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JANUARY 2020

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welcome

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David Tull



It's time to look once again at the best products we've encountered over the last year. Our bumper Awards issue highlights the products we loved listening to during 2019 and also loved using, sometimes for almost-peculiar reasons.

These days there are lots of good products around, as there should be since at heart hi-fi equipment falls into electrical and acoustical engineering – subjects fairly well worked out nowadays. But of course hi-fi

involves other less deterministic issues, like what does a piece of wire sound like? Yes, there are dark arts locked up in the subject. Icon Audio's Stereo 40 MkIV has so much going on, with switchable feedback and ultralinear/triode mode, it borders on mysterious, but underneath lies some quite serious high voltage engineering – and the sound was superb. A lot of art here.

Quadral's Orkan 9 gave us the purity of thoroughly good German engineering, directed toward achieving absolute accuracy. Quadral keep away from the obsession with raised treble that is a current fashion with rivals, bringing a lovely smooth sound with pure ribbon tweeter treble to the Orkan 9.

At the other end of the scale comes Devialet's amazing Phantom Reactor 900 that contains a complete hi-fi system, all within a small elegant cabinet. This has to be heard to be believed.

But there's much to be said for Quad's determinedly British approach in their Vena II amplifier where traditional engineering is pursued with belief and dedication, without ignoring digital in the form of a great ESS DAC and Bluetooth connectivity. What a lovely sound it had and what a great price. I've owned 22/II, 33/303, ESL-57 and ESL-63 – and Vena II is right up there.

But I've never owned a million tap digital filter – and this was an experience. It is called M Scaler, comes from Chord Electronics and is a filter dedicated to CD replay. It is a reflection of its designer's belief system – Rob Watts – that Chord Electronics decided to build and market. Almost frightening. I don't think there's much like it anywhere else in the world. And other wordily it was in transforming CD sound. It's a radical product and an honorary award winner this year.

I hope you enjoy our 2019 Awards Issue, as much as we enjoyed listening to the awarded products. Have a great Christmas!

Noel Keywood
Editor



hi-fi world

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verdicts

●●●●●	OUTSTANDING	amongst the best
●●●●	EXCELLENT	extremely capable
●●●	GOOD	worth auditioning
●●	MEDIOCRE	unremarkable
●	POOR	flawed
£	VALUE	keenly priced

testing (see www.hi-fiworld.co.uk for full explanations of all our tests)

To ensure the upmost accuracy in our product reviews, *Hi-Fi World* has extremely comprehensive in-house test facilities, and our test equipment – from big names like Rohde & Schwarz and Hewlett Packard – is amongst the most advanced in the world.

Loudspeakers are measured using a calibrated Bruel & Kjaer microphone feeding a Clio-based computer

analyser, using pulsed and gated sinewaves, in a large room to eliminate the room's influence. Pickup arm vibration is measured with a Bruel & Kjaer accelerometer.

No other UK hi-fi magazine has in-house testing, and none has access to such advanced tests across all types of equipment. That's why you can depend on *Hi-Fi World* reviews.



ELECTRONIC MAGAZINE

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audiolab

6000 Series

“Best music streamer
under £500”

6000N Play – What Hi-Fi?

“Hugely capable stereo
amplifier”

6000A – What Hi-Fi?

“Best-sounding streamer
under £500”

6000N Play – Hi-Fi Choice

“Haven’t heard anything like
it under £1000”

6000A – Paul Rigby (The Audiophile Man)

“Great-value modern
integrated amplifier”

6000A – Hi-Fi News

“Audiophile CD transport
bargain”

6000CDT – Hi-Fi Choice

“Brilliant integrated
amplifier”

6000A – Hi-Fi Choice

“Revolutionises budget
CD play”

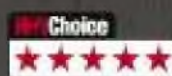
6000CDT – Paul Rigby (The Audiophile Man)

“Superb performer”

6000A – Hi-Fi World

“Class-leader”

6000CDT and 6000A – Hifi Pig



audiolab.co.uk

email:news@hi-fiworld.co.uk

news



JUST FOR K1X

New from Teac's upmarket brand Esoteric is the KIX CD/SACD player. The KIX sells for...wait for it!...£36,200. Although outwardly-similar to the model it replaces - the 3 year-old K1 - we are assured that "every aspect of the KIX's internal engineering has been completely-revamped".

The KIX incorporates a 'best-ever' Esoteric-developed 'VRDS Atlas' transport, a robust mechanism that alone weighs in at 6.6kg. Similar attention has been paid to the electronics. On board is a 'Master Sound Discrere' (MSD) DAC, based on circuitry found in Esoteric's Grandioso DIX. This sophisticated 64-bit MSD DAC is based on a custom Field-Programmable Gate Array (FPGA). Its output feeds circuitry to drive balanced (XLR) and unbalanced (phono) outputs.

Also helping is an evolved version of the Custom VCXO II clock circuit originally-developed for the Japanese firm's Grandioso PIX/DIX transport/DAC combo. A 10MHz external clock input however enables the KIX to work with the £18,000 Grandioso GI timing-source, said to be of atomic accuracy.

External DC power supplies - one for each channel - are another upgrade possibility. Given how expensive the KIX is, you'll want to make the most of its capabilities.

The player's MSD DAC section will accept external digital signals - up to 22.5MHz DSD and 768kHz/32-bit PCM - via rear-panel USB, coaxial and optical inputs. Oh, and it's MQA-compatible too.

The KIX, reckons Esoteric, is capable of an "incredibly-dynamic" sound with "musicality that'll stop listeners in their tracks".

More information: www.esoteric-highend.eu

FAIR PLAY

It comes as no great surprise that Naim gear of recent vintage has been upgraded to support AirPlay 2 for "advanced multi-room functionality and Siri voice-control". First and foremost, though, the proprietary Apple technology will allow music to be streamed to the relevant Naim gear from an iPhone, iPad, iPod Touch, Mac or Apple TV running iOS software version 11.4 or later.

Following similar updates to Naim Audio's Mu-so and Uniti ranges, AirPlay 2 will now be available "across the company's entire family of music-streaming products...including its £20k ND 555 flagship reference network player".

Among the other Naim units to benefit from the (free) over-the-air upgrade are the NDX 2 and entry-level NDS XS 2 network streamers. As soon as the update is ready, the Naim app will prompt customers to perform the update painlessly. Naim's streamers already support Spotify Connect, Tidal, Bluetooth, Chromecast (and hence Deezer and Qobuz), Internet radio, Roon and UPnP streaming - as well as playback of high-res WAV, FLAC and DSD content.

Contact: Naim Audio, (01722) 426600. www.naimaudio.com



HUEI-DE-HUEI!

Previewed at the Munich High End show in May, Chord Electronics' "next-generation" Huei phono preamp is now available worldwide. This British-built microprocessor-controlled unit, the compact design of which was inspired by the Kent manufacturer's Qutest DAC, draws on three decades of Chord amplifier experience; as with the Qutest and other products from the Kent firm, the Huei's case is precision-machined from an aircraft-grade aluminium billet. Comprehensive gain and impedance-matching options enable the £990 Huei to be compatible with a wide range of MM and MC cartridges alike. The front-panel's "polychromatic control spheres" - long a feature of Chord products - work with the "ultra-low-noise" microprocessor to provide the user with access to the Huei's main features. Among these are "multiple options for impedance-matching, seven-stage switchable gain and a switchable rumble filter". A "convenient memory function" will, no doubt, prove useful to vinyl fans with more than one cartridge or turntable. The Huei features both balanced (RCA) and unbalanced outputs (XLR) with unbalanced connectivity for your record-playing equipment, and is supplied with an external 12V power supply.

Details: Chord Electronics, (01622) 721444 www.chordelectronics.co.uk



AN IFI 'TOOTH...

The aluminium-clad ZEN Blue hi-res Bluetooth streamer from iFi is modestly-claimed to be the "world's first Bluetooth receiver supporting all the latest hi-res codecs for the best-quality music streaming from smartphones, tablets, PCs and Macs to any audio system". The signal processing and circuitry that surrounds it, we are told, has a "big impact on performance; not all Bluetooth sounds the same".



iFi says the ZEN Blue is the first product of its kind to be built around the latest Qualcomm QCC5100. This Bluetooth 'wonder-chip' supports new standards like Qualcomm's aptX HD, Sony's LDAC and Huawei's HWA, in addition to the 'standard' aptX, low-latency aptX (for AV streaming), AAC (as used by iOS devices) and 'base level' SBC.

In other words, "every possible source device is covered...at the highest resolution its Bluetooth spec will allow". The chip's output is converted into analogue with an ESS Hyperstream Sabre DAC featuring jitter correction, and the ZEN Blue also boasts coaxial and optical digital connectivity. Other features include audio-grade components like "professional-grade balanced-line drivers, TDK C0G capacitors and a TI precision low-noise power-supply". That's quite a package for £129...

Further details: www.ifi-audio.com



IN THE CANS

The Audeze LCD-1 "reference audio headphones" sell for just £399. They build Audeze's planar magnetic transducers into a new open circumaural design that weighs a mere 250g. Low weight and foldability make this U.S. designed and built product an ideal travelling companion. Lambskin-leather memory-foam earpads and headband ensure extended comfort during long listening sessions.

The 90mm 13.5-ohm planar drivers harness ultra-thin 'Uniforce' diaphragms and 'Fluxor' neodymium magnets for a presentation that, Audeze claims, has "unparalleled sonic detail, incredible accuracy...wide dynamic range and a transparent, spacious sound stage". "Deep rich bass, with zero audible distortion" comes from 'Fazor' waveguides.

The LCD-1's detachable 2m 'premium' cable is braided for freedom from tangling, and terminates in a 3.5mm stereo plug, or a 6.3mm adapter.

Further details: www.audeze.com

ANOTHER EPIC CHORD

Replacing the Chord Company's PTFE-based Epic speaker-cable after a decade is the EpicX, a midrange proposition harnessing XLPE (cross-linked polyethylene) insulation technology. A while back, Chord came up with 'Taylon' but it is expensive; XLPE is a practical alternative with similar benefits, for its cheaper products.

The EpicX is, like the original, a shielded design that can "integrate with virtually every type of speaker...improving detail, dynamics, resolution and coherence". It employs silver-plated 12AWG OFC conductors, coated with "layers of XLPE".

Chord's recently-announced ChordOhmic banana plugs are fitted at each end, so dealers equipped with the 'Hex Gun' termination tool will be able to make EpicX cables of custom length for customers.

EpicX cables will set you back £60 per metre, plus £120 for plugs. Chord point out that a slightly-updated version of this lifetime-guaranteed cable, the EpicXL, is also available.

Contact: [Chord Company, \(01980\) 625700](http://Chord Company, (01980) 625700). www.chord.co.uk



ALL ABOUT THAT BASS...

The first in a new range of powerful Q Acoustics subwoofers, the Q B12 is designed to work with the firm's 3000i and Concept 5.1 speaker range. It will also be offered separately for £499.

The 18.5kg Q B12 is built around a long-throw 12-inch driver. This is powered by an ultra-low distortion 220W Texas Instruments TPA3255 Class D amplifier with proprietary 'PurePath Ultra-HD technology'. The latter is intended to minimise unwanted distortion, "resulting in a taut but forceful sound...with superb dynamics".

Thanks to its phase-invert switch and a crossover frequency that can be adjusted between 70Hz and 225Hz, the Q B12 can match most speaker systems.



The infinite-baffle MDF cabinet features 'dart bracing' to reduce resonance, for accurate bass-response. It's supplied with adjustable spiked-feet and rubber caps for placement on a variety of surfaces..The Q B12 is available in black and white finishes.

Further details: www.qacoustics.co.uk

OUT OF THE AETHER

Rega has just announced the £2,999 Aethos stereo integrated amplifier, claimed to deliver 156W per channel into 6 Ohm loads, from output stages built around a complement of four Sanken 16 Amp output transistors mounted on heatsinks on the sides of the case.

It is a dual-mono design powered by a toroidal mains transformer in a linear power supply. The Aethos has a switchable Direct input and pre-amplifier output, enabling it to be built into a wide variety of systems.

Other features include headphone output with automatic speaker-switching performed by the output mute relay, so as to avoid signal degradation, recording output (with tape monitor loop), plus remote control.

Ironically, given Rega's turntable prowess, the Aethos lacks an integral phono stage – apparently to keep “no-compromise” goals. All five line-level inputs are standard RCA phono type; there are no balanced XLR inputs. The Aethos is “designed to accompany the Aura MC stage and Planar 10 turntable to create a system delivering performance well beyond anything else at its price point”.

Further details: www.rega.co.uk/aethos-amplifier.html



MICHI MIGHT

In the early 1990s Rotel launched a series of high-end ‘statement’ products under the ‘Michi’ name. Now Michi is back. The new units are the P5 preamplifier (£3,299) and two class-AB power amps with front-panel output/spectrum metering – the £5,399 M8 monoblock (a whopping 1080 watts, into 8 Ohms) and the stereo £5,399 S5 (500 Watts, into 8 ohms).

Inside the power amps are custom components including in-house manufactured toroidal transformers mounted in “dedicated, epoxy-filled enclosures” and “bulk storage capacitors

supporting up to 32 high-current output transistors”. These amps will tackle even “the most demanding of speakers” to deliver what Rotel describes as a “smooth, accurate music performance”.

The Class-A P5 preamp boasts comprehensive analogue and digital source options including balanced XLRs, integrated MM/MC phono stage and hi-res DAC with dual ‘premium’ AKM chips, Bluetooth, USB and MQA support.

Further details: www.rotel.com/en-gb



CAUGHT IN THE NET

Standard IT gear is designed to be low-cost and effective for PC data and gaming” but is “simply inadequate for high-quality digital music” Melco say. High-end managed enterprise switches can be optimised for audio use, but Melco reckons that even then “there are serious limitations”. Hence the £1,199 S100, said to “improve the sound quality from any network audio device with an Ethernet connection”.

With parent company Buffalo Technology’s experience to draw on, the result is an “advanced architecture, unlike that of any other data switch”. The S100’s audio-specific mainboard, built into a vibration-isolating aluminium-chassis, features ten ports (four 100Mbps, four 1Gbps, two SFP/LC optical), a 1.5MB packet buffer, powerful processor and “audio-grade capacitor bank”.

Advantages include low-noise design (you can even turn off the LEDs), external power supply, highly precise data-handling and internal packet-traffic settings that have been optimised for NAS drives, routers (for streaming services), Roon devices and of course Melco products.

Alan Ainslie, Melco Audio’s General Manager, told us that the S100 “restores the magic of the source stream, as no IT device can possibly do”.

Contact: ADMM (UK distributor), (01252) 784525.

www.audiophiledigital.co.uk



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M3SCD



85 WPC

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★ HI-FI WORLD 2019 AWARDS

Welcome to Hi-Fi World's 2019 Awards. Our review team tests hundreds of products each year, backed by in-depth measurement to pick out the true winners, where everything works perfectly. Some products stand out, with innovative design, great sound quality or amazing value for money. Here are those products from 2019...

AWARDS 2018

BEST LOUDSPEAKER
BEST VALVE AMPLIFIER
BEST AMPLIFIER
BEST NETWORK PLAYER
BEST WIRELESS SPEAKER
BEST PHONOSTAGE
BEST DAC
BEST HI-RES PORTABLE PLAYER
BEST HEADPHONES
BEST LOUDSPEAKER CABLE

WINNER

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**BEST
LOUDSPEAKER**

QUADRAL
ORKAN 9



Reviewed: October 2019 issue

Quadral's Orkan 9 loudspeaker is nothing if not impressive – both in looks and sound quality. Just over one metre high it packs an aluminium ribbon tweeter, a 155mm midrange unit plus two 180mm bass drivers into its substantial front baffle. Put together, this complement of drivers combine to produce a beguiling sound. They are distinctively smooth and svelte yet very revealing with powerful bass.

The synth work on Safri Duo's 'Samb Adagio' moved our large listening room with ease. There's power aplenty in the lower registers yet it rolls along rather than stabbing out giving a completely natural sound. What you get is an easy yet totally sophisticated sound that reflects Quadral's design ethos of total accuracy. They may at first sound more laid-back against other loudspeakers but in fact they are more subtly revealing. Which means you'll go on listening long after you've tired of other, more strident designs.



★ BEST VALVE AMPLIFIER

ICON AUDIO STEREO 40 MKIV

Reviewed: August 2019 issue

As its name suggests the Icon Audio 40MkIV is capable of producing 40 Watts of power from its KT88 valves – although pushed hard we managed 50 Watts. There's also three feedback settings (high, low and zero) and the ability to run it in ultralinear or triode mode, as well as fixed bias. So there's wide room for experiment here, including the rare zero feedback option. It means users can find the set-up that suits them best.

And what a sound it is! Used with our Martin Logan electrostatics it was both vividly dynamic and spacious. The output transformers give clean powerful bass – a world away from the occasional softness of some other valve amplifiers. With its huge soundstage and thunderous dynamics the Icon Audio is a long way away from valve amplifiers of yore. Truly a modern classic.





BEST AMPLIFIER

QUAD VENA II



Reviewed: June 2019 issue

All-in-one amplifiers don't come much more feature packed than Quad's Vena II. Amplifier? Check. Bluetooth? Check. Phono input? Check. Digital section? Check. Even better the digital section is based around the renowned ESS Sabre32 DAC – one of the most smooth and advanced digital-to-analogue converters out there. The Vena II's 55 Watt amplifier is enough to drive most modern loudspeakers to almost nightclub levels.

And it has a very Quad sound – always a good thing. The Vena II has that big, fulsome presentation you get from a well-developed Class A/B amplifier backed by a beefy linear power supply.

Spinning Jan Akerman's 'Am I Losing You' the Vena II was immediately easy in its delivery – relaxed yet pure, with a firm but full bass line that kicked the track along. The drum kit also had detail rather than merely being a backing track.

It was the same with all inputs, making the Vena II a true all-in-one marvel that is hard to beat.



★ BEST NETWORK PLAYER

NAIM NDX2

Reviewed: October 2019 issue

Naim's streamers have forged a strong reputation. And the NDX2 takes that to another level. It's about as well-equipped as they come, with support for files up to 32-bit/384kHz PCM and DSD128. There's also aptX HD Bluetooth alongside Apple Airplay, Spotify Connect and Chromecast. Tidal is also embedded and it's also Roon-ready. Think of a file and this Naim can play it. It's not short of connectivity either being able to be used wirelessly or wired, with coaxial and optical inputs plus USB and BNC.

But it's the sound that impresses most. It is both dynamic yet detailed, with a punch few other streamers can match. We played New Order's 'Weirdo' and the sound rolled into the room yet the drums, bass, guitar and electronics were all perfectly rendered, without one overpowering the other. Take something more gentle and the Naim will bring out all the nuances in the music - right down to low-level vocals.

Add in Naim's traditional build quality and this is the only streamer you could ever need.





★ **BEST WIRELESS SPEAKER**

DEVIALET
PHANTOM
REACTOR 900



Reviewed: December 2019 issue

It would be fair to say not many loudspeakers come along that look truly different. But then there are not that many companies which make products like France's Devialet. Perhaps it's Gallic flair that makes the Phantom Reactor 900 such a product. Think of an egg on its side and you'll get some idea. At the front sits a mid/high-range driver behind a flower-shaped grille and at the side are two round discs of the bass drivers: their cones in effect – but they are domes, driven by 900 Watts of power. It looks like a prop from Star Wars.

The Reactor 900 makes sense when you turn it on and feed it music (say via UPnP or Bluetooth). Those side-firing bass units generate amazing levels of low-end power while the mid-range and high frequencies are smooth and detailed. Adding up to an amazing experience. And this loudspeaker is a great talking point into the bargain too! Especially when they start vibrating as you push the volume higher and higher. You think they might shake the cabinet apart – but it stays rock solid. A true feat of engineering.



★
**BEST
 PHONOSTAGE**
 EAT E-GLO PETIT

Eat to the beat - as Blondie once said. Well you can with the E-Glo Petit from EAT (European Audio Team). Inside lie electronic circuit boards built by robots but there's also a pair of valves too. In essence you get modern precision from today with the atmospheric sound of yesterday. It can handle both MM and MC cartridges and comes in a svelte, compact package with superb fit and finish. In sound quality the Petit exceeded all expectations. It has all the sonic insight of a very good solid state design but enough of the atmosphere and low-end weight that only valves can provide.

Hence Alison Goldfrapp's voice was wonderfully breathy centre stage while the powerful synth lines had weight and speed.

This is an outstanding phono stage with enormous insight and fantastic resolution. In effect you get to hear everything – and with a fine sense of tonal balance. Compared to other phono stages we've heard this year it sounded more sophisticated and undeniably more detailed and nuanced.



Reviewed: September 2019 issue



★ **BEST DAC**

CHORD
ELECTRONICS
HUGO TT2 &
HUGO M SCLAER



Reviewed: April 2019 issue

Chord Electronics already-award winning Hugo TT DAC has the ability to make many other digital-to-analogue converters seem positively crude. Much of this down to its Rob Watts-designed circuitry. While most DACs use around hundreds of taps the Hugo boasts a whopping 98,304 in its filter. Add in the M Scaler and this ups it to a massive 1 million fed by a x16 oversampled filter, to process CD.

This is digital at its best. The M Scaler does not so much change the sound of the Hugo but magnifies it to eye-popping levels.

On Nils Lofgren's 'Keith Don't Go' the soundstage became even larger and more densely powerful. There was also extra internal weight while bass timing was simply astonishing. And as for Lofgren's fretwork it simply comes alive with a sheer vibrancy that transcends the ordinary CD version.

This is a combination that will bring the best out of anyone's digital music collection. It is the epitome of digital replay at present.



★ BEST PORTABLE HIGH-RESOLUTION PLAYER

COWON PLENUE D2

Reviewed: June 2019 issue

Cowon's Plenue D2 portable high-resolution player is a tiny pocket wizard. Measuring just 79.2mm high, 51.3mm wide and 15mm deep it's small enough to stash anywhere. Throw in a touch screen for good measure and there's a lot packed into this mini marvel. It will fit into a shirt pocket yet is potent enough to deliver superb sound.

On board there's a variety of sound effect options plus two digital filters. But it's sound quality that marks it out. There's a silky smoothness that takes the digital out of digital yet retains a punchy, enthralling presentation, with no sense of undue softness or lack of resolution. Whatever we played we couldn't help but be impressed at how the Plenue got as close to the original recording as possible whether it be jazz, rock, pop, classical or even grunge.

For such a small, unassuming device it sets a remarkably high standard for digital replay. Other manufacturers should take note of its abilities.





★ **BEST HEADPHONES**

FiiO FH5



Reviewed: January 2019 issue

FiiO have made their name with high quality, reasonably priced portable high-resolution music players – but what do you need to go with them? Yes, a set of decent headphones.

So enter the company's FH5 in-ear monitors. Striking-looking, their all-metal housings are made from an aluminium-magnesium alloy with a ripple design on the outside. But it is on the inside where FiiO have really excelled. They've used a quad driver arrangement with a 10mm polymer dynamic driver allied to three balanced armature devices one for mid-range and two for high frequencies. This all translates to superb sound quality. The rolling bass on 'Ocean Beneath The Waves' by The War On Drugs punched hard without any overhang, while snare drum was crisp and sharp. There's a slight warmth to the midband but it's not overdone so the whole sound is superbly balanced. These are earphones you could use with any player with complete confidence.



★ BEST LOUDSPEAKER CABLE

TELLURIUM Q STATEMENT

Reviewed: January 2019 issue

Tellurium Q are famous for refusing to elucidate on the construction of their cables or even the materials used within. Let's just say it's against founder Geoff Merrigan's ethos.

However, once you hear the Tellurium Q Statements it doesn't really matter. A flagship model, once plugged in it is like unleashing the power of your system - or rather not throttling it like other cables do. Bass is more powerful, high-frequencies more defined while the mid-band is richer with greater detail. It's as though a veil has been lifted from the face of your equipment. What they do best is make music more organic, more natural and, crucially, more exciting.

From Motley Crue to New Order to Beethoven everything comes alive. Plugged into a variety of amplifiers they never failed to make a difference - even in fairly mid-range systems. But the better the system the bigger the difference. Statement seems an appropriate name as they set a standard for others to follow. Plug in and enjoy.





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2019 AWARDS

Original Reviews



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ORKAN CAN!

Quadral's new Orkan 9 loudspeaker can deliver a lovely sound, Noel Keywood says.

Reviewers have their preferences and I admit Quadral's high end Aurum series loudspeakers are one of mine. Their Wotan VIII (reviewed August 2012 issue) with ribbon tweeter made me sit up and smile and 'World reviewer Martin Pipe uses them today as his reference. The Chromium Style 8s I reviewed in our March 2016 issue were similarly superb. Reviewed here are their new Orkan 9 loudspeakers, a large floorstander sitting just over one metre high and graced with Quadral's ribbon tweeter, price £3999.95 a pair, so not cheap. But I like them!

The Orkan 9 is about as big as most people would want, meeting

the one metre high criterion that manufacturers prefer. It's heavily built with an internally braced MDF cabinet weighing 32kgs on our scales. Dimensions of 103cms high, 22cms wide and 38cms deep make the Orkan 9 blend in easily, our review samples having deep gloss black finish. Fine acoustically

Extremo Lyd 1 feet can be supplied at £275 extra per pair – £550 in all. With the base set horizontal the cabinets tilt back, making the midrange units fire slightly upward toward listeners.

Quadral manufacture their drive units in Germany (Hanover) rather than buy them in. At top on

"the longer I listened the more I was drawn in"

transparent grilles made little difference to performance measurement showed, so they can be used on or off, as is common. The cabinets sit on fixed plinths with stick-on pads. A set of Alto-

the Orkan 9 sits their quSENSE aluminium ribbon tweeter, kept short, they say, for better vertical dispersion. Below it lies a 155mm diameter Altima midrange unit with composite alloy cone having



The Alto-Extremo Lyd 1 feet available as an optional extra, to give improved floor isolation.



A large reflex port is positioned low on the cabinet's rear panel. Below it are sturdy, gold plated mono-wire terminals. The feet shown are an optional extra.

a gentle inverted bowl shape. This covers a wide range, working from 3.7kHz they suggest in their specs, down to 260Hz, to give a consistent sound from the Orkan 9, although our measurements show the tweeter starts to come in around 2.5kHz. The midrange unit sits in a damped chamber that absorbs rear radiation.

Below the midrange unit sit two 180mm diameter Quadral Altima bass units, loaded by a chamber reflex ported on the rear panel. By using similar materials for all drive units Quadral keep the Orkan 9s consistent in tonal colour.

Connection is through mono-wire terminals – there is no bi-wire option. They are sturdy, gold plated and accept bare wire, spade terminals and 4mm banana plugs.

SOUND QUALITY

I ran the Orkan 9s from our Creek Evolution 100A amplifier through Chord Company Signature Reference cables. Sources were an Oppo BDP-205D Universal player to spin CD, still one of the smoothest and best CD players even though not available any more. Connection was XLR out to the Creek's balanced inputs, using

Chord Company Epic balanced cables.

Hi-res was sent through the Oppo from a MacBook Pro running on battery power to avoid ground loop noise, using an Audirvana + player to deliver DSD as well as hi-res. For the most part though I feel high quality CD best represents the common listening experience and used high dynamic range (uncompressed) CD tracks of good quality to avoid CD distortions. This is something of an issue with good loudspeakers, since their revealing nature can make things sound worse rather than better when spinning dodgy digital.

However, the Orkan 9s are not a loudspeaker that throw

"The Orkan 9s stay with Quadral's design ethos of absolute accuracy – one of the reasons I like them so much"

information out in brutal fashion. Rather, like all other Quadral Aurum series loudspeakers I have reviewed, the new Orkan 9s were creamily smooth and deeply svelte; "sophisticated" is the word that I kept on using in my listening notes. What you get here is an easy yet natural sound that, the longer I listened the more I was drawn in. With Henry Mancini's Pink Panther theme (CD), gentle cymbal taps had filigree detail, the ribbon tweeter making its abilities supremely obvious without any sense of push imposed by deliberate emphasis. It was delicately sweet in delivery. Meanwhile, the rest of the orchestra cruised along with engaging strength. A lovely performance, clear and refined.

Nils Lofgren's complex finger work on guitar with Keith Don't Go was similarly set out with

almost unnerving clarity, strings resonating vividly in front of me. And again the Orkan 9s just got on with the job with slick ability: I wasn't assaulted, just pulled into what was happening and how fast yet controlled his playing was. Whilst the tweeter has ability that marks it out as a ribbon rather than a dome, it integrates well and sets up pin sharp images across the sound stage. Lofgren's vocals were clean and clear but held within the mix, not jumping out as can happen with a loudspeaker having emphasis in the upper midband.

The Orkan 9s stay with Quadral's design ethos of absolute accuracy – one of the reasons I like them so much. Superficially this makes them sound laid back against others – but they are in fact more subtly revealing.

After run in the Orkan 9s took on a fulsome sound balance with strong lower mids and bass, the synth percussion work in Safri Duo's Samba Alegro moving our large listening room (6550 cu ft) with ease. There was power aplenty in their bass, although it rolls along rather than stabbing out, having a sense of engaging warmth. Think: big bass.

Stripped bare performances, the lone piano of Benjamin

Grosvenor playing Chopin Nocturnes (24/48) and Diana Krall's Narrow Daylight (24/96) were cast in a pure gentle light that was romantic yet revealing: no rough stuff here. Meanwhile the Chicago Symphony Orchestra playing Mahler's Symphony No 8 stretched out on a large stage in front of me, the ribbon tweeters giving pin sharp images of instruments and a clear rendition of the choir. The Orkans don't project out strongly: part of their gentleness comes from the sound stage lying back a little. From memory the Chromium Style 8s were more open and disengaged from the cabinet.

CONCLUSION

Quadral's Aurum Orkan 9 loudspeakers are distinctively smooth and svelte yet revealing and with powerful bass. There was some sense of a sound stage being held back and of bass being heavy



Quadral's ribbon tweeter sits close to the midrange unit for good phase matching, to give a consistent sound at different listening (ear) heights.

rather than fast – not properties of Quadral's I have reviewed in the past. All the same, every loudspeaker has particular qualities, which is what sets them apart – and the pure treble and deep insight of the Orkan 9s still had me impressed. More sophisticated than most else, they are worth auditioning. A lovely loudspeaker that I found gently beguiling.

MEASURED PERFORMANCE

Quadral's Aurum series Orkan 9 was smooth and flat across the audio band from 180Hz to 16kHz like most of their loudspeakers. This German manufacturer concentrates on accuracy: their loudspeakers rarely have emphasised bass or treble – unlike most others today.

Smoothness of response indicates low colouration, due to lack of small local resonances in the drive units – mainly the cones – that show up as small peaks and troughs. The Orkan 9s lack this, meaning they are less coloured, and also less characterful.

Quadral's ribbon tweeter has been kept in check: there is no emphasis of highs, output rolling off above 16kHz. This result was consistent with the measuring microphone on-axis or laterally off-axis, ribbon tweeters having wide lateral dispersion, so they do not need to be toed in to point at listeners.

Vertical dispersion was more variable than a dome tweeter but a relatively low crossover frequency

of 2.5kHz (as ribbon tweeters go) and close siting of tweeter to mid-range made phase matching good, minimising change in sound with listening height.

Bass output below 180Hz was also restrained our analysis shows, measuring around -2dB down, but with peaking around the 35Hz port frequency. This type of response suits near-wall placement in medium sized rooms, keeping room-gain in check. The Orkan 9s will be able to produce deep lows with power.

The impedance trace is resistive, lacking peaks, and it is low, overall impedance with pink noise measuring 5 Ohms, so the Orkans draw current from an amplifier and a sturdy design with good power supply (e.g. Naim) best suits, or a valve amplifier with a 4 Ohm tap.

Sensitivity was good at 87.5dB from one nominal Watt of input (2.8V) but not as high as is common (90dB) for a speaker of the size.

Measurement suggests a colouration free, neutrally balanced

sound, with bass suited to medium sized rooms (16ft, 5.5m or so long), positioning close to a rear wall likely best. **NK**

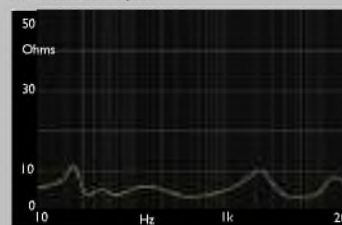
FREQUENCY RESPONSE

Green - driver output

Red - port output



IMPEDANCE



QUADRAL ORKAN 9 £3995



OUTSTANDING - amongst the best

VERDICT

Creamy smooth, deeply detailed. Big bass, a tad slow.

FOR

- smooth, easy sound
- superb treble
- tonally accurate

AGAINST

- some warmth
- slow bass
- expensive

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Classic 40

Icon Audio's Stereo 40 MkIV valve amplifier is their latest re-model of a classic valve amplifier. Noel Keywood listens.



Valve amplifiers for audio were an open subject back in their day, both Mullard and GEC publishing books of circuits – Mullard's *Circuits For Audio Amplifiers* (1959) being available today as a reprint (Amazon). Icon Audio refer to it in their notes on the new Stereo 40 MkIV amplifier I am reviewing here, making the point that this amplifier is a tried and

tested classic.

But that was long ago historically – and technologically. Build a classic circuit today and modern technology intrudes: it only makes sense in terms of cost, safety, convenience and reliability. All of which sets the stage for the new MkIV. Oh! – I forgot to mention fashion: there's a headphone socket.

As you might guess the Stereo 40 MkIV delivers nominally 40 Watts.

Push it hard and 50 Watts appear or flick a front panel lever switch to Triode mode and you're down to 30 Watts. All this is exactly as expected from KT88 Kinkless Tetrodes run in push-pull, using modern valves working with fixed bias, confusingly meaning you have to adjust it. Fixed bias gives more power than auto-bias (that you don't have to adjust).

Ours came with Genelex Gold Lion KT88s (around £40 each), made

in Russia by the New Sensor Corp. who are based in New Jersey, USA. The claim here is that this KT88 perfectly reproduces the structure and strengths of GEC's original, released in 1957 and universally admired for its sound, as well as durability. You can see the KT88s in a linear row of four at back, just in front of the big, black transformers. Alternatively it will accept Mullard EL34s.

I hope all that gets into perspective what Icon Audio's Stereo 40 MkIV is about at a basic level. Power output is plenty high enough to go extremely loud, and its output valves are classics that are durable yet inexpensive – important because after 3000hrs use they need replacing; with 10 hours a week use that means 5 years life.

Physically, the new Stereo 40 MkIV isn't outsized, measuring 390mm (15.4in) wide, 410mm (16.2in) deep and 230mm (9.1in) high. As amplifiers go, not so big. But at 22kgs it's a two-person lift – seriously heavy. Caused by the massive mains and output transformers it uses for quality reasons. A strong shelf or hi-fi rack is needed – and a rack needs around 254mm / 10in between shelves to allow heat to escape. Nearly all racks are 19in (480mms) wide so it will fit easily here – but it has to since side access to the mains switch is needed.

Modern technology means the Stereo 40 MkIV comes with remote control of volume. Inside there's an Alps Blue motorised volume control: you can turn it manually or use the heavy but small metal remote supplied. The power supply is solid-state, reducing weight, size and cost, and improving power output.

Where this amplifier differs from most is the amount of tweakability you get. The front panel has a small lever switch marked Ultralinear/Triode. Ultralinear is standard mode that gives highest power and best measured performance; Triode lowers power by a small amount to 30 Watts maximum but gives a slightly clearer and easier sound. Differences aren't great but it's possible to arrange Triode working without much kerfuffle so Icon make it available. Commonly, users settle on Triode mode I'm told, as I have with our Icon Audio Stereo 30SE in-house reference valve amplifier.

A bit more challenging is a small three-position lever switch on

the rear panel labelled Sensitivity. This alters feedback, substantially affecting how the amplifier works – and its sound. The choices are Low sensitivity (L) which means high feedback (14dB), High sensitivity (H) which means low feedback (5dB) and a central zero position that eliminates feedback completely – radical.

High feedback (L) gives performance like a transistor amplifier, Low feedback (H) like a classic valve amplifier and zero feedback is there for those that may prefer the sound – as some do. I think the best compromise is H (low feedback) but the other settings have appeal. With this amplifier you get to choose, whereas with most others you get what you're given.

Feedback alters gain, distortion,

position bias-adjust rotary switch. Four positions show bias level at each output valve on the meter, for monitoring and adjustment purposes. The fifth Off position shows output level to the loudspeakers, warning of potential overload if volume is wound too high. Once bias has been set, by turning the small top-panel potentiometers with a screwdriver, it should not need re-adjustment for many months.

To the right of this switch lies the old-style panel meter that lights up deep yellow at power on. It looks sturdy and industrial, something from an old power station perhaps – and of course it grabs attention. What modern amplifier enjoys such glitz? It makes them look drab. To its right lies the Ultralinear/Triode lever switch and in the middle sits the



A hard-wired internal assembly, with neat wiring looms. There are also printed circuit boards for remote control etc, two fuses (bottom left and right), plus a big choke (bottom right) to clean the power rail. It is a specialised and expensive component.

frequency response and output impedance (damping factor) so when you use this switch a lot alters – and in a big way, which is why it is rarely seen. However, I chose to fit a feedback-off switch to our World Audio Design 300B amplifier in 1993 just to show what it offers sonically (a big, open spacious sound) and still use it at home today.

A busy front panel says much about this amplifier. At left is a five-

volume control, moved by a motor when the remote is used. Then comes a loudspeaker/headphone selector switch with accompanying headphone socket.

To the right of the headphone socket is a stand-by switch that is only seen in valve amps: it turns off HT to prolong valve life, whilst leaving the heaters up and running. And to its right is a Tape/Source switch for those running classic



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At left the input bias adjust selector for V1-V4 output valves, bias adjusted to put the needle into the black sector on the meter scale. Then a Triode / Ultralinear lever switch, volume control (centre) headphone socket, Standby switch, Tape switch and rotary input selector at far right.

three-head recorders.

Finally, at far right is a four-position rotary input selector for the four line inputs at rear purposed to match CD players and most modern sources. Low output sources like low-gain external phono stages match, since setting high sensitivity (H) on the rear panel switch makes the Stereo 40 MkIV more sensitive than most transistor amplifiers.

The rear panel carries solid gold plated phono sockets for the inputs and tape output. Loudspeaker terminals, 8 Ohm and 4 Ohm, are also gold plated and sturdy, accepting bare wire, 4mm banana plugs or spades. Nestling between these ins and outs lies the small Sensitivity switch. Power comes in from the mains via the usual IEC socket, the

on/off rocker switch being mounted on the left panel side panel near the rear of the chassis, so space is needed at left to reach it. This makes turning on and off awkward in the lower shelves of a rack. Best to leave some space all around the amplifier – especially above – to allow air to circulate because its heaters consume 76 Watts in total.

Although the Stereo 40 MkIV uses a classic Ultralinear output stage, the rest of the circuit differs from past convention. Two low- μ 6SN7 double-triodes offer front end gain on each channel through cascode operation, whilst another two provide phase splitting (for push-pull). Icon say the use of four identical high quality triodes eases fault-finding and replacement issues,

important for those living in remote areas – Northern Australia mining, Borneo logging etc. – where we found the market for valve amps was peculiarly strong.

SOUND QUALITY

With Ultralinear/Triode options and three feedback settings there are potentially six amplifiers to review here! It can get very confusing very quickly. But with our Martin Logan ESL-X hybrid electrostatic loudspeakers, connected with Chord Company Signature cables to the 4 Ohm tap and an Oppo BDP-205D Universal player to play CD, plus hi-resolution digital from an Astell&Kern AK120 player, basic differences were obvious enough to distill out.

An Isotek Evo3 Mosaic Genesis



The rear carries heavy duty, gold plated phono socket inputs (left) and equally solid, gold plated loudspeaker terminals for 4 Ohm or 8 Ohm loudspeakers. Above are large in-house designed and built output transformers at left and right, with mains transformer at centre.

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by

roon



*July 2018



*April 2018

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*Reviews of the original Nucleus+, which has the same technical performance of the 2019 revision but a different look.



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regenerated mains power supply fed the electrostatic supplies and Oppo player, the Icon being connected to its high current filtered, un-regenerated output.

The Stereo 40 MkIV was both vividly dynamic and spacious in its sound, Icon Audio getting very clean bass from their output transformers. The sound was less easy, soft or warm – as classic valve amplifiers are imagined to be – more vivid and punchy. The combination of valve amplifier and electrostatic panel always was made in heaven, giving a sense of life and scale transistor amplifiers don't match. But I'll cover the sonic options first.

With Antonio Forcione's Tears of Joy (CD) there was softness and warmth in the sound with feedback Off (sensitivity 0). Wooden blocks lacked transient edge and guitar strings were mild rather than lacerative. However, with no feedback images seemingly jump out, having a dynamic about them that's almost puzzling – but that's because zero feedback is never encountered in hi-fi amplifiers. It's worth hearing.

Switching Sensitivity to H (low feedback) pulled the images back, both restraining and controlling them, but it also brought a solid edge to the blocks and some laceration to guitar strings; they seemingly moved from being fibrous to metallic.

Switching Sensitivity to L (high feedback) pulled the images back further, slightly flattening perspectives – but even set like this the Stereo 40 MkIV was more dynamically engaging than a commercial transistor amplifier. But since the latter use at least 30dB feedback – double that of the Icon – it's hardly surprising.

A bit more baffling and hard to explain is Triode mode. This unravelled musical strands, drawing Skin out of the fray when singing Hedonism (CD) for example. Triode just sounded better sorted and a tad less confused, also lifting Marianne Thorsen clear from the backing Trondheim Soloists (hi-res 24/96) when playing a Mozart violin concerto. But the massed violins of the soloists equally gained in dynamic presence. Although not better in measured terms Triode mode is subjectively best. And Thorsen's violin and playing were sublime, shimmering out into the room with a sunlit textural density that makes all else sound lifeless and bleached.

In the end I settled for Triode mode and H sensitivity – and with

this the Stereo 40 MkIV thundered through tracks like Safri Duo's Samb Adagio, the opening bell strike ringing around our room, followed by a swelling synth and then a bass synth line that was far and away more violent than you'd hear from a transistor amplifier. The combination of big, modern power supply, whistle clean KT88s and Icon's massive output transformers come together here to deliver bass few amplifiers can match. Interestingly, switching to L Sensitivity (high feedback) pulls bass back a little, but this is interaction between amplifier electrical damping and loudspeaker acoustic damping, so no mystery.

Arcadi Volodos playing – sublimely – Schubert piano concertos (CD) was vivacious, dynamically strong yet controlled and with a lovely light across the sound stage – bright but honeyed. This Icon puts power into piano – the

body was given scale – whilst each key had solid presence as Volodos carefully worked his way through this lovely piece. Valve amplifiers always deliver a big sound – dynamically and spacially – but the Stereo 40 MkIV has impact, precision and timing beyond most with music such as this.

CONCLUSION

Although a "tried and tested classic" in design essence, in real life the Stereo 40 MkIV is a different beast subjectively. What you get here is a modern, fast and punchy sound that simply overwhelms most else. With very strong bass, a huge sound stage and thunderous dynamics the Icon is a long way from valve amps of yore. It's a great blend of old and new, finding the best in both. Add in the almost unique ability to dial in feedback and select Triode mode and you've got an amplifier and a sound that's hard to beat at any price.

MEASURED PERFORMANCE

In Ultralinear mode distortion at quoted 40 Watts measured 0.26%. Using a 1% limit 55 Watts was delivered.

In Triode mode output measured 25 Watts using the same 0.26% distortion limit as Ultra-linear, but 34 Watts at 1% distortion, validating Icon Audio's figures.

Distortion levels (1kHz) were low all round, just 0.006% at 1 Watt and 0.15% just below (-1dB) full power, at maximum feedback (L). With low and zero feedback around 0.04%, and 0.3% just below full power. At high frequencies (10kHz) 0.05% was typical

– a low value.

Bass distortion (40Hz) was also low at 0.06% (1 Watt) and 0.13% just below full power (L), deteriorating little to 0.2% and 0.3% at H and 0.3% and 0.8% at zero feedback – all low values for a valve amplifier.

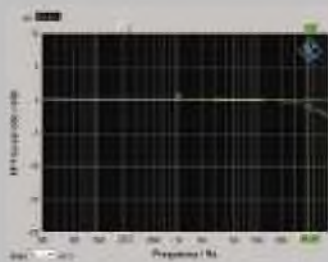
High feedback (L) gave very wide bandwidth of 2Hz-44kHz (-1dB). Low feedback (H) 7Hz-31kHz, usefully eliminating low bass to avoid possible core saturation from LP at high volume, whilst zero feedback (open loop) was a usable 20Hz-12kHz.

Damping factor measured 16 (L), 6 (H) and 2 (0) so there's choice to be had here too. Low sensitivity (max feedback) offers tightest bass, but lower feedback can give bigger bass with acoustically over damped loudspeakers.

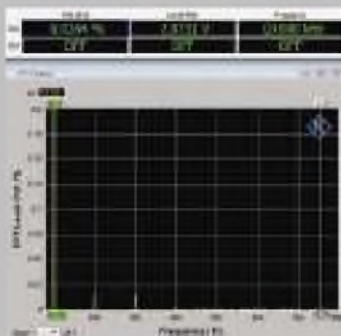
Noise levels were minimal: there was little hiss and hum was below 1mV.

The Stereo 40 MkIV measures well in high (L sensitivity) and low (H sensitivity) feedback modes, being acceptable even with no feedback (open loop). **NK**

FREQUENCY RESPONSE (L)



DISTORTION (L)



Power (UL / Triode)	40 / 25W
Frequency response (-1dB)	2Hz-44kHz
L sensitivity	10Hz-31kHz
H sensitivity	20Hz-12kHz
no feedback	0.02%
Distortion (10kHz, 1W, L)	86dB
Separation (1kHz)	-90dB
Noise (IEC A)	100-800mV
Sensitivity (0-L)	16
Damping factor (L sensitivity)	

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STEREO 40 MKIV
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OUTSTANDING - amongst the best.

VALUE - keenly priced.

VERDICT

Sturdily built, cheap to run, vivid in sound. Add in tweakability and you have it all.

FOR

- powerful bass
- open and vivid
- remote control

AGAINST

- size and weight
- heat

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Value Of Vena

An affordable amplifier with a quality digital section, Bluetooth and LP. Noel Keywood looks and listens.

Quad's Vena II is purported to give you Quad traditional quality at a price you can afford. And it does it well. The new Vena II amplifier now comes with a Phono input for LP and Bluetooth for mobile phone connection, in addition to an ESS Sabre32 based digital section that is as smooth and advanced as they come. It's a great all-in-one package that gives true hi-fi – without hassle.

And it is small. The Vena II takes up little space and is not heavy, even though it uses a solid linear power supply rather than a noisy switch-mode. No modern tomfoolery here! No external boxes either: the mains cable plugs straight into a well built chassis weighing 5kgs and measuring just 300mm wide and 300mm deep. Height is 92mm, the Bluetooth aerial increasing this to 155mm when upright, but it can be swivelled down to horizontal.

Inside there is a 55 Watt amplifier. It might not sound much

against the 100 Watts that is all but obligatory nowadays, but it is more than enough to go extremely loud; few of us will ever use 100 Watts in real life – it's a spec requirement.

Although Vena II harks back to the styling of Quad's 33 preamplifier of 1967 – a classic I once owned and loved – it is disappointingly sombre in style to my eyes. The legends are a dull grey on a dark background where the original was more strongly defined visually with orange against brown – and legible legends.

The horizontal line of push-buttons on the Vena II are not mechanical switches as of yore, but electrical ones that select things not known in the days of the 33. One is Bluetooth short range radio reception from mobile phone or iPad (or similar) and the obvious others are digital inputs in the form of S/PDIF that will accept the digital output of any CD player – optical (2) or electrical (1) – or the many other contraptions that

output digital in this form, such as portable digital players (DAPs).

A USB B (printer style) input connects to a computer, allowing the Vena II's sophisticated ESS chip to process digital audio either for headphone listening via a front panel 6.3mm (1/4in) headphone outlet, or through the loudspeakers; plugging in 'phones mutes the 'speakers. The USB spec has been improved from 24/192 to 32/384kHz sample rate for PCM and it also accepts DSD256 (double rate DSD).

Vena II also has a Phono stage for a turntable with moving magnet (MM) cartridge, unlike original Vena.

There are two analogue line inputs (Aux1 & 2) and even a preamplifier output for those who may want to hook up a bigger power amplifier at a later date.

Whilst there are two digital outputs, optical and electrical, they are feed-throughs; there is no on-board ADC to generate digital from analogue sources such as LP. Digital inputs can be routed to a recording



device through them.

In all then, Vena II comes packed with ability, lacking only streaming from a home network. However, in that its USB connection links into a computer that will in effect (push)stream to it, this isn't such a big issue other than you must have a computer and it must be switched on.

There's no app to act as controller, instead a small lightweight remote control is provided – arguably a better way of doing things. And it was superbly easy and intuitive to use. Altering volume actuates an Alps high quality motor driven potentiometer, so the volume control turns as if moved by a ghost. Trouble is you can't see this because there is no visible marking, so the led of the selected input flashes. And the horizontal select bar of the remote mimics the input select pattern: press left and the select sequence moves left, right and it moves right along the horizontal row. The only blip here being dull grey illegible legends on the fascia.

SOUND QUALITY

I connected Vena II to our Martin Logan ESL-X hybrid electrostatic loudspeakers through Chord Signature XL loudspeaker cables. CD was spun by our Oppo BDP-205D Universal player acting as a transport, feeding the Vena's optical input (S/PDIF) through a QED Quartz glass optical cable. I now use only preened hi-res high dynamic range CD recordings because too much on CD is awful in quality terms and misleading to me for review purposes. Good hi-fi products like this one expose quality issues in the recordings.

Hi-res came from an Astell&Kern AK120 portable player running on battery power, to input clean digital from S/PDIF rather than noisy from a USB computer source.

Bluetooth was used from an iPhone 6S playing DSD files from the slick Onkyo hi-fi player that translates down to 24/48 PCM for BT work.

And LP was input from a Timestep Evo Technics SL-1210 Mk2 Direct Drive upgraded turntable, with SME309 arm carrying an Audio Technica VM750SH Shibata tipped MM cartridge.

And what a lovely sound! Very Quad. Vena II gives that big, fulsome sound you get from a well developed Class A/B amplifier backed up by a quality linear power supply: no



A toroidal mains transformer at left of the Quad's linear power supply. At middle sits the amplifier's finned alloy heat sink and at bottom right the Alps motor driven volume control.

scratchy switch-mode sound here!

Spinning Jan Akerman's *Am I Losing You* (CD) Vena II was immediately and obviously easy in its delivery – relaxed yet pure. The bass line was firm but full, the drum kit fleshed out with detail rather than being an outline, a simple simulacrum that is not uncommon with digital. This quality of insight and rich timbral revelation played through both Rock from CD and also classical, where Nigel Kennedy's *Meditation* (Massenet) glided past my ears with a lulling naturalness that was absolutely right for it: think richly patterned. This is the characteristic signature of the ES9018 DAC chip – in Quad's excellent support circuitry.

Moving from CD to hi-res from our Astell&Kern AK120 portable player, the thundering kettle drum that insinuates power behind Mars made itself known in full and strong fashion in the LSO's rendition of Holst's *The Planets* (24/48).

Benjamin Grosvenor's light touch on the keys playing Chopin's *Nocturne No5* was subtly but clearly conveyed.

With Fleetwood Mac's *Dreams* (24/96) Mick Fleetwood's drumming stood out as solid and powerful, moving along with muscular confidence. Stevie Nicks vocals were easily clear centre-stage and backing harmonies nicely delineated in their own space. Again a full and powerful performance graced by an easy confidence of delivery.

With Bluetooth connection my iPhone was seen and connected swiftly, delivering David Bowie's *Suffragette City* with pace and power (DSD 2.8MHz from an Onkyo player, sent as 24/48 PCM). As usual with Bluetooth there is a flattening of depth perspective, obvious with Cyndee Peter's singing *House of the Rising Sun* (DSD 2.8MHz), but overall Vena II came over as strong and svelte.

With our turntable, turning volume to maximum produced slight hum. Moving earth from the terminal fitted to a phono socket ground produced silence, so it appears case ground (the terminal) and signal ground (phono socket) are different (as they can be); this



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It may look bare and the 'speaker terminals basic, but there are a lot of inputs on the rear panel, from analogue turntable (MM) at left through to digital USB at right, plus an aerial for Bluetooth.

is a wrinkle that needs attention. Spinning Dire Straits *So Far Away* (Mobile Fidelity Master Recording, 45rpm) again delivered strong, firm drum rolls and the laconic vocals of Mark Knopfler centre stage in clear fashion. Big Band Spectacular from The Syd Lawrence Orchestra (LP No2 from 30ips master tape) fairly shook our listening room playing *Sing Sing Sing*, fast drumming being made obvious by Vena II's bass power.

I just sat back and was impressed! OK, this is a special LP but with more ordinary cuts the Vena always managed well, retaining its sense of ease underpinned by bass power.

CONCLUSION

Quad's new Vena II is a wonderfully easy to use all-in-one amplifier that offers superb sound quality: think easy going – and deeply insightful with digital from its ESS

Sabre32 DAC. Offering a performance up with the best at a price of £649 it strikes me as the quintessence of high fidelity – a great sound at a great price. Utterly superb!

A small and simple remote control, intuitive and easy to use.



MEASURED PERFORMANCE

Quad's Vena II produced 55 Watts into 8 Ohms and 72 Watts into 4 Ohms, identical results to the first Vena – and enough to go very loud in most systems.

Output rolled down slowly above 20kHz (-1dB at 30kHz) in Quad fashion, ensuring easy treble; low frequency output rolled down below 10Hz.

Gain from the analogue line inputs (Aux1,2) is low at 500mV (0.5V) for full output – enough for silver disc players (2V).

The optical S/PDIF digital input worked to 192kHz sample rate, again frequency response rolled down early, to 26kHz (-1dB). The electrical input gave identical results. Vena II has an ESS9018 Sabre32 Series digital-to-analogue convertor (DAC) that gave a very high 117dB EIAJ Dynamic Range value from the loudspeaker outputs and 118dB from the Pre-out – excellent figures, well above original Vena.

USB topped out at 24/384kHz and frequency response with 24/192 PCM was flat to 41kHz (-1dB), a tad higher than S/PDIF. EIAJ Dynamic Range remained a high 118dB, USB adding no noise – and distortion measured 0.02%,

like S/PDIF. Bluetooth had a respectable 99dB Dynamic Range – similar to CD.

The MM phono stage needed a normal 4.5mV for full output and overload was high at 53mV. Quad roll gain down below 20Hz to lessen loudspeaker cone flap from LP warps Noise was low at -79dB.

The Vena II amp measures like the original but the digital inputs have stepped up to high current standards. The MM phono stage measures well too, as does Bluetooth. A fine all-round performance. **NK**

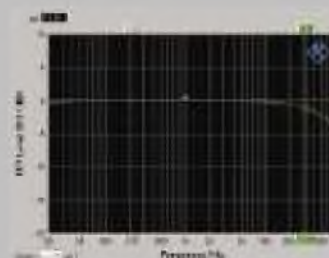
Power	55W
Frequency response	10Hz-31kHz
Distortion (10kHz, 1W)	0.02%
Separation (1kHz)	91dB
Noise (IEC A)	-112dB
Sensitivity	500mV

DIGITAL	
Frequency response	4Hz-26kHz
Distortion (-60dB, 24bit)	0.02%
Dynamic range	118dB

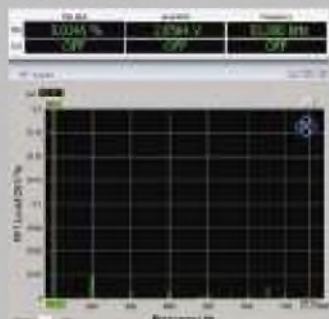
PHONO (MM)	
Frequency response	20Hz-20kHz

Distortion (1kHz, 5mV in)	0.03%
Separation (1kHz)	68dB
Noise (IEC A)	-79dB
Sensitivity	4.5mV
Overload	53mV

FREQUENCY RESPONSE



DISTORTION



QUAD VENA II
£649



OUTSTANDING - amongst the best.

VERDICT

A super smooth amplifier and digital section, plus LP and Bluetooth. Marvellous.

FOR

- easy powerful sound
- facilities
- slick remote control
- small

AGAINST

- slight hum with LP
- illegible legends
- dull styling

Quad
www.quad-hifi.co.uk

Nuclear Reactor

French company Devialet has shrunk its Phantom series loudspeakers with the launch of the Reactor. But it's as potent as ever, says Jon Myles.



Most loudspeakers follow the conventional pattern of drive units in a wooden cabinet (either square or slightly curved), usually with a port to enhance bass, or just sometimes a sealed box 'infinite baffle' design with no port.

When French company Devialet launched the revolutionary all-in-one active Phantom 'speaker in 2015 that pattern was discarded. Frankly, it looked like nothing that had gone before and even now nothing that has come since.

Shape-wise it resembled an elongated egg turned on its side. At

the front was a snowflake-shaped grille which isn't there just for decoration (more of which later).

At the sides were two bass drivers covered by round white covers. More interestingly the Phantom could be used as a single mono unit or paired with another to produce a stereo soundstage.

The only drawback was that this arrangement would set you back over £4000 – a not insignificant sum.

Since the launch of the original Phantom there's been a slew of different models – Classic, Silver, Gold and even an Opéra De Paris. But they've all remained the same size, differing mainly in power output.

Now, however, comes the Phantom Reactor – available in two models, the 600 and the 900 on review here. Measuring 16.8cm in height and 21.9cm deep it looks exactly like its larger brethren but is smaller and has less power. That said it still has 900 Watts of power on board – more than enough to fill a medium-sized room with sound and, with two paired together, capable of taking on even larger spaces.

That power comes from Devialet's

Although small the Phantom 900 weighs in at a hefty 4.3kg thanks to a glass fibre-filled polycarbonate interior, aluminium core and the stainless steel white exterior. Despite such build complexity it will fit in the palm of your hand so moving the Reactor around is easy.

At the top of the unit are touch controls for volume, pause and Bluetooth pairing but – as ever nowadays – there's also a dedicated Devialet app for both iOS and Android to make things easier.

At the front – behind that attractively-shaped grille – is a full range driver that handles the mid to high frequencies. The grille is not just an aesthetic adornment – it's been designed to disperse the sound as widely as possible so if just one Reactor is being used you get breadth



The top of the unit includes touch controls for volume, Bluetooth pairing and pause/play.

with the bass superbly controlled horizontally.

That's a credit to just how well-engineered and constructed the cabinet is, plus its weight. And, once you get used to it, there's something quite fascinating about seeing the sides pumping frantically in and out.



proprietary ADH (Analogue Digital Hybrid) technology where a small Class A amplifier is connected to the loudspeaker's output while a parallel Class D stage provides the necessary grunt.

Some reviewers have compared the topology to Quad's current dumping technology, devised by founder Peter Walker, but it's rather more sophisticated than that.

Inside is a DAC capable of handling file sizes of up to 24bit/192kHz while connectivity includes UPnP, Bluetooth, Apple AirPlay, Spotify Connect, plus digital optical and analogue inputs.

of sound.

But it's the bass response that really marks out the Phantom for such a relatively small loudspeaker. Devialet claim a low-end of 18Hz – something not many tracks actually contain (see our Measured Performance for the definitive figures).

Turn the volume up with anything containing low-end clout and their hemispherical side panels vibrate prodigiously. In fact on first use it can seem rather alarming, as though they are going to shake the whole 'speaker apart. But walk over and put your hand on top of the unit and there's no rattle or shake. It feels rock solid

So, space age looks, compact dimensions and some clever technology are all rolled into one with the Devialet Phantom Reactor. But all that counts for nothing unless its sound quality matches those attributes.

SOUND QUALITY

I started out using a single Reactor placed centrally in the Hi-Fi World listening room on a dedicated loudspeaker stand.

King Tubby's 'Dub Fever' – which is not shy of bass – had more low-end power than I've heard from any similarly sized loudspeaker. In fact the Phantom brought out all of the lower

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octaves in a balanced, controlled way. But it wasn't just a thumping bass-fest, more a controlled, nuanced sound. The high-frequency beeps on some tracks also made me sit up as they appeared from seemingly nowhere and then disappeared just as quickly.

Their front driver does a good job of projecting mid and high frequencies into the room. Also, bass was neither slow nor sluggish, always keeping excellent timing without descending into uncontrolled distortion that can rob a track of focus, speed and power. I came to the conclusion I could happily use this 'speaker in a medium-sized room without any qualms.

That said, good as it sounds with a Reactor on its own there's no true stereo effect on offer. For some that might not be a problem depending how and where they want to use the Reactor, because high quality mono has its own merits. But pairing two Reactors for stereo brought a huge leap in sound quality, as you might expect.

The Devialer app allows you to designate one as the left channel and one as the right. Being wireless no physical connection is needed – simply plug both into a mains power socket.

That done the spread of sound around the room was truly impressive. Yet again bass output belied the size of the loudspeakers – now it seemed two big floorstanders were pumping out music.

The Clash's 'One More Dub' from Sandinista positively romped along with deep bass but also a sense of timing and detail that put some more expensive loudspeakers I've heard to shame.

Better, the Reactors provide a wide soundstage so it didn't seem as though I was listening to a pair of constrained 'speakers, but a band playing live in front of me.

And, for all that bass on offer, the Reactors do not want for delicacy. The gentle tones of Margot Timmins' vocals on 'Blue Moon Revisited (Song For Elvis)' from Cowboy Junkies' Trinity Sessions (24/96) sent shivers down my spine. Her intonation was enthralling and the reproduction pitch perfect.

At the end of the day these new Devialet Phantom Reactors are capable of handling with aplomb anything you can throw at them. They'll bring the best out of bass-heavy tracks with a power that hits you in the stomach but can also sound sweet and smooth-sounding with lighter material. Buy one and you'll be impressed – get two as a stereo pair and they sound even better.

CONCLUSION

Listen to the Reactors and it's as though you've hidden a dedicated subwoofer somewhere in the room.



The snowflake-shaped grille in front of the midrange/high frequency driver is designed to give each loud-speaker a wide soundstage.

But there's a lot more to them than that. They are clean, clear and crisp and come in such a small form factor they are easy to be placed anywhere in a room.

The unusual looks might deter some people but they shouldn't because the sonics they produce are exceptional. A single unit sounds good – but as a stereo pair they are amongst the best at the price.

MEASURED PERFORMANCE

Frequency response of the Phantom Reactor 900 measured flat from 30Hz to 20kHz our third-octave analysis of pink noise shows, with little variation around the 0dB datum. This is an academically flat and therefore tonally accurate loudspeaker, likely equalised internally to be so. Because it uses a single forward facing mid/treble unit in a spherical cabinet the forward response varies little vertically or horizontally, meaning the Reactor will not change its sound according to listening position, as many larger multi-way loudspeakers can do.

Output from the tweeter rose quite sharply above 10kHz to +5dB at 20kHz on-axis, but this fell back a little off axis, to give the measured result we show at 30 degrees. The Reactor is best pointed straight down a room rather than directly at listeners, some of whom may detect such an effect with treble-strong recordings.

A well supported upper midrange with no crossover dip will deliver plenty of apparent detail; the Reactor will sound quite forthright – not mild or warm. Notionally correct but like all modern loudspeakers with such a response, poor digital recordings will have their faults exposed. This is a revealing loudspeaker, rather than a euphonic one.

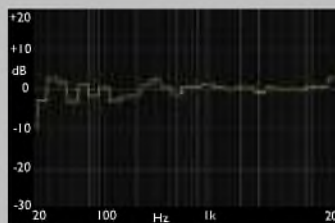
Getting bass from a small cabinet is always a major design issue and here

Devialet have achieved an impressive result. There is some loss of output in the 150Hz region that will lessen warmth, but a small lift below 100Hz that will strengthen deep bass, right down to a very low 30Hz where the Reactor is +3dB up – enough to add subjective weight to very deep bass. The only drawback here is that the twin bass units will work very hard if volume is turned up; disco bass levels will be unrealistic and the amplifier may well protection limit if too much is demanded.


Sensitivity was high, a low 100mV being needed for 90dB sound pressure level (loud) at 1m. Any portable device, even a mobile 'phone, can deliver this with ease since they produce 800mV or more.

The Phantom Reactor has been tailored to deliver a very accurate result in terms of sound balance. It is smooth and peak free, plus it goes very low for strong deep bass. **NK**

FREQUENCY RESPONSE



At rear is the wired ethernet connection, power supply socket and a 3.5mm analogue/digital (optical) input jack.

DEVIALET PHANTOM REACTOR 900
£1290 EACH

OUTSTANDING - amongst the best.
VALUE - keenly priced.
VERDICT
 Different in design but superb sounding. Articulate bass and a sweet top end add to the appeal.
FOR
 - massive bass
 - smooth mid and treble
 - compact dimensions
 - dedicated app
 - easy set-up
AGAINST
 - need two for stereo
 Devialet
 www.devialet.com

Screen time

Want a colour screen for artwork? Naim's NDX 2 streamer is for you says Noel Keywood.

There are streamers – and Naim's streamers. The NDX 2 (£4999.00) I am reviewing here is an upmarket version of the NDS XS 2 (£2299.00) 'entry-

level' we reviewed in the May 2019 issue. You can tell by the on-board screen! Otherwise you might be baffled because they look similar, but unsurprisingly the NDX 2 is better equipped.

There's little digital the NDX 2 cannot access. It offers connection to on-line music services such as Spotify and Tidal and has vTuner to pick up the 10,000 or so radio stations streaming to the 'net around the



world. Digital connection is via wi-fi or wired ethernet – I used it wired.

With UPnP it can stream from any home network server including a Windows PC (or Mac with UPnP software), to read all those CDs ripped so laboriously to a NAS drive – or perhaps furtively grabbed from a friend! However, no need here to load it onto a NAS drive since the Naim can also read music files from a USB drive plugged in at front (left) – something I find very easy and convenient when music files are

whizzing around everywhere. There's a rear USB for more permanent storage.

Additionally, there are no fewer than four S/PDIF digital inputs on the rear panel, two opticals, one BNC electrical and one RCA phono socket electrical, again all easily selected by the app or remote control.

With Bluetooth (aptX HD) it accepts music streamed by direct radio link from a mobile 'phone or tablet. Apple Airplay and Google Chromecast are supported and the

NDX 2 also integrates with Roon, as a fully certified Roon Certified end-point device. With Roon you get album artworks delivered consistently to the on-board screen (and app) from its data base.

As you might have guessed by now, there is a free control app for mobile 'phone/tablet for those with wi-fi, but also a remote control – missing from the ND5 XS2 – for those who would rather not fiddle with the 'phone or a tablet, but of course you then get a track list on



the screen only and may need binoculars.

The case is 87mm high, 432mm wide and 324mm deep, weighing a hefty 10kgs, so as streamers go this is a big one. One of the reasons is that Naim use a massive toroidal mains transformer inside, feeding a linear power supply. No cheap switch-modes here!

The alloy case is of tank-like construction, with clean edges and rock solid feel. At right sit Naim's soft-touch back illuminated press button controls, but with remote and app available there's not much need. And I find Naim's app easy to use; there aren't too many obscure side functions; most of what you need to see and do sits in plain sight.

Naim say they use a Burr-Brown PCM1792A digital-to-analogue convertor chip with their own digital filters and current-to-voltage convertor. Shame there are no filter options available, although Naim's filter is pretty drastic by digital standards – and it gives fine sound. But then I often end up preferring slower filters that restrict analogue bandwidth, so no big surprise.

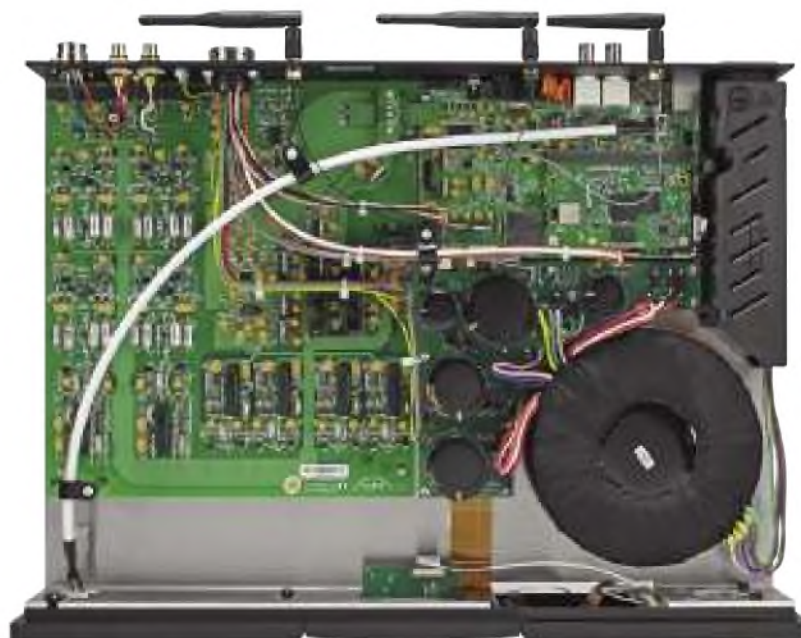


Files up to 32bit at 384kHz resolution (PCM) are readable, plus a wide range of file formats including WAV, FLAC, Apple Lossless (ALAC), Aiff, MP3, M4A, and Windows files such as WMA. DSD64 and DSD128 are playable as well, I found.

Omissions are remote control of volume – a surprise – and balanced XLR outputs. There's no headphone output either. All disappointing at the price.

SOUND QUALITY

I hooked the Naim NDX 2 up to our network and ran it mostly from our Melco N10/100 ethernet connected server. However, I also used a USB flash memory drive plugged in at front and our Astell&Kern AK120



Massive toroidal mains transformer (bottom right) marks the NDX 2 out as 'a Naim'. It feeds a huge linear power supply and low noise regulated power lines that all contribute to the Naim sound. The main board is neatly laid out.

portable player plugged in optically. Measurement showed no difference between these inputs except optical will not play 192kHz sample rate data, which is a TOSLINK connector limitation, rather than a system limitation.

Initially I partnered the Naim with our Creek Evolution 100A amplifier, connected by Chord Company Epic unbalanced RCA phono plug terminated cables (the

mean Daz (Persil?) clean, washed of grunge, clear and strong at bass frequencies and with a gloriously open sound stage of spacious dimension – but without warmth.

Classical enthusiasts will gurgle with delight – as I did! With large orchestras like the Berliner Philharmoniker playing Don Quixote, Horn Concerto 2, Richard Strauss (24/96) the NDX2 threw up a massive performance that spread

"The clincher with NDX 2 is sound quality. What I heard was convincing"

Naim lacks XLR), but it sounded so good I decided to move on to our Icon Audio Stereo 30SE single-ended valve amplifier to squeeze out some more.

Loudspeakers were Martin Logan ESL-X hybrid electrostatics, cables Chord Company Signature Reference and an Isotek Evo 3 Mosaic Genesis re-generated power supply provided clean mains of 0.1% distortion to the system, instead of the 3%+noise that affects our London supply (fairly typical value).

The NDX2 had a distinctive sound, sort of Naim-ish. By that I

wide across the room, giving the orchestra scale and presence. The Naim's strong low-end delivery of kettle drum strikes also brought power, but the presentation is a clean one, with no hint of softness. Horns had excellent timbral resolution, sounding richly metallic, yet were crisply delivered; quite a fast sound for Naim and that's why I said Naim-ish. In the past Naim was more laid back I recall.

The NDX 2's character was interesting with Rock. Playing the challenging Dreams from Fleetwood Mac (24/96) I was hit by a sound



Two external wi-fi aerials and one Bluetooth aerial help make the NDX 2 sensitive to household router and phone signals, aiding data speeds and reception stability. There is an array of digital inputs and Naim's DIN socket output at right, but no XLR balanced outputs from the DAC.

I could get along with. Big and spacious, with Mick Fleetwood's drums punchy and powerful; Naim bass again. Steve Nicks sang in a clean space between the XStat electrostatic panels, easy to take in. The oft-heard brightness of this old classic translated into a pure delivery from the NDX2, if one that made clear its strong treble. It's not warm or reticent, but sharply defined up top.

Diana Krall's *Narrow Daylight* (24/96) usually comes across as soft and laconic, but the NDX 2 took a different view. It saw further into the timbral qualities of the piano and elevated Krall's vocals by placing them in a pure space, her vocal intonations made obvious. The slow bass line was tight and clean. Quite a vivid view, not soft or laconic. But the DSD64 version of this track NDX 2 showed to be soft and laconic, teasing out the differences between PCM and DSD. Arresting in the DSD version though was the simple plucked bass that came across as strong, clear yet texturally rich – no wobbly simulacrum here.

I ran a test of impurity! Well, it can be fun and ideally should be. The Eagles 'Somebody', from *Journey Out of Eden*, is compressed (CD) and can sound messy, but the Naim delivered the whirling Hammond organ and Glen Frey's vocals in clean enough and enjoyable form, if not warmed and smoothed. The Naim has strong top end revelation but it pushed this track along with strength and tempo.

CONCLUSION

The clincher with NDX 2 is sound quality. What I heard was pretty

convincing, especially in sound stage size and overall propulsive power. The NDX 2 delivered both Rock and Classical in dramatic form between our electrostatic panels. Sonically it was supremely well honed, something of a reference for what is possible from streaming. And if you crave tight

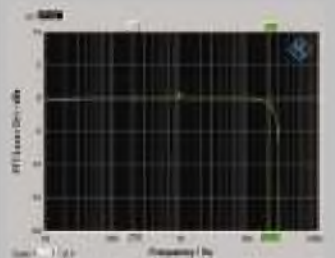
bass, come here.

Lack of volume control is a negative at the price, although not if your amplifier has it. But whatever device you have with digital on it, this streamer will play – providing you are prepared to miss out on 24/192 from optical – no deal breaker.

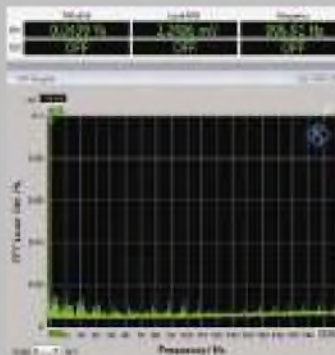
MEASURED PERFORMANCE

Frequency response of Naim's NDX 2 reached 22kHz (-1dB) from its S/PDIF electrical input (BNC) at 192kHz sample rate PCM (and all lower sample rates), where 96kHz analogue bandwidth is the theoretical maximum, often achieved. Naim traditionally bandwidth limit to 22kHz or thereabouts with their amplifiers and NDX 2 follows this

FREQUENCY RESPONSE



DISTORTION



pattern. There are no optional filters to change this. Results were identical from our ethernet wired Melco N10/N100 network server.

The optical inputs accepted up to 176.4kHz sample rate with our QED Quartz optical cable used in tests, as well as two other cables, going silent with 192kHz. With optical this is sometimes a matter of plug fit but jiggling the plugs – which sometimes works – did not work here.

Distortion at peak output (0dB FS) measured 0.0005% and at -60dB with 24bit a low 0.04%. The presence of some noise resulted in a mediocre 112dB EIAJ Dynamic Range value, from digital and network inputs, far below the 127dB claimed by Burr Brown for their PCM1792A DAC chip. Output (fixed) measured a standard 2.2V, similar to that of CD players; there is no volume control.

The NDX 2 measured well, with very low distortion and Naim's usual limited bandwidth. Dynamic range was mediocre however. **NK**

Frequency response (24/192)	
4Hz-22kHz	
Distortion (-60dB)	0.04%
Separation	97dB
Dynamic range	112dB
Noise	-1106B
Output	2.2V

NAIM NDX 2
£4999.00



OUTSTANDING - amongst the best.

VERDICT

A great sound, large and spacious. Does it all, almost.

FOR

- big sound stage
- strong, tight bass
- easy to use

AGAINST

- no volume control
- no headphone output
- no XLR balanced output

Naim Audio
+44 (0) 1722 426 600
www.naimaudio.com



2M

The 2M Series, named after the abbreviation of Moving Magnet (MM) technology, is an affordable range of pick-up cartridges with first-class audio design principles throughout. Featuring Ortofon's trademarked split-pole pin technology for a flat frequency response, all 2M cartridges have a high output for easy integration into any turntable system.

Ortofon's philosophy is to play the record sound as accurately as possible, without colouring the sound in any way. Both the 2M Bronze and 2M Black have diamonds which are cut and polished to the highest standards of the industry. The 2M Bronze and 2M Black also have interchangeable stylus units, and replacement styli are readily available in the UK.

The 2M range has been structured in the same way as the popular Rondo and Cadenza Moving Coil series, with ascending quality as you move from Red - Blue - Bronze - Black. The spectacular 2M Black has become the flagship of 2M, and all Ortofon moving magnet cartridges. 2M was also the last product designed by Ortofon's former chief engineer, Per Windfield, who developed the 2M series over the final 2 years of his 30 year tenure with Ortofon.



Red

A hugely popular all-purpose cartridge with a Tipped Elliptical stylus that delivers an open, dynamic sound with a slight touch of warmth.



Blue

An affordable step up in the range, which adds a greater resolution, dynamics, and detailed sound thanks to the Nude Elliptical stylus.



Bronze

Featuring a superior body, the Bronze picks up even the highest frequency information for a rich, detailed and deep soundstage, and can be further upgraded with ease.



Black

The musician's choice and flagship of the range, the 2M Black features a Nude Shibata stylus which guarantees a true-to-life sound performance. This is truly the best MM has to offer.

Today + Yesterday

A hybrid transistor and valve phono stage for all cartridges, MM and MC. Noel Keywood listens to EAT's E-Glo Petit.

A high technology phono stage with valves is the best way to summarise the E-Glo Petit from EAT (European Audio Team) of Austria. Inside lie circuit boards built by robots, able to lay down micro-miniature components humans can't cope with, yet at the same time they've managed to get a pair of valves in too. You get modern precision from today, with atmospheric sound from yesterday. And for all cartridges, moving magnet

(MM) to moving coil (MC), including the most exotic low output MCs. Price £1250.

To do all this in a small case is the Petit's forte and requires quite a lot of modern electronic trickery. Whenever valves are involved big power supplies are needed – but not here. EAT have got a pair of valves working from a small external wall-wart supply that delivers in just 18V d.c (1A). Petit offers valve sound from a small and compact unit measuring just 226mm wide, 262mm

deep and 78mm high. OK, it isn't as small as possible, but it is small for a hybrid valve phono stage.

'Hybrid' because this is not an all-valve phono stage, it is a transistor stage with valve output line drivers, known as cathode followers. The idea isn't uncommon, and it gives a fine result when done well, with good sound allied to small size and low noise. If you want an all-valve phono stage like our Icon Audio PS3 MkII that I inevitably used as a comparison, it is larger and double the price, to





Neat circuit boards carrying soldered-on switches, rotary and lever style – hence top panel controls. The valves with finned heatsinks are at top.

get the Petit into context.

The Petit has one pair of phono socket inputs, and one pair of phono socket outputs. It can't switch between permanently connected MM and MC turntables, but it can be quickly set to match any cartridge – MM or MC – from a single turntable, accommodating a change of cartridge in headshell as a most-likely example. There are no balanced outputs, nor rarer balanced inputs; this is a straightforward unbalanced design with phono sockets only, no XLRs. There is no output volume control so it cannot drive a power amplifier directly – a preamp is needed or it feeds a conventional integrated amplifier. And no digital either, nor remote control.

The long row of vertical lever switches are unusual and a bit technical in the way they present all the many options needed to match in a cartridge. To immediate right of the power switch at left is an impedance selector marked $\Omega/k\Omega$ (Ohms/kOhms) – MC and MM in effect.

Set to Ω for MC cartridges the rotary switch at left can select load values of 10, 18, 43, 75, 150, 300, 600, 1200 Ohms. The standard quoted load for MC is 100 Ohms, so lack of this value may cause some confusion: 75 or 150 will suit. MC load is, as

a rule of thumb, ten times that of generator impedance – it isn't critical – so the 10 Ohm value will suit a 1 Ohm (very low output) cartridge. Most MC cartridges are 10 Ohms or thereabouts, which is why 75 or 150 Ohms will suit. Some cartridges such as Clearaudios have a 50 Ohm



A simple rear panel carrying solid gold plated phono socket inputs and outputs. The unit is 'Handcrafted in EU, Czech Republic'.

generator, so the 600 or 1200 Ohm values suit.

Lots of MC options then but really only low (10 Ω), normal (100 Ω) and high (1000 Ω) are necessary.

Set to k Ω for MM cartridges there is a similarly wide range of load values: 30, 36, 42, 47, 53, 59, 65, 75kOhms. Of these 47k is standard and best used; the others are for experiment. Load capacitance, which affects frequency response of MM

cartridges (but not MCs) can also be set to 50, 150, 270, 370, 520, 620pF. Best to start out at 50pF and experiment, higher values raising the upper midband to give brighter sound, whilst rolling off high treble.

Another (biased) lever switch clicks through a wide range of gain values from 40dB for high output MM cartridges all the way up to 70dB for low output MC cartridges. This is a broad enough gain range to cover all cartridges on the market, making the Petit able to match anything available, old or new.

The chassis is very well finished in matt silver grey with gloss wooden side cheeks. Two circular covers sit atop the 12AX7 valves and each has a clip-on finned heatsink to improve heat dissipation. Low power triodes like the 12AX7 have long life of 10,000 hours and don't run hot, just slightly warm. They're common and inexpensive too, costing around £12 each.

The small external wall-wart power supply has an unusually short lead just 120cms (3ft 11in) long, barely able to reach a nearby wall socket from a shelf, demanding a mains extension lead or close supply. It has no identifying/connecting name either, so will get lost amongst all the others we all have. A unique label like 'EAT Petit' is needed.

The top mounted switches and control knobs demand positioning in the open, beside a turntable – making for a combo wider than most racks.

SOUND QUALITY

I used the E-Glo Petit with our Timestep Evo modified Technics SL-1200Mk2 fitted with SME309 arm and Ortofon Cadenza Bronze MC cartridge, a headshell change giving an Audio Technica VM750SH MM. The Petit's output went to a Creek Evolution 100A amplifier feeding Martin Logan ESL-X hybrid electrostatic loudspeakers through Chord Company Signature Reference cables.

Mains regeneration to eliminate local distortions came from an Isotek Evo 3 Mosaic Genesis supply. There's no ground lift on the Petit; it is not connected to earth through its power lead but it does connect input earth to output earth – likely to introduce hum if other components are earthed.

In sound the Petit exceeded my expectations. It has all the sonic insight of a very good solid-state design, but enough of the atmosphere and low end weight that valves enjoy. Making Alison Goldfrap sound wonderfully breathy centre stage, every little intonation obvious, whilst the powerful synth lines had both weight and speed. Yes, speed: this little unit is not laconic or laid back,

By the time I got to Neil Young's Tell me Why, from After the Goldrush (no, not After the Goldfish you silly spell checker) – an 180gm, all analogue re-master – traits were coming into focus. Young's acoustic guitar was vivid and had solid sense of body, but there was some solid-state hardness compared to our all-valve Icon Audio PS3 MkII. You get more insight and resolution, but less relaxation and stage depth.

However, at an absolute level the Petit not only had pristine clarity and strong yet supple bass, it was also svelte in delivery. Even with old recordings like Janis Joplin's Me and Bobby McGee (Mobile Fidelity re-master, 180gm 45rpm) it lifted Joplin out to make her gravelly vocals obvious yet palatable.

With the very latest and greatest new recordings like Big Band Spectacular, with The Syd Lawrence Orchestra, I had a vividly lit orchestra before me, with fast drumming and blaring saxophones put up in full scale. Knockout spectacular!



Top panel controls. At left is a rotary MC (Ω) load switch and at right an MM ($k\Omega$) load switch. Lever switches below select MM capacitance, gain and Subsonic filter.

CONCLUSION

There's no doubt that sonically this is a great phono stage. It has enormous insight and fantastic resolution: you get to hear everything. It also has fine tonal balance, with strong yet supple bass and obvious yet sweet treble. I've never heard our lovely Ortofon Cadenza Bronze MC sound so good! At the price it is in effect a bargain, even if at a practical level it could be easier and better.



Clip on heatsinks help cool the valves, but they only run warm in any case.

instead it races along supported by strong low end power – and a vivid, vivacious midband squeakily clear of smear or overhang. I called it "manicured" in my notes.

All these qualities were obvious with Hugh Masekela's Hope (Analogue Productions, 180gm), the track Lady had Masekela's trumpet and vocals blare out, whilst kick drum was firm and discrete – standing well apart – as did his support vocalists. It was a great sound – both lively and enormously detailed. Even the fine clinking of sticks was obvious and discrete.

At this point and after many LPs I was marvelling at the sense of intense insight the Petit offers and its impressive resolution and symbiotic presentation of our Ortofon Cadenza Bronze MC cartridge. It captured the sweet but clear treble of the Bronze better than most: when Mark Knopfler's guitar strings chimed out in True Love Will Never Fade, from his LP Kill to Get Crimson, I was entranced! Lucidly clear and fresh, like morning sun.

MEASURED PERFORMANCE

Gain values measured as stated, except the maximum gain of 70dB (x3162) wasn't achieved, a value of x2513 amounting to 68dB – still enough for very low output moving coil (MC) cartridges.

The Petit overloads at 9V out, like most solid-state phono stages, the valves making no difference (no gain). This results in acceptable input overload values of 90mV with gain set to 40 for

MM, down to 4mV with gain set to 70 for low output MC.

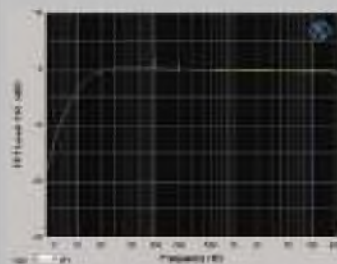
Frequency response measured flat from 16Hz to 20kHz with the highest gain of 70dB our analysis shows and was identical at lower gain values.

Steep reduction in gain below 20Hz gives -14dB attenuation at 5Hz, providing effective warp filtering to prevent loudspeaker cone flap. The Subsonic filter improves on this by increasing attenuation at 5Hz to a very high -40dB. With slight lift above 25Hz with subsonic filter in or out bass will be subjectively strong.

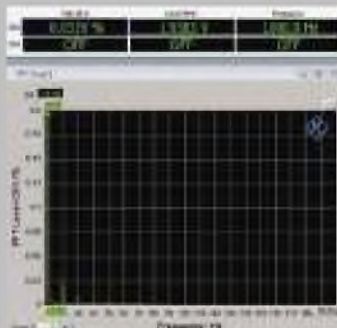
Noise measured a low 0.16 μ V (input noise) for both MC and MM. With MC 0.08 μ V is possible making the Petit 6dB noisier, but the difference is between no noise or a faint background hiss at the loudspeakers. So low noise, but not the best possible, the valves likely being responsible.

A fine set of results from a well tailored valve-output phono stage able to work with all cartridges. NK

FREQUENCY RESPONSE



DISTORTION



PHONO (MM/MC)

Frequency response	25Hz-20kHz
Distortion (1kHz, 5mV in)	0.03%
Separation (1kHz)	67dB
Noise (IEC A)	-93dB / -82dB
Gain (MM, MC) x100 (40dB) / x2513 (68dB)	
Overload	4-90mV in / 9V out

EAT E-GLO PETIT £1249



OUTSTANDING - amongst the best.

VALUE - keenly priced

VERDICT

Wonderful sound quality from both MC and MM cartridges at decent price, but technically geeky.

FOR

- clear, revealing sound
- matches all cartridges
- quiet

AGAINST

- awkward to place and use
- poor instructions
- no ground lift switch

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Top Tap DAC

Chord Electronics Hugo TT2 DAC now comes with an astonishing 98,304 taps. Noel Keywood listens in – then adds the new M Scaler for a few taps more.

Products from Chord Electronics are always fascinating – even exciting, sometimes confusing. And that's just what I found when reviewing Hugo TT2 with M Scaler. Notes in the handbook allude to the 'power' of Hugo TT2's audio outputs. Chord Electronics explain there are discrete power amplifiers in Hugo TT2 that can drive loudspeakers direct, especially sensitive horn loudspeakers. We drove a pair of Tannoy Westminsters – large horns – from a portable Mojo in our January 2016 issue. Could Hugo TT2 drive loudspeakers, slashing system cost? More later!

Let's look at cost. Hugo TT2 is priced at £3995 – a substantial

sum. The TT means it is a table-top version of Hugo, more expensive and without batteries. It has a partnering 100 Watt power amplifier that you'll see in many website shots, TTOBY, price £2899. However, it will drive any power amplifier. M Scaler is £3495 and I talk about this separately on following pages just for clarity.

It's as a super high-technology DAC that Hugo TT2 is presented – and usually talked out – using Chord Electronics own and unique digital-to-analogue convertor (DAC) designed by Rob Watts. Manufacturers normally buy in DAC chips from outside suppliers. What you get here is a highly-specialised and continually advancing design from Mr Watts that, our measurements show, out-runs all

else except ESS (although AKM get close). However, Rob Watts states that where other designs have digital filters with hundreds of taps and make compromises as a result, Hugo TT2 now has 98,304 taps in its filter, fed by a x16 oversampled signal. M Scaler ups this to a massive 1 million taps, again fed by a x16 oversampled signal.

Chord Electronics sent us M Scaler with Hugo TT2 so we could hear the difference, a task made easier by our Martin Logan electro-static loudspeakers. And our ability to measure the thing: there are only two analysers in the world able to do this – they have one, we have the other. Interestingly they quote a class-leading 127dB dynamic range and



we measure 128dB from amplifier output, or 124dB from DAC output – both outstanding values.

In addition to being a unique DAC, Hugo TT2 is also a pre-amplifier and headphone amplifier they say. Hmm...Yes, it is, but it does not have analogue inputs, so cannot accept external analogue sources. The 'pre-amplifier' bit relates to the fact that very high gain is available, enough to drive a power amplifier direct or act as a power amplifier in its own right. Two gain settings (Hi and Lo), a big illuminated spherical volume control (centre) and both phono-socket (unbalanced) and XLR-socket (balanced) analogue outputs being fitted to make it all happen.

These days headphones rule and Hugo TT2 is designed to cope, with no less than two full size 1/4in (6.35mm) jacks, plus a 3.5mm mini jack, so no adaptors are needed. Those on-board power amps let Hugo TT2 drive headphones down to 16 Ohms or lower, with massive voltage swing so even the most difficult of headphones offer no challenge. An unusual addition is three selectable levels of Crossfeed between channels to give a more loudspeaker-like presentation. The only omission is the lack of a balanced output. Plugging headphones in disables amplifier mode (i.e. the analogue outputs).

There are arrays of digital inputs. A fully isolated USB input allows Hugo TT2 to be used as a computer's headphone DAC or to send audio from the computer to the hi-fi. The TT2 accepts native DSD (PC only) up to x8 (DSD 512). At present double-rate x2 DSD (DSD128) is about the limit for music files, because of their size. If you run a PC a DSD driver must be downloaded from Chord Electronics to run native or DoP; if you run a Mac the paid-for Audirvana Plus app. sends via DoP that works to DSD128 only in Hugo TT2.

In addition to the USB input there are two electrical S/PDIF digital inputs via BNC sockets, not the usual phono sockets. They can be used independently, as usual, to accept a digital stream from outside sources, or together as a special DBNC (Dual BNC) input to accept the DBNC output of M Scaler. There are two optical inputs for

which Chord Electronics now supply matching cables to ensure they reach 192kHz sample rate. There are no AES/EBU balanced digital inputs. And there are two digital outputs for future use with Chord Electronics products.

Another input is Bluetooth with aptX compression, for streaming from mobile phones or any other device such as iPads and portable players that now mostly come with Bluetooth. A small, light (plastic) and simple remote control unit is provided with all functions, including volume control, input selection and filter selection.

There are four filters, an incisive neutral filter (Filter 1) that offers 'absolute reference' they say, and the same with high frequency roll-off (Filter 2) to 'remove noise' from hi-res files of 88.1kHz sample rate or higher. Then there's a filter with 'warmer tone' (Filter 3) and again the same with high frequency roll-off (Filter 4). Differences between these filters were not great and sonic differences small. They work with DSD also to reduce high frequency noise (2 and 4), a problem inherent to DSD.

Like all Chord

A small and light remote with volume, filters and inputs.



The illuminated volume ball on a shaft at front, connected to green potentiometer behind. Six green super-capacitors (left) bolster the power supply. At right is the Bluetooth radio module. At centre the square black FPGA chip that holds the WTA filter and DAC.

Electronics products Hugo TT2 is of exceptional build and finish. The case is machined from solid alloy, making it wonderfully strong and with superb contours and detailing. The company light up the whole device in their usual style: the spherical volume control at centre changes colour to show gain, the colour palette moving from red (low) up to green (sensible) and then into blues to purples and eventually white (max). Internally, the LEDs change colour on the circuit board to indicate sample rate (or DSD) and this is visible through the top window. Case dimensions are 235mm wide, 223mm deep and 46mm high. with a weight of 2.53kgs.

Power is supplied by a Chinese external switch-mode power supply block that delivers 15V at a high 4A through a cable 2340cm (11ft) long

in total. Chord Electronics exclusively use switch-mode supplies and are happy with them, even though they are shunned by many others. To compensate for any possible limitations in supply transient behaviour 'super capacitors' are fitted to store charge within the unit.

And finally to the power amplifier potential of Hugo TT2. Hugo TT2 produces 20 Watts from its XLR outputs. However, it doesn't have the heat sinking or devices to

provided hi-res and DSD replay, again connected by the supplied USB cable.

I started off with high dynamic range (uncompressed) rock from CD and with Nils Lofgren singing 'Keith Don't Go' got quite a shock. It was obvious straight away that this DAC has the company's trademark sound – but supercharged. In basic character think crystal clear and vividly insightful, with no hint of warmth. There was an airy spaciousness to the sound, made more apparent

Safri Duo's 'Samb Allegro' – tremendously fast but punchy bass. It seemed perfectly timed and I heard texture where I had not before, here in the synth kick-drum beat that underpins the track so dramatically.

Modern hi-res recordings such as Marta Gomez singing 'Maria' (24/96) bettered CD in obvious fashion by fleshing out a performance with more intense inner detail – making CD sound a tad barren by way of contrast. With this superb recording,



At left, twin BNC output sockets (for future products). Next along, two large XLR socket outputs flanked by phono-socket outputs. Then come twin BNC digital inputs that together form a DBNC input. At right are TOSLINK optical inputs and a USB B computer connection.

produce such power on a continuous basis. It works fine and goes loud, but very loud will overheat (there are protection circuits). Small loudspeakers are insensitive so expect lower volume – but they will work well enough on a desk where speakers are close to your ears.

SOUND QUALITY

I used Martin Logan ESL-X hybrid electrostatic loudspeakers driven by a Creek Evolution 100A amplifier via its direct XLR inputs (no volume control) through Chord Company Epic XLR cables. Loudspeaker cables were Chord Company (not Chord Electronics; they are different and unrelated companies) Signature UL cables. The unit was run in Amp mode, mostly Filter 1 and with volume set at light blue where full dynamic range is available.

Digital was delivered from an Oppo BDP-205D Universal player acting as a CD transport, coupled optically to the Hugo with the cable supplied that was a tighter fit into the TOSLINK socket than our cables. A MacBook Pro running Audirvana Plus

by a very broad soundstage where the audience yelled and shouted from hard left to hard right in lively fashion, yet they were clear of the vocals with well-identified distance. This sense of dimensional resolution with hard images on a wide yet firm

images were hewn from stone with clear space between them – and a vivid dynamic all but defining what high-fidelity must be.

Fleetwood Mac's 'Dreams' (24/96) – a hi-res transcription from an old analogue master tape (1977)

"breathtaking clarity, giving a starkly clear and concise sound unmatched elsewhere.

canvas remained throughout my listening. Lofgren's rapid finger-picking was super clear, with better timing between fine details from the strings than I have ever heard, giving a sense of intense insight. It was breathtaking – and not just because of the qualities mentioned but because of a sense of great dynamic contrast too. An astonishing level of revelation was obvious from this track alone, as well as ability to lay out the acoustic being picked up by Lofgren's mic.

Another almost-peculiar property made itself very clear with

– hit me with a dramatic start from Mick Fleetwood's drum kit that had surgical punch – but some of the cymbal crashes were too well revealed. I know the top end of this track is a bit raspy and here Hugo TT2 made the fact obvious. In effect it revealed limitations in the transcription or original recording.

Comparisons got interesting with Diana Krall singing 'Narrow Daylight' on hi-res PCM (24/96) and DSD64. To my surprise there was not much difference. Both were relentlessly sharp in timing, clean and clear, DSD

without the romance I associate with it.

With classical DSD tracks like Dejan Lazic playing Brahms' 'Piano Concerto No3' although there was fabulous insight - the almost relentless clarity of this DAC made for a lack of organic warmth that was not what I expect from DSD. Again though, the tremendous sense of timing and broad sound stage gave Hugo TT2 a sense of rigid composure no other DAC can match, strings coming through with assured presence.

After writing the above I was told Hugo TT2 converts DSD to PCM, presumably because the custom FPGA chip lacks a DSD process route with low pass filter. This explains what I heard though.

With hi-res classical such as the Minnesota Orchestra playing Korsakov's 'Dance of the Tumblers' from 'The Snow Maiden' (24/96), TT2's large canvas made the orchestra sound both vast and dynamically engaging, kettle drums having sudden and solid power when struck, the instruments all seemingly well separated with clear air between them. Again, it was time to run up the volume!

This was something I kept doing and suddenly the penny dropped. Using Amp mode at high gain - light blue and above on the volume sphere - maximises dynamic range. And I was running at light blue and above, effectively achieving a dynamic range of 130dB or more. That's way above the 120dB of top class rivals.

An issue Hugo TT2 raised was that of 'insight'. It appears to have insight into digital, as it were. Transcriptions of old analogue performances had their faults revealed and did not sound wholly better. Modern hi-res recordings fairly assaulted me with everything from detail to dynamics, sounding almost too good to be true. Good CD was fine but old CD was revealed as, well - old CD and not so nice.

Bluetooth worked well once I had entered the PIN number demanded, which the handbook fails to mention: it is 0000. Interesting that the limitations of aptX compression became quite obvious in contrast to all else.

And finally Hugo TT2 did indeed drive our Martin Logan ESL-X loudspeakers quite loud (Hi gain) via the XLR output sockets, using a pair of adaptor leads I soldered up (XLR to 4mm line socket). At times

I fancied there was a tad more detail but then there was less low-end drive, David Bowie's 'Suffragette City' missing a bit of propulsive power. So a bit of a compromise here but do-able all the same.

Headphones are best used at Lo gain that limits output to 3V - more than enough. Sound quality showed all the traits I heard with loudspeakers, cross-feed (XFeed) making the experience less in-head.

CONCLUSION

Hugo TT2 resolves both CD and hi-res digital with breathtaking clarity, giving a starkly clear and concise sound unmatched elsewhere. It also has fantastic timing and almost



Our DIY loudspeaker adaptor leads, XLR to 4mm line socket (not available commercially; go to RS Components).

peculiarly tight yet punchy bass. It is a little short on warmth, especially with DSD, majoring on deep analysis instead - undoubtedly its forte.

To hear CD and hi-res like you've never heard it before, and as you will not hear it anywhere else, this is the DAC to audition.

MEASURED PERFORMANCE

The crucial EIAJ Dynamic Range value of Hugo TT2 was 124dB in DAC mode and 128dB in Amplifier mode, set to Hi gain and with volume advanced to avoid output clipping (light blue on the volume control). Both are exceptionally high values not bettered elsewhere, although ESS DACs match the figure.

Designer Rob Watts insists distortion is more important than dynamic range and here the Hugo TT2 produced a record low value of 0.008% at -60dB with 24bit - see our analysis. At best rivals manage 0.02% so Hugo TT2 has half their distortion. Note that Chord Electronics only quote distortion at

full scale (0dB FS) to match other manufacturers. Our -60dB test is more meaningful and now widely used. S/PDIF and USB gave identical figures.

Distortion with CD (16bit) measured 0.19% at -60dB, not a lot different to usual due to quantisation noise inherent in 16bit. Dynamic range was 101dB.

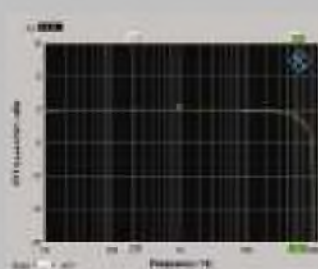
The S/PDIF electrical (BNC socket) and optical digital inputs (with supplied optical cable) both accepted 192kHz sample rate PCM, frequency response measuring flat to 55kHz (-1dB) with Filter 1 and 3 before slow roll off to the 96kHz upper theoretical limit, our analysis showing Filter 1. Filters 2 and 4 had a 21kHz (-1dB) upper limit - low. They are quite strong filters..

At Lo gain the headphone outputs delivered 3V max, at Hi gain 8V max. - more than enough for all headphones. Distortion and dynamic range values were identical to Line out at Hi gain, just tad lower at Lo gain.

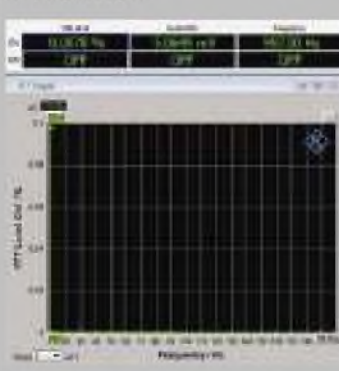
Results with M Scaler were identical although dynamic range did reach 129dB.

Hugo TT2 delivers class leading measured performance in all areas. It has huge dynamic range and unusually low distortion. NK

FREQUENCY RESPONSE



DISTORTION



Frequency response	5Hz-55kHz
Distortion (-60dB, 24bit)	0.008%
Dynamic range (EIAJ)	128dB
Noise	-126dB
Output Hi gain (Ph/XLR)	8.5V / 17V
Output Lo gain (Ph/XLR)	3V / 6V
Output DAC (Ph/XLR)	2.5V / 5V
Output H'phone (Lo / Hi)	3V / 8V

CHORD ELECTRONICS
HUGO TT2 £3,995

OUTSTANDING - amongst the best.

VERDICT
 Fabulous DAC with analytical and precise sound. Unimpressive with DSD.

FOR
 - great sound from CD
 - styling and build quality
 - small size
 - wide range of inputs

AGAINST
 - lacks warmth
 - dry DSD

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A Few Taps More

Chord Electronics release a unique product – M Scaler. It's a one-million tap digital filter that transforms CD, they say. Noel Keywood listens.

To celebrate producing a one million tap digital filter Chord Electronics have released M Scaler. M Scaler isn't a product you'll find elsewhere, even though upscaling is not a new idea. However, M Scaler doesn't just upscale, it also possesses a Watts Transient Aligned (WTA) filter in its most advanced ever state because of those milestone one million taps. That's what you pay £3495 for. And trust it will

produce better sound!

To clarify the purpose of this product, it is to get the very best from CD, by first scaling up sample rate from the low 44.1kHz – necessary in 1982 when Philips and Sony were developing CD – to 705.6kHz that will run on today's silicon. Then the stream is passed through the WTA filter and on to an array of outputs. There are standard S/PDIF digital outputs in the form of one electrical via a BNC socket, and

one optical via a TOSLINK socket, for connection to an external DAC. This can be any DAC, not just one from Chord Electronics – if with limitations I'll explain later. For Hugo TT2 and other Chord Electronics products there is also a Dual BNC (DBNC) output pair that outputs at the full 768kHz sample rate.

Input wise, there are two electrical BNC socket inputs, two TOSLINK opticals and one galvanically isolated USB for connection





Under the cover – another cover! This one with non-removable screws to shield from prying eyes, as well as provide further RF screening. At front in a line are the acrylic spheres that act as illuminated switches.

to a computer. Both a front panel spherical button (2nd from left) or the remote control can be used to step between inputs, the button changing colour to show selection. Output sample rate is set by an illuminated spherical button third-in from left. Lit red the unit is set to

at a sample rate that suits such DACs, meaning you can't input 24/96 hi-res and upscale x16 to a sizzling 1.5MHz 'cos there's no DAC out there able to take it – and cables become an issue too. Consequently, with a 96kHz input M Scaler upscales x8 to 768kHz max, but only through its DBNC output sockets to feed Chord Electronics products like Hugo TT2 with a matching DBNC input. The single BNC outlet for other DACs is limited to 384kHz under all conditions so as to suit both their DAC chips and commercial interconnect cables.

I mention cables because optical

but Chord Electronics disarmingly indicate in a chart within M Scaler's handbook that there's no sound quality improvement, except when blue (x2) is selected (why white also at x2 gives no improvement I have no idea).

To summarise simply, M Scaler works best with CD and 48kHz sample rate files, with output taken from the DBNC socket-pair to a Chord Electronics DAC with DBNC input.

Queried about the special DBNC connection, Rob Watts told me it is an AES S/PDIF dual-mono mode with changes to the data bits to flag this status. DBNC does not bypass all Hugo TT2's filters by the way; the first of three stages is bypassed, the second two stages remain active.

Like Hugo TT2, build and finish of M Scaler is impressive, its case being machined from solid alloy, making it wonderfully strong and with superb contours and detailing. Case dimension are 235mm wide, 236mm deep and 40.5mm high, with weight of 2.55kgs.

Power is supplied by the same Chinese external switch-mode power supply block used with Hugo TT2, delivering 15V at a high 4A through a cable 335cms (11ft) long in total.

There is a video mode that reduces filter time delay (0.6secs) so speech synchronises with the picture, achieving this by reducing the number of filter

taps.

The USB input did not accept DSD from my MacBook Pro laptop running Audirvana, that is packaged as DoP code. It may accept native DSD from a PC, but you can't get a Mac to do this. M Scaler is about improving PCM, not reproducing DSD.



"Like Hugo TT2, build and finish of M Scaler is impressive"

bypass, then with CD x2 upsample to 88.2kHz is green, x4 to 176.4kHz is blue and max upscale of x16 to 705.6kHz is white. Now on to practicalities.

M Scaler as a real world product must feed external commercial DACs and at present most DAC chips work up to but not higher than 768kHz; older designs 352.8kHz. So whatever goes into M Scaler must come out

TOSLINK cables barely work past 96kHz, not just because of internal losses and low bandwidth of the cheap plastic optical conductor, but also because of imprecise termination in TOSLINK sockets – wiggle 'em at high sample rates and see what happens! So the optical output of M Scaler is restricted to 192kHz for entirely practical reasons. The data still passes through the WTA filter

SOUND QUALITY

I used M Scaler mainly with CD delivered in optically from our Oppo BDP-205D Universal player acting as a CD transport. Unsurprisingly perhaps, it does not change the sound of Hugo TT2 so much as magnify it to a degree that was eye popping. With Nils Lofgren's Keith Don't Go the sound stage became even larger and more densely



At left, two gold plated BNC digital inputs, two optical inputs and a USB for computer connection (centre). Then optical and BNC outputs, and right twin DBNC outputs for Chord Electronics products with matching DBNC inputs.

powerful, as if images had gained physical weight. There was more internal detail too. The only slight alteration, rather than amplification, was a subtle smoothing of the sheen on strings, from Nigel Kennedy playing Massenet's Meditation.

"the sound stage became larger and more densely powerful, as if images had gained physical weight"

However, with Marianne Thorsen playing Mozart's Violin Concerto in G Major (24/96) her violin was still sheeny, but this recording has always been so. M Scaler, like Hugo TT2, does not euphonically process such recordings so much as expose their intrinsic character.

M Scaler's benefits become less apparent at higher sampling rates used in hi-res recordings (e.g. 24/96). With Marta Gomez singing Maria (24/96), images were densified and the sound stage hardened up, but by a smaller if still useful degree than the changes heard with CD.

The idea of putting M Scaler in front of a DAC other than the distinctive sounding Hugo TT2 could be very interesting I thought, or a damp squib. It was both. Our Audiolab M-DAC+ was a prime candidate and a qualified success; an Arcam CDS50 CD/SACD player a failure. See my column.

From CD through to hi-res M Scaler quite clearly removed

muddle from the sound of M-DAC+, separating images and events, retrieving more atmosphere from recordings and also broadening the sound stage with firmer and more strongly embodied images. Even better, the full bodied sound

of M-DAC+, with its on-board high current, low noise linear power supply was retained, even slightly enhanced by the smoothing effect of M Scaler – I fell in love with this combo! Korsakov's Dance of the Tumblers (24/96) became even larger, orchestral instruments more distinctly separated. Diana Krall singing Narrow Daylight (24/96) came into stronger focus, accompanied by a slightly smoother quality.

The one wrinkle here was M-DAC+ would only see 176.4kHz sample rate maximum, falling silent at 352.8kHz from M Scaler, so x4 was available, not x8. Changing cables made no difference.

With an Arcam CDS50 CD player interface difficulties became strange. The Arcam flagged up sample rate from M Scaler as 44.1kHz only where M-DAC+ had already shown it varied as stated. I tested the CDS50 on a digital generator and it correctly showed input sample rate, so no fault here. Worse, sound quality

was unspectacular, but a complicating factor was I had to use the Arcam's unbalanced outputs to feed the Creek's line input and volume control; neither Arcam or Creek have volume adjustment on their balanced lines. So perhaps some muddle crept in as a result. Whatever, whilst this combo worked at a functional level, it did not convey the sonic benefits of M Scaler.

The warning here then is M Scaler has problems interfacing with DACs other than Hugo TT2. Yet at the same time I thought its coupling with M-DAC+ was sublime and, for me at least, I would rate this pairing worth hearing. The extraordinary cleanliness, composure and timing of M Scaler, as well as its sound staging properties were all passed to M-DAC+ that in turn sent out a sound that was big bodied and easy going.

CONCLUSION

Chord Electronics M Scaler embodies Rob Watts view of how to perfectly reproduce digital. I thought it was devastating. You get to clearly hear how CD can sound when all the rubbish is swept away, performers and instruments all being placed in solid form on a wide and clear sound stage. Add in almost-peculiar bass timing and resolution and you end up with a sound not available elsewhere.

It's expensive – as you must expect from a technological exercise dedicated to FPGA silicon to make it happen and commercially available. It works most assuredly with Chord Electronics DACs having a DBNC input and is for PCM, not DSD. Book a demo and have a listen. This is a unique and extraordinary product.

**CHORD
ELECTRONICS
HUGO M SCALER
£3,495**



**OUTSTANDING - amongst
the best**

VERDICT

If you want the best from CD, M Scaler is a must-listen. Expensive but worryingly good.

FOR

- sound quality
- small size
- build quality

AGAINST

- inconsistent with ext. DACs
- no DSD

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naimaudio.com/streaming

Awards for NDX 2



Pocket Wizard

A tiny player at a great price, with wizard performance, Noel Keywood finds.

Cowon's Plenu D2 portable digital player is a tiny pocket wizard. It is small enough to be stashed anywhere, has a claimed 30 hour playback life with hi-res and – Cowon claim – packs a performance not bettered elsewhere. I hardly believed their figures – but they're true.

However, there are some points to consider. The D2 is purposed as a very high quality portable for headphone use; it has no digital output for connection to a hi-fi DAC, nor a digital input for use as a computer's headphone amplifier. Price is a modest £250. You get small

size allied to high performance but – and here's a wrinkle – the claimed performance is only available from the unit's tiny 2.5mm balanced headphone jack. OK, the unbalanced 3.5mm jack isn't far off, also offering a great result.

Weighing 98gms on our scales, the D2 feels solid but not overly heavy. Measuring 79.2mm high, 53.1mm wide and 15mm deep it will even fit a shirt's top pocket and – happily – Cowon put both headphone outputs on the top face, not the bottom like some. However, there's no rotary volume control at top, only a circular power button that looks like one. Volume is set by

a small side rocker – inconvenient – and volume level readout is numerical only, positioned beside the battery level indicator at top right. Beneath the volume control lies a Play/pause button and forward/back track skip.

The D2 comes with 64GB of internal storage for music and this can be boosted by using a micro-SD card of up to 128GB. Plenty enough for MP3 and CD files, but DSD comes in at 100MB a track or more remember – and the Plenu D2 plays DSD if you so wish.

The user interface has been kept reasonably simple and obvious, making the D2 easy enough to use, but the graphics are inevitably a bit on the small side. Since this is a touch screen you have to peck at small active areas, but sensitivity was good, making for a reasonably assured response. Startup was almost instantaneous, at around 5 seconds and the screen is bright and clear; I had no trouble reading it, unlike some. An info screen gives bit depth, sample rate, data rate and type encoding.

Cowon supply the D2 with a 120cm long cable with a micro-USB to USB A plugs for charging or computer connection. The unit will play whilst on a charger and is compatible with both Mac and PC, updating automatically when loaded with new music files I found – a nice touch.





At top a 3.5mm headphone socket (right) and a smaller 2.5mm socket that provides balanced output. The circular control is a power button only.

Music file formats are Wav, Flac, WMA, MP3, AIFF, ALAC, Ape and Ogg, plus DSD of dff, dsf and Iso headers. DSD64 and 128 are supported. A five band equaliser is fitted, plus no end of special effects. Buried in the Music settings menu are fast and slow digital filters but they have only subtle sonic effect, especially with hi-res.

is more than it looks.

However, whilst the balanced output socket gives massive volume and extraordinary dynamic range, I find 2.5mm jack plugs virtually unusable – they snap. Suitable for driving a hi-fi system perhaps where the plug will not be stressed – if you can find a 2.5mm 4-pole plug to XLR male plug adaptor lead and your hi-fi

The prominent violin of Marianne Thorsen playing Mozart's Violin Concerto in G Major, backed by the Trondheim Soloists (2L Norway, 24/96) was both vivacious and deeply detailed, yet free from that rasp digital adds. There was strong separation of instruments in the backing Trondheim Soloists, and from her lead violin. The delicacy of her playing was conveyed strongly, especially in solos, making for a sound that drew me in.

With Marta Gomez singing Maria (24/96) her vocals sounded close and detailed, surrounded by a sense of cosseting smoothness. No hardness here either, with accordion and blocks nicely defined. With Fleetwood Mac's classic rock Go Your Own Way (24/96), replete with sizzling 70s pace set by Mick Fleetwood's frantic drumming, the D2 fairly flew along. Interestingly, where I hear rasp from this track in cymbal crashes via Chord Electronic's revealing Hugo TT2, the Plenu D2 seemed able to gloss over the issue. All was smooth



A host of sound effects are provided, Normal being the straight-through option.

Portable player manufacturers make much of their technologies, a trend set by Astell&Kern, also of Korea like Cowon. This has spawned an arms race between companies in Korea and China, one that Cowon seem determined to win with the D2. They equip it with a CS43131 dual DAC chip from Cirrus Logic, that has built in headphone amplifiers – hence the optimised figures. Our measurements confirmed Cowon's claims (see Measured performance). They're right up with the best hi-fi DACs. Under the skin, this tiny player

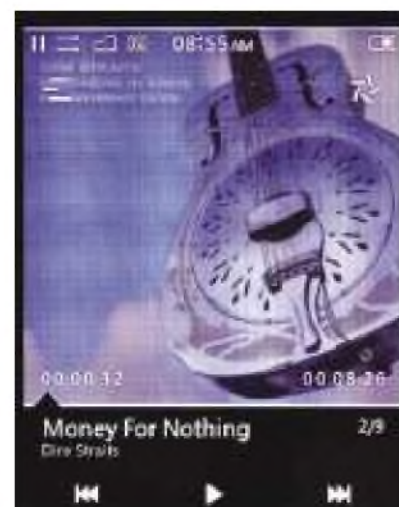


A micro-SD slot on the left side of the player accepts up to 128GB of extra memory storage.

has XLR balanced inputs. Not suitable for the rough and tumble of portable use, where the stronger 3.5mm plug is needed. These comments apply to all players with 2.5mm balanced 4-pole jacks of course, not just to the D2. All the same, the D2's 3.5mm unbalanced headphone output still gave superb results under measurement.

SOUND QUALITY

My overwhelming impression of this player from the 3.5mm jack was a sense of silky smoothness that took the digital out of digital. But that's how modern DAC chips are evolving sound quality wise – and the new (Oct 17) CS43131 DAC chip designed for portable use is an impressive newcomer to the field.



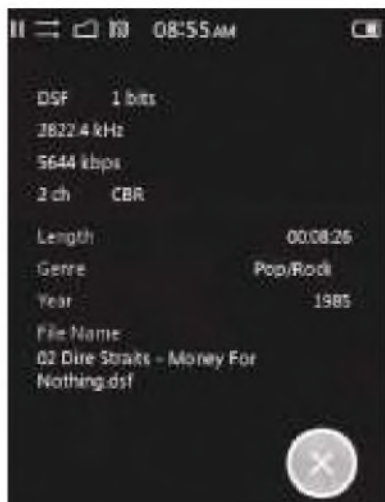
The main play screen with transport controls and cover artwork.



An options screen shows ability to alter play speed!

and easy, yet lively all the same, Stevie Nick's vocals rising out from the rock melee behind her.

Popping in a micro-SD card loaded with DSD, rather than my card of selected PCM review tracks, I was greeted by better DSD rendition than usual; Cirrus Logic have nailed this one. The CS43131 smooths PCM to DSD presentation in this player, but Diana Krall's *Narrow Daylight* (DSD64) edged it out as easier, clearer and more fluid in progress. Cyndee Peter's singing *House of New Orleans* (.dsf, DSD 128) had strikes against a triangle ringing sweetly in one of my ears, and cymbal strokes with a brush obvious in the other. This track has hard left and right images and the D2 reproduced them strongly, perhaps



The track data screen identifies data format type – DSD here as '1bits' with a .dsf file header.

due to its on-chip dual DACs. Easy going yet with nice dynamic push, Cyndee Peter's warbling slightly too far back in my view, due to the mixing, not this player; Eric Burdon's original was grittier.

I couldn't resist connecting the 2.5mm balanced output jack direct to the balanced inputs of our Creek Evolution 100A amplifier and thence on to Martin Logan ESL-X hybrid electrostatic loudspeakers to see how it fared acting as a high quality balanced analogue source. It retained its sense of creamy smoothness, if with the soft bass digital players usually exhibit from their battery power supplies; digital connection into a mains powered DAC is

punchier but not an option with the D2.

CONCLUSION

Cowon's pocketable Plenue D2 sets performance standards in digital – remarkable for such as small, unassuming device. I found it fast to start, fast in response to screen inputs and easy to use. It lacks digital output or input, being a basic player for headphones, although both headphone jacks will drive a hi-fi system via analogue connection via adaptor leads, with the player working from 5V USB power supply. In this fashion it can be seen as an alternative to a CD player – one also able to play hi-res digital. A fine player then, well worth its price.



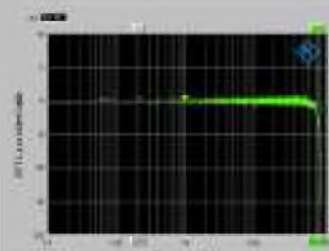
The 2.5mm 4pole balanced output jack can drive a balanced amplifier input through XLR plugs. This is our test adaptor.

MEASURED PERFORMANCE

Output measured 2V from the 3.5mm unbalanced headphone jack, and 4V from the 2.5mm balanced headphone

jack. This is enough to go loud with all headphones, even high impedance types. It is also correct for driving a hi-fi amplifier's line input: the D2 can be used as a 'CD player' in effect.

FREQUENCY RESPONSE



Distortion values (24bit, -60dB) were exceptionally low, just 0.008% from 3.5mm out, and 0.005% from the 2.5mm out (balanced). As a result EIAJ Dynamic Range values were 128dB and 133dB respectively, a stringent way of confirming Cowon's claimed SNR value of 130dB. These are exceptional figures, ahead of all hi-fi DACs.

DISTORTION



Frequency response (192kHz sample rate) measured flat from 5Hz to 84kHz with the Fast filters and just slightly less with the Slow filters; there was little difference to the amplitude response.

The Plenue D2 delivers impressive measured performance, ahead of all other players – and most hi-fi DACs too. **NK**

Frequency response (-1dB)	0.005%
4Hz-84kHz	
Distortion (-60dB)	133dB
Dynamic range	
Output (unbalanced/bal)	2V / 4V

COWON PLENUE D2 £259.00



OUTSTANDING - amongst the best.

VALUE - keenly priced.

VERDICT
Advanced digital performance and smooth sound from a tiny player. Recommended.

- FOR**
- sound quality
 - superb DSD
 - small size
 - clear screen

- AGAINST**
- no manual volume control
 - no digital output
 - small touch areas

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Limited stock subject to availability UK only. Some models show upgraded valves. E&OE

Fantastic FiiOs

FiiOs latest flagship FH5 in-ear monitors are affordable yet refined and impressive, says Jon Myles.



Fiio are best known for their affordable range of high-resolution digital audio players (DAPs) and portable DACs – but recently they've been making a big impression with some value-for-money in-ear monitors.

Its FH1, F9 and F9 Pro models received Hi-Fi World's seal of approval a few months ago (see review in the July 2018 issue). Priced at £74.99, £109.99 and £139.99 respectively they were capable of matching headphones costing significantly more in terms of sound quality.

Now the Chinese company has upped the ante with a flagship FH5 in-ear monitor costing £230. And again this model includes features usually reserved for some dearer designs from other manufacturers.

For a start the FH5 has a striking design. Its all-metal housings are made from an aluminium-magnesium alloy with a ripple design on the outside. Good as that looks it's the internals that really matter – and here FiiO has introduced a truly different design featuring a quad driver arrangement.

There's one 10mm polymer dynamic driver allied to three balanced armature devices – one for midrange and two for high frequencies. These go through three discrete tubes which FiiO claims filters out unwanted resonances.

The supplied cable is also better than most. Just over a metre long, it is made of silver-plated copper inside a transparent insulation, terminated with MMCX connectors. Thick and weighty, over-ear guides help reduce strain on the ears.

A variety of ear-tips are included to make sure buyers can get the required fit and sound isolation; the supplied carrying case is robust.

SOUND QUALITY

Playing 'Ocean Beneath The Waves' by The War On Drugs via an Astell&Kern DAP it was bass response that hit home first.

This track has a rolling bass line that often sounds rather muddy through in-ear monitors. Not with these FiiOs though. It punched hard without any overhang. The snare drum was also crisp and sharp.



There's some warmth to the mid-range but it is not over done. Playing

St Etienne's 'Tales From Turnpike House' (24/96) the separation between the instruments was excellent. Sarah Cracknell's vocals had a sweet, vibrant tone to them. My reference Noble K10 in-ears did extract more detail from the same songs but they are significantly dearer.

With Deep Purple's 'Smoke On The Water' I was also struck by the overall musicality of the FiiOs.

Putting the FiiOs against similarly priced in-ear monitors from the likes of Sony and Sennheiser they had the edge every time. If you are looking for a brilliantly built, good sounding IEM at this price then these new FiiOs fit the bill.

CONCLUSION

A quad driver, quality in-ear monitor for just £230? FiiO has raised the bar with their FH5s.

FiiO FH5 £230



OUTSTANDING - amongst the best.

VALUE - keenly priced.

VERDICT

One of the best in-ear monitors you can buy at this price. Superb construction and a smooth sound.

FOR

- design
- quad drivers
- price
- comfort

AGAINST

- rather heavy

Advanced Players Ltd
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www.advancedmp3players.co.uk

Perfect Statement

Tellurium Q has unveiled a new flagship range of cables - and Jon Myles is taken aback by their clarity.

Tellurium Q's founder and chief designer Geoff Merrigan told me some time ago the company's flagship Silver Diamond cables were the pinnacle of what they could achieve and he didn't see how they could be bettered.

Between then and now

something changed - because we currently have the new Statement cable which sits at the top of Tellurium Q's range of loudspeaker cables.

Allied to these are a set of RCA phono interconnects, balanced XLRs as well as a mains lead. It's a big step forward for the brand to introduce a whole new range

such as this - and one which might annoy customers who have purchased previous cables from Tellurium Q under the impression that they couldn't be bettered.

But, as Geoff told me, he did not think that was possible until a thought struck him and he started experimenting with different constructions

Tellurium Q Statement 'speaker cables

and materials. Exactly what these are is hard to define as Tellurium Q is famously secretive about the development and science behind its products.

But, as ever, the devil is in the detail which means the sound quality of all the individual cables.

SOUND QUALITY

Starting off with the new Statement 'speaker cables connected to a McIntosh MC152 and feeding a pair of Martin Logan ESL-X hybrid electrostatic loudspeakers there was a tremendous difference to any other leads I've heard.

These new Statements are starkly revealing. Playing New Order's 'Bizarre Love Triangle' the tempo, scale and overall sense of musicality was immense. What these loudspeaker cables do well is get out of the way and allow you to hear just what is being delivered by the amplifier and loudspeakers.

It is as though a filter has been removed so everything becomes clearer and more distinct. With the opening bars of The Smiths classic 'The Queen Is Dead' album the resonance and detail from Johnny Marr's guitar patterns were astonishing. Having used and enjoyed Tellurium Q's cables in a number of systems the level of openness these new loudspeaker cables provided was truly outstanding.

With 'Way Down In The Hole'

by Tom Waits his gruff vocals became even more guttural and had a greater resonance and presence.

Next I plugged in the interconnects - starting with the RCAs and then moving on to the balanced XLRs. With both there was a noticeable increase in the depth of soundstage. Perhaps not a light and day difference but certainly enough to let you know these cables have a certain synergy about them.

With Arvo Part's 'Cantus In Memoriam Benjamin Britten' the echoing of the violins at the climax

stayed longer and the decay was more vivid. So too was the opening of the same composer's delicate 'Spiegel Im Spiegel'. The violins had a



Tellurium Q Statement RCA interconnects



Tellurium Q Statement Power cable

tonality and presence that few cables manage - mainly because they tend to strangle the sound instead of letting it breathe.

Playing The Smiths' 'Queen Is Dead' again with the interconnects in I was struck by the extra level of clarity. Here the vocals took on a much more forceful presence - but the bass lines and drums had more punch, stretching way into the listening room.

More importantly the addition of the interconnects seemed to widen the soundstage of the loudspeakers to create a more immersive experience.

Trying Pink Floyd's 'Dark Side Of The Moon' (24/96) via these connections it was striking how the sound effects from 'Money' ricochet from one side of the room to another. What's more the leading edge of notes took on a much more clean and clear timbre. Playing Jimi Hendrix's 'The Wind Cries Mary' his guitar work was a thing of beauty. It wasn't just powerful but had a subtlety and grace I'd rarely heard before.

Again the impression was that these cables were not throttling the system but allowing it to perform naturally.

There is a caveat however. Cables as open and honest as these can be ruthlessly revealing of any flaws in the replay chain. I plugged in one amplifier and immediately heard its lack of dynamic range and rather muddy sound.

But with good sources and loudspeakers they shine. Taking the McIntosh amplifier and Martin Logans away and replacing them with a Creek 100A integrated amplifier and a pair of Spondor's small A1 standmount loudspeakers (see review this issue) revealed just how well these cables can perform with a variety of components.

The Spondors have a large sound for their size but the Tellurium Q cables brought out even more depth and definition from them.

With Massive Attack's 'Unfinished Sympathy' the Spondors attacked harder and with more depth and breadth than on other cables. Their ability to extract the most from the equipment was again on show.

Finally I plugged in the mains lead to the Creek amplifier. I wasn't expecting a huge difference but the change was rather stark. 'Way Down In The Hole' became larger and

more substantial in its presentation. 'Bizarre Love Triangle' was also more vibrant. I could hear little notes that had previously escaped me - and was delighted at just how much more music seemed to flow effortlessly through the system.

Now, I know there are some who doubt the influence of cables on a hi-fi set-up - but these new Statements from Tellurium Q will really let you know what a good wiring loom can do.

CONCLUSION

These new top of the range Tellurium cables set a standard that redefine just how good a cable loom can be. There is no obvious interference, constriction or tonal limits to the sound. They just allow a rather special, free-flowing signal to go between the various components in the hi-fi chain. As such they are highly recommended.

TELLURIUM Q LOUDSPEAKER, INTERCONNECT AND POWER CABLES PRICES

'Speaker cable £2165 per 1.5 metre length
XLR balanced interconnect £4740
RCA interconnect £4320
Power cable £4740



Tellurium Q Statement XLR balanced interconnects

TELLURIUM Q STATEMENT CABLES



OUTSTANDING - amongst the best

VERDICT

These set a new standard that outperforms all other cables we've heard. Highly recommended.

FOR

- openness
- clarity
- lack of smear

AGAINST

- not cheap

Tellurium Q
+44 (0)1458 251997
www.telluriumq.com

Festive Quiz

There are no prizes just satisfaction for getting the answers right!

1) Which member of rock band Queen later became an astrophysicist?

Brian May
Freddie Mercury
Roger Taylor

2) The Beatles were originally known as?

The Earwigs
The Caterpillars
The Quarrymen

3) Who invented the phonograph?

Mr Graph
Thomas Edison
Phono Labs

4) Elton John has never had a number one single. True or False?

True
False
Don't know

5) Harry Rodger Webb is better known as who?

Shaking Stevens
Cliff Richard
Bruce Springsteen

6) U2 hail from which city?

Dublin
Manchester
Cork

7) Who invented the theremin?

Leon Theremin
Sony
Nikolai Volta

8) Baggy Trousers. What group?

Bay City Rollers
Simple Minds
Madness

9) One of Rod Stewart's passionate hobbies is?

Stamp collecting
Model trains
Swimming

10) What religion were the Osmonds?

Christian
Roman Catholic
Mormons

11) Nashville in America is famous for what form of music?

Grunge
Rap
Country & Western

12) What is Garrard famous for?

Turntables
Amplifiers
Loudspeakers

13) In which country is Linn based?

Germany
Scotland
Belgium

14) Gillian Gilbert is a keyboard player in which group?

Kraftwerk
New Order
Daft Punk

15) In what year was the 1812 Overture written?

1812
1810
1880

16) And who wrote it? Tchaikovsky

Beethoven
Bach

17) Andre Rieu plays which instrument?

Trombone
Organ
Violin

18) How many times did Elvis Presley play England?

Five
Three
None

19) Gene Simmons is a member of which band?

The Clash
The Gene Simmons Band
Kiss

20) Singer Jacques Brel hailed from which country?

France
Germany
Belgium

RATE YOURSELF (CORRECT ANSWER = 1 POINT)

1-5 points: Your musical knowledge is severely lacking - much work needs to be done.

5-10 points: A decent score but still not up to scratch.

10-15 points: You know your stuff but are not yet a musical Mastermind.

15-20 points: Enter Mastermind immediately: Specialist subject - Music.

1) Brian May 2) The Quarrymen 3) Thomas Edison 4) False
5) Cliff Richard 6) Dublin 7) Leon Theremin 8) Madness
9) Model trains 10) Mormons 11) Country and Western
12) Turntables 13) Scotland 14) New Order 15) 1880
16) Tchaikovsky 17) Violin 18) None 19) Kiss 20) Belgium



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Luna Listening

PrimaLuna have released a new Evolution range of valve amplifiers. Noel Keywood checks out the EVO 300 integrated.

Listening to the new EVO 300 valve amplifier from PrimaLuna, a light went on in my head. A classic EL34 amplifier – I remembered the sound. This is an output valve (tube) with a reputation – especially in the Far East – being known for its delicacy, transparency and general sense of insight. What PrimaLuna have done here is extract the best from the EL34 by placing it in a

modern electronic environment, surrounded by audiophile components.

Well, that's what I heard with our review sample, with EL34 power output valves as standard, price £3798. Also compatible are a long list of power valves including KT88, KT120 and even the KT150 valve. I didn't try other tubes, staying with what Dutch PrimaLuna are happy to fit and claim on their website as one of the best power valves going.

The first thing that struck us at Hi-Fi World was the EVO 300's weight, quoted by the company in Imperial measure for the US market: 68.2lbs. That's 31kg and it is a two-person lift unless you spend a lot of time in the gym, so any wall shelf or stand will need to be sturdy. Moving this amplifier was not a casual decision; once in place it remains. All the same, dimensionally the EVO 300 fits a conventional 19in equipment



rack (stand), measuring 15.2in (38.6cm) wide so there's some side clearance. It is 8.1in (21cm) high and 15.9in (41cm) deep, again suitable for a 19in deep rack.

As PrimaLuna point out there is no digital inside, nor a phono stage; this is a standard pattern valve amplifier, but one with high quality parts and remote control. The latter is facilitated by use of sealed small-signal relays with a long life to switch inputs; you can see them in banks against the rear input sockets. This is the best method, one we used in World Audio Design amplifiers long ago, employing Panasonic inert gas filled audio relays quoted at 3 million operations; ordinary mechanical switches decay with time.

Another point that struck a chord was the use of a low-ish HT (420V PrimaLuna say) to preserve valve life. I remember our designer, Andy Grove, refusing to use enough HT to hit a 40 Watt target spec. because, he said, it would shorten valve life. Oh the frustration! What happens is the valve runs hotter, expands and contracts more, the electrodes warp over time, touch and there's a bang! This catastrophic short can destroy the output transformer primary and the cathode circuits. Manufacturers should always fit primary fuses to avoid this, but many do not. A side issue is stripping the anode and cathode of emissivity, whereupon the valve sounds dull and lifeless. Power valves should be changed after 3000 hrs or so of use in any case, which will be years for most people.

So what PrimaLuna say about restricting power output of a valve is very true. The quoted power of the EVO 300 is 42 Watts in Ultralinear mode and 24 Watts in Triode mode, our sample meeting those figures under test. Replacement cost is just £80 for quad matched pairs – small change as power tubes go – EL34s are not expensive. KT88s and KT150s come in at more but still do not break the bank (unlike 300Bs).

Triode mode? Yes, this now-common option with valve amps is available on the EVO 300's remote control: press a button to hear the difference between Ultra-Linear and Triode modes, the former lighting a front panel LED red, the latter green. What does that say? Ultra-linear gives more power but is subtly less liquid and relaxed sounding than triode mode, so it is flagged up red. PrimaLuna allot green to



A complex internal layout with hard wired white ceramic valve bases, a central green circuit board and – at left – gold plated input sockets switched by relays. At top right is the Alps volume control, motorised for remote control operation.

Triode mode because it is gentler and better teases out the essence of classic valve sound. I'm agnostic; both presentations have merit but I do end up with Triode. The 24 Watt power figure may look unacceptable but with sensitive modern loudspeakers (floorstanders) it is enough to go neighbour-annoyingly loud. Remote control not only switches the input relays, but also activates an Alps motorised volume control: watch the volume control knob move as if by ghostly intervention. It's a high quality solution popular with valve amplifiers.

The front panel is a machined alloy billet that gives a sturdy front user interface. At left is the volume control and right a rotary input selector that actuates the relays. Also here is a 1/4in (6.3mm) stereo headphone socket. The power switch is a small rocker style unit just behind the fascia, on the left side panel, with a fuse next to it. On the right side panel lie a loudspeaker/headphone switch and a bias switch that made little difference measurement showed, but I left it in high bias for the best result.

The rear panel carries five phono-socket Line inputs and a Home Theatre bypass, but no balanced XLR inputs. There is also a Tape output, but no source/monitor switch. Large, sturdy gold plated

loudspeaker sockets accept bare wire connection, spade terminals or 4mm banana plugs. As is common, the output is purposed for an 8 Ohm load but there is a 4 Ohm tap as well.

Inside, hard wiring and circuit boards are used, plus high quality Takman resistors in a mixture of old and new. The volume control is an Alps Blue Velvet motorised type and DuRoch tinfoil capacitors are used. An adaptive auto-bias system copes with any valve type used and makes manual bias unnecessary. If a valve goes out of limits a red warning indicator lights to identify it.

Our sample had a turntable phono amplifier housing underneath but it is a future option.

SOUND QUALITY

For listening the PrimaLuna EVO 300 was hooked up to our Martin Logan ESL-X hybrid electrostatic loudspeakers through Chord Company Signature XL cables. CD was spun by our Oppo BDP-205D Universal player, feeding a Chord Electronics M Scaler digital filter and Dave DAC. I also used a MacBook Pro running from battery, feeding in hi-res digital. Our sample lacked the phono stage board so we could not assess performance with LP.

From outset – and using Triode – I heard a lovely amplifier here. In true EL34 tradition the EVO 300 has

Solidly built remote control with input selection, volume and Ultra-linear/ Triode switching.





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a wonderful sense of liquid lucidity, as I can only describe it. The EL34 is a fast sounding valve with plentiful treble of ornate nature – and this quality the PrimaLuna delivered well. It is far from warm or cosy sounding, being quite specific up top. Both qualities came together with Nils Lofgren's Keith Don't Go where his rapid finger work on close miked resonating guitar strings soared out in the room. I use this track quite a lot to get a handle on high frequency performance and the EVO 300 did an inarguably wonderful job in rapturing both the dynamic vivacity of the recording – as well as the atmospheric nature of the live venue. Yet additionally there was the beautifully liquid nature valves provide, giving Lofgren's guitar both the speed and timbral richness I hear from my son's acoustic guitar – and that I fail to pick up from transistor amplifiers. A riveting result that straight away spoke loud: EL34s in full glory!

The Henry Mancini orchestra playing the Pink Panther theme occupied a voluminous sound stage in front of me with immersive sense of depth. Easy going yet subtly strong, the plucked acoustic bass strode along with casual authority. I was in Triode mode so switched to UL (Ultralinear) and there was a little more dynamic contrast – but also less of the svelte sweetness that Triode delivers – so I inevitably switched back. But I am a bit honed to Triode, since I run World Audio Design 300B amplifiers at home and an Icon Audio



At front sit six 12AU7 preamplifier valves, small-signal double triodes.



The large, bluff looking top casework covers very heavy mains and output transformers, making the EVO 300 a two-person lift. Below is the optional phono stage.

Stereo 30SE single ended amplifier switched to Triode working in the office. The EVO 300 was right up there with them: it's sound grabbed me fast!

CONCLUSION

PrimaLuna's EVO 300 is a finely developed valve amplifier that comes

with EL34 power output valves as standard. Delivering 40 Watts in Ultra-Linear mode, it has strong bass and a powerful sound, plus the superb lucidity valves are known for. It got a big thumbs up from all in the office. A great sounding amplifier, one that will keep you listening – well worth an audition.

MEASURED PERFORMANCE

The PrimaLuna EVO 300 delivered 50 Watts into 8 Ohms (3% thd) in Ultra-linear mode and 25 Watts in Triode mode. Output impedance measured 3 Ohms, making damping factor 2.7 – low by transistor amplifier standards but acoustic and magnetic damping in the loudspeaker also come into to play to affect final outcome – as always.

Frequency response in Ultra-linear mode exhibited a +3dB bass peak at 6Hz but this reduced to +1dB in Triode mode, due to change in feedback conditions. Over the perceivable audio band down to 20Hz the amplifier measured flat, but whichever mode is chosen the EVO 300 will appear to have strong low bass, especially with LP.

Distortion in the midband measured a low 0.1% at 1 Watt. At high (10kHz) and low (40Hz) frequencies just 0.2% – low figures. Close to full output (-1dB) distortion rose to around 1%, typical for a valve amplifier; this is distortion on musical peaks. The massive output transformers handle low frequencies well.

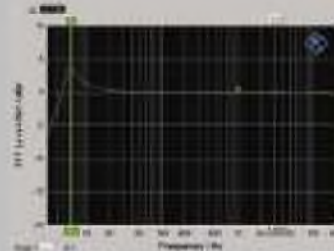
Noise measured a low -96dB, hum being all but absent.

The EVO 300 measured as expected from a nominally 40 Watt, well designed valve amplifier. It has

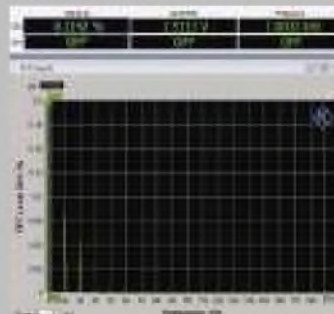
low distortion, adequate bandwidth and enough power to go loud. **NK**

Power (8 Ohms)	50 Watts
Frequency response (-1dB)	5Hz-52kHz
Separation	68dB
Noise (IEC A wtd)	-96dB
Distortion (10kHz, 1W, 4Ω)	0.2%
Sensitivity	0.3V
Damping factor	2.7

FREQUENCY RESPONSE



DISTORTION



PRIMALUNA EVO 300 £3798



OUTSTANDING - amongst the best

VERDICT

Great valve sound from a classically configured 40 Watt amplifier. Engaging.

FOR

- build quality
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- valve warning LEDs

AGAINST

- very heavy
- no XLR input

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LETTER OF THE MONTH PRIZE

Mail

Visit our website at www.hi-fiworld.co.uk or send your emails to letters@hi-fiworld.co.uk. Letter of the month wins a pair of KEF Q150 bookshelf speaker

Answers by: **NK** - Noel Keywood; **JM** - Jon Myles; **PR** - Paul Rigby; **MP** - Martin Pipe.



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A PAIR KEF Q150 LOUDSPEAKERS are on their way to PATRICK WRIGHT, Letter of the Month winner in our December 2019 issue.

Letter of the Month

SACD

I am currently using a Marantz Pearl Lite amp and SACD player and would appreciate your opinion on a better SACD player. There is the Yamaha CD-S2100 at around the £1400 price mark which has had excellent reviews. The problem is the depth of this unit exceeds that of my Hi-Fi Racks Podium Slimline rack. I could have a shelf custom made. I guess

I am not a fan of Arcam, having owned or used two of their amps, a couple of tuners and a CD player over the years. Maybe natural to some, lifeless to me (and they look so fragile in a British sort of way!).

My speakers are Elac FS 189. I have many SACDs and a large collection of CDs so a reliable and hard working machine is essential. I also listen via Beyer headphones with a Musical Fidelity headphone amplifier – both very revealing. The Marantz is very good but maybe something a bit more costly might improve on its performance?

Many thanks for your help.

Best wishes,

Cliff Millward
Tipton
West Midlands



As SACD players fade away Yamaha's CD-S2100 is one of the few left. But at 438mm deep it does not fit Cliff Millward's rack.

Hi Cliff. The Yamaha CD-S2100 measures 438mm deep and you may have to consider coping with the overhang, perhaps by using a top plate, say of marble, on your rack. The reason I say this is that Sony players seem to have left the market and Arcam's CDS-50 was not so good with SACD I found, although it was good otherwise.

This leaves you with few other options – and none we have experience of, other than the impressive McIntosh MCD350 reviewed in our May 18 issue. With its Sony chip set this delivered fantastic sound quality but at £6000 it is more expensive than the Yamaha and most else. Or, going the other

way, a second-hand Oppo BDP-105/205 player might be the answer. But they are all big players so a rack mod. may be needed whatever you choose. **NK**

RECORD STORES

I wish to endorse your overall approach, concentrating on reproduction of music rather than view the acquisition of equipment as an end in itself.

I would like to highlight the need to frequent local record stores, fairs and charity shops, as well as supporting local hi-fi dealers if you're lucky enough to have them. There are a great number of vinyl albums that I would love to own and could obtain easily on the net. However, I choose not to as it takes

away the joy of finding the actual object of desire sitting in a rack or box. It's almost like unearthing treasure.

Clicking on a link, entering credit card details and then getting it delivered over the 'net strikes me as being totally soulless. Can you examine the vinyl, engage with people, barter, travel to different parts of the country, chance upon new stores you didn't know existed while stuck in front of a screen?

On the subject of bartering, I've found most proprietors/vendors are more than willing to listen to offers as long as they're reasonable. Remember that store owners have to make a living and you need them to stay open to satiate your needs. Don't barter in charity shops, it's churlish in the extreme.

Another plus to our hobby is the benefit to mental well-being. I find that listening to music daily reduces stress and anxiety. I like the ritual of playing LPs. There is effort involved which, in my opinion, makes the experience more enjoyable. I won't be streaming anytime soon.

Thanks for a thoroughly informative magazine that I've enjoyed since the days of Giovanni Dadomo and LJK Setright. My favourite sections continue to be the opinion pages as they are genuinely thought-provoking.

Regards,

Steve Williams

Hi Steve. Yes I guess we get to be vinyl collectors by default. I can't stop buying the things – even when I already have them. Always hoping the new re-master will blow me away. Often, the digital file can sound 'better' – but never as natural or authentic as pure analogue. As you say, it is a matter of "mental well-being" – vinyl keeps you sane! **NK**

FEEDBACK ON FEEDBACK

Just a quick enquiry concerning the No Feedback option on the Icon Audio Stereo 40 MkIV amp you reviewed in the Aug '19 issue.

Am I being dim, or just stupid, when I see the solution to a duller-sounding – erm – sound as simple: design the audio circuitry with a carefully calculated rising output as the frequency rises, thus producing a more level/flat output. It could restore the edge you report as missing on transients (guitar strings, blocks of wood). But as to other detrimental characteristics of a no feedback design, again surely modern circuit design can sort these out?



The McIntosh MCD350 CD/SACD player. Expensive but with wonderful sound quality.

Am I describing a single-ended amp? I don't fully know, so maybe an article on the various types of amp, written by someone with a much greater command of English than I (and, obviously, with a lot more knowledge on the subject as well) might help others (there must be some) who are a bit baffled by this aspect of amplifier design.

Yours sincerely,

John Malcolm

Hi John. Adding treble lift to sharpen the sound when no feedback is applied (open loop) is – I guess – a possibility, but it would add complication to the switching since this network could only be chosen at one switch position.

The zero feedback option is for purists – and lack of frequencies above 12kHz is not such a big deal as to warrant the complexity and extra cost. If you're a purist you may well not mind as the slight warmth

but extra depth harks back to amplifiers of yore.

Both David Shaw (Icon Audio MD) and I feel low feedback is the best compromise with valve amplifiers, giving them a modern sound balance and also tightening bass from many, if not all, loudspeakers, whilst retaining the sense of ease that such amplifiers have. **NK**

SONY STRDN-1080 AV AMP

For the last few years I have enjoyed a Pioneer AV amplifier which I selected as it contained a good ESS Sabre DAC. I found the sound quite clean and powerful for films and TV and reasonable with pure stereo music.

My AV speakers are Quad 22L2 at the front, Quad 22L side surround, Quad 9L2 rear surround and Quad L centre speaker. These were purchased in pairs over several years from 2004 on, but all in beautiful birds eye maple veneer (no longer available). I do not



Icon Audio Stereo 40 MkIV valve amplifier. "Design the audio circuitry with a carefully calculated rising output as the frequency rises" to fix its warm, no-feedback sound, suggests John Malcolm.



Sony STRDN-1080 AV amp. Its sound is "spacious, powerful and effortless, but also smooth and detailed" says Mike Tartaglia Kershaw.

use a sub-woofer and selected the Quad 22L because it has powerful bass for its size (and that lovely veneer).

Recently I bought a 4K TV and so I needed a new 4K compatible AV amplifier. I decided on a Sony STRDN-1080 AV amp which had received good reviews over a number of years and seemed good value at £429 at Richer Sounds. It was a good decision! I have never heard the Quad 22Ls sound so good with stereo music. No, the sound is not as solid, pure and three dimensional as the PrimaLuna Premium HP amp and Monitor Audio Gold speakers in my main stereo system but boy does the Sony/Quad come close. The stereo sound is spacious, powerful and effortless, but also smooth and detailed, and fills my 16 ft living room.

The Sony amp has brought out the deep bass of the Quad 22s for the first time since 2004. I really believe this amp is 'audiophile on a budget' and well worth a review. It has been out for many years and may be replaced soon but I think it might become a bit of a second-hand classic, like the Marantz SR8002 I let go many years ago. If anyone is in the market for a good value good sounding AV amp get a Sony STRDN-1080 while you can.

Best wishes,

Mike Tartaglia Kershaw

EKCO ECHO

I hope you don't mind me asking a question regarding a rather old review you carried out some time ago!

I recently purchased a second hand Ekco EV55SE valve amp which, unfortunately upon delivery I discovered, had one of the KT88 valves broken. Elite Audio were fantastic and took back the amp, checked it out and replaced all the output valves with a new set of Electro Harmonix KT88s. Bravo them!

The question I have is that the instruction booklet states that if valves are replaced the amp should be returned to the manufacturer, whereas your review states that the design is auto biasing.

At 29kg, I really do not want to have to post this amp off each time the valves need to be changed. Is this really necessary if I purchase a matched quad set?

Also, as you note in your review, I did not notice a great deal of difference between the max and min NF Adj settings. I presume one setting gives an improved damping factor when using my very efficient Heco Direkt Einklangs?

At the moment the bass is tending to be over emphasised on either setting and I feel I am going to have to try some port blocking to tame things down.

My first venture into valve ownership; hope you don't mind me tapping into your wealth of experience. Any other tips would be greatly appreciated.

Kind regards,

Trevor Rea

Hi Trevor. A matched valve set in an auto-bias amplifier like the Ekco (review October 2014 edition) does not need checking; that is the whole point of getting 'matched quads' as they are called. And very good of Elite Audio to fit a new set of KT88s, since this is expensive. If you have

any doubts, ask Elite whether they can measure the voltage across the cathode resistors of each output valve: they should be similar, matched within 10%. I suggest you pay for this service: it is dangerous and only for those aware of the safety issues. If Elite would rather not do this then Dave Tutt can help – see the next letter for details. He works in Chatham, Kent, so you might have to get into the car.

The lower damping available from a valve amplifier will give slightly more obvious bass. As you say, increasing negative feedback will raise the electrical damping but not by much on valve amplifiers. It does sound like you need some acoustical damping for the loudspeakers – and a pair of socks stuffed in the port is a classic solution! Slightly better is open-pore acoustic foam of course, or you can even try another trick from the 1970s, a clutch of drinking straws. **NK**

TUNER SERVICING

A main part of my listening is to Radio 3 via a Technics ST-31 50AM/FM tuner. Although a budget model it has given, and continues to give, reliable service and great musical pleasure.

I am aware, however, that it is now some 45 years old and that electronic components degrade with age. I have, therefore, been wondering about having it serviced but am having difficulty finding an individual or company that has the equipment/expertise to service FM tuners. I am also wondering whether I should just put the thought aside on the basis of if it ain't broke ...

Given that the tuner is still performing well would you recommend



The Ekco EV55SE valve amplifier, weight 29kg. "I really do not want to have to post this amp off each time the valves need to be changed. Is this really necessary?" asks Trevor Rea.



"My Hitachi FT-5500 FM tuner, with a loft aerial pointed at Sutton Coldfield, works well" says Ray Spink. "I used the signal strength meter to confirm that Sutton Coldfield was still the best transmitter for home use" in Nottingham.

still going down the servicing route or leave well alone. If the former, do you know of anyone who carries out the type of work I require?

Regards,

Hugh Marks

Hi Hugh. One of the advantages of old equipment is there's a proper on/off switch – which means that rather than sitting on your shelf consuming electricity and wearing out components from the moment you plugged it in, your Technics has only suffered internal wear when you had it switched on. So rather than having 45 years of wear, it is probably less than 5 years all told. It could probably do with some new electrolytic capacitors as 45 years of life will tend to dry them out.

Other than that there is probably nothing else that could be changed to give it any kind of service. The issue will most probably be – will it make any difference to the way it sounds? I have to say it might be subtle but if you want to do it I am quite happy to replace capacitors for you. It's not expensive to do as the components are less than £10 and requires a couple of hours work at most. By all means drop me a message and perhaps we can arrange something. Regards

Dave Tutt

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dave_london@hotmail.com

www.tutt-technology.co.uk

RADIO 4

Thanks for passing on my letter to the BBC about difficulties with Radio 4 reception. The answer was, indeed, comprehensive. Thanks also, to Mike, for his website suggestion which shows current faults – but my problem goes back years.

Even when I lived in the middle and

then in the north of Nottinghamshire, reception was patchy, Radio 4 always the worst. Does the compression which I believe Radio 2, Classic FM and most commercial stations use, help their reception? I now live in the south in Nottingham and I cannot get R4 in Netherfield – yup Field Bottom! It is not in a valley but on the end of an escarpment.

I used <https://www.bbc.co.uk/receptionsearch> and a copy of the Radio Listeners Guide to find which transmitter would give the strongest signal. The website gives frequencies, direction, and a prediction of the reception quality of the transmitters e.g. Good.

I was looking to get good reception on BBC Radios 1, 2, 3 and 4 on my Hitachi FT-5500 FM tuner, with a loft aerial pointed at Sutton Coldfield. No hills or buildings in the way so all works well. I recently used both the signal strength meter on the Hitachi and

my Sony portable (by ear) to confirm that Sutton Coldfield was still the best transmitter for home use.

Sutton Coldfield (SC) and Peterborough (P) are the nearest transmitters but Nottingham is on the edge of four transmitters that could be received: Belmont (B) and Holme Moss (HM) are the other two. I parked on the top of a nearby hill and I could receive R2 on all four transmitters. Radio 1 and 3 was picked-up from SC, HM & B. Radio 4 from SC, HM & P. Why Peterborough for Radio 4 and not Belmont? Stick that in your pipe BBC and smoke it!

My car, in which I suffer poor R4 reception, is a Rover 75 (Great British Engineering, as are my Naim amps, Epos ES14s and Garrard deck – fully fettled by the Great Britisher: Dr. Martin Bastin). I assume the rear de-mister acts as the aerial on the Rover, not the Garrard! I have checked the aerial



"My Garrard deck is fully fettled by the Great Britisher Dr. Martin Bastin" says Ray Spink. Our picture is Noel Keywood's Garrard 401, also fettled by Dr Martin Bastin.

lead is attached. My previous 75 had a Sony tuner but my present 75 has a horrendous JVC tuner – silver in a mock Tudor Walnut dash! I had similar reception problems with my Daewoo Lanos which had a retractable external aerial – posh!

Ray Spink
Nottingham

Hi Ray. Your Naim amps and Garrard 401 fettered by Dr Martin Bastin are lovely products in good, solid and honest British tradition – and Martin Bastin helped re-launch the 401 by his efforts. I am wedded to my Garrard 401 on Martin Bastin plinth, with its equally gorgeous SME3012S arm. Naim's NDX 2 made its own case for UK quality, in construction, finish and sound quality. Good engineering, worth appreciating.

With Radio 4 in the car, it seems that you need to look at having a better aerial installed, rather than relying on the rear de-mister, if that is the aerial. I'm sure the 'net can help here with car aerial installers.

NK

CHAS & DAVE 1

Slightly confused about Jon Myles's words regarding Chas & Dave in the December 2019 issue...

It appears that Mr Myles is not aware that Chas Hodges sadly died over a year ago. I'm not a huge Chas & Dave fan or anything but I do know Chas is brown bread.

Adam Tate
Hertford
Hertfordshire

CHAS & DAVE 2

Jon Myles has really excelled himself this month: "And then, of course, there's Chas And Dave. I'd wager it will be Chas – so the chances are we're going to see Dave become the big international star. Good luck to him too in that venture and I hope Chas takes it well".

I think there's every chance Dave's career will be bigger, since Chas Hodges died in 2018.

Steve Fenton
Cambridge

CHAS & DAVE 3

Take the old boy out, buy him a pint and give him a stiff talking to. Tell him that Chas is dead.

Best wishes,

Nick Powell

CHAS & DAVE 4

I was enjoying Jon Myles opinion article up until the last paragraph. My money

too is for Dave Peacock to have more success than Chas Hodges going forward, given that the latter sadly passed away in September 2018. Do you want to tell Jon or shall I?

Many thanks,
Yours in Sound,
Ian Davies

Mea Culpa. Apologies to you all. If Chas Hodges is reading the column from way above he may have a wry smile on his face at my stupidity.

JM

LED BULBS

As a supplement to Richard Barton's experience with LED bulbs and RF. Russ Andrews has started to sell RF clamps <https://www.russandrews.com/rf-clamp-pack-of-2-small>.

When these first appeared they were clipped to interconnect cables and the like. In fact, Hi-Fi World carried a review of a pair of TDK ones some years ago. Russ's take on the subject is to clip them on to the mains cable which feeds the light fitting. He perceives that fitting them to signal carrying cables degrades the sound.

I think that you need to fit them on all the LED light bulb mains cables before any perceived difference is noticed, and then it's probably very subtle, but they are fairly cheap and

you can remove them.

Regards,
Mike Bickley

Thanks for that Mike. Yes, indeed – ferrite rings and beads absorb high frequency energy, thereby reducing noise. RS Components stock 388 different types, for example, companies like TDK making them for mains cable use.

Russ Andrews clamps (£8 for two) are especially neat and he makes some very good points about their use, including being clamped to the output of wall-warts (switched mode power supplies) whose cable carries a lot of high frequency rubbish.

I presume LED bulbs also carry internal switch mode supplies, to change a.c. to d.c. for the LED, also radiating rubbish, so as you say: "clip them on to the mains cable that feeds the light fitting". It makes good technical sense, reducing RF radiation from the cable. The EU mandates against RF radiation from electronic equipment but endorses LED bulbs for their power saving, ignoring the rubbish they produce – contradictory. A good solution would be for household lighting circuits to carry d.c. to LEDs direct, I believe, eliminating RF radiation from household wiring, in line with EU requirements. **NK**



Russ Andrews mains filter clamps, just £8 a pair. Clamp them over mains cables to reduce RF interference.



Wall-wart power supplies produce RF noise. Russ Andrews clamps suppress it.



WIN

AN AUDIO TECHNICA OC9X SH CARTRIDGE

IN THIS MONTH'S GREAT GIVEAWAY WORTH £570!

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Last month we offered an Audio Technica OC-9X ML (Microline) moving coil cartridge as a prize; this month we have an OC9X SH (Shibata), reviewed in the October 2019 issue. Read the review excerpt below and answer the questions.

"In the new OC9X series you can get an OC9X EB with bonded (on a rondel) elliptical stylus and aluminium cantilever for just £280 – they start cheap. Above it lies the EN (£300) with nude elliptical stylus on aluminium cantilever that, because it lacks a rondel, tracks high frequencies

better but is less resistant to dust and fluff on the LP surface.

Then come the trio I am reviewing here, comprising the OC9X ML (£480) with MicroLinear stylus on a boron rod cantilever that, it appears, replaces the outgoing OC9 III. It has a red body.

Above the ML comes the OC9X SH (£570) with Shibata profile stylus and brown body. This profile was developed long ago (1970s) by Norio Shibata for CD-4, a system providing surround-sound from LP. The stylus had to read a sub-carrier at 30kHz with sidebands to 45kHz – quite a feat. It required multiple grinds to achieve the right shape,

using a mechanical grinding process. Inevitably, this made a Shibata stylus more expensive and when CD-4 faded away with the arrival of CD it went too, only to be revived recently as demand for premium LP replay emerged.

Tip shape affects mainly high treble insight and focus, and the amount of detail retrieved. It doesn't affect bass quality, nor a cartridge's 'colour' that comes from cantilever material and shape, or clarity that is affected by the generator".

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QUESTIONS

[1] Who developed the SH stylus?

- [a] Steven Harris
- [b] Sydney Hargreaves
- [c] Norio Shibata
- [d] Stefan Headache

[2] What colour is the OC9X SH body?

- [a] brown
- [b] blue
- [c] beige
- [d] green

[3] When was the Shibata developed?

- [a] 1990s
- [b] 1890s
- [c] 1950s
- [d] 1970s

[4] For what surround-sound system?

- [a] CD-4
- [b] CBS SQ
- [c] Sansui QS
- [d] Dolby

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**OCTOBER 2019 WINNER: CAMBRIDGE AUDIO AX C35 CD PLAYER & AX A35 AMPLIFIER
Mr. J Cragg of Isle of Mull**

T For Me

Jon Myles listens to PSB's new T20 Tower and comes away impressed.



Hard to believe but PSB first introduced its first Alpha loudspeaker range way back in 1991. They became a massive success for the company and have become something of a benchmark for affordable 'speakers with good sound quality.

They're also a best-seller for the Ontario, Canada-based company. But that as it may be, 18 years is still something of a long time for any product series to go without any major revisions to the overall design. But now that wait is over with the launch of a redesigned Alpha series that brings a major redesign of the original.

There are four models in the range – two standmounts, a centre channel and the T20 Tower on review here.

It's a floorstander measuring 170mm x 825mm x 243mm (WxHxD). And at a weight of 11.9kg each they're not too heavy to manoeuvre into an ideal listening position.

Take off the magnet-secured grille at front – that PSB says makes no difference to sonic performance – and you'll find three drivers. At top is the tweeter, a proprietary 0.75in (19mm) black anodized aluminium dome the company says extends high-frequency response further than any Alpha ever before, while lowering distortion – and housed in a waveguide to aid performance.

Below are two 5.25in (133mm) textured polypropylene mid/bass drivers with rubber surrounds augmented by a rear-firing reflex port. Also on the rear panel are dual five-way gold-plated binding post 'speaker terminals for bi-wiring, plus links for



The proprietary 0.75" (19mm) black anodized aluminium dome tweeter sits in a shallow wave guide and has a phase plate in front to smooth response.

mono-wiring.

The cabinet has been upgraded using a special MDF material and a unique combination of wall thickness and bracing, to help control resonances. Out-rigger feet are included to ensure stability.

Aesthetically the T20 Tower is an elegant package – especially considering its moderate £599 price tag – less than some standmounts nowadays.

SOUND QUALITY

The T20s may look relatively compact but don't be fooled by looks alone. The sound they produce is big and full-bodied with a good, solid soundstage.

Connecting to a Creek Evolution 100A integrated amplifier and queuing up Massive Attack's 'Safe From Harm' the vibrant, pumping bass that opens the track had a fulsome quality but retained its rhythmic pace. There was no thump or undue emphasis on offer – just the sense of a controlled low-end.

PSB claim their twin woofers will go down to a low 30Hz – and hearing this track it was easy to believe (but see our Measured Performance for definitive details).

Sara Nelson's vocals were sweet and projected well into the room. PSB's tweeter does indeed have extended response, sounding smooth and refined. It integrated well with the two main drivers, with no sense of discontinuity between them.

Most impressively the PSBs were capable of unravelling the music so I could hear essential elements. Gang Starr's latest 'One Of The Best Yet' release (24bit/96kHz) is a complicated collection featuring old-school booming beats, old vinyl samples plus manipulated orchestral

samples. It's an eclectic mix of various genres which some other loudspeakers at this price could turn into a bit of a mish-mash. But with the PSBs all was woven into a coherent whole – everything clear and easy to listen to.

The only thing to beware of is that these are not loudspeakers to give you room-shaking sound. On Led Zeppelin's 'When The Levee Breaks' the sheer bone-shaking power of John Bonham's drumming lacked the impact a true rocker would desire.

Also, turning volume up there was evidence of vibration from the cabinets – nothing too alarming but there nonetheless.

That said, these are not loudspeakers designed for massive power in large rooms. They're built for small to medium spaces where sound quality at a sensible price – with a design that fits into a domestic environment – is required.

And that's what they achieve very, very well indeed. Take them for what they are and they cannot help but impress.

Well designed, evenly balanced with a bass that belies their size but never over-imposes itself. Add in a refined high-end and for £699 the

PSB T20s make a great case for themselves.

As proof I gave a run-through of Mahler's 'No 4' and was impressed by the scale conveyed. The soundstage was wide - images thrown well beyond the edges of the cabinets - while individual instruments were clearly delineated. Overall, this performance was a joy to hear, showing how talented the PSBs can be. Use them within their limits and you'll find them a delight.

CONCLUSION

Excellent floorstanders at £600 can often seem an exercise in cost-cutting. Not these PSB T20s. They combine good looks with excellent sonics. Use them in the right room at sensible volumes and I guarantee you'll be impressed. I was.



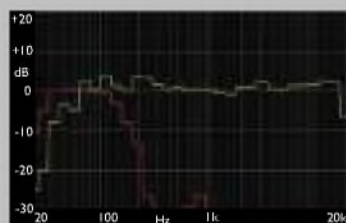
The rear panel carries bi-wiring 'speaker binding posts. Above sits a reflex port that adds low-end extension.

MEASURED PERFORMANCE

Frequency response of the PSB Alpha series T20 loudspeaker was acceptably flat to current standards from 60Hz to 16kHz our third-octave analysis of pink noise shows, at 20 degrees off-axis. On-axis, treble lifted by +3dB so the T20 is best pointed straight down a room and not toed-in to point at listeners. The tweeter's shallow flared horn has good off-axis dispersion and gave the result

FREQUENCY RESPONSE

Green - driver output
Red - port output



IMPEDANCE



shown consistently. There's some slight treble lift of +2dB to ensure highs are obvious, but not so much as to make the sound sharp or bright.

Strong output above 2kHz and a lack of classic crossover dip around 3kHz will give the T20 a strong sense of detail retrieval: this will be a forthright sounding loudspeaker.

There is a steady rise in output below 300Hz to add warmth and body to the sound, but bass cuts off below 40Hz. The small rear port reaches 30Hz and applies broad acoustic damping but will not provide much acoustic power low down, so subsonics will not be obvious.

Sensitivity measured 86.5dB from one nominal Watt of input (2.8V) which is about as expected from a small floor stander lacking deep bass (that influences measured sensitivity). Impedance measured 5.7 Ohms, using broadband pink noise; amplifiers of 60 Watts or so will suit.

PSB's Alpha T20 measured well in all respects. It will be on the forward, revealing, bright side like so many others, not soft and easy going, but bass looks well controlled and in good balance. **NK**

PSB T20 TOWER £599



OUTSTANDING - amongst the best.

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ON DEMO

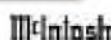


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MAHAVISHNU ORCHESTRA

Birds of Fire
Speakers Corner

To call this band a fusion group or a jazz-rock combo would be to oversimplify the talent. It was lead – and indeed founded – by supreme guitarist, John McLaughlin.

He fronted a group with Jerry Goodman on violin, keyboardist Jan Hammer, Rick Laird on electric bass and drummer Billy Cobham. This line-up would completely change in 1974 – but their classic first outing is what we find on this 1973 release, originally from Columbia. The arguments within the band meant it would be their last studio creation.

Nevertheless, the Mahavishnu Orchestra were as tight as a drum in terms of their inner cohesion. They sound like a multi-limbed, one-man band. And an angry one at that, if the sometimes aggressive rock guitar of McLaughlin is anything to go by.

But let's not infer that the MO was a McLaughlin vehicle, as

you possibly might think listening to the title track. The rest of the group take a full and essential part in the proceedings. 'One Word' is a superb group track which illustrates the magic of the band as a combined unit. Each member pushing the music up to and beyond creative boundaries.

And then you get the contrasts highlighted by 'Open County Joy' which starts out like something the Grateful Dead might conjure up but transforms itself into something that Frank Zappa would be proud to own.

As for mastering? Rather lovely – with an overall neutral presentation that is both balanced and tonally accurate. The title track is frantic and extreme in its rocking chops but the mastering retains the ability to separate each instrument, retaining the extraction of detail, preventing blurring and keeping frequency discipline intact. An excellent master for a brilliant LP.

AUDIOPHILE VINYL



THE DOORS

The Soft Parade
Rhino

Originally released in 1969, many Doors fans look upon this album as one of the band's lesser efforts. Lesser in terms of Jim Morrison's tenure, that is. For some, the issue is the introduction of strings and that brass section.

Others might point the finger at the quality of the basic songs. Certain fans might even focus directly on Jim Morrison himself and his performance.

From here, Morrison was on a downward spiral. In the year of this release he would be convicted of showing his genitals on stage, would hit the bottle and the drugs and would be later heard to mumble to his then-Producer through his booze: "Brian, Janis, Jimi – you're drinkin' with number four".

That said, there were elements to extract from this release such as 'Touch Me' (where the strings et al actually worked), and the rock-out time within Wild Child. And then

there was the poetry-infused title track.

This luxury edition arrives as a piece of vinyl and 3CDs. A '50th Anniversary Deluxe Edition', it includes the original studio album – and the B-side 'Who Scared You' – newly remastered by Bruce Botnick, The Doors' longtime engineer and mixer. There's a host of rarities included too, such as a dozen unreleased songs. Among the highlights are stripped down 'Doors Only' versions of five tracks where the horns and strings have been removed. The set also features three of those stripped-back versions with new guitar parts added by Robby Krieger.

In mastering terms, I'd say that a touch of compression has been added to enhance the upper mids and treble. In broad terms, the soundstage is clear and open with analogue organ sounds offering focus and guitar sounding precise.

This is a four LP collection. Four vinyl LPs, that is – plus two extra CDs that duplicate the material. All arrive in a slip case.

Featuring unreleased material spanning around ten years, the set features 'Captured Under Mountainsides'. It includes Skúli Sverrisson and Hilmar Jensson and focuses on Henriksen's home, the western part of Norway, the death of his brother and the sparse, empty space, a wild landscape. Nature, busting at the seams.

The next LP, 'Acousmograph' sees the man on his own and is more experimental in nature, taking classical music as an inspiration. Henriksen's ability to make the trumpet sound like a flute is to the fore here.

'Cryosphere' is a co-production with long time collaborator Jan Bang, re-modelling material from a series of evolving concert performances and featuring Audun Kleive, Helge Norbakken

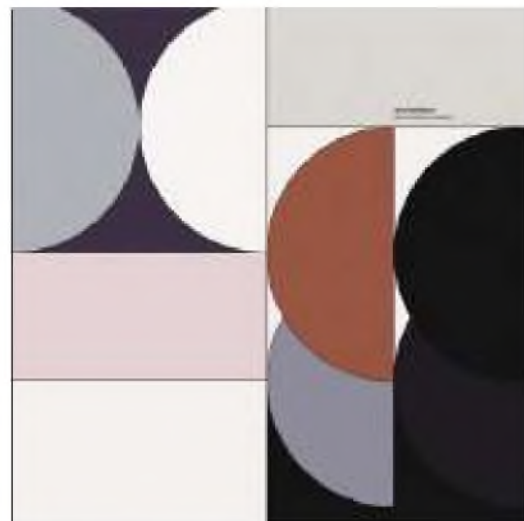
and Ingar Zach. Lots of improv here.

'Towards Language - Live at Punkt' sees our man together with Eivind Aarset (guitars) and Jan Bang / Erik Honoré (electronics, live sampling).

During mastering tests, the over-riding effect I had from these albums was the infusion of space within each. The air that swills around the midrange and treble maximises the large soundstage and provides a broad and sweeping presentation. Ideal for the often ambient effects in and around Henriksen's music. Those partial to an extended reverb tail or two will be most pleased.

The odd breathy moments during soft trumpet passages add both atmosphere and a sense of immediacy to the entire production.

This is a fine collection for Henriksen, a selection of rarities that will only strengthen his fan base.



ARVE HENRIKSEN

The Timeless Nowhere
Rune Grammofon

AUDIOPHILE VINYL

Spanning the group's appearance in the famous live 1970 festival, the content includes less known pieces including 'I Don't Even Know Myself', 'Water' and 'Naked Eye'.

The set begins with an introduction: "From Shepherds Bush, London... The Who!" Actually, no. What he says is, "From Shepherds Bush, London... Th'Oo!"

The band seemed to be 'on'. The performance was full of intensity and energy so even if you've heard 1001 renditions of 'Tommy' played live, this particular example is worthy of some note. There's also a sense of connection with the audience and maybe this is part of the reason for the concert's success. That is, one lifts the other to emotional heights.

This new version of the classic release comes from earMUSIC/Edel as part of a major vinyl imprint that looks to release 200 titles. This

edition arrives in a gatefold triple vinyl set with a fully printed inner and bundled with a CD version.

On a mastering level? The words 'audiophile' and 'live album' are often a contradiction in terms, because the inherent sonic frequencies are lined up to resemble a dog's breakfast.

Positioned on an elevated platform, in the open air, with rudimentary equipment set up and no isolation, the aural response is less about accuracy and more about energy and that's what you get here. Passion, energy and music propelled at your ears with drive and dynamism.

This live album is not about chin scratching and gauging the relative merits of any possible 3D effect of the central soundstage. Oh no. This one is about sweat, spittle, mad staring eyes (well, it is if you glance towards Keith Moon) and force. This is three slabs of emotion. And it's all the better for it.



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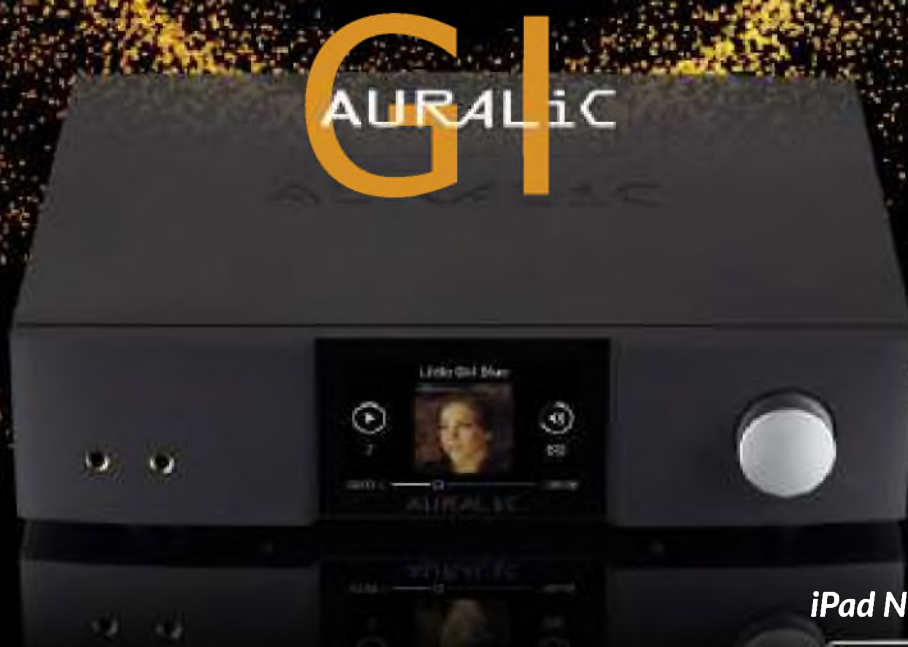
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AURALIC PRESS AWARDS



Connect With This

Titan Audio's new Nemesis interconnect is something special, says Jon Myles.

Belfast-based Titan Audio have produced some impressive products in their relatively short lifespan. I couldn't help but be impressed with their flagship Nemesis loudspeaker cables (Hi-Fi World review August 2019). Yes, at £3000 for a two metre pair they are not cheap – but they displayed an open, fluid nature that made music sound natural and organic as though they imparted no artificial restrictions on the sound.

Now we have the accompanying Titan Nemesis interconnects – available as both RCAs and balanced XLRs. Their construction is similar to the 'speaker cables, using High Purity Silver single crystal cables sheathed in a PTFE dielectric with each series of strands individually shielded to reduce mains and airborne interference. In addition the cables are plated to aid the reduction of interference.

Silver plugs and conductors have a carbon fibre outer casing. Aluminium and carbon anti-vibration cylinders are also fitted to remove EMI interference.

Admittedly, the construction makes the interconnects rather hefty

– but they are flexible enough to be routed through tight spots and certainly feel good quality.

Interconnects commonly go under the radar for many users but they are a vital link in the chain between source and amplifier – and the better you make them the more impressive they sound.

SOUND QUALITY

Swapping out my usual interconnects between a CD player and amplifier I found the changes were startling. It took a few minutes to realise but there was a definite lowering of the noise floor – a sense of music emerging from deep silence.

Hence the guitar on Tom Petty's 'American Girl' took on a much grittier nature, devoid of any mush or blur. Indeed it sounded absolutely pristine – the higher registers coming across with total conviction.

The same went with Clarence Clemons' saxophone on Bruce Springsteen's 'Badlands'. It was as though a filter had been removed so the music flowed freely without any impediment.

The acid test came when plugging

back my previous interconnects – which I've always admired. Suddenly the sound became a little bit more closed in, with less freedom and sense of natural flow.

Moving back to the Titans I found there was more snap to the cymbal work on John Coltrane's 'Interstellar Space' and a good deal more bass with Joy Division's 'She's Lost Control'. No, it's not a night and day difference but it's more than enough to make you sit up and take notice.

Again, these interconnects - like their partnering loudspeaker cables – cost at £1500 per metre. But you could spend more on a new pre-amp or amplifier and get less of an improvement. For these cables are all about unleashing the true potential of the equipment you already have. I'd say try them out and see what you think.

CONCLUSION

Quality construction and sublime sound combine to make one of the Titan Nemesis interconnects amongst the best available at present. Not cheap but worth every penny. Also come with a lifetime guarantee.



TITAN NEMESIS INTERCONNECTS £1500 PER METRE



OUTSTANDING - amongst the best.

VERDICT

Imposes little character on the sound, letting music flow effortlessly.

FOR

- neutral
- beautifully constructed
- solid connectors
- sturdy

AGAINST

- not cheap

Titan Audio
+44 (0) 2890 726003
www.titanaudio.co.uk

Christmas Wishes

NAME: Paul Rigby

STATUS: Hi-Fi World's own Mr Vinyl

Paul Rigby digs out some inexpensive and unusual tweaks for Christmas.



CARTRIDGE ENABLER: £19 (www.originlive.com)

The idea here is to isolate your cartridge with a gasket, in this case with the use of a slab of specialist material and a few washers. It sits in-between the cartridge and the headshell of your tonearm. Origin Live say the effect is like improving the suspension of your car. The profile of the unit is a contributor to the enhanced sonics and the washers are too, made from the same material as the Enabler itself. Worth trying out at Christmas.

HRS COUPLER DISCS: £77 PACK OF TWO (www.avisolation.com)

These separate discs are superb at isolating errant speaker cables. The latter are broadcast aeriels. The Coupler discs damp that effect, basically absorbing noise and enhancing clarity, transparency and honing detail. To install the discs (although I hesitate to even use the word), you simply slip the discs under the cable until all of the cable length is clear of the floor.



QED REFERENCE XT401 SPEAKER CABLES PRE-TERMINATED 3M: £129.95 (www.qed.co.uk)

These budget speaker cables include an Air Gap dielectric to cut capacitance while the proprietary X-Tube technology remains in place. There's also a 4.0mm cross sectional area and 99.999% oxygen-free copper construction.

Offering a wide soundstage, the cables provide a low noise presentation with plenty of detail on offer allied to an airy midrange. Instrumental separation is good which enhances transparency and tonality. Frequency discipline is high which also helps to retain bass focus. All in all, these cables offer a great entry point for budget fans and make a good Christmas present.

QED PERFORMANCE AUDIO 401 1M: £49.95 (www.qed.co.uk)

This new cable includes a first for QED, the introduction of Solid Core Complementary Conductors which they say reduce capacitance by a quarter compared to the originals. There's one Oxygen Free Copper Conductor and one Silver-Plated Oxygen Free Copper Conductor inside to carry the same audio signal. Ferrite insulation technology is in there too. QED's Anamate RCA plugs are on the ends of each cable. Another interesting yet inexpensive Christmas present perhaps?



PURITAN GROUND MASTER: FROM £165 (www.puritanaudiolabs.com)

Connect one wire's end to your hi-fi metalwork, the earth on a pre-amp being a good spot. Noise then travels from your hi-fi into the Ground Master and out the other end, down more wire into your garden, into the supplied copper rod buried in your garden. The result will be improved sound quality in your hi-fi. An interesting idea worth trying at Christmas!

Christmas Wishes

NAME: Jon Myles

STATUS: Hi-Resolution Digital Expert

Resident Rock lover and digital expert Jon Myles puts forward an intriguing list of present possibilities.



BOB DYLAN'S CATALOGUE: £18.89 OR £43.99 (www.amazon.co.uk)

Bob Dylan's catalogue is nothing if not all-encompassing. But if there's one essential you must own it's NY-Columbia Records and Legacy Recordings' latest Dylan bootleg series boxset. It spans Dylan's pivotal musical journeys to Nashville from 1967 to 1969, focusing on previously unavailable recordings made with Johnny Cash and unreleased tracks from the John Wesley Harding, Nashville Skyline and Self Portrait sessions.

The 3-CD (£18.89) or 3-vinyl boxset (£43.99) are 50 tracks of pure delight to any fan of the '60s folk/rock scene – and even those who are not. If you ever wanted to hear Bob Dylan at his rootsiest best with a set of ground breaking tunes to go with it then this is the place to go. The packaging is also top-notch, which only adds to the value...

CHORD COMPANY SHAWLINE X: £30 PER METRE (www.chord.co.uk)

Chord's Shawline X is based around the Chord Rumour cable – a best-seller for 20-plus years – although with some significant changes. The conductors are still silver-plated, insulated with XLPE and arranged in a twisted pair configuration. But with the Shawline X Chord have taken the existing conductor layout but added a specially-chosen PVC internal jacket to reduce mechanical noise, before applying the same high density, dual-layer foil and braid shield that is used on the more expensive Chord Epic. Eminently neutral with plenty of detail, they are ideal for budget to mid-priced systems since they don't cost a fortune. Plug them in between any amplifier and loudspeakers and the chances are you'll definitely hear a difference above standard cables. At just £30 per metre they won't break the bank.



AKG 72 HEADPHONES: £40 (<https://uk.akg.com>)

AKG's 72 headphones offer amazing bang for your buck. Yes, they look fairly large (because they are) but as decently-priced (just £40) home headphones go they are truly impressive. These 'phones are extremely comfortable to wear thanks to the large padded ear cups and adjustable headband. They also sound great with a wide soundstage full of detail. Bass also has a real kick to it but never becomes over-dominant. Plug these into your home hi-fi system and you'll be listening for hours. The only drawback will be fitting them into Santa's sack due to their size!

LINDY IN-EAR PHONES: £50 (www.lindy.co.uk)

German company Lindy's in-ear 'phones are certainly different. The standout feature of their ingenious IEM-50Xs is a proprietary dynamic bass tuning system — where a rotary twist control on each earbud opens the rear chamber to add more depth to the low end. Aside from that the Lindys look fairly standard — coming in a standard black with red trim with a flat, 1.2m tangle-free TPE cable. Small, medium and large sized ear tips are also supplied to provide optimum fit for different users while a handy carry case is also packed in the box. Build quality is good for the price while in use the Lindys prove light and comfortable.. £50.



iBOUTIQUE WATER SPEAKER: £74.99 (www.amazon.co.uk)

It's Christmas – so it's time to party. And what better for this than a piece of audio equipment that not only produces sound but also entertains. The iBoutique 4th Generation Bluetooth 2.1 Home Theatre Party Dancing Water Speaker System features 6 LEDs and water jets per satellite speaker, complemented by a 3D LED light show on the subwoofer.

To say it looks colourful is an understatement. And it goes louder than the 3 Watt satellite 'speakers and 5 Watt subwoofer would suggest. It can also be used with the PC as desktop speakers or with tablets, iPads, smart phones, iPods or in fact anything that supports Bluetooth. £74.99

Christmas Wishes

NAME: Martin Pipe

STATUS: Technical expert on all things hi-fi

A free Christmas present? Yes, Martin Pipe even finds one of these for Christmas 2019, amongst many other nice choices.



IFI ZEN BLUE HI-RES BLUETOOTH STREAMER: £129 (www.ifi-audio.com)

iFi's ZEN Blue is a diminutive gadget that adds Bluetooth capabilities to any hi-fi system. Bluetooth was a joke worse than anything you'd find in a cracker, but thanks to developments like the HWA and aptX HD codecs – supported alongside many others by the ZEN Blue – performance need not be sacrificed for convenience.

This modestly-priced unit employs cutting-edge Bluetooth technology, converts digital to analogue with a high-grade ESS Sabre chip and has analogue sections constructed with audiophile-grade components. It even features balanced analogue outputs, as well as standard RCA unbalanced types and optical/coaxial digital connectivity. Pop-up Xmas streaming radio has never sounded so good... £129. www.ifi-audio.com

SURE UNIVERSAL REMOTE APP: free

If you've spent all of your money on the lead-up to Xmas, treat yourself to something useful...but free (well, advert-supported). Replace your infra-red (IR) handsets with a universal remote...that runs on your smartphone. It's an app for both Android and iOS that can be constantly upgraded to accommodate new kit. Later versions of Sure have additional features like a media player and 'voice assistant'. The caveat for IR gear is that your smart-device needs to incorporate a 'blaster' – a feature slowly disappearing. Sure is thankfully compatible with the Broadlink Wi-Fi to IR blaster – yours for less than a tenner on eBay! Free, Google Play or Apple App store.



MOBILE FIDELITY INNER RECORD SLEEVES: £32.00 FOR 50 (www.russandrews.com)

Let's talk paper...but not discarded Xmas wrapping! Re-sleeving LPs prolongs their useful life. Sleeves marketed by Mobile Fidelity – best known for its audiophile pressings – fit the bill, being better than simple paper sleeves that come as standard. Described as being of "archival-quality three-ply (polyethylene-paper-polyethylene) construction", these sleeves will protect your precious records from contamination, scratches and – it is claimed – static-related effects. £32.00 for 50. Go to www.russandrews.com

AUDIO-TECHNICA AT617A CARTRIDGE STYLUS CLEANER: £31 (https://eu.audio-technica.com)

The AT617a stylus cleaner is a small pot containing a special type of polyurethane gel that never sets. Position said pot strategically onto your platter and use the cueing lever to gently lower the stylus onto the gel's surface. Raise it, and you'll notice that crud has been transferred to the tacky surface of AT's water-washable wonder. It's amazing how much rubbish accumulates on a stylus tip when playing records – and equally amazing what removing it does for sound quality! Let's have one in the stocking... £31. <https://eu.audio-technica.com/>



PSPATIAL AUDIO STEREO LAB: £70 (www.pspatialaudio.com))

Apple Mac only software. It can decode CD-4 discrete quadraphonic records using DSP, fed 24/96 PCM digital direct from a playing system. Stereo Lab will also decode matrix systems like SQ, QS, UHJ and the BBC's Matrix-H system, providing multichannel PCM.

Other features include stereo enhancement, surround upmixing, accurate LP equalisation curves, noise reduction, de-clicking, removal and even cancellation of tracking distortion! More's to come. You'll know what I'll be playing with, if Christmas TV isn't up to scratch... £70. www.pspatialaudio.com (Free demo available)



Christmas Wishes

NAME: Dave Tutt

STATUS: Hands-on audio engineer

Dave Tutt is still settling in to his new house and wants to save a few bob. Here are his budget suggestions for the Christmas tree.



WAVLINK N300 WI-FI ROUTER: £16.99 (www.amazon.co.uk)

In my new house I need to extend the Wi-Fi. So a simple device to plug into the UTP at the router, extend this connection over the wiring in the house and then re-broadcast the signal is all that's required. There are any number of them out there but I picked the WavLink N300 and just have to remember the security aspect which may require some careful reconfiguration of the router settings. I have installed these in several homes and they always work with a variety of internet service providers. £16.99 at Amazon.

NEUTRIK 2 SPEAKON: £2.90 (www.cpc.farnell.com)

What better way to connect up the speakers than with some Neutrik 2 pole Speakon connectors – and at only £2.90 each they are a bit of a bargain. Only need four of them so it won't break the Santa bank. I have been using Speakons for a long time in PA systems and find that they are reasonably reliable but benefit from shorting protection if you disconnect whilst still powered up at the amp, so the protection is both during use and when not. Perfect. And wiping contacts too. Price £2.90 each from www.cpc.farnell.com.



HANDSFREE EARPHONES WITH MIC & VOLUME CONTROL FOR IPHONES & SMART PHONES: £2.69 (www.ebay.co.uk)

My phones get heavy use and generally last me around 6 months before they start failing, due to charging or other issues. Currently, my Huawei has no microphone as it just stopped one day after a software update. So I am using ear buds with integral mic instead. These too last about a month but just £2.69 buys me disposable eBay replacements. A nice, simple pressy. £2.69 www.ebay.co.uk.

REMAX RM-303 STEREO EARPHONE WITH MIC: £9.99 (www.ebay.co.uk)

OK, when I'm going somewhere posh the Remax RM-303 earphones with mic. are brought out. Still not high fidelity I grant you – but people in the Savoy don't know that. Just £9.99 from www.ebay.com.



JACK ADAPTOR, STEREO: £1.27 (www.cpc.farnell.com)

My customers who have purchased headphones from me recently have all needed and expected freebie adaptors – and they are so cheap I should really buy them in bulk. Of course you need both types: big to small and small to big – and no matter what the headphone lead I will always need the opposite!

These little adaptors are just £1.27 each in either version. Price £1.27 from www.cpc.farnell.com.

Back to the future

Martin Pipe tries a Bluetooth 'speaker that dares be different.

I can picture the Klipsch Three II loudspeaker I am reviewing here pouring Miles Davis and Cannonball Adderley into the chic lounge of a spacious suburban American bungalow of the late fifties. It was back in 1947 Paul W. Klipsch launched the iconic 'Klipschorn' loudspeaker. Still made today it will set you back nearly

twenty grand...

Hence the smaller and more affordable Three II tabletop audio system. This is basically an upmarket Bluetooth speaker with extra bells and whistles, as well as retro-styling. Said extras include two line inputs, one with a 3.5mm stereo jack, the other convertible into a MM phono stage at the flick of a switch. There is

remote control and 192/24-capable USB Type-B port for audio from computers. The 'II' suffix points to earlier versions, and one of these had an app-controlled Wi-Fi music player built in. Such functionality is missing here, but in all fairness there's a £50 saving.

Most Bluetooth speakers are mono. The Three II, though, is stereo





The Klipsch Three II rear panel carries a USB socket for computer audio (up to 192kHz/24-bit) but conventional digital sources aren't catered for. A slide switch converts the phono-socketed line input into a Phono input for a turntable.

from the outset thanks to a pair of 5cm full-range drivers that work in conjunction with a 13.5cm long-throw woofer and "dual opposed" 13.5cm passive radiators. You can't see them, because the grille is non-removable. Driving the Three II's complement of drivers are amplifiers claimed to total "120W", with no further details beyond that.

Power levels remotely near that figure would quickly drain the batteries of the average Bluetooth speaker so the Three II gets around that problem by not having any. This unit, which weighs nearly 5kg, is designed for mains power only.

The Three II is remarkably easy to use. On the top panel are a wonderfully old-school paddle-switch to wake it up or shut it down, and knobs to adjust volume and cycle through sources. The currently-selected source is confirmed with a subtly-illuminated white LED.



The understated 1950s heritage styling works very well, making the Klipsch Three II a visually-distinctive proposition. Our review sample was finished in 'walnut', but an equally attractive 'matte black' version is also available. No tone controls are provided – a pity as bass output was strong.

Sources can also be changed and volume raised or lowered with the remote – a rather plasticky item that could do with a touch of the 'Klipsch heritage' style magic. The remote also has a standby function, and if you're using Bluetooth or USB sources it will allow you to jump to the next or previous track of the current playlist. On the subject of Bluetooth, setup is easy – simply pair your smart device with 'Klipsch The Three II'.

SOUND QUALITY

I tried the Three II with a Google Pixel 3a smartphone loaded with a selection of losslessly-compressed music and the versatile VLC Media Player app, a Cambridge CXN v2 streamer connected to the auxiliary input (there are no S/PDIF digital inputs) and a vintage Pioneer quartz-locked Direct-Drive turntable equipped with Shure cartridge. Via a Bluetooth connection – reported as 'HD Audio: Qualcomm aptX Audio' – the Three II immediately gave me a good idea of what it's about.

The sound is best described as 'big' – far bigger than you'd believe from a box measuring 35cm x 20cm x 20cm, or thereabouts. Basslines, notably the electronic ones of the tracks that make up BOB State's Transmission Suite album, sounded fulsome and warm. Indeed, the low-end can be a little overwhelming at times; it's a pity that Klipsch didn't include tone controls. But we're not talking about 'one-note' bass – a limitation of many Bluetooth speakers. There was tunefulness and articulation.

Speech from, say, Radio 4 announcers as heard via the CXN, had good presence, although traces of chestiness were apparent at times. Treble was crisp and clean, if the unit's reproduction of BOB State's

percussion and the brass instruments of the Ohio Players' Pleasure album are anything to go by.

Complex orchestral material – for example Dvorak's In Nature's Realm, as played during a Radio 3 evening concert – was given a tonally-credible presentation too. But there's a caveat – the orchestra sounded as if it had been crammed into a small room, simply because the stereo image is so narrow from a box that's 35cm wide.


Vinyl listening was a little disappointing. Yes, there was still that big bass-rich character that worked wonders with, say, the Are You Sphongled? double LP. But things weren't so hot at the other end of the spectrum; records sounded dull and lifeless in treble terms. Switching cartridges made no difference. An external phono stage (or turntable with one built in) would restore the balance.

CONCLUSION

On the whole, the Klipsch Three II is a very likeable proposition that'll be great for kitchens, home offices, bedrooms and other secondary listening environments. Sometimes, it's hard to accept that you're listening to a box of such modest proportions. Under such circumstances, the lacklustre phono stage and inability to convey a believable stereo image won't be so important. Those gorgeously-understated looks will help it blend neatly into most decor schemes – not just late-50s U.S. homes with a Plymouth Fury parked outside.



The remote selects sources, changes volume, mutes the sound and selects standby. It is a bit of an ugly duckling compared to the Three II.

KLIPSCH THE THREE II £395
 £
EXCELLENT - extremely capable.
VALUE - keenly priced.
VERDICT
 Big sound from a small and superbly-styled package.
FOR
 - fulsome presentation
 - clean, even at high levels
 - retro appearance
AGAINST
 - compressed stereo image
 - phono stage sounds dull
 - bass can overwhelm at times
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"Digital is changing the world but it is a hard task master"



Noel Keywood

How digital is changing the world. It's tearing down the old order. Our high streets are being ground down by the move to on-line shopping caused by the growth of digital communication – my son casually orders goods on his mobile and they arrive the next day. A shop? Whassat?

And it affects – often in brutal manner – how we live, including listen to music and watch films. Back in 1983, when CD was launched, no one foresaw that digital on the 'net would send digital on disc to the scrap heap. This sea change in our technological future has just claimed another victim, HMV's flagship store on London's Oxford Street. I wondered how they could survive; lines of CD racks, as always, containing something that's hard to identify in arrays of small plastic cases.

Of the retailer's downfall a BBC journalist writes that people don't go into their loft anymore to rake through old CDs and play them. Heavens, has it got that bad? Are they now consigned to lofts? Does no one listen to CD any more?

The word now is Spotify or Tidal and the like. There's been a slow but powerful move to streaming, aided in Spotify's case by the lure of free songs – if you don't mind the ads. Bringing into focus the presence – or lack of – of just one socket on music players, the RJ45 Ethernet socket. If a player does not now have one of these, basically allowing it to request music from external sources – computers in your home or around the world – then it is steam age. If it plays CD it has cogs and wheels inside, so forget that it is 'digital' it is still from our mechanical past, like the steam engine.

The steam age employed people;

the digital age seems not to need them. Vast amounts of data being sent to every corner of the world instantaneously, meaning much faster than your local postman – so he's out. Of a job.

Digital is so disruptive, but at the same time so elusive it has become an invisible force we don't perceive or fully understand in terms of societal impact. If HMV closes down thousands of jobs will go – as they are with so many retailers nowadays as the 'net takes over. Yep, even I used Mothercare (!) and they've now gone, and as for Maplins – I will never recover.

There's a rout going on with digital. Amazon has become a de-facto source of everything man makes on this planet and it relies on digital comms, although there is also a large physical aspect to Amazon. It's just made to be invisible: warehouses ('fulfilment houses' apparently) on anonymous industrial estates that you spot out of the train window. But digital comms made Amazon possible. I am now having to use them ever more.

There is an interesting argument against the view that the move to digital streaming is inherently bad. It goes like this. Once upon a time music was played by live musicians who got paid for their skills and the pleasure they provided. But what they did was ephemeral, it happened and it was gone. An outstanding performance was appreciated then and there and after was eternally lost. Neither performance nor musician were recorded because the technology didn't exist.

When the gramophone was invented by Emile Berliner back in 1890 all that changed. Musicians like to be – and need to be – paid for their work if they are to continue with it to give us pleasure. The gramophone didn't just capture

music, it also changed the economics. Artists could reach a bigger audience and potentially make far more but now there were intermediaries who paid them – the music business was born, as was the gramophone or latterly the hi-fi business.

The argument goes that with digital streaming artists now have the freedom to reach their audience direct once more: they don't have to rely on recorded discs that are sold as physical items, in HMV racks or at your local market stall. In effect then, streaming isn't new at all, it is a return to the way things once were, before the disruptive gramophone arrived.

This view potentially damns recorded music – bizarre but worth inspection. It has gut appeal but at the same time is simplistic. Now musicians have to reach their audience – you and I – through the internet and that isn't so easy. There's no ready audience waiting to be entertained and artists have no physical form – listeners have to find them.

To enable that marketing skills are needed from marketing people. It isn't at all the same as being a wandering minstrel – a romantic notion but nothing more.

There is a disarmingly frank explanation of the business from Sina on her website Sina Drums (<https://girls-got-groove.com/bio>), on Home and Bio pages. I believe she records in a basement home studio set up by her musician father. Note the quality of the recording equipment and the sound quality of her covers you can hear on YouTube (try Wipeout by Sina). Fantastic drumming and superb quality – but money is hard to come by she points out. A wandering minstrel likely made more. Digital is changing the world but it is a hard task master. ●

THE VINYL REVOLUTION



The EVO and the new EVOke Now you have a choice of any SL-1200! The new EVOke has world beating performance figures that are comparable with the world's most expensive turntables. The ability to fit any arm or cartridge in any SL-1200 new or old, means you can now have the EVO that you want at the price you want.

The EVO was used by Hi-Fi World to evaluate the Best in Mono records and is now used as their everyday reference. The EVO comes fitted with a tonearm of your choice and a cartridge of your choice.

We have worked with direct drive turntables and moving coil cartridges for nearly 40 years. We can supply completely new units with 6 year guarantees, used ones with 5 year guarantees, or we can convert your own.

Technics SP-10R & SL-1000R Many combinations available
Hi-Fi World said:

This is a spinner of vinyl for the serious, where you just want to punch a button and get on with it. It offers a degree of unarguable perfection for professional studios and anyone working with vinyl. If you want such unerring focus on the basics of playing LP it's time to check the piggy bank.
Hi-Fi News said:

Any great turntable gives you a certain frisson when you hear it. It's that old 'shivers down the spine' feeling, a sense of being let into a world to which you had previously not been privy. This is a remarkable turntable, and arguably the apex of vinyl playback. It's difficult to see how the SP-10R motor unit can be improved upon. It is a definitive statement of engineering prowess, and marks the return of direct drive to the top tier of turntables.

Miyajima - Stereo - Mono - Denon DL-103 - Audio Technica AT33 & OC9

Turntables & Tonearms - Technics SL-1200 & SP-10R - Furutech - Klipsch - 78rpm - SL1200 Mods

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"Their 1962 UK tour was supported by a bunch of kids called The Beatles"



Paul Rigby

I've touched on the notion of influence before in past columns. You see it all around when new singers name-check their heroes and talk about how this or that singer or band influenced their career or current style. When an influence is noted, unless that person is aged around the age of 12, it tends to be a famous person of 60s vintage who is quoted as the giver of knowledge: The Beatles, Stones, Dylan, Hendrix and the rest.

The issue I have with this frame of reference is this. Despite the undoubted talents of all of the above mega-stars, despite the changes they all brought upon music and how they moved their particular fields forwards, there is a danger that we see all of these names as some sort of source. Like a turntable.

There are many music fans out there that see these musical greats as a Year One. That everything they did was perfectly sculpted, that their output was unique and emerged from their respective brains in some sort of artistic Big Bang. When that's really not the case.

No blame is attributed to the great names above, of course; it's not their fault. But there is an assumption by many fans and music enthusiasts that these names effectively leapt forth from the soil, fully formed.

I see this line of thought all of the time on social media. If you ever visit a Facebook Group devoted to a singer or band, for example, the people within will treat them as god-like figures who did no wrong, can do no wrong and everything they said was tantamount to holy scripture. That's understandable and 'twas ever thus.

Trouble is, because we live in a society dominated by short-termism, sound-bite media and restricted attention spans, our sense of truth, context and worth is often buried, subsumed and mutated so you don't have to be a blind fan-boy/girl to view a popular musical artist in such a way.

OK, I'm not asking you to take a night-school course on the history of the Beatles (although I wouldn't mind attending such a thing, I have to add) but we all must be aware that, as the old saying has it, 'there's nothing new under the sun'.

All of the above figures learned from others. They were moulded by others. They blatantly stole from others (in the nicest possible way, of course) and without these 'others' they would have had no chance as creative artists themselves.

Such influences are everywhere. My latest jiffy bag of CDs from Jasmine Records (www.jasmine-records.co.uk) had no trouble in offering four. There were only four in the envelope too. So I didn't even try to filter. Which goes to show how powerful was the influence of older artists on the whippersnappers of the 60s. Talent was everywhere. It was ubiquitous.

Even little-known characters like Bruce Channel ('Hey! Baby - The Early Years 1959-1962') were critical. His mid-tempo, 1962 No. 1 hit spanned rock, country, blues and more. It featured Delbert McClinton on harmonica. During their 1962 UK tour, they were supported by a bunch of kids called The Beatles and one John Lennon was madly in love with McClinton's style. To such an extent that he copied it for the band's debut hit, 'Love me Do' and many others after that.

Another major part of The Beatles (and The Yardbirds, Lulu plus others) was the work of the Isley Brothers ('Just One Mo' Time/ Singles As & Bs, 1960-1962'). Their song, 'Twist and Shout' was a major event in rock and the career of The Beatles.

In fact this band – which would span not only decades of time but generations in terms of the group's line up – bestowed influence and was influenced at the same time. While British creatives were feeding off the talent of the Isleys, a certain Jimi Hendrix (then Jimmy James) was honing his technique as part of the Isley's touring outfit.

The Isley Brothers would evolve and transform from an R&B/Motown-a-like band to a brilliant funk combo in the early seventies and they did that with a certain amount of influence from Jimmy Nolen ('Strollin' with Nolen - Hot Guitar, 1953-1962') who was known as the father of the funk guitar. In fact his work backing James Brown was significant. 'Papa's Got A Brand New Bag' wouldn't be the same without him.

Meanwhile, everyone was influenced by Bob Diddley ('Say Man, Back Again - The Singles As & Bs, 1959-1962 Plus'). A man who expanded the use and realised the potential of the electric guitar. His energetic style also set the tone for axemen to come. Again, Hendrix would have been a pale imitation of his future self without Diddley while The Rolling Stones based their attitude on the man. The Yardbirds, Animals...even Buddy Holly referenced Mr Diddley.

Bottom line? If you have a musical hero. No matter what time period you care to pick. Five will get you ten that they're a complex amalgam of those who came before. ●

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“There must be some place for a TV show featuring up and coming new groups”



Jon Myles

Flicking through the TV channels the other day (not something I usually do but I was stuck in a hotel room with nothing to do) I came across a fascinating series of music programmes.

Culled from various television programmes it featured an eclectic mix of bands - including Alice Cooper, The Ramones, Iggy Pop, Talking Heads, Bruce Springsteen, The Jam, The Clash, X-Ray Spex, The Damned, The Undertones, Joy Division and Blondie to name but a few.

Some of the performances were stunning - The Jam and The Undertones stand out. Best of all, though, was probably Bruce Springsteen with the most high-energy, hard-charging piece of rock 'n' roll I've seen.

Actually, watching this long ago was what turned me onto Springsteen in the first place. Seeing it again brought back many memories. But more fascinating still was the programmes these performances were culled from. Top Of The Pops (obviously) but then the likes of So It Goes and Something Else.

Even The Old Grey Whistle Test was in there - although there was always a look of disdain on “Whispering” Bob Harris’s face when a band played who he clearly did not like (usually because they were punk or new wave, didn’t play 10 minute guitar solos or weren’t Genesis).

OK, not everything has stood up to the test of time but it made me recall how many new bands I discovered by watching all these clips.

But what has come along to replace this feast of music on TV? The answer is not very much at all. Popular music programmes have very much disappeared. Especially ones that showcase new artists

(I’m ruling out the likes of The X Factor and The Voice as I see them as talent shows rather than music programmes).

It seems there is very little enthusiasm amongst senior executives to bring this sort of edgy entertainment back to our screens. I suppose ratings will be quoted as the main factor that drives what we see.

But surely in our crowded TV schedules there must be some place for a new, edgy TV show featuring up and coming new groups? You never know, it might even garner a decent viewing audience, or at least one large enough to make it worth producing and give it a decent slot in the schedules.

After all, where else are people going to discover new music? Spotify? Hardly – that’s more for people who want to hear familiar songs they know and love.

Record shops with knowledgeable staff? Well, they are disappearing at a rate of knots. Concerts - look through the adverts in the newspapers or go on-line and you’ll find most are now old groups reviving past glories or tribute acts.

Then there’s the music press – although most of that has disappeared (Melody Maker, Sounds etc) in printed form. Of course there’s still on-line but you have to hunt them down and in my eyes a pale shadow of the venerable printed editions.

So it’s back to those old TV shows and the hope that one day we’ll see something similar again. Or perhaps I’m just being nostalgic.

Talking of nostalgia there’s a brilliant new book out at the moment celebrating 50 years of the Glastonbury Festival. Yes, it was founded 50 years ago in 1970 - around the same time as Woodstock.

Back then it was a small event attracting a few thousand music fans

and not the behemoth it has become in the 21st century.

Glastonbury 50 celebrates this extraordinary rise in both words and pictures that all reflect the central ethos of the festival - the music, the fans, the fun, the camaraderie.

Founder Michael Eavis and his daughter Emily - who now runs the event - are joined by a host of big-name contributors including Adele, JAY-Z, Dolly Parton, Chris Martin, Julie Christie, Noel Gallagher, Jarvis Cocker, Suzanne Vega, Lars Ulrich and Guy Garvey.

All shed a different light on Glastonbury and what it means today, plus the prestige of appearing on-stage there.

It’s also packed full of hundreds of photos of various acts that will bring back great memories to anyone who saw them.

As Emily Eavis explained “With our 50th anniversary fast approaching, we felt now was the time to put all of our memories and stories together in one place”.

“It’s been a total joy to look back through piles of old photo albums and scrapbooks and to reflect upon what it meant at the time, and the incredible evolution of the event. I hope people who’ve been over the years will be able to reminisce and get a flavour of the rich history of Glastonbury through five amazing decades”.

For anyone who has enjoyed the Glastonbury experience this book is a must. Actually even for those who haven’t it should be an essential.

Now, if they could make Glastonbury a year-long round festival and then televise the various stages every day then that would make a compelling new music programme to rival all those old classics. It would certainly keep me - and I guess quite a few others - glued to the screen. ●



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"In Southend there are small independent record shops with vinyl"



Martin Pipe

Last column, I outlined the equipment and techniques I've been using to digitise vinyl records – so I get more opportunities to enjoy the precious music encapsulated within, via hassle-free audiophile-grade media players and personal streaming. Nowadays, even a smartphone with decent Bluetooth 2.0 headphones is capable of passable results. Diehards may tutter, but if their 'golden days' coincided with those of the analogue disc then it's probably safe to assume they're now happily retired and aren't short of the spare time that the 'vinyl ritual' demands.

Yes, I miss it. The careful selection of LPs for an upcoming listening session, the equipment checks, the cleaning of stylus and records, the careful placement of my first choice onto the mat, the lowering of said stylus onto the entry groove of Side 1 and the 40 minutes or so of relatively click-free musical enjoyment – interrupted only by the need to flip over the album halfway through (did anyone make a genuinely audiophile-class turntable able to do this automatically?) and repetition of the latter steps until musical fulfilment or bedtime (whichever came first)...

But now it's possible to get all that music, without the associated hassle, at the touch of a button or several – and with no further record wear. The thumbing through stacks of records is now replaced by its effortless virtual equivalent – navigating through folders until I find what I'm in the mood for. I can even create playlists of complete albums, sides or individual tracks – mimicking what I did prior to those vinyl sessions of the past – and even save them for future employment (modified, if necessary).

Album-art, specifically a JPEG containing a lightweight digital scan of the LP jacket either downloaded from the Internet or obtained with an A3 scanner, can also be displayed on the screens of most digital players. Sure, it's not a patch on having a gatefold-sleeve to lovingly-caress and examine while the music plays – and indeed I miss the sheer tactility of the vinyl-playing experience – but for so many of us trapped by the increasing demands of a workaday world (and associated travel) it's either that, or miss out on the music altogether.

It's reassuring to drop by the local HMV and witness how much floor-space is now devoted to vinyl records. One feels like going back in time 30 years! The retailer evidently understands that in the streaming age, it has to capitalise on the sorts of experience that cannot be delivered in virtual form. I also note here in Southend the re-emergence of small independent record shops specialising in vinyl. Sure, some DJs still insist in working with the medium, but I can't help wondering how many vinyl LPs (which HMV sells for £20 or more a throw) are bought as mere artifacts to hang on the wall while music pumps out from a Sonos or Bluetooth speaker.

Audiophiles prepared to invest significant sums of money in a decent analogue front-end are comparatively rare, certainly compared to how things were three decades ago. To the mass market, HMV pitches cheap 'retro-styled' record-players with 'GPO' branding (the publicly-owned General Post Office, which was dissolved in 1969), presumably to capitalise on Brexit-fuelled 'Rule Britannia!' nostalgia.

Ironically, they are imported. Anyone stressing the grooves of their £20-plus LP on one of them

will almost certainly wonder what all the fuss is about. Funnily enough, these ...things turn up regularly in Cash Converters!

Even audiophiles need to be asking themselves questions, though. A significant proportion of the LPs at HMV are classic albums – Dark Side of the Moon, Sgt. Pepper, Rumours and so on – safe retail propositions that will always shift. However, they are digital remasters. Basically, the master tapes are turned into digital form, manipulated using some kind of computerised DSP magic and then converted back into the analogue form necessary to drive the record lathe's cutting head. Common sense says you're better off skipping the last stage and enjoying the remastered output in digital form – especially if 24-bit is an option. Call me a heretic, but listening to such LPs only makes sense if you have the original analogue non-remastered release.

Everything's going digital. We've seen what that means for the High Street. HMV continues to struggle, and as I cycle along Oxford Street I pass its now-closed flagship store. This eggs-in-one-basket situation is making us dangerously dependent on digitally-driven services – both private and public-sector.

And what happens to your music (and other important files) if the 'cloud solutions provider' of your choice unexpectedly goes out of business? You need to be 'backed up', so why use cloud storage in the first place?

A smaller-scale failure put all of this into personal perspective. My home router crashed, meaning I could no longer remotely access my NAS music library while recovering after an operation. That's where analogue steps in, with its simple reliability. ●

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HI>FI+ ISSUE 172 REVIEW, HANA ML/MH



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"My last pair of Quad IIs, with all the leads, were lethal"



Dave Tutt

A couple of relics arrived at the workshop this week. I suppose relics is not the right word as the design is still just as valid today as it was when new back in 1953. But many modern hi-fi buyers would consider valve mono-blocks that look closer to industrial hardware rather undesirable – and of course there is the spouse aspect to consider too.

Bought at a local auction a pair of Quad II power amps with serial numbers reasonably close together they didn't look too bad, but had a number of things to be done that would bring them up to date and make them work. You have to decide at an early stage how far you are going to go with these amps. If you want to create a like-new solution then the spray booth has to come out as the rust and scratches needs to be sorted. That means a complete rebuild which I think, unless you just want to look at them, is a little extreme.

My feeling is, change the resistors as they are easy to do and relatively cheap and will have all changed in value anyway, so it makes sense. Any capacitor that is split or looks like it has suffered due to heat should come out too. Like a lot of these old valved amps, the worst things are the connections, resistors and capacitors that are miles from their indicated values – and of course worn out valves.

The Quad doesn't have a simple audio line-in socket but a six pin Jones or Plessey socket carrying heater and HT as well as the audio. Unless you want 100% authenticity this should come out. It's a Health and Safety issue as much as anything: mixing high

voltage DC with all else on the same plug isn't ever going to be done today. It must be plugged right in because exposed contacts have 300 Volts DC on them – just too dangerous not only for the cat, but also for unsuspecting members of the family who might just want to put some music on. The connector can be removed and a gold plated phono socket fitted onto a metal plate for the audio – which looks so much better. The original plug and socket will be noisy so unless you are desperate to keep the Quad II looking original, modification will improve safety and your listening pleasure. Otherwise the cost of an old 6 blade Jones connector is liable to be more than £30 and the phono adaptors are £65 so a pair are a £150 addition to the bill before we start.

If, like the ones I have here, you have no mains connectors that is also something of a problem too. They are rare, and only original ones from the 50's seem to be available and are also expensive as well as being hard plastic or Bakelite – neither of which inspires confidence. They are really not safe. I know that sounds rather extreme but believe me, the reason these went out was exactly because they were dangerous. My last pair of Quad IIs with all the leads when they arrived were lethal. Damp ingress into Bakelite causes it to become conductive – and worse when it does it tends to arc so you have plenty to make things nasty.

I know people will say it's never going to get damp but trust me, having had all sorts of ancient hardware with this material as an insulator I very soon realised it isn't – a good insulator I mean. Try

getting a Brennell reel-to-reel tape machine to pass its earth leakage test under PAT rules and you will see Bakelite isn't a great product, especially used as an insulator inside motors over 50 years old!

There is also the issue of earthing. These amps were intended to run with the partnering Quad 22 preamp which earthed the power amps via the returns on the Jones connector. If you are not using a Quad 22 pre then where is your earth going to come from? Down the screen of the audio cable!

This is another issue as your pre might not be earthed in modern fashion – and to have all that high voltage hardware not earthed is not a good idea. Then if you earth both there may then be an issue with earth loops because of the very thing you really shouldn't leave off! Oh – and if you have them on separate mains plugs so they can be next to your speakers they really should have mains switches on them too!

I feel with these sorts of amp we should obviously maintain the basic structure of the thing but at the same time best not to compromise on safety. What was acceptable in the 1950s is not okay now! So new mains connectors are a must. The resistors are an easy replacement. There is really only one crucial pair of caps that can be replaced with modern equivalents, preferably with metal casing like the originals. Then the Quad II power amplifiers can be brought up to running condition, providing their output transformers are still intact. If these have blown (fused primary) due to valve failure then forget it. Money spent at auction (or perhaps eBay) will be down the drain. ●

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The improved two-plinth design utilises Thermo Plastic Elastomers (TPE) to isolate the metal-finished inner-chassis, rather than the traditional method of a spring-loaded sub-chassis, but this construction effectively decouples the motor from the main bearing and the tonearm, reducing unwanted interference between the components.

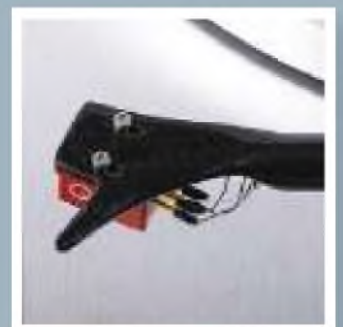
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Cambridge Powerhouse

Cambridge Audio's new CXA61 amplifier is a do-it-all unit that combines great sound with complete connectivity. Jon Myles listens in.

Cambridge Audio's roots lie way back in 1968 with the slimline P40 amplifier. What was so special about it? Well, it was actually the first amplifier to use a toroidal transformer – something we just take for granted nowadays – but at the time it allowed slimline design.

Which goes a long way to explain Cambridge Audio's ethos down the years – innovation allied to decently priced yet good sounding products.

Hence the new CXA61 integrated amplifier that includes both analogue and digital inputs, replacing its well-regarded CXA60 predecessor.

The Wolfson 8740 DAC of the previous model has been replaced by an ESS Sabre SE9010K2M digital-to-analogue convertor – one of the best on the market – allowing conversion of 32-bit/384kHz PCM files as well

256 DSD data streams. That just about covers all files most users will possess. Other upgrades include new op-amps, improved capacitors and a simpler circuit designed to reduce distortion.

Bluetooth is now also built in (an optional dongle was needed on the previous model). Power output remains the same at 60 Watts per channel (see Measured Performance for full details) that, to some, might sound a little limited, but to be honest most of us only really use a few Watts of power even to drive the most demanding of loudspeakers.

Connections include four analogue inputs, plus coaxial and Toslink digital inputs. The input chosen is indicated on a front panel display, to the right of which sits a large rotary volume control. However the easiest way to control the CXA61 is via its supplied remote control which is one

of the best I have used in terms of ease of use and layout. It feels solid and works with no lag at all – not something you can say about all remote controls.

Build-wise the Cambridge well befits its £750 price tag. There are no rough edges in any sense of the phrase and it feels solid and well-constructed. It is quite large at 115mm x 430mm x 341mm (H/W/D) but still fits a standard 19in (483mm) wide hi-fi rack with room to spare.

SOUND QUALITY

I connected the Cambridge to a pair of PSB T20 floorstanders and our reference Oppo 205BDP universal disc player using Titan Audio's new interconnects (see review in this issue) and also used a FiiO M7 portable player for high-resolution playback into the digital section.



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The one thing that struck me immediately was just how confident and musical the Cambridge sounds. The PSBs sounded good on the end of a Creek Evolution 100A but with the CXA61 they came alive in a different, more vibrant way.

There was a sense of fun, naturalness and – above all – complete coherence. Playing New Order's 'Blue Monday' through this combination was a shining light. Drums just right, electronics spot on and vocals accurately placed in the mix.

The more I listened the more I thought this could be an ideal partnership. The PSBs cost around £500 while the Cambridge is £750. But together they made me listen so much I almost forgot to write down my listening notes. When I

did, the words that came through frequently were fun, power and detail.

The ESS Sabre DAC has obviously made a difference in the latter stakes, as plugging in the FiiO digitally and playing Arvo Part's 'Tabula Rasa' (24/96) showed. The piano was softer and mellower than before – just as it should be – yet the violin part had real bite. The CXA61 made this obvious, without adding artifice to the sound. It simply sounded natural.

Another impressive aspect was this amplifier's ability to fuse with the music. Playing The

Clash's version of the reggae classic 'Time Is Tight' the bass line was tight and right on the beat. It produced a solid foundation for the guitars above and had a truly rhythmic propulsion about it. Turning volume up didn't faze the performance; it remained firm and stable without collapsing in on itself. I've heard other amplifiers drag a bit more power from the track – but not in the price range.

The CXA61 works well in all areas I found – through its analogue and digital inputs.

CONCLUSION

As integrated amplifiers go the new Cambridge CXA61 has to be considered a standout product. Powerful enough to drive most modern loudspeakers, it has propulsive analogue sound and a refined digital section that wants for nothing. Well worth hearing.



The rear panel includes RCA phono socket analogue inputs as well as co-axial and optical digital sockets, but no balanced XLRs.



A hefty toroidal transformer in the linear power supply dominates the interior. It's surrounded by densely packed circuit boards; this is a complex design.

MEASURED PERFORMANCE

The CXA61 amplifier delivered 72 Watts into 8 Ohms and 110 Watts into 4 Ohms. Output impedance measured a low 0.1 Ohms, giving a high damping factor of 80, to exert good control of the bass unit.

Distortion levels were very low at 0.005% (1kHz) and also at high frequencies (10kHz), just 0.01% into 4 Ohms at 1 Watt, as our analysis shows. Input sensitivity (Aux 1-4) was 350mV

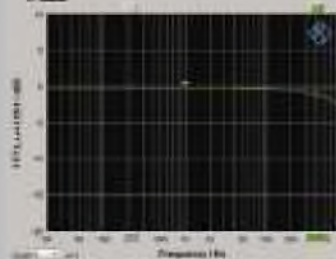
for full output. There is no phono stage.

Although this is a budget amplifier the internal ESS DAC had a high 116dB EIAJ Dynamic Range figure, via the loudspeaker and pre-out outputs. This is well above the 103dB of CD and approaching the 122dB or so of quality external DACs, making the CXA61 very capable with hi-resolution digital audio.

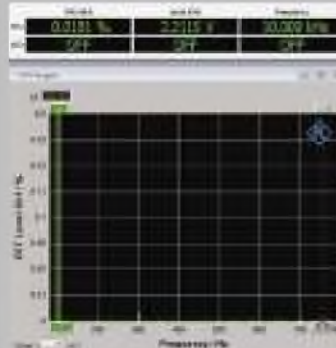
Digital distortion measured a low 0.035% (-60dB, 24bit) giving clean digital sound. Frequency response with 192kHz sample rate PCM rolled down slowly above 34kHz (-1dB) to the upper theoretical limit of 96kHz. An impressive digital result, maintained through the USB input, measurement showed. The optical digital input worked to 192kHz.

The CXA61 gave fine performance figures in all areas. It is a well designed budget amplifier that betters most else. NK

FREQUENCY RESPONSE



DISTORTION



Power (8 Ohms)	72 Watts
Frequency response	2Hz-40kHz
Separation	88dB
Noise (IEC A wtd)	-102dB
Distortion (10kHz, 1W, 4Ω)	0.01%
Sensitivity	350mV
Damping factor	80

DIGITAL

Frequency response (192kHz)	4Hz-34kHz
Distortion (-60dB, 24bit)	0.035%
Dynamic Range (EIAJ)	116dB

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BLUE AURA PG-1 TURNTABLE 115
A turntable with Bluetooth. Noel Keywood spins vinyl and tunes in.

THE BEATLES - SINGLES COLLECTION 118
All 22 Beatles singles in a box. Reviewed by Noel Keywood.

AUDIO ANALOGUE AAPHONO 121
A stylish Italian phono stage. Noel Keywood investigates.

AUDIOPHILE BOOK 127
'All Around a Hole': 1970s Italian LPs. Reviewed by Paul Rigby.

news



PRETTY THINGS

A double album disc (*Madfish: www.madfishmusic.com*) featuring a live set from the legendary rock outfit and with guests, Van Morrison and David Gilmour. Recorded at the O2 Indigo, London, December 2018. The recording scoops the best of three live sets.

MODERN HARMONIC

Three compilation LPs from this Sundazed off-shoot (*modernharmonic.com*), all on coloured vinyl, includes 'Spectral Stompers & Graveyard Grooves' that mixes garage, surf and original trailer/radio spot pieces relating to the famed, old Ghost Show road shows that would travel the USA, from the 30s to 70s, scaring the pants off paying customers. Artists include The Night Beats, Pat and the Wildcats plus The Mysterions.

Also look out for the Original Motion Picture Soundtrack to 'Missile To The Moon' (1958) – illogical, substandard, filmed in seven days and totally glorious! Plus 'She Demons' (1958), another Soundtrack combining demons and Nazis. But of course.



MUSIC ON VINYL

A host of new releases from this audiophile outfit (www.musiconvinyl.com) includes Moloko's 'Things to Make and Do' (2000). A beat-riden, splurge of sliding tempos. A solid release full of intriguing textures.

Also look out for Peter Green's 'Kolors' (1983). Green seems more up for it on this LP than previous releases. Pity the songs are sub par.

Also look out for two soul compilations, 'Keeping the Faith 1: 28 Stompin' Northern Soul Classics' & 'Keeping the Faith 2: 21 Modern Soul Classics'. Both double albums, both on coloured vinyl, the former offering The Cherry People, The Sapphires and Sylvia while the latter includes The Moments, Benny Troy, Carrie Lucas.



SIMPLE MINDS

The group's vigorous output continues with two packages. The first is a live set, 'In the City of Angels' (BMG) from the Orpheum Theatre, Los Angeles on 24 October 2018 (Glittering Prize was recorded at The Fillmore, Miami Beach on 8th November 2018, though). Apart from the latter, you get the whole concert.

'40: The Best Of' (Universal) packs eighteen tracks into two discs, covers the band's entire career and includes a new track: a cover of King Creosote's 2014 song 'For One Night Only'.

VAN HALEN

A rather nice 7" box set from Rhino containing thirteen Japanese singles from the band, spanning 1978-1984. Contained in a flip top box with a nice magnetic snap-shut lid, each dinked disc sits in a paper sleeve with the art printed on a single sheet. The pair are contained in a plastic sleeve. Arrives with a paper insert detailing the tracks.



CHANTAL CHAMBERLAND

'Temptation' from Chantal Chamberland (Evosound: www.evosound.com) makes a big sticker play of its German pressing source but fails to say exactly where. Nevertheless, this singer-songwriter combines new and classic tracks, coolly interpreted, vocally textured and spatially generous. It's exactly what you'd expect to hear at a hi-fi show. So you probably will.



SPEAKERS CORNER

A host of goodies from this German audiophile outfit (www.speakerscornerrecords.com) includes 'Aretha: Live at Fillmore West' (1971). Backed by an excellent band, there's enough energy here to light a city. A quite brilliant, fulfilling and sparkling live event.

Elvin Jones' 'Midnight Walk' (1966) mixing jazz-funk, swing and bop for a storming set.

Also look out for 'The Flowering of the Original Charles Lloyd Quartet' (1971), recorded at the Aulean Hall, Oslo, Norway, 1966, combining pop and jazz and appealing to the flower power set of the time. Features Keith Jarrett.



...AND FINALLY

Guido Spannocchi's jazzy 'All of the Above' (Audioguido; audioguidorecords.kudasrecords.co.uk) is supposedly derived from European folk but sounds like classic bop to me! Excellent stuff.

Wizard Rifle's (Svart: svartrecords.com) self-titled, psychedelic noise rock is hard, tough, in yer face yet injects surprising melodic undertones.

Klone's 'Le Grand Voyage' (Kscope: kscopemusic.com) reminds me of Steven Wilson blended with Sting. But the former in terms of arrangements and delivery. Porcupine fans take note.

The Akron Quartet Plays 'Ritualul Sferei' (Vampi Soul: www.munster-records.com) is a jazz combo majoring in exotica. Think Les Baxter in its cool, lounge strangeness.



DEMON

There's three Greatest Hits packages from the UK vinyl outfit under its Gold imprint. One each from 5 Star, Kiki Dee and Ace of Base.

'Hank Plays Cliff' sees Hank Marvin's album on (red) vinyl for the first time. Features Cliff Richard on four tracks over two discs.

Rick Wakeman fans check out the rather good 'Cirque Surreal' (1995), featuring four Chrissie Hammond vocals and instrumentals. A solid effort from Wakeman.

The James Taylor Quartet's 'a Bigger Picture' (2001) combines acid jazz with soul/funk and more to provide a polished presentation of originals with 'TKO', a Bobby Womack cover. Over three sides with an etching on the fourth.

Don't miss fun times with Hot Wax's fun-pop outfit, 'Honey Cone', who had a big hit with soul song, 'Want Ads'. Timeless stuff.

You can add gritty Laura Lee's 'Women's Love Rights' (1971) to that. A classic women's protest outing, also originally from Holland-Dozier-Holland's Hot Wax. The critic's favourite was Lee. Features the classy 'Wedlock is a Padlock'.



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Blue Vinyl

Blue Aura add vinyl to their neat budget system. Noel Keywood comes away impressed.



We've reviewed Blue Aura's lovely little system before, with cute little V40 amplifier (£469) and small ps40 loudspeakers (£179). Now the company have come up with a matching turntable, the PG-1 (£259) that I'm reviewing here. I'll also quickly cover the system again, to get the PG-1 into context, as well as using it in an alternative reference system – because at the price this is as a neat way to bolt LP replay onto any system.

The PG-1 is a two speed (33, 45rpm) belt drive design that, judging by its arm, comes from Pro-Ject of Austria. Pro-Ject are adept at fitting extra bits into turntables, such as phono stages and digital outputs, to make them more adaptable – and that's what you get here. The PG-1 has a simple internal phono stage (MM only) so will feed any amplifier direct, but it can be switched out if an external stage or amplifier with its own phono input is used.

Unusually, there's a digital output in the form of Bluetooth wireless transmission, but only Bluetooth and nothing else – there's no S/PDIF digital output in optical or electrical form. The Bluetooth stream is 16bit / 44.1kHz – CD quality.

The PG-1 is fairly basic: there are no auto mechanisms. I had to hand cue the arm onto a disc, using either the damped cue platform and lever, or the headshell finger lift. I prefer to use my fingers and here the simple, flat headshell grip was difficult to grasp – as they always are. Headshell finger lifts need to be curved upward but – hey-ho – this is a minor point since most people will likely use the damped platform and it worked smoothly. Also, the finger lift can be replaced for a better one.

Bouncing cartridge onto LP always was a big problem with vinyl, resulting in bent cantilever and the cost of a replacement stylus. Audio Technica have a good remedy in their AT-3600 MM cartridge; it has a carbon composite cantilever able to

withstand such heavy use – and that is what Blue Aura fit to the PG-1. Yep – it's a workhorse that tracks at 3.5gm but the use of carbon fibre in the cantilever gives it a wonderfully smooth and deep sound that is entirely in-character with LP – and preferable I feel to the brighter sound of metal cantilevers, which most are. Ironic that a workhorse construction gives best sound – but that's a neat touch with this low cost cartridge, making it my budget favourite.

The arm has a fixed headshell and comes with cartridge attached – and changing the cartridge isn't easy to found. It can be done if you have the tools, steady hands and good eyesight but realistically it's a dealer job for anyone wanting to upgrade. Tracking force is set by rotating the counterweight on the rear stub, a common method – but in our review sample the weight was loose due to a small internal friction pad disintegrating.

Quoted cartridge weight range is a limited 3gm-6gm, suggesting



Blue Aura's PG-1 turntable flanked by the system it was designed to match, comprising ps40 loudspeakers at left and V40 amplifier at right, with remote control. The turntable can be connected directly to the V40 or via Bluetooth digital radio link.

cartridges over 6gm cannot be used, such as Audio Technica's VM95 budget series that come in at 6.1gm. The common upper limit is 10gm so the PG-1 has restriction here; it isn't a turntable for upgraders. I suspect Blue Aura's quoted weight range is inaccurate and a heavier cartridge would be compatible – but getting the tight fitting connectors off one channel to make internal amplifier measurements was difficult, so to avoid damage – that manufacturers don't like in review samples – I decided against swapping cartridges



Audio Technica's AT-3600 moving magnet cartridge is fitted as standard. The finger lift is removable and can be changed.

to check this.

Bias force is applied by a small counterweight and thread assembly. The arm has good bearings that allowed it to float freely when balanced out, so in all it performs well.

The plinth measures 420mm wide, 130mm high (lid closed) and 345mm deep (lid closed). Opening the lid makes overall depth 420mm due to rear overhang, and demands 400mm top clearance – important dimensions for anyone using a wall rack system. The three feet do not height-adjust so a level surface is needed.

Weight is quoted as 5.8kg (lightish) and power is delivered by a small wall-wart 12V / 500mA power unit, having a 2m long lead. Low voltage external supplies like this with no earth connection eliminate hum.

The PG-1 has a well made and finished plinth with a single pair of phono socket outputs at rear that deliver either output direct from the cartridge or from the internal phono stage, a small slide switch making the choice. There's also a small blue LED at rear that winks to show Bluetooth connection.

I connected up to the Line input of our Creek amplifier, then Aux input of the VA40. However, the turntable's Bluetooth output can also be used to pair to the VA40, which has a Bluetooth receiver – more in a minute on this. As Blue Aura note the PG-1 can transmit to Bluetooth equipped headphones or loudspeakers, avoiding wires altogether. Bluetooth also means it can be sited away from the hi-fi, perhaps in a firm location.

Blue Aura's lovely little VA40

hybrid amplifier has a silicon power chip inside, fronted by valves, including an EM84 magic eye that glows green for added visual appeal – these things acting as radio tuning indicators in the past.

To initiate Bluetooth pairing I had to switch off power at rear then back on, at which point the unit paired both with the VA40 and a Cambridge Audio streamer (used for measurement) that confirmed 44.1kHz sample rate digital. There's quite a lot of latency in the system, so drop arm onto LP and there's a short silence until the music starts – eerie! Cue arm up and the music keeps playing – disconcerting! Happily it does stop when the buffers run out, after 0.5 secs or so I would guess.

The PG-1's electrical Line output is weak and the VA40's gain low via its 'RCA' phono-socket inputs so I had volume turned right up here. Swapping to the more sensitive AUX input (3.5mm input jack) gave apparently more volume (more gain in fact).

Blue Aura claim 30 Watts from their VA40 amplifier but our measurements show it delivers 10 Watts (15 Watts into 4 Ohms) as we found in our original review (July 2016 issue).

And finally, the little ps40 loudspeakers (£179) complete the system. Reviewed in our November 2016 issue we thought these were



Tracking force is applied by a calibrated counterweight and bias by a weight on a thread over a shaped wire support.

easily worth five Globes, especially at the very low price – superb value. They are a tad bright but clear and detailed – and with fast bass. Far better than they had any right to be at the price I felt.

SOUND QUALITY

I used the PG-1 with our Creek Evolution 100A amplifier connected to Martin Logan ESL-X hybrid electrostatic loudspeakers to assess its sound directly and – of course – through the VA40 amplifier also connected to the Martin Logans, then the ps40s.

Connected directly via the internal phono stage to the Creek I had to turn volume up but the PG-1 was clear, smooth and accurate. Running through a selection of our high quality review LPs I heard a sound that was well balanced and revealing. There was plenty of detail at high frequencies that made vocals stand out, the trumpet solo on Fanfare for the Common Man from 'Two Countries One Heart', for



An EM84 valve shows music level in a light blue fluorescent display that's entertaining – especially in the dark.

example, coming over with great presence and good pitch stability; there was no obvious wavering. Similarly, with I Look To You on the flip side, Cheryl Porter's vocals stood out with all the vivacious push LP can provide – a lovely performance.

Swapping over from the Creek Evolution 100A to Blue Aura VA40 there was slightly more dimensionality, courtesy of the valves. Although there was less absolute power – 10 Watts against the Creek's 100 Watts – the VA40 still went very loud, driving our Martin Logan ESL-X hybrid electrostatic loudspeakers with ease. It was a fine sound, communicating the smoothness of analogue and also its dynamic liveliness.

Via Bluetooth the sound became slightly softer and blander – almost a shame as the PG-1 deserves the convenience of a Bluetooth connection that is higher in fidelity. But you can't have everything at this price.

Feeding Blue Aura's VA40 amplifier and ps40 loudspeakers direct (phono leads) the PG-1 was lovely. Hugh Masekela's 'Uptownship' raced along, sounding vivacious – his trumpet rich in tone. Here, the carbon fibre cantilever of the AT-3600

showed its peculiar sonic strengths, pulling out the rich tapestry of sound from this wonderfully recorded LP, teasing out the timbral delineation that analogue can achieve. The sense of speed and pace came largely from the small ps40 loudspeakers that well complement the rest of this system. You don't get deep bass here, but you do get speedy punch. Think lively, dynamic and clear.



CONCLUSION

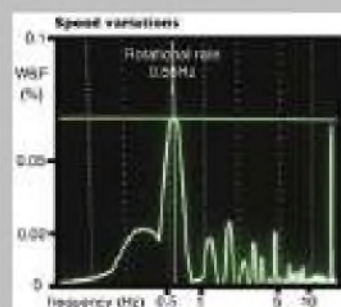
Blue Aura's PG-1 turntable is a neat little package with fine sound from the Audio Technica AT-3600 budget MM cartridge fitted. The Bluetooth link is a convenience that allows the turntable to be sited anywhere, but quality is below that of direct connection. The PG-1 works well within Blue Aura's fine little system and also on its own, offering superb sound and value. It's definitely worth hearing this little set up – one that takes up little space, sounds lovely and costs – well – I'll say it again: peanuts!

MEASURED PERFORMANCE

From a 3150Hz test tone (DIN 45-452 test disc) the PG-1 wandered from 3134Hz to 3142Hz, in random fashion over a 24hr period. That puts nominal speed at 3138Hz, a small -0.4% slow – not subjectively obvious in terms of pitch accuracy.

The speed wander did however result in a mediocre 0.2% Wow value, fairly typical of a budget belt drive

SPEED VARIATION



FREQUENCY RESPONSE BT



turntable. Our speed variation analysis also shows a flutter peak at right (15.9Hz) responsible for a poor 0.1% Flutter reading (0.04% typical). All the same, total Wow & Flutter, DIN weighted, was 0.13% – respectable for budget belt drive turntable.

The internal phono stage has a very low gain of x60 and overloaded above 10mV in / 600mV out, where distortion measured 1%. Although this is poor, in practice it will only affect music peaks and pass largely unnoticed. Equalisation was accurate, making frequency response effectively flat from 10Hz to 20kHz, there being no warp filter.

Frequency response of the AT-3600 cartridge, measured with pink noise, was relatively flat via the Line output (-1dB at 10kHz), but with treble roll down via Bluetooth (-3dB at 10kHz, as shown), giving a milder sound.

The PG-1 measured as expected for a budget belt drive, having no serious weaknesses. Considering price versus complexity, it was very good. **NK**

Speed error	-0.4%
Wow	0.2%
Flutter	0.1%
Wow & Flutter (DIN wtd)	0.13%

**BLUE AURA
BLACKLINE PG-1
£259**



OUTSTANDING - amongst the best.

VALUE - keenly priced.

VERDICT

Good budget turntable, well suited to Blue Aura's neat little system.

FOR

- bluetooth
- phono stage
- analogue sound

AGAINST

- cartridge weight range
- some speed variation

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Single Hits

The Beatles hit singles – twenty two of them – will arrive in shops just before Christmas. Here's what to expect, Noel Keywood explains.

Watch Abbey Road's webcam to see the constant flow of visitors, day and night – even at Christmas – that flock in from around the world to cross that crossing. The Beatles early high energy but easily accessible songs remain globally popular to this day, fame being forged by strings of hit singles long ago, starting in 1963 with Please Please Me that rocketed to No 1 in the UK charts. After that, their next 12 singles were chart toppers. Not only did The Beatles wheedle their way into the British public's consciousness, they also became wildly loved in America and around the world. Explaining why Abbey Road told us they have had to press a million singles to meet demand for the November 22nd release date of this latest addition to the Beatles tome: the singles, twenty-two of them (plus

a bonus).

Hearing these singles again – one after the other – took me back to my early teens, when the radiogram would be playing Forces Favourites on Sunday morning – and it was a Beatles song that was the reverential high point, a song everyone enjoyed, young or old. So if you were there at the time this box set will trigger instant and powerful memories.

As the accompanying small book explains, The Beatles singles were crafted, at John Lennon's insistence, to be fast and vivacious. He didn't want album tracks used; the singles went onto the albums – not the other way around. At least, in the UK. America released singles from album tracks that were a success all the same.

Now to the singles in this box set, which we list in chronological order. My instant disappointment was the sleeves. I was expecting deep

authenticity in this set, expecting replica dark-green Parlophone sleeves. Instead, with this collection, you get a melange of overseas covers, a few with no English on them at all, even on the labels. So you'll be looking for 'Quiero Tomar Tu Mano' when you want to listen to 'I want To Hold Your Hand', from Los Beatles.

The recordings are the originals – but the covers are not. There's a confusion of provenance here that historical completists may not appreciate, even though it makes some sense. If original Parlophone covers had been used these singles would look alike; with various and differing overseas covers they are visually separated, if by covers that are – by today's design and typographic standards – inelegant.

Since The Beatles had



a global audience, it's appropriate to use album sleeve presentations from elsewhere. Makes my gripes seem xenophobic, but yet I still craved deep authenticity as I see it with this collection – especially as it hit me hard as a travel back to 1960s Britain. Somehow I don't remember them as Los Beatles.

The recordings are from analogue cutting masters, since the original tapes are too old and fragile to be run over and over again. Exceptions are Love Me Do and She Loves You that were unretrievable, Abbey Road told me.

Sound quality varies but is generally good. 'Love Me Do', their first single from 1962, is a tad vague but the bass line prominent. 'Please Please Me' is strident and has obvious wow at fade out, likely from the original tape recorder. 'She Loves You' is also strident, but then my two originals were similar, so it's an accurate transcription.

I also compared All You Need Is Love, We Can Work It Out and Help original singles from my collection to these new ones and differences were small. There is a tad more treble, likely cutting lathe differences and/or my singles are knackered!

With 'Things We Said Today' the sound was smooth and dynamically deeper, making for an easy and lovely analogue listen. And that's how it went; as

SINGLES LIST

- 1) Love Me Do / P.S. I Love You
- 2) Please Please Me / Ask Me Why
- 3) From Me To You / Thank You Girl
- 4) She Loves You / I'll Get You
- 5) I Want To Hold Your Hand / This Boy
- 6) Can't Buy Me Love / You Can't Do That
- 7) A Hard Day's Night / Things We Said Today
- 8) I Feel Fine / She's A Woman
- 9) Ticket To Ride / Yes It Is
- 10) Help! / I'm Down
- 11) We Can Work It Out / Day Tripper
- 12) Paperback Writer / Rain
- 13) Eleanor Rigby / Yellow Submarine
- 14) Strawberry Fields Forever / Penny Lane
- 15) All You Need Is Love / Baby, You're a Rich Man
- 16) Hello, Goodbye / I Am The Walrus
- 17) Lady Madonna / The Inner Light
- 18) Hey, Jude / Revolution
- 19) Get Back / Don't Let Me Down
- 20) The Ballad of John and Yoko / Old Brown Shoe
- 21) Something / Come Together
- 22) Let it Be / You Know My Name (Look Up The Number)
Free as a Bird / Real Love (bonus)



I worked through the singles they varied in sound quality, some good, some not so good – so sonically there's a mixed bag here.

Irrespective of sound quality, this singles box set does give what John Lennon wanted – a fast delivery from the outset, songs that take off from the first groove. Vivacious, young and full of energy, also simply romantic – at least in the early days. No wonder the Beatles bulldozed a path to acceptance of them around the world.

Making this box set a strong experience; you get songs that whistled home – as they still do today. OK, playing 5 minute, 45rpm singles is a peculiar ceremony, but

I can understand why millions will be doing it (again). This box set is obligatory for those able to spin 7in 45s and want to hear what shook the world long ago – and draws people to that crossing today.

For assessment I used an Audio Technica VM750 SH (Shibata) stylus moving magnet cartridge in an SME309 arm on our Timestep Evo modified Technics SL-1210 Mk2 Direct Drive turntable. Loudspeakers were Martin Logan ESL-X hybrid electrostatics, driven by Icon Audio Stereo 30SE valve amplifier fed by an Icon Audio PS3 Mk2 valve phono stage for authentic sound of the era (brought up to date!).



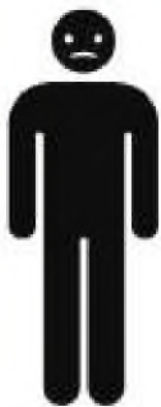
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Design Master

Audio Analogue's elegant AAPHono stage, reviewed by Noel Keywood.

Here's an elegant phono stage from Audio Analogue of Italy, displaying typical Italian design flare. Although the casework and switching methodology – reliant on small-signal relays – is technologically advanced, in basic outline the AAPHono is straight forward. It accommodates moving magnet (MM) and moving coil (MC) cartridges, but there are no gain options and only unbalanced phono inputs and outputs. Measurement suggests it's purposed for high qual-

ity moving coil cartridges, as I will explain later.

The AAPHono is fronted by a thick brushed aluminium front panel with neat rows of bright white LEDs – 16 in all – at left and right of a large central circular on/off button. Although the button rotates it does not alter volume or select input conditions, only LED brightness. I found this a bit disappointing since volume control in particular can be useful in a phono stage, allowing it to drive a power amplifier directly. There is no remote control.

Beneath the fascia lie small push-buttons that select various input conditions. At left a row of eight LEDs show MM/MC selection, and MC load of 100, 400, 680 or 1000 Ohms. Most MCs need 100 Ohms, but the higher values suit the few high output moving coils around that need 300 Ohm or more. Audio Analogue also place a SubSonic (SS) filter switch and indicator here that works with both MC and MM.

At right are a further eight LEDs that show input load conditions for MM cartridges. There





Just beneath and behind the front fascia plate lie small black push buttons, at left and right. They select MM or MC gain, plus loading values for MM and MC cartridges.

are 15k, 37k, 47k and 69k Ohm loads, of which only 47k is needed since all MM cartridges are specified for a 47k Ohm load – I don't know what the other load values are for. There are also four capacitive loading values from minimum to 250pF, these slightly altering frequency response above 1kHz to produce subtle variations, increasing capacitance lifting the midband but reducing high treble in most MM cartridges.

The AAPHono has one set of phono-socket inputs to handle one turntable, so it is set up for a specific cartridge by pressing the

tiny push buttons beneath the front fascia. Accessible from the front, this is a more practical method than underside DIP switches, but the legends beneath the LEDs were grey against a silver aluminium background and barely legible I found, in-idiom with Apple's trend setting understated typography – but taken too far here.

Measuring 220mm wide, 90mm high and 360mm deep not including rear protrusion of plugs (372mm), the AAPHono isn't as small as some. In a 19in (483mm) wide rack it muscles in to leave 263mm available for another item – an amplifier

perhaps – taking up more space than many rivals. One reason is that a bulky (but high quality) linear power supply is housed on-board, possessing three transformers, where today phono stages are commonly driven by an external switch-mode wall-wart supply. Power is taken in through a three-pin IEC mains connector at rear and there's also a rocker-style mains master switch here. Weight is 5.8kg.

And finally to gain options, or lack of them. Where most phono stages offer options, Audio Analogue provide a standard x100 gain for MM (40dB) but a high x2000 gain for MC (66dB), where x1000 (60dB) is standard. This suits high quality, low output moving coils – as does very low noise, so it appears to me Audio Analogue are aiming this design at those with expensive MC cartridges, who don't want to hear hiss. Although high gain is used the overload ceiling was still adequate.

SOUND QUALITY

I connected the AAPHono to our Creek Evolution 100A amplifier through Chord Company Epic cables, the Creek in turn being connected to Martin Logan ESL-X hybrid electrostatic loudspeakers through Chord Company Signature Reference cables. Feeding the



The AAPHono majors on linear power supplies, having no fewer than three mains transformers, seen at right. Two supply power to each channel, the third power to the switching circuits and ancillaries.



The rear panel carries gold plated RCA phono sockets for left and right channels, plus a ground terminal. Also here is a mains master switch, rocker style, and IEC mains power input socket.

AAPhono was our Timestep Evo Technics SL-1210 Mk2 modified turntable fitted with SME309 arm. Pickup cartridges were an Ortofon Cadenza Bronze MC and an Audio Technica VM750 SH (Shibata) MM.

After spinning a lot of LPs I can best summarise the AAPhono as creamy smooth and easy going. It didn't come at me in any one area but I sat back and enjoyed its svelte delivery all the same. Our Cadenza Bronze, with its stage depth and rock solid bass suited well, although the AAPhono didn't tease the best from it in depth terms. It did support a wonderful dark silence however, that allowed transient events to push out clearly. Drum rolls in 'Sing Sing Sing' ('Big Band Spectacular' – a direct cut from Chasing the Dragon) moved clearly across the stage and had visceral power. I've heard the Bronze sound stronger and more forceful but the AAPhono was tidy and tight. Marianne Thorsen's violin, fronting the Trondheim Solists playing Mozart Piano Concertos (2L of Norway), benefitted from the silky sound of this unit, making for an easy yet impressive listen that revealed her vibrant playing.

Switching to our Audio Technica VM750 SH cartridge (MM) didn't change the picture much. Its Shibata stylus on a tapered alloy cantilever (like that of the Bronze) brought out more high-end detail and was less forceful lower down – but these are cartridge differences. If anything the AAPhono imposed its own smooth sound to more closely align their qualities.

With LPs possessing obvious bass, such as Dire Straits 'Brothers

In Arms' (Mobile Fidelity analogue re-master, 45rpm) 'Your Latest Trick' came across nicely, with plenty of dynamic push to the bass line whilst Knopfler's vocals drifted out clearly. Again, smooth, easy going and slick: an engaging listen.

CONCLUSION

The AAPhono is aimed at those with low output (high quality) moving coil cartridges. Its high gain

and low noise caters for them well – and also accommodates higher output types adequately. I heard a creamy smooth sound that had deep silences, being noise free. Absence of gain options, volume control or XLR balanced outputs are minus points – but not for everyone. For those who want a well built and finished phono stage, free of fripperies and with svelte sound the AAPhono will appeal.

MEASURED PERFORMANCE

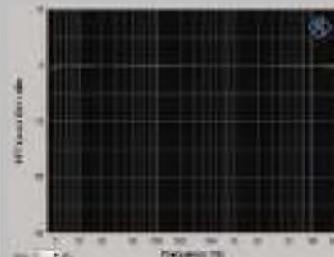
Frequency response of Audio Analogue's AAPhono runs flat from a low 4Hz up to 20kHz our analysis shows, with either MM or MC selected. The SubSonic (SS) warp filter cuts gain sharply below 28Hz to produce massive attenuation of -35dB at 5Hz, with no

affect on audio band response at all.

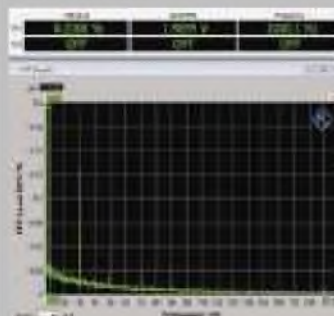
Gain values were a normal x100 (40dB) for MM but a very high x2000 (66dB) for MC, where x1000(60dB) is common. This best suits low output MC cartridges, usually more expensive designs. In keeping with this aim input noise with MC was a very low 0.11µV, making hiss all but inaudible even at high volume. Although the unit can deliver a healthy 10.5V output swing this limits input overload to a low-ish 5mV with MC (but a high 105mV with MM).

The AAPhono is well purposed for high quality (low output) MC cartridges measurement showed, having both high gain and low noise. It also well suits MMs. NK

FREQUENCY RESPONSE



DISTORTION



PHONO (MM/MC)

Frequency response (-1dB) 4Hz-20kHz
Distortion (1kHz, 5mV) 0.01/0.2%
Separation (1kHz) 68dB
Noise (IEC A, ein) 0.15µV / 0.11µV
Gain (MM, MC) x100 (40dB) / x2000 (66dB)
Overload 10.5V out

AUDIO ANALOGUE AAPHONO £1600



EXCELLENT - extremely capable

VERDICT

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FOR

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- low noise

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- no gain options
- no XLR outputs
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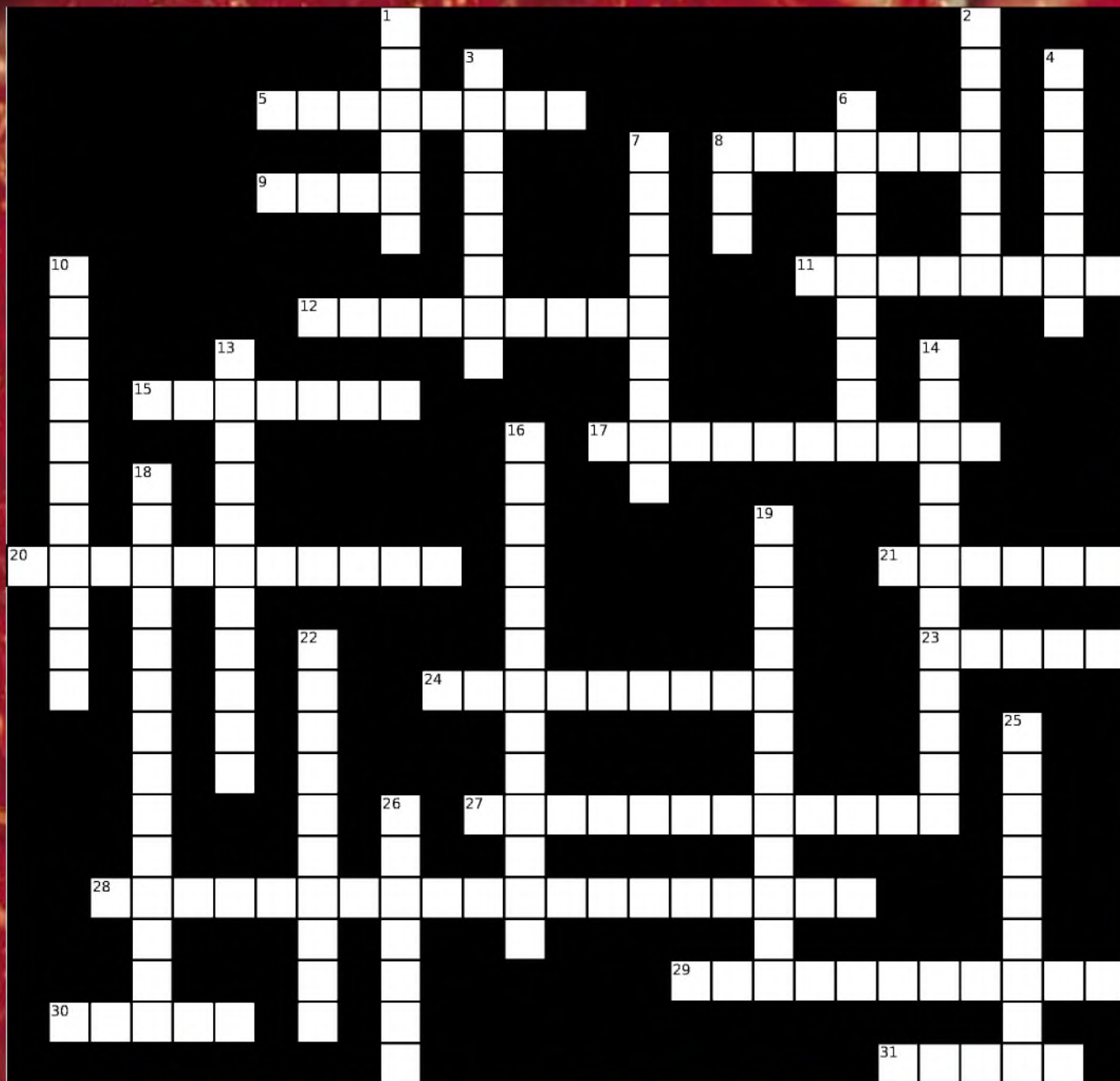
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Christmas Crossword



ACROSS

- 5. Provided amplification for Woodstock
- 8. Tamla Motown was founded in which city?
- 9. Famous for electrostatic loudspeakers
- 11. Band behind Blue Monday
- 12. Wrote No Woman No Cry
- 15. Iggy Pop and the....
- 17. Ortofon make what?
- 20. Lead singer of Blondie
- 21. Wrote Purple Rain
- 23. Icelandic singer
- 24. German electronic pioneers
- 27. Bob Geldof's band
- 28. DSD stands for what?
- 29. Annual music festival
- 30. Noel and Liam Gallagher formed which group?
- 31. LP is also known as?

DOWN

- 1. KD Lang hails from what country?
- 2. What you set an LP on
- 3. Rolling Thunder Revue - what artist?
- 4. High-frequency driver
- 6. Elvis Presley's home
- 7. Famous Beatles cover outside which studio?
- 8. Converts digital to analogue
- 10. Famous Manchester nightclub
- 13. Franki Valli and the....
- 14. What group connects Eric Clapton, Jimmy Page and Jeff Beck?
- 16. Lead singer of The Pogues
- 18. Left Take That to forge a solo career
- 19. Old Blue Eyes
- 22. Clashed with Bill Grundy
- 25. Home of Naim
- 26. Elton John's favourite football team

Answers

Across:

- 5) McIntosh 8) Detroit 9) Quad 11) NewOrder
- 12) BobMarley 15) Stooges 17) Cartridges
- 20) DebbieHarry 21) Prince 23) Bjork 24) Kraftwerk
- 27) BoomTownRais 28) DirectStreamDigital
- 29) Glastonbury 30) Oasis 31) Vinyl

Down:

- 1) Canada 2) Platter 3) BobDylan 4) Tweeter
- 6) Graceland 7) AbbeyRoad 8) DAC 10) TheHacienda
- 13) FourSeasons 14) TheYardBirds 16) ShaneMacGowan
- 18) RobbieWilliams 19) FrankSinatra 22) SexPistols
- 25) Salisbury 26) Watford

free reader Classifieds

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GRYPHON HI-FI system: Mirage preamp, Mikado CD player, Colosseum stereo system (with the original box) and Atlantis speakers. 6 years old. Beautiful condition. £65,000. Tel: 07974014536 or Email: edwards.elena@hotmail.com (London, NW8)

PROAC RESPONSE 1's standpoint speakers, £750. Atacama stands, £30. Audio Innovations L2 pre-amp, recently serviced, £380. BK Gemini sub-woofer with new cable, £120. All in good condition. Tel: 01772 780 976 (Lancs)

QUAD 44 pre-amp, MC phono, £250 ono. Marantz PM 7001 amplifier switch to separate pre power boxed, £125. Thorens TD166 Mk2 turntable. £125. Pioneer A88X amplifier, 110wpc, £225 ono. Tel: 01708 457 691

FOR SALE: AUDIOLAB 8000P Power amplifier £300, Audiolab 8000C pre-amplifier, both in good working condition. For collection only. Cash or bank transfer. Tel: 07570454727 or Email: paulfield1@hotmail.co.uk (Birmingham)

REGA P3 with power supply, Apollo Mira3, Maia3 Pure tuner DRX 701, Monitor Audio RX2, Atacama stands. Sound Organisation stand, Chord cables. All boxes. Bargain. £950 ono. Tel: 07813 829 657 (Swadlincote, Derbyshire)

WANTED: 1980s/1990s Sound Organisation record rack In black. Does anyone have one for sale in the hi fi community. Tel: Keith 07919061178 or Email: kejlab@googlemail.com (Liverpool)

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NAIM CDX2 player just factory serviced £1175. NAP 200 power amplifier £549. DVDS CD/DVD player £279. 150X power amplifier hardly used £399. 112X pre amplifier £225. Tel/text 07584 358210 or Email: martind.home@btinternet.com

MARANTZ PM6006UK amplifier in black, as new/boxed £200. Tel: 07583078744 (Notts/ Derby area)

EPOS M12 M-2 loudspeakers, cherry, excellent condition, boxed, plus dedicated ST 12 loudspeaker stands, £200. Tel: 0786 4034 087

PMC FBI loudspeakers. Light Oak. Excellent Condition. Original Boxes. Collection Preferred. £600. 07814866496 or Email: alanedg0355@gmail.com (Chester)

WORLD DESIGN WDKELB4 Valve amplifier with upgrades. Mint condition, will demonstrate. Arcaydis bookshelf speakers EB15-Oak (see Hi-Fi World May 18 issue) Mint/Boxed. Project 'The Classic' Rosenut Turntable with Ortofon Silver Cartridge. Unused/Boxed. Pair Speaker Stands 24" Acoustics QA3108. Would like to sell as a system. All in pristine condition. Please Tel: 01159754070 or 07531288156. (Nottingham)

USHER DANCER mini Diamond-2's speakers In walnut with boxes, £1500. Also available, matching Usher BE-616 Diamond Dialogue speaker in white £495. Can dem. Buyer collects. Tel: 07817 365 393 or 01162 415 435 (Leicestershire)

OLSON SOUND Fantastic 4 way mains block extension excellent condition £60. Also Russ Andrews classic Powerkord mains cable with very high quality Isotek Wattgate connection £65 or special offer both products combined £100. Excellent value. Call Andy on 01484 427426.

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CANADIAN GUTWIRE Synchrony 3 metre length speaker cables. Superb - totally new condition. £700. (Synchrony Interconnects available separately). Email: stephen.adolphus@gmail.com. Tel: 07787 574784.

LEAK TROUGHLINE and Hi-Fi World valve decoder set up by Tim de Paravicini less than a year ago, one of the finest tuners anywhere! £700. Tel: 07940 507215 or Email: rtodes@gmail.com

NEAT MOTIVE I Loudspeakers Cherrywood excellent speakers, condition and sound bargain, only £475! London, 07957384795 (Evan)

DALI ZENSOR 5 speakers, Marantz 606 amp. Upgrading. Buyer collect please. Tel: Alan 01977 695 385 (West Yorkshire)

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MISSION LX1 speakers in black, as new, boxed, £50. Tel: 07583 078 744 (Notts/ Derby area)

CAMPAIGN AUDIO Design mains cables. Conqueror 1m IECx2 £35 each. Candour 1m IECx2 £10 each. Excellent condition. Chord Cobra black sleeve interconnect pair. Offers? Tel: 07754 052359 or Email: davidsmith2712@gmail.com (East Sussex)

Whole of Italy

Italian 1970s Prog Rock catalogued. Paul Rigby is impressed.

70s Italian LPs
All Around A Hole - The Vinyl Collector's Notebook
 Author: Paolo Verda
 Price: £75



Verda's first tome was of British artists' LPs featuring a combination of progressive, psychedelic, folk, blues and jazz issued in the UK during the sixties and seventies. It is still available and perfect for devoted fans of the same – and with superb design aimed at collectors.

This new book is based around the same general design but it focuses on Italian releases during the seventies. I was looking forward to getting my hands on this one because the bulk of the content looks at progressive music in all its varied forms.

During the seventies, Italy produced some of the best prog in the world. Wholly under-rated, terribly under-played and cruelly ignored, there are enlightened prog fans resident outside of Italy who have been exposed to the delights of Italian prog but, if you're into prog and you've yet to taste its fine dining elements, then grab this book – firstly as a grounding or overview and then use its contents to inform and educate.

The design of the book is aimed at music fans on the go. People who want to use the book as a tool. It's a book that's designed to be used regularly. Hence, the thick, tough outer boards and the multi-ringed

(23-hole) binder. It fits the bill and does it well.

Inside is a brief glossary of terms and then a 'How to use your Notebook' section. This section shows you that you can fill in notes about your collection in the book itself. There's space to indicate if the item is in your collection, who supplied it and at what price. You then get a valuable guided tour of the various label stamps and indicators denoting copyright information and the various styles of the same and notes directed at bootlegs.

The first main section is an overview of the 110 Italian labels in their 186 variants. These are listed in alphabetical order with the main represented bands included under each label heading. A sample image of each label is then presented with a set description place underneath.

All of the above is easy to locate and digest – with image quality high – is easy. Paper quality is also excellent, while the paper itself is matt in finish – better than gloss when you're looking at a reference, especially if you use this book on the move, in varied lighting conditions. You don't want to be referring to pages in a dealer's location with strong lighting bouncing off a glossy page and you can't read for the glare.

Then there's the mammoth Artists section of 250 artists

accompanied by 435 LPs (with index). Those artists include the likes of Banco Del Mutuo Soccorso, Area, Electric Frankenstein, Goblin, Jacula, Janus, Le Orme, PFM and many more.

Each album is a mine of information. Let's take Acqua Fragile's self-titled album from 1973. Apart from the date, label and catalogue number, you'll find alternative versions (there's two price points here for two variants), the price for 'mint' (surely that's 'near mint?') condition, sleeve info full text rundown, physical oddities (there's a deep groove on the label on one variant of this LP), label printing and matrix information.

In short, everything a collector and prospective buyer needs to know and wants to look for. Ideal too for those wary of buying a bootleg when it's being sold as an original, for example. An accompanying image of the cover and label is added.

In short, this is a brilliant, even dazzling book for Italian prog fans. One that every prog fan should own. One that every vinyl collector should own. I look forward to seeing where Verda journeys for his next project.

Contact:
www.allaroundahole.cloud/store.html

NEXT MONTH

FEBRUARY 2020 ISSUE

McIntosh MA352 2-CHANNEL INTEGRATED AMPLIFIER

Next month we bring you this massive hybrid amplifier from McIntosh. Their new MA352 has a valve pre-amplifier section with 12AX7 and 12AT7 double triode valves (or tubes – this is a U.S. amp!) feeding a powerful 200 Watt per channel solid-state power amplifier. Complete with blue illuminated McIntosh power output meters this beast is worth reading about. See what we think of it in our next great issue.

Also, we hope to bring you –

KLIPSCH HERITAGE THE SIXES B'TOOTH POWERED SPEAKERS

TECHNICS SL-G700 SACD PLAYER

AUDIRECT BEAM PORTABLE USB DAC

FIIO M11 PRO HI RES DIGITAL AUDIO PLAYER

ACOUSTIC ENERGY AE500 SPEAKERS

MUTECH MC3 USB SMART CLOCK

...and much more.



This is a selection of what we hope to bring you, not a complete list. We regret that due to a wide range of issues, we cannot guarantee that all products listed above will appear.

PICK UP THE FEBRUARY 2020 ISSUE OF HI-FI WORLD ON SALE DECEMBER 31ST 2019, OR SUBSCRIBE AND GET IT DELIVERED TO YOUR DOOR: SEE PAGE 96

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JUNE 2020 - 14TH APRIL

JULY 2020 - 11TH MAY

PULP

HIS 'N' HERS ISLAND



"The band split again; another one formed. The sound deepened and darkened, full of sex but ideas too"

A relatively modern selection for you this time around – and one that is looked upon fondly by the band because it dragged them from years of obscurity towards a well deserved period in the sun.

Created in Sheffield, Pulp is a band who ripened on the vine towards a state of pure genius. Not that they planned it that way, nor did they want to ripen on anything, thank you very much. They wanted to be a hit from the off.

When Jarvis Cocker formed Pulp in 1978 as Arabicus Pulp, they got off to a good start. Grabbed some experience, tightened up as a unit and recorded a demo sometime in 1980-1981.

John Peel spiced it up and signed the band for a session. "John Peel did a Roadshow in Sheffield and I gave him a tape" said Cocker. "He said he'd listen to it but I didn't think he really would, but then he gave us a session, which was a very big thing for us. I mean, John Peel was one of the reasons that I got into music. It was the first time anyone had taken any notice of us so I thought, this is it then, this is what I'll do with my life...doing a John Peel session made the group seem real".

That was November 1981. At that point, the band would have been forgiven to expect success to quickly follow but that just wasn't the case. Disappointment reigned that the group split – most left to go to University.

Pulp released its first, slightly folkie LP 'It' (1984) to a hail of prairie winds and tumbleweed. So the band split again. Then another one formed. The sound deepened and darkened. A host of singles were released on the Fire label ("I think it's well documented that they haven't exactly got a glowing reputation in the eyes of many artists. 'Idiot Bother' by The Auteurs is very strongly rumoured to be about Fire Records".)

Cocker, desperate to impress a girl one evening, fell out of a window and had to perform his subsequent concerts from a wheelchair. "I never used the wheelchair as a stage prop" said Cocker. "As soon as I was

well enough to get out of it, I didn't use it. I've never believed in exploiting disability".

The LP that followed – 'Freaks' – did nothing at all. The acid house-infused 'Separations' LP was so coated in lethargy that it was released three years after it was finished. "Acid house definitely sidetracked Pulp for a bit". More singles were released.

Then Island signed them on the strength of one single: 'Babies'. Afterward the band released 'His 'N' Hers' and – lo – light shone down upon their bare heads and the angels smiled upon them. "This was just a great big sigh of relief really" said Cocker, "because for the first time ever in our long tortuous history we had enough time and money to do a record as we wanted to do it. It was really good because, having waited so long for that kind of opportunity, we weren't going to mess it up".

What was revealed was a tight band – well, they had to be by now hadn't they? – a synth-pop combo infused by Cocker's wit with hooks and Bowie/Roxy style. Full of sex but ideas too. Joy and portent. Nostalgia and obsession. It was an album that had been perfectly baked.

And Cocker does see that. He does believe that the sometimes Proustian attention to detail on many of the band's songs stem from the early days. "The only thing I can liken it to is as if you were locked in a room for a year – you would get to know everything about that room and you would pick up all the details. And I think that's why our songs have often got a lot of detail in them, because I've had a lot of time on my hands to pick up on details. I do think that details are important in songs, I think that details reveal more than attempting to paint a massive broad canvas. But waiting around for our time to come definitely had an effect on Pulp".

A new edition of the album has been released, on white vinyl and over two discs, remastered and cut at Abbey Road with a mastering quality that reflects that august body. **PR**

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BY

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"I don't know how anyone who hasn't been exposed to great analog reproduction would react with anything but "Wow!"..."

Michael Fremer – Stereophile, November 2019

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David Price and Paul Miller – Hi-Fi News, March 2019

"I love its no-nonsense styling, its physical compactness, the superlative build and its overall sound."

Hi-Fi Choice, April 2019

"Fabulously engineered it offers a sound from LP that is hard to find elsewhere: think clinically fast and perfect."

Noel Keywood – Hi-Fi World, June 2019

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La Bella Figura

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