting satisfactory sound reproduction. All records are cut with this equalisation, so the phonostage has to reverse it by boosting low frequencies and cutting high frequencies. If it doesn't invert the equalisation accurately, then there will be deviations in

the frequency response, much like leaving the dreaded tone controls askew. Most of the deviation occurs right around the middle of the audio band, where our hearing is most sensitive, which isn't very helpful at all!

I'd set my heart on a maximum deviation of 0.1dB, or 1%, from the RIAA curve from about 40Hz all the way to 20kHz, in spite of the more common 0.5dB which seems to be the most common accuracy specified on contemporary products. For the latter, just imagine tone controls left randomly between the 1 o'clock and 11 o'clock position, on each channel, and you get the idea of what this sounds like in practice. So much for purist sensibilities! Reaching the 0.1dB figure is tricky, as the best capacitors, the components that create the equalisation function in the circuit, are only rated to 1% or so, which leaves literally no room for any other of the usual tolerances we might see in other components when viewed in isolation. Fortunately, things weren't quite so bleak. I did some research into a fair few different RIAA network configurations to investigate how they erred from the ideal when component tolerances made their way into the equation. I found that a fully parallel network, where all the components were connected across each other yielded the best result, and also gave a bit of leeway for tolerances. After a rather dull weekend of circuit simulation, I had a network built out of 1% capacitors that didn't trespass past the 0.1dB boundary, and importantly didn't use a lot of them, as they're not cheap and inflate the final price. The final result of this is a beautifully uncoloured sound that ultimately brings the listener closer to what's really on the record. I think high RIAA accuracy is one of the best kept secrets out there! It's quite special for any phonostage going for under four figures, let alone half of that.

Another unique feature is the precision of the subsonic filter. Conventional filters use 5% capacitors to perform the subsonic filtering, with each capacitor making up one filter order. To get the unwanted 8-12Hz rubbish attenuated by a significant degree, so it can't create shimmering intermodulation in loudspeakers – I think ten times is a good target – you need three orders in the filter for a cut-off in the region of 20-25Hz that won't eat up into the wanted

audio. Three 5% tolerance capacitors in series to make such a filter might not be the best idea, if the goal was to preserve that hard-earned 0.1dB of response accuracy, and a few quick tests confirmed that these deviations would easily swamp the bass response accuracy. No wonder subsonic filters have a not-so-great reputation among audiophiles! I could have used 1% capacitors, like the RIAA network that used two such components per channel, but they were much more expensive than the capacitors in the RIAA network because the capacitance had to be considerably higher. Add to that that a total of six of these were needed, 3 per channel, and things were looking a little bleak cost-wise. I was determined to deliver a top-notch performance without a top-notch price tag, so I set about investigating alternatives.

I found that the absolute values of the subsonic filtering capacitors didn't actually matter too much, only the differences between them, so hand matching the components to within 1% of each other proved the way out. In fact it was much better than using 1% capacitors, as with the expensive precision capacitors the error can go in either direction, so it's possible to end up with a pair of capacitors that deviate from each other by a total of 2%. With a capacitance meter and pill-box I had managed to turn my inexpensive 5% capacitors into effectively 0.5% capacitors! The cut-off frequency varied between 21Hz and 23Hz between matched sets from unit to unit, but this didn't affect the wanted response at all. As long as one matched set of six of these capacitors per unit were used, then I had superb channel matching and response flatness; something quite special again.

The power supply is also a little different to what's out there at the moment. Instead of taking the easy route and using a switching power supply that potentially introduces a lot of noise into the phonostage and into the entire HiFi system through the ground path, I chose a linear split supply. It's not as cheap or easy to implement; a proper mains transformer is more expensive than a little PCB, and the output has to be rectified and regulated on the main PCB, requiring additional components which are not particularly low cost. A switching supply chops the power on the mains side at high frequency through a small transformer to generate a

correspondingly choppy output, even with a great deal of filtering. Linear power supplies use a larger transformer that transforms the mains frequency without any noisy electronics, but the transformer has to be larger and therefore more expensive because the frequency is much lower. The linear transformer also makes an excellent mains filter. Just think of how much trouble valve amplifier transformer manufacturers have to go to in order to extend transformer response between 20Hz to 20kHz and you'll have a good idea of how much power line noise and rubbish a normal mains transformer stops dead at the source on its own.

Using a split supply with positive and negative rails, as opposed to just a positive rail and ground, also improves things. Not all linear power supplies are equal, and split ones are definitely superior in my book! Split supplies keep the power currents drawn by the amplifier ICs, which are a distorted function of the audio signal, between the positive and negative rails, and away from the sensitive signal ground where they can inject that distortion and power supply noise. I always use a split supply for serious design work, even if it requires separate sets of rectifiers, reservoir capacitors, and voltage regulators for each rail. It not only keeps the ground clean, but also means that the audio signal doesn't have to be 'biased' by the positive rail; an easy route for noise to get into the signal path.

The use of through hole technology, instead of surface mount technology, is somewhat unique at this price point. Having worked in places where British Leyland style cost cutting was rife for much longer than I would have liked to, I have a strong aversion to surface mount components! Maybe those tiny solder pad joints will last a year or two, but after that, who knows? This is especially true if the components are heating up and cooling down regularly, like they might do in an amplifier playing a symphony with a slowly fluctuating wide range of power output. Surface mount resistors also exhibit higher distortion than through hole ones, as they're physically smaller and more sensitive to temperature fluctuations caused by signal power. Through hole components might be a bit more labour intensive to mount and solder, but it's well worth the longevity and performance.

When I designed the Spartan 10 I wanted to make something that would last forever, using the best electrolytic capacitors and switches rated for 50,000 cycles. I also think through hole technology looks much nicer; definitely more of 'classic audio' aesthetic, just like the amps I used to work on during my summer holidays.

Finally, the price to performance ratio, especially for a hand made UK product. It may be quite basic looking – this will change with time – but I challenge anyone to find something with a complete spec like it for the asking price. I don't like to make subjective claims, but I'd subtly imply the enjoyment factor is up there too!

HP: Which came first, the measurements or the sound of the Spartan?

MF: I built little sections of the Spartan 10 on breadboards during development to test and measure the ideas that I'd come up with during development, but didn't make a complete circuit until the first PCB revision. As soon as I'd finished soldering up the prototype I rushed into the living room and connected it up to my turntable and amplifier, so you could say that the sound came first! I really wanted to make sure that I'd got my turnover point for the low frequency crossfeed circuit right, and the only real way to tell was to conduct a bit of subjective testing. I'd worked out 140Hz based on some technical objectives for reduction at 50Hz and crosstalk at 500Hz that seemed about right, but if it wasn't giving me the effect that I wanted then I was going to be going back and forth between my system and workbench to get it right, to my ears at least.

I was fairly confident that I was going to get good measurements, and as I couldn't hear any undue buzzes or artefacts to suggest there might be something not quite right, I left the Spartan 10 in the HiFi for a couple of days before disconnecting it and hooking it up to the distortion analyser. Happily, it measured just as good as it sounded, and retained the same excellent mid and high frequency performance that its building blocks had exhibited before I did the PCB layout. It was so linear, in fact, that it actually managed to reveal a flaw in my distortion analyser which the manufacturer later confirmed after a bit of prodding. I had to build a

test adapter to bring the level down and balance it for the analyser to see that the distortion was probably far less than 7ppm throughout the audio band. It just goes to show that measurements can sometimes be fraught with issues too!

Generally I'm in the camp that believes that if something measures well when subjected to extreme torture on the test bench with very unfavourable conditions, so as to simulate the absolute worst case scenario that it's likely to encounter in its intended use, then it's going to sound very transparent. It's a shame that there's so much fudging of measurements out there in contemporary products that go to great lengths to choose optimum test conditions that don't reflect the sort of conditions audio products are going to see at home. Transparency is my main objective, what sounds good to one person might not sound good to another, but I think transparency can be quantified much more easily. It's what 'high fidelity' is after all. I've made things that sounded good to me at first but weren't transparent, but after a few hours of listening I always found myself unplugging them and going back to the boring transparent stuff.

What I'm trying to do is bring myself as close to the music as possible when I design audio circuits, and I think I managed to achieve that objective with the Spartan 10 to a greater degree than I ever had before with a phonostage. It went back into my system as soon as I switched off my distortion analyser.

HP: You are a Made in UK brand, how important is this and how difficult is it to achieve this in today's global market?

MF: I don't think I can give a particularly satisfactory answer to that question as I don't really have much at all to compare it to. Coming off avionics it's certainly nice to be free of the choking bureaucracy, regulation and time limitations to do things the way I see best fit, so I'm don't at all feel like I'm being held back in any sense by manufacturing in the UK. The most important thing, to me at least, is that the assembly from component level, and testing is done by myself, or at least in close proximity to myself, where I can have a good enough degree of control over

the components and construction to ensure that I get the result that I'm after. As I'm currently based in the UK that makes manufacturing in the UK pretty essential, so you could say that it's highly important based on that metric.

On the other hand, I've worked with lots of different people from lots of different countries, in quite a few different work settings, and I firmly believe that excellence comes from people and not the place. I can only speak from experience, but if you've got a small group of people who believe in what they're doing and genuinely care about the product, then you're going to get a brilliant result no matter where you are or who you're working with.

Originally I wanted to be quite idealistic and source everything from UK suppliers and have as much of the product made in the UK as possible. As I did more and more research into sourcing parts overseas, I found that the UK suppliers were just re-branding what was made in China, with a correspondingly heavy markup. Taking a hammer to a set of samples from the Chinese manufacturers, some of whom were making copies of UK designed connectors revealed that many of the copies were actually better quality than the originals, which were made in China in the first place!

A good example is the enclosure, the UK enclosure company who I was using for the Spartan 10 were really just importing the aluminium extrusion from China, cutting it to length, and charging a heavy fee for doing so. The end plates were crudely stamped as well; you can see the effect of this on many UK made products. If there's one thing I don't like it's middle men taking a big cut just to pass something along, so I decided I was going to source my metalwork directly from the factory, although this comes with it's own issues as you have to be very clear indeed about what you want. It's a pity, but there seems to be a real lack of investment in UK manufacturing which has led to the state that we find ourselves in now.

I also don't want to be personally based in the UK forever either. I see dark clouds on the horizon as far as quality of life, friendliness to business, cost of labour, and heavy challenges when it comes to employing people, which will

make themselves felt if I'm lucky enough to end up scaling up the business just past myself. I think the past couple of years have been very telling. I want to leave. I don't see a future for myself or the business here, so I'm working hard to design a range of products that can be easily transplanted to wherever I decide to go.

For the time being I've been selling in the UK only, direct to customer, so haven't had to deal with the sort of issues that abound when selling internationally. When I've got sufficient quantity I'll start selling on Amazon UK, and then internationally, so that will come with it's own issues to be revealed at a later date. I've been told that I'm not right for conventional distribution so would like to keep the business as close to the customer as possible without having to worry too much about the finer details of the logistics.

HP: What other products do you have in mind?

MF: I've got lots of wacky ideas, some more practical than others, but at the top of the list at the moment is a moving coil version of the Spartan 10. Several people have now commented that I need to improve the look of the enclosure to match the performance of the electronics within, tacking on a price increase. I'd originally planned to keep the enclosure as simple as possible so as to deliver the absolute best performance for the lowest price, but it seems that aesthetics are just as important. I'm happy to hold my hands up and say that I've got this wrong, and I'm now working hard to design an enclosure that doesn't imply that the electronics within are similarly basic. There's going to be a small increase in price to cover the extra machining costs, but if it's what customers want then I'd be a fool not to deliver it and hold onto my own ideals. A bit of form doesn't hurt the function after all!

Back to moving magnet phonostages, I've made some rather interesting discoveries with very simple power supply circuits and single amplifier phonostage designs that I want to make into a small low-cost minimalist moving magnet phonostage with a correspondingly low asking price to match. I also want to showcase my filter design approach in building a mono

phonostage designed for 78 RPM discs. This will feature a total of six of the most useful playback curves, and a strong low frequency filter. There will also be a highly useful bandwidth switch that implements a steep third order filter to cut out the high end above 7kHz, so as to do away with all the hash above the limited recorded bandwidth of these old discs that can give the listener a serious headache through modern kit. I'm acutely aware of the lack of a simple preamplifier for casual 78 RPM listening so I'm excited to see how it will be received. I'm keeping the design as simple as possible so I can offer it for a good price; a good deal less than the more performance oriented Spartan 10.

I'm also working on a line level and headphone amplifier with balanced inputs and outputs that can sit between the phonostages and a pair of active speakers, or a traditional power amplifier, but my preference is for the former. This is going to feature a fairly beefy zero-output-impedance-inductor-less headphone stage that also does double duty as the line output for a short, simple signal path. The headphone driver will also be nested inside a new and unique potentiometer based volume control topology that I've designed, featuring an inherently balanced output and significantly improved noise performance versus the standard active volume control designs out there. What I'm after is less than a microvolt on the headphone output with the volume control all the way down, so there'll be absolutely no hiss whatsoever, even through the most sensitive IEMs. Conversely, it needs to be able to put a hearty 10V RMS into 100 ohms or less to drive those big old open back headphones to the point of destruction! Add to that a requirement for 21dB of gain, to bring a weak little 100mV line source of the kind that exists in vintage kit past the point to clipping for most active speakers and there's a very satisfying design challenge to attack!

Right on the back burner, there's also a simple single stage line amplifier and headphone driver that will use the same simple power supply as the economy MM phonostages. It'll have an impedance balanced output for connecting to active speakers in a very simple system, in conjunction with a pair of unbalanced line inputs. It's going to be like the headphone version of the classic 1970s amps that did the volume control, power amplifier, and feedback tone

controls all in one go. Unlike the tone controls of the 1970s kit that had to deliver a high gain for the power amplifier, and used pseudo-logarithmic potentiometers with different component values at the top and bottom of the network, these will be electrically symmetrical, so there won't be any colouration of the frequency response when they're left flat.

Sourcing potentiometers for the last two of these is proving a little troublesome, as the ones that are already available and commonly used in audio design are... not very good to say the least! The revered potentiometers are proving not to be so great on the test bench, mainly because the tracking performance isn't very good at all from my point of view, particularly towards the lower end of the scale. It's a bit like someone's randomly moving the stereo balance control around as you move the potentiometer control. Add to that a power handling of only 50mW, and straight away there's a limitation that means it's simply not possible to realise the best ratio of signal power to noise power, at least not without things getting a bit too hot inside the pot from the sorts of power levels that modern amplifier ICs can deliver. Even worse, the carbon tracks generate excess noise when driven to full scale with the headroom levels I like to use. What's the point of building a super volume control circuit, if the component at the heart of it is going to let things down with lots of excess noise from the carbon track that swamps amplifier distortion when driven hard?

The thing that worries me most, is that most potentiometers are only rated for some 15,000 cycles or so, meaning that they're going to wear out if you give them 5 hours worth of constant twiddling. Not very desirable for something like a volume control. I'd really like what I make to last forever like those good old vintage units. My switches are already rated for 50,000 cycles; the potentiometer is going to see a lot more action than that, so I'm furiously doing my own research into this. It looks as though industrial potentiometers, like the kind I used to twist when I was whizzing around on forklift trucks, can offer much better. A couple of million cycles, twenty times more power handling, tight stable tracking, and well behaved sealed conductive plastic tracks that don't go all crackly and drop out... They're several quid each, but well worth

it in my self inflated opinion. Stereo versions are lamentably rare and have to be made to order with correspondingly high minimum order quantities. I'm going to have to save up for this one, so buy my stuff and I'll put the cash to good use! What was the question again?

HP: So far you have focused on the analogue front end in people's systems, do you have any intentions of building a streamer or DAC?

MF: I'm afraid to say that I've got absolutely no intention of getting involved with a DAC or digital electronics, firstly because it really isn't my forte, and secondly because I'd have to use surface mount parts which aren't my thing either. Modern high performance DACs are quite a marvel of digital electronics, with a little bit of analogue electronics tacked onto the end. My capacity for digital design is quite limited, and my capacity for the sort of software needed to design a high quality streamer is virtually non-existent. I don't think I've got any improvements to offer in the field of DAC design, especially when there are some very high spec DACs out there indeed, for prices that I certainly couldn't compete with.

All the modern DAC ICs worth using use small surface mount packages, which goes against my commitment to using through-hole technology. They're also a constantly changing technology and ICs come out one day, and then become obsolete the next, which doesn't hold much cogency with my view of building things to last for decades, and then making them easy to repair when and if they do fail at some point. For this reason I put all my ICs in sockets; not possible for a modern DAC.

What does interest me, however, is the analogue signal path downstream of the DAC. Thanks to the continuous improvement of modern DAC technology, we now have DACs that are consistently outperforming the conventional analogue electronics in line level preamplifiers in terms of both noise and distortion performance. This puts a very interesting design challenge on the table that I'm eager to step up to. I'm even doing some research into a special low noise line inputs just for DACs on my equipment

for this reason.

I'd prefer to keep using 100% analogue electronics, as this is what I think I'm good at. I also quite like tactile electromechanical controls such as potentiometers and toggle switches. Those would go out of the window if I started incorporating digital electronics and microcontrollers into my products. Doing so would make me no different from the bigger companies and ultimately I wouldn't get to take full advantage of my ability to use analogue circuit architecture to push boundaries.

HP: Do you have any intentions of making products aimed at the higher-end market?

MF: Eventually, yes, although that depends on my hauling myself up the steep learning curve required to make a high quality traditional folded steel enclosure, preferably without any screws visible. I'm not sure if I could justify charging very much more than four figures for any piece of electronics. Generally speaking I don't sleep well if I've had to use very expensive or esoteric components to get the desired result. It's not really in the spirit of engineering to go to great expenses to realise an outcome that can be obtained with a bit of creative thinking and standard parts. I'm very fond of moving coil style level meters, so would like, at least at some point, to make a full width traditional preamplifier and phonostage with logarithmic level meters bouncing about.

At the moment, though, I'm getting smashing results out of comparatively uncomplicated electronics that can fit into small enclosures, and be powered by small external mains transformer based power supplies. While this isn't traditionally viewed as much of serious approach compared to full size units with mains wiring and the transformer in the main enclosure, it works very well. Keeping the enclosure small and the transformer outside the enclosure allows for much better isolation from the mains, as well as no need for mains wiring and its myriad of safety requirements that mandate more complicated construction techniques. There's also the added benefit that the transformer and its accompanying hum-inducing magnetic field are well away from the audio electronics. It can be pretty tricky sometimes to avoid hum pickup



in an enclosure smaller than full size, so there's a big cost jump involved in doing so.

So yes, I do have plans to eventually work on something a bit more pricey, but it's going to be quite hard work to beat what I'm working on at the moment. It's probably not going to happen for a few years as I cram all my ideas into my current work. My objective at the moment, though, is to get to the top of the spec tables without great expense for myself or the customer. High end should be a performance benchmark, not a price.

HP: What regional markets are you currently active in and what markets are you looking at moving into?

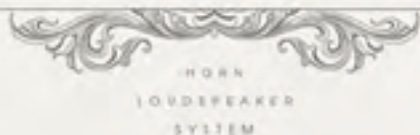
MF: I'm currently only active in the UK on a basis quite limited due to supply. There has been quite a bit of interest from Europe recently, so that will probably be my next target. I've made plans to acquire Euro and US power supplies, but need to improve my production and test capacity before I take my main focus off the UK. For the next year I would like to focus more on

development than production, so this will slow things down. Classic Audio also needs to make a name for itself over here so customers abroad will have enough confidence to purchase products.

It really depends upon demand, and as I don't plan to make many orders in 2022 I might even delay it by a year or more. I only need to sell a comparatively small quantity of units to keep afloat – I don't have expensive tastes – and I welcome as much spare time to do my own research as possible. Nothing would irritate me more at the moment than raking in big sums of and having to deal with the usual heavy losses incurred when that happens. Add to that my strong reservations of expanding the business in the UK, and I may not even have to consider moving into different markets. I can only make so many PCBs and units every day while I'm here. Only time will tell...



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ELIZABETH GOULD

INTERVIEW

Martins HiFi, is a family-run business, based in Norwich in the UK. The shop was established in 1968. We catch up with Elizabeth Gould, their Managing Director.

HiFi Pig (HP): How long have you been with Martins, did you start lower down the ranks and work your way up to running the business?

Elizabeth Gould (EG): I was 12 when I started as a Saturday girl, I checked stylus, attached 3 pin plugs to equipment and boxed items up.

HP: Were you in the HiFi Industry before working at Martins, if so what did you do?

EG: I was at school in Norwich, although I have had some other jobs over the years in retail, finance and latterly as an elected member of a District Council

HP: What skills from your previous career were transferable to HiFi retail?

EG: In finance I learned the

discipline of accuracy, I have used this to control invoicing and purchasing in HiFi retail. In all of my previous careers my communication skills saw me through. In the end people buy from people!

HP: What is your average day or week like at Martins... or is there no such thing as average?

EG: Varied rather than average! I can be collecting and delivering, dressing shop windows, heading up HR, being an accountant, making the tea or overseeing the website design and content

HP: What is the most important quality of a HiFi shop, what should it be to its customers?

EG: For us it's quality service. Going that extra mile so customers feel valued, so they put their trust in you to part with their hard-earned



INTERVIEW



cash

HP: And while we are on the subject, what is the most important asset of a HiFi shop?

EG: The staff, their commitment to the cause, knowledge and expertise in an ever changing world.

HP: What's the demographic of your clientele? Has that changed over the years? How do you encourage women and younger people into Martins?

EG: The demographic has been mainly men, however there are an increasing number of women now visiting and shopping with us. Yes, it has changed as our attitude toward ourselves has changed, we don't pigeon-hole customers but open our arms and encourage people with a love of what we offer

HP: How do you build the relationship with your customers?

EG: Listen to them.

You need to build an understanding of what a particular customer requires. Not all customers want a relationship they want to make their purchase and pretty much leave it at that, other like to have time spent with them, exploring different avenues, and seeing where that takes them in their fulfilment of their quest

HP: What do you see as the future for bricks and mortar HiFi shops? What is their role in the future of the HiFi Industry?

EG: I think that people still see the value of visiting a physical shop for positive enjoyable experience. Buying HiFi is a life style choice, not an essential, most people enjoy the journey to purchase as much as opening the box at home and using the equipment.

HP: If you weren't working in the B2C retail of HiFi, what other job in the industry could you see yourself doing?

EG: I probably wouldn't stay in the industry; I would need to look for a fresh challenge!

HP: How do you find being a woman in the



HiFi industry? Have attitudes changed over the years, have you encountered sexist attitudes? Or do people just accept that you know what you are talking about?

EG: I find being a woman in the HiFi industry testing; I feel I have to fight hard to be even accepted in an industry I have grown up in. Sexist attitudes definitely exist with in this and many other industries and it's something unfortunately you just have to deal with.

HP: If you had to name just one, what would you say is the most iconic item of HiFi that you have sold in your years at Martins HiFi?

EG: Myself in the early days used to get a certain sort of buzz being able to explain the different qualities of a sapphire or diamond stylus, not exactly iconic but certainly helped a customer make a choice.

As a business, I would say selling a complete Meridian HiFi and Cinema set up to a customer rates highly as it fulfilled their need for minimalist looks, quality and performance.

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MADS KLIFOTH

HiFi Pig speaks with Mads Klifoth of Danish loudspeaker manufacturer Audiovector.

INTERVIEW

HP: Could you give readers a bit of the history of Audiovector - when you launched, the people involved etc.

MK: Audiovector was started by my father, Ole Klifoth in 1979 and was run solely by him until I entered the company in early 2015. I took over majority of the shares and the day-to-day operations in the beginning of 2017. Ole is still very proactive in the company, heading up R & D, at a very young 73 years of age!

HP: What was the original motivation to launch a loudspeaker company?

MK: Already obsessed with getting the best possible sound, Ole built his first loudspeaker at the age of 13 in his childhood home. From that time onwards he has been a passionate advocate of music, engineering and musical repro-

duction, consistently pursuing the goal of faithfully reproducing a live music experience in the home. Basically, he couldn't find the speaker of his dreams, so he decided to build it himself.

HP: When did you take over the reins?

MK: I took over as CEO in 2017 after years of training in production and later in sales. First as a technician at our production facility, I subsequently worked in the real-estate market and later returned to the company business at Audiovector!

HP: Is your father still involved in the company? If so in what capacity?

MK: Very much so! As mentioned earlier, he heads up the R&D department and is actively involved in design and sound

INTERVIEW





room.

1: Audiovector R 3 Arreté, Zero Arreté cables on a Line Magnetic integrated amplifier with 211 tubes and a Naim NDX 2 streamer.

2: Audiovector R 6 Arreté, Zero Arreté cables on a Gryphon Diablo 300 with DAC, Naim NDX 2 streamer, Brinkmann Balance turntable and Edison RIAA.

HP: Do you hope that your children take over the business in due course?

MK: I will have a second son in April 2022 and if one of them, or both (!) will be interested, I

am very happy to help them to the appropriate education and training to succeed. I would also be very proud if they decide to do something else, of course – the main concern is that they do something they love and are happy!

HP: Give readers one fact about yourself that you are most proud.

MK: I am very proud to have made a successful succession with my father where we both feel important to the company and where we are both happy for the life we live at 35 and 73 years old – family always comes first!

INTERVIEW

tuning of all our products. He will be involved in the day to day running as long as he wishes and is able to. As he always says to me: "I have three kids - you, your sister and Audiovector!". Ole works 3 days a week in the office/manufacturing premises, allowing him to strike the perfect balance between spending time with his grandkids and fulfilling an important role in the company.

HP: Family is clearly very important; how does this translate into the workplace and for employees?

MK: We see our employees as essential additions to the 'company family', and as individuals, and we make it our mission to look after everybody in the same, respectful way. We are fortunate to have had several of them for many years, as they seem to thrive in our company. Hierarchy is flat and everyone has their respective areas of expertise. When you find good people, it pays to treat them well and take them with you on your journey!

HP: What do you think your employees would say about the culture of the business?

MK: Busy, performance driven, rewarding and warm.

HP: Turning to your actual products, what would you say sets Audiovector apart from other loudspeakers? What are their unique qualities?

MK: I spend relatively little time on other brands and researching what they do well, and I spend a lot of time on researching Audiovector products in the direction Ole and I decide for together. We are very good at delivering a product that sounds dynamic, open, punchy, natural, easy to drive and with great bass performance. Your music must sound as close to a live performance as possible – that's what we do best!

HP: How have the Audiovector products evolved over time?

MK: We try many different concepts and develop many different designs that never make it to market as we are extremely picky with what we

choose to launch. A good example of a successful new concept was our Freedom Grounding. 90%-plus of all customers that choose Arreté models also add the Freedom cable to their order. It is an easy and affordable way of getting a significantly audible improved sound quality.

HP: What countries are your best markets?

MK: We are lucky to be represented in approximately 45-50 markets worldwide and all of them contribute to our success as a company. The UK has also been great for us the last few years and I don't see this changing.

HP: What is your personal favourite loudspeaker in the range and why?

MK: I absolutely adore the R 8 Arreté as it is the first speaker my father and I designed and engineered together from scratch. It is a model that has inspired many popular concepts that are now included in the range downwards. The fact that it is stunningly beautiful to look at helps, too!

HP: Not including Audiovector which other loudspeaker brands do you admire and why?

MK: I am proud of being in this industry and there are many great products. I particularly like the history and sound signature of Wilson and I am impressed with the build quality and designs of Sonus Faber.

HP: What do you see as being the future for home audio?

MK: I see our niche growing to be even more analogue and specialized. There is a tendency for many of our listeners to go and buy a really nice system they can listen to for many years, instead of buying entry level and wireless speakers. Customers for our hi-end entry QR Series are generally more fun-loving and much younger than we have previously seen.

HP: What's in your home system?

MK: I play two systems in my house, one in the open kitchen where we cook a lot and eat our meals and the other in my dedicated listening

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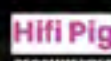
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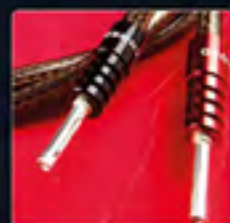
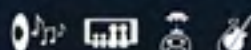


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PETER BRONDER

INTERVIEW

Peter Bronder has a somewhat illustrious career in opera having studied at the Royal Academy and national Opera Studio and then taking lead roles around the world. HiFi Pig has a chat with Peter about music, performing and more.

HP: You studied at the Royal Academy of Music and National Opera Studio, at what age did you discover your love of opera and where did this love come from?

PB: I suppose it started when I heard my Dad's tape recordings of the Red Army Choir when I was about 9; the flavour of Russian folk music, the incredible power and dynamic range of the choir and the virtuoso soloists all moved me in a way I didn't quite understand at the time. My Viennese mother also liked operetta and light classical music; although neither parent encouraged me to pursue an active interest in music or learn an instrument. My Viennese Grandfather was a singer and would have had a good career but he was Jewish at the wrong time and wrong place and, despite attempts to flee to Hungary, became a holocaust victim in Auschwitz.

I was in awe of the stories my Grandmother told me of dodging allied bombing in war-torn Vienna, being constantly on the move, scavenging for food and my grandfather busking on street corners singing Russian folk songs with his balalaika dressed as a Cossack; but the fact he was a singer didn't make much impression at the time, although, in retrospect, what little talent I have was from him.

At school I hated music lessons (boring syllabus: all recorders and dummy-keyboards.....) until the music teacher played a record of a Beethoven symphony, which was the sonic equivalent of a drug trip! At 15 years old, I became obsessed and started teaching myself piano and music theory, alongside a growing interest in drama and theatre. At 17, I was roped into a school choir performance of

INTERVIEW



Handel's "Messiah" and found people staring at me in rehearsal; it appeared I was drowning much of the rest of the choir without being aware of it! By then I had discovered Wagner...

When I left school, I started working for a hifi dealer to pursue my musical passion, convinced that professional music was a non-starter, although I was keen to have voice lessons just for fun. By pure luck, I found a first class voice teacher who in four years converted my crude raw vocal material into the fundamentals of a trained instrument. However, I did not have the nerve to sing solo in public until my teacher recommended me for a student production of a Puccini opera and at 25, I finally sang solo in public! Six months later, I had given up my job and started my five year course at the Royal Academy of Music.

HP: What was your first professional performance?

PB: I had my first paid solo engagement as a first year student at the Academy; the Verdi Requiem, no less! All for the princely fee of £35, of which £18 went to Moss Bros. for the hire of white tie and tails! My slightly more "mature" years, combined with the initial voice training I already had, gave me a huge advantage over most of my contemporaries and I could accept many such jobs, including my first paid opera gig for the Windsor and Eton Operatic society which culminated in a gala performance in the presence of the Queen Mother!

My first real professional engagement (where I received a "grown up" fee submitted in my first year of freelance accounts) was before my fifth and last year at the Academy: the Bayreuth Festival Chorus! The shrine of Richard Wagner! As well as funding a brand new Kawasaki Z1000 motorcycle, it was my first experience of sharing the stage with top international artists, including the only appearance there of conductor George Solti.

HP: You were principal tenor for the Welsh National Opera, that's quite some achievement. How old were you and how did you move towards that position?

PB: After leaving the Academy, I worked for

a season at Glyndebourne and won a much coveted place on the National Opera Studio post-graduate course. The intake is restricted to about 10-12 singers and répétiteurs (accompanists and potential conductors) and is very intense, culminating in auditions for the national opera companies. As a result, I got my first understudy job at the Royal Opera Covent Garden, an association which has so far continued for 37 years! I also managed a couple of good auditions for Welsh National Opera who were looking for an Italian style tenor with a particularly high range. My debut there (at 32!) was the murderously high tenor role in Bellini's "I Puritani". My starting salary was £165 per week! I ended up staying on contract for nearly 5 seasons which gave me the chance to perform 13 roles! During my time there, the company gave me "time off" to accept important debut engagements elsewhere including my proper debut at the Royal Opera.

HP: You have previously performed in Italian and now predominantly in German, do you speak either of the languages or isn't it necessary?

PB: Most operatic voices change over the years and as mine matured, I moved away from the lyric Italian repertoire (the juicy "Pavarotti" roles!) to the more dramatic, predominantly German one. It also suited my temperament and physicality to play baddies, psychopaths and misfits rather than Latin lover boys!

Growing up bilingual German was a massive advantage in this transition. Apart from anything else, it reduced my study time of those massive Wagner roles considerably. To perform effectively in opera, one has to not only know the meaning of one's own text, but that of all the other characters with whom you are acting! Also, it's not just a question of being able to understand the text, but being able to play with the colour and inflexions which is best served if one can think in the language. My Italian is workable if not fluent; mainly because correct vocal technique is built on the vowel purity of the Italian language and a working knowledge is all but essential in training for opera. I have also sung some Russian roles with modest success but as I don't speak a word of it (except Vodka...) the extra work needed is considera-

INTERVIEW



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ble and I will never equal the text delivery of a Russian speaker. I've also performed in French, Spanish, Latin, Czech, and even Hungarian!

So the short answer is that, although it is not essential to speak all these languages fluently, to have even a modest working knowledge is a huge advantage and a good ear for language idiom is certainly essential. But the top performers in any given roles are almost always fluent speakers of the language of those roles.

HP: What other engagements have you had around the world?

PB: I have been very fortunate with the wonderful places I have been able to experience and the venues in which I have performed. Apart from regularly appearing in a wide range of roles at the Royal Opera Covent Garden, other major venues include the Metropolitan Opera New York and the Teatro La Scala Milan; as well as major theatres and concert halls in San Francisco, Boston, Berlin, Frankfurt, Munich, Stuttgart, Paris, Moscow, Tokyo, Madrid, Barcelona, Athens, Amsterdam, Brussels, Lisbon, Rome, Turin, Edinburgh, Hong Kong, Sao Paulo

in Brazil and Perth in Australia.

Famous artists with whom I have been able to work include: singers Luciano Pavarotti, Joan Sutherland, Plácido Domingo, Kiri te Kanawa, Jonas Kaufmann, Bryn Terfel, Renée Fleming, Alfredo Kraus; and conductors Daniel Barenboim, Bernard Haitink, Sir Charles Mackerras, Christoph von Dohnányi, Sir Colin Davis, John Eliot Gardiner, Kirill Petrenko and Vladimir Jurowski.

HP: What has the highlight of your career been so far?

PB: There have been many highlights; probably the ultimate was performing a major role in Wagner's "Ring Cycle" conducted by Daniel Barenboim at the Berlin State Opera and La Scala Milan; culminating in a DVD recording and the first ever complete Ring cycle at the Proms festival in 2013. At the latter, I was in good voice and was rewarded with the most amazing ovation from nearly 4000 prommers at my solo 'curtain call'.

Not far behind was my debut at La Scala Milan



(The difficult main tenor role in “Salome”-R. Strauss) where I was originally billed as second cast for later performances; but due to the late indisposition of the first cast tenor, I ended up singing all the performances including the first night which was televised live and released on DVD.

HP: After such a career what is the one engagement you would love to win and why?

PB: I would love to perform with either the Berlin or Vienna Philharmonic orchestras. And although I started my career in the chorus in Bayreuth, I have as yet not been invited to sing a solo part there, despite the experience I have accrued in performing Wagner roles. And my Viennese Grandmother always wanted me to sing in the Vienna Opera and Salzburg Festival. Sadly she did not see either wish fulfilled but I am glad she witnessed my Royal Opera debut 3 years before she died, with the bonus of meeting one of her tenor idols, Alfredo Kraus who was singing the main part.

I nearly sang once in Salzburg as a last minute

“jump-in” when nobody could be found elsewhere. In fact they sent a private plane to pick me up from Stansted on the afternoon of the performance but when I arrived, the other tenor miraculously “felt better” and limped through the performance with me sitting like a spare drum stick with the Vienna Phil in the orchestra pit. I received the biggest fee ever for that gig without actually singing a note and the next morning I was sent back to Blighty by Ryanair.

HP: What is your favourite venue and why?

PB: That depends on the criteria. Acoustically, Birmingham Symphony Hall, Manchester’s Bridgewater Hall and the Megaron in Athens rank among the very best. The massive auditoria in New York, San Francisco and the Paris Bastille are awesome. The unmistakable classic interiors of the Royal Opera, La Scala Milan and the Bavarian State Opera always have a special atmosphere. In terms of company atmosphere and “feeling at home”, Madrid and Frankfurt rank very highly for me.

However, (this will hopefully interest hifi enthusiasts....) one of my favourite ever jobs was the

production of “Andre Chenier” in the open air venue of the Bregenz festival -as featured in a relatively recent James Bond film. The stage is actually on the lake overlooked by a small lake-side “stadium” holding about 6000 people and features one of the most sophisticated outdoor sound systems of its type in the world, including over 250 loudspeakers! These include many hidden speakers throughout the set and during the staging rehearsals the engineers map out the direction of the various voices according to how the characters move on stage so that the voice always sounds as if it is coming from that character. I played the role of a spy and it was quite disconcerting when one of the other characters moved near where I was “hiding” causing their amplified voice to suddenly blast into my ear as they were passing. Of course, normally Opera singers are not amplified but in the open air, there is no choice! The orchestra is inside a small theatre and is mixed and fed to the outdoor surround system and expertly combined with the voices. We had to keep our eyes on strategically placed TV monitors to (hopefully...) synchronise with the conductor.

On top of all that, I had to abseil 25 meters down the set in character and costume, and reaching the bottom, the plot demanded that I be intensely distracted by “ladies of the night”. A dirty job but someone had to do it.... Who says opera is highbrow....

HP: What is your favourite opera to perform and why?

PB: I will “cheat” and say Wagner’s “Ring” cycle, a saga of 4 operas, the operatic equivalent of the Lord of the Rings. The roles of ‘Loge’ (god of Fire) and the dwarf ‘Mime’ (a sort of ‘Gollum’ character) are so rich and challenging in dramatic, musical and textual possibilities. For me, Opera should be a synergy of music, text and drama; where all those elements fuse together to form something extraordinary, much greater than the sum of those individual parts. As much as I still enjoy belting out the occasional “Nes-sun Dorma” in the shower, I am drawn to those more complex roles.

The role of Herod in Richard Strauss’s “Salome” is a very close second. The music and vocal lines are even more complex and the way the

text is set is extraordinary and so rewarding! And he’s a complete nutter, which is fun to play! What is also appealing is that these roles can be interpreted in so many different ways and the contemporary trend for directors and designers to set so many operas in different times and locations increases those possibilities even more. For example, I once did a modern production of Salome in which I played him as an aging drug taking rock star! The nearest I ever got to playing Keith Richards...

HP: Taking performance to one side now, what is your favourite opera to listen to/attend?

PB: The corny answer is that I don’t have any single favourites. In my younger days, I would listen to and attend as many different operas as possible and went through different phases. I loved Wagner from the very start but when I started having proper voice lessons at 21, I just soaked up Italian opera, especially of course Verdi and Puccini. Now my reasons are different: I will go to performances to hear particular colleagues or conductors, or maybe specific productions. The last live Opera performance I went to was when I made a nostalgic trip to Vienna, just before yet another lockdown. I went because it was the first live music of any sort I experienced for over a year due to the covid pandemic; it was the popular double bill of “Cav and Pag” (‘Cavalleria Rusticana’ and ‘I Pagliacci’, two short late romantic Italian works usually performed together). Just physically hearing the Vienna orchestra play the first rich chords at the beginning of the first piece literally brought tears to my eyes, reminding me of what we have all missed and that music is for me as essential to life as the air we breathe...

HP: Many people think that opera is a “difficult” genre of music/performance, if you were to choose one opera for newbies to buy on record (CDs and streaming are options) what would it be and why?

PB: Very difficult to answer..... Opera spans more than 400 years, so there are multiple styles, which would not all necessarily appeal to a potential listener. Someone who listens to big romantic orchestral music is more likely to be drawn to different choices than someone who

prefers a more baroque or lighter style. Some opera lovers just want to luxuriate in beautiful, pure melodic singing and shy away from the heavier vibrato and decibel-rich variety which is often caricatured. Many just prioritise a decent tune! My advice would be the same as to someone “dipping their toe” into classical music in general. Sample many different styles and see what you like! There’s no wrong or right answer! Try some examples of Handel, Mozart, Rossini, Verdi, Puccini, Wagner, Strauss and see what grabs your attention.

Having said all that, I heartily recommend one particular recording which I have found to have almost universal appeal. From the 1960’s “golden age” of analogue Decca recordings, there is a version of Puccini’s “Tosca” which has just about everything: big romantic tunes, great orchestral playing and imaginative use of the stereo sound stage to convey the drama as if it were actually taking place in a theatre. It’s like a 19th century spy thriller, with passion, intrigue, interrogation, torture and murder; all ending with a shocking twist. My original 50(!) year old LP copy still sounds great and Decca have recently reissued a remastered CD version which includes a Bluray “Pure Audio” disc. Which format is best, is a subject for a different discussion..... Just google “Tosca Karajan Price”

HP: How do opera companies widen the appeal of opera?

PB: Education of young people! To me that’s essential for all the arts! During my early days at Glyndebourne, I participated in a schools project performing a scene from Carmen and then involving the students by teaching them a simplified version of the chorus and integrating them into the action to be IN the scene! It was heartwarming to see their enthusiasm, commitment and enjoyment in something they would possibly have never otherwise discovered! The Royal Opera has similar such schemes, including special performances and access to rehearsals. There was an incredible production of ‘Lady Macbeth of Mtsensk’ by Shostakovich in which I played a drunken peasant (type-casting.....?) which would not immediately have come to mind when making suggestions for ‘newbies’ but a group of sixth formers were invited to the dress rehearsal and they were

totally enthralled! Fortunately, many opera companies everywhere have been creating similar initiatives.

I strongly believe that Opera shouldn’t in any way be diluted or ‘dumbed down’ to make it more ‘popular’; a point of view I believe to have been validated by these wonderful experiences with children and young people. It will never be everyone’s “cup of tea” but neither is any other genre of music...

HP: Do you listen to opera at home?

PB: Well... I suppose it has become a bit of a busman’s holiday over the years but yes I still do! In early days when I bought my first HiFi and devoured masses of music, I would listen to complete operas glued to the LP libretto book! Now I rarely listen to complete works unless I have a particular yen for a piece I haven’t listened to for ages. I consider Wagner’s ‘Ring’ one of the greatest works of the genre but it is decades since I sat down and listened to the whole cycle over four days as Wagner intended! Having performed so much Wagner over the years, one is less likely to resort to it as light relief at home! Of course there is plenty of listening when I am studying, be it a new work or revisiting one I have already performed. Also, I repeatedly listen to the great singers for my own pleasure and to keep my standards up, both for performing and teaching.

HP: What other music moves you?

PB: Predominantly the rich treasure chest of all ‘classical’ music; everything from Medieval choral music to massive symphonies by Bruckner, Mahler and Shostakovich! Bach keyboard and other chamber music are particularly soothing late at night at low volume.

Of course there is plenty music which has personal nostalgic significance for me; Russian folk music, Brazilian Bossa Nova amongst others. Last and by no means least, I regularly “rock out” to classic rock and blues from the birth of rock and roll onwards! There’s something about old, well-seasoned blues musicians which strikes a chord with me: my last live concert of this genre was by Robin Trower who, well into his 70’s, really knows how to make his guitar

sing!

HP: What's your home system and why did you choose the components you did?

PB: I think like all HiFi enthusiasts, be they professional musicians or not, the system I use now has evolved over the decades. Also, although musical accuracy has always been a priority (it has to be when you are constantly exposed to the "real thing" close-up!) one's taste of presentation can change over time. The only complete system I ever bought at once was my very first at 18! (Garrard SP25, Wharfedale Linton amp and speakers) but within literally weeks, I found myself on the slippery upgrade slope..... At first I preferred a warm rich sound with a luxurious soundstage (Linn Sondek, valve amps etc....) but now prefer a much leaner, almost dry sound where the music just seems to "hang there" unadorned, with just a hint of warmth.

So I still have my ancient SME 30 with series V arm and Koetsu Urushi cartridge. Also my 90's ATC SCM50 actives have had a thorough factory refurbishment not so long ago. After the terminal demise of my 33 year old Audio Research valve preamp, I settled on a Burmester 088

preamp which is a superb match for driving the actives with tight control but a totally natural and fatigue free sound with just a touch of warmth. The bonus is it includes the option of one of the very best integrated phono stages. I nearly went for the matching Burmester belt-driven CD player but ended up in 2020 with the Esoteric K-03XD which has almost the same "analogue" qualities but a massive, open soundstage with the most delicate detail and tight and profound bass.

The most recent additions included a second-hand PS Audio PS10 generator: what a revelation! Although I had decent cables (Analysis Plus; audio and mains) and a dedicated mains spur, a completely independently generated 240 volt supply makes a profound difference. There is a scope display showing the differential waveform between the incoming mains supply and the generated power: and it is ugly! Finally, having always assumed that my 25 year-old Mana stand could not be bettered, I tried the revised Basso Continuo Reference racks which blew away the Mana and other racks I tried. I obtain great pleasure from this system and have finally reached a point of "If it ain't broke, don't try and fix it"! Well, at least until the next time...





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GHOST PLUS SUPPORT

LIVE MUSIC

Michael Fairbairn and John Scott step out to witness the worship of satanic-metal japesters, Ghost. Will they be grabbed by the Ghoulies? Read on to find out.

Words: Michael Fairbairn. Photos: John Scott

We are gathered together tonight to welcome back Ghost. It's been more than two years since Tobias Forge, the Swedish singer, songwriter and leader of this powerhouse enigma of a band last graced these shores with his demonic presence. Having killed off several previous alter egos at will over the years, tonight sees Papa Emeritus IV step onto Scottish soil for the first time. Still sporting his recognisable prosthetic mask and skull makeup, Forge is very much alive (or is that undead?) as the band's twisted master of ceremonies. Accompanying their inimitable overlord, as always, are the Nameless Ghouls who have since grown in number and have themselves had a makeover; now resembling something you might meet in the Star Wars cantina. The now expanded clergy are all a very welcome sight for, 'all eyes'

and a treat for, 'all ears'.

Now stepping up to performing in enormodomes on this run of UK and European dates, they have not only been missed by their hordes of followers but have also picked up an army of new worshippers who are here to celebrate the ritualistic union of rock 'n' roll and the occult. Such is the appeal of Ghost's melodic brand of satanic metal that the congregation tonight ranges from Tweenies to Sex-tagenarians, all equally keen to indulge in the forthcoming spectacle.

Opening tonight's proceedings is Twin Temple. Hailing from Los Angeles, they are a devil-worshipping duo specialising in self-styled Satanic Doo-Wop. Picture a rock 'n' roll house band for The Munsters or Addams Family. The band take influences from The Ronettes/Spector Wall of Sound

LIVE MUSIC



LIVE MUSIC



LIVE MUSIC



- more Be My Baphomet than Be My Baby – and pair it with horror schtick; blood, skulls and inverted crosses aplenty. It's an enticing concoction, further emphasised by their effortless cool and stage presence. It's not all about the visuals though. Songs like Sex Magick and, Let's Have A Satanic Orgy channel the classics of the 50s/60s era and are delivered with apparent ease by bewitching vocalist Alexandra James, coming on like Amy Winehouse crossed with Elvira, and her devilishly suave and sharply-dressed right-hand man, Zachary James on guitar. The live lineup is ably augmented by a top-notch backing band, which even includes a saxophonist; the first of two featuring this evening. This pair are no metal act though, despite their love of the genre and the association with the occult. But as Alexandra says: 'Why can't you love Roy Orbison and hail Satan at the same time?'

Next up is Uncle Acid & the Deadbeats, who are an entirely different prospect. Picture vintage-era Sabbath minus the engaging, maniacal frontman. They are a mass of long hair, overdrive pedals and very loud, riff-laden doom. They are a force to be reckoned with though and, having supported the aforementioned Ozzy and co. back in 2014, are clearly capable of delivering the goods alongside their peers and the forefathers of the genre or of headlining their own show in a dark, sweat-drenched pit of a venue. Tonight though, they are more of a downbeat affair, somewhat at odds with the exuberant, party atmosphere.

All of tonight's acts have released music via the independent Rise Above Records, owned by Lee Dorrian of the band Cathedral and formerly of Napalm Death. As someone who has a reputation as a control freak, it speaks volumes that Tobias Forge opts to present a lineup based on style, vibe and overall atmosphere with loyalty to a label that was instrumental in supporting his early offerings, rather than take out a couple of bigger, guaranteed audience draws. More power to him.

Following the atmospheric, scene-setting choral intro music, a gigantic white curtain dramatically drops as the band appears, all guns blazing, with Kaisarion. The opening track from their latest album, Impera is a frenetic blend of pop,

hard rock and even a touch of prog. Its uptempo, uplifting and infectious quality serves as the perfect start to the set. Crowd favourite, Rats follows, with its simple, singalong chorus/chant and then it's swiftly into the dirty, rumbling bass riff intro of The Pinnacle to the Pit, which slows things slightly in this three-pronged salvo. It's easy to understand why Ghost continues to appeal to a much larger and more varied audience. At this point, they are in the enviable position of drawing from several classic albums with varying, yet consistent, styles and already boast a repertoire that some long-established acts could only dream of. On top of that solid foundation, they present themselves with good humour, which is a quality that can be lacking in the genre. That's not to say this is some disposable novelty or joke act in any way, shape or form; it's just that there is nothing po-faced about them and their delivery often comes with tongue firmly in cheek. A good example is the lighthearted guitar duel that precedes a hymn-like instrumental segue, Devil Church, which culminates in the rhythm ghoul playing Scotland the Brave, much to the delight of the audience. Devilish fun indeed!

Music aside, the whole show is a fantastic spectacle to behold; with Queen-esque pomp and circumstance. In fact, the stage set is reminiscent of those employed in the 70s by many classic hard rock bands. There is the oversized drum riser, dry ice, gangway platforms and a fantastic lightshow to boot. Huge stained-glass cathedral-like backdrops frame the entire production. As the preening, posturing frontman, Forge also struts and projects in much the same manner as Freddie Mercury in his prime. He has that similar flair, banter and rapport with the audience that only a few select artists seem able to achieve. The crowd lap it up and hang on his every word. 'Do you like movies?', poses Papa before launching into the excellent lead single from Impera, Hunter's Moon. The Nameless Ghouls are also out for a good time; ready for a release, a boogie, a bang of the head, a shimmy of the ass or even a hypnotic sway to the brooding slow-burner, Call Me Little Sunshine, which sees Forge decked out in full Papa Emeritus IV pontiff-like regalia.

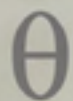
Within the satanic-rock framework, there is something on offer here for just about all tastes,



such is the versatility and diversity of the setlist. Despite the myriad of styles, they still manage to make it work and, somehow, pull it all together into one consistent package, which is no mean feat. Tobias wears his influences on his sleeve; some more blatant and utterly unrepentant than others. He is savvy enough, though, to take the best bits and make them his own. While this is, to all intents and purposes, a solo project; the work of one uber-creative talent, the Ghouls are a team of crack session musicians who deliver Forge's vision despite the restricted sightlines of their elaborate headwear. The band evoke the best of Alice Cooper, KISS, Def Leopard, Sabbath, flirt with classical elements and pepper the set with flourishes of prog here and there. The latter is best exemplified by Miasma, which features the recently-resurrected Papa Nihil expertly executing the second sax outing of the evening. If all that isn't enough, you even get a dose of hammond organ-drenched psychedelia with Kiss the Go-Goat and Mary On A Cross, both evoking the experimental L.A. - San Francisco scene of the late 60s/early 70s. Think Jefferson Airplane in a smoky Whisky A Go-Go and you get the gist. There is also an abundance of melodic sensibility and pop. A recent and welcome addition from the new album is, Spillways, which comes across as a tribute to early Bon Jovi, Van Halen in their prime or even ABBA at their most flamboyant.

The insistent piano intro stands out as a real attention grabber. The set is not all high-octane numbers though and has a softer side. The excellent musicians deftly manage a change of pace with the lush, harmony-laden and orchestral-like arrangements of He Is, a beautiful and haunting ballad, as well as soaring instrumentals, Helvetesfönster and Spöksonat. These segues no doubt allow the hardworking singer some respite in what must be a very demanding performance, not least with the dynamic vocal workout, choreographed pyro and theatrics, in addition to numerous costume changes.

It's not long before the band ramp things up again and, if crushing hard rock/metal is more your thing, you get plenty to enjoy with the likes of Cirice, which won a 2016 Grammy Award for Best Metal Performance, alongside Faith, Ritual and Mummy Dust, all of which could quite easily be mistaken for vintage NWOBHM or mash-ups of Metallica tracks from their different eras. They are a riff-heavy barrage, all featuring blistering fretwork work by the lead guitarist ghoul, affectionately referred to as, 'the little guy' by his boss. It's no wonder that Metallica frontman James Hetfield, publicly and repeatedly extols the virtues of one of his favourite bands. Tobias Forge replays the complement by including a cover of Enter Sandman in the setlist.



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IT COSTS HOW MUCH?

Stuart Smith looks at the cost of HiFi.

STU'S VIEWS

I'm from Yorkshire. For those that don't know Yorkshire, it's a county in the North of England often referred to as God's own country. Now I can't comment on any deity's like or dislike for any given part of the world but Yorkshire does have some rather pleasant spots, it has to be said. Scotland, likewise, is a majestic part of the United Kingdom and has claims to fame too numerous to get into here, and I mention it only by way of adding a bit of context. In the UK there is a stereotype (in my opinion wholly unfounded as I've always found Scottish people hugely generous and welcoming) of Scottish people being somewhat careful in how they spend their hard-earned Whisky Tokens (Irish Bru is available for teetotallers). Indeed there was a television advertisement for a brand of crisps (chips) I recall from my youth of a

Scottish gentleman enquiring about a packet of crisps (chips) and asking the shop-keep "You'll no be having a sale?". Like the stereotypical Scot, the caricature of a Yorkshireman is that of a person not inclined to part with his Beer Vouchers frivolously. Outrageously, I've heard "a Yorkshireman is just like a Scotsman only with the generous streak taken away" levelled at God's own country-folk.

So to sum up this little preamble – I'm pretty careful when it comes to spending my dosh.

However, it seems that there are people out in HiFiLand that seem to object to pretty much any product that costs more than tuppence ha'penny and to not wanting to carry on the wholly unfair and wildly inaccurate stereotyping I thought I'd go in for a bit of wholly unfair



and inaccurate stereotyping of my own.

What prompted this (perhaps) altogether inaccurate portrayal of clichéd consumers of audio equipment was our running of a news item about a product from a very well-known manufacturer and the comments it attracted from all sides of the audiophile spectrum. I would like to make the disclaimer that the types of people I describe are wholly made up and for amusement purposes only. Should you see yourself described herein then it is completely coincidental and unintentional.

I think it's a useful point to make that everything over and above the basic human requirements for life (food, water, shelter, healthcare) could be seen as being luxury. That may be debatable, but the truth of the matter is that we don't actually need HiFi, much in the same way we don't need luxury watches, luxury cars, nice furnishings...the list is endless. However, as human beings we do like nice things and, unless you are someone who renounces all consumer products, we have all bought into the consumerist model to a greater or lesser extent.

Let's have a look at some of these wholly inaccurate stereotypes of consumers of HiFi - I like to call them audiophiles.

I CAN'T AFFORD THAT AND SO I WILL SAY

IT'S A RIP-OFF

This kind of person is all of us at some point or other, I reckon. When faced with something we can't afford the (I would argue) natural response is to rail against it and claim it to be a rip-off. That's all well and good, but you are not the market for this product. You may be one day, but at this time and place if you fall into this category then you are not the person that the marketing department had in mind when they created and priced this particular bauble. And let's face it, we live in a consumerist society and any given company is going to charge what they think people will pay for a product – that's what we have all bought into, as I mentioned. The inherent value of the product is neither here nor there because to someone, if the engineers, fabricators and marketing department have done their job properly, there will be value in the product – that may be they like the look, they are bought into the brand, the product is limited in number, the product is louder/faster/flashier/classier/more refined...any number of things.

However, if you can't afford it then tough. Or save up. Move on...next consumer, please.

I CAN AFFORD THAT BUT I WILL SAY IT IS A RIP-OFF

Once again, you are not the market for this

product. You have the money to spend on it should you so wish but, for whatever reason, you do not think the product is worthy of your hard-earned. You may well think that something else that others see as totally frivolous as being “up your street”, but in this particular instance the item in question just doesn’t push the right buttons. Now, this is an interesting group and whilst they may well spend their money on countless other consumer distractions, it would seem that the marketing department has, with regards to this particular product, not done their job properly. Or it might be that you just don’t like to spend your money and like to keep it invested so that it produces forth lots of little offspring notes and coins for you to further invest.

Whatever, the product is not for you...move on...next consumer, please.

I COULD MAKE THAT MYSELF FOR TUP-PENCE HA’PENNY

We’ve all encountered these folk and I do get their logic...until I actually start to think about what goes into making and marketing a product, and the people the company employs, and the taxes the company pays, and the investment in machinery, and the rent of manufacturing facilities, and the money spent in R&D, and the cost of transporting the product...there’s lots more.

I applaud this kind of person and I do embrace and applaud that Do It Yourself kind of attitude, I really do, it’s just that I have zero skills with regards to building any kind of audio equipment and have no desire to learn any of those skills. However, should you build a copy of the product in question, please do be aware that just like the Rolex watch you know to be fake but buy it anyway, it’s potentially never going to have the same pride of ownership and it’s never going to sell (legitimately) for the same kind of money as the original product on the second-hand market. Some may argue the pride of ownership is actually higher with a DIY project and I do concede that point.

Once again, dear reader, this is a product not aimed at you...move on...next consumer, please.

I CAN’T AFFORD THAT BUT I’D QUITE LIKE IT

I find myself in this category quite a lot and with lots of different things. I can appreciate the Ferrari that drives by and I can picture myself driving down the main drag in St Tropez in it, but the truth of the matter is I’ve not got the kind of money to spunk on a flash car. The marketing department has done their job exceedingly well here. They have elevated the product to one that I desire but one that still remains tantalisingly just out of reach at this point in time. I’ve got options, of course. I could forego other consumerist luxuries and put the money I save towards this object of longing, or I could just realise that I’m never going to be in that position and buy something lower down the brand’s range. This happens all the time and I guarantee most folk reading will have at some point exhibited this characteristic – can’t afford a Cartier diamond necklace that costs fifty grand, then buy a Cartier watch that costs five. Can’t afford a Cartier watch, then buy the Cartier perfume (I don’t actually know if they do a perfume, but you get my drift). Or I could just buy a different product that I can afford.

Now, there is an interesting sub-division in this category of consumers who because they can’t afford product X get all uppity and claim that they can afford it but say they think it’s a rip-off anyway. It may be that the money is there but a significant other has put a spending block on frivolous purchases – whatever, it’s the same outcome just a different means to getting there. This sub-division seem to be the most vociferous in their putting down of a product, or so it would seem. In this case, the marketing department may have done its job so well that it has elicited an inappropriate emotional response from the consumer.

Whatever, you are not the target market and this product is not aimed at you specifically...move on...next consumer, please...or get saving.

IT’S NOT EXPENSIVE ENOUGH

Let’s face it, you can’t win. Whatever your product and whatever price you pitch it at there’s always going to be one particularly angry and shouty group who want to poke their

shitty stick if disdain at it. So you as a manufacturer have built your product and you have built it to appeal to a budget consumer with a price that will be irresistible to this market – who could possibly moan? It may well be an excellent product, but whether you have skimmed a little on the box it's in to cut down on costs, or you have left out features present on your more expensive offerings then someone will invariably whine.

The group of people that grumble at this kind of product are wholly unfathomable in my book and are simply not worth expending energy on discussing the matter with.

This consumer may have jumped ship from any of the above categories and may well be bored and simply want something (anything) to pour their scorn on.

Alternatively, it may be that the person saying this is super-wealthy (or a snob) and simply wants whatever is perceived by them, and perhaps others, as being the very best and often this comes with a high price tag, though that high price tag doesn't necessarily equate to absolute quality.

Whatever, if you don't think it's expensive enough then this product is not for you...move along...next (actually not a) consumer, please.

IT'S OBSCENE TO SPEND THAT KIND OF MONEY ON THAT!

I prefaced this article by saying that we have all bought into the consumerist model to a greater or lesser extent. However, I do get that the system is far from ideal and whilst we sit and look/listen to our £500/£5000/£50,000/£500,000 HiFi system I fully appreciate that there are untold numbers of poor unfortunate people living in abject poverty with barely enough money to feed themselves, never mind contemplate the luxuries of life. We are the fortunate ones, whether our disposable income is limitless or more restricted. If you place yourself in this category then I do applaud you – you have transcended the modern-day consumerist model and have achieved a life free of the needless consumerist trivia of life. However, I assume you are reading this without the aid of a

mobile phone, laptop or tablet.

Needless to say, you can't read this as I alluded to above, but you are the one person in this myriad stereotypes that I take my hat off to and say well done – and I don't mean that in some kind of throwaway manner. I genuinely believe you are the idealist that has put their actions firmly where their beliefs lay and you are an inspiration to us all. I guess you are at this very moment off protesting the consumerist society and plotting its downfall, though likely the truth is somewhat different.

If you are this kind of person then you really ought to be out and about on the frontline and getting on with your self-sufficient small-holding and not reading about what, as mentioned, are luxury products in a HiFi magazine.

Whatever, this product and any other product on these pages is not for you...next consumer type, please.

I CAN AFFORD THAT AND I BOUGHT IT

Well done to both you and the marketing department. You are exactly the person that this product was aimed at and it has been pitched perfectly at you.

Enjoy your product.

TO RECAP

The top and bottom of all this is that HiFi, like many things, is not a necessity to life (YMMV) and as such is a luxury that we can, to a greater or lesser degree, choose to have in our lives or not. If you don't like or don't have the means to buy a product then you won't buy it. If you have the money and you don't want the product for whatever reason then you won't buy it. If you don't want to buy the product on ethical grounds and you live by those beliefs in all areas of your life then carry on, feel free to complain - but there are more pressing things in this world to which you could divert your energy and attention. If you do have the means and want to buy the product then carry on – but don't flaunt it to the point of looking like a willy-waving-look-at-me-plebs kind of douche, it's not a good look.

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AUDIOVECTOR R6 ARRETÉ LOUDSPEAKERS

The Audiovector R6 Arreté Loudspeakers are a significant jump in price from their siblings the R3 Arreté, but is this extra financial outlay worth it? Stuart Smith finds out.



Stuart Smith

Here at HiFi Pig Towers, we've been using the Audiovector's R3 Arreté as our reference "normal" loudspeaker in our main review system for the last couple of years as they delivered an exciting listen when listening for pleasure, as well as being well balanced and accurate enough for review purposes. However, I'd been itching to hear the Danish brand's bigger offerings for ages and really wondered what extra, if anything, they would bring to the party. I also wondered if they would be worth the substantial extra financial outlay, for what on paper at least looks like a very similar loudspeaker. The R3 Arreté are available in the UK for £8725, whilst the R6 Arreté jump to £25000, both quoted without the Freedom grounding cables which I think is an essential addition to both these speakers – despite, as I said in my review of the R3s,

the cable being voodoo. You can get the R6 Signature for £13200 and upgrade to the R6 Arreté as and when you want to via Audiovectors highly sensible upgrade program – send your speakers back, pay your money, and Audiovector will do the necessary to bring your speakers up to the next specification.

Now that jump in price is not inconsiderable and the speakers do look very similar indeed, though I was surprised at how much bigger the R6 actually are in comparison to the R3.

Both the R3 and R6 share the same Air Motion Transformer (AMT) tweeter and both have a couple of 6.5" drivers on the front baffle. So are the R6 Arreté just the R3s in a bigger box? Let's have a closer look, shall we?

At this point, I strongly suggest



that you read (or re-read) the R3 Arreté review as it will make what follows a lot more logical.

BUILD AND FEATURES

The review pair arrived in Italian Walnut, though a number of finishes are available as standard (Piano White and Black, Italian Walnut, and African Rosewood). You can pay a little extra for other finishes and the company have recently been showing off a glossy green that looks particularly splendid and is a little different from the norm. I've seen a few systems online with the Rosewood and Green finishes and they are my favourite...I think.

So, outwardly the R3 and the R6 look pretty similar. Both share the same teardrop design, both have a similar layout on the backplate, though the R6's plate is carbon fibre, and both look to have a similar driver set up. However, initial appearances can be deceptive and we need to look inside the R6 to really understand where the big differences are.

The R6 Arreté stand 123.4 x 27.8 x 43.1cm (HWD) and are 91.5 dB sensitive (on paper, an easy speaker to drive) and are a 4.5 way loudspeaker. The latter sounds somewhat unusual, and it is, as will become evident.

The bass/mid drivers on the front of the R6 are both 6.5" Carbon models with "Titanium Coil Technology" using 3-point suspended baskets and with the membranes being made from "cross-woven Aramid Composite Fibres" and are handmade in Denmark. The tweeter is the R AMT Arreté, the same as found on the R3 Arreté. Now, those of you that have flipped back in time and read the R3 review again will notice that the R6, as well as being physically bigger than the R3, have a couple of ports on the front of them, but surely that can't be the only difference! Well, it's all just a tad more complex than that and hidden from view inside the cabinets of the R6 you have another 6.5" internal bass driver and a downward-firing 8" woofer that are set up in an Isobaric (same pressure) configuration. Isobaric bass is nothing new and many will recall Linn's Isobarik and Sara speakers that both used this system. The isobaric bass system, Audiovector call it the Isobaric Compound Bass system, couples the mass of the two bass

drivers via the air trapped in the enclosure that they both share. So that's one difference. The next difference is the inclusion on the R6 Arreté (and only on the Arreté version) of a rear-firing 3" paper coned driver. So, you get a bigger box with the same basic shape and construction as the R3 but with an extra bass system hidden away...and a rear-firing midrange driver – the latter being included to presumably enhance the presence of the speakers. However, the Arreté version of the R6 also adds "Nanopore Dampening Material", "Internal Shock Absorbers" and a "Carbon Terminal Plate" around the back.

So the biggie here for me is that Isobaric bass system which I fully expected to take the frequency response of the R6 to much lower than the 23Hz quoted by Audiovector for the R3...but they don't, and the R6 also get a quoted response of 23 to 53000Hz. So if the frequency response is the same then surely you are better off saving yourself a few beer tokens and opting for the R3 Arreté – if we discount the rear-firing 3" driver that is trickled down from the much pricier R8 and R11s. However, life's not quite that simple and those on-paper specifications are a tad misleading if you take them at face value – and adds weight to my ongoing argument that measurements of any audio kit only tell a fraction of the story.

I'm going to waffle on about the supports I used for the R6 now for a little and so feel free to make a cuppa, or read on through the rest of this paragraph and be thoroughly enthralled by its content. The R6s come with a set of stainless steel spikes but I find spikes a total waste of time in our main listening room as we have a massive void beneath a suspended floor. My usual go-to solution has been the IsoAcoustic Gaia doodads that you screw in where the spikes should be – these worked a treat with the R3 but the ones I used for the R3 aren't hefty enough to work with the R6 and so IsoAcoustic kindly sent out a pair of their larger Gaias. In the meantime I left the spikes on and popped the speakers on the Townshend platforms we have here. That worked OK to a point but I wasn't convinced that the metal plate of the platforms wasn't having an adverse effect on the bass. I tried this with and without the spikes and got the same effect. At this point it should be pointed out that Townshend do bars



that don't have the plate but we don't have them to hand to try. Anyway, the Gaias arrived and were added to the bottom of the speakers but I still felt that the bass wasn't what it should be and the very best solution I found was to stand the speakers with the IsoAcoustic Gaias in place stood on 1" thick marble platforms. With the latter set up I found that the bass seemed to snap into place, to be faster (no over decay) and any boom that there was disappeared. It's this latter configuration that I used throughout the review.

Speakers were set up in the main room 2.75 metres apart and with the listening position 2.95 metres from their central point. They are about a metre away from the back wall and well away from sidewalls. However, apart from the footers and stands, I didn't feel I needed to fanny about with positioning very much at all, though it did involve the usual lasers and whatnots. Initially, I did have them closer together by about 50cm but that extra width really did add make for a more expansive soundstage and so a modicum of messing about could be in order, though YMMV.

THE SOUND

Against all the odds I've started sometimes really enjoying listening to music at relatively moderate listening levels, and here the R6 really do come into their own. I've found, as many have I'm sure, that most speakers just don't have the level of detail present to really get into the music unless you push them to realistic levels. However, the R6 just don't feel like that and what you have is the full spectrum of frequencies only not as loud – I'm aware of that sounding obvious, but if you know what I mean you'll know that it's correct. This is most evident with the R6s on the bass end of things with there being no need to really listen out for the bass line in tunes – it's just there and properly represented. This effect was really evident on tracks like Gil Scott-Heron's Free Will and Speed Kills tunes, and where normally I'd want to crank the volume up, I just didn't feel the need. Even at this low level, the bass lines were easy to follow and full of texture/tone. I suppose one way to describe this is that where I'd normally feel I was missing out a whole section of the tunes I now had everything there only just a

bit quieter. There is a tightness and rightness to the bass guitar when played on these speakers that is hard to ignore. Is the bass over-dominant? Nope, it's beautifully balanced and just part of the whole. I'm a bit of a bass junkie as regular readers will be aware. That is not to say I want the bass to be to the fore or overpowering – that's really not the point! What is the point, in my opinion, is that there is coherent and articulate bass that feels "real" and that underpins everything else that is going on – lose this and, for me, tracks just fall apart. Likewise that rear-firing mid unit adds something at these lower volumes that feels right – the vocals on Gil's compilation Ghetto Style just feel to be wonderfully "there" and in the room. Not forced, not pushed, just very natural, and like I said, there in the room. There is height to the vocal too and that adds to the illusion of Gil being stood there right in front of you. I could go on for ages about having listened to GS-H a lot on these speakers but the main points I wanted to make about the speakers at this kind of volume have hopefully been made clear.

But, dear reader, you know full well that we don't always listen to music quietly and in a fashion that would make for great neighbour relations and is in no small part why we live in a detached house with neighbours far, far away. And so on goes Deadmau5' W:/2016ALBUM (yep, that's the title) and up goes the volume. The arpeggiated synths at the start of the opening track 4ware fly around the speakers and out into the room and keep their integrity even when the rest of the track kicks off. The effect is that you can pick out individual bits of the track but without really having to dissect it, and, importantly, without it feeling like it is being overdone or forced. Some speakers that overplay this delineation can end up sounding false and as if you are listening to separate speakers – no so the R6. The tune just feels as though it washes over you in a similar way to the way the RaidhoTD2.2 I recently had the pleasure of reviewing. The track here is clearly made and designed to have certain psychoacoustic effects to mess with your perception and the R6 really enhance these effects. And then that bass! It pumps along with authority and weight and just underlines everything else that is going on. Bass kick has heft and welly but again isn't

overdone or overwhelming. The bass synth pad on the second track (2448) off this album sounds nothing short of majestic as it cuts below the soaring synth line that opens the tune. Again, there is a feeling of the tune washing over you with the AMT tweeter and the rear-firing mid really working well together to add space and dimensionality to proceedings, though still maintaining that “togetherness”. I’ll be honest here and say that I had real misgivings about the mid as I thought it would feel like a degree of artifice had been added to the music, but it’s not like that at all and Audiovector have done a great job of integrating the drivers to perform as a whole. These kinds of tunes are addictive on the R6s and here is where they stand out as being so much more than the R3s and where I’d draw issue with the R6 and R3s having the same bass response – again, suggesting to me that measurements, whilst having their place, only go so far in explaining what is really going on with a bit of kit. As I listen further to this (awesome) record I’m struck by the feeling of being sat in a bubble of sound. Audio Review Cliché Warning! These speakers are pretty holographic in how they present the music to the listener. Spatial stuff is pretty important to me when I listen to music and I want to feel immersed in the tunes both emotionally and physically - and I do with the R6, only, again, not feeling that this is unnatural or forced. Effects come and go in real three-dimensional space in a reach out and touch kind of way. And then the bass again! The bass is really hard-hitting and visceral but not overblown. It’s also tight and speedy with no overhang or one-note fartiness. These really are speakers that are right up my street in how they present themselves and the music I love.

So, talking about one-note bass, on goes Joey Beltram’s Energy Flash and it’s not actually the bass that grabs my attention here, though that is wonderfully done. What grabs me is the percussion noises with the huge reverbs on them. They could, and often do, sound messy and splashy, but with the R6 these percussion noises and the cymbal hits sound tight and correct...and obviously electronic. It also should be mentioned that here I’m listening loud, but I’m still getting the impression that the R6 aren’t even breaking a sweat. At these kinds of SPLs I’d be expecting the whole to break down in

parts – it doesn’t and I’m just left wanting to listen to classic after classic. Fetch the glowsticks and Disco Biscuits.

A point here - I did try a few amps with the R6 and found that the usual Merrill Thor amps just didn’t cut it and sounded a little dry and, dare I say it, weedy in the bass. A big old Krell KST100 (fully revamped and upgraded by Krell in the US – thanks Walter) really brought the speakers to life and so when you think about partnering these speakers do think about the amp you are going to be driving them with. Now, this is a double-edged sword as I now want to hear what a big pair of Class A Krell monos could bring to the party. And it is a party! I did briefly try the R6 with a 25W Class A EL34 tube integrated from Synthesis (reviewed here) and the results were very good and with the amp controlling the bass here very well which proves to me that you don’t actually need monster amps, just the right amps.

So, if you listen to techno then you will love these speakers - I pretty much guarantee this and feel free to quote me on that, with the caveat that you need a quality amp to drive them! Not that they are a difficult speaker to drive and they will work with smaller amps, I’m talking about getting the very best from them and for me, I got that with the amp I mentioned. Again YMMV.

As I understand it, not everyone listens to techno and electronic music constantly, and the truth is neither do I, though I do go on about this style of music a lot and still maintain after all these years that techno is nigh on perfect for assessing the qualities of, particularly, loud-speakers. As with the Gil Scott-Heron tunes I played, I played all kinds of music on these speakers and never once did I think they were anything other than superb. Anouar Brahem’s Le Pas Du Chat Noir has the piano, guitar, and accordion sounding as natural as can be with a particularly strong feeling of that “in the roominess” I have mentioned before. The detail and sense of rightness in the presentation of this album was mesmerizingly real. This is small scale and intimate music and none of that feeling is lost with the R6s. Turning to larger-scale works and the Czech Philharmonic with Jiri Belohlavek playing Smetana’s Ma Vlast

REVIEW

AT A GLANCE

there is delicacy and beauty when called upon and then authority and scale when the music demands it. Dynamic and powerful were words I wrote down in my notes.

I have written about the Freedom Grounding Cable when I reviewed the R3 Arreté and whilst it is an extra cost it is a must buy and so I wish that Audiovector would consider including it in with every pair of Arreté as standard.

CONCLUSION

I put a post on the Audiovector Owners Group on Facebook that I was writing up my notes for this review and someone came back with “I gather your notes are pretty short...I liked them so much I bought them. End of review” (thanks Andrew Cairney for that) And it’s true, I could well have just done that as I did chat with Mads from Audiovector and bought the review pair. However, it’s a bit more complicated than that and here’s my thoughts.

I’ve reviewed the Audiovector R1, R3 and now the R6 and all are very good speakers. The R6 are a lot better than the R3 in their bass response and feel, and also through the mids with that extra rear-firing mid really adding a certain something to their presence. However, the R6 are considerably more expensive than the R3 and it is the R3 that for me represents the sweet-spot with regards to value for money vs performance. However, once heard the R6 are hard to walk away from and are highly addictive in how they get on with the job of playing whatever style of tunes you want to play through them.

Worth the extra money? That’s a hard one and down to your own priorities but I would say that if you love the R3s then don’t go listening to the R6s as your bank manager is likely to be wanting a chat – or you’ll be wanting to chat with your bank manager.

They represent, to my mind, all that I’m looking for in a loudspeaker. They are hugely dynamic with massive scale and presence that commands you to sit up and take notice. By turn, they are sweet and yet full-sounding at lower volumes.

Build Quality:

Well put together and nicely finished

Nice looking in a conventional loudspeaker kind of way

I’d like to see them come with something other than spikes as standard

Freedom Grounding Cable is a must and should be included in the package

Sound Quality:

Dynamic and powerful at volume

Neutral sounding and balanced in their presentation

Detailed and insightful even at low volumes

That bass is something to behold

You need a good amplifier to get the very best out of them

Value For Money:

This is high-end audio and it’s a luxury. Yes these are expensive but so is the competition. In that light, the R6 are reasonably priced. However, they are not what you would call ostentatious looking and are pretty conventional on the face of it. Those looking for a speaker that is a visual talking point may want to look elsewhere.

We Loved:

Being able to fully enjoy tunes at low levels.

Being able to crank the volume up loud and still hear everything.

The extra presence and feeling of “in the room” the rear mid unit gives.

The airiness of that AMT tweeter

Tight and powerful bass presentation at all





volume levels

A real sense of composure and being in control of the music

We Didn't Love So Much:

I don't like the plastic heel to the bottom of the speakers. It is easily scratched and I think it feels cheap.

We needed to replace the spikes with isolation products, though we have to do this with all speakers

Can be picky about amp, though this doesn't mean you need to have a massively expensive or powerful amp to drive them well

Price: £25000, €28000, \$35000

Elevator Pitch Review: The Danish Audiovec-

tor R6 Arreté are a 4.5 way design that incorporates a pair of 6.5 inch mids and an AMT tweeter. Inside there are 6.5 inch and 8 inch drivers in an isobaric unit for the bass, plus a rear-firing 3 inch mid driver. Fit and finish are good. Sonically there is a huge sense of scale to the speaker as well as intimacy and a real sense of being there with the recording. At the price they are not cheap, but for me they are worth it.





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TOTALDAC D100 LOUD-SPEAKER

TotalDAC D100 Loudspeakers are big, boxy, and made in France, but how do they sound?



Stuart Smith

Vincent Brient lives not far away from Mont Saint-Michel in Normandy, France, and we've been following his audio exploits since he launched his first DAC several years ago and which we reviewed here. Dan reviewed the original DAC and loved it, but the truth of the matter is I found it a little too polite and "audiophile" for my tastes. However, since then the range of kit he makes has increased somewhat and includes DACs, amps, re-clockers, streamers, active crossovers, cables, and now loudspeakers – the D100s we have here (also available in solid chestnut for an extra (circa) €6000), the larger D150s, and a sub. The D100s in their standard black finish are €13800 including VAT in Europe and €12800 excluding VAT if you are outside of Europe. The cabinets on these are Baltic Birch plywood and are made in France.

Despite being described on the TotalDAC website as being a moderate size there is no escaping the fact that in most homes the D100s are a pretty substantial offering, measuring 118 x 32 x 47 cm (HWD) and weighing 38Kg, though Vincent does say that the speakers have been successfully incorporated and tested in smaller rooms.

TOTALDAC D100 DESIGN AND BUILD

Ok, they are a big speaker and they come without grilles, though these can be ordered separately at an extra cost, but they actually didn't dominate the room overly. The look is pretty utilitarian and boxy and you are either going to love it or hate it – I'm in the former camp and really like its purposeful and no-nonsense aesthetic.



The front panel is dominated by two 12" drivers and then above these you have a small horn flare that conceals the non-metal dome compression tweeter. They are a 2.5-way design with both the 12 inchers playing bass but only the top one playing midrange. The mid driver is specially made and Vincent says it is ultra-fast. With that said the drivers do look like drivers I've seen when I've been poring over speaker catalogues, though I'm not expert enough in these matters to be able to tell you what they are. Sensitivity is 98dB and so you should be able to drive these with pretty much anything you care to, though we plumbed them into the main system using the Krell KST100 as it's what we know. Aside from the horn flare, there are a couple of ports that are positioned so that "most of the sound is coming from the top of the speaker, giving it a bookshelf coherency." Now that seems a bit unlikely from a speaker of this size but we'll see. At first glance what we have here is what looks like a pretty basic loudspeaker, and, I'll be honest, I really wasn't expecting very much at all from these and anticipated little more than a glorified PA loudspeaker.

Now, this last point about my expectation bias is an interesting one and something that gets discussed a lot on HiFi chatter-groups and with folk suggesting a reviewers expectation bias positively affects the review process. So, this will be a pretty negative review then, right? I like to think that whatever my first thoughts with regards to the look of a product I'm able to look beyond the on-paper specs and the looks – let's hope so as I'm meeting up with Vincent in a couple of weeks in Paris and could do without any animosity. Genuinely, I expected to be writing an unpublished review and sending my findings back to Vincent with a "must try harder" comment at the end of the report.

The finish is very good on the speakers, though they do look somewhat monolithic and their only accoutrements are a pair of rather nice binding posts round the back which are by Mundorf.

There's not much else to say about the design and build of the D100 and so I'll get onto playing and talking about a few tunes to hopefully give you an idea of what these sound like.

Setting up the D100 should have been a right

royal pain in the fundament given their size, but the fact of the matter is that they were a doddle. I plonked them in the usual place for speakers, got the lasers out, made sure all the angles and distances to the listening seat were equal and sat down to listen. After that, there was no need for further fannying about, though I did go out and buy a set of wheels for them to allow for ease of moving them about - most listening was done before I added these.

As I mentioned, I stuck these on the Krell (it's an oldie but went to Krell for a full fettle at a substantial cost and is now pretty much as new) but the speakers are good and sensitive and so you could well get away with a 300B SET up, though I do prefer that particular valve in the PSE configuration. I reckon this would be a good match for the speakers.

THE SOUND OF THE TOTALDAC D100

Well, how deceptive can looks be? From the very first lines of Bruce Foxton's bass on The Jam's Pretty Green (Sound Affects played off Qobuz) it was clear that these speakers were something special. I listen to a lot of loudspeakers and, like it or not, it's pretty obvious what are good and what are less so within moments of hearing them, though that would lead to a pretty boring reading experience for you, dear reader. The bass is as life-like as I have heard on this track, and the snare with its big reverb is absolutely perfectly done. The speakers are said to go down to 25Hz (-6dB) and so I was expecting bass to dig deep. As the tune opens up, that bassline still manages to underpin the whole track, but it doesn't seem overblown or that it is dominating the rest of the tune. The bass is also speedy and agile, which if you read my reviews often you'll know that's a must for me, though it did come as a bit of a surprise with these speakers. It appears that I could have been very wrong in my judgement of these – I'd expected brash and unsubtle, but what I hear is a presentation that is detailed and incredibly consistent from top to bottom - as per the brands online bumph. But I'm Different from the same album opens with a guitar riff that just cuts through the room and you really can almost believe that you are in the control room listening to the take. Continuing the theme I pop on The Rezillos' Top Of The Pops and again I'm

REVIEW



rewarded with an amazingly solid performance with the rhythm section forming a robust foundation on which everything builds. Again, there's no feeling that anything is being pushed to the fore over and above everything else and there's a feeling of balance, but there's also a sense of excitement and on-the-edge-of-your-seat anticipation when listening to these speakers. I think this latter point is an important one and one that many readers will appreciate – I for one want to feel excitement and involvement when I listen to music. I want to feel like an active participant in the performance and this is what these speakers allow.

Shifting the pace a little and Cerrone's wonderful Euro-disco, in the form of Supernature, is cued up and again it's an absolute delight to listen to. The track itself is busy and a bit messy, but the TotalDAC speakers take it all in their stride. There is that solidity and sturdiness to the rhythm section, but what strikes me most of all here is the sense of space that is created around that relentless synth' sequence (though it's clear midi wasn't a thing back then) and the way that it is projected out into the room. This projection helps create a really nice soundstage that manages to be both expansive and yet without the feeling of being forced. The vocal track is rock solid, slap bang in the middle of the mix and slightly forward. Moving around a bit, the soundstage still sounds pretty stable, though it really does snap into place when sat in the hot seat. The breakdown on Look For Love is all dancefloor arms in the air, pass the poppers wonderfulness. And this is what I like about these speakers so far – they have managed to be detailed and insightful whilst still maintaining that sense of involvement, excitement, and exhilaration. This is a good deal of what I want to hear when I listen to music – I want to feel involved and moved to be moved. Now, there's a danger that you are going to think that these are just a glorified PA loudspeaker (as I anticipated before actually listening to them), but they are MUCH more than that and at whatever volume I play these (even with this kind of tuneage) there's that sense of actually wanting to listen to the music properly. Often I feel that the level of interest in music can quickly wane with speakers less involving than these. It's the same kind of excitement I get when I listen to our reference Audiovector

R6 Arrreté, though I would say the latter have it on the level of detail and overall HiFi-ness they put out into the room, though you pay a premium for a sonically more refined and better-looking loudspeaker.

A 12" driver that's doing some of the bass and the mids should really sound a bit muddled and a bit confused through the midband, but I genuinely find it difficult to fault these speakers and Miles Davis' Kind of Blue, at a very low volume, sounds enthralling and captivating – I really do get drawn into the music here and there is a real feeling of "liveness" to the recording and the dark and smoky club vibe that the album evokes. Everything is present and correct and the instruments are separated in the mix as I believe they should be. This separation of players isn't artificial sounding at all, it's more of a natural-sounding experience with me "seeing" the musicians in front of me on a stage. Turn the volume up and there's a little more detail to the percussion, but, other than that, just more sound filling the room.

Staying on the Jazz theme, José James' amazing version of Strange Fruit has crisp handclaps and haunting backing vocals that sit back in the mix whilst the main vocal is projected out into the room. James' vocal delivery is presented wonderfully and with his tone coming across very well – I can almost see him stood at the microphone and the expressions he might be pulling as he sings this awfully graphic song. There's little colouration and sound of the speakers themselves and this comes as a bit of a surprise given their boxy build – let's face it, they look just like a big box with some drivers popped in and I can only assume that something clever is being done (or not being done) in the way the crossover is implemented.

On the point of the crossover, all the components are from Western European manufacturers, as are the drivers and cabs, with the crossover consisting only of air coils and film capacitors that Vincent has selected. The wiring is put together using point-to-point wiring and with no PCB – the legs of the components are used for soldering. The inductor for the bass is made from, and I had to read this twice, 5mm square copper. The whole of the crossover for each speaker is placed housed in its own wood-

en enclosure.

Anyway, on with the music and I thought I'd play something that I consider to be both large-scale and yet intimate and which for a long time was my go-to track for testing out kit and how that kit dealt with representing room acoustics and with expressing small details within a recording. I'm talking about the tune Songbird from Rumours by Fleetwood Mac and whilst at first listen it appears to be a very simple recording (it is) there is so much going on by way of atmospherics - and it's for this reason I find it a pretty useful tune to use. On the wrong speakers the tune can sound closed in and stifled, but when it is played on a good pair of speakers it opens up and I find I can feel myself in the upper seats of the auditorium and looking down on the spot-lit piano. Some speakers can also add a degree of sibilance to Christine McVie's vocal delivery which has the effect of the track sounding as if it's been recorded too hot. Both our Audiovector R6 Arreté and our Avantgarde Duo XDs manage to recreate the experience I'm looking for superbly. The D100s do not disappoint at all and I'm sat where I should be. The detail in the guitar that is at the back of the mix adds that dimensionality I'm looking for, and the vocal delivery is as clear as a bell. There's detail and real perception as to the way in which McVie plays the piano and I feel connected to the tune - and this is important! I let the album play and the dry kick that opens The chain grabs my attention and I can't help but play the rest of the track. As well as that dry kick I'm drawn to the picking on the guitar panned to the right and the slightly overdriven guitar panned left. I genuinely don't know how what looks such a very basic speaker is managing to enthrall me and deliver such detail and emotional connection. When the track begins proper there is real weight in the delivery and that famous bassline (the F1 theme) has a fantastic aural texture to it, whilst the lead guitar screams over the top but never seems to overpower what's going on. It's a dynamic and exhilarating experience.

CONCLUSION

Some speakers are great to listen to, but on close analysis seem flawed. Some speakers are highly analytical but feel a bit much when listening for pleasure. The D100s manage to be

a fantastically engaging listen whilst at the same time being highly detailed. I don't get it is the truth of it - they look, as I've said earlier, like big boxes with some drivers whacked in them. However, despite their looks (and, personally, I don't mind their utilitarian aesthetic) they pull off something sonically that is quite extraordinary.

I was having a discussion with my mate Dave Clark from American magazine Positive Feedback the other evening around the subject of accuracy in audio and we seemed to agree that what we experience as being accurate is largely down to our own perception. Let's face it, 99.9999% of us listening to any record weren't there at the final mixdown and have only an idea of what the engineer/producer/band were trying to get across on the master tape. However, some components just sound right and have more detail, insight, and rightness to the way they put across the music you listen to. Speakers that get this right consistently are the big PMCs and the ATCs, both widely used in studios. You can now, to my way of thinking, add these speakers from TotalDAC to that list for getting into (and visualising) the heart of a recording. As such they are a great tool and I could genuinely see them being used in studios.

Now, as well as appearing to be accurate and perceptive in their delivery, they also manage to be hugely entertaining in how they play music. They are fun, bouncy, and untaxing on the ear. They also present the music before you in a live and immediate kind of way that is hugely dynamic. Not once did I think they were getting flustered. So as well as a useful analytical tool, the D100s are a wonderfully engaging and satisfying listen. I'll be having a chat with Vincent about buying a pair of these to add to our collection of review speakers in our main system and they will likely take the place of our Avantgarde Duos.

They have a subtlety and deftness of touch when a track calls for it and yet power and dynamics when needed. I've got The Doors' Riders on the Storm playing as I type up my notes and there is just so much going on in what appears to be a very simple track - the organ sounds right, the guitar sounds muted and correct, and that walking bassline never

REVIEW

gets lost – I look up and consider whether this is the best I've heard this tune sound, but then it's not something I listen to a whole lot so I'm not gonna make a call on that.

Vincent reckons these speakers behave like bookshelf loudspeakers and I do get that comparison in the way they image and throw the stage – actually it's quite an uncanny experience to have such big speakers behave like this.

Let's talk about the elephant in the room, and that is the way these speakers look. They are big, they are boxy and they look like they are made up from readily available parts (I don't know whether they are or not)...and grilles add to the price. In our room they don't look out of place, but they won't exactly represent the most aesthetically pleasing of loudspeakers to the majority of folk.

AT A GLANCE

Build Quality:

Well put together but big and boxy

Quality parts inside

Prettier option available at a price

Sound Quality:

Dynamic and large-scale but intimate and relaxed when called for

Massively detailed without a feeling of the sound being etched and overdone

Big soundstage that isn't overplayed

Value For Money:

Get over how they look and listen to them. They aren't cheap but sound pretty incredible. They are less than half the price of our Avantgarde Duo XDs and do a lot in a quite similar kind of way sonically.

We Loved:

The scale and dynamic performance that you

can have you either on the edge of your seat or laid back with a cuppa and chilled. Detail, openness and the way you can look into a recording.

We Didn't Love So Much:

There's no getting away from the fact that these are a big box.

Price: €13800 including VAT in Europe and €12800 excluding VAT if you are outside of Europe.

Elevator Pitch Review: A big, standard looking 2.5-way loudspeaker that manages to transcend its looks with a sonic performance that draws you in and captivates with its rightness. They are dynamic and detailed in a way that they just shouldn't be and with a presentation that seems neutral and natural whether you play them loud or at more moderate volumes. I want some!

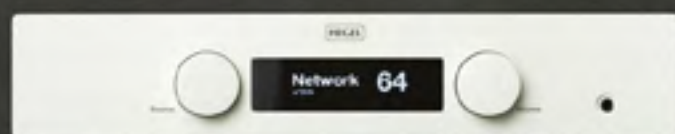




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CARE ORCHESTRA CELESTIAL DEEP BREATH EVO LOUDSPEAKERS

Stuart Smith takes a listen to Italian brand Care Orchestra's Deep Breath Evo loudspeakers costing €2250.



Stuart Smith

Care Orchestra was a brand new name to me when they first got in contact but the fact is that the Milan (Italy) based brand launched in 2010 making "made to order and tailor-made and crafted audio-video products". Before we engaged with the company I went off to have a looksee at their website and the first thing that grabbed my attention was their use of interesting materials such as marble in some of their loudspeaker designs, though they produce an amp, a DAC, and a power unit as well as loudspeakers. This looked an interesting company that wasn't simply churning out straightforward boxes. Indeed, reading through their website they make a point of saying that they work with architects and interior designers to create products that "best complements and represents the clientele" be that in homes, theatres, spas, conference

centres, museums, or churches. I like this kind of thing and that whole attention of style and detail is, and without wanting to evoke national stereotypes, very Italian.

The loudspeakers we agreed to take a look at are the Celestial Deep Breath EVO stand-mounters that cost €2250 a pair.

CARE ORCHESTRA CELESTIAL DEEP BREATH EVO FIT AND FINISH

These are a pretty chunky fifteen litre, two-way bass-reflex design that weigh 11Kg each and measure 247 x 351 x 325mm (WHD) that arrive in a rather splendid looking and fantastically packed flightcase. I like this kind of thing and it makes a nice change to the ubiquitous cardboard box packaging. This flightcase packaging ensures the speak-



ers arrive safely and if you should come to sell them on in the future then the case is an added selling point – these things are important. The speakers are a 4Ohm load, the quoted frequency range is 48-40 000 Hz and they are 91dB sensitive. The main driver is a XX” Scan-Speak Discovery and the tweeter is also a Scan-Speak Discovery with a “wave-guide centre plug”.

The body of the speakers is a multi-layer affair made up of expanded polyurethane, a 6mm cork layer, and ultra high density MDF. The front panel is asymmetric to the rest of the speaker and inside the wiring is all Van den Hul.

Round the back is the bass port and what I reckon to be the nicest looking brass speaker binding posts I've seen on a pair of speakers. They accept bare wires or bananas by default but the centre post is too big for most of the spades we have – no bother because given the whole of the binding post is so big I was able to stick spades through the hole on the centre column and firmly secure it.

Overall the fit and finish on these speakers is exemplary and whoever buys these is certainly going to experience a good deal of pride of ownership

Their size is, however, unusual and whilst we have several sets of speaker-stands none felt safe with the speakers atop them and whilst running in I used a pair of IKEA stools – clearly not ideal for critical listening. For proper listening sessions, the speakers were put on top of a pair of “reinforced” 50cm Target stands and using IsoAcoustic Aperta stands between stand and speaker. This put the speakers’ tweeters exactly at ear height. This setup looked a little precarious but was actually very stable. Having spoken to Care Orchestra there are a pair of stands available called su misura and costing €320, though these aren't shown on the company's website but are made to order and to compliment the speakers themselves and their finish.

The speakers are mirror images of one another and I found the best sound was with the tweeters on the outside of the front panel.

product we get in thoroughly before we submit to critical listening, and the procedure was no different with the Celestial Deep Breath speakers. I put them in the main room on the end of the Krell and just played music through them for a few days. This room is pretty big and I thoroughly expected having to carry the speakers up into the smaller dedicated listening space for the review, but that didn't happen. Despite their size, these speakers can certainly fill a room and so in the big room they stayed.

CARE ORCHESTRA SOUND QUALITY

Great standmounts excel in imaging, but there are so many that get this wrong – these speakers get it right. Very right! My first major wow moment as during the run in period sat listening to Inner City Life by Goldie. There are tons of effects on this record anyway, but with the Celestial Deep Breath (CDB) in place, those effects seemed to really be accentuated with effects appearing to come from halfway down the side of the room in some cases. This is pretty impressive and does make you sit up and take notice. This carried on throughout the more formal listening tests and was something I very much enjoyed about the character of the CBDs. Jon Hopkins' Form By Firelight had an enveloping effect with sounds appearing in three-dimensional space before me...and to an extent around me. Sounds would come out into the room with height and depth, and a stage that expanded well beyond the speakers themselves. Of course, this kind of music does have an exaggerated sense of space anyway, but the effect was carried through with whatever kind of tunes I listened to. Pink Floyd's One of My Turns (96/24) was similarly three dimensional and spatially impressive with sounds ebbing and flowing forwards and backwards. Later on The Wall the synth pad on Is there Anybody Out There? at the start seems to come from centre infinity to halfway between myself and the speakers. Like a very good set of monitors, the instruments hold their place in the mix perfectly and any panning on the desk is easy to hear and register. This is very impressive stuff, for sure. Whatever I listened to the feeling of being enveloped in the music pervaded and I thoroughly enjoyed this aspect of the CBDs.

Regular readers will know that we run every

The elephant in the room with regards to these



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speakers for me was the on-paper low-frequency response of just 48Hz and I thought they would struggle in this department in this space, but the truth is that despite having a pair of subs plugged in and ready to attach to the CBDs I never once thought about actually getting on with it. I like bass, but that bass has to be proportional to the rest of the loudspeaker and these speakers pull this act off really very well. I listened to a fair bit of PsyTrance through these speakers for which my mate Mark Gardener (Pierrot the Acid Clown) will disown me and despite this stuff being bass heavy I found the CBDs coped brilliantly. My preference for speakers is, in the main, infinite baffle, that is speakers without ports, but for smaller speakers to get down to an acceptable bass response some kind of help is needed by way of porting (or subs). However, the implementation of this porting is sometimes, in my opinion, a bit haphazard and can lead to a feeling that bass is limited to one note – not so the CBDs that manage to temper their limited depth of bass with a tightness and speed of delivery that makes you forget you are listening to a pretty compact standmounter. As I said, despite having subs on hand, I never once found I wanted to attach them to the CBDs. However, there is a small caveat here and that is that the speakers do have a point where they come alive in the bass department, but whilst some speakers really need to have the volume turned up pretty loud to get the bass right, I only had to listen at medium volumes to get the bass effect. With that said, the CBDs do really spring into action when they have a bit of power up them and the Krell amp matched them perfectly, in my opinion, though any quality amplifier with grunt should perform well. With that said, they aren't a particularly insensitive speaker at 91.5dB (4ohms) and you should be able to drive them pretty hard with much more reasonable amplifier grunt. At lower volumes, you still get the spatial thing and the speakers are a fantastic listen – The Trial on The Wall has a continuous low bass kick and even at low volume this does come through, it's just more pronounced and "better" with a bit of welly up it.

That 48Hz is probably best put into context with something like Sly and Robbie vs Roots Radics' The Dub Battle. Whilst not shaking the foundations, you do get a good sense of the basslines,

though I'm sure that soe would certainly have liked the subs activated. Dub is actually pretty interesting with these speakers and that three-dimensionality of their character plays well with the multitude of effects used in this kind of music. Thoroughly enjoyable, as was the likes of electro-disco.

The bass kick with a cymbal on the beginning of Lana Del Ray's Dealer of her On Blue Banisters punches well beyond what I was expecting, and her vocal delivery is forward and high in the room with pleasing clarity and sense of rightness. I suppose this sums up these loudspeakers pretty well in that they are a balanced performer with nothing really being over-emphasised or over-egged. The next track, Thunder, continues this theme with a great sense of Lana's somewhat plaintive vocal delivery. This even-handedness across the frequency spectrum is what a good loudspeaker should do in my opinion. Nectar of the Gods sounds utterly sublime on these speakers as does the piano on the later track Cherry Blossom which is as natural sounding as I could wish for from a speaker at this price.

CONCLUSION

These are a very good loudspeaker, and whilst they represent a significant outlay at €2250, I think that their performance is in line with this price – they are certainly on a par with our Xavian Perla Exclusiva speakers that cost a little more, and in some key areas such as imaging they are a better loudspeaker. That imaging is a key attribute of the CBDs but it is not their be-all-and-end-all and I fully enjoyed every aspect of their delivery, even in a room in which should have been too big for them to be at their best.

The Celestial Deep Breath speakers by Care Orchestra may have a daft name, but they are without a doubt one of the very best standmount speakers that I have had the pleasure of reviewing at home and are a more accomplished loudspeaker than our similarly priced reference speakers.

On paper, their bass response really should preclude them from being anything like my cup of tea, but I genuinely never missed it and found

REVIEW

the bass to be fast, tight, articulate and balanced with regards the rest of the speaker's performance.

The finish on the CBD Evo is very good indeed, although they're a bit of an odd size with regards to getting stands to fit.

Given these are a better sounding loudspeaker in this system than our reference standmounters (and actually cost a bit less) I have no option other than to award them our highest award.

AT A GLANCE

Build Quality:

Very good build and finish

Mirror images of each other

Big for a standmount

Sound Quality:

Even-handed and balanced

Imaging is nothing short of fantastic

Bass is in keeping with the rest of the speaker's performance, though some will want them to dig deeper

They like a little bit of power up them to sing at their best and likewise have a volume when they start to come alive

Value For Money:

These are not bargain basement speakers but perform very well for their asking price in comparison to other speakers we have used in this price range, though I strongly suggest you factor in the extra for dedicated speaker stands

Magnetic covers are an extra

We Loved:

Beautifully finished

Balanced sound

Superlative imaging

Deep enough bass for most people in most homes

We Didn't Love So Much:

Big speakers for standmounts and dedicated stands are an extra €320 per pair

Magnetic grilles are an optional extra

Some may want extra bass and want to employ a sub which will up the cost

Price: €2250

Elevator Pitch Review: At €2250 these Italian standmount speakers look good, and are well finished and built. They have an even-handed way of playing music, and whilst their bass doesn't go particularly low it is tuneful, tight and wonderfully articulate with all kinds of music. The real kicker is the way they image in such a three-dimensional way so that music extends beyond their confines in all directions, and particularly beyond left/right and into the room. They are a big standmount but worth persevering with trying to accommodate on proper stands to get that tweeter at the right height.



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DAVIS ACOUSTICS COURBET #8 LOUDSPEAKERS

Stuart Smith takes a listen to the Courbet No 8 loudspeakers from French manufacturer Davis Acoustics and which cost €5700.



Stuart Smith

Davis Acoustics are a French brand based in Troyes and set up by Michel Visan way back in 1986, but, for whatever reason, the brand doesn't seem to have taken off in the UK in any meaningful way, and the truth is I have absolutely no idea why this should be, as whenever I've heard their speakers they have always sounded fantastic. Indeed, I reviewed the Courbet 4 (€2200) back in 2020 and my only real criticism of the smaller siblings of the speakers we are discussing here was that they were a bit bass light in our larger room and I didn't like that the base didn't match the rest of the speakers.

Davis makes several levels of loudspeakers in eight different series, plus a series of in-wall loudspeakers for the installation market. They also make kits for DIY enthusiasts and sell drivers. The Courbet series

is only topped by the Dream series and I'm itching to have a play with the single driver MV ONE MASTER speakers at some point in the (hopefully) not too distant future. Davis also does a range of speakers specifically for the huge French electrical retailer Boulanger (the Hera series) with bookshelves starting at just €130 and floorstanders from around €450 a pair - I've not heard these but from having visited the shops they certainly look like a lot of speaker for not a lot of money.

Fast forward to our first HiFi show in 18 months in Paris (read all about it here) and we had the pleasure of hearing the Courbet No 8 on the end of some rather nice Jadis (also French) amplification. For me, this partnership was certainly one of the sonic highlights of the show and I hot-footed it to organise a pair for review to

REVIEW



get a real feel for what the speakers were about in real-world situations. The speakers arrived shortly after our return and were plumbed in pretty much immediately, though they were already run in as these were the actual show pair.

DAVIS ACOUSTICS COURBET #8 FEATURES AND BUILD

The speakers arrived well packed and in purpose-made boxes. Removing them was painless (not always the case) and we were met with a rather handsome looking speaker in Noyer (walnut), though other finishes are available (Satin White, Grey, and a rather attractive Bleu Sideral). The speakers stand 122.5cm high and have a distinctive backward sloping shape (sort of a parallelogram). They are quite a narrow speaker at 23.5 cm (31 cm deep) and come with a black plinth onto which they bolt and into which the included spikes attach. This is all easy to set up and sort with the hex wrench that's in the box. I chose not to use spikes and instead had the speakers on their plinths and then on a further marble plinth with the audiophiles best friend Blutak separating the two - hardly high-tech, but better than spikes in this room.

The speakers look great in this finish, and whilst they are pretty big they aren't domineering visually – I'd say they look very nice in a conventional sort of way. The fit and finish are lovely and there's a set of good quality single speaker binding posts round the back that will take the usual bananas, spades and bare wires.

On that sloping front panel there's the 28mm soft dome tweeter, a Kevlar 13cm mid-unit, and a 21cm carbon fibre woofer. Towards the bottom of the front baffle is the front-firing bass port. There is another smaller port around the back at the top of the rear panel. The body of the cabinet is made from reinforced MDF.

The speakers came with magnetic grilles but as per usual I didn't bother with these.

Tech-wise the Courbet #8 are a three-way design with a claimed response of 35 – 25000Hz and are 92.5dB sensitive and with a nominal impedance of 5 Ohms. This should

make them an easy enough speaker to drive, but, for the purposes of this review, they were used on the end of our Krell KST100. The previous speakers from Davis Acoustics (Courbet #4) we had here at HiFi Pig Towers did like a bit of power up them and so the Krell seemed the obvious choice here. The speakers were set up with laser pointers and laser loudspeaker set-up tools in our main room, at least a metre from the side and back walls and about 2.4M apart. I've found that the majority of front-ported loudspeakers are pretty easy to set up and the Courbet #8 were no exception, though some may want to play with positioning with regards to the back wall and that rear-firing smaller port, though I found them absolutely fine where I had them and as described above.

COURBET #8 SOUND QUALITY

The speakers were run in when they arrived but I wanted to give them some extra time before any critical listening to help the speakers reacclimatise to being indoors after their journey and so, as usual, I just blasted tuned through them for a few days before finally sitting down to listen properly – as should always be the case when reviewing speakers, but clearly isn't the case with everyone!

I've been listening to a lot of Lynyrd Skynyrd of late. These were my favourite band for a good while in my teens and I've not really listened to them much of late, though the tunes are imprinted on my aural memory. Pronounced is a debut record that is an absolute corker and productionally speaking is pretty complex in parts. The Courbet #8s allowed this to shine out without them feeling they were dissecting the music into acoustic slices of sound. What sounds like backward hi-hats that appear throughout the opening tune are clear to hear and can be heard apart from the rest of the tune. That reverse hat (or whatever it is they reversed) bounces between hard left and right and sort of keeps the tune together for me. I'm listening at pretty low levels here, but the whole of the tune is there in its entirety and thoroughly enjoyable. However, at these levels the bass doesn't have the clout I'd like and there's a feeling of the speakers being pretty polite. This is not an unusual feature of many loudspeakers and to be honest, almost all speakers need to be





pushed a little to get that bass going and really get the speakers singing – that’s my thoughts anyway, though you may have a different opinion. You may think I’m having a bit of a dig at the Courbet #8 here, but I’m not – they perform as I’d expect at low volumes and better than a lot. There is detail and clarity through the mid-band and tops, as demonstrated on the piano and the strings on Tuesday’s Gone. That fine detail I was going on about is apparent on Tuesday’s Gone in the separation of the guitars that are playing and my ability to pick them out of the mix. All I’m saying is, as I said with the #4, is that the #8 hit their stride in the bass department when pushed a little. And so let’s do just that.

A good loudspeaker, in my opinion, should hit a point with regards to volume when everything is just spot on – all speakers have this point – and whilst there should be extra kick and bass volume when pushed a bit, this shouldn’t be to the detriment of the rest of the music. A bass-heavy loudspeaker is just that! What a speaker should be is balanced throughout the frequency range, and whilst I personally may be particularly attracted to bass that is well defined and “tight”, I wouldn’t want to have, or recommend, a speaker that was all boom and tizz - that, for me, is the antithesis of what a good loudspeaker should be doing. Anyway, LFO and their rave classic LFO (Leeds Warehouse Mix) gets virtually cued up and the volume goes up a few notches – nothing ear-splitting and actually pretty reasonable – my phone tells me the sound is peaking at 74dB in the hot seat. So, there’s a bass note on the drop of this tune that goes very low and the Courbet #8 do this pretty well without getting quite as low as it goes on, for example, the Duos, but they don’t seem at all flustered. More importantly, the rest of the track is easy to pick out and in proportion, and when the band’s next track “What Is House?” comes on I’m properly in the mood and back in a dark rave in the summer of 1991. These aren’t audiophile recordings or productions, but then who wants to listen to much of what is called “audiophile music” anyway, but the Davis speakers cope well and present a coherent sonic representation of what is happening.

Pan Sonic’s Askel from their record A is minimal genius and the Courbet #8 sound fab with it,

though I’ve pushed the volume a touch further and we are peaking at 80dB (though I’m sure this is far from accurate given it’s on a phone app). The dry kick on Askel has real depth, power and, well, kick, whilst other bass tones come and go in the mix. Again there is balance across the frequency range and effects and whatnot are all presented articulately and not as some kind of mush. These are nice speakers for this kind of music as it happens and spatially they are very proficient in getting the mix across. I’d not say they are quite as three dimensional as the Care Orchestra speakers we’ve just had in, but they are pretty close. Sounds are pushed out into the room and the stereo stage has good forward and backward dimensionality. The sounds (at times) do extend beyond the edges of the speakers, but for the main part, you are looking at a large bubble of sound in front of you. Even when pushed pretty hard by the Krell, the Courbet #8 remain composed, though, again, I’m sure they weren’t made for this kind of (broken) music.

So, my written notes from a few days ago say “listen to Quah”. If you don’t know this record then you should! It’s by Jorma Kaukonen of Jefferson Airplane and Hot Tuna fame and its opening track Genesis is one of my most favourite records of all. Anyway, I clearly wanted myself to listen to this record in a more critical kind of way and so here goes. There is a real natural and unforced feeling to this record on the Davis speakers. Genesis is, at first listen, a pretty simple tune with just vocal and guitar but then soars with strings...it’s beautiful done right and the Davis speakers capture and present this. The feeling and subdued emotion in Jorma’s vocal comes across wonderfully and the guitar is properly presented. And those strings!!! As natural a presentation of this tune as I’ve heard, and listening to it reminded me of why I wanted to hear these speakers at home. When I say the guitar is natural sounding, I mean it is in the room natural sounding. What I particularly enjoyed was how these speakers really captured the artist’s connection with the tune. It is heartfelt, and it certainly sounds it on the Davis. Jorma’s fingering and picking on the guitar strings is easy to hear and whilst there is masses of detail there’s nothing that feels pushed or forced. Keeping on the Airplane theme I pulled up Crown of Creation and the title track, mainly

because the bassline is stunning but can often get lost in the maelstrom of sounds. The #8 don't hide it at all and it's easy to follow throughout the tune. Pushing the volume on this track doesn't phase these speakers in any way and I love the way that they manage to separate out sounds without losing any of that feeling of wholeness.

Dik Banovich then pops up on Qobuz and it'd be rude not to listen. If you don't know him then you should look him up. We had him play in our barn when we used to put on Sunday afternoon gigs and Linette chose to have him play at her 40th birthday bash. Dik plays acoustic blues and the record *Run To You* is simply recorded with just Dik and his guitar, and the Davis speakers get this across nicely. Again there is loads of detail, but with that detail that natural and unforced feeling I binged on about. There is that in-the-room feeling again too. Movement on the fretboard is clear and there's just no harshness or nastiness to the sound. These are a really easy to get on with loudspeaker that just draw you in and demand you sit down and enjoy the music. For that very reason, they are also pretty difficult to review because I found myself just wanting to sit and listen to the music - but surely this is a good sign in a loudspeaker! I actually think Dik's music sort of sums up the character of the Courbet #8 pretty well – If you want bells and whistles then you need to look elsewhere, however, if you want an honest and straightforward portrayal of what is going on, without the loss of the finer nuances in a performance then the Courbet #8 may well be just what you are looking for.

Looking back at what I've picked out of all the tunes I've listened to it dawns on me that I've listened to mainly pretty simple tunes (bar the *Airplane*) on the #8 and I suppose it's time to dig out something a bit more hectic and I go for *Led Zeppelin II* and the track *Moby Dick*, more because I know it's got a great drum solo on it than anything. I also wanted to listen to this at volume and hear just how these speakers deal with dynamic changes. I'm happy to report that all is well and even when pushed very hard the Davis speakers remain composed and in control of the music that is being played. In fact, it feels like they could be pushed harder. Bring It On Home comes next and this is a real workout

track. Again there's nothing but control and composure. The vocal track is forward, the main guitar line is panned properly and the drums, as in the last track, are hard-hitting and dynamic. Likewise, when Roon throws up ACDC's *You Shook Me All Night Long*, the speakers just get on with it. There's (again) no harshness in the performance and the rhythm section just feel very right and underpin the whole track. That same dynamic bass, and in particularly drums, is experienced on Blind Faith's *Do What You Like*.

CONCLUSION

There's not a lot not to like on these speakers and a whole lot to really commend. Yep, they look pretty conventional other than that parallelogram shape, but plumb them onto a good amp and crank the volume up a bit and they really come alive. Even at lower volumes there's detail and a sense of dynamism that gives you a taste of what's to come.

They aren't as three dimensional as the Care Orchestra speakers we had here recently, but that soundstage is very natural and somewhat monitor-like. They don't have the same airiness in the upper-mids and tops as the Audiovector R6 with their AMT tweeter, but there is a good deal of detail in the presence band.

Tonally the speakers are pretty neutral, perhaps erring on the side a slight warmth in sound.

Fit and finish is excellent and they do look good, though some will not like that pale yellow Kevlar mid. Personally, I quite like it and it distinguishes the #8 from a gazillion other medium-sized standmounters.

Front porting makes them easy to position and that small rear port add something to the presence and upper-mids.

Some will want them to go deeper, but I really didn't think they missed a trick and to me they felt nothing but balanced across the frequency spectrum. That bass is actually very tight and full of detail (If in doubt check out these speakers playing Blind Faith's *Do What You Like* or Deep Purple's *Pictures Of Home*) and will satisfy the vast majority of people. They are

REVIEW

certainly fast and articulate!

I'd have these as a main speaker in a heartbeat and they are a gnat's hair breadth from our top award.

AT A GLANCE

Build Quality:

Pretty conventional-looking other than their parallelogram shape

Beautifully finished

Sound Quality:

Natural and unforced

Dynamic and articulate

Wide but natural soundstage

Have a point when they really do come alive, but also good at lower volumes

Best with an amp with a bit of power

The rear port at the top adds air and openness to the sound that gives an enhanced sense of space in the recording and the recording space itself

Value For Money:

These are a good chunk of money for what looks like a conventional speaker, but their price is pretty good value once you take a listen and when compared to what else is available

We Loved:

These speakers just make listening to whatever music you choose an absolute pleasure and I did get lost in the music on several occasions when I was supposed to be listening more critically.

Unfussy about positioning

So natural sounding

Fast and articulate bass

Clear midband and smooth treble

Unflappable, even on complex music

We Didn't Love So Much

I can see some would want a speaker to go lower but I was very happy

A bit boxy looking from the front

Price: €5700

Elevator Pitch Review: From France, the Davis Courbet #8 are an expressive and detailed loudspeaker across the frequency range, with a naturalness to their presentation that should find many admirers. Whilst they look conventional, they are as uncoloured as you could want, particularly through the mids. Bass is controlled and tight and should be low enough for all but the most diehard bass nutter. Their unfussiness with regards to positioning makes them a good choice for those with domestic considerations.



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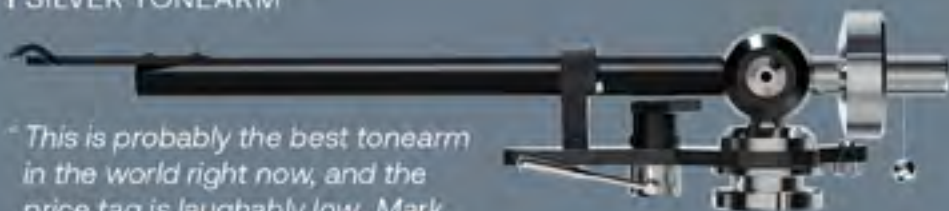
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MYCETIAS VULCANIAN LOUDSPEAKERS

Mycetias are a relatively new brand based in the North of the United Kingdom that makes no-nonsense, value for money loudspeakers and amplifiers. Ian Ringstead checks out the Mycetias Vulcanian loudspeakers for HiFi Pig.



Ian Ringstead

Lockdown over the last eighteen months has had a seismic effect on the world in general bringing us all down to earth in one way or another. This review has come about as a result of the Covid 19 pandemic crisis and the way it has placed many people in a very difficult situation. Nick Stephenson from Lancashire has been involved in professional audio work for over twenty-five years designing and building PA equipment and travelling around with bands. When Covid came along to shake our world up Nick suddenly lost all his work overnight and his obvious thought was "What am I going to do?"

His solution was to design and build loudspeakers and power amps to sell directly to his customers and thereby keep his costs down and giving us (the music lovers of the world) an opportunity to own a fantas-

tic value for money product. Mycetias is an unusual name and not a word I'd come across previously and so I looked it up and the definition makes sense in the context of Covid 19 and the speakers' name Vulcanian. It means in the Latin to English translation "an earthquake accompanied by a rumbling noise". Vulcan is the Roman god of fire and metalworking. I checked Nick out on Facebook to see what all the fuss was about as there had been quite a few rumbles (excuse the pun, it was intended !!) about his products. The Vulcanian and V2 (which is very similar) have attracted many positive reviews and comments and so this was my chance to experience them.

DESIGN AND BUILD

The speakers are quite big for stand mounters, so if you decide to go for a pair you will



need to factor in a decent pair of shortish floor stands for them. I used a pair of Atacama 20" / 50cm stands but Nick does a custom-made pair to suit for £300. The cabinets are made from birch plywood which is an excellent material that's used a lot in pro audio and for the classic BBC designs of old such as the LS3/5A. Good quality birch ply is not cheap nor easy to work with, but it is very durable and ideal for pro use.

Fit and finish is very good for the asking price given the size of the cabinets and quality of the drive units. The tweeters are Monacor with a waveguide to aid dispersion. They are 30mm silk soft-dome units with high-temperature voice-coils and ferrofluid cooling handling 100w to give a very smooth response and great transient attack. The two bass units are 6.5 " 70 w drivers from Vistaton that are coated paper cones using an inverse dust cap and a rubber rolled surround. No internal damping is used and the cabinet is rear vented with a tuned port to aid low-frequency response and efficiency.

The crossover is a two-way passive design 2nd order 12dB per octave and good quality gold plated multi-way binding posts are used accepting 4mm banana plugs, spades or 6mm bare wire. The front baffle has a full face 1.5mm thick steel black powder-coated or bare steel finish grille fitted as standard. Four rubber feet are on the lower surface to aid placement and prevent scratching anything. The finish I received was a golden oak stained Birch plywood, with a varnish finish

SOUND QUALITY

I wasn't sure what to expect from these speakers, but I wanted to be open-minded given they are a bit of a departure from the normal domestic speakers out there. I am well aware of the pro audio approach to build and design and to the fact that the pro world has a no-nonsense stance on aesthetics and a direct sound. The HiFi market is somewhat different, tailoring sound and looks accordingly for the various markets and audiences they cater for. However, the Mycetias speakers have a look to them that certainly sets them apart from the herd.

The Vulcanians were brand new with no run-in at all as Nick had literally made them for me to

review. I gave them a few days to settle in and then got down to some serious assessment. Straight away it was obvious that this design had something special about its sound. A good image was portrayed into my living room with depth and width, and the initial slightly bright nature calmed down with prolonged use as the drivers settled down. I played some Steely Dan from the '80s the classic album Gaucho on vinyl. The musicianship always shines through and Donald Fagen's distinctive voice was centred directly in front of me in all its glory. I know their albums very well having listened to them many times over the last forty years and if a system doesn't gel with their music, then I know something is wrong. The Vulcanians didn't fail me! The guitars and keyboards shone clearly in the soundstage and their complex interplay was easily picked out. Donald Fagen and Walter Becker were fanatical about production values and used some of the best session musicians out there. This perfectionism fortunately was always backed up by great tunes and lyrics. All this attention to detail was evident with these speakers in place.

Supertramp is another go-to band for my musical pleasure and a brilliant test for any component or system. Breakfast in America is an album I love from start to finish and have several versions including the recently acquired MFSL vinyl. Sublime music and terrific dynamics thrill me but I can recall hearing one of their albums at an audio show and being totally underwhelmed. That told me that either the system or room were just not gelling as it was a very expensive system more than capable of excelling. The Vulcanians rose to the challenge and went loud with ease and no obvious strain. Nick claims these abilities on his website and was a design aim (of course) and so for these relatively affordable speakers to achieve this is a pleasure to hear.

Simply Red have a place in my heart for superb tunes and Mick Hucknall's voice is a real winner in my opinion (many I'm sure will disagree if you're not a fan). Picture Book was their first album and one track that really impressed was Sad Old Red. Not as well known as the hits Holding Back the Years and Money's Too Tight to Mention it catches you out with its slow start only to be suddenly amazed by the explosive



dynamics with the drums and trumpet knocking you off your seat. I nearly always listen to the vinyl version as it is so good and is a brilliant recording made thirty-six years ago. The whole album shines for me and the Vulcanians didn't let me down making me smile once again. This is a very positive reaction to what are pretty inexpensive loudspeakers.

I would say the Vulcanians are like an ugly ducklings. My initial reaction to seeing them in the flesh was that they lacked the polished finish I'm normally used to. The rustic finish shows how Nick's main aim was great sound and value for money above all else. If Nick had gone to the trouble of applying a high-quality veneer or paint finish then the price would have shot up considerably. I've visited many loudspeaker factories, and capital investment in CNC machining and woodworking tooling costs tens if not hundreds of thousands. That is why companies usually contract out the manufacture of their cabinets to the experts, but large quantity production runs are required to keep costs down or adversely hike the retail price. Nick does all the building and assembly himself, so passing the cost savings onto his customers. He has kept the design simple and uncomplicated both for his benefit and the customer.

CONCLUSION

I can't fault Nick for his optimism and enthusiasm to do his best to come out of the trauma Covid imposed on us all back in 2020. HiFi has generally ridden the seesaw ride of the last eighteen months pretty well as enthusiasts have chosen to spend any spare cash on new audio equipment to brighten their lives up, especially as travel has been so restricted. Some will have spent a lot on upgrades, but many would have been hard-pressed to justify any changes or simply not had any spare cash.

The Vulcanians are a lot of speaker for the money, look good in a quirky kind of way and offer a sound that is clear and open, smooth, and with a good balance of sound across the frequency spectrum. They are also dynamic loudspeakers.

They are a relatively sensitive loudspeaker (90dB) and so shouldn't pose a problem with

any amps bar the flea-powered variety.

If you are looking for a good value loudspeaker that gives you a whole lot for your hard-earned then these could well be just the ticket.

Nick encourages folk to audition his products at his home if possible, but he will send them worldwide by courier.

AT A GLANCE

Build Quality:

Simple and honest, competently put together. For the money, I can't quibble. Over the top and luxurious finish wasn't the design aim here, the sound was

Sound Quality:

Extremely good.

Open soundstage with great clarity and very good top to bottom frequency response

Smooth and very enjoyable quality making long-term listening sessions a real pleasure

Value for Money:

You can't knock them!

Excellent value when compared with the competition

We Loved:

No-nonsense simple design.

Wide choice of finishes available to order with custom finishes easily catered for.

Solid and deep bass, a smooth and open mid-band with good high-frequency clarity free of any harshness.

We Didn't Love So Much:

Ultimately for me, the finish was a tricky one for me to accept. Nick's background is in professional audio and so understandably looks aren't the main priority. Personal taste also comes into



the equation. Many of Nick's customers praise the build and looks so who am I to judge. It's all down to personal taste. (I love the no-nonsense look - ed')

Size-wise they aren't compact and so in a small room, they do look quite big. It's best to use low stands from an aesthetic viewpoint and Nick makes dedicated stands to suit separately.

Price: £576 (inc VAT) a pair. Matching dedicated stands £300.

Elevator Pitch Review: Mission accomplished! Nick aimed to produce a fantastic value for money speaker for the masses and has suc-

ceeded. If money is tight or you don't want to spend a fortune on some new speakers the Vulcanians might be just the ticket.



Are you serious about vinyl?



Having collaborated with such guest artists as The King's Singers, Judy Collins, Art Garfunkel, Mel Tormé, Ray Charles, Chet Atkins, Crystal Gayle, Lou Rawls and Roger Miller to name a few, Kory Katseane, Director of Orchestras in the BYU School of Music, knows how music is intended to sound and had this to say about the Graham Slee Accession phonostage -

"I hadn't noticed at first that the Accession was reproducing those acoustic environments more faithfully but gradually became more aware that in addition to it sounding more like real instruments, it was also sounding more like I was in great halls as well."

LAB 12

— emotion thru sound —





SPARKOS LABS ARIES PREAMP/HEADPHONE AMPLIFIER

SparkoS Labs Inc. claim to be a company with a canine CEO. John Scott finds out if their Aries preamp/headphone amplifier at £2995 provides paws for thought.



John Scott

Before we get to actually reviewing SparkoS Labs' Aries headphone amplifier, it is probably worth saying a few things about the company itself... Andrew "Sparko" Sparks developed an interest in electronics at an early age when he was given a Radio Shack electronics kit. This led to him tinkering with all manner of electric and electronic items around the house, most of which weren't broken and didn't really need fixing despite what he told his mum. Later, Santa brought Andrew an oscilloscope for Christmas and even more tinkering ensued. Eventually, Andrew went off to Kansas State University to study electronics and worked in the electronics industry for around twenty years.

This is where things start to get a little bit weird. According to SparkoS Labs' website, the company's CEO is named Lütz

who also happens to be a small dog. Lütz, so the story goes, immediately recognised Andrew's talents and recruited him along with another human named Alisa (AKA The Doc-tress). Having hired two engineers and audiophiles, SparkoS Labs built a name for itself as a producer of high-quality audio components including op-amps, voltage regulators and power supplies. These products now form the basis of SparkoS Labs' first piece of audio equipment, the Aries preamp and headphone amplifier.

The Aires comes in black only, very well finished with a slightly textured surface which I found very appealing. While the Aries qualifies as a desktop headphone amplifier, it is quite a large unit and it sat quite comfortably in my HiFi rack beside my other components. As a non-technical person, the

REVIEW



innards of the Aries are a mystery to me but they include a large Mu Metal-shielded toroidal transformer and, of course, SparkoS Labs own op amps and voltage regulators. The Aries also uses a reed array switch stepped attenuator in its volume control circuitry. SparkoS Labs say that this provides perfect volume matching between channels. No capacitors are used anywhere in the signal path.

The Aries is available in two versions: the base model has two RCA inputs on the back panel and a 3.5mm input on the front panel. The full version adds a pair of both RCA and XLR inputs to the back panel to enable the Aries to be used as a preamplifier. I should state that although I was supplied with the full model for review, the Aries abilities as a preamp were not tested during the time I had it in my possession.

Along with the aforementioned 3.5mm input, the Aries' front panel features a standard ¼" headphone output and two rotary controls, one on each side of a touch-screen control panel.

SET UP

The initial set was incredibly straightforward however, the Aries does offer some interesting options which I will expand on. After connecting the RCA inputs on the rear panel to my DAC (Valve Audio Designs DAC 10) and hooking it up to the mains, I fired it up by pressing the touch-screen panel in the centre of the front panel. Pressing the cog icon to access the unit's control panel offered some interesting options. First off, there is the option to vary the input gain (+10, +20 or +30 dB), useful according to the sensitivity of your headphones. Secondly, there is an option to customise the colours of the touch screen display. Thirdly, the option to swap round the functionality of the two front-panel rotary knobs.

Both of these latter options possibly come under the category of "Things you didn't know you needed until you knew you needed them". Being able to change the colour of the touch-screen is hardly essential but it is strangely satisfying to create a colour scheme that suits your own sensibilities. In its standard configuration, the left rotary knob handles channel balance and the right knob handles volume. Being

able to swap over the functionality of these may seem like no big deal but as a left-handed person, I actually preferred the volume control to be on the left. The option to have it as such is a really nice touch.

SOUND

For the sake of full disclosure, I should say that I am not a seasoned headphone user. My preferred method of music listening is definitely via loudspeakers. That said, stretching out on the sofa on a rainy Sunday afternoon and losing myself in music does have its appeal. Music for this review was either streamed from local files or from Qobuz via my Roon Nucleus+ server and I mainly used the excellent Meze Empyrean headphones.

I thought this would be an excellent opportunity to deviate slightly from my usual listening fare so I began by revisiting a couple of my favourite classical and jazz albums. Mussorgsky's *Pictures At An Exhibition* is one of my favourite classical pieces. Although it is most widely known as an orchestral piece, it was originally written as a piece for solo piano. German pianist, Alice Sara Ott's recording of *Pictures on Deutsche Grammophon* is part of a live recital she gave in St Petersburg in 2012. I don't think I am being controversial if I say that headphone listening is generally more revealing than listening with loudspeakers and I was a bit concerned that the Meze Empyreans would reveal a slight veil of background noise from either the Aries or the output stage of my DAC. I'm happy to say that this was not the case. Even in the quietest passages of Ott's performance, the background was an inky black. Live performances do come with their own background noises though and although the St Petersburg audience were either very well behaved or the DG engineers were very skilful, the occasional cough or seat shift did come over clearly. Through speakers, depicting a solid soundstage on a solo piano can be tricky but the Aries made a great job of it and I felt like I was front and centre in the audience with Ott on the stage in front of me and the ambience of the Marinsky Theatre around me.

Better Git It In Your Soul from Mingus Ah Um by jazz bassist and bandleader Charles Mingus is

REVIEW





a vibrant gospel-infused piece and the Aries put me right in the heart of the music with the band spread around me. From the body tones of Mingus' double bass to the whoops and hollers of the band as they laid out the tune, I felt I was there in the moment. I was beginning to hear how headphone listening could offer a perfectly viable alternative to loudspeakers.

Moving on to Autobahn by Kraftwerk I was particularly impressed by the way in which the Aries rendered the textures of all the electronic instruments, enhancing the rhythmic propulsion of the simulated road trip. I closed my eyes and drifted into a huge soundscape with the core elements of the music taking place inside my head while other parts swooped about to the left and right of me, occasionally moving through my head from one side to the other, which would be slightly disconcerting if it wasn't so much fun.

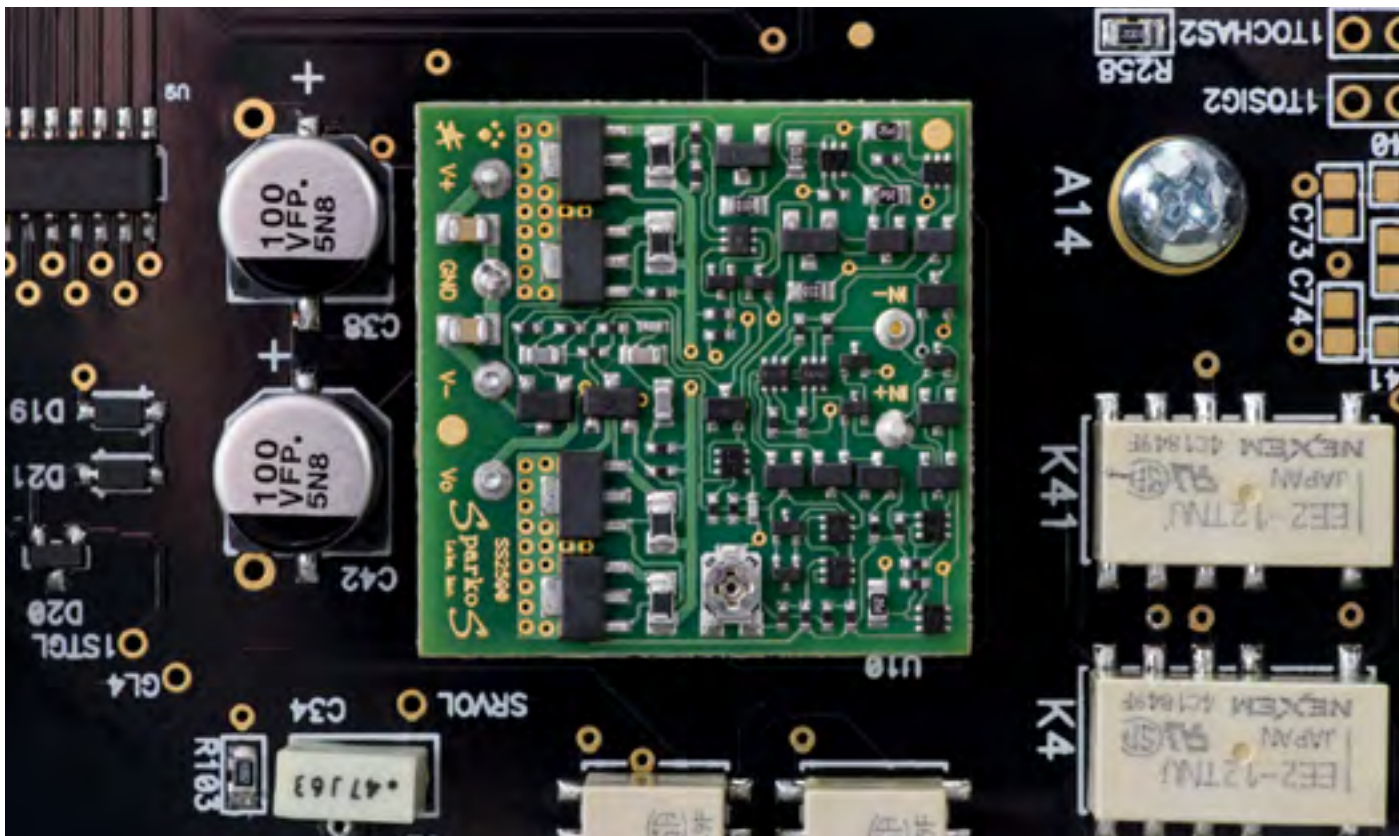
Clearly, the Aries is a revealing, highly capable amplifier. This comes with a word of warning though; recordings that are not up to scratch will not be sweetened, rather their imperfections will be laid bare. For example, I love the track And So To F... by jazz-rock group Brand X but at around the 5:40 mark guitarist John Goodsall hits a note that can rip your ears off; the Aires

didn't hold back on this note's shrill, ear-shredding tone. Likewise, highly compressed recordings will be exposed as exactly that. The Aires invites you to choose your recordings with care and then reap the rewards.

CONCLUSION

More and more people are turning to headphones as a serious, dedicated, listening source and, if going down that route, it makes sense to invest in high-quality components. Sparkos Labs Inc. may not take themselves too seriously as individuals but they are definitely not having a laugh when it comes to their products. SparkoS Labs claim that the Aries is: "... quite possibly the finest headphone amplifier and preamp that mankind has ever known". That's a bold claim, and you will have to decide how accurate it is by having a listen for yourself, but what is clear is that every effort has been put into making this amplifier the best that it can be.

If you are looking for either a headphone-based main system or a serious secondary system for solitary listening, the Aries headphone amplifier is certainly worthy of consideration. It gets a sold five hearts from me and is highly recommended.



AT A GLANCE

Build Quality:

Solidly built with simple but customisable functions that go beyond “nice to have” to “why don’t other companies do that”.

Sound Quality:

Revealing and highly musical. Doesn’t disguise poor recordings.

Value For Money:

A serious bit of kit for serious head-fi enjoyment. As such, I think it represents great value for money.

We Loved:

Solid build quality

Option to customise control knobs and display

Detailed, revealing sound.

We Didn’t Love So Much:

There was nothing about the Aries that I dis-

liked. Arguably, a combined streamer/DAC/ amplifier would offer greater convenience, but by focussing purely on amplifier performance, SparkoS Labs have made the right decision here I think.

Price:

BASE model: £2500

FULL model (with preamplifier): £2,995.

Elevator Pitch Review: Colorado-based and canine-owned (allegedly), SparkoS Labs’ passion for headphone amplification shines through in their first fully-fledged product. Serious head-fi fans should definitely check this out.





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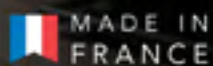
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GUSTARD DAC X-16 MQA

The Gustard DAC-X16 MQA is an MQA capable digital to analogue convertor hailing from China and costing £459 \$500. Stuart Smith takes a listen.



Stuart Smith

Externally this is a very nicely put together unit and looks good. It's small enough to be used desktop and certainly feels like a quality bit of kit. It weighs 2.5Kg and measures 22cm x 50cm x 170cm and comes in either black (as per the sample unit) or silver. On the front there is the brand name and the model number and then a small OLED display which is fine for desktop but too small to be seen across the room. Finally, there is a dial and button combo to the right of the unit for control and set up, though a small but perfectly functional remote is included in the package. A power cable and USB cable are also in the package, as is a Bluetooth antenna and a driver disc. The four feet underneath the box are non-slip and look nicely machined, though they are not adjustable.

So far there's little not to like

about the Gustard.

Round the back you have XLR and RCA outputs, and then digital inputs that include optical, coaxial, AES, USB and IIS. There is the Bluetooth antenna input and then the main IEC and master power switch.

Inside the DAC chips are the ES9068AS from ESS, with two being used in this model. For USB there's an XMOS xCORE-200 16 core XU216 processor that allows for 32 Bit PCM, and DSD and it will allow input from Win7 to 10 (32 or 64Bit) as well as Linux. Coax, AES, and optical inputs allow for PCM 16-24 Bit/44.1-192kHz and DSD DOP 64. There is also the IIS input that will offer the same specs as USB. Bluetooth is Bluetooth 5.0.

is is pretty impressive stuff for such a small and well-priced

box.

SET UP

Nothing to it. Plug the USB out of the Raspberry Pi running Roipiee into the DAC, plug the RCA or XLRs into the back of the old Krell, plug it into the mains, find the Gustard on Roon and rename. Hey presto, music. This makes for a very simple set up and feasibly you could run a full streaming rig with just this, a Raspberry pi or other streamer, an amp and speakers, or even straight into a pair of powered speakers. This may not seem a big deal to most readers but there is plenty of folk out there looking for systems that just play music and don't get in the way. It's not as compact a system as using the DAC 32 I reviewed recently, but it's still relatively bijou.

SOUND

Truth be known, I wasn't expecting a great deal from the Gustard, but overall I've been pretty impressed with what it can do. My first overall impression from it was that it wasn't as "organic" sounding as the LAB12 DAC that it replaced in this system, and secondly it isn't as critically resolving as the Leema DAC we use in the main system. However, this is a sub-£500 DAC and the DACs mentioned are far more costly.

It is certainly very quiet – there is no discernible noise between tracks whatsoever. Soundstaging I'd say isn't as expansive as the two other DACs I've mentioned and music feels a little more "closed in" in comparison, though imaging within the stage is very good if a little flat. With all that said, the Gustard is certainly pretty impressive to listen to, though it has limitations that will become evident. As I'm sat typing up my notes, Moby's version of Heroes comes on and immediately catches my attention – it's fairly impressive that a €500 DAC is able to make this kind of sound and shows how far DAC design has come.

Neil Landstrumm's Busy Making Videos has plenty going on in the mix and the X16 copes very well with everything that is thrown at it. However, I just feel that the music isn't as exciting as it should be – something is missing that gives my other DACs the edge in this

regard. Don't get me wrong, this is not terrible in any way and I could be well happy listening to the Gustard forever, but it's not got that little bit of sparkle that sets great kit apart from the herd. I got this feeling throughout my time with the Gustard – not missing anything but not really falling in love with it either.

Hardfloor's Trancesript has the 303 sounding like a 303 but without quite the bite I'm used to and with the Gustard failing to capture the raspiness of the little silver acid box. It's there, but it feels a little bit sterile and flat when compared to the other DACs we have to hand. I can still enjoy the music, and were I not such a critical person, or perhaps had I not being spoiled by having such great kit at my disposal, the Gustard would have served my needs very well – and in many ways, I think this is how to look at the X16. It's a good sounding DAC that produces music without leaving much out, but doesn't really excite and give that connection to the music you are listening to – perhaps the DACs further up the Gustard chain are able to offer more in this regard.

Listening to Daft Punk's Contact it's clear that the X16 is a very clean sounding DAC and there's no distortion to the sound in the upper frequencies (other than the distortion that is there on this track). The drums that are panned all over the place on the tune are represented very well in the mix, but in the final analysis, seem to lack a bit of the punch that I'm used to, and again I'm left feeling a little like I'm missing something but I don't know what. The "noise" towards the end of this track is very complex in its makeup and the Gustard demonstrated that well with me being able to hear the layers of sound. One More Time is punchier in its mix but still feels a little flat here.

The X16 manages to pull out the massively deep kick and bassline on Stacey Pullen's Rok track and again everything is portrayed very well and with little to complain about, but again with little to get you climbing the drainpipe, getting your top off, and screaming from the rooftops as to how brilliant this DAC is.

Listening to the chilled jazz of Paolo Fresu and Lars Danielson's Summerwind record it's very easy to fall into the music and be seduced by





the chilled nature of the presentation. And I think this gets to the crux of what the character of this DAC is all about - on tunes where I'm looking for energy, vitality and pace I was left wanting, on more chilled music I found myself drifting into the tunes and getting right into it. The question then would be "Is the X16 a bit boring?" and I suppose it sort of is if I'm honest. That's a bit unfair, actually, and as opposed to boring I think a better way to describe its character is chilled and undemanding.

Mid-band is lush and full and is where the Gustard scored really highly. Vocals were easy to decipher and there is a good insight into tone and detail in the performer's voice. In lots of ways, I could see some describing this as an "audiophile" sounding DAC.

I'm not an MQA aficionado and being MQA compliant is not something I would seek out in a product, so I'm not going to go further than to say that with all the tracks I tried with MQA encoding the Gustard worked fine.

Bluetooth is easy to set up. Go into the menu, turn on the Bluetooth power and the computer or phone sees the DAC immediately. Select BT input with the remote and you are away. We often have issues with Bluetooth in the house but the Gustard performed flawlessly. Bluetooth streaming is what it is to my mind and I rarely

use it – it worked fine!

CONCLUSION

In some ways I'd describe the Gustard as pretty "workaday" – it doesn't do anything wrong, but it doesn't connect me with the music like my other DACs. For me, it is missing that certain something that's really hard to quantify.

However, on chilled jazz and the likes of the Café del Mar series of records, it's a really good match with that Sunday morning come-down feel to it. I have to say that if I didn't listen to so much fast-paced techno etc then this would have got a better score than it will get.

I'd have liked to have seen a headphone output on it which would have made it a very good desktop DAC for not a lot of money

Overall, I reckon this offers great value for money and should be considered as being a highly capable DAC...with the caveats outlined.

This is a good sounding and well-built DAC that takes up minimal real estate and sounds very good when it's partnered with the right music. I certainly don't think it will be all things to all people but for those who like this kind of presentation, it will be a big hit!



AT A GLANCE

Build Quality:

Compact and very well put together. Nothing to fault here at all

Sound Quality:

For my taste, it lacks excitement and drive. With chilled out tunes it's actually a very nice and undemanding DAC to listen to

Value For Money:

The X-16 represents great value for money in my opinion if you are happy with its laid back approach and presentation

We Loved:

Good choice of digital inputs

Bluetooth connectivity

Great build

Simple to get working – pretty much plug and play

Lush mid-band presentation

Good value for money

RCA and XLR outputs

Great package and packaging

We Didn't Love So Much:

Just a little on the lush side to really fire the excitement buttons

No headphone

Price: \$500

Elevator Pitch Review: Well built and good sounding DAC that errs on the side of being inoffensive and laidback - if a little too much for my tastes. The feature set is great for the money and it only lacks a headphone amplifier.



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MERASON FRÉROT DAC

The Merason Frérot DAC costing £995 isn't the first thing that comes to mind when we think of Switzerland. We're more likely to think cheese, chocolate and clocks. John Scott spends some time with it to see if audiophile-quality DACs can be added to that list.



John Scott

First off, I needed a little bit of help to decode this DAC's name. Merason apparently means "unique sound" and Frérot means "little brother" and indeed this is the smaller sibling to the flagship Merason DAC1 unit.

The DAC comes in a stylishly designed but frill-free cardboard box, well-protected within a foam inner and accompanied by a "wall wart" power supply. In fact, stylishly designed but frill-free also goes some way to describing the DAC itself. Being Swiss-made, you would expect a well-engineered quality product and that is certainly the first, and lasting, impression that the Frérot provides. It is a relatively small unit measuring 22.5 x 18 x 5 cm, and light in weight at less than 1kg but its galvanised steel body gives an impression of greater heft and the casing is beautifully engi-

neered to produce a sleek, classy product that looked great on my HiFi shelf.

The Frérot's understated elegance is typified by its front panel which comprises of little more than two green LEDs, a single switch and the Merason logo. The first LED indicates that the unit is powered up, the second activates when an active input is selected by the rotary switch.

The back panel is where all the action is; both balanced and single-ended outputs are provided along with five inputs: two coax, two optical and one USB – more than enough choice for the typical user. Along with the wall wart power input and an on/off switch, an umbilical input for the Frérot's optional upgraded PSU (of which more later) is also provided. Despite the Frérot's small size, there is no

sense at all that the back panel is cluttered.

Like its big brother the DAC1, the Frérot uses Burr Brown's 1794A DAC chip but where the DAC1 utilises a "dual mono" configuration - one chip per channel - the Frérot relies on a single chip. Supported audio formats are up to 24/192. DSD is not supported.

SET UP

Not much to say here really. Set up was incredibly straightforward. I connected the power to the Frérot and RCA interconnect outputs to my Etalon SuprA amplifier. My Stack Audio Link II streamer is USB-only so the USB input was the way to go here. Powering the unit up, the power indicator LED on the front panel sprang to life; always a good start. The inputs on the back panel are numbered 1 to 5 with corresponding numbers on the front panel's rotary switch. The USB input is number 5 and when I turned the rotary switch to 5, the other LED lit up to show that the Frérot had locked on to the streamer. Another sign that we were now good to go.

SOUND

All music for this review was either streamed from local files or from Qobuz via my Roon Nucleus+server. At this price point, I was expecting something a bit special from a stand-alone DAC and the Frérot didn't disappoint in the slightest. Kicking off with Bird On A Wire from Jennifer Warnes' Famous Blue Raincoat album, I was immediately struck by the Frérot's sense of rhythmic pace. There is a lot going on in this track; intricate drumming and cymbal work from Zappa alumnus Vinnie Colaiuta is bolstered by additional percussion from Lenny Castro, Warnes' vocal floats over complex layers of background vocals and the bass guitar goes way down but retains a percussive string tone. The Frérot took all this in its stride. There was clarity between the drums and other percussion instruments, with Colaiuta's snare revealing the sound of the drum-shell, not just the snap of stick-on skin.

Stormy weather from Joni Mitchell's Both Sides Now album features a 71-piece orchestra playing an arrangement that is almost Mahler-like in

its complexity, intensity and dynamism. The Frérot laid this out in front of me in all its splendour along with the ambience of the recording space, Mitchell's vocal exhibiting a subtly different acoustic quality. At this point in her career, Mitchell's voice had taken on a slightly husky, breathy quality – possibly not unrelated to decades of dedicated cigarette consumption – perfectly suited to the songs on this album. The Frérot brought out all these tonal qualities in Mitchell's voice, conveying a real sense of emotional intensity.

Next up was something very different: Contact from Daft Punk's Random Access Memories album. This track features a lot of intentional crackling and distortion along with synthesised instruments and real, but heavily treated bass and drums. The track is an aural representation of an alien encounter. Tension builds throughout the track as the layers of synthesised static battle with the drums and bass. The static builds in frequency until it feels like something might explode then fades to the crackling of a burnt-out radio. This can be a difficult track for a system to resolve well but the Frérot was clearly up to the task, conveying every drop of tension and excitement.

But wait, John, didn't you mention something about a dedicated power supply? Why yes I did, thanks for reminding me. Just like the Frérot, the POW1 power supply (£595) is a well-built and classy looking bit of kit, housing a large toroidal transformer. It would be disappointing if an upgraded power supply did not bring additional benefits and I am happy to say that was definitely not the case here. The POW1 did not affect the fundamental qualities of the Frérot in terms of pace and precision but quite clearly opened up the soundstage further and brought more "air" into the overall presentation. Switching back again to the wall wart confirmed this to be the case. Don't get me wrong; the Frérot is a great performer in its standard power configuration but the POW1 definitely adds an extra little something special and I very quickly switched it back in again.

My reference DAC (Valve Audio Designs VAD DAC10) almost always gives me a feeling of putting its arms around me, giving me a cuddle and pulling me into the music, no doubt due to



REVIEW

its valve-driven output stage. I found the Frérot to be drier and slightly more analytical in its presentation but not overly so and certainly not to the detriment of the music. Child In Time from Deep Purple's Made In Japan live album positively crackled with pace (and Paice) and excitement and again the sense of the live acoustic was really brought home. While I would need to be forced at gunpoint to give up my VAD10, the Frérot is a DAC that I really would be very happy to live with.

CONCLUSION

I thoroughly enjoyed my time with this DAC. Its sound is matched by its build quality and stylish good looks. Precision and detail are delivered in spades but never at the expense of emotional involvement. Performance is enhanced by the dedicated POW1 power supply but it is more than acceptable with the standard supplied PSU. Buying the Frérot in its standard power configuration and saving up for the POW1 at a later date would bring a nice little upgrade and performance boost to look forward to.

As there was really nothing about this product that I didn't like, it gets five hearts from me. If you are in the market for a stand-alone DAC at this price point, the Merason Frérot definitely should be on your audition shortlist.

AT A GLANCE

Build Quality:

Excellent build quality and sophisticated styling. No bling, just classy good looks.

Sound Quality:

Detailed and precise but not at the expense of emotion. A sound I'd be more than happy to live with.

Value For Money:

A DAC at this price point is always going to be a considered investment. It's not cheap but it will be in your system for the long term and therefore, in my opinion, represents very good value for money.

We Loved:

Classy good looks that reflect the price

Solid build quality

Excellent choice of digital inputs – more than enough for the average user

Detailed, involving sound presentation

Option to enhance performance with the dedicated PSU.

We Didn't Love So Much:

Nothing really to say here

DSD fans may be disappointed that this format is not supported.

Price:

Frérot DAC £995

POW1 PSU £595

Elevator Pitch Review: Swiss-made is a by-word for quality manufacturing. The Merason Frérot DAC is no exception. Looks the business and sounds it too.





ELECTROCOMPANIET EMC 1 MKV REFERENCE CD PLAYER

Stuart Smith and Electrocompaniet seem to have missed the memo that Red Book CD is dead and buried as he has an extended play with the Norwegian brand's £4999 dedicated silver disc player.



Stuart Smith

There's endless chatter on social media and in audiophile circles that Red Book CD is dead, but it appears that both myself and Norwegian manufacturing company Electrocompaniet seem to have been missed off the mailing list when that particular memo went out. We still have loads of CDs here at HiFi Pig and we regularly buy CDs, particularly second hand where they can be had for a lot less than a bag of chips. Personally, I still think that standard CD is a very good source and a very good medium, though, of course, it doesn't quite have the audiophile credentials of vinyl. I like streaming, though it took me many years and the right services to actually get on with it, but there is something to be said for actually having and holding a physical product and the ritual of putting on a CD, though, again, that ritual isn't

quite so involved as with vinyl. Whilst many audio brands are moving away from manufacturing CD players it's great to see that some are flying the flag for the format and not just at the budget end either.

BUILD AND FEATURES

The EMC 1 MKV Reference is an absolute beast of a player and weighs a not inconsiderable 18Kg/39.6lbs and measures 47 x 42.2 x 11.8 cm (WDH). I initially thought it would be too big depth-wise for our SolidSteel rack but it fits pretty much cock-on, though it does fill the single width/depth shelf completely.

I had thought it would look a bit blingy in the rack but it's not at all over the top, though that Perspex front panel is a magnet for fingerprints and anyone buying it is likely to spend at least some time giving it the

REVIEW



once over with a microfibre cloth from time to time. The gold buttons don't actually look too ostentatious either and I kind of like its very individual styling – there's no way you'd mistake it for anything other than an Electrocompaniet product.

The front panel is actually pretty simple in its layout and there's just the on/off power button in the middle and four control buttons over on the right-hand side, though I suspect most people will use the included remote to skip track, re-wind and fast forward.

Apart from the blue LED display and an infra-red sensor for the remote, that's your lot apart from the gold E logo and the company name, the latter being on the front of the sliding door under which you will find the transport – yes, this is a top-loading machine and so you will need to have plenty of space above it on the rack or have it on the top of the rack.

The sliding drawer lid has a great weighty feel to it when you use it and is a real pleasure to use – it just feels right! However, before you can actually get to use the CD player at all you have to undo the transport screw, the doodad for stopping the lid moving in transport, and the two wingnuts underneath the unit – nothing is left to chance with this CD player during transport and that is a good thing.

That blue LED display is perfectly adequate and displays all the basic information you need and is well visible, though not over the top bright.

The unit also comes with a little magnetic CD clamp that you place onto the top of your CD and the player's spindle when you are playing a disc. It has a pleasingly solid clunk to it when you pop it onto the disc.

Around the back, you have a couple of balanced XLR outs and the RCA outs plus SPDIF and Toslink digital outputs so you can use the Electrocompaniet as a transport and output to the DAC of your choice. I don't really see the point of these as if you are spending this kind of money on a CD player then surely you'd want to be using the onboard DAC. However, by the same token, had Electrocompaniet not included them I'd be writing that they'd omitted to have

suitable digital outputs. I also wondered why there was not the inclusion of a couple or more digital inputs to allow the use of the onboard DAC, but as I assumed would be their response, it was thought that "the more inputs, the more sources for interference and other unwanted noise." This makes sense to me and better to be the master of one trade than Jack of All.

Also round the back is a small recessed switch to change the input voltage depending on where in the world you are (useful if you buy the unit and move from a country with 220V to one with 110V, or vice-versa.)

On top of these, you get the AC power input, an RS-232 socket for installation and service purposes, and a 12V trigger input.

All in all the functions of this CD player are pretty straightforward and the set-up is as per any other CD player I've had in the system.

The included remote is a bit plasticky but does what it's supposed to and is well featured. However, if I was buying a CD player at this price I would want to have a remote that echoed the styling of the player itself and pay the little bit extra that this would entail. After all, the remote is the thing that most folk will have the most interaction with on a day to day basis with the EMC 1 MKV.

In use the player is faultless and it does feel really good. Putting on a CD involved opening the drawer lid by pushing it back (the LED will let you know when it is fully open, though it's pretty obvious), placing the CD over the spindle and then the clamp over that, and then pulling the lid all the way back. The player will then tell you it is loading the disc and this takes a trio of seconds to be complete and then you are ready to spin your silver discs by pressing play on the remote or on the machine itself.

Now that is quite a ritual and I quite liked it.

The DAC chip in the EMC 1 MKV is a Cirrus logic 4398 DAC, but what is perhaps more important with regards to this CD Player is that the analogue circuitry that comes after the conversion of the zeros and ones is completely



Class A in its design – this dedication to Class A topology is something that Electrocompaniet use in all their designs including preamplifiers, amplifiers and streamers, though their power amplifiers' final output circuits are Class A/B. As an aside, I've heard the big power amplifiers a handful of times at shows and they are certainly on my "must own at some point" list as they have always excelled, with them making a pair of Wislon Benesch speakers sound as good as I've ever heard at the last Warsaw Show.

The "EMC" in the "catchy" name of this CD player actually stands for "Electro Mechanical Cancellation" where Electrocompaniet has developed a proprietary mechanical filter and this filter has been frequency adjusted after listening tests. Further, the mechanical design is, say Electrocompaniet "No-compromise" and there are a total of five different housings which shield analogue, digital, transport, transformer and controller circuitry. The mechanical filter is designed to remove both internal and external vibrations from entering the laser pick-up assembly, which in turn is said to bring sonic benefits to the unit. In addition, there are eight separate power supplies; 4 for digital, 4 for the analogue input/output stage and with "ultra-fast" rectifiers used throughout.

The unit stands on Soundcare Superspikes as well as using a 7Kg steel-dampened mechanism that is itself built on specially selected damping feet.

THE SOUND

I used the EMC 1 MKV in our second system for a good while and to be honest it was over the summer and I just listened to tunes on it for my own benefit and without really listening critically. However, it was clear, not just from a price perspective, but also from a performance perspective that this CD Player belonged in a higher-end system. After deciding to bring it into the main system I hooked it up to our Leema DAC via both RCA and Balanced outputs and sonically I think the balanced outs had it by a hair sonically, though this could well be me just expecting the balanced outs to sound better. Speakers were the Audiovector R6 Arreté that have now been in the system for a few months and will now become our reference in this

system, with the amp being the big ol' Krell KST 100. My thinking is that the Leema DAC/Pre will allow me to switch between digital outputs (using the DAC in the Leema) and audio outs of the EMC 1 MKV (using the onboard DAC) and do instant comparisons without moving from the comfort of my armchair. However, as I mentioned, I fully expect anyone buying this CD Player to want to use the onboard DAC. With this in mind, I'd have also liked to have seen this player have inputs to allow it to be used as a DAC for external sources such as a streamer as I believe this would widen its appeal a little in today's market. However, I also see that it is sometimes best to be a master of one trade than a Jack Of All Trades. I say this as the DAC on the EMC 1 is clearly a very accomplished one.

First tracks up were from the Marillion Album Fugazi and I switched "on the fly" between the ripped CD and the physical CD. My immediate thoughts were that CD via the EMC had more of a more involving sound, though perhaps not as analytically precise as the rip through Roon and the Leema DAC, particularly at the top end. Subjectively speaking, and for me as a listener, I actually preferred the EMC over the streamed version and this surprised me a tad. With regards to soundstaging, the EMC appeared to have a more coherent structure in the way the sounds in the mix were layered, though perhaps not with the same separation. I suppose that what I'm saying is that the EMC was, to me, a little more organic sounding overall and not as analytical sounding. Now, whether you want a less analytical sound is going to be down to you and your individual tastes. Overall I felt there was a tad more detail at the top end with the streamed content, though the EMC was a "nicer" and more rounded listen. Drum hits and overall "punch" on the streamed version (remember, I'm using the Leema DAC here) on the track She Chameleon seemed to be more pronounced, though we are splitting hairs here. I'm going to say something that I really don't like to read when I look at reviews elsewhere and say that the Electrocompaniet has a more "analogue" sound to it than the streamed version. This sound, I think, will have a great appeal to many and were I choosing a new CD player with integrated DAC as opposed to a transport with separate DAC then my money

would be winging its way to a Norwegian bank account. I haven't got the Lampizator BIG 7 DAC plumbed in at the moment, but I feel that the EMC is more in line with that than the Leema. There's really not a lot not to like about the Electrocompaniet offering listening to this record. Using our little CD player (Leema Essentials) into the Leema DAC and the Electrocompaniet also into the Libra DAC (so we are comparing just transports) the Electrocompaniet wins in every way – more stability to the image, more welly and more detail throughout. As a standalone transport, this is a very good machine, though, as mentioned, I can't see people using as such as you are essentially spending a good deal on an internal DAC you aren't going to use. Comparing the Leema CD player to the EMC and using both players' internal converters then the Electrocompaniet wins the competition hands down, but so it should be given the differences in price between the two. I don't usually do this kind of direct comparison but hope it was useful to give a bit of a comparison between what I have in our reference system.

I chose the next album because I love the music but the production is such that I've only ever been able to listen to it in the car – on the proper HiFi it's all but unlistenable. The album is Honeyblood's *Babes Never Die* and I'm both glad and sad to report that the album is still muddy and mushy sounding. This may seem a bit of a daft disc to play given what I have said, but then if the EMC had made it listenable alarm bells would have been ringing with regards something being covered up. Buy this record as it is musically brilliant, absolutely explosive and infectious despite the way it sounds – after all, it's all about the music, man!

By contrast, the HyperDub box set is eminently listenable, though I have absolutely no idea where it falls genre-wise. It's electronic and both accessible and leftfield at the same time. The EMC does a great job of presenting this music with power and finesse, allowing all the effects present to really bounce about the room, though the music still manages to feel natural and not overly analytical in its presentation and despite the jarring nature of the actual music, though Clio the HiFi Pig cat did a swift disappearing act when I played this. There is the required precision and speed to the sound when listening

using the EMC and whilst you don't feel bombarded with information overload there's no feeling that anything is missing from the music you are listening to.

I listened to a lot of music on the EMC, I've currently got Neil Young's *Unplugged* album playing whilst I type up my notes, and what I really got from my time with this CD Player was that there wasn't that immediate "sit up and take notice" moment when I plugged it into the system. Instead of being immediately bowled over with a bells and whistles presentation, I found that I was drawn into the sound of this player and it immediately put me at ease with a desire to listen to the music rather than the player itself. Now I know the latter is my job but I think it is a very good sign when all you want to do is listen to album after album and at no time feel like you are doing a job of work – that's not always the case.

CONCLUSION

If you use CDs as your main source and don't see the need to add streaming or the need for an external DAC for other sources then go buy this player – it's a class act and I will be sad to see it go back to Norway. I found it both detailed and engaging, whilst at the same time a sound that I just fell into.

It is as natural a player as I have heard, and whilst it was in the system I found myself playing it pretty much exclusively, even when I wasn't actively listening or taking notes. Neil Young is still playing quietly on the system and as I look up I can almost picture him sat in the round on his stool – the acoustic as he moves away from the mic on *Pocahontas* does catch my attention. The sound I'm getting is untaxing, clear and detailed – and that's pretty much how I'd sum this CD player up.

In use, the EMT 1 MKV is an absolute joy. It's built to last, has a bit of a ritual to it, looks fab, and sort of harks back to days before streaming – in a good way.

I have one or two moans about it, though these are pretty petty. The remote isn't the greatest thing and needs to be much better given the price of the player. It really could do with digital

REVIEW

inputs, though I fully understand why the technical team at Electrocompaniet chose to leave them out. Had I not had these, admittedly minor moans, then this would have been an Editor's Choice product, most certainly.

Price:

UK price: £4999

EU price: €5999

US Price: 6500 \$US

AT A GLANCE

Build Quality and Features:

Looks good, though some may think it a bit blingy

A real heavyweight

Superb build quality

Remote nothing to write home about

Lacks digital inputs

Digital outputs seem superfluous to me

Sound Quality:

Detailed, relaxed and untaxing

Value For Money:

This is five grand in English beer tokens which is a lot. However, this needs to be seen in context - the EMC 1 is a very accomplished transport with the required DAC on board and with this in mind, and if CD is still important to you, I can think of no better way to spend that kind of money.

We Loved:

The looks.

The build

The captivating and easy-going sound quality.

We Didn't Love So Much:

The Remote doesn't reflect the players quality, though it works fine.

Fascia is a fingerprint magnet.

Elevator Pitch Review: Built like the proverbial brick outhouse, the toploading CD player (EMC1 V) from Norwegian company Electrocompaniet proves that the CD format still has a lot of life left in it. The sound isn't flashy or attention-grabbing but draws you into the music and you want to just continue to listen to CD after CD. The remote doesn't reflect the build and it doesn't have any digital in/out, but if you are in the market for a standalone silver disc spinner then this should seriously be on your very shortlist. I loved it.





MUSICAL FIDELITY M3X VINYL PHONOSTAGE

Musical Fidelity is a well known and well-respected brand that is distributed in the UK. In this review, Stuart Smith takes a listen to their £1200 M3X Vinyl phonostage.



Stuart Smith

I have a bit of a soft spot for Musical Fidelity as my first ever proper bit of HiFi kit was a second hand Musical Fidelity The Preamp. I absolutely loved it partnered with a Crimson Electric power amplifier and some Wharfedale Diamond loudspeakers and it was my first taster of something that was to become something of an obsession. It was a simple, no-nonsense affair but boasted both moving magnet and moving coil inputs, though at the time moving coil cartridges were the stuff of dreams.

Jump forward thirty-odd years and I'm still obsessed with music and the kit that we use in the home to play it back on, and I'm very pleased to say that Musical Fidelity seems to have been a constant feature in the audio world throughout that time, though the only other piece of their equipment I have actually owned was the rather

excellent Nu Vista CD Player which I regret selling to this day. I do think Musical Fidelity lost their way a touch at one point and there never seemed to be a season go by where they weren't releasing a new amp that featured more power than the last. I'm glad to report that it seems the brand has calmed down somewhat in this respect, though their range of products is pretty extensive – for example, the company does have six phonostages in its portfolio with the product we have here, the M3X Vinyl falling somewhere in the middle of the range and costing about €1300 or £1200 at the time of writing.

MUSICAL FIDELITY M3X VINYL FEATURES AND BUILD

The version we have been sent to review is a rather nice looking matt black (also availa-



ble in silver) colour that is full width and full depth. I like this as it immediately feels like it is a proper piece of HiFi when sat on the rack. It's a phonostage that does both MM and MC, but being a phonostage it was never going to be brimming with dials and knobs, though thankfully it has done away with those infernal DIP switches that I find so damned fiddly and instead gives us proper push buttons that are front-mounted by which to alter parameters. This is an immediate feather in the M3X's cap.

Feature-wise on the front panel you have the discrete logo on the top left and then a series of six small silver buttons and blue LEDs, thankfully the latter are not of the variety designed to confuse passing overhead aircraft and are nice and subdued.

These buttons from left to right are: Power/Standby/Mute, MM/MC, MM loading, an IEC button (a button that activates a circuit that is designed to cut the subsonic output of the phonostage that is caused by warped records and whilst I have no idea what IEC stands for I'm assuming it is acting as what I have up until now known as a rumble filter), +/-6dB Gain, and the MC loading. The MM loading (50, 100, 200, 300, 350, and 400pF) and MC loading (25R, 50R, 100R, 400R, 800R, and 1K2) have LEDs to indicate your selection. The technical data at the bottom of this review will give those interested more information.

Round the back there's nothing out of the ordinary with a grounding post, a pair of RCA inputs, a pair of RCA outputs, and the IEC input for the juice.

The accompanying handbook for the M3X VINYL talks about it using only discrete circuitry claiming a better measured and subjective sound. Basically, there are no OP-Amps used in the unit with Musical Fidelity claiming this leads to a better sound, despite a more complex process of putting the thing together.

All in all this unit seems to offer a comprehensive range of inputs that should be more than ample for most users looking at spending this kind of money and it is in keeping with what the competition offer by way of features. What I do like is that there is easy switching from the front

panel and the provision for both moving magnet and moving coil cartridges in one box. There's a current thing for phonostages (though we are getting into more expensive esoteric territory) to offer equalisation curves other than RIAA, but at this kind of price RIAA only is perfectly normal and acceptable and I mention only to point out that they are available to those with extensive collections of older records that don't conform to the RIAA standard.

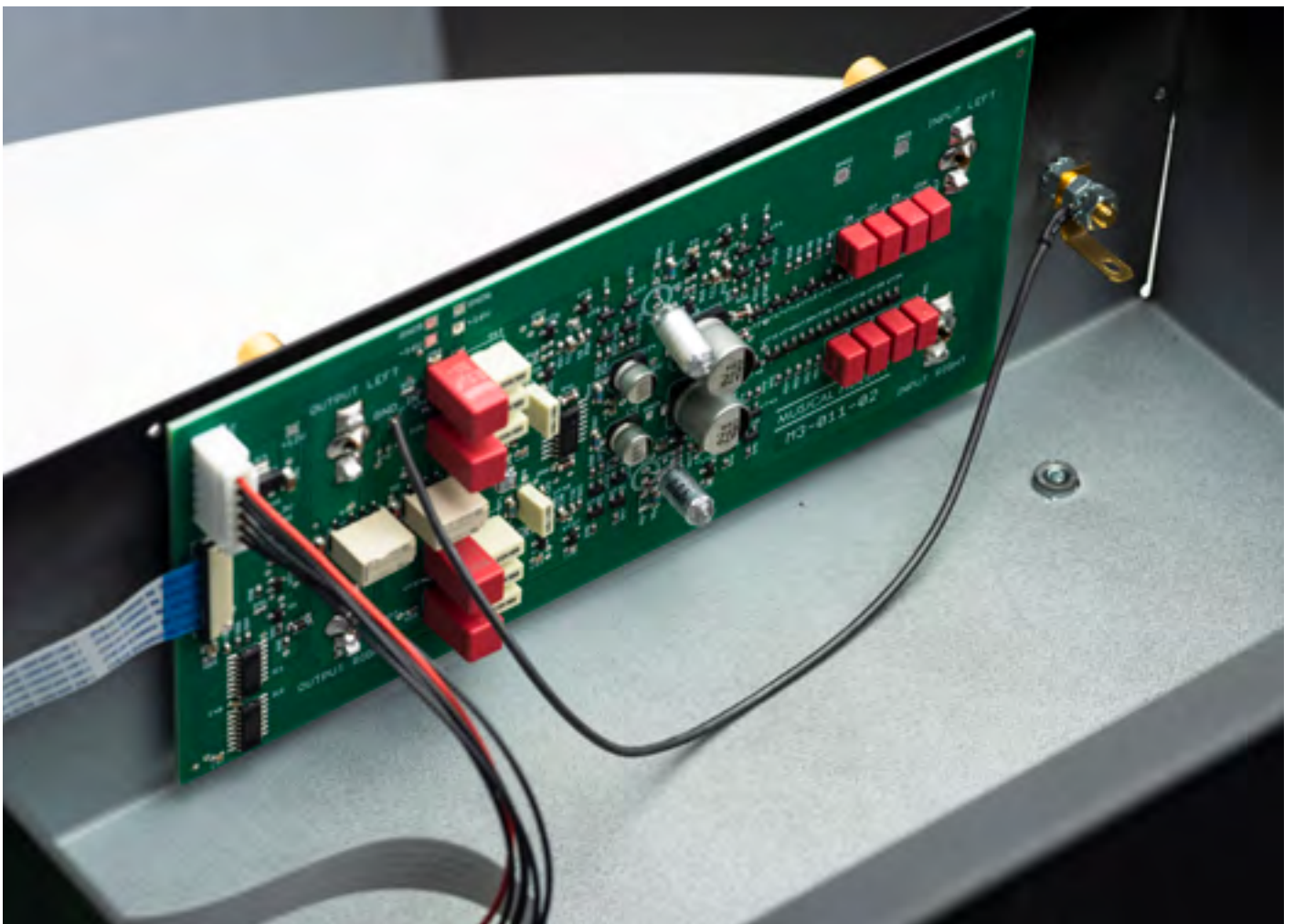
Critics are going to say that the amount of space inside the box represents poor value but lets not forget that this unit has an onboard power supply built into the unit and not one of the wallwarts that seem to be the norm, and this space allows a good degree of isolation of it from the sensitive electronics. Anyway, it makes the stage proper HiFi size and I like that.

MUSICAL FIDELITY M3X VINYL SOUND

For the purposes of this review, I used the Technics 1200G with a Sumiko Olympia moving magnet cartridge (£225) and a GoldNote Tuscan Red moving coil cartridge (£4700). The latter is a bit over the top with regards to price points but it's the cartridge I use most of all on this turntable and so I know it pretty well.

I've said this before, but for me, a phonostage needs to be quiet in itself, add little flavour of its own, and follow the RIAA curve faithfully. I don't use measurement and so I'm assuming that Musical Fidelity, and all other phonostage manufacturers for that matter, have ensured that the M3X follows the curve faithfully.

Playing the half-speed master of John Martyn's Solid Air with the Sumiko there is very little to complain about at all. Contrabass is solid and suitably real sounding and overall there's a balanced feeling to the sound I'm hearing. In comparison to our LAB 12 melto phono and on moving magnet I'd say the melto gives me a better feeling for the smaller details I'm listening for during a review session, but in truth would likely miss during normal listening sessions. Instrument separation is very good and there is a very reasonable soundstage thrown with a slightly forward sound. All in all with the Sumiko in place I reckon I'm hearing the cartridge and its characteristics over and above anything the



REVIEW

M3X is adding to the equation. If anything I would suggest that the extreme top end is a little muted leading to a less “sparkly” presentation. This latter point may suggest that there is a lack of upper-end detail, and it is slightly rolled off at the extremes, but this actually makes for a less taxing listen overall.

Switching to the Tuscany Red moving coil and playing the same record it's immediately clear that the MX3 allows the better cartridge to shine out as being head and shoulders more revealing and detailed than the Sumiko - had it not done this then there'd have been something to worry about. Again, what I believe I am hearing is much more of the character of the cartridge than that of the phonostage itself, and let's face it, this is what you want to be hearing. Hitting the +6dB button has little effect but make the whole thing louder, but will be useful if you have very low output cartridges. Again, I would say the more costly melto has it on sound quality overall and presents a wider, higher and deeper soundstage and a more extended top-end performance.

Playing another of our reference albums, Daft Punk's Random Access Memories, it's clear that the M3X isn't doing a whole lot of masking of what the cartridge is digging out of the grooves and in that sense it's a pretty accurate portrayal of what's on a record. Yes, it's not perfect and, as mentioned, I feel the top end is a little closed in but then bass is tight and properly presented as demonstrated throughout this record. Tiny details such as the layering of sounds that go to make up the synth noises in Contact aren't as apparent as with the melto but, again, you have to be listening critically for this to be apparent. There is still excitement and a sense of listening to the cartridge rather than the phonostage - and this is a good thing. The sense of “realism” is pretty good throughout this record but one thing I did pick up on with the Tuscany in place was that the click that is used at the end of Moroder's speech at the start of Giorgio didn't have the same sense of “clickiness” as with the other phonostage in this system, and by this I mean it didn't have that snappiness to it that I'm used to. However, overall, the phonostage is well accomplished dynamically speaking. I would also suggest that on busier passages the Musical Fidelity is a

little muddled in comparison, but it is on a par with the Slee phonos we have here and to hand. Spatially the Musical Fidelity is very good too without over-exaggeration or a feeling of artifice which in turn leads to a nice and natural/organic listening experience.

I could go on and talk about all the different records I played switching between the two cartridges but I reckon that would be a waste of time as I think the couple of paragraphs or so above make it pretty clear that the M3X is fairly transparent in its converting the tiny voltages from the cartridge into something the preamp proper can make use of.

I don't have a lot of warped records as they either go back if new or not bought if they are secondhand. As such the IEC/Rumble button wasn't really needed for me but pressing it on normal records had the (expected) effect of making them sound a little dull and muted in the bottom end. If you do buy a lot of secondhand records or aren't particularly meticulous in the storage of your vinyl then it may well be of use to you and it's good to see its inclusion here.

CONCLUSION

This is an accomplished and enjoyable product that does what it is supposed to at the price point – it allows the cartridge you use to reveal its own character without adding too much of the character of the electronics inside the M3X itself.

I would suggest that if we are being hyper critical (we are) the extreme top-end is slightly rolled off leading to what many will find to be a less taxing and more comfortable listening experience. Personally, I found this a little sonically confining and less open when compared to the more expensive unit I compared it to. However, it performs on a par with the phonos we have to hand and with regards to its looks and form-factor would seem to offer more bang for your buck.

The M3X has good looks, has a reasonable amount of flexibility with regards to loading, and the IEC/Rumble filter will be useful for some – as will the +6dB button.

REVIEW



The top and bottom of this phono stage is that there is very little to whine about and lots to commend.

AT A GLANCE

Build and Features:

Plenty of options for loading

Provision for MC and MM

Nice looking proper sized box that is well finished

Onboard rumble filter

Sound Quality:

Allows the cartridge to show its own character

Slightly rolled off at the very extremes of the top end – most noticeable on MCs

Quiet

Organic sounding with an overall lack of artifice

Value For Money:

I reckon this is pitched at the right price and represents good value for money given the sonics and the features on hand

We Loved:

Lovely looking and well finished

Enough parameters to satisfy all but the most hardened vinylista

Great sounding

We Didn't Love So Much:

Not absolutely transparent in comparison to our costlier phono stages

Price: €1300. £1200

Elevator Pitch Review: The M3X from Musical Fidelity is a very good looking unit that feels and looks like a quality product. It offers reasonable options with regards to loading for both Moving Coil and Moving Magnet cartridges and to a large degree allows your choice of cartridge to shine out. I found it a little less open in the top end but other than that it's a very good phono stage for the very reasonable asking price.





AURALIC ALTAIR G2.1 STREAMING DAC



Stuart Smith

The Auralic ALTAIR G2.1 is a DAC/Streaming unit with an onboard phonostage, line-level input, the ability to rip and play CDs (with the addition of an outboard CD drive) and the potential to add onboard storage. Could the ALTAIR become the hub for your analogue and digital listening pleasure?

Regular readers will be well aware that I've been a pretty vocal supporter of the Auralic ARIES G1 for some time and have had it at the heart of my higher-end digital review system for a few years – and I don't see that changing any time soon. I've found the Aries to properly fulfil my streaming needs in a package that is simple to use, consistent and well put together. In the time I've had the ARIES G1 I've tried other streaming devices but not once thought to change, after all, why change something that does exactly what it's supposed to do. I use it with Roon installed on a NUC, stream from files stored on a NAS drive and from Qobuz, and have recently tweaked the network side of things with an audiophile switch and power supply from Russ Andrews. Of course, the Aries is pretty much a one-trick pony and you

need to have an external DAC to make it work, plus it just streams files and nothing else.

Step up the Auralic ALTAIR G2.1 that purports to be "an all-encompassing digital and analogue source."

BUILD AND FEATURES

The first thing to appreciate with the ALTAIR G2.1 is that you do not need to use an external DAC and the whole converting of the zeros and ones is handled by the on-board DAC. However, this DAC can also be used for other sources via AES/EBU, Coax, Toslink, and USB. This makes the Altair a pretty versatile unit from the off and allows it to become the hub of your digital audio world. Like the Aries we have it will stream from all the usual sources including an external USB drive, a uPnP server, online

streaming services etc. It will also act as an endpoint for Roon which is a must for me as I just find the Roon interface so compelling and easy to use. You can also add an internal SSD storage drive to the Altair which allows you to rip your CDs (using an external CD Drive) and everything in one place. It will also allow you to stream via Bluetooth for those that use it. You can also use a computer and running an audio player to feed into the USB of the ALTAIR, though you will have to download drivers if you are a Windows user – however, unless I'm getting ahead of myself, running a computer to stream to a streamer seems to be a tad counter-intuitive, but each to their own.

The DAC that is used is pretty well specced too and offers 23/192 support through all the inputs and 32/384 through the USB input. The USB input will also support DSD up to DS256, though the latter isn't available using MAC OS X.

There's a dual-frequency onboard Femto Master Clock that has been designed to work specifically with the DAC's ESS Sabre chip which Auralic reckon offers the "highest clock precision" and the Altair uses fully linear power supplies. The latter trunks the incoming AC juice into a "purification module" and the output DC is able, say Auralic, to reduce noise from both "within and outside audio frequencies by as much as 90dB."

Onboard you have four filter modes so that users are able to tailor the sound of the unit to their own personal preference.

One bugbear with all of the Auralic products is that to install and use Auralic's Lightning DS software you need to have an iPad or iPhone that runs iOS 8 or above. When I bought the ARIES G1 I had to go out and buy myself an iPad to make use of this. Now iOS is hugely popular, of course, but it is far from universal and I do hope that Auralic hurries along and makes this available for users of Android soon.

The Altair will run directly into a power amplifier and you can alter the volume accordingly via the app. This is not particularly unique to Auralic but it does mean that users looking to streamline their system to few boxes are well catered

for. You could further streamline things if you so wished by connecting the ALTAIR directly to a pair of powered speakers making it a one-box digital solution. Those looking to use an external volume control, in my initial listening sessions a Leema DAC/preamplifier, just need to set the volume fixed output and the internal volume control is bypassed.

The build of the Altair is the same heavyweight construction of all the Auralic units I have seen and used. They feel solid, heavier than they look, and aesthetically they are a very good looking bit of kit. All the Auralic units are a little less wide than standard HiFi electronics.

The chassis on the ALTAIR is a significant upgrade from the G1 ARIES that we own and has an internal copper sub-chassis, tuned feet and a solid steel base with the idea here being to allow for a stable electronic environment for the electronics within the unit to operate at their very best and without interference from outside sources or between each other. This construction no doubt makes up a good deal of the weight of the ALTAIR.

Round the back of the G2.1 you have a couple of antennae sockets and the associated antennae, all the aforementioned inputs for digital sources, and input to connect to your wired network, USB to add an external hard drive and both RCA and balanced XLR outputs. Now that's all pretty comprehensive as it is but the Altair G2.1 also adds a set of RCA inputs for line-level sources and (and I like this a lot) an input for a moving-magnet cartridge equipped turntable (RCAs plus Ground). Personally, I think that the provision of an onboard phono-stage is a fantastic idea given the much talked about vinyl revival and many people buying turntables to enjoy the records they have collected over the years. So, with the G1, a turntable and a pair of powered speakers you could have yourself a fully-fledged audio system with just one box acting as the hub, and I think this is the way many will choose to go in the future – put simply, not everyone wants shedloads of kit cluttering up their living space to be able to access high-quality audio reproduction, but many still want to have that option of experiencing vinyl.



The front of the Altair G2.1 is beautifully simple and elegant; a quarter-inch headphone socket to the left, a control knob to the right and a good sized (4") full-colour display in the centre. The latter is pretty cool and allows me to see album art from the comfort of my listening chair, though when scrolling through functions and needing to read the screen you do need to be up close, though that is no different to other products and everything can be done on the Lightning DS app anyway.

SET UP

I make no secret of being a bit of a Luddite when it comes to streaming products and the easier a company can make it, the happier I am. One of the reasons I ended up buying the ARIES G1, apart from its excellent feature set, sound, and looks was the fact that you didn't need a degree in computer logic to get it up and running.

For the record, I already have lightning DS set up on my iPad.

To set up streaming via wireless was simple enough. Go to the Lightning app, click "Set Up New Device" and follow the onscreen instructions. All I had to do was input our wireless network's password, add the library path and I was good to go. Apart from typing the password in incorrectly on my first attempt, I was ready to go in literally three or four minutes. Those who don't already have their library set up in Lightning will need to add this, but it's just another case of following the on-screen instructions.

Wired connection is equally simple; plug in the network cable, switch the unit to wired connection and voila, you have tuneage.

Genuinely, this is such a well thought out and easy to follow set of instructions that I reckon that everyone should be able to sort this in the same kind of time it took me.

Top tip – If you are looking to have the ALTAIR's onboard volume control bypassed and want to use your pre's volume control, then make sure you don't have your pre turned on, or you have the volume turned to zero!

You can now use Lightning to set up the DAC and select which input you are going to be using (Phono, Line or your preferred digital input if you are using the ALTAIR as a DAC for other sources), your choice of filter (Precise, Dynamic, Balance or Smooth), Balance, Volume control, and Output level (Normal, -6db, or -12dB), turn the re-sampler on or off, play with the Parametric EQ, and play with the Speaker Placement function. You can also use Lightning to set Tidal and Qobuz to the desired quality. You can also enable CD ripping in Lightning but you will need to add an external CD drive and I'm not going to go into that for the purposes of this review, though it is worth noting that you can also use the external CD drive attached to the ALTAIR (and other Auralic units) as a CD player in its own right and so there's no need for the expense or additional boxes of a dedicated CD player. All that may sound a lot to go at, but the layout and functionality of the Lightning Server app is pretty obvious and self-explanatory.

The ALTAIR's onboard Parametric EQ section that you can access through the onboard menu (not a great deal of menu-diving needed at all) or by going into the app and going into the Processor Setup section and enabling it. Playing with the EQ allows you to change the response at three band points where you can change the centre frequency, the Gain, and the Q Factor. The parametric will be useful for users to correct for their room's imperfections, though given our listening rooms have been substantially treated with acoustic panels, bass traps and diffusers I didn't feel it necessary to engage this for serious listening. I did have a play and it's pretty easy to use, though you do have to dial in your settings and then save to be able to listen – you can't change settings "on the fly" using sliders, though this would make it more intuitive for home users. This is a useful feature but I would advise caution in messing too much and without properly measuring your room's response. Of course, should you mess things up you can always turn the EQ off or revert to initial settings.

For Roon all I had to do was go into the Roon app, select the ALTAIR G2.1 as the audio source and I was good to go. I like Roon and so that's how I will be using the G2.1 going forward

and I detected no loss in sound quality switching between Lightning and Roon.

SOUND

There are essentially three parts to the ALTAIR that I think are relevant and I'll review them as such; the streamer/DAC (wired and wireless), the phonostage, and the headphone amp. The system used is as per usual and includes, in this instance, the Leema Libra being used as a preamplifier only (and for direct comparison between the ALTAIR DAC and Leema DAC), a Krell KST100power amp and a pair of Audio-vector R6 on IsoAcoustic Gaia footers. The turntable is a Technics 1200G with a Sumiko Olympia MM cartridge. Cables are Atlas, Way and Tellurium Q. Network is pretty standard for a home set up, though I have recently added a Russ Andrews audiophile switch. Initial listening (STREAMING below) was carried out using the ALTAIR into the Leema and allowed me to switch between the ALTAIR and its DAC and the DAC on the Libra allowing for quick and direct comparison.

STREAMING

First of all, let me say that the streaming element worked flawlessly both wired and wirelessly – no nasties and no dropouts at all. The Chemical Brother's remix of Spiritualized's I Think I'm In Love opens with a deep synth tone that actually is more complex than it sounds with noises added beneath the main sound and it's easy for these to be lost or become unapparent. The ALTAIR presented everything I was expecting there to be and with all the texture and sub-textures being apparent. The "falling star" sounds came out into the room and disappeared backwards pleasingly whilst the sequenced intro' bassline bubbled along nicely until the main beat came in with the correct power and punch. There's not a lot not to like here and the sound is clean, expansive and correct. There is plenty of detail and depth presented and there is a likeable pace to the music – bounce. In comparison to our resident DAC I'd say the Auralic is a little less "incisive" at the top-end, and whilst this may well seem to be a negative aspect some will like this and it's bearing in mind we chose the Leema to be uber-revealing and I'm sure some may well find

it too revealing, especially at higher frequencies. In comparison the ALTAIR manages to not feel like you are losing any detail, but with a more "easy-going" approach. Overall I'd say the Auralic is eminently listenable and enjoyable on kind of tuneage.

Going back a few years I pop on Phuture's Acid Trax, which as the name suggests is a bit of an 808/303 workout. The bass kick sounds right as does the 303 acid box. As with the previous tunes, I'd say the ALTAIR doesn't quite have the bite of the Leema at the top-end, though some will prefer this less incisive tone to the DAC element of the unit. I suppose in one way the DAC on the ALTAIR could be described as a little less obviously digital sounding overall. Again, you will have to choose whether that is a sound you prefer or not. Personally, I got on with the sound very nicely, though for absolute fidelity and truth to the digital file I'd probably suggest that the Aries into the Libra DAC had the edge, though you are paying a lot more for the latter and with less features overall.

Moving to Qobuz via Roon and Tangerine Dream's soundtrack to William Friedkin's The Sorcerer, there's nothing lost in the electronic eeriness of this record, which was one of the very first electronic records I got to listen to in my early teens whilst babysitting. The ALTAIR manages to present a feeling of space within the mix that can on some systems sound a little muddy and one-dimensional. The step sequenced parts that are so obviously Tangerine Dream are solidly presented and there is plenty of texture to the (I guess) Moog synth.

Overall, there's not much not to like about the streaming and conversion elements to the ALTAIR and I'd say it represents a solid and cohesive representation of the files that it is fed with. It deals faultlessly with high-definition files including DSD and is absolutely silent in operation. I'd probably suggest it errs on the side of a warmer sound overall than the Leema DAC but that's no bad thing and I never felt I was missing out on detail with a recording. Actually I found it a really enjoyable and untaxing listen.

Now, I think it's important to note here that the ALTAIR can be wired directly to the power amplifier of your choice and you can bypass the

need for a preamplifier completely (though, as mentioned, it allowed me a direct and immediate A/B comparison for review purposes), and I imagine that this is how the vast majority of people opting for the ALTAIR would choose to use it. This “standalone” configuration also allows us to take a listen to the ALTAIR and just the ALTAIR. This is a simple set up and I chose to use the balanced outputs for this. Go into the app, select “Additional Operations” – “DAC Setup” and set the volume to the maximum you want to be the maximum to the ALTAIR will drive the amp to – I started out at 10/100 but changed this to 100 once set up. You can now control the volume of whatever source you are playing by either turning the knob in the unit itself or on the app you are using. The volume control here operates in the analogue domain and is based on a resistive ladder design (256 1/2dB steps) and uses Class A Orefeo Output Modules. Switching to this standalone configuration takes away any flavour of any preamplifier you may have been using, works faultlessly and sounds fabulous – clean and free of distortion of any kind. You can attenuate the output by -6dB or -12dB but I found the Normal setting to be absolutely perfect into the Krell.

PHONOSTAGE

Again a piece of cake to set up and access. Plug in your turntable and select Phono from the DAC Input Channel page of the Lightning app. The screen changes to display PH and your record plays. I’d fully expected the phono section of the ALTAIR to be a bit of an after-thought and easily dismissed as a gimmick – it’s not. Actually, it’s a very decent phonostage despite being MM only, though you could add a SUT if you fancy using a low-output MC cartridge.

The stage is dead quiet and does a fine job of getting across the tone of the cartridge and the depth of the music. The Streets first album “Original Pirate Material” has the suitable weight and heft in the bass-lines and an open and articulated top and mid performance. Being critical the phonostage doesn’t have the same sophistication and that certain something that sets the excellent apart from the very good. There’s less air in the tops and the soundstage is not as three dimensional as with the LAB12

melto, but then the latter is a lot pricier. It’s not got the same dynamism as the melto but it is still very enjoyable and will be all that the vast majority of folk will need or want.

On less hectic records like Neil Young’s Harvest, the stage proves to be very good indeed and really enjoyable. The vocal is presented to the fore and separation left/right, front/back is very good indeed. Again, the presentation isn’t as three dimensional as the melto, but for a phonostage included in what is essentially a streaming DAC this is very good and a wonderful addition. Drums don’t have the slam and overall dynamic feel but, again, most will be well chuffed with the performance. I’d certainly not complain if this was to be my only stage on a one-box hub.

HEADPHONES

I’m not going to go into a lot of detail here other than to say I plugged in both out Oppo PM 1s and Audeze cans and it drove both very well and without complaint from me. Easily as good as some standalone amps I’ve used and a very worthwhile addition.

CONCLUSION

The ALTAIR G2.1 is a joy to use, being simple enough to set up and yet feature-rich. Being able to set up and change parameters and inputs directly from the Lightning app is a breeze and total without drama. Having to have a suitable iOS device here is my only moan and, as I have said before, the sooner an Android app is up and running with the same simple to use and intuitive interface as the iOS version the better. I can’t help but think that Auralic is missing out on a degree of market share because of this! However, my iOS gripe apart, where a lot of products of this type fall down is the interface/app and the Lightning Server app is a pleasure to use. Sonically it is a step up from the ALTAIR G1.

The phonostage is very good being quiet, revealing, and dynamic and will satisfy the vast majority of people who are not dyed-in-the-wool vinylistas. I would have like it to have a MC stage but at this price point I think I’m being a little over-optimistic with my “want list”. Does



the phonostage outperform our LAB12 reference? No, but it is very good nonetheless.

The ability to use the ALTAIR as an external DAC for your other digital sources will be useful to some, but, frankly, I think most will want to use the Altair to stream content from their NAS, external hard drive or online services. Perhaps some will add a CD player or output their DVD/Bluray player/games console to the ALTAIR to achieve a consistent and enhanced sound across their sources.

When you consider you are getting a quality streamer, DAC, preamplifier, phonostage, and headphone amplifier in one compact, good looking unit, I'd say the ALTAIR offers pretty good value for money and if you break it down into its component parts it starts to make good sense from a financial perspective. I'd have one in a heartbeat were I looking to slim down the system.

AT A GLANCE

Sound Quality:

This is a fine-sounding unit - clean, distort-

tion-free and uncoloured

The phonostage is very good most and will not feel the need to upgrade, though an MC option would have been a nice touch

The headphone amp is similarly clean and powerful enough to run difficult cans

Build and Features:

Well built, good looking and solid

Internally a good level of attention to detail has been made to ensure electrical isolation for components to operate at their optimum

Value For Money:

At face value, this doesn't look as being a great deal of product for your money. However, when you consider that you have a great phonostage and good headphone amplifier, plus the option to input external sources through either the DAC or excellent preamplifier it starts to make a lot of financial sense.

We Loved:



Great clean sound

Lots of input options

Excellent phonostage

Small form factor

Excellent app

Nice full-colour display

CD ripping possibility

Option for onboard storage

Roon ready

We Didn't Love So Much:

No Android app

Lack of MC phonostage

Elevator Pitch Review: The Auralic ALTair G2.1 is an excellent sounding and very well featured box of tricks that comes with an excel-

lent, though iOS only, application. Add an amp and speakers (or just powered speakers) and you are ready to go. The inclusion of a great phonostage is an excellent addition and the headphone amp is excellent for those late-night sessions. Streaming is flawless and with no dropouts whatsoever during my time with the unit. The ability to add external sources and to be able to rip your CDs to an external or internal hard drive make this an ideal candidate as the hub for your digital and analogue listening pleasure.

Price: **UK: £4599 EU: €4999 US: \$5489**





ENGLISH ACOUSTICS 21C POWER AMPLIFIER

Janine Elliot already listened and wrote about the pre-production model, and Stu and Lin bought a Pink HiFi Pig edition one on the back of that review. Here's the review of the final production model by Janine with supplementary comments by Stuart.



Janine Elliot
with
Stuart Smtih

I have already had the excitement of owning a Leak Stereo 20 and then I got to review English Acoustics uptake on the original, the pre-production Stereo 21c ("21st century") at the start of 2021. That was an excellent amplifier, speeding up the original's relaxed but very musical performance. So, would the new improved production version be any better? Stay tuned. The original Harold Leak Stereo 20 hit the world in 1957. Even he wouldn't have guessed we'd be ogling the amp still 64 years later. The tube amp was called "20" as it had 10 watts per channel with an excellent and world beating 0.1% distortion. It's industrial look and slow and treacle sound was, and still is, very popular to this day, with many originals appearing up for sale at over £1500. Harold's Stereo 30 became his first transistor amp and it never quite re-

ceived the same acclaim. IAG started up the name "Leak" again a few years back and brought out their incarnation of that relatively unsuccessful amplifier, the Stereo 130. They didn't attempt to recreate the Stereo 20. That was left to Chief Technical Officer Peter Farrow, ex BBC engineer, and Chief Operations Officer Jordan Jackson, who established English Acoustics in Wiltshire officially in 2018.

ENGLISH ACOUSTICS 21C CONSTRUCTION

So, how different is the new Stereo 21c to the one I reviewed in January? Whilst they still look the same, there have been a number of changes under the skin. For a start, they have a new transformer manufacturer that is more local to them and who delivers improved performance. That means full power from 13Hz to



78KHz, instead of 20-20k as in the original. Output is now 6Ω as opposed to 8Ω in the pre-production model (the original Leak had a user-selectable choice of 4, 8 and 16Ω) Total harmonic distortion remains at 0.1% but power output has now risen to 14W/channel. The amplifier continues the same valve allocation of a pair of EL84 per channel in the output stages and using two ECC83's in the driver stage of the design. The rectifier is the capable GZ34. With Tung-Sol valves the ECC83's are gold plated for better contact. As in the original Leak there is point-to-point wiring internally. The Stereo 20 and pre-production Stereo 21c had a very high output (meaning my MFA preamplifier volume control had to be set extremely low), so the new Stereo 21c has a lower output meaning I have more steps on my transformer preamp to caress to the optimum level. Saves me adding attenuation pads on the gold-plated RCA sockets. Further improving on the original 21c the chassis is now made by another local company having a much tighter tolerance ensuring that the fit and finish is even better. This also allows the paint to have an even better finish than the original Stereo 21c, and is exemplary. This is an all British made product, just as the original Stereo 20, and English Acoustics are members of the Made in Britain partnership, the only valve amp manufacture to carry this title.

Improved, too, are the safety features. Mr Leak's original Stereo 20 had a 100Ω/3W resistor soldered upside down at the side of the unit so that when the unit got too hot and putting in danger the transformers it would de-solder itself and drop off! Luckily things are a little more sophisticated in the 21st century, and the bomb-proof Stereo 21c comes with an advanced tilt sensor, over-current sensor, heat sensor and a vibration sensor – designed for Japan, who need it due to earthquakes. If any of these features trip, you will not be able to turn on the amplifier before first discharging the amplifier by unplugging it. There is also a digital clock to give you a reading of total hours you have used the valves.

Capacitors are their own design paper-in-oil. The original Stereo 20 had capacitors inside the two "cylinders" on top of the unit. As they started to leak (sic) and needed replacing, many DIYers simply removed the cylinders completely

and had bare replacement caps sticking through the holes. Not a very good-looking repair, nor safe. What English Acoustics have done is take a new capacitor, strip the outer metal and rubber then paint it the correct colour and place it in the hole. It looks perfect.

ENGLISH ACOUSTICS 21C COLOURS

The original 21c's came in a large variety of colours, including "Lansdowne Gold", "Tor Black" and "Stonehenge Silver" as does this full release version. To top it all off, even the power switch has the same colour LED. The result looks magnificent, unlike the original Stereo 20 which was usually destined to be hidden in a wooden cabinet. If none of the 12 colours will do, it can be built in any you like for a further £500, so you can match it with your favourite car or handbag, oh, and also come with a matching designer mains cable.

SOUND QUALITY OF THE ENGLISH ACOUSTICS 21C AMPLIFIER

Initially I wasn't happy with the sound, but this was simply because I didn't give it a chance to warm up. After just fifteen minutes I was in heaven. It does need time to sound at its best, just as in the original Leak. Initial findings were quite obvious; the music was even more controlled than the Mk1 version; bass was tighter and the top end carried on up, making trumpets and cymbals just sing. I felt it was also a quieter amplifier than I remember the former. This was pure class and certainly warranted the £5000 asking price. Listening was begun with my trusty Chasing the Dragon II taster disc. I know this CD so well (having been at the original recording of some of the tracks), and was mightily impressed with the prolific and extended bass, the speed and the dynamics. This was not the original Leak treacle sound, but rather razor-sharp, though still maintaining the musicality and warmth of the original that made it so famous. In this respect, this amp puts to shame others costing significantly more. Mr Leak was so clever, and English Acoustics have improved things even further.

Turning to Kitaro 'Live in America', this album has a great atmosphere, so you could be convinced this was recorded in an open field at



night. Actually, it was recorded at the Fox Theatre in Atlanta, Georgia in 1990, as part of his world tour. The album is very ethereal with lots of space and a Vangelis and new-age style of composition. The EA accentuated the thunder in "Hajimari" that I didn't realise my LS5/9s could get so deep. The amplifier kept all the detail well under control with each instrument placed perfectly in the large soundstage.

The trouble with the Kitaro is that it is just too laid back and even the original Leak would sound astounding, so time to quicken up the transients a tad...

Time for Derrin Nauendorf 'Live at the Boardwalk'. This is quite minimalist having just acoustic guitar and solo vocals from Derrin and percussion from David Downing. Not only was this album equally atmospheric with a great feeling of transparency and clarity, but everything was tighter and energetic. "Leave Me Tonight" has some brilliant playing on the guitar with the lowest string tuned down a tone to a "D". This was exciting and feisty playing that the EA pulled off with great enthusiasm plus equal sensitivity. Bass was full and both instruments' decay of notes and rhythms were allowed to tail off in their own time.

London Grammar's "Rooting for You" (from the album 'Truth is a Beautiful Thing') has a vibrant vocal, with tons of reverb on her voice which is allowed to tail off in its own time. The very ethereal accompaniment with violin, cello and guitar is highly evocative with the rumble from the percussion at the end pushing my LS5/9s to the end of their lives.

Testing the bass end further I put on "*" from Bowie's epitaph 'Blackstar' album. That bass is much improved on the original 21c. Similarly, "Dollar Days" was very atmospheric with plenty of space for detail, the composer singing as if he knew he was soon to die. I love this track as it is so sad.

Haydn's Symphony No 44 in E minor is also supposed to be sorrowful, known as the Traver Symphonie; the mourning symphony. Marco Boni's rendition of this isn't as sad as the Bowie. This is a powerful performance from the Stereo 21c, with very decisive playing and

opening up the music much further than I have heard before.

Turning to jazz I first tried a digital file of Django Reinhardt's 'Hotel Club de Paris'. This is a mono performance but that didn't lessen my enjoyment of the music. It all sounded tight and controlled and still fun. On to Miles Davis Quartet's 'Freedom Jazz Dance' rehearsing album, one I have used in many reviews, the atmosphere in the studio as they worked out the tunes was equally compelling, even if there was very little music per se. I also played several of the tracks I listened to in my original Stereo 21c review; music by Bach, Rutherford, Metheny and ELO. The original amplifier illustrated the excellent bass from organ and delightful drop-lets of sizzle from the ride cymbals in the Metheny. The new 21c simply carried this on further. That bass seemed more extended as did the top end theoretically all the way to 78kHz. But it just did it all with more heart, more emotion, and more musical energy. Listening was just that much more real.

CONCLUSION

So, was it worth doing a new review on a product that had already received a great review? Absolutely. This amplifier is even better than the one I originally listened to. It tackled classical and jazz with magic, and even heavy rock and punk didn't phase it. The 21c pulled out every syllable of the music with much detail and passion. To think a new Stereo 41c is in the pipeline along with an 18 valve pre-amplifier. I think English Acoustics are a name you should start to take seriously.

AT A GLANCE

Build Quality:

Immaculate finish both internally and externally, with point-to-point wiring and lots of colours to choose from!

Sound Quality:

Detailed and passionate performance as a valve should be and with speed and power of a solid-state offering

Value for Money:

The new £5000 price tag is very good value for such a confident performer.

We Loved:

Sheer musical performance

Faster transients

Tight and well-defined bass end

Transparency and clarity

We Didn't Love So Much:

Some may find it just a little too polite

I don't particularly like the black strips on the transformers and chrome would look better!

Price: £5000

Elevator Pitch Review: Getting a ECC83/EL84 amplifier any better than the 64-year-old Leak Stereo 20 or English Acoustics original Stereo 21c was going to be a hard task, but boy have they somehow managed to pull it off. Bass is tighter and extended as is the top end and it sounds even more musical. With better articulation and finesse, could this be an amp we talk about in 64 years time.

Janine Elliot

Janine sent in this review with a large and bold SIX HEARTS AWARD. We don't do six hearts and so it's over to Stu to see if the English Acoustics 21C is worthy of our top award.

I'm going to start this addition to Janine's full review with a bit of an odd statement that sort of contradicts the final award I'm giving this amplifier. Now, this comment may well seem a bit at odds with what you'd expect given that I'm giving this amplifier from English Acoustics our highest award – (spoiler alert) the Editor's Choice. What I'm going to say may also seem to fly in the face of what our highest award should represent, but I will go on to try and explain my thoughts around this and hopefully you can see my logic. There's a famous quote

along the lines of "The best amplifier is a straight wire with gain" and it's variously attributed to Peter Walker of Quad or Stewart Hegeman of Harmon Kardon. Whoever originally said it, essentially the quote is saying that the perfect audio amplifier would be an amplifier that added zero of its own character to what we hear. This is not the Stereo 21C's character, and if your main goal when choosing an amplifier is that "straight wire with gain", then I suggest you look elsewhere. However, if you are looking for a relatively low output (14W per channel) amplifier that has character, sounds wonderful, and manages to connect you with the music you are listening to then this amplifier may well be right up your street. Yes, I'm aware that if we are talking in strictly "high-fidelity" terms then the 21C may well fall short of the strict definition, however, when I listen to music for pure enjoyment I'm not really looking for the nth degree of analytical resolving power, and I'm not wanting to sit and feel I need to over-think the process. I'm looking for something that connects me with the music on an emotional level, or I'm wanting something that makes me want to get down and boogie. The 21C scores magnificently on the former, and with the right speakers has a good crack at the latter.

The amplifier is not perfect – it's not as transparent an amplifier as, for example, our Merrill Thor amps, and it's not going to rock the house in the same way our Krell amp can. No, these two amplifiers are very different to the English Acoustics amp, and when you start to think about buying one you need to be fully aware of this. I'll give you another example of a well-respected HiFi legend that is far from perfect, and that is the BBC LS3/5A and you need to put the English Acoustics into that kind of context. Am I suggesting that the 21C belongs in the same kind of revered circles as, for example, the Falcon LS3/5A that we use, then yes I am, most definitely. Both products are imperfect, that's for sure, but it is those imperfections and the ability to get some things absolutely right that sets them apart as modern classics. And yes, I am saying that the English Acoustics 21C is a modern classic in any way you care to define that statement.

I'm going to get asked how the 21C compares to the original Leak Stereo 20, but the truth is I

have absolutely no idea. Of course, I've heard the S20 numerous times, but I've never owned one and I've never sat down to pore over the minutiae of its character and its delivery of music, and I'm certainly not one to pretend I can recall the character of a product I listened to months or even years ago – no, I'll leave that to others. I'm not looking at the 21C in those terms, though I'm sure some reviewers down the line will obviously do this and directly compare the two amplifiers side by side and in a proper head to head, much as Janine has done for HiFi Pig.

Let me start with the fit and finish of the 21C. It's stunning. Of course, we have specified a bit of an outrageous colour for ours - yes, I ordered one on the back of Janine's original review of the preproduction model for HiFi Pig as I trust her judgement implicitly – but you can basically specify any colour you fancy and to suit your home décor, or just as a statement piece on your HiFi rack. Put it this way, once you receive your 21C you aren't going to want to hide it away. On the fit and finish, I have only two negative comments, and they are that I'd like to see an old fashioned chrome toggle switch on the back instead of the soft push button, and I'd like the speaker binding posts to be better quality and further apart – I was unable to use the large spades at the end of a couple of or lengths of speaker cables for fear of the spades touching and had to use cables with banana connectors. Not biggies, but worth mentioning. I spoke to English Acoustics about the possibility of a toggle switch but this is apparently not possible given the requirement to turn the amp off when disconnected from the mains, though you can request a bypass on this at the time of order to allow the use of smart switches and voice control doodads. That's it on my comments on this amplifier's build and everything else is as near perfect as damn it. On the top of our rack upstairs, it looks absolutely fantastic and I know that anyone who gets to listen in this room (not many people at all) will certainly want to know more about the amp. It's one of those kinds of products – it has a personality, something often lacking in modern components, and not just in the HiFi world. If you are a car fan you will be aware of several homage motors that are based on classics – think the Eagle remakes of the Jaguar E Types. These modern

remakes take the classic cars and bring them up to date with modern components and modern construction techniques, and I think this is pretty much the essence of the 21C - a modern take on a stone-cold classic.

The first afternoon I spent with the English Acoustics amp was meant to be no more than a plug it in and see if it works exercise, but it turned into a full afternoon and early evening exploration of music and matching it with speakers. First, it went on the Xavian Perlas and it sounded fab, a great start but hiding in the corner were the Falcon LS3/5A speakers that I knew would end up on the end of the amp sooner or later. Hours into this extended listening session Linette came into the room and said "I just knew that's the speakers that you'd end up using!". It was a no-brainer to be honest – two modern-day takes on two classics of yesteryear, though the S20 was introduced in 1958 (read all about it [here](#)) and the LS3/5A in the mid-seventies. Once the Falcons were in place everything just seemed to fit into place for me, though I am under absolutely no illusions that there was a certain degree of nostalgia/pride/they-ought-to-work-together clouding my judgement. I don't care about this less than analytical approach to this "review" that's not what it's about and, let's face it, there are going to be better sounding speakers and amps out there at similar prices. Don't let this put you off either! I'm not a machine and I'm not some kind of measurement tool, I am a human being and in this case, I fully allowed myself the indulgence of dropping my analytical guard and just allowing myself to fully enjoy the experience...and what an experience. I'll go into more detail shortly but I ended up just losing myself for hours in the music, not listening to the amp and speakers but just appreciating the music I was listening to and taking zero notice of the part the kit was taking. Truly, one of the best audio moments I've had at home.

I left it a few days with only sporadic listening before I sat back down and listened properly to the 21C again. I wanted the initial giddiness and (perhaps) over-exuberance to be allowed to subside a little and for me to be able to approach this follow up review of Janine's as I would any other. However, not a lot has changed and I still got a buzz from turning the



amp on as I passed in the morning to allow it to warm up for an hour or so before I gave it a proper listen.

The Hi-res versions of the Pink Floyd records are now out on Qobuz and whilst I'm well aware it's an audiophile cliché I stuck on *The Dark Side of the Moon*. There's lucidity and a feeling of rightness to the sound here that just drew me into the record. The individual elements of the recording are presented both separately and as a whole making for a joyous listening experience. The synth line on *On The Run* had great texture and you can hear as the sound modulated very easily. However, it's warm and has a depth to it that is just so satisfying to sit and listen to on this amp. This is a great listen on the other amps I've mentioned too with the Merrills being brighter and more analytical and the Krell being more upfront. This amp feels like it is playing music rather than a series of zeroes and ones. Time really does sound magnificent here and I'm almost enveloped in the textural bass note, whilst the toms fly around the soundstage in front of me. It's more of an experience than just listening to the track and I'm drawn into to just listening/enjoying again. Is this perfect fidelity....nope, and I don't give a monkey's about that, it's a feeling of being part of the event and, without wanting to sound all hippy-dippy, at one with the music. Yes, there's

colouration and, whilst fast, this isn't as speedy as, for example, the Krell. The room is simply filled with music. Glorious music.

And I suppose this is the essence of this amplifier – it is, in my opinion, an amp that allows you to really get into the vibe of the music.

HiFi Show cliché alert...again!!! Nils Lofgren is up next with *Keith Don't Go*, and whilst I moan about hearing this song all the time at shows, there is no denying it's a classic recording. There's power and detail to the guitar and it sounds as natural as I've ever heard it – and I've heard it a lot. There's a real openness to the sound of the guitar throughout the recording and it is allowed to resonate in the room, hanging there and showing Lofgren's deftness of touch. His vocal is out front and clear as a bell, though I don't actually think he's got such a great voice. Did I mention this is about as good as I've heard this? Again, I end up listening to more of the record than I would during a review session. This is what this amp does, in my opinion. At the risk of repeating myself, it is an amp for music and not analysis.

So far so splendid, but what about whacking some proper techno through this amp? Up comes Surgeon's remix of Hardfloor's *Strike Out*. It's a complex tune and has a lot going



on...and the LS3/5A aren't the greatest speakers for this kind of tune, but it's clear the amp is speedy enough to keep up and digs deep enough to get the tune across properly in this room. The 303 on Into The Nature sounds like a 303 should and that hollow kick is wonderfully produced – the overdone reverb is clear to hear in the right-hand speaker too. I'd fully expected this amp to be absolute pants on this kind of program but it most certainly is not – it's pretty incredible really. If I was to sit and take this recording apart then I'd no doubt hear stuff I could whine about but the truth is I just sat and enjoyed the music and when Plastikman's Krakpot comes on I sit up and take notice.

CONCLUSION

It looks great and it sounds fabulous. Technically it's not the most perfect amplifier in the world but then it's often the imperfections in things that make them almost perfect and so endearing. I love it and can see this sat on the top of the rack in the smaller listening space full time. I have absolutely no hesitation in awarding it our top award, but you knew that already. On acoustic and classic rock it is wonderful and natural sounding. I'd assumed it would be crap with hard electronic music but it's just not.

Make no mistake, this amplifier is not going to

satisfy you if you are searching for the last word in absolute fidelity and it's not an amplifier I will refer to much with regards to reviews as it's not really a reference/review style of amp. However, it is an amp that draws you into the music playing and in that sense, it's a fabulously good product that I can't help but love.

The only negative is I still want better (and better spaced) speaker posts on a £5000 amp!

The long and short of it is that this amplifier is fab and I can't do anything but give it our top award!





SYNTHESIS ROMA 96DC+ INTEGRATED AMPLIFIER

Synthesis is distributed in the UK by Henley Audio and here we have their £2649 Roma 96DC+ integrated valve amplifier that uses the EL34 tubes.



Stuart Smith

Synthesis is an Italian brand that I've reviewed before here and here and so I'll skim over the brand's details other than to say they were founded in 1992 by Luigi Lorenzon who worked in his father's transformer factory in his youth – the output transformer in the classic Vox AC30 guitar amp was made by this company, Fasel, as was the inductor in the Cry Baby wah-wah pedal. That's quite some heritage, not to mention a lot to live up to!

However, what we have here is the 25 Watt per channel, pure Class-A, EL34 integrated that includes three line inputs, a MM/MC phonostage and an onboard DAC. It also has an RCA record output which is something you don't see all the time on modern amps but which I believe is a useful addition.

I've always sort of seen the EL34 as a bit of a poor relation in the world of tubes and I've previously only owned valve amps with 300B, 2A3, or KT1XX valves. I think the only time I've actually owned amps with this valve was when I had an early set of Manley monoblocs – which I really enjoyed, which would suggest that my thinking on the EL34 is somewhat skewed from the off. I think my thought process was along the lines that the EL34 was a cheap valve more suited to the likes of guitar amplifiers. So let's see if the Roma 96DC+ can quash these (mis)conceptions.

FEATURES AND BUILD

It's a thing of beauty and with its wooden front panel (available in eight different finishes to suit your space) and is built like the proverbial brick outhouse. The ROMA 96 isn't a

full-width unit measuring just 26cm in width but it certainly weighs a good deal at 18kg. The obvious control on the front is a large volume knob that is motorised and controllable from the excellent aluminium remote control. Other brands could learn a thing or two from Synthesis here – the remote is, for many, the thing that you use and handle most, but for many it seems as it's a bit of an afterthought or something generic to keep costs down. Personally, I'd much prefer to pay an extra few beer tokens for something that feels "proper" and the remote on the Roma certainly feels that. It's a proper size, nicely finished in brushed black aluminium, does all you need it to, and it just feels right in your hand.

There is a removable cage to protect the valves, in this case, a pair of the EL34 power tubes and a 12AU7 driver tube per channel. These give a quoted output of 25 W per channel into 6 Ohms – Class A.

I first hooked the Roma up to the Diptyque dp77 speakers but found that the amp struggled with what is a demanding load given they are an isodynamic panel and found the amp a much better match for the Xavian Perlas – in fact this is an excellent partnership at around the two grand mark. 25 Watts doesn't sound much but it's plenty for these speakers and their 88dB sensitivity.

The back panel is well spaced out and has a plethora of inputs including the three RCA inputs, one of which is the moving magnet phono input, plus a record out. Digital inputs are USB, Coax and optical with 24/192 capability on the optical and coaxial inputs and 32/384 on the USB which also allows for DSD up to 5.6Mhz. The DAC doing the business is a Asahi Kasei AK4495S. Whether you choose USB or the other digital inputs, you are pretty well covered for all eventualities. Speaker connections are via a set of simple but good quality binding posts. The only other input is the IEC input, though there is not master on/off switch that you'd normally expect to find on an amplifier. On-off is dealt with solely by a button on the recessed front panel – press it and the amp goes through its warm up cycle. Your source inputs (plus the type of digital input) are switched via two buttons to the right of the large

and motorised volume control. All the LEDs on the amp are blue but aren't so blindingly bright as to get on your nerves, in fact, the amp is pretty inconspicuous once in place, though as I said, it does look pretty nice on the rack.

A useful addition here is a phonostage that is good for moving magnet cartridges, though the impedance input is set at 47Kohm. This may present a problem for those used to using Moving Coil cartridges who will need to buy a step-up transformer or purchase a separate phonostage that supports MC cartridges. Adding a separate phonostage would take up a line-level RCA input which would reduce the inputs to just one extra input – this may seem like a bit of a deal-breaker but given that the digital side of things are taken care of already, what further inputs is your average user going to need? If we accept that prospective users will need to use a moving magnet cartridge/SUT, then the two extra line-level inputs really should be enough to satisfy all but the most demanding music lover – or anyone wanting to attach their telly etc. However, and I must confess that I'm a very recent convert to this, is that I'd have loved to have seen a Bluetooth connection here for listening to the excellent BBC Sounds app, though my Radio 4 addiction was sated by being able to stream Radio 4 from the Roon app.

SOUND

Using the Raspberry Pi running Roon I connected to the Roma via USB. This was as simple as plugging in and selecting the Synthesis Roma in the Roon app and then playing tunes – no fannyng around with drivers and that kind of nonsense, and so true plug and play. I think some folk are scared of using digital sources given the need in the past to download drivers and it seeming like everything in the digital domain was conspiring against you to make life as difficult as possible, but the Roma makes it as easy as Pi.

First up on Roon (via Qobuz) was fabric Presents Danilo Plessow (Motor City Drum Ensemble), a nicely chilled yet pretty complex techy/housey record that I listened to at a low volume (about 9 o'clock on the volume control). Lots of musical information can get lost with some





amps at low volume and given that not everyone can listen at concert level volume it's pretty useful if an amp can deliver at these lower listening levels - and I'm happy to report the Roma performs really well here. The track Can't Take It (Herbert's Some Dumb Dub) off this record has a bassline that could be easily lost at this kind of volume, but I found it to be all there and still well audible amongst everything else that was going on. What I did find was that the depth (front to back) of the soundstage was also really well represented and (essential for me) the image was stable, with sounds and instruments staying where they should be in the mix. Sounds that came and went in the mix were well done, as were the effects on this track with good detail to the fading reverbs and other effects.

Spoken voice on BBC Radio 4 was natural sounding and detailed enough to be able to hear differences in the rooms presenters and guests were speaking from. The digital effect added to guests voices speaking via computers was easily audible too. There was no exaggeration of sibilance or plosives which added to the natural feeling I got whilst listening to the radio. The DAC in the Roma with voices is pure and doesn't seem to add a great deal of its own character to the sound – in itself, it's a very organic sounding converter without sounding "digital". It's also absolutely silent when there is nothing playing and this allows presenters to be heard without any added hash or digital artefacts. This is good.

I've added a turntable to our upstairs setup but put a relatively budget moving coil cartridge onto the Origin Live turntable and whilst I do have a moving magnet cartridge somewhere, the fixed headshell on the OL arm makes quick changeover of cartridges bothersome and so I used the Rondo Red with a Graham Slee step up. However, I do wish Synthesis would add a moving coil option to the amp as it would widen the market appeal to this amplifier, though it must be said that Synthesis aren't on their own in this omission and I have whined about this on other amps in the past!

The first record I picked off the rack was the excellent Rebolledo "Mondo Alterado" on the Hippy Dance label. It's a sparse but wonderfully

detailed record that is as much about what is left out from music as to what is included. Bass was good and tight, with movement across the stage of drum effects being clear and accurate. There is a slight warmth of tone here in the mid-bass sounds giving an added impression that you are listening to an analogue source, though, of course, the cartridge is a little on the warm side - to my lugs anyway. Dynamics-wise the phonostage really delivers and the music has a pleasing heft to it, with an ever so slight rounding off of lower notes leading to that slightly warmer feeling. However, you are still treated to the crispy percussion noises and they do still cut through the mix properly. This record is dubby in the effects it uses and the amp really doesn't disappoint in presenting the dynamics and subtleties of the recording across the frequency spectrum. The kick drum used has great weight and authority which is expressed well by the amp. Soundstage is deep front to back but not hugely wide and certainly within the boundaries set by the loudspeakers. Noise from the phonostage is nigh on aurally invisible and I'd say it's as quiet a stage as I've heard on an integrated. Given the price of this amp, I'd suggest that the included phonostage punches well above what I would expect and in honesty, I'd be well happy enough to live with it (it is very, very good)– with the caveat that I had to add a SUT to accommodate the lowish output MC cartridge! Use a DL110 or other high output MC or a good MM and Robert's your mother's brother, though I will be deducting points for the lack of low output MC provision as I've done with other integrated amps I've reviewed. Looking back I found that I'd actually listened to a lot of vinyl on this amp and that's surely a good sign – I'm the kind of person that walks away from something that doesn't click with my own personal taste and so it's clear the Synthesis is doing something right.

Clicking the remote to the USB input and choosing another Rebolledo track (Windsurf, Sunburn and Dollar) it was immediately clear that there was an increase in the overall dynamism, even at the same volume. That slight lower-end bloom was gone, as was the character of the cartridge - obviously. What I was left with was a more incisive and, dare I say, accurate portrayal of the track. There was still that excellent front-to-back projection of the stage,

REVIEW

but I now found there was a wider and more expansive left to right projection – and a tad more height to the image too. This increase in space was echoed with the positioning of instruments with them sitting more in their own space in the mix. Background noise was again conspicuous by its absence

Still using the USB input I picked out Bad Brains' Sacred Love and the system sprang to life. The amp loses its composure only when it is pushed to volumes that were frankly beyond what would be comfortable for anything but the shortest of blasts – about 3 o'clock on the dial with these speakers. Whilst this is busy music, everything was easy enough to pull out of the mix and the filter on the main vocal well evident. Snare hits were properly crisp and started and stopped in a pin. When comparing this amp on the same material to our Krell amp allied to our LAB12 pre I'd say it doesn't quite have the overall speed and attack in the bass, but I'd be splitting hairs and would say that what I'm hearing is that ever so slight bloom in the bass. If I compare to our Merrill Thor amps I actually think I preferred the presentation of the Roma in some ways, finding it to be harder hitting and more dynamic, though the downside is it's not quite got the transparency of the Thors – I'd describe this as the Roma adding a level of drive that may sound a tad overblown to some, whilst others will love this extra oomph to the presentation.

Neil Young's After the Goldrush presented the fragility of his voice wonderfully and very naturally. The words I'm looking for are unforced and effortless. It's clear that this is a very accomplished amplifier – and not just for the money. It's not perfect and there is a slight rounding off at the upper frequencies that may actually not be a bad thing on some digital renderings. The vocal is well forward in the mix but when the next track (Only Love Can Break Your Heart) comes on what grabs me is how unforced and organic sounding this amplifier is – I particularly like the detail to the bass guitar and the way that everything is easy to pick from the mix without it being so lineated/separated as to sound artificial. The horn on Till the Morning Comes is a highlight and has me reaching for Miles' Kind Of Blue which is presented very well and with space, air and (again) a natural feeling

- unrushed, unhurried, and organically laid-back, but with detail enough to pull you into the performance.

CONCLUSION

This is a very good integrated amplifier that I'd be happy to live with. It has a feeling to the sound of naturalness that makes everything feel unforced and effortless unless pushed beyond its limits. Of course, the partnering speakers need to be thought about and the Roma did struggle with difficult loads, but then it was always going to. However, get this partnership right and you will be richly rewarded with a wonderfully beguiling sound that just draws you in and keeps you hooked – honestly, I listened for hours and just kept on wanting to listen to more and more music. And I suppose this is the crux of a good HiFi – something that just keeps you coming back for more music.

The Roma is good looking and well-featured enough for most, though I want an MC phono-stage built-in. With that said the MM stage is going to be well good enough for most and it is very quiet and dynamic enough to satisfy.

The DAC is certainly well implemented and of high enough specification to cover all bases.

In the lower-end the amp can sound a little softer than the Krell I compared it with, but, by the same token, this adds to the listenability to the amp over longer listening sessions.

The remote is beautiful and a pleasure to use most of the time, though I did find it wouldn't change inputs a couple of times – pointing it properly at the amp sorts this.

There is no headphone amp which would have been a useful addition.

The record out facility may well be useful to some and is a good addition, though I didn't really feel it necessary to try it out for the purposes of this review and assume it works as well as everything else on offer.

AT A GLANCE

Build Quality:

REVIEW

Well put together

Good looking

Compact

Very decent onboard MM phonostage

Accomplished and well-specced DAC

Two further line-level inputs

Record out

Sound Quality:

A lovely amp that is natural-sounding and unforced at reasonable listening levels

Overall it lacks a little of the clout of the Krell we have to hand and perhaps a little of the overall transparency of our Merrill Thors

Ever so slightly muted at the frequency extremes but with drive and enthusiasm in the midband

Pushed too loud and beyond its capabilities, it gets a bit flustered, but we are talking unreasonable levels with these speakers and in this space – most will be well catered for

Value For Money:

It's genuinely difficult to fault this amp given everything it has onboard for the not stupid asking price. I would have liked to have seen an MC phono, but perhaps I'm expecting too much from amps at this price, though I've levelled this criticism at others and so will continue here. Overall the Roma offers excellent value for money with enough features to satisfy most and with a lovely sound that is easy to get on with and for long periods.

We Loved:

Easy and fuss-free setup.

Nice and easy to get on with for extended listening sessions

Organic and natural tone that errs on the side of

slight warmth in the lower end

Fabulous with less hectic music

Good looks

We Didn't Love So Much:

Not enough grunt for demanding speakers

No MC phono provision

Can run out of steam when pushed too hard

Price: € 3100, £2649, \$3795

Elevator Pitch Review: What's not to like from this good looking, compact (though heavy) and well-featured amp. The onboard DAC is very good and will satisfy most people, as will the moving magnet phonostage. Musically it's a joy to listen to for extended periods and with all kinds of music, though I found it partnered best with jazz and music with lots of space - with heavy rock and metal it can get a bit confused at high volumes. The remote is beautiful and worked well for the most part. For extended listening sessions, the Roma is relaxed and untaxing. A real joy! Well done Synthesis!





MELCO S100 NETWORK SWITCH

Melco S100 is a network switch aimed at audiophiles that are serious about their streaming system and their network. Chris Baillie tries it out for HiFi Pig.



Chris Baillie

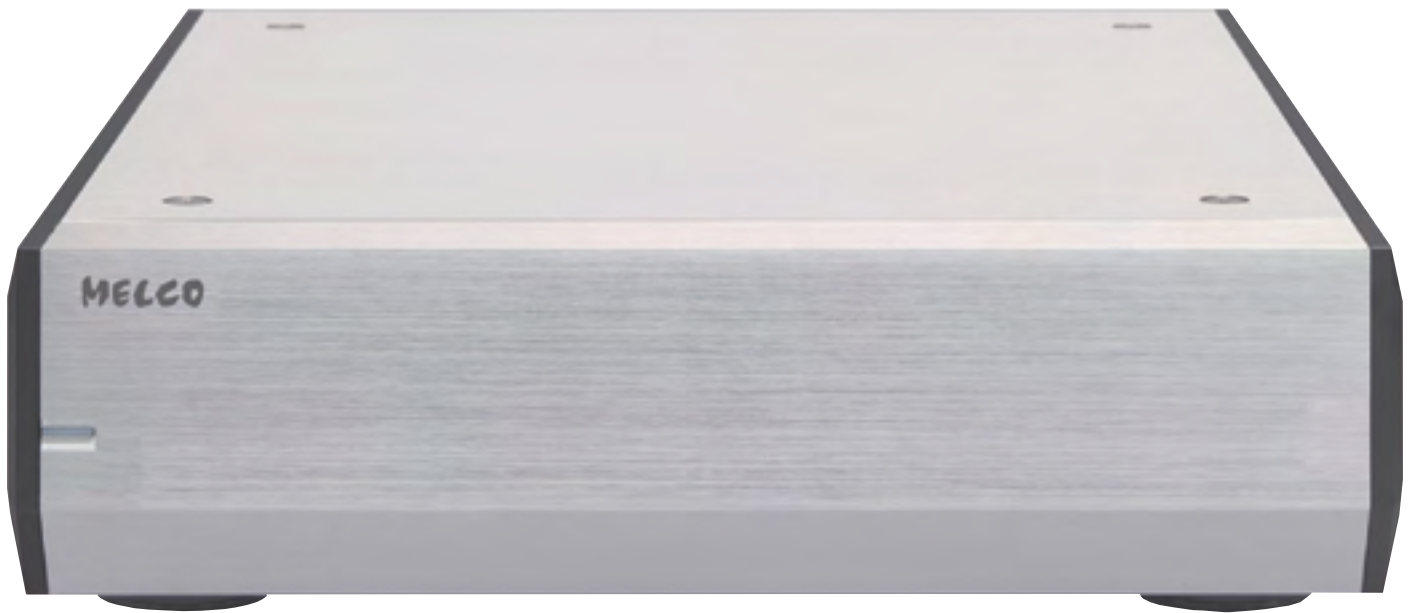
The last twelve months have been a journey of discovery for me into the world of audiophile network switches. In terms of their ability to divide opinions and cause arguments on social media, they seem to be the new audiophile mains fuse. When I bought my first switch, back in 2017, I did so without much consideration. The prevailing wisdom was that it was a good thing to have, in that it would reduce noise by separating the feed to my system from the rest of the traffic on my home network. Helpfully, it allowed me to split the signal from the Ethernet outlet I had run from my router in the office into the living room where my system resides.

When Melco launched the S100 I admit to being a bit confused as I knew there was already a switch in my Melco N1A/2, and so I assumed it

would be of no benefit to me. I was in conversation with Alan from Melco at the Bristol Show early last year and took in what they told me regarding the efficacy of S100. However, I still wasn't convinced it would be the best direction in which to spend the then price of £2000 on my system. Then along came the Silent Angel Bonn N8, which I borrowed from a dealer friend. I was so surprised at how it improved the sound of my set up that I bought it.

You can read, on HiFi Pig, my subsequent reviews of the English Electric 16Switch and RANS-1 from Russ Andrews, where I describe how my system benefited as I moved up the chain. In a way, with the S100, this review is another step in that process.

BUILD QUALITY AND FEATURES



The form of the S100 is in keeping with other half-width Melco products, solidly put together, smart and purposeful. All cable connections are to the rear of the unit, which enables cables to be hidden out of sight. There's a blue LED at the front, which remains on whilst the unit is powered. The S100 was supplied with the basic (switch mode) power supply. Melco offers a very smart looking Linear PSU upgrade from PLiXiR for £500. There are cheaper options available, but the PLiXiR options do look very smart. Unfortunately, I didn't get to try one.

Around the back, you have outputs for both 1GB and 100MPS. The 1 GB is better for AV sources, such as smart TV's where a higher speed data rate is likely to be needed. The 100MPS can offer better performance for some, but not all, audio sources, which don't need the high-speed connection. Additionally, there are two SFP (Small Form-factor Pluggable) sockets, for use with a fibre optic converter, such as the ADOT MC-01, which I have also reviewed in HiFi Pig. The manual suggests one can be used as an output to feed a compatible network player, such as a Lumin with a fibre optic cable. Unfortunately, I wasn't able to test the S100 in that configuration.

SOUND QUALITY AND PERFORMANCE

The main listening was carried out using my main home set up – Melco NA1/2 server, Moon 280D DAC, Moon 600i amp, Totem Forest Signature speakers, Tellurium Q Ultrablack II speaker and XLR interconnects, a mixture of Audioquest Vodka, Supra & Chord Ethernet cables. I was also able to connect my Chord Hugo2/2Go to the S100 and listen via my Hifiman Sundara headphones.

I have had the pleasure of testing several audiophile switches in my system over the last few months, so feel this puts me in a good position regarding this evaluation. The S100 replaced the Russ Andrews RANS-1, which I wrote about a couple of months ago. Going up from my own Silent Angel Bonn N8, to the RANS-1 gave a big improvement, but here it was a little more subtle. One of the things I liked about the RANS-1 was that it gave a naturally detailed, yet relaxed presentation. Substituting the S100 built on those qualities, adding another layer

of inner detail, possibly making the sense of rhythm and timing more obvious, although perhaps no less accurate overall.

Listening to some of the music I've used in my previous reviews of switches, such as Agnes Obel's *Citizen of Glass* - 24/44.1 via Qobuz, the music had a little more air and space, giving a slightly more brightly lit presentation than via the RANS-1 and a little more definition to plucked strings, yet still possessing the richness of the RANS-1, which was missing via the other switches I have tested. Moving on to Tony Allen & Hugh Masekela's 'Rejoice', 24/96 via Qobuz, there was a little more 'rasp' to the brass instruments and it was slightly easier to follow each musician, especially on the busier tracks.

As with the other switches I have tested, local files also benefited, although to a lesser extent than streamed. Listening to a MoFi SACD rip of the Dead Can Dance classic 'Into The Labyrinth', I enjoyed a better sense of recorded acoustic, along with a slightly livelier presentation via the S100 compared to the RANS-1.

CONCLUSION

The differences between the Melco S100 and a £1,000 switch like RANS-1 or the EE 16Switch, were not night and day, as it was for me moving from the original TP link switch, up to the Silent Angel. but they certainly added to my enjoyment of listening to music. As you can read in my review of the ADOT MC-01 fibre optic converter, the S100 has more to offer when fed via its SFP (Small Form-factor Pluggable) input.

Following my previous reviews of audiophile network switches, I have seen many, sometimes heated, comments on social media from people who are unable to accept such devices can make any difference, even suggesting it's all in the mind. I challenge anyone to listen to what the Melco S100 or the combination of S100 and ADOT MC-01 can do, in a system like mine, and not hear the improvements I have described. These two products have really improved my enjoyment of my system to a significant degree.

Whilst the S100, with its supplied PSU, gave a



worthwhile, but not enormous upgrade over the Russ Andrews RANS-1 in my system (though at a cost), I feel this only tells part of the story in that the S100 has considerable potential to upgrade, via the addition of a high quality Linear PSU, or of course the ADOT MC-01 Fibre Optic kit.

If you primarily listen to CD or vinyl, and only stream to discover new music, as indeed many people do, then the expense may not be justified. For someone like me, who's entire music collection is now stored on a server, with a good deal of listening being via Qobuz, or similar, the S100, especially when combined with the ADOT MC-10 fibre optic kit could add significantly to their musical pleasure. For me it is going to be a very tough decision to make when I am asked to return it.

AT A GLANCE

Sound Quality:

Slightly more air and space than when using other audiophile switches I have used

More inner detail and layering

Build Quality:

Very good build as per Melco's other products

Value For Money:

A significant increase in price over other switches I've used

We Loved:

The boost in cloud streaming performance

The unexpected boost in system performance playing local files

We Didn't Love So Much:

Cost will mean not all can justify its many charms.

Having to convince your computer savvy audiophile mates that they really need to hear one before judging.

Elevator Pitch Review: The finest network switch I have tried so far in my system, with potential to upgrade to further heights, via addition of the ADOT MC-01 SFP kit and/or an LPSU (Linear Power Supply). It can significantly upgrade the performance of both cloud and local network streaming.

Price: Melco S100 - £2099.00





ADOT MC01 FIBRE NETWORK KIT

The ADOT MC01 Fibre Network Kit converts your ethernet signal using copper wires into a signal using fibre optics and is said claimed to have several benefits for the serious digitally-inclined audiophile. Chris Baillie takes a listen for HiFi Pig.



Chris Baillie

The ADOT MC-01 is a device that converts an Ethernet signal into a fibre optic one. Anyone reading this review has probably heard of fibre optic transmission of data. Going back to the early days of connecting, for example, a CD transport to a DAC, the jury has always been out as to whether an optical connection between two domestic digital components offers any benefit over a coax copper, or even a more exotic metal connection, such as silver. My personal experience has been that coax sounds better than optical in this application. It is not surprising, therefore, that I was initially a little sceptical as to how the ADOT SFP (Small Form-factor Plugable) kit might benefit the relatively short distances involved in a domestic environment. As ever, I believe these things are down to implementation. I have always been aware that such connec-

tions break the ground loop between components and, of course, items such as router and modem use cheap PSU's. It stands to reason to me that noise from these electrical-ly noisy units could well end up getting transmitted to the renderer/streamer. Couple this with noise introduced from your Ethernet cables, especially if, like mine, they can't be routed as far as ideal from mains cables, it's not hard to understand how fibre transmission may be of some potential benefit to HiFi systems. The other benefit claimed is that the signal is reconstructed at the receiving end, apparently reducing jitter. I'll let others fight over the whys and wherefores of each of these points, but as far as I am concerned the results I experienced were valid and convincing.

ADOT MC01 DESIGN AND BUILD



Externally, the ADOT MC01 is a generic looking small black box, one side with both SFP and Ethernet plugs, plus LED indicators of status, and the other with a 5v input and 4 small dip switches, which amongst other things, can be used to drop the output from 1GB, down to 100mps in the quest of improved sound quality. I paired the ADOT with the Melco S100 network switch and did attempt to feed it with the 100mps output, selected by flicking on switches 3 & 4, followed by power down and back up. Unfortunately, neither my Moon 280D or indeed my Chord 2Go, would work in this setting. A chat with the distributor confirmed that, indeed, the 100mps output is not compatible with certain brands, Linn being one, in particular, that is known to them. They were surprised, but not shocked at the results with my Moon and Chord streamers.

The ADOT MC-01 is available in three different configurations – Kit 1 at £349 - supplied with a basic switched-mode power supply. Kit 2 with a plug in linear power supply unit at £399 and Kit 3, as an ultimate version, supplied with a PLiXIR LPSU at £750. An Additional MC-01 is available, to allow the use of a device that does not

have an SFP port, at £179. Kit 2 was supplied to me for the purpose of this review. A kit known as 'MC Accessory' which is basically a second MC-01, PSU and Ethernet cable is available for £199, to enable those without an SFP compatible network switch to take advantage of the ADOT Fibre Optic connection system.

SOUND QUALITY AND PERFORMANCE

I used the ADOT MC01 combination in my main system, which is, a Melco NA1/2 Server, Moon 280D Streaming DAC, Moon 600i amp, Totem Forest Signature Speakers, interconnect & speaker cables being Tellurium Q Ultrablack 2, Audioquest Vodka Ethernet between NA1/2 & Moon 280D, Audioquest Coffee USB. Supra Cat 8 cable used from router to ADOT MC-01, Chord C-Stream from S100 to the Melco NA1/2. The MC-01 as supplied needs to be paired with a compatible switch, with an SFP input, so I used the Melco S100, also reviewed for HiFi Pig.

I began listening to the S100, connected via Supra Ethernet cable rather than the ADOT, just to get my bearings. It replaced the Russ Andrews



RANS-1 Switch which I recently reviewed for HiFi Pig. I liked the RANS-1 and to be honest would have been happy to keep it in the system, had funds allowed. The S100 on its own, gave a nice uplift in performance, building on the strengths of the RANS-1 but bringing more detail and greater resolution. The music had a little more life to it and the lead instruments had a little more projection. Was it worth the extra £1100 in price? In my system that is a hard one to answer, as there may well be other things I could change for similar cost that provide more. Nevertheless, I wasn't complaining and just enjoyed the music.

Adding the ADOT MC01 enabled me to move the S100 onto my main system rack and avoid running Ethernet cables near the mains cable that feeds my TV. This situation was previously unavoidable, and so replacing the Ethernet cable with fibre optic cable, which is impervious to interference from the mains cable, was, to me, obviously desirable. Having said that, I was still surprised at the magnitude of the improvement.

If you've read my previous reviews of both the RANS-1 and English Electric 16Switch, one of the albums I use as a reference is 'Rejoice' by Tony Allen and Hugh Masekela, streamed via Qobuz at 24/96. The S100 via Ethernet certainly allowed you to better appreciate the interplay between the musicians and, indeed, the cymbals sounded cleaner and more detailed. With the ADOT MC-01 feeding the S100, the whole soundstage opened up and gave a far greater sense of dimension in all directions! Each performer was now given more space, allowing me to hear more of the contribution of each musician. The vocal chants at the start of track 1, 'Robbers, Thugs & Muggers (O'Galajani)' had a greater sense of reverb. Moving to other musical choices, I was appreciating a much better sense of soundstage depth and of acoustic. Later I listened to the 2021 Remaster of Metallica's 'Black Album' 24/44.1, again via Qobuz. Lars's drums were well back in the soundstage and I was struck by how easily I was able to pick out each instrument, yet the music had real drive and was utterly involving. The RANS-1 is long gone, so I switched back to my own Silent Angel Bonn N8. Whilst still pleasant, the soundstage shrunk and I lost interest in the mu-

sic very quickly. In fact a similar thing happened when a friend paid a visit several weeks ago, shortly after the S100/MC-01 arrived. We were listening to a track via Qobuz and I swapped the S100/MC-01 over for the Silent Angel, without telling him exactly what I had done. My friend commented that the soundstage had collapsed, and the music now sounded boring, so could I swap it back please!

One of the things that surprised me whilst testing previous switches, was how the sound of locally stored files, fed from my Melco NA1/2, also benefitted, albeit to a lesser extent than those streamed via Qobuz. Again this was the case using the S100/MC-01 but to a much greater degree. According to Melco this is the benefit of breaking the electrical connection to the router. There was still less benefit with local files than via Qobuz, but I was still enjoying better soundstage depth and greater resolution listening to music from the Melco NA1/2, via the S100/MC-01. I can only attribute this to less noise entering the system.

Overall, I have to say the character of my system has become far more transparent, improved soundstage in both terms of depth and width and the last hint of harshness, my set up could occasionally suffer from, was removed.

CONCLUSION

As you can probably tell, I don't just like the ADOT MC-01, I like it a lot. It has greatly enhanced my enjoyment of music and for those who already own a network switch that has an SFP input, it's the proverbial 'no brainer'. For those that do not own such a device, I would definitely recommend trying the MC-01 with the MC Accessory Kit, especially if you need long runs of cable from your router to your switch and indeed if you need to run that feed near power cables or other potential sources of electrical interference.

AT A GLANCE

Build Quality:

The S100 is in the typical Melco mould, which means solid and purposeful, rather than pretty.



The ADOT MC-01 is built to do its job – doesn't need to be flash so isn't, but solid enough

Sound Quality:

In my set up it has improved transparency, detail, soundstage and removed harshness. Music is more involving and enjoyable to listen to with these components in place

Value For Money:

In terms of cost versus performance, this is definitely one of the better upgrades I have experienced in my system.

We Loved:

Lower noise floor - less grain and smoother top end.

Improved Soundstage.

More involving musical experience.

You can run fibre optic cables near mains cables without degrading sound quality.

Improves streamed video also, if that's your thing.

We Didn't Love So Much:

It uses up an extra mains socket, other than that, nothing!

Elevator Pitch Review: The ADOT MC-01 is a must-try for owners of network switches with SFP inputs. I am sure most owners of the Melco S100 will have it on their radar and be impressed if they try it. I would be seriously tempted to try a pair of ADOT MC-01's even if you don't own such a device, especially if the routing of Ethernet cables to your router to your switch, passes potential sources of electrical interference, such as mains cables.

Prices:

ADOT MC-01 Kit 1 - £349.00

ADOT MC-01 Kit 2 - £399.00

ADOT MC-01 Kit 3 - £750.00

ADOT MC Accessory Kit - £199.00





CHORD 2Yu REVIEW

Chris Baillie takes a listen to the Chord Electronics 2Yu network bridge costing £449 and designed to be used with the company's 2Go.



Chris Baillie

WHAT CAN CHORD 2Yu DO 4Yu?

When playing music from high-quality computer files became a thing, over 15 years ago, the popular solution was often to use a laptop; 'Mac & DAC' anyone? Things then moved on, and we started using NAS drives (Network Attached Storage) for convenience. Over the last few years we have seen the uprising of high-end servers, from the likes of Naim, Innous, Melco, Auralic, and Lumin amongst others, with the best of these giving a considerable uplift in performance over the traditional IT-based solutions.

Chord clearly wanted to approach this from a different angle to the other players in the market, bringing to the table products that are both discrete and flexible, in that they can be used with both

portable and home systems. I have been using 2Go paired with the Hugo2 DAC for around six months. You can read my thoughts on this pairing in a previous review for HiFi Pig. 2Yu enables 2Go to be used with DACs other than the Hugo2, which slots neatly together with 2Go and is then powered via the 'wall wart' PSU which also then feeds 2Go. Together, this can create a high-quality server, with up to 4TB of storage space, along with the ability to stream from the likes of Qobuz, Tidal, or even internet radio. An obvious benefit here is that memory cards can be swapped out very quickly, simply by replacing the Micro SD cards. Not only does this mean you could potentially have even more storage at your disposal, but it's clearly much easier to swap out a failed Micro SD card than replace an internal drive. A quick Google search revealed

that 2TB Micro SD cards don't seem to be freely available in the UK, but no doubt that situation will change.

BUILD AND FEATURES OF CHORD 2Yu

Like every Chord product I've come across, 2Yu is built to a very high standard, using aircraft-grade aluminium and available in either silver or black. There are four coloured lights, which also act as buttons to power on and off, change output and mute. There's also a button marked 'DIM', which changes the brightness of all the other buttons. There are two inputs on one side, which are fed from the connecting 2Go. On the other side are outputs for optical, coax via both BNC and RCA, plus a USB A socket. 2Yu is designed to be paired with 2Go, the two snap together and are secured by fitting two pins, supplied in 2Go's box, which you fit and then secure using two small Allen screws. This is where I fess up and admit to not realising the same pins and screws were supposed to be used to secure 2Go to Hugo2, which I have been using for the last six or so months without realising they are there to prevent potential damage caused by the units coming apart during use! In my defence I had used the pairing solely in the supplied leather case, so no harm done but I should have read the manual! Continuing with the topic, having to swap the pins and screws over when swapping 2Go from the main system connected to 2Yu, to Hugo2 for portable use, is a tad inconvenient and I can imagine them getting dropped and potentially lost, if such a swap is done in haste. You have to use the combination of power from the supplied 5v 'wall wart' power adaptor, which is connected via 2Go. I refer readers to my review of 2Go/Hugo for features referring to 2Go. I will add here though that 2Go can be connected to your network using Wifi and includes Bluetooth A2DP and Apple Airplay. 2Go/2Yu can be used as a Roon endpoint, which although I wasn't able to test this time, I have previously used my Chord Poly with Roon, so would expect 2Go/2Yu to work just as well.

SOUND QUALITY

Strictly speaking, the sound quality changes are I experienced are between using 2Yu and 2Go together, as that is the only way in which 2Yu

can be used. I used this combination as a digital front end in my main system, consisting of the following set-up - Moon 780D Streaming DAC, Moon 600i amp, Totem Forest Signature Speakers. Analogue interconnects and speaker cables Tellurium Q Ultrablack 2, Audioquest Coffee USB, Audioquest Cinnamon Optical, Sean Jacobs digital RCA coax and Sean Jacobs mains cables. I still had the Melco S100 and ADOT fibre kit, reviewed recently for HiFi Pig, which I used to feed Ethernet to 2Go. It is perfectly possible to use 2Go/2Yu in Wifi-only mode, which didn't seem to detract from performance when playing music from SD card, although wired sounded better when streaming from Qobuz.

I was able to compare 2Yu/2Go to both my Melco NA1/2 server and for context my PC, using J River. Music was loaded onto 2Go, using 2 x 1TB Sandisk Ultra Micro SD cards

As I have a lot of music in DSD, I predominately listened via USB as the other outputs don't support this format. Whilst there were slight differences to the sonic balance between USB, coax and optical, I couldn't rule out this being more down to the different quality of the cables I had available, with the Audioquest Coffee being far more expensive than the other types at my disposal. It is worth noting that many other network bridges, only offer Ethernet, and/or USB outputs and so this is a plus for the Chord unit. Users of older DAC's will therefore be pleased to be able to connect 2Yu via optical or coax. All listening was carried out, with 2Yu connected to my Moon 780D DAC.

The first thing that struck me was how fast tracks could be both selected and played via an MPD app, such as M.A.L.P. for Android. The Melco only operates over UPnP, which is much slower to respond. Using SD cards rather than an HDD no doubt helped in this respect. Chord's YouTube channel gives details on recommended Apps available to control 2Go.

First up was an SACD rip of the Bill Withers album 'Live at the Carnegie Hall'. Here I got a very upfront sound, full of life and detail. There was a reasonable sense of the recorded acoustic and some sense of depth. Nice smooth top and extended bass, with the vocals locked dead

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centre stage and very lifelike. I was then able to play the same track via the Melco NA1/2, which surprised me in giving a more extended soundstage and generally more airy presentation. This led to the soundstage sounding a little more open, with better placement of instruments within it and a noticeably better sense of soundstage depth. The Chord combo was still very enjoyable though and as the Melco retails at exactly double the price of the Chord combo the apparent differences were not unexpected.

I then listened to the newly released 24/96 download of David Gilmour's *On an Island*, firstly via the Chord combo and then the Melco. The Chord units gave a nicely detailed sound, which was very enjoyable. However, the Melco did present a bigger and again more open soundstage. I noted that on the track *This Heaven*, the acoustic bass sounded somewhat more lifelike and dynamic when fed via the Melco.

Next, I tried a stream from Qobuz of the new album from War On Drugs' *I don't live here anymore* – Qobuz 24/48. Via the Chord combination, the music streamed seamlessly using

the Android App 'Bubble UPnP'. I got a pleasing, upfront presentation, again with plenty of detail. Here I had to compare the stream directly via my Moon 780D DAC's MiND streaming board, which admittedly costs several times the cost of the Go2 & 2Yu combined. The Chord combination was connected to the USB input of the Moon DAC, both 2Go/2Yu and the Moon were connected to the Melco S100. To be fair the sound was more involving and dynamic and with a noticeably better sense of soundstage depth when listening via the Moon's MiND streaming board, but I suppose there should be expected given the price difference.

Clearly, the Melco feeding the Moon DAC gives an appreciable performance advantage but the Melco does cost around double the price of Chord pairing. To level things out I decided to feed the Moon 780D via my PC, using J River over the network, via the Melco S100. I listened to a CD rip of Goldfrapp's first album, *Felt Mountain*. I'm guilty of not having played this album for years and I was quite impressed by how good it sounded when fed from the PC. Via the Chord 2Go/2Yu the sound was smoother and more detailed, with a sense of acoustic that



was only hinted at via the PC. Vocals were smoother and more lifelike and the music was more engaging. As before, the Melco was better again, following a similar pattern to the other tracks I played. I feel the performance gulf between the PC and the Chord pairing demonstrated how much better performance is achievable via a dedicated server over a PC.

CONCLUSION

Summing up, I feel that the pairing of 2Yu/2Go offers a significant upgrade over using a PC as a digital source and, for Hugo2 owners who want a high-quality server that they can use with a DAC that's already in their main system, for £450 2Yu is a no brainer. For those using high-end systems, who don't have any future plans to use 2Go with a Hugo 2, you can obtain better performance from a high-quality full-sized unit, albeit at a considerably higher price.

My system is very revealing and, in less extravagant systems, I feel the differences I heard would be far less pronounced. As mentioned before 2Go/2Yu has the major convenience advantage over a traditional server in that the storage medium can be swapped very conveniently, much-reducing concerns of drive failure, although, as ever, backing up your valuable

music collection is essential!

I feel the combination of 2Go & 2Yu would make a great server in a desktop or bedroom system, where the use of full-sized components would be prohibitive, and feeding something like the Chord Hugo TT or even the Chord DAVE. Many users wanting to add streaming capability to their system, perhaps via the digital input on an existing CD player, to make use of its internal DAC, but don't have the shelf space for a bigger server will love 2Yu/2Go.

AT A GLANCE

Build Quality:

As ever with Chord, it is first class and exudes quality

love the styling and lights

Sound Quality:

Clean and detailed, with an upfront presentation. As mentioned, it lags behind my reference unit in certain areas, but in context of the price difference and the flexibility of splitting 2Go from 2Yu and using 2Go to feed Hugo2, it offers an enjoyable performance that's a considerable



step up from using a computer to feed your DAC.

Value For Money:

The performance level for the price is good value. The unique ability to split your server between your main and portable rig, for some users, is going to make 2Yu exceptional value for money.

We Loved:

Paired with 2Go can provide greatly improved performance over using a computer to feed your DAC

Typical Chord striking design and solid build quality

A unique product that allows you to use your music server in both portable and home setups

Unlike many other servers, can be used on a WiFi network

Provides both coax and optical outputs in addition to USB, unlike much of the competition

Can be used as a Roon Endpoint

We Didn't Love So Much:

The performance lacks a little sense of sound-stage scale and depth compared to the, admittedly more expensive, competition

Price: £449.00

Elevator Pitch Review: Great addition to the Chord range, which allows you to split the use of 2Go between home and portable setups, or for the pairing to be used as a discrete server in their own right. Usual Chord superior build and unique styling.





RUSS ANDREWS RANS-1 NETWORK SWITCH

In this review, Chris Baillie takes a look at the Russ Andrews RANS-1 costing £956.50 without mains cable or £989.00 with 1m Russ Andrews' yellO.



Chris Baillie

Many might not appreciate it, but Russ Andrews is probably behind an awful lot of the philosophies that we audiophiles have been following for years. Russ was instrumental as a dealer in the 70s, working with both Linn and Naim, reportedly being a key influence in convincing Naim to sell to the domestic market and being their first dealer! An early adopter of the benefits of using high-quality speaker cables and interconnects, he was a guiding light in carrying over those thoughts and ideas to mains cables, having already released his own mains noise suppression products. He worked with Kimber Kable to help bring them to the market. Russ was similarly pioneering with ideas on light but stable stands, on which to place speakers, turntables, and other system components. Indeed, Russ Andrews did an awful lot

to help the industry understand these things back in the '80s and '90s.

In both my current and previous houses, I followed his guides when setting up dedicated mains spurs and earth. His designs follow fundamentally solid ideas and principles and many of us wouldn't have even known how to go about setting up our systems for optimum performance if it wasn't for his pioneering work.

Network Switches have become hot property within the high-end network music world these last couple of years and the RANS-1 is the third I've had in my system within the last year, and the second I've had the pleasure of reviewing this month! I have found the inclusion of such a switch to make significant improvements to my system, in terms of both lowering the noise floor and



musical enjoyment. Here Russ has produced a switch following his established principles of lowering noise and optimising the PSU.

DESIGN AND BUILD

Replacing the EE 16Switch, reviewed last month, I have to say aesthetically the RANS-1 was breath of fresh air. My system is set up in a shared living space and I can tuck it away in the corner, on a cabinet and it blends in nicely. A two-box affair, there's the main switch with an external power supply, with the two connected by a supplied PBJ connector. As with most of Russ's cables, this is braided for enhanced RFI rejection properties.

There's just a blue light on the front panel of each unit to indicate power, with both power and Ethernet input/output to the rear. Supplied with the units is one of Russ Andrews yellow mains cables, which connects to the PSU - I had forgotten the extension lead, used to plug in my TV and PVR is actually a Russ Andrews yellow power block.

Build quality is purposeful and the casing is ABS plastic, very light but solid. As usual for an RA product, all internal cables are Kimber.

SOUND QUALITY

I tested the RANS-1 in my usual set-up, consisting of Melco NA1/2EX server, Moon 280D DAC, Moon 600i amp, Totem Forest Signature speakers. Analogue cables are Tellurium Q Ultra Black 2, Supra CAT 8 Ethernet from router to RANS-1, to Melco, and Audioquest Vodka between Melco and 'streaming DAC'. I also used the Hugo2/2Go portable, via a Chord Company C-Stream Ethernet cable. On hand was my own Silent Angel Bonn N8 and the EE16Switch. Indeed, it was very helpful to have the latter on hand, so I could compare the RANS-1 with an alternative product at the same price point. I, therefore, make no apologies for comparing the performance of the two units.

It was initially surprising to discover that, as well as improving the performance of music, streamed from cloud services such as Qobuz,



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the benefits of having less noise in the network, also gave sonic improvements from my Melco network server, although less pronounced. My understanding is that this is due to the server having to do less processing to remove the effects of noise, such processing causing increased levels of EMI (electromagnetic interference). Some will disagree with this explanation, but the sonic results I have experienced seem to bear this out.

As I mentioned in last month's EE16 review, I was rather surprised at how a product such as a Network Switch can reflect a manufacturer's 'house sound'. It has been many years since I heard one of Russ's demo systems, but I can still recall the relaxed, yet detailed and full-bodied character that would rise and fall only to the demands of the music played. This was also my first impression of the RANS-1, which replaced the EE16 Switch in my system. The EE unit having a more obvious emphasis on things like rhythm and timing, perhaps with a very slight leading-edge emphasis. The RANS-1 being slightly more resolving and full-bodied, without hampering the system's abilities when playing more attacking music. Both units gave the music more sense of space and air than my own Silent Angel Bonn N8 can manage with the standard PSU, with the RANS-1 allowing the instruments more sense of body, the EE perhaps a little more pizzazz.

Listening to a Qobuz Stream of Tony Allen & Hugh Masekela's Rejoice in 24/96, highlighted the RANS-1's more relaxed and resolving presentation, over the 16Switch. With the latter, I noted a slightly more defined bass and was drawn more to the rhythm and timing side of the playing. Leading edges of drums and cymbals were also more pronounced, yet never harsh. Via the RANS-1 the music seemed to possess equally good timing qualities, but you had to listen for those attributes, rather than them being pointed out. A sense of ambience and acoustic space was better resolved via the RANS-1, with the drums having very slightly more sense of body. We are talking subtleties here, but easy to pick out nonetheless. With Agnes Obel's Citizen of Glass, also a Qobuz stream but 24/44.1, I noted more definition, and a sense of instruments being 'struck' with the EE unit, with RANS-1 pegging things back by giving

them more body and slightly more ambience. So, neither was better than the other, rather each possessed a character that might suit one potential buyer's system over another.

CONCLUSION

I found comparing the various switches these last few weeks very enlightening. I have really enjoyed the performance of the RANS-1 and I think it looks great sitting on my corner unit with those cool blue lights! It is certainly a step above the entry-level audiophile switch I have been using in my system for the last year or so, and as you've read, holds its own with the competition at the higher price point. Personally, that tells me RA have got the price point right. Some may say it's a lot of money for what is inside, but it no doubt took a lot of time to tweak to offer what is an excellent level of performance, and so I have no issues paying that sort of money, considering how it's improved my system.

AT A GLANCE

Build Quality:

Well put together and serves the intended purpose. I love the blue lights!

Sound Quality:

In theory, it does not have any! However, as mentioned in the review, in my systems, it seemed to impart the RA signature of sounding relaxed, yet detailed.

Value For Money:

I think RA has got this right and it offers potential performance improvements commensurate with the price. RA offer a no quibbles return policy, so pretty much risk-free in my experience.

We Loved:

What I consider to be great looks, yet easy to hide away if needed.

It allowed a relaxed, yet detailed and musical performance from both my headphone/portable and home speaker setups.



We Didn't Love So Much:

I can see how the price may be an issue for many.

Could be better solutions available for those who want a bit of an extra 'kick' in their system.

Price: £956.50 without mains cable, £989.00 with RA's 1m yellIO cable as tested.

Elevator Pitch Review: Worthy addition to the expanding audiophile switch market. I think it will delight both RA's already contented customers and draw in new buyers, who simply love what it does for the performance of their networked systems. For me, it looks great and delivered first-class results.





TELLURIUM Q BLUE II CABLES

This review of the Tellurium Q Blue II cable range is a shorter and more to the point review than my normal offerings and is meant as an addition to the excellent and full review by Janine Elliot of the [Tellurium Q Blue II](#) cables.



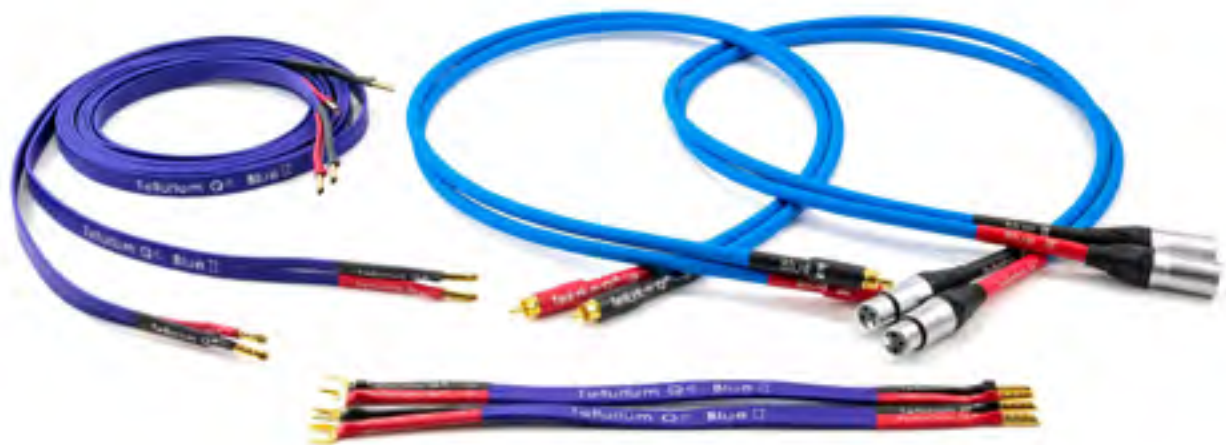
Stuart Smith

I don't review all that many cables or cable looms, I tend to find what I like and stick with that, but the chatter about the Tellurium Q Blue II got a fabulous review and Outstanding Product award from Janine way back in October of 2020 and so I thought I'd get in touch with Geoff Merrigan at the Somerset UK-based company to see if I could procure a set, more out of being curious as to what all the palaver on social media was about with regards to this relatively modestly-priced set of cables. The prices are £111 for a terminated set of 3m loud-speaker cables with metre lengths of XLR and RCA inter-connects coming in at £235 and £180 respectively. Now that, in the grand scheme of things is not a lot of money when we are discussing audio cables, but it is a substantial outlay to get on the first rungs of the cable ladder – for those

interested prices for cables in the rarefied audiophile world can run into thousands for a metre of cable.

I'm not going to waffle on about the build quality and whatnot as if you are interested in more detail in that you can read Janine's excellent review here. Suffice to say the packaging (a nice cardboard box emblazoned with the Tellurium Q logo and with red tissue paper around the cables inside) is very good. Build quality also looks to be of a very high quality. I'm going to make a point here and say that there's a good number of cable manufacturers popping up, usually smaller Fred in a shed kind of operations, where the build quality can be left wanting, however, you have no such worries here and as well as your normal consumer rights you get a generous seven years warranty that covers

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defective materials or production faults. You also get a card with each cable that says who built the cable and who it was inspected by. In addition, there's a unique hologram and QR code in each of the boxes so you can check on the free CheckIfReal app that your product is a genuine product. I like this kind of thing and it lets consumers know quickly and easily if they have a genuine product or a fake. You also get RoHS and CE logos to signify that your purchase meets the required safety standards – another positive and something I encourage everyone to check for when buying cables, or any kit for that matter! This confirmation and documentation will be a big bonus point if and when you look to upgrade and sell on your cables. All the cables are sky blue with what look to be good quality terminations, though the tight-fitting heat shrink covers these and ensures inner cables won't end up being visible down the line.

In addition to all the stuff I've mentioned in the above paragraph, Tellurium Q is twice the recipient of the Queen's Award for Enterprise, about which you can read a bit more here. Not a biggie but it's something that has to be a feather in the cap of the whole of the Tellurium Q team.

One minor niggle with regards to the Blue II is that the colour of the outer jacket of the interconnects and the speaker cables do not exactly match, but to be fair that's a very minor whine about a cable that's very nicely presented and put together.

For this review I'm plumbing everything into our smaller system that consists of an Auralic G1 Aries streamer, LAB12 DAC, LAB 12 Pre and an English Acoustic 21C. Speakers will be Xavian Perlas and Falcon LS3/5A Gold badges. To my mind, whilst not being hugely expensive, this system is highly resolving whilst being hugely musically entertaining and, perhaps more importantly, it's a system I listen to a great deal. The room is heavily treated with GIK panels and is dedicated to only music playback. Power cable and block were all from Atlas throughout the system and throughout the review process.

I was sent the Blue I and Blue II to compare and

contrast, but the main thrust of Janine's review was a comparison and so I'm not going to repeat that process.

SOUND QUALITY

All cables sound the same, right? If that is your belief and your mantra then first of all what are you doing having read this far in a cable review, and secondly you may as well stop now. I'm not going to get into the whole cable debate thing here, but if you want to read my thoughts on that then you can hit this link to one of our most-read articles in our ten years of existence.

What I'm looking for in a cable system is something that lets me enjoy the full frequency range present in the music I'm listening to without emphasising anything nor leaving anything out. Some cables can be overly bright and some can sound dull. Some cables can seem to be leaving out finer details and some can sound confusing when things get hectic. I want balance, detail and a presentation that doesn't get in the way of the music I'm listening to.

Let's see.

I've had experiences in the past with some entry-level cables, and indeed I'm going to call these cables just that whatever the naysayers may suggest, sounding somewhat brittle the extreme upper frequencies. This brittleness may not be apparent on initial listening but once heard it cannot be unheard and has the effect of dominating the musical presentation and spoiling your enjoyment – it also makes extended listening experiences a tad taxing. That is not the case with the Blue II, and whilst the upper frequencies are well extended they are not dominant or with that slightly broken feel I mentioned. If your system errs on the side of being too bright then these cables will certainly tame that, whilst allowing you to enjoy the full gamut of the musical performance. Switching the Blue II speaker cables out for some much more expensive cables from Chord (Epic Reference) there was a sense of a more "open" top-end performance with a tad more definition when listening very closely. The Chord cables are better speaker cables than the Blue II, but then they cost ten times the asking price of the Blue II. Will most people with moderately resolv-



ing systems notice this in day to day listening, I doubt it, but those wanting ultimate performance will need to spend more – that's just a simple fact of the matter and the brand you choose will be down to your own personal preferences and I suggest you go out and listen to as many as you can and make up your own minds. As it is, I'm thoroughly enjoying the experience with the Blue II speaker cables and really cannot complain at all for the frankly silly asking price £111 for a 3m pair.

Listening to the mid-band I found the sound of vocals particularly pleasing. Again, there was a feeling of rightness to the presentation with the Blue II and with nothing being overly dominant in the sound. Switching out for the Chord speaker cables and mid-priced Atlas interconnects there was a slightly more three-dimensional sense to the mids in the image – a feeling of there being a tad more space around the individual sounds in the mix. With that said, the Blue II in this system seem to punch above their weight offering up a very pleasing and musical performance. I genuinely never felt I was missing out other than when listening very critically. And I suppose this is one of the things we need to discuss for a moment – do we actually sit down and listen to the minutiae of a presentation when listening for pure enjoyment? If you are a music lover and want to get the best from your system without getting hung up on every last detail then the Blue II excels here, and particularly for the money Tellurium are asking.

Bass detail and speed was again well represented by the Blue II with a definite feeling that there was weight and slam when listening to the likes of techno.

Three-dimensionality is very good for this level of cables and, whilst the image was a little compressed in comparison to my pricier reference cables, there was still a very pleasing image thrown.

CONCLUSION

The Blue II from Tellurium Q represents to my mind an excellent performance point for the asking price. Yes, you can better them by spending more, that's for sure, but for the vast majority of listeners, they will be a perfect

balance of musical enjoyment tempered with a sensible financial outlay.

Where these cables really satisfy is in their ability to present the music in a natural and unforced way that allows you to forget analysing the tiny details and get on with enjoying your music. Nothing over-dominates the presentation and they sound, for want of a better word, harmonious.

Importantly the stuff that comes along with the cables should ensure that should you want to upgrade at a later stage then the cables should command a good second-hand value. However, they are that kind of fit and forget product that will appeal to folk looking to get the best from their system without breaking the bank or becoming over-obsessed (guilty) with their system.

In a good entry-level system or even a mid-priced system, these could well be all the cable you need or want. I'm so pleased I asked to review these cables based on the, quite right, enthusiastic chatter on the various social media groups. I have no hesitation to echo Janine's thoughts and to offer up my Editors Choice Award.

AT A GLANCE

Build Quality:

Very well put together

Speaker cable is very flexible

Well packaged and with excellent proof of provenance that will give peace of mind to buyers and help maintain second-hand prices

Sound Quality:

Very well balanced and without any overriding issues

Value For Money:

Excellent

We Loved:



Fit and forget

Balanced and “harmonious” presentation

The flexibility of speaker cables allows for positioning in difficult situations

Very well finished

Proof of authenticity

Good performance across the frequencies

We Didn't Love So Much:

Slight colour differences between speaker cables and interconnect cable

Price: £235 1m Blue II XLR interconnect (£180 1m RCA interconnect). £99 + £12 termination 2 x 3m Blue II loudspeaker cable.

Elevator Pitch Review: Tellurium Q Blue II

offers a fantastic and great value upgrade for those looking for good sounding and well put together loudspeaker and interconnect cables. They have a balanced and pleasing sound to them that allows you to enjoy the music without wanting to dissect it or feel that you are missing anything. They are still in the system if that is any indication.





ASTELL & KERN SE180 DIGITAL AUDIO PLAYER

Janine Elliot takes a listen to Astell & Kern SE180 Digital Audio Player costing around £1399.



Janine Elliot

When there was a chance to review an Astell and Kern product I leapt at the opportunity, having watched the company since its inception and regularly ever since receiving sales emails advertising new products. With beautiful looking DAPs with diagonal lines and curves, their products look like no others. Originating from the land of Samsung and Kia, South Korea, they are highly sought after, and with uniquely shaped designs and top-end components I really wanted to see and hear just how good they really were. The A&K portfolio regularly changes with the introduction of new DAP's and now includes amplifiers and earphones and accessories, so this newish model is a very desirable proposition.

IN THE BOX

The silver SE180, at £1399, is

a member of the A&K Futura range, headed by the SE200, both following on from the SE100. Complex technology is deployed to make this quite a masterpiece of design. What really makes the SE180 really unique is the deployment of interchangeable DAC/amps, allowing you to choose the most suitable sound depending on your preference, an idea from iBasso, with their replaceable amp modules. Think of this as being like changing both the cartridge and phono-stage in your vinyl front end at the same time to get a different sound. The idea of a multi-DAC personal player was a world-first in the A&K SE200, though that model has three different DACs installed in one DAP. With the SE180 you pull out the standard SEM1 DAC module and insert a different one, such as the SEM2 module also supplied for this review. More on that later.



The standard supplied module uses the excellent ESS ES9038 PRO 8-channel DAC. Having it in a separate “box” is not only convenient but also ensures RF interference is blocked from the amplification. “AMP” technology is also included, which is A&K’s way of pushing up the sound quality through their selection of op-amps, circuit design, layout and tuning. The basic spec is PCM: 8kHz - 384kHz (8/16/24/32bits per Sample) and DSD up to DSD256(1bit 11.2MHz).

The SE180 DAP is fairly large at 77mm x 137mm x 19.9mm with a full and excellent 1920 x 1080 HD touch display with 441PPI, plus a physical volume wheel at the side. Operating the unit from the screen was easy with a well laid out UI. Indeed, this is one of the best interfaces I have seen, though not the fastest, offering details of everything such as tracks, bit rates, even detailing the DAC connected, etc, as well as an excellent play navigation bar. Coming with 256Gb of music storage onboard, it also has provision for microSD cards up to 2TB. The A&K has a file drop system allowing wireless transfers between your PC and SE180 which is useful. The two-way BT Sink function connects the SE180 to external devices via Bluetooth (the unit uses the quicker BT 5.0), and also allows music from an external device (such as a mobile phone) to be sent to the DAP for playback, if you needed to do that. It is also equipped with MQA technology, enabling you to download and play MQA audio files, plus it is also Roon ready. In OpenApp you can download any audio app that the unit is able to play. The volume wheel on the side lights up different colours to inform you of the different bit rates. For example, red is 16bit, green is 24bit and DSD is purple. The only drawback with having the wheel on the side is that you can inadvertently knock it and change the levels (and quite drastically as my ears found out!) but luckily you can lock the volume level in the settings to stay max “60”. This is a versatile player and Wireless Playback includes the better quality 24bit aptX-HD and Sony’s LDAC codecs.

The unit has three outputs; a classic 3.5mm TRS, a balanced 2.5mm TRRS, and the balanced 4.4mm Pentaconn output that was first introduced by Sony. Milled from a solid block of

aluminium this unit is rather heavy (380g) and feels very strong and expensive, so it would be advisable to buy the leather case to protect the beautiful player when you are travelling. The architecturally inclined shape of the device is actually very pleasing to hold in your left hand rather than the right hand - just my own personal preference. Being well designed even the quick-start guide looked great, except with silver print on black paper and the writing being minuscule I needed a magnifying glass to actually read it. Now I know I’m getting old, but I doubt anyone can actually read this easily.

THE MUSIC WITH ASTELL & KERN SEM1

Playback for this review was largely using the AT W1000 and the new £4100 Stealth magnetic planar headphones from Dan Clark Audio. The latter are of course inefficient planar drivers, though there was enough volume from the SE180 to provide for almost adequate listening. Finally, I used the beautiful Kinera Freya IEMs.

I must admit I was totally blown away by the A&K. In balanced mode the A&K delivers 126dB S/N making the unit exceptionally quiet. Even playing MP3s gave for a good performance, largely due to the very gentle though detailed performance from the ESS DAC and amplification. The bass end was good and the top end was natural rather than tizzy digital. This was an excellent player meaning I was able to listen for long periods of time without fatigue.

Sting’s ‘A Brand New Day’ starts with a long and deep drone which the SE180 played exceptionally well, plus top frequencies which were clear and precise with vocals well portrayed in the soundstage. Nothing amazing, perhaps, until you consider that I was playing MP3s. The quality was just so natural. This wasn’t just the ESS ES9038PRO, but rather all the various components that are packed together into this slab of aluminium. This is quite some performer. Queen’s “One Vision” (A Kind of Magic) has plenty of musique concrète mixed in with the more conventional instruments and vocals. All were clearly positioned across the soundstage. The vocals were very gentle with no sense of digitization. Even “Autarky” from Brunette Models (24/96) was perfectly proportioned and with minimal fuss in this electronica and very ambi-



ent eight-minute track. The performance from the SE180 was like the difference between a school orchestra and the Berlin Philharmonic. The music was carefully positioned, controlled and professionally orchestrated, yet it could still belt out bells and whistles if it needed to. "Telegraph Road" Dire Straits (24/192) was much clearer than I had heard from a DAP, though it sounded very smooth. Everything was there but it was controlled and relaxed. The percussion was forward and clear, and violins, guitars and vocals were positioned just as they should. Only playing Satie's Gymnopodie No 1 (24/48) did the piano sound less like a Steinway and more like a Clavinova. "Almost like Being in Love" (24bits of Christmas, Linn) has plenty of everything, including spoken voice, vocals, instrumentation and audience laughs and claps. A great track to test a DAP. This was fun, but not rushed, all taking its time with ease.

Next, it was time for me to connect the SEM2 (Asahi Kasei AK4497EQ Dual DAC) Teraton Alpha module. I had spent several weeks trying to pull out the SEM1 module to no avail. The two flush buttons on either side of the unit that you need to push in are so very small. Too small for your fingers in reality. A&K make it hard going as they don't want it to fall out mid listening, but with this review sample, it was just too hard. Luckily after much trying and a home-made pincer tool I succeeded. Now, to make things even more confusing, both modules look exactly the same; they both say Teraton Alpha with no hint of ESS or AK DAC mentioned. To see which unit was SEM1 and which was SEM2 (or even the third alternative SEM3) I needed a strong magnifying glass as the writing was very small at the very bottom of the unit, though it was there. There is also no writing visible on the top of the module when you finally insert it to suggest which one you actually have connected! That said, the unit is well made and fits a treat.

And I'm glad I managed to pull it off as the SEM2 Teraton module is better than the SEM1. Well, it's a different sound and if you want improved spec and a brighter and faster sound, then you will want to purchase this module. Where the SEM1 soundstage was narrower, the SEM2 opens it up with more depth and sparkle. Emilie-Clare Barlow "He Thinks I Still Care"

(24/96) had a clearer vocal line such that I could probably have correctly identified the microphone used. Saxophone and guitar solos were also clear, especially the initial transients and decays/reverb. Miracle's 'Moment 4 Autumn' (192kHz/MQA) was very open and engaging creating more detail and musicality than it was using the SIM1. Similarly, 'A Saucer Full of Secrets' from Pink Floyd was much more engaging and thorough. Playing Sting's "A brand New Day" again on the SEM2 Teraton was better in the extreme bass, something I found in all I played. Finally, with classical music 'Chasing the Dragon's 'Binaural Baroque' (24/192) seemed so much more realistic than I have ever heard on headphones. That 3D performance was quite compelling. Not only the realism of being there in the front row of the audience but also the speed of transients and accurate decays from the Neumann KU10 dummy head microphone. "La Voie Triomphale" (Bozza, Staff band of the Norwegian Armed Forces 24/192) similarly had much clearer transients and decays and oomph from the brass instrument notes and percussion strikes.

Charging took around 4 hours and I managed to get around 10 hours of use each time. If you buy one I would suggest getting the leather case for the SE180 (£96).

So, which DAC/amplifier did I like best? Well, that is a tough question. They both sound so different. I preferred the calmness from the SEM1 (ESS DAC) and found it sounded extremely musical and analogue at all times, but the amount of detail extruded by the SEM2 (Asahi Kasei AK4497EQ Dual DAC) made for a worthy update, should you so wish. Its specification is also better; 127dB SNR (balanced output), lower distortion and support for PCM 8 – 768kHz 8, - 32bit / 768kHz Bit-to-Bit playback/ DSD 512.

My only gripe is that I wished the modules had SEM1 or SEM2 written on the top so I knew which module I had inserted!

CONCLUSION

This basic (SEM1) player really was a smooth operator, with exceptional musical detail and engagement. I hadn't experienced a DAP quite



so relaxed yet could still be very precise and fast. I loved it. It really was in charge of all the music I fed it. It wasn't just the Sabre DAC, it was all the components working together to produce a succinct performer that produced wide smiles every minute during my review. Add on the SEM2 module and it multiplies detail and excitement that made listening that much more compelling and is a worthwhile upgrade if you so desire.

£1399 + £319 really isn't a lot of money if you have good headphones and value the quality of what you hear. The SE180 is well worth a listen.

AT A GLANCE

Build Quality:

Exceptionally well made and relatively heavy

Sound Quality:

A very musical and controlled performance whatever format, even MP3s

Value For Money:

Excellent even at its price.

We Loved:

Relaxed and musical performance from SEM1

Extra detail, transparency and sparkle from SEM2

Range of features, such as playing Qobus, MQA, etc



Beautiful design and great UI

Very good screen

We didn't Love so much:

They really need to make labelling easier to read

I found removing the module difficult

Price:

SE180 Player: £1399

SEM2 Module: £319

Elevator Pitch Review: Having wanted to get my hands on an Astell and Kern DAP for the last 9 years, my wait was to be rewarded with a

review that I really didn't want to stop. This was a really cool operator, playing all formats of music with equal care and excitement that made me forget I was listening to digital music.

Since writing this review Astell & Kern have introduced a new module, the SEM3, offering support for 32bit/768kHz and Native DSD 512.





TIVOLI AUDIO MUSIC SYSTEM HOME GEN' 2

The Tivoli Audio Music System Home Generation 2 is the updated version of Tivoli's flagship wireless smart music system. The Gen 2 models now have added Google Chromecast and Apple AirPlay 2 for wireless convenience.



Linette Smith

Tivoli Audio are based in Boston, USA and have been making radios since 2000. The Music System Home Gen 2 is made in China.

The system has the air of a mid-century 'wireless' and is both retro and futuristic at the same time, meaning it will fit comfortably into the décor of most homes. The furniture-grade wooden cabinet and eco-friendly fabric give a distinctly 50s furniture feel with the sleek brushed metal and large central dial/display giving the modern twist.

The ecological credentials don't stop there as the Tivoli arrives cocooned in eco-friendly packaging, right down to the 'plastic' being made from cellulose rather than traditional plastic, and compressed recycled cardboard rather than any polystyrene being used.

The Tivoli Music System Home Generation 2 portable all-in-one stereo music system promises an easy way to stream favourite music and podcasts, play media from Bluetooth enabled devices, or browse DAB/FM radio.

DESIGN AND CONSTRUCTION

The new Tivoli Music System Home Generation 2 is equipped with a four-driver configuration of two 3.5-inch woofers and two 0.75-inch tweeters driven by four dedicated amplifiers (two 8W and two 20W).

The central circular dial/display twists to tune in the radio and it has a satisfying feel to it. The two other knobs for volume and source selection and play/pausing/skipping tracks also have that quality feel to them.

It comes with a nice little remote, that actually has a decent weight to it, along with FM and AM antennae. It also has a wired 3.5mm aux input, optical and an ethernet port for wired internet connection instead of WiFi. Firmware updates are automatic.

SET UP

Set up of the Tivoli is pretty simple. Clip in the little feet/legs underneath, plug in its power cable and away you go. The Music System Home doesn't come with its own app, Tivoli Audio suggest that you use Google Home or Apple AirPlay 2. I went with Google Home from my Google Pixel 3 XL phone and followed the set-up instructions. This hit a few problems as the Tivoli was wanting to do some updates that required downloads. However, we soon got past the issues, the Tivoli updated and installed the new software and was connected to the internet and online pretty painlessly. As the Google Home App means that you don't need to start adding passwords to connect the new unit to your network, everything is done for you.

Having Chromecast built-in allows you to cast easily from your phone or tablet to the Tivoli. This makes it obvious why Tivoli haven't produced their own companion app to go along with the Music System Home. You can cast from whatever you choose, so for me, I would like, for example, to listen to BBC Radio on this kind of device. Being in France this has to be via the internet so the easiest way to do it is to use the BBC Sounds app and go for live radio from there. Handily the BBC Sounds app also opens up a world of music and podcasts so there is a lot of content to keep you interested and to simply cast to the Music System Home Gen 2. One issue that I did have was a lot of dropouts when listening to radio via android and Chromecast casting to the Tivoli.

Although I'm not an Apple phone/laptop user we do have an iPad mini that is used mainly for use as a Roon controller for our Auralic in the main listening room system. So I went onto AirPlay and switched to radio through that which was very simple to do. I also found that I didn't get dropouts using AirPlay. During extended listening over the couple of weeks that I was testing the Tivoli for I consistently found that AirPlay 2

was the more reliable connection out of it and Chromecast.

In the interest of testing as much as possible on the Tivoli Music System Home, I also used my Amazon Fire HD8 and then connected via Bluetooth to the Tivoli. This was OK but I find Bluetooth can be a bit 'droppy' - I should stress that Bluetooth is often an issue in our home for some reason.

By far the best connection wirelessly to the unit was via Apple AirPlay 2, it gave a reliable connection whether using it for internet radio from the iPad Mini or streaming using Roon and Qobuz.

FM and AM radio are fairly self-explanatory, though I far prefer using internet radio, it is good to have this option if the internet connection goes down.

I was really hoping to test out the DAB radio option, but being in France, DAB has not fully rolled out here as yet. There is some very localised coverage, but we fall just out of the area for either Nantes or Brest. National radio channels and coverage were promised for this summer (July 2021) though this has now been pushed back to the Autumn, with full French DAB coverage hopefully arriving in 2022/23. Like many things the last 18 months has caused delays and deadlines just have not been achievable.

THE ELEPHANT IN THE ROON

So here lies a bit of a sticking point. The Tivoli Music System Home Gen 2 is not Roon Ready. Going by the avalanche of news stories that we get announcing many streaming products from numerous brands being Roon Ready, I was really quite surprised that this is omitted from the Tivoli. A quick count of brands on the Roon website gives currently ninety-five brands that have this status, covering a wide variety of different gear and price points.

Audiophiles are increasingly using Roon to optimise their music streaming experience and the ease of connection to a Roon Ready piece of equipment makes a unit not having those credentials a bit of a dealbreaker for me person-

REVIEW



REVIEW

ally. But I suppose we really need to think about who is the intended user of this Tivoli music system, to be fair what percentage of people buying it will be committed Roon users? My guess is that the target market for this beautifully designed piece of equipment is much more likely to be a style-conscious home listener than a hard-core audiophile...so the available connection options should be ample. If you are a committed Roon user though it is worth checking whether a new piece of equipment is Roon Ready or not, sometimes the fact that it is a premium price does not guarantee it.

The workaround to use Roon that I found was to use the iPad mini and AirPlay 2, rather than the instant connection that I would have had to a Roon Ready unit.

SOUND QUALITY

I listened to a lot of Radio whilst testing out the Tivoli Music System Home Gen 2 and found that it had a very pleasing and 'listenable' sound to it. Speaking voices come over as very natural making listening for a long time very non-fatiguing.

Switching to Qobuz via Roon and sending it to the Tivoli via Apple AirPlay 2 (this being the Roon workaround) and feeling in a nostalgic mood I went for a 'Manchestaaaaar' involving classics like Oasis 'Some Might Say', Verve 'Bittersweet Symphony' and the student/indie night classic James 'Sit Down'.

Overall the Tivoli is an enjoyable listen for music with a good, full sound and no distortion, even when you turn it up loud. Being picky I would say that it could do with a bit more bass, but the bass that is there is nicely controlled and dry. This was evident when playing more electronic and dance-orientated tracks such as tunes from Daft Punk's RAM.

Mids and tops were really nice, strings, lead and acoustic guitar, and vocals sound particularly good...anything a bit 'jangly guitar' and indie sounding was notably enjoyable like Stone Roses 'Waterfall' and The Charlatans 'The Only One I Know'. Joy Division 'Love Will Tear Us Apart' sounded rather excellent with the sharp guitar and deadpan vocal though 'Blue Monday'

would have been better with more oomph in the bass department.

The Tivoli is not as room-filling as some all-in-one systems I've heard but would be great in a small room, even so, it didn't get lost in the position I had it between our main listening room and lounge area.

It is worth mentioning here that the Music System Home generation 2 can be paired with Tivoli's Model Sub subwoofer to gain more bass, though obviously, this would depend on whether you want to spend the extra 379€ and if you want to have the extra unit.

CONCLUSION

The Tivoli Audio Music System Home Generation 2 is essentially a premium quality and premium styled radio. If you listen to a lot of radio and you want a nice stylish unit that is very easy to use and has a lot of connection options, then this would be a great choice. If you also like to stream music, then it has that covered too, but you would want to consider the subwoofer option if you are a lover of music that is bass-driven. Would be a good option to put in your bedroom or kitchen to use when not running your main system, though if you are a hardcore Roon user you need to note that it is not Roon Ready, though you can use Roon through Airplay or Chromecast.

AT A GLANCE

Build Quality:

Lovely build quality, looks and feels expensive.

Sound Quality:

Great mids and tops, good bass quality but this is not a bass-forward product. Very natural spoken voice quality.

Value For Money:

It's essentially an expensive radio, Roon Readiness would increase its VFM. If looks are important to you then it is good VFM.

We Loved:



Lovely styling would look great in any room.

Chromecast and Apple AirPlay 2 being built in, easy to cast app content from phone or tablet.

Eco-friendly packaging

We Didn't Love So Much:

Not Roon Ready

Dropouts with Chromecast

Price: £799/899€

Elevator Pitch Review: A stylish but pricey Ra-

dio with easy internet connection and streaming options. Good, natural sound. Would suit Radio 4 listeners rather than Dubstep fans.





DAN CLARK AUDIO STEALTH HEADPHONES

Dan Clark Audio Stealth headphones are built in California, distributed in the UK by Electromod and cost £4100. Janine Elliot takes a listen to this high-end headphone and seems to be rather enamoured by it.



Janine Elliot

Having recently reviewed and been amazed by the Aeon 2 Noire from Dan Clark Audio, previously known as Mr Speakers, I was tempted to listen again with what is their best and newest headphone, the £4100 "Stealth". Retaining the tear-drop shape of the Aeon this planar magnetic headphone is hand-built by Dan and his team in sunny San Diego, California, and the culmination of four years of hard thinking and technical exploration.

CONSTRUCTION

A lot of thought has gone into the design of the Stealth, both inside and out - even the box that it all arrives in shows Dan is so very proud of his new cans. This is beautifully presented.

Just like the Aeon, this headphone can be folded into half

its size (for carrying about in the supplied box) meaning the full-size headphone can be stored in a larger handbag or rucksack. The Stealth is heavier than the Aeon, largely due to the fact that Dan has nearly doubled the number of magnets to 15 on each ear speaker, but the overall mass is still lighter than many, weighing in at 415g. Helping to keep that weight down is the carbon-fibre ear-cups and the use of a thin Nitinol framework to hold the headphones comfortably on your head. Nitinol, by the way, is a mixture of nickel and titanium, a stretchy memory metal as used in teeth braces, spectacles and bras!

AMTS

Most people consider closed-back headphones the weaker link in terms of sound quality. For a start, you are getting blocked off from the outside



world which can cause pressure issues and then with the back “wall” you get reflections, standing waves and colourations. Dan rectifies this in two ways. Firstly the heavily damped ear-cup has small ports, and secondly, it uses AMTS, Acoustic Metamaterial Tuning System, a 3D printed block sitting between the planar diaphragm and your ears to tune the sound. This contains a series of holes like a beehive, that tailor the sound, changing its direction to your ear. KEF use a similar system in their LS50 speakers behind the tweeter to absorb the sound and prevent reflections. Dan’s system is a baffle diffuser acting as a quarter-wave and Helmholtz resonator, which ends up removing standing waves and resonances that are created between driver and ear. Such is the design that it even programs the final frequency response of the drivers, ending up with a smooth but detailed soundstage.

SIZE MATTERS

Where the Aeon has a large 62mm x 34mm diaphragm, the Stealth takes this even further with their new 4th generation driver measuring in at 72mm x 50mm, some 20% larger than the E2 driver, and it uses their patented v-Planar technology to reduce THD and improve low-frequency extension. The diaphragms are made on an all-new system which allows for better matching. Indeed, each planar diaphragm is matched as close as ¼dB, as opposed to ½dB in the Aeon, and matching is done without the earpads in situ, as they can vary considerably and therefore affect the overall result.

I felt the larger size of the diaphragms gave for a much more natural sound in my ears. With 15 magnets on each, that does add to the weight of the Stealth but I didn’t find at any time that 415g overly heavy - there are much heavier headphones out there. The Stealth was just so comfortable on my head that long listening sessions were easily accomplished and an absolute pleasure. Whereas the Aeon has an adjustable headband with ratchets, the new Stealth has an elasticated system which I found much more comfortable and easier to adjust. Visually the Stealth easily looks £4000, with its matt black and red design with beautiful patterned quilted leather headband inner and a “Stealth” labelled exterior. The large ear pads

are synthetic suede and leather and feel extremely comfortable.

SOUND QUALITY

To give the Stealth the best chance of showing itself off I listened using the enclosed balanced 4-pin cabling, connecting to the Schiit Ragnarok 2 integrated amp, also made in California and also distributed by Electromod. For headphone lovers, this £1799 amplifier has a massive headphone output of 24W into 32 ohms which is more than ample for the inefficient planar cans. Some of my listening also included the Astell and Kern SE180 DAP, though it really needed a step-up amplifier to work at its best.

This was to be the quickest ever review for me. Just playing a few bars of Bach’s Goldberg Variations BWV988 and I was hooked, being overcome by the top-end clarity and extension, and the general openness and neutrality. Strings and harpsichord were positioned perfectly between my ears, and the angled diaphragms helped produce a sound more akin to speakers and hence more realistic. This was a game-changer. All classical music played was realistic and addictive.

I decided to listen to a series of classics that were better known as TV adverts and films; things like Dvorak’s Symphony no. 9 second movement (Hovis advert), Di Capua’s “O Sole Mio” (Walls Cornetto), Tchaikovsky Swan Lake “Dance of the Swans” (Batchelors soup) – you get the idea. Whatever the mood or instrumentation, the performance was clear with precise positioning and was neutral and dynamic when it needed to be. Nothing daunted the Stealth. Everything was played with detail, though still maintaining that important musicality.

One of my favourite albums for assessing speakers and headphones is Naim’s ‘True Stereo’ that is recorded using just a pair of AKG 414EB condenser microphones into a Nagra IV-S reel-to-reel to record a varied selection of styles of music forms. Jim Gailloro’s “Jump St(u)art” has highly charged playing with the four musicians (drums, tenor sax, Rhodes keyboard and acoustic bass) producing different textures and dynamics that were beautifully presented on the Stealth. Not only was the



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soundstage in all the tracks of this album perfectly presented but the openness and neutrality pushed the boundaries of closed-back headphones. Not just this, the lower bass was extremely confident for a planar. Indeed, "Saudades on 8th Avenue" (Stew Cutler) had an excellent bass guitar holding the piece together with ample guts, with guitar and drums making up the trio. Cymbals were very clear, the top end never disappointing me. The speed of transients is exceptionally fast with planar/electrostatic designs as the elements are so light and close, and the performance has exceptionally low distortion, but the side effect can mean that imperfections in recordings will show up more readily, and this was the case with this album due to the occasionally over-modding of the magnetic tape on the Nagra. Headphones will show these more than loudspeakers, especially when you consider that loudspeakers can have 10% distortion!

Turning to Supertramp's 'Crisis What Crisis' the atmospheric start was equally addictive and the distinctive vocals and excellent guitar lines kept me hooked. "Safe from Harm" is punchy electronica with bass lines and vocal injections below the main vocal that was easy to pick out clearly in their own space and time. That bass line was also more extended than the planar magnetic diaphragm of the earlier DC models. Indeed, I was again very impressed at how improved the bass was. Listening to Barkley James Harvest "Lady Macbeth", not only was the bass extended and the top end tight, but all the vocal lines competing against each other could be individually picked out to a degree I hadn't heard before. Such was the detail that the digital errors in the 16/44.1 recording could be heard. Listening to the same music via analogue LP improved things profoundly, of course. Even with the pin-sharp clarity, the Stealth was still excellent in terms of musicality with a smoothness and richness to the music that was addictive.

Listening to the excellent STS's reel-to-reel '40 Years Anniversary' recordings took the listening to a whole new level. John Vice's "Moonlight over Georgia" had great depth and imaging, and most importantly great musicality; just because everything is so tight and neutral and extended doesn't mean it can't sound real.

Dan Clarke really has excelled himself with the new Stealth. I am sure he won't rest on his laurels but will somehow make an even better headphone in the future, but for the moment you should make a plan to listen to the Stealth if you are in the market for £4k cans to play all genres of music.

Don't be put off that they are closed-back; they are so open and neutral I never once felt "locked inside".

The word "Stealth" means a "cautious and surreptitious action or movement", and it really did everything with a great sensitivity and care that surpasses many other top-end cans, but this headphone also did everything with great confidence and speed, whether that be its neutrality, dynamics or imaging.

That £4100 sum really doesn't amount to that much when you consider the smiles you'll get from listening to music on them. These should be on your buying list if you want 8k resolution and musical sensitivity to make all your music sound great.

AT A GLANCE

Build Quality and Comfort:

Excellent build and novel design folding into the supplied case. Supremely comfortable even when listening for extended periods

Sound Quality:

Impressive neutrality, imaging and low distortion. Amazing openness for a closed-back design

Value For Money:

Excellent - even at its price!

We Loved:

A closed-back design that sounds open-backed

Neutrality



Extended frequency response

Low distortion

Encapsulating sound stage

Comfort over the head

We Didn't Love So Much:

Some might not like the tear-drop shape but that is about it.

Price: £4100

Elevator Pitch Review: The Stealth is quite an unassuming headphone and it being closed-back I thought I might find the £4100 price overinflated, but boy, was I wrong. This is quite

a surprisingly open and highly technically developed product that even left me wanting to listen again and again and again. Paying 4k for 8k resolution is a small price for your ears.





ERZETICH MANIA HEAD- PHONES

Stuart Smith tries on the new Erzetich Mania headphones costing €1199 for size.



Stuart Smith

Earlier this Summer, Slovenian headphone brand Erzetich launched updates to their Mania and Phobos headphones with claimed improvements with regards to a clearer and more controlled sound, a switch to a carbon fibre headband, cups made from Linden wood and CNC machined aluminium rather than wood and stainless steel. The cans are now lighter at 440g, though given their size and style they are clearly intended for home listening rather than being out and about. The headphones contain no animal products whatsoever with the earpads having a leatherette finish and the “tiara” belt (the bit that sits on your head) is made of a soft rubber-like material – this is a good thing!

Inside the headphones, you have a 50mm titanium coated driver.

They feature semi-open octagonal cups and have an impedance of 80 ohms and will be available in Autumn, though you can reserve a pair on the Erzetich website for €1199.

The package that arrives is around the size of a couple of shoeboxes side by side padded with foam and containing the headphones themselves, the cable, a certificate of authenticity, and the instruction booklet. There's also a black velvet bag for keeping them in when not in use.

The headphones are symmetrical and can be placed any way around on your head – left and right are determined by the way you attach the cable.

BUILD AND COMFORT

The octagonal design is certainly striking and the cups



themselves twist about freely when not attached to the cable or placed on your head. This is a bit disconcerting at first but no biggie. The cups fit over your ears and are easy to adjust to fit, though they feel a little loose, though stable enough – you don't want to get into any serious headbanging with them on, though normal head movement is fine. They are certainly very comfortable and that tiara headband is such that you don't really feel it – though you obviously feel the cups around your ears. After long periods I did find my pretty large lugs did feel the pressure of the inner parts of the pads.

The cable is a couple of metres in length, looks to be very well made and has a proper quarter-inch jack at one end and click-lock plugs on the other - aftermarket cables are available. The cable is a nice weight and gets out of the way when you are wearing the headphones. A bit of red heatshrink denotes the righthand channel.

Overall I'd say the build is very good and they are certainly a standout product aesthetically.

SOUND

The first track that catches my eye as I'm flicking through tunes after having donned the Mania headphones is the old club tune *Zombie Nation* by Kernkraft 400. It feels pretty murky (as it should) and the atmosphere the track creates (dark and a tad menacing) is portrayed really well with the slightly muddy and recessed bass kick being properly represented. The iconic synth line loses none of its clean bite and cuts through the rest of the mix properly.

DJ Duke's *Blow Your Whistle* is up next and continues the theme of a feeling of everything being nicely presented and "there" but without being overly polished or bright – in fact, I'd say these are a very balanced headphone that whilst being accurate don't overplay the brightness/detail thing like, perhaps, a set of Grados might. So far, despite the relatively hectic tunes being played, they remain composed and laid-back, though not unexciting. Basslines certainly stand out from mixes and are easy to follow, but, much in the same way that the top end isn't overblown, nor is the bass end over-exaggerated. Personally, I really like this presentation and find it revealing but not pushing one fre-

quency band over the other. If anything they may sound a little recessed and slightly distant sounding.

Turning to spoken word and BBC Radio 4 I found the detail in the mid-band to be very good and natural sounding with a good level of detail to the presenter's voice. There's no sibilance or plosive pops. The difference between those presenters in the studio and a woman speaking from a domestic room in the Netherlands was well apparent with the headphones echoing the sound of the well-damped studio and the brighter space the guest was speaking from. It's a natural-sounding presentation that draws you in with its genuine and authentic feel.

Back to the tunes and Daft Punk's *Alive 1997* record that to me sounds more like a DJ performance than a band playing a set. Like when I listened to *Zombie Nation* there is a feeling of being in a club with that ever so slightly recessed sound that draws you in with how comfortable it sounds and then a synth break will come along, cut through all that and grab your attention. Bass certainly feels to have depth and oomph to it but doesn't over-dominate what's happening in the mix. Turning the volume up a snip adds a little more life to the performance and I'd suggest that these headphones do have a bit of a sweetspot with regards to the volume you play them at – they prefer to be turned up a bit, though I do tend to listen to cans at relatively quiet volumes usually. The excitement of this record is all there and the way the French duo build a groove to draw the audience in, lock them there for a bit before introducing a whole new element really does come across very well. These headphones certainly have an ability to convey changes in dynamics very well. Switching to the band's *Discovery* album and the opening track *One More Time* there is a real feeling of the filters on the start of the track before the beat proper kicks in. Again there is a laidback and unforced feeling to the Mania headphones which I think some may think is a bit boring and unexciting. However, I'm going to suggest that this laidback feeling they have may well actually be a good thing in that you don't feel bombarded with over-emphasised elements within the mix that have been boosted to achieve an effect. In this way, I'd say the Mania are a pretty honest and down to earth sounding





headphone. Certainly, when you listen to them for extended periods you get zero fatigue and I got nothing but a sense of being drawn into the music I was listening to. Being critical I would suggest that the sound not being boosted at critical frequencies may leave some listeners feeling that the Mania are a bit dull and lack-lustre – if you are looking for a bells and whistles presentation then you may want to look elsewhere. I got really into the second of the Daft Punk records perhaps more than I have in a very long time, with the Mania drawing me into the record and me just being able to get into the whole vibe of it. Nothing is missing but, by the same token, nothing feels forced about their presentation. There's also a whole load of detail in the quieter passages of the record and good texture to the sounds. This ability to bring out the texture of the sound was shown well on Lee Perry's *Vibrate On* and the very dry sounding snare sound that's on there throughout. On the track *Too Much Money* from the same album, I found myself really listening to the vocal and hearing expletives I'd not really recognised as being there previously.

Nick Drake's *Northern Sky* is very much like these headphones – at first glance a petty laidback and simple tune that becomes more detailed and complex the more you listen. The

track itself sounds great on the Mania with instrument separation and panning being well evident and again there is an effortless silkiness to the presentation.

CONCLUSION

These are a very good headphone that are a very easy to get on with listen in that they require no effort from the wearer and don't present anything at all jarring in their presentation. Some may think this is a bit of a boring sound, and whilst I would understand this being levelled against the Mania I don't think it is either fair or even accurate. What they do is offer a pretty evenly balanced sound that is untaxing and easy to get on with. If you are looking for an overly boosted upper-mid or top to make a recording sound a bit more immediately exciting then you need to look elsewhere. Likewise, if you are looking for an overly boosted bass response then you are going to be disappointed with the Mania.

However, if you are looking for a relatively honest performance that is untaxing and easy to listen to for long periods then these headphones need to be on your list.

They do like to be pushed volume-wise to get

REVIEW

the best out of them and make them come alive, but at lower volumes I found them to be nice and easy to get on with.

What I didn't get was an overexaggerated out-of-the-head experience which is probably down to the upper frequencies not being exaggerated. In fact, I found them to sound a little bit recessed, particularly in the mid-band until the volume is pushed a bit. However, Find that sweet spot and you will love them, I reckon.

AT A GLANCE

Build Quality and Comfort:

Well presented

Good build

Very different looking

Great cable

No animal products

Comfortable over long periods with the caveat that bigger ears may feel a little pressure

Sound Quality:

Slightly recessed and not at all forward sounding

Balanced and unforced presentation

Good level of detail throughout the frequencies

Like to be pushed

Good on voices

Could be wrongly accused of being a bit boring

Value For Money:

Not cheap but well finished and good sounding. Headphones are not a cheap option these days and these are pitched about the right price

We Loved:

No Animal products used whatsoever

Easy to get on with and listen to for long periods

I felt the Mania were actually an accurate portrayal of what was going on with recordings

Detailed and even presentation

No horribly forced top or bottom frequencies

We Didn't Love So much:

Need to be pushed to get the best out of them

Could be construed as being a bit too laidback for some

Price: €1199

Elevator Pitch Review: The Erzetich Mania headphones are a well put together, comfortable, and luxurious package that feels to represent reasonable value for money. They are detailed throughout the frequencies but also a little recessed and backward sounding in the mids until pushed volume-wise. An easy to get on headphone that really does draw you into the music. You do need to hear these and make sure you get on with them. Personally, I'd be very happy to use them for the times I listen to headphones.





DAN CLARKE ÆON 2 NOIRE HEADPHONE

Dan Clarke Æon 2 Noire headphones are distributed in the UK by Electromod and cost £899, somewhat less than the brand's recently launched flagship Stealth headphones costing \$3999. Janine Elliot takes a listen to these relatively budget-conscious, yet high-end planar headphones



Janine Elliot

I have followed Mr Speaker's ear speakers with great interest over the years, especially the Ether series when it came out. He momentarily disappeared from radar and once he realised what his name was, came out as Dan Clarke Audio, I have to say a much better title since the old name could be a little confusing being a manufacturer of headphones. With great planar products appearing over the years and having previously heard the Æon 2 I wondered if its upgrade, the closed-back "Noire", could get any better. As in the previous models, it uses the distinctive teardrop shape and utilizes the same excellent 62mm x 34mm planar driver as seen in the elder models.

CONSTRUCTION

As with all products from DCA, the construction is impeccable

- this headphone was hand-built and tested in San Diego, California. The Æon 2 Noire is almost identical to the established Aeon 2 range, though this time is flanked unsurprisingly in a bright metallic black body, and coming in as a closed-back headphone. The headband is made of leather. The super-efficient textured transducer is also very lightweight, using the second generation Trueflow design, allowing more airflow through the motor, and hence more detailed sound. The V-Planar driver is designed to give superior bass end and improved diaphragm stability with its textured surface. The Noire can be bought in a selection of cable choices, from 4-pin XLR, regular 3.5mm and optional upgrade to VIVO silver-plated OFC leads.

COLLAPSIBLE



Unlike the earlier *Æon Flow*, what makes the *Æon 2* and *Æon 2 Noire* so distinctive, and very useful, is that the headphones can be folded into half their size (for carrying about in the supplied box) meaning the full-size headphone can be stored in a handbag or rucksack. They weigh in at under 330g, around half the weight of the Audeze LCD 2 (598g), and although it might not be the lightest of all full-size headphones they are still incredibly lightweight and made long listening sessions a doddle. Keeping that weight down was the carbon fibre and the use of a thin Nitonel framework to hold the headphones on your head. Nitonel, by the way, is a mixture of nickel and titanium, a stretchy memory metal as used in teeth braces. The leather strap slides up and down on it for you to get the perfect fit. These are such comfortable headphones!

THE HARMON CURVE

The main difference between the *Noire* and the *Æon 2* is evident on the front inside of the Japanese protein leather earpad. Here a fenestrated (perforated) finish is designed to create a “Harmon Curve” sound. This aims to create a frequency response matching the ideal headphone characteristics, led by Dr Sean Olive at Harman International in 2013. This curve gently accentuates the bass and treble. As the result will be a slightly recessed mid it brings forward and makes wider the soundstage, creating a very natural sound.

PADS

That treble boost was particularly noticed by Dan Clarke, so each *Noire* comes complete with a selection of material filters, which can be used singularly or in combination to get the ideal sound. Acting like a tone control, the purchaser is able to tune the headphones to match their headphone amp. Some DAPS won't be powerful enough to play these at ear-blastingly high listening levels, so for this review I used four different headphone amps.

SOUND

For my tests, I used the iFi xCan and Slee portable headphone amplifiers, and the Slee and Brocksieper units with audio supplied by

my Fiio DAP and Manley Steelhead phono-stage. Luckily my review sample was almost run in for proper use.

That Harmon curve was certainly noted in the playback of music. My initial findings on the *Noire* were of a bright top end. OK, I could filter it down using the “tuning materials” – which worked exceptionally well – but my argument is that just as we have moved away from tone controls on our HiFi, so we should be aiming for purity with the source, though on the other hand, this kind of tuning allows users to shape the sound to their particular preference or to compensate for poorer recordings (horses for courses). The *Noire* was anything but dark sounding no matter what combination of filter I used, so if you want a very detailed listening session the DCA offering is a must. What I found very surprising in all the tests was that despite being top-heavy, the sound was very gentle, and after hours of listening I never ever wanted to remove my head - these were astonishingly ear-friendly.

Listening to Shostakovich piano concertos 1 and 2 (Esa-Pekka Salonen, Los Angeles Philharmonic Orchestra) gave a very clear, detailed, and bright piano performance. Movement 2 of the second concerto is my favourite tune of all time, often used in films, and this came across a tiny bit wanting in the lower bass. Cellos and double bass were there, and very clear in terms of initial transients, but it just lacked in volume by a small degree. That theme continued when I played Brahms Symphony No1 (Belgian RTV Philharmonic Orchestra). The drumbeat at the start wasn't quite as forceful as I would like - the performance was fine, just that it lacked some intensity, though we are splitting hairs somewhat here. However, these headphones could play any type of music I wished and at no time did they sound stressed or stressful. Using the iFi XCan with 3D and XBass switches significantly improved the lower bass and made the soundstage of even greater excitement.

That top end was something that certainly kept my attention, aiming to get the correct combination of tuning material to get it just right. The Carpenters always recorded very trebly tracks; the vocals, piano, and drums always sounded too bright to me, no matter what I played them



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through. Even with the filters in place 'The Singles 1969-81' still came across too bright. For me, the white filters in situ gave me the best control and top-end reduction, but even so, I was still aware of a sibilant vocal. There was much detail extrapolated from the source, including wide soundstage and precise placement of each instrument but, if I'm being particularly picky, there was still a slight lack of bass depth. Indeed, taking this further, Ray LaMontagne's style of performance adds lots of 3D atmosphere and his album 'Till the Sun Turns Black' came across as the best I have yet heard on headphones - this is high praise indeed for a pair of headphones at this price. Again, only the very lowest frequencies needed more depth, though some will, of course, prefer this style of presentation.

Sting's opening track from 'Brand New Day' starts with a very, very low bass sustained note, which alas didn't give me the same enjoyment as my resident cans unless I added the XBass control on the iFi xCans. Turning to Dadawa 'Sister Drum' and the track "Home without Shadow" I so wanted to delve into that bass end. This album is well respected for its distinctive and proud bass drums, hence the title. The bass was certainly there, but just very well behaved, perhaps a little too well behaved for my liking. With this said, the fidelity of the bass cannot be questioned. Indeed, if I had to find an issue with the Noire, it was that the sound could just be a little too placid - certainly none of the bloated and over-compensated bass that some headphones use to "improve" their appeal. There was, however, plenty of detail and imaging going on making them highly desirable, and for £899 are well worth a serious listen.

Turning to David Rees-Williams Trio 'Classically Minded', which has an excellent top end and great soundstage, the Noire gave an excellent sense of space and positioning of instruments, particularly percussion. I felt with this and other tracks I listened to, that I was actually there with the musicians which is something you certainly do not get with most headphones. I never felt trapped between two drivers, like many headphones I could name. Planar drivers are very fast, and this was very noticeable with this great album of jazzed-up classics.

With Genesis' founder and guitarist Mike Ru-

therford 'Small Creeps Day', guitars were both clear and detailed. Track two again had a slight reduction in the extreme bass compared to what I am used to, though the enjoyment of the music was not lost at all by these excellent cans. Most important was that I could listen for long periods of time as the ear cups were so comfortable and the Nitinol frame gave just the right amount of tension.

CONCLUSION

I'm always excited to try new headphones and IEMs. This was no different. With an exceptional soundstage for something glued on your head, the performance was very well behaved, if perhaps just a little too well for me. If you like detail and lightning-fast transients then these headphones are certainly worth seeking out.

AT A GLANCE

Build Quality:

Cannot be questioned

These are impeccably crafted

Sound Quality:

Exceptional top-end detail and soundstage

The extreme bass could be stronger, though many will prefer this more balanced presentation

Value for Money:

For under a grand these should certainly be added to your wish list

We Loved:

Open sound with very clear top end

Excellent construction

Very comfortable

We didn't love so much:

That the very well-behaved lower bass might not be full enough for headbangers



Price: £899

Elevator Pitch Review: As soon as I started to listen I could sense that these were going to be good, with no fatigue, even listening to the loudest heavy rock. These planars have an astounding top end and stereo soundstage that I almost forgot I was wearing cans. Just a rather too well-behaved bass-end stopped it becoming the very best at this price.





KINERA FREYA IEM

Janine Elliot takes a listen to Chinese brand Kinera's Freya IEMS costing £219.



Janine Elliot

I was sent a hexagonal package that looked very much like an expensive box of chocolates. I was rather excited, thinking it must be my birthday, and when I opened it up I was additionally impressed with the contents; two beautifully hand-designed IEMs and a patterned leatherette box (that could have equally worked as a box of truffles) full of cabling and accessories to assemble the monitors and begin my listening. I must reiterate the build quality was quite amazing for an IEM that looked £1000+ but actually came in at £219. Like all the in-ear monitors coming from the Chinese company Kinera, these are individually hand-assembled and painted, with each one initially hand-sketched and then hand-painted by the Kinera skilled designer, designed to match the personality of the Goddess Freya.

HISTORY

Kinera's history goes back to 2011 when YuTai Electronic Acoustics was established. Work included a 5mm micro armature speaker for hearing aids and then mass producing armature drivers and developing bone conduction driver technology. The Kinera brand name was established in 2016, starting a series of hybrid driver IEMs. Today the website shows off the three multi-driver IEMs including entry-point Freya. With a motto "Live only for honour" these IEMs should warrant a promising listening voyage.

CONSTRUCTION

Freya utilizes a multi-unit hybrid design with a single dynamic driver combined with three balanced armatures. It employs an internal crossover to send low, mid, and high

frequencies to each dedicated driver - meaning the sound should be well balanced. Kinera supply a 7mm micro-dynamic driver to offer a deep bass extending to 20Hz. Knowles Balanced Armature drivers deploy sound to the mids and highs; two Knowles balanced armature drivers RAF-32873 deliver midrange and Kinera's customized BA 30095 driver produces the well extended and balanced treble all the way up to 20kHz. This is a well-proven combination set-up on multi-driver IEMs. With a sensitivity of 110dB I found these very efficient earphones, having to keep the volume quite low on my headphone amplifier. The overall build quality is exemplary, only the cabling being more rigid than I would have liked, but it is the same cabling as seen in their expensive Nanna IEM. The high OFC cable has 0.78mm 2-pin connectors to the IEMs and 3.5mm at the other end. The bountiful accessories include ¼" adaptor, type C to 3.5mm and Lightning to 3.5mm adaptors, a set of eight S, M or L silicone ear-tips in black and white (the white ones look so much better!), and the waterproof circular storage box to put the IEMs in when on the move. The gloss finish on the earpieces is some of the best I have ever seen. Indeed, three months of intensive research went into experimenting with different materials and hand painting techniques to arrive at the optimum painting materials and combination of colours. All it needed now was a sound quality to match.

THE SOUND

I have very small ears, but I managed to fit these fairly large earpieces in my ears, using the cabling to go over the ear to help keep it all secure. My source was the Fiio X5 using the line-out connected to a Graham Slee Voyager headphone amplifier. I spent time listening to all types of music but quickly came to a conclusion as to sound quality. For £219 these not only look amazing but sound excellent as well.

I firstly tried "Go Now" (Moody Blues Collection) because it is very tizzy in the top ends and is a good test to hear an earphone's account of top frequencies. I felt performance from the Freya added to this somewhat, making listening rather worse. These IEMs don't hide anything. Rather they show off all the detail in a recording. OK, this is a very old recording and I was being

very mean, but luckily "Tuesday Afternoon" was much more enduring. This is a very clinical performance, and the IEMs didn't tone this down in any way. The performance is very honest; don't expect a valve-like warmth from the Freya. She may well be the goddess of love and beauty, but she should perhaps be the goddess of honesty and realism.

Whilst the top end is firm, it is the mid bands that got my attention, especially for vocals and violins. Classical music was highly addictive, particularly Beethoven's Ninth Symphony (Sir Simon Rattle). This is a long work, but I really wanted to listen to the whole of it. All was there, and whilst the bass is good it was not extended.

Pink Floyd's 'Delicate Sound of Thunder' has plenty of loud bass from drums and guitar and synthesizer, and I felt the Freya was very honest making for a very real performance. The bass was quick and clear and I never felt I was missing anything.

The Queen Symphony (Royal Philharmonic Orchestra) has lots of cello and double bass at the start, and the performance was good, though I missed having it more secure. The deepest bass from the organ on Nicholas de Grigny's organ "Recit de Tierce en Taille" (Dorian) was full but not as exciting as some IEMs I have reviewed. That said, it was very authentic and revealing. I was there in the church where it was recorded. I generally found the overall performance of the IEMs very enjoyable and accurate with detail sky high. But, if you want bass boom blasters look elsewhere. The sound was plain honest, and only with a very slight mid lift; listening to the Queen Symphony and other classical music mid-frequency strings were particularly good. Vocals on tracks I played were also noticeably accurate and slightly lifted, making them easier to hear.

The remastered Beatles 'Love' album had excellent detail and authority, not just in the vocals but also in the musique concrete. I forgot I was listening on earphones. Listening to Ed Jones (BBC recording) the performance was full with ample guts to match the close-mic'd saxophone melody. The detail was all there. Similarly, Flim and the BB's "Sideman" was also full of detail showing just how excellent these IEMs were.



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OK, the bass is a little recessed compared with some IEMs, but that meant the sound was not muddy or boomy. The mids were well defined and the top frequencies were all there, though not quite as bright as my resident IEMs. That didn't mean the sound was any less enjoyable. These were excellent monitors, at all frequencies, and exceptionally good for the price. I felt they worked best on classical and prog rock, but they never faltered on any genre of music I played.

CONCLUSION

I was greatly impressed by these in-ear monitors, not just in their great looks. Their performance was very honest, if perhaps a little "cold". If you want lots of warmth and easy listening or bass-boost and painfully bright top end, then don't look here. These IEMs gave me a degree of honesty and detail I haven't heard in a while, and if these are just the entry-point monitors I just wonder just how good the top model must be.

For £219 you really can't go wrong, particularly if you want to dress your eardrums with such visual beauty.

AT A GLANCE

Build Quality:

Excellent construction and beautiful build quality, with equal attention to the presentation boxes

Sound Quality:

Very neutral sound. Bass is not quite as extended as I would like

Value for Money:

For a work of visual art as well as detailed and enjoyable listening this is truly good value. It looks like £1000

We Loved:

The honesty in the performance

Mid-frequency clarity

These IEMs really show off the detail in the musical performance

We didn't love so much:

I felt at times the sound could come across as a little "cold"

Didn't like the cabling

Price: £219

Elevator Pitch Review: Kinera are an inner-ear monitor company you are going to hear a lot about in the future, with beautifully designed IEMs, and at a price that will surprise. With looks that could easily place them at £1000+ they come in at a mere £219 and have a sound quality that is as honest as the price.





SENDY AUDIO AIVA HEADPHONES

Sendy Audio AIVA headphones are made in China but using traditional, labour-intensive construction methods. They cost £545/€639/\$599 and promise a luxurious experience. Stuart Smith takes a listen.



Stuart Smith

Sendy Audio are a Chinese company, but, rather than the mass-produced, production-line kind of manufacture, it seems, if the company's website is anything to go by, that they are a little different and a little more artisan in their methods, with the opening gambit of the site claiming "Each unique Sendy Audio headphone is made by hand with traditional crafts, using high-quality solid wood materials...". Sendy is, however, a part of Sivga Electronic Technology Co and my immediate thought was "Ah, I get this – big, faceless Chinese electronics manufacturer creates a sub-brand to look more artisanal and in turn gain more audiophile credibility points." Actually, it doesn't seem like that's the case, and Sivga makes just a relatively small range of what look like nicely put together headphones and in-ears. All in all the backsto-

ry looks a credible one and the theme is very much along the lines of pushing a product that is carefully crafted and thoughtfully put together. As I'm trying to picture the Sendy factory in my mind's-eye, I see a small group of craftspeople in a quiet and bijou workplace where each worker is head-down over their bench putting together jewel-like products for a discerning clientele. There is a lot on the website to back this up and to push the idea that this is a small team of dedicated people, where tradition and technology merge to create a brand with traditional values. I can see this appealing to many consumers.

BUILD QUALITY AND COMFORT

The packaging the AIVA headphones arrive in certainly seems to echo a feeling of understated quality. A plain brown

box with just a black image of the headphones and their name on the front opens to reveal a large, hard, zippered carrying case. This is of good quality and certainly feels substantial enough to offer protection to the headphones should you want to carry them about. However, it's also pretty big and so I'm not sure you would really call the AIVA a portable model, though the case will fit inside a decent sized backpack.

As well as the case you get a small cotton drawstring bag in which a set of cables resides. It's 6N single crystal copper in a clear jacket with wooden accoutrements. Two solid minijack plugs go into the headphones left and right cups and the termination end is a 4.4mm plug, though an adapter is included to make this a more common 3.5mm plug. The cable is a useful, but not too long, 1.6m and feels of good quality, though you will need an adapter if your headphone amp uses a quarter-inch jack – one of these should have been included in the package in my opinion.

The most obvious thing about the headphones themselves is their wooden casings which we are told takes a lot of time and effort to put together with the process being "butting, CNC carving, polishing, repeat painting and air drying. The actual housing for the drivers is made up of zebra wood along with CNC'd metal parts.

The drivers themselves are planar-magnetic in an open back design and they are 32Ohm impedance.

There is a fair bit of weight to the headphones but it's not stupid heavy at 420g. The headband is easy to adjust and they are pretty comfortable over long periods of time, though you certainly know you are wearing them and I'd not really want to do anything but sit at home with them on.

All in all the build feels solid, they look good and they are reasonably comfortable, but how do they sound?

SOUND QUALITY

For the duration of this review, I used an Audio Research DAC/Headphone amp connected to a Windows-based laptop running Media Monkey.

First up was Neil Young's *Comes A Time* and the first thing that grabbed me was the very clear separation of the instruments in the mix and the amount of detail afforded by the headphones. This detail is evident particularly on tracks where you can hear movement on the fretboard or body of Young's guitar. The character of Young's laidback vocal and the backing harmonies of Nicolette Larson are very easy to pick out from one another. There is also a good feeling of the recording space, particularly on the track *Look Out For My Love* where you can clearly hear Young move towards and away from the microphone. The tone on the electric guitar on *Motorcycle Mama* is also very simple to pick out. Overall here the sound is what I would describe as being lush – easygoing and full-bodied. I actually quite like this presentation as it's untaxing, unfatiguing, and just easy to listen to. Others may feel that the presentation is a bit uninvolved and maybe a bit boring – horses for courses.

Switching the tempo a little to the late Avicci's *True* album bass proves to be deep and controlled with vocals on *Hope There's Someone* (for example) being clean and uncoloured. However, I can't help but feel there is something a little too polite for my tastes. *Hardfloor's* *Acperience* just feels like it's lacking a bit of excitement and feels a little pedestrian when compared to our Oppo PM1s or Audeze LCDs. Now don't get me wrong, the tone of the 303 is all there and it sounds like a 303 but I can't help thinking that there is something a little too rounded on this kind of material. There is a feeling that these headphones are aiming to be a little bit polite and inoffensive in their presentation with 4 Hero and Jill Scott's *Gotta Get Up* sounding "nice" but a bit lacking in excitement – a sort of laidback Sunday morning feeling to the sound.

With Bush's *Everything Zen* everything is there, but again I feel that I'm not getting the dynamic excitement that I'm really craving from this record. Even turning up the volume to high levels (don't do this at home, kids) leaves me feeling I want something a little more exhilarating.

CONCLUSION

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These are good headphones, but they do have their limitations and will appeal to some and less to others, sonically speaking. Sadly, and for my tastes, I fall into the latter category. For me, they are a little too polite and laid back, though I am well aware that some will thrill to this presentation. On more simple music this presentation is a bit of a bonus and the AIVAs are lovely when listening to less complex tunes, especially late at night. I think they are just not dynamic enough for my own tastes.

They are nice headphones to listen to at the end of the day as they are a pleasant sound to wind down to – I hope that makes sense. They are a chilled out, non-taxing listen – sort of the antithesis of a pair of Grado cans.

Comfort is good, though you do know you are wearing them after long listening sessions.

The overall package and finish are very good.

If I was judging these purely from a personal perspective and taking into account my own tastes with regards to presentation the I'd give these a Three Hearts award, however, I am aware that they will appeal to some listeners and their preferred presentation and so overall they will get a Four Hearts award.

AT A GLANCE

Sound Quality:

Detailed throughout the frequency range

Good bass

Warm and a little lacking in dynamics

Build and Comfort:

Good package

Interesting backstory

Good accessories

Reasonably easy to drive

Comfortable

Value For Money:

If you like their laidback presentation (I sort of did and didn't) then these are a good value package

We Loved:

The feeling that you are getting a luxury product at a reasonable price, allied to a sound that is easy going and non-taxing.

We Didn't Love So Much:

A bit uninvolved and lacking in excitement.

Price: £545/€639/\$599

Elevator Pitch Review: If you are looking for a luxe-feeling headphone for home at just over five hundred quid and prefer a more laidback, warm presentation then these could be just the ticket. They do a lot right and on more simple music they are lovely. However, on rock and techno they are a little lacking in lustre and excitement. Definitely a "Listen before you buy product".





SENDY AUDIO PEACOCK HEADPHONES

Stuart Smith takes a listen to the £1300 Sendy Peacock headphones.



Stuart Smith

We reviewed some Sendy headphones some time ago in the shape of their AIVA headphones which you can read here. Those cans were a little over €650 but the PEACOCK headphones by Sendy are nearer the €1500 in Europe or around the £1300 mark in the UK. That's quite a big step up in performance and puts these headphones amongst some serious competition.

As I said, I've reviewed the Sendy AIVAs before and I don't intend to write all about the Chinese company over and so here is a direct lift from that review outlining a little about the company.

Sendy Audio are a Chinese company, but, rather than the mass-produced, production-line kind of manufacture, it seems, if the company's website is anything to go by, that

they are a little different and a little more artisan in their methods, with the opening gambit of the site claiming "Each unique Sendy Audio headphone is made by hand with traditional crafts, using high-quality solid wood materials...". Sendy is, however, a part of Sivga Electronic Technology Co and my immediate thought was "Ah, I get this – big, faceless Chinese electronics manufacturer creates a sub-brand to look more artisanal and in turn gain more audiophile credibility points." Actually, it doesn't seem like that's the case, and Sivga makes just a relatively small range of what look like nicely put together headphones and in-ears. All in all the backstory looks a credible one and the theme is very much along the lines of pushing a product that is carefully crafted and thoughtfully put together. As I'm trying to picture the Sendy



factory in my mind's-eye, I see a small group of craftspeople in a quiet and bijou workplace where each worker is head-down over their bench putting together jewel-like products for a discerning clientele. There is a lot on the website to back this up and to push the idea that this is a small team of dedicated people, where tradition and technology merge to create a brand with traditional values. I can see this appealing to many consumers.

So there you go.

SENDY PEACOCK HEADPHONES BUILD QUALITY AND COMFORT

The Peacock headphones come in a nice box that contains a hard shell carry case and which is very nicely finished, a couple of plug adapters, the cable for the headphones, and, of course, the headphones themselves.

The Peacocks use planar-magnetic drivers and Sendy are calling their specific implementation in these headphones "Quad-Former Technology" whereby the driver is made from double magnets, double sides of coils on the diaphragm and then double coils on each side of the diaphragm. So there's actually a coil on each side of the diaphragm and two coils on each side of the diaphragm making four coils in total per driver. These four coils are said to double the magnetic power which in turn Sendy claim leads to lower distortion, excellent energy conversion, and "high music reproduction ability." Sendy reckon that the diaphragm design is down to two years of experimentation where they chose the best thickness and hardness of materials that make up the diaphragm to make it ultra-thin and ultra-rigid.

The diaphragms are housed in "aviation" aluminium with all holes having been designed for uniform sound distribution and consistency of sound. The design on the outer of the headphones is black and gold with Sendy claiming it is not only for decoration (it's supposed to look like a peacock's fanned tail) but also to tune the headphones appropriately.

The aforementioned cables are 8-core OCC and are all braided. The connection to the actual headphones is by mini XLR and they are

obviously detachable. The 2m standard cable termination is a balanced 4.4mm but then you get adaptors for 6.35 mm and a standard-sized four pin XLR. Pretty much all connection bases are covered there then.

Build quality is very good and the headphones are very comfortable on the head. The actual over-ear pods are also well-padded and comfortable for extended listening. They are also pretty reasonable weight-wise at 578g.

Impedance is 50 Ohm nominal and frequency response is 20Hz to 40KHz.

SOUND QUALITY

I've been using the M2Tech Marley II and the associated dedicated PSU now for a few months and it's what I've used for the duration of this review. This allowed me to switch quickly between the headphones we have here.

Kicking off with Nirvana's Smells Like Teen Spirit it is clear that these are a cut above the previous headphones I had a listen to from Sendy. There's clarity and punch, and a deeper feeling of the band playing in and around your head than the cheaper model. In comparison to the Audeze LCD cans we have here the Sendy is actually a slightly more open sounding headphone - it is an open design, after all, whereas the Audeze are closed back. They are also more sensitive and go louder more easily. Our PMC 1 headphones also seem a smidge closed in in comparison. This is a good start as these are very accomplished headphones. The space created by the Peacocks is pretty impressive, as is the level of detail they manage to convey. The out of the head experience is excellent, as is the blocking out of external noise. The detail on these cans isn't really confined to one part of the spectrum either and there can be no doubting that they are fast in the bass department. The bass guitar on Breed is properly raucous (in a good way), though it manages not to completely over dominate the tune. This is a busy tune, but these headphones seem to make very good sense of it. I also note that the inner parts of the headphones don't rub against my lugs, which isn't always the case, and make for a comfortable listen. The bassline on Lithium is very easy to follow and hear into the tone of

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the instrument – the same is apparent with the guitar at the beginning of Polly. This is a good start, for sure.

Switching to the well (virtually) thumbled Random Access Memories, there is that detail that allows you to hear sounds that are coming into the mix almost before they start to be faded in – I can almost see the slider being moved on the desk. However, where Smells Like Teen Spirit felt thrilling and fresh, this record seems to be a little less exhilarating than I'm used to – a little too audiophile sounding perhaps for my own personal taste. That said, the drum track on The Game Of Love is a treat, as is the bassline. There's no denying that overall these are a very balanced headphone. Again there's a good degree of space around the instruments playing in and around your head with effects on, particularly, drums being easy to hear and pull apart. On Giorgio Moroder's little talk at the start allows you to hear his voice and inflection perfectly – it's a bit uncanny, actually.

Keeping the electronic theme going I pop on Dusty Kid III which is without doubt one of my favourite records of all time. It's dirty, deep, and full of texture and hidden details. It's also a pig for speakers and headphones to deal with properly and get right. Again, there is no doubting that the Peacocks allow for bags of detail and insight into the recording – there's a bit on the track Crepuscularis about three minutes in where the main theme sort of dissolves into the background gradually but never actually fully disappears and these headphones capture that wonderfully, as they do when the filtered sound begins to be pushed higher in the mix. In comparison, the Oppos certainly feel as if they aren't offering up as much of the track and it's finer detail – I don't know if that's because there is a bigger cup around and enclosing my ear with the Senny cans, whereas the OPPOs sit on the ears. I end up listening to the rest of this album and get drawn into the little bits that make it so special – the spatial cues and the trippy effects right at the very back of the mix. Take for example the track Far (around two minutes in) where there is a tiny and almost inaudible noise in the mix and to the left that just draws you in further to the tune. It's a clever psychoacoustic trick but on the Senny I found it more pronounced, and in turn more enjoyable,

than on either the Oppos or the Audezes.

Carnegie Hall 1970 by Neil Young streaming via Qobuz is up next and, again, it's a bit of an aural treat. On Down By The River there's a feeling in parts that Mr Young is going to break the strings on his guitar and that comes across very well, adding to the feeling of being there. Obviously this is off the desk but there is a good aural description of him being sat centre stage and me being sat about two thirds back in the stalls, despite listening to headphones that I often find don't convey this kind of information very well.

CONCLUSION

There is no doubt that these headphones are very accomplished and represent a very good insight in to the recording. Only on the Daft Punk record did I find them to be not wholly enthralling.

The highlights are the detail and depth of information these headphones bring to the party. This detail is apparent whether listening to the filthy grunge bass of Nirvana or to Neil Young thrashing the hell out of his steel string guitar on Cinnamon Girl.

Comfort is very good and given that they go fully over my fairly large lugs further enhances their comfort. They are very big and there is no way I'd feel comfortable wearing these whilst out and about, though they aren't overly heavy.

AT A GLANCE

Build and Comfort:

A good package with everything you need for any set up

Very comfortable

Sound Quality:

Detailed and with a good sense of space around the head

Bass is excellent as is the very top end, but without being harsh or overbearing



Value For Money:

Not cheap but performed well when compared to the headphones we have to hand

We Loved:

Great sound

Communicative

Good ancillaries

We Didn't Love So much:

Can sound a little less than exciting on some material but by no means all

Quite expensive, but then so is the competition

Too big to be really portable

No need to use animal leather, but again, that goes for many brands

Price: £1300, €1500

Elevator Pitch Review: A premium product that has a premium price. These headphones offer the listener a great deal of insight into a recording and a feeling of being there. Rarely were they anything but very good indeed. Detail and bass articulation is exceptionally good. Vocals are wonderfully portrayed with real depth and insight into the tone and character of the singer.

