

# Hifi Pig

## EXTRA

SPECIAL  
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## High-End Munich 2016

WIN GREAT PRIZES FROM KRALK AUDIO AND TELLURIUM Q

Over 140 pages of  
reports, comment,  
interviews and  
photographs from  
this year's  
spectacular show

Sponsored by  
**Tellurium Q®**



## WELCOME

High End in Munich is one of those events that everyone I know who is involved in the audio industry really looks forward to. Yes, of course there are other great Hifi shows elsewhere, but the sheer scale of Munich really sets it apart. The organisation is fantastic, the promotion is brilliant and the host city is clean and safe.

And 2016 was no exception, in fact it was bigger, better and more well attended than any of the High End events we've had the pleasure of visiting in previous years. Exhibitor numbers were up and there was a real international feel to this year's show.

For me High End is about meeting some old friends, making new ones, having a few beers and, yes, there's the most fantastic collection of Hifi you are likely to come across anywhere in the world too. The effort some of the exhibitors put into Munich is phenomenal and this is evident when you pop your head around pretty much any of the exhibition rooms' doors. Yes, there were a couple of disappointments this year, but they were few and far between.

So, let Hifi Pig take you by the hand and lead you around what is surely the Greatest Show On Earth!

Enjoy!



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**WIN GREAT  
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AND  
TELLURIUM Q**

# And So It Begins...

## High-End Munich 2016

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**H**igh End Munich 2016 began as every Munich show begins – with a short car journey followed by a great train journey (why is it the French can make the trains run on time, be comfortable and clean when the UK seems to fail so miserably?) and finally a flight to our destination.

We're English and everyone knows that the English love a picnic, and we're no exception to this rule. An early morning coffee, pain au chocolat and a beer (I believe it's the law here that you have to drink a beer at 8am if you find yourself in a bar) in the station's café sets us up for the expedition before us. We train first class and despite the yaddering kids a couple of seats down the way it's all rather pleasant...first class sounds a lot grander than it is in reality and all you get is a bit more arm room and a power socket. At 11 it's "l'heure" (that is it's another legal requirement to have nibbles and an aperitif) and so a bag of nuts and a half bottle of fizz is the order of the day. This is swiftly followed by a lunch of vegetarian quiche, boiled new potatoes, a tomato and shallot salad, and white asparagus (all prepared the night before) washed down with a rather pleasing bottle of Saint Veran which has managed to remain relatively cool. This is a tradition now for us and we have nice glasses, decent plates and all the rest of it... I'm sure our fellow passengers think us quite bizarre, but as a famous French aristo may or may not have said, "Let them eat baguette".

We arrive, of course on time, at Charles De Gaulle and make our way to the sorry excuse that is Terminal One. Really, this is an utterly poor excuse for an airport terminal, but this year our trip organiser (Linette) has been canny after last years four hour wait in that hell hole, and has ensured we arrive needing only to spend the bare minimum of time there!!

Lufthansa is its usual self with drinks being served (spot a theme here dear reader), nibbles being dispensed (actually it was a rather delicious cake) and

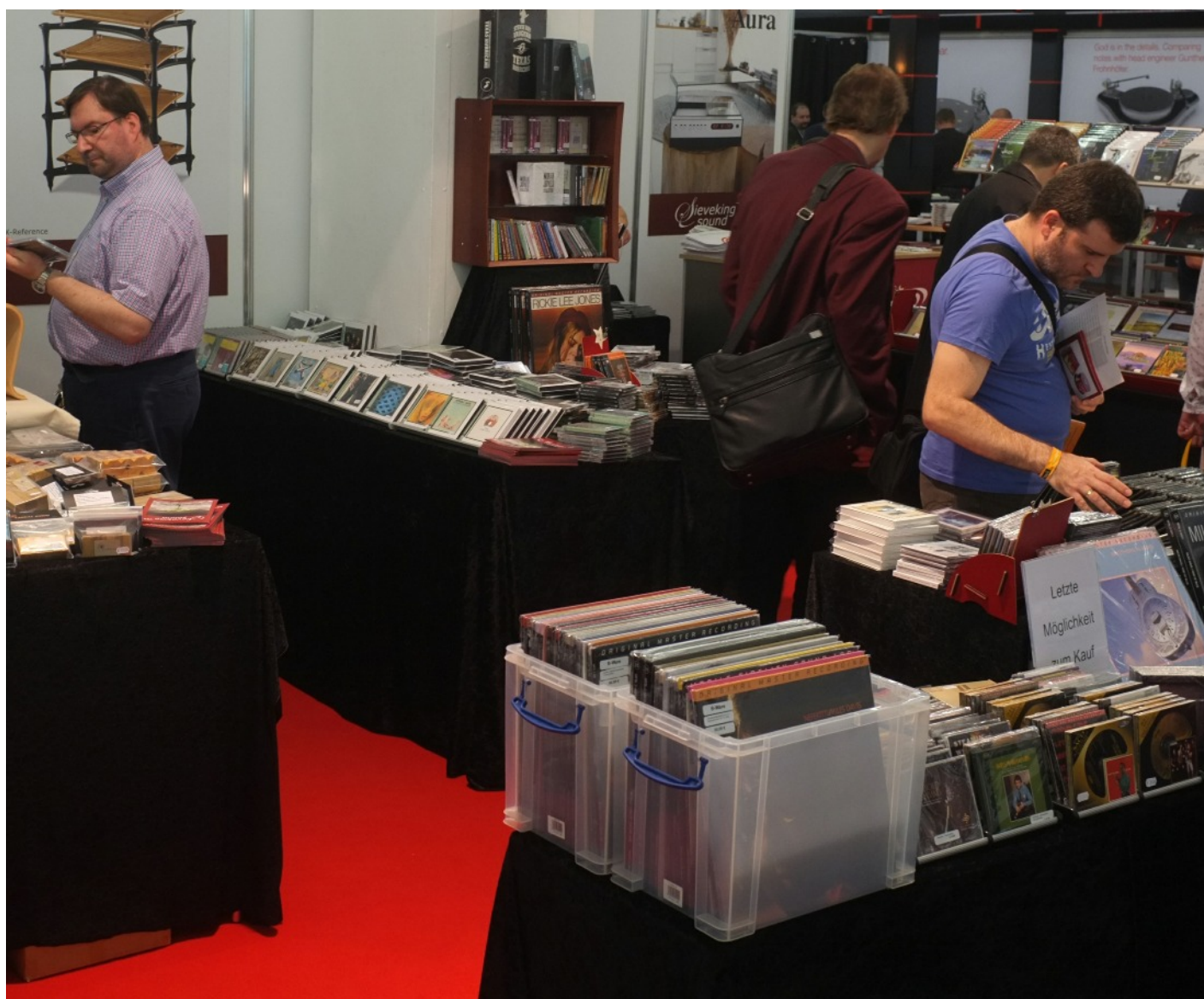
before we know it we're descending into Munich airport, full of anticipation for what promises to be a bigger, better and more stimulating High-End show than we've ever encountered.

Really, we look forward to this event like no other and the excitement at Hifi Towers begins weeks in advance. The press releases have been rolling in now for a couple of weeks and these have whetted our appetite for what is to come. The obvious questions like "What are you most looking forward to?" have been asked, but to this particular question there's really no way to answer. Munich is so big, so all encompassing and so full of surprises that it's impossible to second guess what lies ahead of us. Yes, there'll be the usual suspects that are a must see and who always go out of their way to ensure that there is something fresh to surprise and delight, but there's always going to be the unknown entity that will throw up something that will shock and enthrall.

I've been speaking to a few folk who are making their way to Munich High-End over the last couple of weeks and they've been asking "what should I see, what should I expect", but it's a question that is all but impossible to answer with honesty. Yes, go see Silbatone as they always go out of their way! Yes, go see Avantgarde, Naim, Focal, Goldmund et al, but the one part of the show that I really love to see each year is the new-comers stands. It's great to see that this hobby is still attracting innovators and entrepreneurs who are not afraid to put their neck and money on the line, and put new and exciting products out there for the buying public.

We've seen some crackers in the past and hopefully this year will be no exception...

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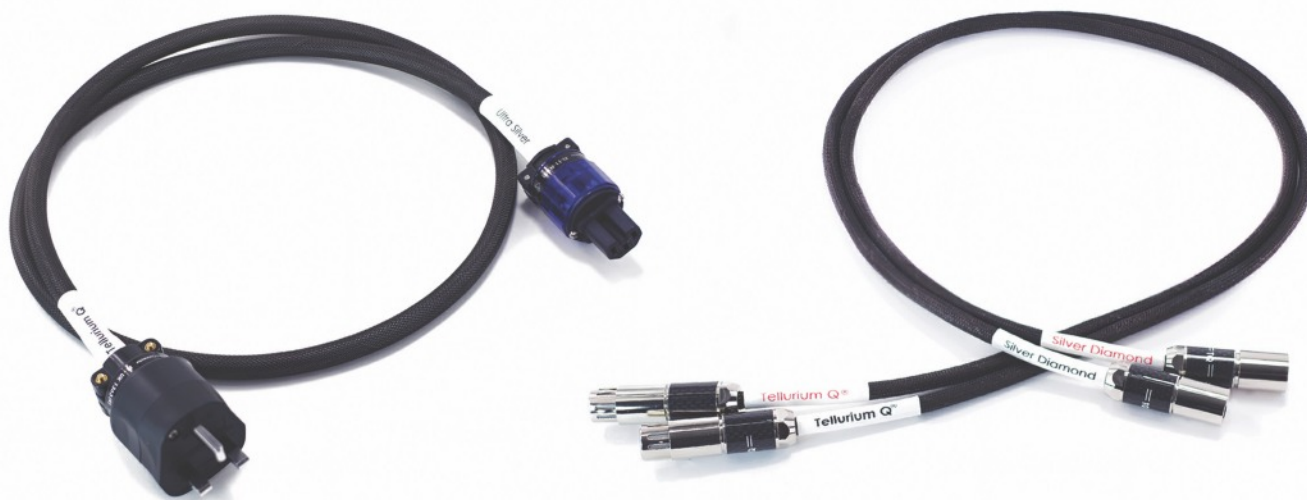


# Tellurium Q®

**8 products of the year and most wanted components**  
in just 2 years by preserving relative phase relationships in a signal



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



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

- Jon Myles, *HiFi World* 2015

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

- Awards Edition, *HiFi World* 2015

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

- Mono & Stereo, 2015

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



**Stereo Times**  
The Complete Audiophile Magazine

**BEST PRODUCT 2015** High Fidelity.pl

**HI-FI WORLD**



# Everyone Remembers Their First Time

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## Hifi Pig's Ian Ringstead pops his High End cherry

If you have never been to the Munich High End Show before then get ready to be amazed. I was determined to go one day, and this year I took the plunge as a special early birthday treat (60 soon!!). Now I've read the show reports every year since its inception and the show has just gone better and better. Veterans report this year was the best yet with a record attendance from exhibitors and the show was certainly very busy on the public days.

Nothing though can ready you for the sheer scale that the MOC in Munich has to offer. The MOC is a huge exhibition venue superbly appointed with great facilities and loads of excellent listening rooms. With over 500 exhibitors it is also one of the largest and well attended shows in the world, the German public certainly embraced it and there were many international visitors too.

Munich attracts companies large and small from all over the world keen to launch new products or strengthen their standing in the market place and reach new customers both trade and public. Talking to some of the international exhibitors they clearly saw Munich as a vital part of the world trade show calendar equalling CES in the USA as a crucial venue to exhibit at.

The companies exhibiting were from all around the world and the variety of equipment and accessories was astounding. Although two channel was dominant, vinyl was the popular choice in many rooms as a source with digital formats also prevalent, especially computer based formats. The humble CD was still very evident but many manufacturers chose laptops as the main source for their obvious convenience and flexibility.

The exhibiting areas cover four very large halls and three specialist atrium areas on the upper levels where the superb large, dedicated listening rooms allowed the exhibitors to really show their wares off to best effect. It took me three whole days to see most of what I wanted to, but the sheer scale is overwhelming and I didn't have chance to cover everything.

Highlights of the show have to be the fact vinyl is back with a vengeance. Turntables were everywhere! From the budget to the truly luxurious and massive designs from the likes of Tech Das and the many other brands that excel in stunning feats of engineering at equally stunning prices (£150,000 wasn't out of the ordinary at High End!!).

Headphones are big business now and as well as many new models on show the associated headphone amps were abundant.

An exciting newcomer was the revitalised brand name of Hafler that is now owned by Radial who are very keen to carry on this classic and much loved brand name along with the Dynaco brand many older enthusiasts will remember from the 50's and 60's. A range of headphone amps, phono stages and new valve pre and power amps are planned for the last quarter of this year.

What impressed me so much was the plethora of new emerging companies from Europe, especially the former eastern-bloc states such as Serbia, Poland etc. China was also prominent, along with Taiwan, with many smaller specialist companies producing a whole range of accessories as well as impressively engineered electronics at very reasonable prices.

One of the best sounds of the show has to go to Avid Hifi of the UK who made a brilliant effort with their new range of spectacularly engineered speakers from the stand mount Reference Three costing £40,000 to the jaw dropping Reference Three at £200,000. Now this might seem like eye wateringly high prices, but when you see the quality of finish and hear the results it's worth it. I was told one speaker takes upwards of 24 hours continuous CNC machining. The detail and

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Vinyl is back with a vengeance

# Hifi Pig

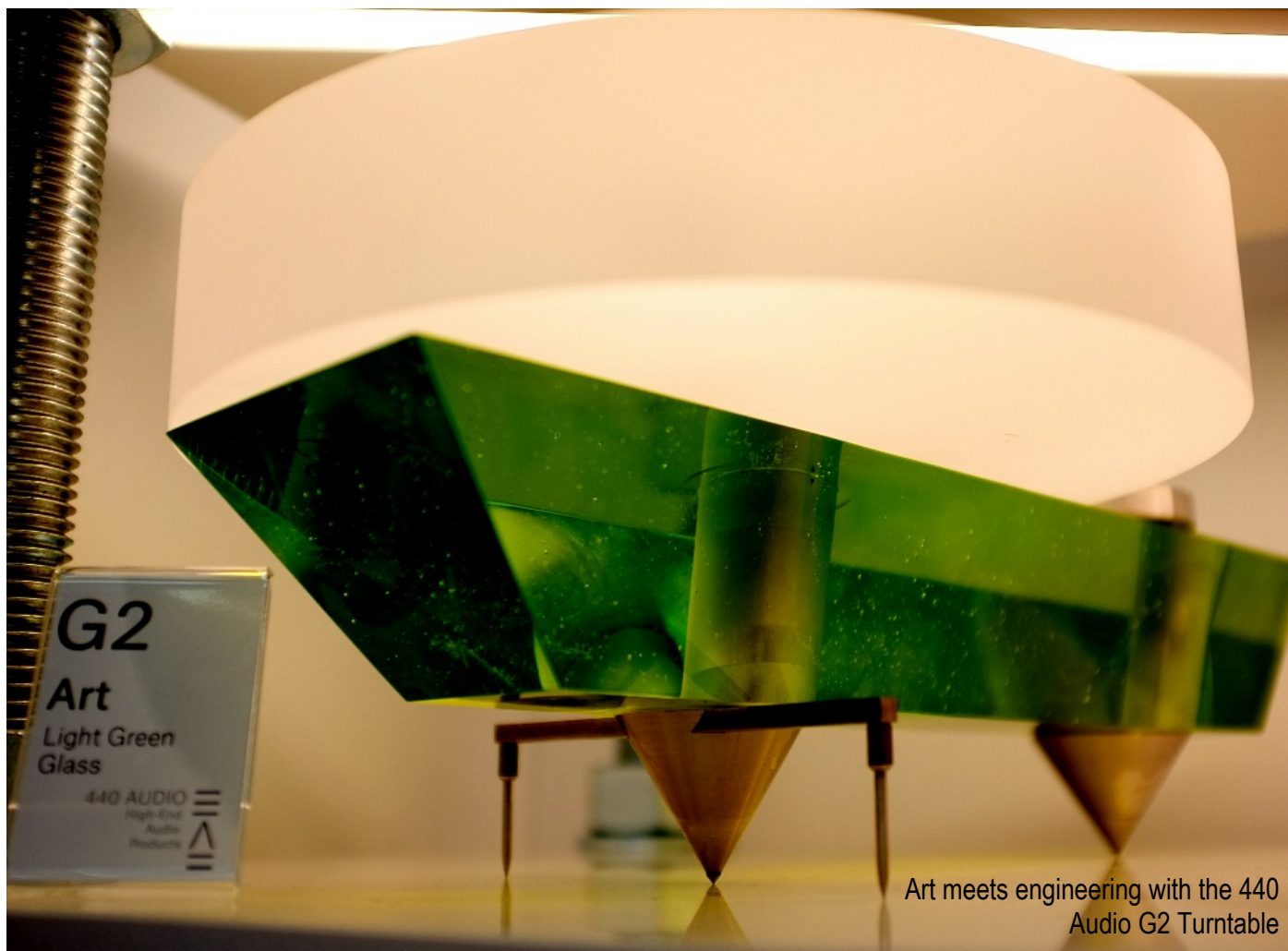
## HIGH-END MUNICH 2016

finish was stunning and I have not seen finer engineering anywhere. The new amplifiers and pre amp were equally stunning. Of course Avid have been famous for years with their turntables, but now they have a world class system to equal anything out there. London Grammar was used to demonstrate the Reference Three, what a fabulous demo record.

Another stunning sound for me was the room demonstrating Skogrand cables, (Kronos turntable) Lampizator DAC, Analog Domain Audio GmbH and Emme speakers. Both vinyl and digital audio files were superbly reproduced with a tight exquisite portrayal that had me transfixed. I listened to Dire Straits Communique album and I have never heard it sound so good.

There were plenty of other great sounds, Genelec being one who are highly regarded in the pro audio business, but are now taking the home audio market seriously.

I have scratched the surface in this report, but I hope it gives an overview of one of the world's best shows currently.



# EarPlay



## HEGEL H160 - audio amplifier with AirPlay and dlna-streaming

The new integrated amplifier from Hegel is one of the most versatile and well sounding music reproducers on the market. It enables you to connect all kinds of analogue or digital sources, even streaming with Apple AirPlay or DLNA - and uses Hegel's proprietary technology to make AirPlay and DLNA streaming sound better than you thought possible.

The H160 is a virtual power house, with 2\*150 watts and a very stable design. This might be the only high end piece of electronics you need in your system.



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# High-End 2016 Newcomers

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Every year we make a beeline for the Newcomers stand at High-End as these are the people that are the potential future of the hifi industry. The stand in Hall 1 is a great idea of the High-End Society, giving brands with little or no marketing budgets the opportunity to share their ideas and their concepts with an audience they could only dream of having. We managed to get to see the Newcomers early on the final day of the High-End Show and a couple of the exhibitors were clearly flagging, but the vast majority managed to be enthusiastic and passionate about their products.

## **Adam Damper**

Completely made in Germany, the Adam Damper is a air suspension platform that can be used under turntables, CD players, amplifiers and loudspeakers. It's a nifty bit of kit in operation and, because you adjust the air suspension yourself, you can decouple a whole range of different equipment.

There are two versions of the Adam Damper available; the Elektronik and Manual with two different sizes of each. The idea is that the Damper will isolate your equipment from "disruptive" influences. There's even an app for the Elektronik version as well as six rather pleasant looking real wood finishes.

## **Xivero MusicScope**

What a fantastic bit of kit this was. OK, it's not really a bit of kit as such, it's a computer program that costs you just shy of €30 and is touted as being a "music microscope". There'll be a full review coming up soon in Hifi Pig that will go into more detail, but put simply it's an analyser and measurement tool that allows you to visualise loads of different aspects of your tunes. It's fully up to international audio standards and looks pretty simple to use. MusicScope not only allows you to measure digital files but also analogue sources like vinyl or tape. There are also modules onboard that allow you to measure jitter and THD of DACs and Headphone amps. Nifty!

### Cantieri Del Suono

From Italy the stated goal of Cantieri Del Suono is to recreate, in our every day life, the excitement and the pleasure of the characteristic sounds of live and classical music. They use tubes and specifically they are fans of the 300B valve and all their preamps and amps play in Class A.

The company has just three products in its range:

The Milliarium single ended, integrated amplifier using zero negative feedback, 2 x 12AX7, 2 x E88CC and 2 x 300B valves.

The Millarium II is also an integrated amplifier which again uses 300B tubes, but this time 4 instead of two giving around 20w per channel. Again it's single ended with zero negative feedback and uses, in addition to the 300Bs 2 x 12AX7s and a 6SN7 tube.

The Ductor is the final product from Cantieri Del Suono and it's a preamplifier which is point to point wired and is absolutely beautifully put together (take a look at the pictures). It has three line inputs and a moving magnet phono stage. The line inputs use 12AT7 and 6SN7 valves whereas the phono stage uses 6SN7 and 12AX7 valves.

Speaking to the owner and designer of the company it is clear that he is passionate about the products he builds and has a decidedly artisanal approach to his business, creating products for the love of it rather than any great desire to conquer the world or become insanely wealthy from them.



### Echo-Diastasis

This newcomer to High End hails from Greece and produces just four products that are assembled entirely by hand.

The products are:

The I-79 is an integrated amplifier that has zero negative feedback, an E-Core transformer and produces 70 Watts a channel into 8 Ohms.

The Pre 79 preamplifier has a dual mono construction and again uses E-Core transformers. It offers up 5 RCA inputs and two pairs of outputs.





TransVinyl



Red X Audio

A79 is the power amplifier in the family with the same negative feedback, dual mono circuitry and E-Core transformers. It's rated at 110 Watts a channel into 8 Ohms and 190Watts into 4Ohms. The Final product in the Echo Diastasis range is a phono preamplifier. All products look clean, unfussy and well put together.

#### **Flatsonic**

Flatsonic is a German brand that has produced a neat looking aluminium box that is essentially a loudspeaker...but somewhat unconventionally. Instead of the normal driver arrangement, the Flatsonic unit has a bit of kit behind the front plate that vibrates the front plate (that you see) to produce music. It sounded OK in less than ideal conditions. The company were also at the High-End show in 2011.

#### **Red X Audio**

Two very enthusiastic German guys were very keen to tell us about their new amplifier that uses a whole new concept for amplification. Founded in 2014 in Hong Kong and then 2015 in Germany the company utilise their patented SSA Technology that they say offers higher output, better reliability, increased thermal efficiency and superior fidelity whilst reducing weight and size. Is it Class D? Well no it's not apparently, with the SSA (Single Ended Class A) technology using "single-stage power conversion" instead of the

# These are the people that are the potential future of the hifi industry



traditional DC-DC power supply, rectifier, filtering and amplifier stages. The company claim zero cross over distortion and “true bidirectional energy flow” that allows inductance load energy return to the primary power supply. The amplifier, which features a USB audio interface, S/PDIF optical inputs (up to 192kHz) and XLR balanced and RCA line inputs generates 4 x 125Watts at 8 Ohms and can be bridged to give 2 x 500 Watts. The amp is sold as part of a system complete with a pair of bass reflex speakers that are standmounters with a 7” woofer and 1.2” tweeter. I asked why they only sell as package and was told that they had to match the amp specifically to a speaker, which may limit its audiophile appeal unless they rethink this approach.

## Transvinyl

An interesting box of tricks that basically lets you stream your vinyl all around the house to any suitable receiver like a Sonos box. The great thing is all this is done via wireless and so there are no messy wires to be getting in the way.

## Ubiq Audio

Last on the newcomers stand was Ubiq Audio from Slovenia who arrived just as we’d given up hope of having a quick word. They are forgiven though as it was Sunday morning and it had been a tough few days for everyone concerned.

# Analogue Crack

**The Rise and Rise of the Reel  
To Reel Format**

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There's been a bit of a buzz around the audio world in the last twelve months or so and it's a buzz that is pretty hard to ignore unless you have your head buried firmly in the sand...or where the sun don't shine. Yes, it's retro, yes, it's funky and yes it's bloody expensive to get into in any serious kind of way, but it's hard to ignore the rise of the open reel (reel to reel) format if you have attended any meaningful Hifi show in the last year or more. We've even invested in the format here at Hifi Pig towers and we're loving the sound we're getting.

They are everywhere. New companies are springing up left right and centre to cater to the whims of those audiophiles who have moved on from vinyl to the next step and embraced the reel to reel revolution with open arms. Yeh, OK, it's hardly a revolution! Governments won't be toppled and a new world order isn't about to spring forth because of folk listening to music on reel to reel tapes but there is a reel (*sic*) and tangible background hiss around this format and it was well evident at High End 2016.

Yes, several companies were touting their tapes (and they were selling very well we're told) but as well as the 'software' on offer there were plenty of rooms at the show using reel to reel as their source. The folk selling the tapes included Horch House, where we spotted one particular character we know milling around with a certain "I know I shouldn't buy more tapes but I know I'm going to" air about him. Then there was Fritz and Netty de With from STS digital whose tape from Madeline Bell we recently reviewed and loved.

If you think vinyl is an exciting, if expensive, obsession to get yourself into then you really ought to dip your audiophile toe into the reel to reel waters as it's the audio equivalent of crack, with serious tapeheads going to extraordinary lengths to get their fix.

Is it a passing fad? Perhaps so but, given the amount of time, effort and money you have to invest into the format I think it's here to stay. Will it become as mainstream as the current Vinyl phenomenon that we're experiencing? I doubt it and believe that it will remain the preserve of the hardcore audiophile junky

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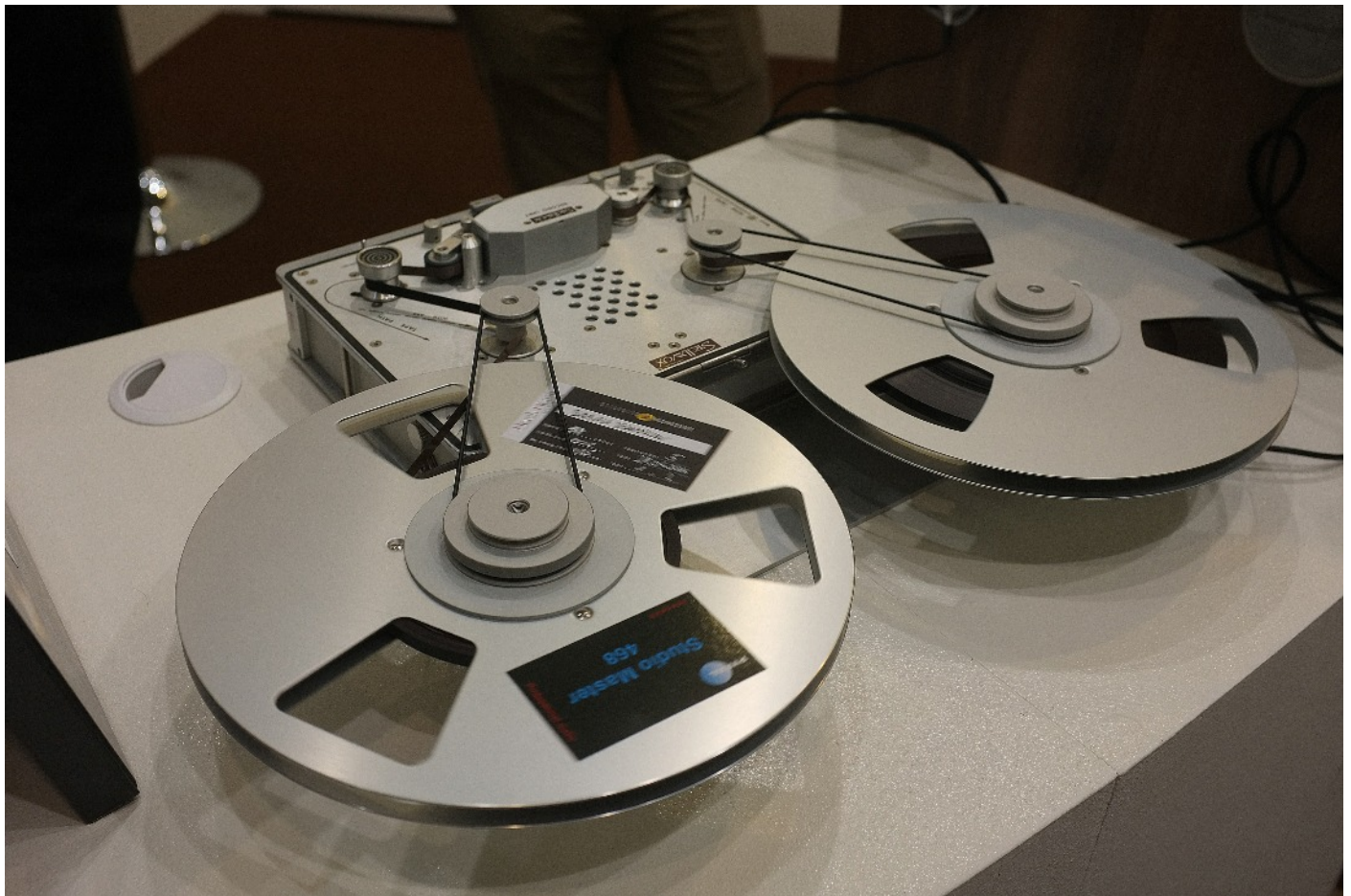


# Hifi Pig

## HIGH-END MUNICH 2016

looking for the ultimate analogue high whatever the personal and financial consequences.  
So, just like the pusherman outside the school gates offering free samples of his wares, here's a few photographs of reel to reel tape machines and tapes at this year's High End in Munich.

**And remember kids....just say "Just the once, it won't hurt!"**



**Hifi Pig**  
**HIGH-END MUNICH 2016**



Hifi Pig's coverage of High-End Munich 2016 is proudly sponsored by

**Tellurium Q®**

**Tellurium Q®**



# Hidden In Plain Sight

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**Tellurium Q, sponsors of Hifi Pig's coverage of High-End Munich 2016, take the lid off the secret to their success and multiple awards.**

Tellurium Q are multi-award winning audio cables that are still hand built in Britain for performance. The people at Tellurium Q have remained tight lipped about how they produce their results for many years now but the secret is out.

Any cable from any manufacturer will act as an electronic filter. This always happens and it doesn't matter who makes a cable it is just one of those immutable laws of physics.

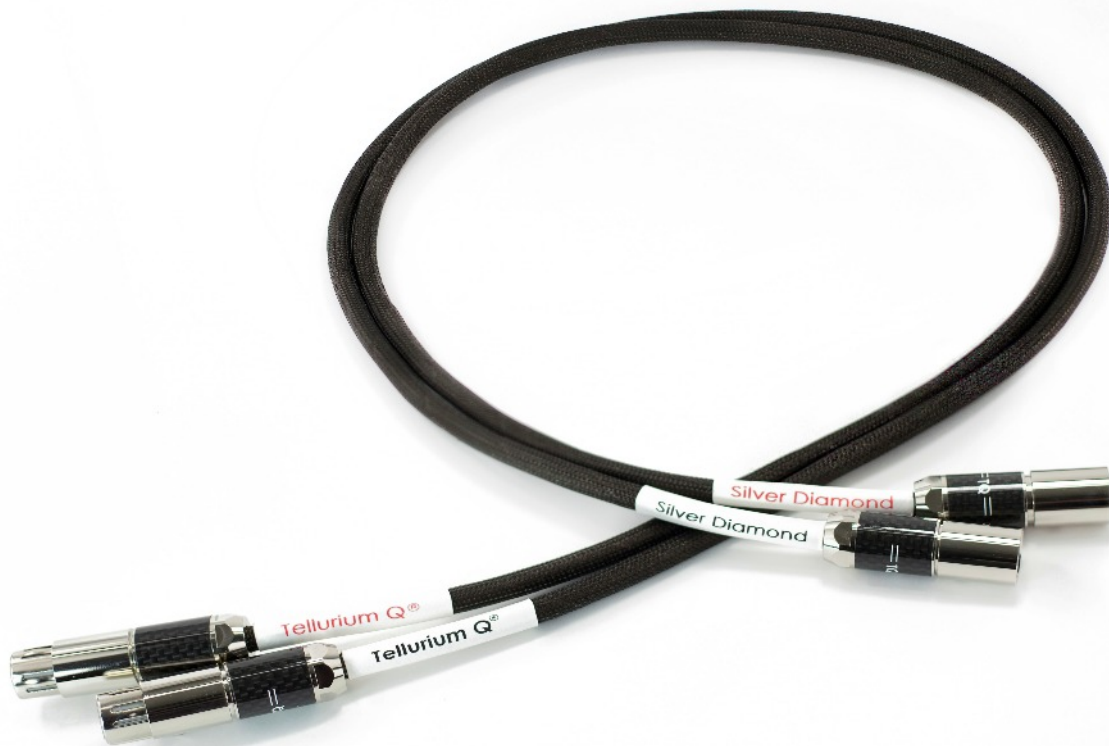


When a signal travels through a cable the various frequencies of the signal are shifted relative to one another. Think of an oil painting becoming smeared or trying to look through ever so slightly frosted glass at your favourite image. That is the bad news, an unfortunate reality.

The engineering challenge is to focus on the materials, processes and geometries to such an extent that the filter becomes as neutral and transparent as possible,

**In just the  
last two years  
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of the year  
awards**





# Hidden in plain sight all this time!

giving you a natural open sound, reducing smearing - or like looking through crystal clear glass.

This is what Tellurium Q has been doing consistently and why, for example, in just the last two years they have collected nine product of the year awards.

By embracing the fact that you are dealing with a filter design and balancing how the signal passes through the various conductors and dielectrics of a Tellurium Q product you can hear something very special has been achieved.

And the secret, just look at the company name that little letter Q at the end is a reference to the quality factor (Q) in filters, an acknowledgement of how they develop their surprising cables. Hidden in plain sight all this time!

As these reviewers have all found:

*"I couldn't detect any shifts in tonal balance"* -Wojciech Pacula, HighFidelity.pl

*"If you're looking for a major jump in your system's performance, I'd suggest buying a pair of these instead of considering a hardware upgrade. Before you write this advice off to cable delusion, expectation bias, or the recent Mercury retrograde phase, please take note: I have never said this in TONE's 11-year history."*, Jeff Dorgay, Tone Audio

*"It is often said that all cables colour the sound of a system to some extent, but the Silver Diamonds do it to a lesser extent than any other product I've heard so far."* John Myles Hi Fi World

*"Well, I have just stumbled upon a speaker cable that I'm very tempted to put in a class of its own"* Matej Isak, Mono & Stereo

**Tellurium Q®**

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LIVING VOICE

LOUDSPEAKER SYSTEMS

# Women In Hifi

**Contrary to what some, quite  
'stuck in their ways' men in the  
hifi universe may think, there are  
actually a lot of women who are  
fans of music and the gear that  
we play it on, and that work in  
the hifi industry**

**Q**uite often, there are women working hard, behind the scenes of many audio and hifi companies and the rest of the world doesn't actually know that they are there. Hifi Pig has always championed the role of women in the world of hifi, with myself and Janine writing and reviewing for Hifi Pig for several years now, and we all feel that the industry benefits from celebrating the female perspective and valuing our input.

Some months ago, I set up a Facebook group called 'Women in Hifi'. With our industry being spread across the whole world it is easy for women to feel that they are isolated, the aim of the group was to allow us to connect virtually, to share our achievements and discuss relevant issues with like-minded women. Naturally, with High End Munich being the main hifi trade show in the world, people make the pilgrimage to the MOC from every part of the globe. It was the perfect place for us to have a Women in Hifi get together and meet in real life. Some of us had already met some of the group at previous shows, some of us had spoken online and got to know each other through social media. With over a hundred members in the Facebook group, hopes were high that we could get several of us in the same place at the same time, and with it being 'scorchio degrees' in Munich last Saturday, that place was the MOC Beer Garden between Halls 4 and 3.

We ended up with a table full of fifteen women from all over the world. There were women who had worked in the industry for years, some who were even born into the family business and still worked for it now, women who worked for themselves, and others, like myself, that had come into the hifi industry by going

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## HIGH-END MUNICH 2016

into business with their partners. It was a very informal event, we grabbed a drink and introduced ourselves and spent a very pleasant hour discussing what it was like to work as a woman in what is still very much seen as a 'man's world'. Although we see a lot more women at hifi shows these days, a big group of women still seems to be quite a novelty and we attracted a lot of attention from the other people in the beer garden! Here's some of the feedback from a few of the women who attended:

"Being a women in Hifi for 26 years I think it is important to have a group who can share feedback, ideas, and experiences... Plus I like to shake the guys up a bit... they have thought they had the industry all to themselves, but I and many others were in the background, women can and do enjoy music plus women hear things men do not!" Kimberly Stahl – Purist Audio Design, USA.

"Like many of us, I am in this industry because of my partner. Since I have taken over the management together with him, it is not always easy to compete in this male domain. Nevertheless, I like what we do, because it has to do with music and I love the music! Also, because of my good ears, I constantly make decisions during the final inspection of the products. I found our meeting in Munich very beautiful and very important because we all have different positions and functions in this industry and thus we can "get the feminine touch" in different areas, because two different worlds, male and female, together make something bigger." Olga Ehms – Fonel Audio, Germany.

"It was so refreshing to meet with the 'Women in Hifi' group at the Munich High End show. I found it inspiring that quite a few women made an effort to take an hour out of a busy day to simply say hello and communicate with one another. And, to massage the old clichés, there weren't any conversations about shoes and handbags but more about business, music, sound and design. There are more women than we think in this male dominated industry but often they are the quieter ones working behind the scenes of many successful brands. The industry as a whole needs to open up conversations with the female and younger generation market, which at present, it seems to exclude. Surely this limits growth and innovation?? Let's hope the 'Women in Hifi' group goes from strength to strength and helps the overall perceived image of the hifi industry, which unfortunately seems to be tweaky and testosterone driven. A dynamic industry should pay attention to both sexes so let's bring the hifi industry out of the 'man cave' and into the shared homes of men and women simply enjoying music!" Yvonne Hawkey – Sonata Hifi, UK.

Next year we hope to have an even bigger group get together at Munich (there were women from the Facebook group who were tied up in business meetings and demos in their exhibition rooms all day who would have been there if they could've) and smaller meet ups at the more regional shows. So, if you are a woman that either works in the hifi industry or are just really into music and hifi gear, no matter where you are in the world, please get in touch and join us online and hopefully in person at the next show.



# Bringing The House Down

**Avantgarde Acoustics**

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**N**ow here's something you don't see or hear everyday at a Hifi show. I mean, if you go out to see a band or a piece of music performed live then you expect the audience to, depending on how the evening's show went, put their hands together in rapturous applause. But this is exactly what happened when the presentation in Avantgarde's room finished at some point on Friday at the High-End.

Given that Avantgarde are on relatively home turf it's no surprise that there is going to be a certain amount of passion and encouragement from those who went along for the ride, but the level of emotional connection in that room, at that time was palpable and infectious. Regular readers will know that the reference loudspeaker at Hifi Pig Towers is this German company's Duo XD, and so there may be a tad of exuberant outpouring of affection from these quarters, but to see grown men, and a handful of women, being so clearly moved by, what is little more, in actual fact, someone spinning some tunes on a music centre (albeit a very good one) was a sight to behold.

So, the speakers playing were obviously the German company's Trio and stacked Bass Horns!!! Nope, these were the relatively affordable Uno XDs. They're about the eighteen thousand Euro mark and whilst this is indeed still a good chunk of dosh to splash on a pair of speakers, it's not beyond the realms of reality for a good few folk reading this I'm sure. They sounded very good indeed and for those who enjoy the sound but don't have the space for Duo XDs these make a great alternative.

I absolutely loved the response they got and it goes to show that music, when played well in the home, has the ability to move people in a way that few other things can. If you could bottle and sell the feeling that was in that space, on that afternoon then you would be a very rich man...or perhaps locked up for peddling something you really ought not to be peddling!!

I spoke to Holger Fromme, the company's head shortly after the dem' and whilst he expressed a degree of dismay that he may have to pay Armin, the guy presenting the demonstration, a tad more for his efforts, there was clearly a huge amount of pride and delight in his face at us having witnessed this phenomena.

It was interesting to not on leaving the room that behind a special edition of the company's Zero One loudspeakers in the window of the dem' room was the following slogan "Feel This Moment. Experience Our Sound." How apt!

**Music, when  
played well in  
the home,  
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few other  
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# Wilson Alexx Launch Event

by Ian Ringstead

Whilst attending the Munich High End show last week I was excited to be invited to see and hear the new Wilson Audio Alexx loudspeakers. This was an exclusive press event held at luxury audio specialist My Sound near Munich. The venue was truly spectacular and really did justice to the Wilson Audio range of speakers, which are of course renowned the world over.

All the luxuriously appointed listening rooms were beautifully adorned with fabulous wall sized photos the owner had taken whilst travelling to Africa and the Middle East.

Every room had a pair of Wilson Audio speakers on demonstration and driven by a variety of electronics, Pass Labs being a prominent maker.

I've heard Wilson Audio speakers at shows a few times, and every time a new model is introduced the improvements are noticeable. The Alexx sounded sublime and filled the large listening room with ease, being admirably driven by Pass Labs mono blocks. All the music was from a Meridian Sooloos digital server.

The Alexx is the new mid priced model in Wilson's range of designs. Details:

- Replaces the MAXX in Wilson Audio's range, slotting in between the Alexia and the flagship £200,000-per-pair Alexandria XLF
- Incorporates the company's latest techniques and technologies, with a form factor derived from Wilson's continual pursuit of the perfect time-coherent modular array
- Five drive units per speaker: two bass drivers (10.5-inch and 12.5-inch), two midrange drivers (5.75-inch and 7-



inch) and the latest version of the Wilson Convergent Synergy Tweeter

- Redesigned MTM (Midrange-Tweeter-Midrange) geometry, with the two midrange drivers flanking the tweeter vertically in separate modules
- Midrange and tweeter modules are independently adjustable – this is Wilson's unique A spherical Propagation Delay, giving precise driver positioning for optimal dispersion
- Sophisticated crossover network
- Bass enclosure's Cross Load Firing port system (derived from the Alexandria XLF) allows front-firing or rear-firing configurations according to the requirements of the customer's listening room
- Enclosures made from Wilson's 'X-material', 'S-material' and new 'W-material'
- Hand-build in Utah, USA, and finished in Wilson Audio's automotive-class paint facility to each customer's specific colour requirements

UK retail price is £105,000 per pair (inc. VAT).



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# Gryphon Launch €220 000 Kodo and €20 000 Mojo S Speakers

by Stuart Smith



**A**lways a bit of a highlight at High-End is Gryphon Audio's room. Owner Flemming Rasmussen always has something new to show us and this year was no exception. We missed the press launch due to a prior engagement but were graciously allowed to sit in with Gryphon distributors for their launch of the Kodo Reference Loudspeaker system.

## Kodo

The Kodo is a two tower per side array with all drivers in phase at all times. The system stands an impressive 2.37 metres tall and incorporates no less than 38 drivers.

The MDF side panels of the towers are reinforced with 5mm aluminium panel supports and the moulded curved exterior panels are laminated high-density fibre-board damped with bitumen. At the foot of each column is an aluminium base that is fitted with polyoxometalate feet.

## Bass Towers

Each of the bass towers has eight custom designed 8" drive units and a Gryphon amp that is capable of delivering 1000 watts of continuous power to the drivers...peak power is 4000 watts.

There is remote adjustment of bass level, low and high cut filters and a user-selectable bass system Q to match system Q to the room's own Q.

## Upper Frequency Tower

The centre of the upper-frequency tower is a Mundorf Air Motion Transformer high frequency driver isolated in its own enclosure. Above and below it are bass/mid modules with each housing two 4" Scanspeak Illuminator midrange drivers and three 5" Gryphon midbass drivers. Each driver is mounted in its own independent front baffle attached to a sub baffle.

Within the modules three mid/bass units and two midrange units are housed in two separate and isolated chambers to prevent unwanted interaction and to reinforce structural integrity.

The 11 drivers share the workload from 200Hz to 25kHz and the mid/high tower is 96dB sensitive with the impedance never dipping below 4Ohms making it an easy load for amps.

The Price of all this is €220 000 which includes a 10 year warranty, factory set up and admission to the Kodo owners club.

We were treated to a bit of a listen and crikey these are impressive loudspeakers. Not ideal conditions of course, but good enough to give an impression of what Kodo is capable of.

### **Mojo S**

Also launched at High-End was Gryphon's Mojo S (superior) standmounted loudspeaker. There are obvious elements of Kodo in the design and use the same Mundorf Air Motion Transformer as the bigger loudspeakers. Interchangeable rear-mounted resistors allow owners of the Mojo S to choose mild roll off, neutral response or mild boost to integrate properly with the listening space.

Mojo S uses two SEAS 6" bass/mid units with free air resonance of 44Hz and just 7.7 grams of moving mass.

The crossover in Mojo S borrows from the Kodo too with all parts being hard-wired point to point with special Teflon hard-insulated wire. Hand trimmed Due-lund graphite resistors, Jensen air-core paper/oil inductors and Mundorf capacitors are used.

Mojo S's enclosure incorporates a front baffle of three separate angled sections up to 34mm thick which attach to a 22mm sub baffle. The independent driver frames and the main baffle are separated by a rubber gasket which acts as a seal around the drive units to eliminate air leaks.

There is extensive internal bracing and damping and the rear panel is a dula layer construction of aluminium and MDF.

Price is €20 000

### **Kodo Owners Club**

This was something we didn't really expect to hear but Flemming was very passionate about this concept and claims it will set new standards in what customers buying Kodo can expect in return for spending what is a considerable amount



of money.

Members will get the following benefits:

The system will be installed in the home by the local distributor after specialised training, using dedicated equipment to ensure the best performance in the homes of users.

Three months after installation a specialist (it may or may not be Flemming himself) from Gryphon Audio Designs in Denmark will visit the owner to carry out a thorough evaluation and final system calibration. He will also personally deliver a personalised, custom serial number plate engraved with the users name.

For three months after purchase of Kodo the owner will be entitled to 15% rebate on any additional Gryphon products from the same dealer.

Every three months for the first two years of ownership the owner will receive an exclusive and specially curated limited edition CD with reference quality recordings.

This is an excellent step forward I feel and is a model that I'm sure will be embraced by other high end manufacturers for their flagship products.





# The New Zen Mk.II Music Servers



**No Harshness  
No Veils  
No Computers**

**Just Music**

Our new Zen Series is the result of 2 years intensive research and development.

Our new Zen Series is the result of 2 years intensive research and development. We've focused on taking digital sound quality to new heights whilst providing an intuitive interface anyone can use, not just computer wizards. This can only be achieved through a unique combination of hardware and software working together as one.

Most Music Servers require a computer to manage the Music Library. We are now taking the user experience to the next level, and as a result innuOS has been created. Our new OS enables the Server and Ripper capabilities, including album cover and data editing to be fully managed and controlled by only using a smartphone or a tablet.

# Dynaudio's New Contour Range

by Stuart Smith



Hifi Pig were invited along at this year's HIGH END Munich to Dynaudio's launch of their new Contour range of loudspeakers. The new series consists of four models: the compact 20, the medium-sized floor standing 30, the larger floor standing 60, and the 25C dedicated centre channel speaker for movie lovers.

All the speakers in the Contour range are designed and manufactured at Dynaudio's newly expanded state-of-the-art research and manufacturing facility.

The new speakers include a new FEM optimised woofer construction with new vari-MSP diaphragms, glassfibre voice coil formers, longer aluminium wire voice coils, new spider suspension, new rubber surround geometry, new magnet design and new die-cast aluminium baskets...so quite a lot of newness going on their in the woofers.

To match the performance of the woofers and mid-range units the Countour range feature the company's best tweeter, the Esostar2.

"Speaking of its performance, it's difficult to point out one thing that makes the difference: is it the driver, is it the cabinet? It is all the elements combined that enable this major step forward. I believe we have achieved our goal: retaining – and improving – the fantastic high- and mid-end, but at the same time getting that dynamic bass response, we were looking for. Together, it adds up to a substantially improved speaker with a lot more power than the previous Contour range," Michael Böwadt, VP of Product Management.

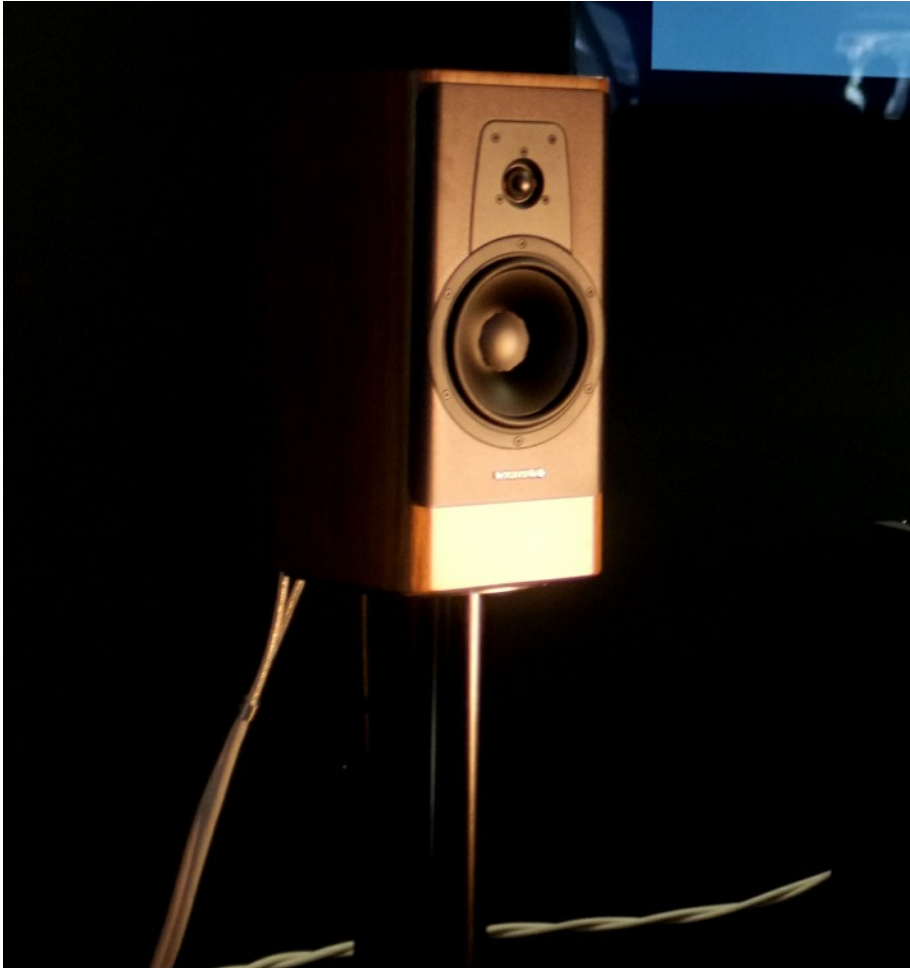
The new Contour models are available in: Walnut Satin, White Oak Satin, Piano Black and Piano White, and on special order: Rosewood High Gloss and Bubinga High Gloss.

Recommended Retail Prices: Contour 20:  
€4500/pair

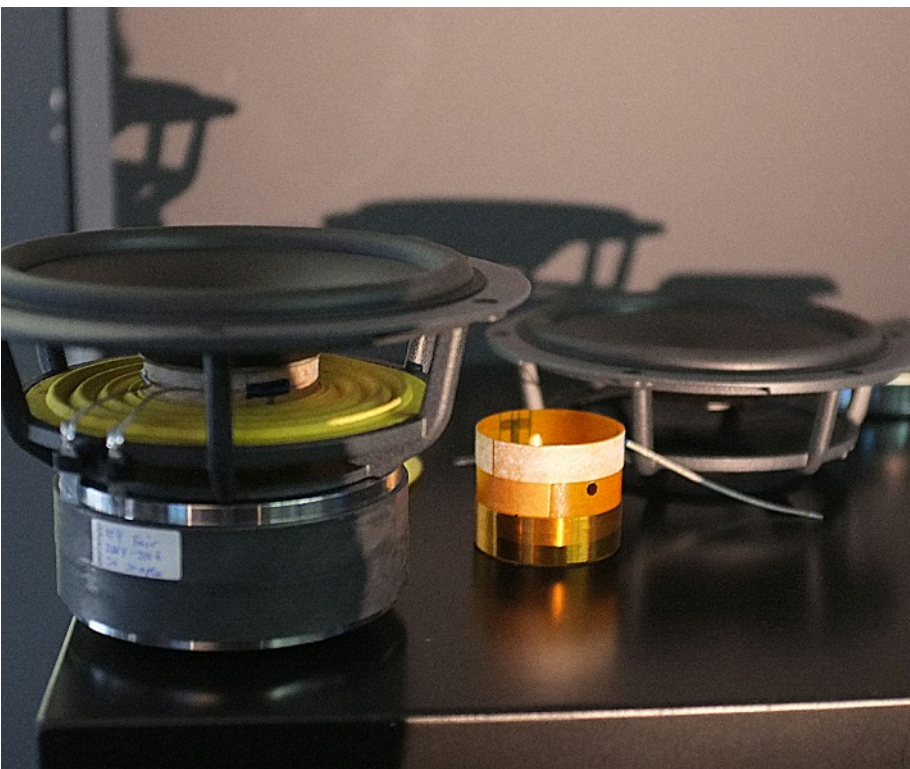
Contour 30: €7000/pair

Contour 60: €9000/pair Contour 25C:  
€3250/each

During the launch the Contour 20 stand-mounter was being driven by the new NAD Masters series and it has to be said that the sound was rather impressive, particularly given the relatively compact nature of the speakers that were playing in a very large space.



**“Together, it adds up to a substantially improved speaker with a lot more power than the previous Contour range,”**



# PMC Launch twenty5

**Launch of five strong new range of speakers marks the British company's 25<sup>th</sup> anniversary celebrations**

**by Stuart Smith**



**T**he twenty5 series from PMC marks the company's 25th anniversary and has a five strong compliment. In keeping with all PMC products, the foundation of the twenty5 series is Advanced Transmission Line bass loading, which has the new aerodynamically designed Laminair vent technology.

The twenty5 series project includes the new, low throw mid-bass drivers, with resin-bound, g-weave™ fine-weave glass fibre cones where the motor system has been optimised to make it linear and approximately 80 per cent more powerful than the existing twenty series drive units. "High frequency response from the Sonolex™ fabric dome tweeter has been further refined

through fine-tuning of the geometry and perforations of its mirror finished stainless steel grille, which improves dispersion for a wider soundstage" say the company.

Internally the crossovers for each of the models feature PMC's 24dB filtering with the foundation of the crossover being a military-grade circuit board, with ultra-thick pure copper tracks.

The range presents models suitable for differing room sizes and comprises two stand mount speakers, the two-way twenty5.21 and twenty5.22; and three floor-standing models, the twenty5.23, twenty5.24 (both two-way) and the three-way twenty5.26, which features the PMC 50mm soft dome midrange. The 27mm tweeter is common to all models, with the 21 and 23 sharing the 5"/140mm long-throw g-weave bass driver, with a 6 1/2"/170mm variant used in the 22 and 24, and a 7"/177mm version in the flagship twenty5.26.

All speakers within the range are available in a choice of three book-matched real wood veneers; Oak, Walnut and Amarone, plus high gloss Diamond Black finish.

Peter Thomas, owner of the business, says, "The launch of the twenty5 series is a celebration of 25 years producing the world's leading professional and domestic loudspeakers. Our design department and creative teams have made some radical innovations and technological advances in the development of the new range, that have not been seen nor the benefits heard before." He continues, "I am proud to say that the twenty5 series embodies everything we have learned in our 25 year history, distilled into a range of speakers that take performance to the next level. We know we have created something very special for music lovers worldwide, as they let you feel the music, not simply hear it"

We at Hifi Pig loved the quote Status Quo's Francis Rossi's succinct and to the point quote about the new PMC twenty5 loudspeaker series - "They are f\*\*king brilliant."



# Aequo Audio

*sonus completum*

## Aequo Audio presents: the Ensis loudspeaker

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

[www.aequoaudio.com](http://www.aequoaudio.com)

# Mark Levinson N° 534 Amp and N°523 Pre

by Stuart Smith

**“The N° 523  
Preamplifier offers  
unprecedented  
levels of purity  
and precise  
performance,”**



**M**ark Levinson used the Munich High End to introduce the N° 534 Dual-Monaural Amplifier and the N° 523 Preamplifier and Hifi Pig were there to take a listen.

#### **N° 534 Dual-Monaural Amplifier**

This high-current, low-feedback two-channel amplifier delivers 250 watts per channel into 8 ohms, operating purely in class A for most listening conditions, doubling to 500W into 4 ohms, with stable operation into 2-ohm loads.

A direct-coupled signal path; a highly linear, low-feedback design; and voltage gain and drive stages operating in class A, are joined by the modern system

integration capabilities provided by Ethernet, RS-232, and USB for monitoring and network control. Housed in a cold-rolled steel and 6000-series aluminum chassis, the N° 534 is designed and handcrafted in the USA.

The N° 534 offers balanced and single-ended inputs for use with virtually any preamplifier or source player with variable output. For connection to loudspeakers without needing tools for a secure link, the N° 534 features four pairs of gold-plated binding posts with Mark Levinson Hurricane terminal knobs to support either standard or bi-wired loudspeaker connections.



“Since 1972, Mark Levinson has been dedicated to the uncompromising art of sound, with the guiding principle of musical purity above all else. To achieve that goal like never before, Mark Levinson engineers in our Shelton, Connecticut Electronics Center of Excellence scoured company archives, ultimately developing a circuit-design philosophy called Pure Path. On a conceptual level, its hallmark principles include a discrete, direct-coupled, high linearity, wide bandwidth, dual-monaural signal path that delivers unrestricted, uncompromised sonic purity,” said Jim Garrett, Director of Marketing and Product Management, HARMAN.

### **No 523 Preamplifier**

The new preamp from Mark Levinson has a discrete, balanced R-2R Ladder volume control, Class-A Phono stage, and Class-A Main Drive Headphone output, six line-level analogue and phono inputs travel through the Mark Levinson proprietary Pure Path discrete, direct-coupled, fully balanced, dual-monaural signal path, entirely in class A.



Like its stable mate it is housed in a cold-rolled steel and 6000-series aluminum chassis.

“The No 523 Preamplifier offers unprecedented levels of purity and precise performance,” said Jim Garrett, Director of Marketing and Product Management, HARMAN. “With every stage operating purely in class A, from Pure Phono and line inputs to the Main Drive Headphone and line outputs, you’ll discover what you’ve been missing.”

Newly developed for the No 523 and No 526 preamplifiers, the Mark Levinson

Pure Phono stage features fully discrete, extremely low noise gain stages, with RIAA equalisation implemented using a combination of active and passive filter circuits. Four gain settings, multiple resistive- and capacitive-loading settings, and an infrasonic filter are conveniently adjustable from the preamplifier’s front panel and remote control for powerfully optimising performance for virtually any turntable and cartridge.

Playing through a gorgeous pair of JBL Everest loudspeakers the sound was fast and dynamic, highlighted brilliantly with their use of a drum solo track.

# Cyrus One Integrated Amp

**Well loved Cyrus choose High-End to launch £699 Cyrus ONE integrated amplifier that harks to the glory days of the well loved brand by Stuart Smith**

Cyrus, the brand we all know and loved from the eighties and beyond, chose High-End Munich to launch their Cyrus ONE integrated amplifier. The new amp is a 100 watt per channel amp using the third generation of the company's hybrid class D technology. It is packed full of features including a built-in phono stage, Bluetooth® streaming and a high quality headphone amplifier.

The new amp retains the compact footprint that has made Cyrus famous back in 1984 when the original Cyrus 1 was launched, but the new moel Cyrus ONE has a distinctly contemporary aesthetic.

There's a built-in Class AB headphone amplifier which is automatically activated when the headphones are plugged in, with the heavyweight toroidal power supply that usually powers the main amplifiers instantly switching all its power to the headphone circuits. At the same time, the volume is automatically returned to zero to protect the user's hearing and headphones, and in turn, the volume reverts to zero when the headphones are removed.

Bluetooth aptX® connectivity, with an 'always discoverable' state, enables the new generation of tech savvy customers to stream music direct from phones and tablets to the Cyrus ONE. The same users who so naturally stream music are also leading the resurgence in vinyl, and so the Cyrus ONE is fitted with a high quality moving magnet phono stage to give them the best of both worlds. Four additional line level inputs provide plenty of connectivity for other devices and the amplifier is also fitted with an AV Bypass mode for use in home cinema systems.

Announcing Cyrus ONE, Simon Freethy, managing director, says, "With more than 33 years of award-winning

technological knowhow we are perfectly positioned to bring high end performance to the modern consumer. Cyrus

ONE represents the first step on a product roadmap that has been developed to grow the company as the leading proponent of hi-fi products for the 'Enlightened Consumer' group." He continues, "Our design philosophy has always been to achieve the very best performance possible and then figure out how to make it affordable. And with Cyrus ONE, a product priced within the reach of many, we have the embodiment of that philosophy taken to a new level."





# Power to perform.

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

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

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# I Hear The Sound Of Breaking Glass - Leedh's Revolutionary loudspeaker that uses a glass diaphragm

**Y**ep, you read it right! Gilles Milot has created the world's first production loudspeaker that uses glass cones. I know, I know, I thought exactly the same as you and questioned whether this Gallic loudspeaker manufacturer had been on the Ricard...or perhaps something a little stronger. But no ladies and gentleman of the audio loving brother and sisterhood, he reckons that this is a logical step forward for his E2 loudspeakers.

If I may I'll take you back a couple of years to when Linette and I had the pleasure of reviewing the Leedh E2 loudspeakers with normal cones. Now the word normal is not something that sits easily when describing these speakers! They look like nothing else ever produced and despite their outlandish appearance manage to pull off a sonic performance that is quite astounding, particularly when partnered with their matching subwoofers. Despite their insectoid facade, we both loved them and have both said that if and when we have to downsize in the dim and distant future then these will be on our shortlist...unless something else happens along that whets our aural appetite.

During High-End we had the chance to hear the very same loudspeakers we'd had in our home but with the new glass (yes, it takes some getting used to saying it believe me!!) cones and the sound was quite remarkable. I'm not going to pretend that we could have formed a particularly valid standpoint from our short time with the speakers and in less than ideal circumstances, but they sounded rather nice... bloody good in fact. Better than the older versions?... it's difficult to say without hearing them in more familiar territory, but things look very promising for Mr Milot!

Hifi Pig got a chance to have a look at the cones in question and they're pretty unremarkable looking, even if the science that's gone into producing them is! They're not cold in the way glass is and they are quite flexible in the way that glass isn't traditionally meant to be. Not actually that flexible though, as I

found out when I tried to double the cone over on itself betwixt thumb and forefinger to the point it snapped into several shards...sorry Gilles!

**We also got the chance to have a bit of a chat with Gilles and press him on a few matters.**

**Stuart:** Your E2 loudspeakers look extraordinary and technologically are quite a departure from the norm, would you explain to Hifi Pig readers the mechanics and thinking behind them.

**Gilles:** From 1975, I developed LEEDH speaker line from conventional technologies always with the same problems of distortions and colorations coming from the electrodynamic motors, from the suspensions, from the cone and dome materials and from the cabinet.

So, in 2006, when I created my new line of products, (in beginning with the LEEDH C) my will was very strong to give up these current technologies with their inherent genetic defects.

It's why I used the innovating technology of the Ironless motor to eliminate all the kinds of distortions coming from the Iron of the more conventional current motor and the suspension using ferrofluid to eliminate the spider and the speaker surround which is the main cause of the parasite modes, colorations and distortion at low frequencies.

These two new technologies allowed me to also eliminate the cabinet of the current speakers and so to concentrate all the budget for the loudspeakers' "drivers" themselves.

**Stuart:** Sonically, how would you say your Leedh E2 loudspeakers differ from more conventional speakers?

**Gilles:** The targets of the two innovating technologies are to eliminate the genetic defects of the conventional loudspeakers by "simplifying" the physical working of the loudspeaker. For example, by eliminating the iron in the electrodynamic motor we eliminate all the complex magnetic phenomena such as eddy currents, flux modulation, inductance variation and hysteresis effect which create all sorts of distortions.

It's the same for the ferrofluidic suspension which allows the free displacement of the membrane without constraints and without mechanical limits like in an academic model.

All the distortions and colorations of the conventional drivers used in conventional loudspeaker give the sound character to them. The art and the know-how of the creators of current speakers is to choose these distortions and these colorations to create the illusion of the musical reality. The result of this work is to give the illusion that the musicians play on your instruments in your room...and that could be very pleasant! So the work of the hifi reviewer is to describe each speaker by defining the qualities and the defects of its interpretation of the music through the sound of a virtual instrument. However, the approach of the development of the LEEDH speakers is totally in opposition to the conventional loudspeaker and conventional thinking.

This development is not artistic, but tries to be only technically objective and rational:

To eliminate the main distortions of the loudspeakers and eliminate the character of the speaker. It makes the speaker indefinable, it makes the speaker silent! As if you have eliminated the speaker link in the system!

So it's not easy to promote such speaker or for the hifi reviewer to describe it, but it's the LEEDH concept of what is true high fidelity: to eliminate the "sound" of each link of an audio system and get closer to the truth of what is present in a recording!

We think that it's the only way to access to the reality of the universe of the recording and to the emotion of the musical evidence and so to have the illusion that you are in the recording room to listen to the musician playing on HIS instrument not on YOUR instrument (your loudspeakers).

**“These two new technologies allowed me to also eliminate the cabinet of the current speakers and so to concentrate all the budget for the loudspeakers’ “drivers” themselves”**



**“We know that each material has its own "colour" of sound... it's like a signature.”**

It's why for us the main quality of an audio system is to change the sound of each recording as little as possible!

**Stuart:** Your latest loudspeakers are an even more radical departure from the accepted norm and use glass drivers. Tell us about why you have chosen to use glass.

**Gilles:** Thanks to our know-how and our long experience of diaphragm materials used, we know that each material has its own "colour" of sound... it's like a signature. This colour depends a lot of the torsion modes (twist modes) of the diaphragm. These modes modify the response curve of the loudspeaker very little and this is why they are not generally taken into account. They exist from the low frequencies with the modes of the spider and of the surround and from some hundreds of hertz with the modes of the cone or of the dome. The energy of the torsion modes causes a ringing of the membrane and so they are audible...like a parasite reverberating the sound of room.

The classic bending modes appear at higher frequencies than torsion modes, up to five hundred hertz and they modify the response curve and are audible like a specific equalization with distortions. They also depend on the material properties, but a lot of the geometry of the diaphragm also.

The "sound" of each material is in relation to its composition at the scale of their molecules or of their atoms. Generally the diaphragm materials are organic, polymeric or composite... macromolecular, metallic or ceramic with crystal structure. These structures are very complex and organized so it's hard to imagine that such structures could be inert and non-resonant.

But there is another state of material: the amorphous state. In this state the structure of a solid material looks like that of a liquid, that is molecules are not organized in lattice. This structure is intrinsically inert and non-resonant.

There are some exotic polymers, metals and ceramics which could exist in amorphous state but the most classical material is the GLASS.

The resonance effect of a glass object is obvious but this resonance is very pure and very easy to dump, make the experience with a glass of champagne!

We worked for several years to discover a process to realize 2" dome diaphragms in glass.

It is very complicated for shaping a dome in glass with a thickness of 0.1mm (0.04"), there was none existing process and our current process is very complex and expensive.

It is not easy to describe with words the sonic advantages of the glass compared with conventional materials, the best is to listen it, but the fact to eliminate the parasite reverberating sound of room reveals all the differences between each recording which makes the music more interesting that the sound to take advantage completely of the talent of artists and of the sound qualities of their instrument without question.

**Stuart:** You mention that each material has its own sound or colour. How would you describe the sound/colour of glass. Secondly, how do you think the buying public will react to glass being used as the diaphragm as it is such a departure from the norm.

**Gilles:** The interest of the glass because of its specific amorphous state is not to accumulate the energy of the bending (torsion) modes so not have the parasite reverberating sound of room. My first benchmarking test of the glass is very enthusiastic because it seems that the audiophiles want real innovations that they can appreciate with their ears not only with their eyes...

**Stuart:** We visited a Jazz evening in nearby St Brieuc a few months ago and noticed that you had an amplifier you had built there but clearly in a prototype stage. Is the amplifier going to be a commercial product and if so when can we expect it to be available to the public?

Our amplifier is still in prototype stage.

To create a new product is a very long task because it's necessary to make a lot of trials of electronic designs, of types of components, of microphonic effects elimination, of tuning and listening tests.

Our target is not to offer the market just another amplifier... I want more than that! This amplifier will be available to the public when it will be the best to drive the LEEDH E2 Glass and we hope to reach this target end of 2016.

**“...it seems  
that the  
audiophiles  
want real  
innovations  
that they can  
appreciate with  
their ears not  
only with their  
eyes.”**



**Stuart:** Can you tell us more about the design of the amplifier?

**Gilles:** You are, Stuart, originally the spark of our concept to produce a new amplifier when you suggested that we listen to a specific amp of Chinese origins. You had tried this low cost amplifier of 50W and found it is able to drive the LEEDH speaker with an interesting level of fidelity. This was an integrated amplifier using the Texas Instrument LM3886 chip. This component is well known by the Japanese esoteric audiophiles who use it for their great horns systems if the single-ended tube amplifiers of 8W are not powerful enough. So this component is able to offer the best specific sound qualities of both single ended tube amplifiers and of the electronic/solid state amplifiers. Our job was to optimize the use of this component through original electronic and mechanical solutions and by associating several of them to obtain much more than 200W.



# AUDIO

HUNGARY



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# Entotem High End Interview

## Hifi Pig caught up with Andy Hughes from Entotem on their very busy stand at High End



Entotem are a UK based company that burst onto the audio scene at last year's Bristol Show with Plato, a product that will not only stream your music and video but will also automatically digitize your vinyl for you. Ian Ringstead reviewed it for Hifi Pig and loved it but the company haven't rested on their laurels and have continued to innovate and introduce new products. At this year's High End Show they had the original Plato, Plato Lite and Plato Pre on show. As well as the new Plato they've improved and developed the app, introduced Hi Res Audio download service and also introduced a Class A amplifier to their range of products.

**Hifi Pig:** It's been a whirlwind year I suspect for Entotem with you making your debut appearance here at Munich only last year. How is the buying public reacting to Plato?

**Andy Hughes:** General feedback is very positive. Coming back for our second year makes a huge difference, as people are taking us more seriously now. The product is more mature, and we are bet-

ter known, so have to spend less time telling everyone who we are.

Obviously the press have supported us well and we have some excellent reviews out there, as well as some high profile awards – including the latest EINS Null award given at the show.

**Hifi Pig:** Audiophiles are a funny lot at times and can be resistant to new concepts such as digitizing vinyl, how have you overcome some of their objections, if there have been any?

**Andy Hughes:** The easiest way to counter objections is to demo the unit. Generally people are amazed when they see the product in action, especially the automatic recording. Once we explain just how much Plato can do, and demonstrate how easy it is to use the penny drops.

The concept of Plato is to bring together old and new worlds, we have built in a very good phono stage so we are not suggesting people stop playing records, just trying to provide a more convenient way of maximising the investment. Once we explain what is possible, it all starts to make sense.

The high level of integration raises a few eyebrows, and sometimes leads to preconceptions about audio performance in particular. But we have spent a great deal of effort producing a genuine HiFi product. We were very honoured to be approached by AvantGarde Acoustics at Munich who needed a new DAC to use in their demo system at Munich. In this case we had to find a quick solution so took an optical output from a PC holding their music library. This played through our DAC, out of our pre-amp outputs, which was then feed into their pre-power system. The sound was fantastic, and the guys at Avantgarde were very happy continuing to use Plato for the rest of the show.

**Hifi Pig:** Plato isn't just about digitizing vinyl, what else can it do and why should I consider one?

**Andy Hughes:** As I have hinted above Plato is a lot more than a vinyl recording system, albeit a very good one! The core concept was to provide a high performance, fully integrated solution which combines legacy analogue sources, with the convenience of modern network streaming.

So briefly, Plato can act as a full media server, digital streaming device, analogue amplifier, and recording device..! Of course all this is controlled using an intuitive Android or iOS app which my wife is as happy to use as my teenage daughter..! Plato's ability to store and stream video also helps keep the teenagers happy...

**Hifi Pig:** You have launched a trimmed down version of Plato. Tell Hifi Pig readers about this concept.

**Andy Hughes:** We find some customer out there who are very interested in the recording or streaming aspects of Plato, but have already invested heavily in power amplifiers and phono stages, and broadly speaking have a sound they are happy with. Plato-Lite is a perfect solution for them. We build Plato on a highly modular platform which means we are able to tailor the system at different price-points to satisfy different requirements from different customers.

The current Plato range consists of 3 products: full Plato, Plato-Pre and Plato-Lite

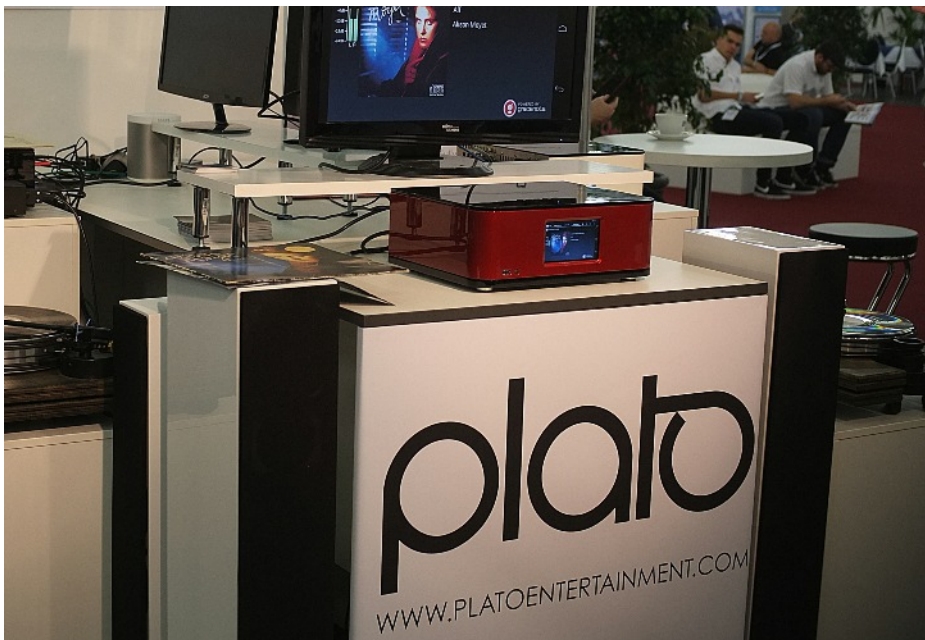
Plato-Pre comes without the power amplifier module, but with fully loaded pre-amplifier. Plato-Lite simplifies the pre-amplifier, removing the phono stage, and the direct analogue path (analogue inputs go through AD-DA conversion before analogue output) for the lowest cost entry point.

We are also offering different finishes – Satin and high gloss, to broaden the range of price points, and broaden the appeal.

**Hifi Pig: You have a Class A amp out. Tell us about this and why you chose to go this route.**

**Andy Hughes:** I agree a Class A design looks like a very odd choice in today's world of high power Class D amplifier designs, particularly given the small form factor...

Our current Plato amplifier is biased in class B mode. We did some quick Friday afternoon experiments rebiasing the existing design into Class A mode and were amazed by the results, but also ran into some difficulties with heat as you can imagine. However this was enough to show what could be possible.



The whole amplifier design was re-evaluated and enhanced with cleaner signal paths and core component upgrades.

Then we began looking for a solution to make Class A operation possible using the chassis we had. We came up with a new solution which uses continuously variable biasing of the output transistors based on sampling the input data, to ensure the signal fits in class A mode. By reducing the bias for smaller amplitude

input signals we do not waste energy in biasing beyond the signal, so the net heat output is reduced..!

We are very pleased with the results and due to begin shipping in the next couple of months...

**Hifi Pig: Any other products in the pipeline?**

Andy Hughes: Could not possibly say...

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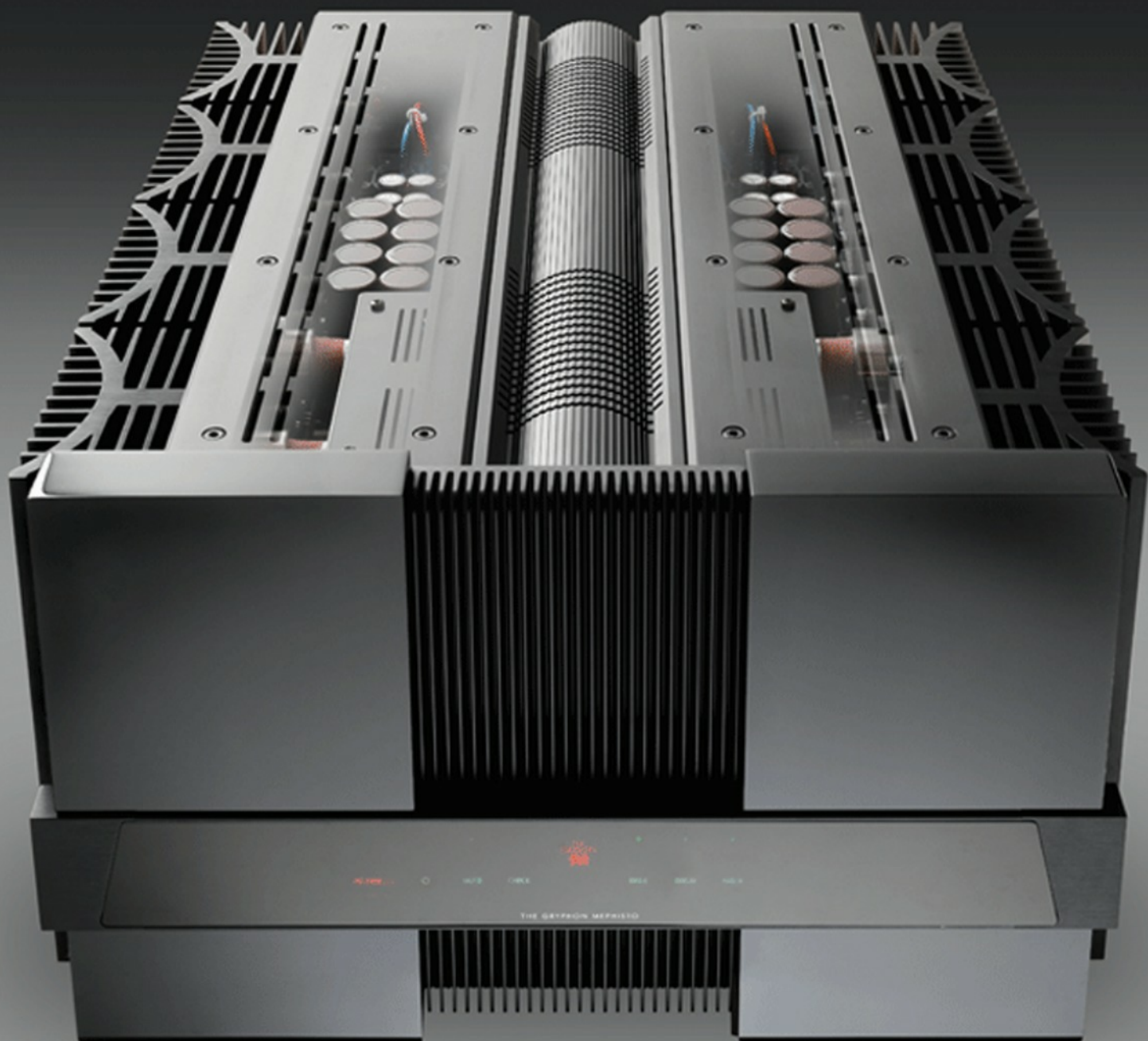
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# Living Voice Interview

**L**iving Voice is certainly one room we at Hifi Pig always make time for at Munich High-End and it's invariably one of the highlights of the show. And that's no surprise given that their flagship model costs around £435 000 (yes around half a million) plus taxes. However, this year the British company brought along a slightly more affordable model in the shape of the Vox Palladian that costs £252 000. Hifi Pig spoke to Kevin Scott the creator of Vox loudspeakers and owner of Living Voice.

**Hifi Pig: The High End Munich show is clearly a mammoth logistical task for Living Voice. What's involved and what how long are you in planning the show?**

**Kevin Scott:** Our preparations for the Munich show take about 2 months, but this year we were bringing a new design so our preparations started in January. Whenever we do a show, it is our window to the world, and so we need to make sure that all bases are covered without exception. Every item in the system is chosen to ensure that it has the perfect balance of performance virtues. We therefore listen to every single item in the context of the whole before we create a packing list. A high performance system is a complex organism, from the plugs in the wall to the room treatments, to the power supply and the equipment table. Everything matters. We take about three metric tonnes of equipment in purpose built flights cases. After arriving in Munich an identical degree of care, patience and diligence is required whilst setting the system up for the show. The higher the performance capabilities of the system, the easier it is to get it wrong.

**Hifi Pig: You take your own power supplies to the show. Tell Hifi Pig readers about the power system and why you feel the power supply is so important.**

**Kevin Scott:** A HiFi system, in essence, is simply a modulated power supply. The power supply is the canvas on which the music is painted, and it needs to be as pure, as quiet and as calm as possible. The better the quality of the a/c feed, the less work the power supplies in

## Hifi Pig catches up with Living Voice's Kevin Scott who launched their £252 000 Vox Palladian Loudspeaker at High End



the audio system need to do. The a/c power supply from the national grid, despite its attractively low impedance, displays large diurnal variations in both voltage and frequency, plus it has a huge amount of electrical dirt on the earth. At an exhibition this is especially the case, and even more of a problem. We have therefore designed our own regulated a/c

supply to run our systems at exhibitions (as well as at our showrooms and in customers' houses). The Living Voice Pure Music power supply is fed from a reservoir of 12 800Ah gel batteries (750 kilos), which allows us to run our exhibition room for a full day off grid. The power supply converts this reservoir of d/c into stable, distortion free, unvary-

ing 50Hz /240v at a very low output impedance. This is a solid foundation on which to build a serious system and a major help in the pursuit of fundamentally important musical objectives; not only does the sound quality benefit across the board, but musical coherence is revealed allowing the listener to forget about the system completely. That's the goal - the willing suspension of disbelief - and the power supply is the start.

**Hifi Pig:** Every year when we walk into the Living Voice room it's packed but almost like walking into a place of worship. There's a hushed reverence. Why do you think your system elicits this response from visitors?

**Kevin Scott:** Possibly because we prefer to play music instead of sound effects. I like to use musical performances of merit and of known musical quality, rather than simply good or 'impressive' recordings. I like the music to be at the forefront of the visitors' experience. We may love the sound of Richard Burton's voice but we prefer it when he is reading 'Under Milk Wood' rather than reciting the telephone directory. One sign of a room working well at a show is the frequency with which visitors ask to photograph the album cover. Another is when the room is crammed to bursting but in complete silence - everyone sharing an otherworldly transcendent experience through music. At a public show this is a wonderful and bonding experience that is both addictive and contagious. People therefore come back to our room regularly for a refill of Zen - they need their fix.

**Hifi Pig:** Your Vox Olympian was introduced in 2010, what was the motivation to produce such a loudspeaker?

**Kevin Scott:** The Vox Olympian was introduced in 2010 for sure, when we first showed it at the Monaco Yacht Show. However, it's worth remembering that it is part of a long evolution dating back to the early 1990's, when we first started manufacturing horn loaded loudspeakers. The motivation at that time was the same as it is today - I thought there had to be something better than the prevailing loudspeaker technology of the time which did not meet my personal aspirations.

**Hifi Pig:** Why horns?

**Kevin Scott:** Horn loudspeakers offer many significant benefits - but at a price, that price being complexity and size. Horns are by nature limited band-width devices. To cover the same band-width



as a 30 litre two way, a horn design will need to be a 4 or 5 way. This brings with it challenges in achieving a seamlessly coherent and unified performance. Complex ensemble playing where time, tone, balance, accenting and proportioned dynamics are key to musical meaning, quickly exposes the shortcomings of most loudspeakers and particularly horn designs. The integration of the 4 or 5 elements needs to be invisible. And this takes a *long* time to achieve. It can only be achieved by a process of iterative development using such complex programme material to inform your design decisions. When fully resolved in every respect, a horn will offer scale and dynamic range with a freedom and ease of delivery that makes for a completely immersive, visceral, as well as emotional experience, that conventional speakers simply cannot achieve. It's physics, but it's physics married to art. It is worth remembering that the Vox Olympian, Vox Elysian and Vox Palladian are the culmination of 25 years of such development and refinement. They are evolved and completely resolved.

**Hifi Pig:** This year you introduced a new speaker system, The Palladian. Where does the concept come from? How long has it been in development?

**Kevin Scott:** The Vox Palladian has been in gestation for almost 2 years. It shares the Vox Olympians' DNA of course, but deviates from the Vox Olympian in myriad small ways. Most obviously it uses a ring radiator super tweeter that we commissioned the development of by Vitavox specifically for this project. Again this has been part of an iterative development process and it means that the Vox Palladian has a different crossover for the High Frequency system. Also clear to see is that the cabinet is constructed in a fundamentally dif-

ferent way. We have dispensed with 24 carat gold plating and clear lacquered bronze work, and replaced it with a rustic patinated bronze on the HF horn and other bronze details. The highly elaborate control panel on the back of the Vox Olympian has also been dispensed with and replaced with something far simpler in the lower skirt at the back. Overall, the Vox Palladian has a stripped down aesthetic which makes a virtue of its simplicity. We have had considerable demand, in particular from European customers, for such a stripped down aesthetic, and it is this that fundamentally spurred on the development of the Vox Palladian design.

**Hifi Pig:** What do you think sets Living Voice speakers apart from the competition?

**Kevin Scott:** Well, that's not for us to say.

**Hifi Pig:** What are the plans for the future? Any more Olympian/Palladian style systems?

**Kevin Scott:** You can never tell whether a new design is going to cooperate and go your way or not. Designing a loudspeaker is like walking an unruly dog, it tends to do what it wants to do. A speaker is ready when it is ready. I have learnt not to make promises about future products until we are ready to call the midwife.

**Hifi Pig:** Your speaker systems are big ticket items, what kind of person typically invests in your speakers?

**Kevin Scott:** All kinds of people from all walks of life. The Ven diagram for our customer base has many circles, and where they intersect - the bit in the middle - is called 'music lover'. And that's where we operate.

# JoSound Interview

JoSound are based in Jersey and make rather distinctive single driver loudspeakers and we've been lucky enough to review their Cartouche and Ra models over the last few years. Hifi Pig met up for a chat with Joe Jouhal from JoSound at the end of this years High End in Munich where he was demonstrating his latest Horus loudspeakers.

**Hifi Pig:** Your loudspeakers have an interesting and distinctive shape. Where does the shape come from and what inspired you to take such a different design approach.

**Joe Jouhal:** First let me take the opportunity, to thank Hifi Pig for taking the time to visit us, we do appreciate it immensely, as we can see how hard this show is on journalists physically. Rather you than me!

The answer to your question is simple, but I will add a bit of perspective:

Many people have described the styling of JoSound products as "Art Deco", which was a movement that flourished from the 1920's to the 1940's and was based on "visual styling". Thus the styling of "Art Deco" objects, visually pleasing as it may be, is contrived, in that the object did not need to look that way in-order to function. This is something that we do not do.

Our design philosophy is more akin to "Bauhaus", here, form always follows function. So an object looks that way because that is what is needed for it to fulfil its purpose. So, in a way, our "styling" is purely accidental. We may appear to have a house style, but that is simply as a result of using the same principles on all our designs.

Our products look the way that they do because they would sound different in any other shape. We are engineers not stylists.

**Hifi Pig:** A round front baffle is somewhat unusual, are there sonic benefits to this design feature?

**Joe Jouhal:** The flat round baffle has long been associated with poor sound distribution in room and very prone to beaming. As Dr Harry Olson's work in the early 1950's showed. However his

**Jersey based JoSound make a range of very different single driver loudspeakers, Hifi Pig chats with Joe Jouhal the company's owner**



work also showed the ideal shape is a sphere.

Our baffles are round, but not completely flat, also the radius of the filleting on the outer edge is critical in relation to the radius of the baffle and the gentle curvature of the baffle. These parameters are all calculated based on our proprietary mathematical model that we call the "pseudo-sphere". The aim is to get as close to the performance of a sphere without the associated physical bulk.

We do not 100% match the performance of a perfect sphere, as there is a distinct sweet-spot for listening, and in that seating position, the sound stage should be rock steady and almost holographic.

**Hifi Pig:** You have used single driver designs exclusively in all your loudspeaker designs. What do you think are the benefits of single driver speakers and do you think they have any associated problems that need overcoming in other areas of the overall loudspeaker design.

**Joe Jouhal:** I have an affliction. I can walk into a room, hear a pair of loudspeakers and tell you the cross-over frequency or frequencies to within 30 Hz, as witnessed by Wolf Von Langa when I popped into his room to hear his excellent A5000 field-coil driver in the Pure Audio Project open baffles.

Passive cross-over networks have serious phase issues at the cross-over points, the capacitors, resistors and inductors all sap dynamics, in my view. As these dynamics are the very soul of music, we strive to extract the maximum that we can. A good full-range driver, coupled with a well designed enclosure, with no cross-over in the way will give a very dynamic performance that is close to the point source ideal.

The downside, enclosure design is critical and you may have to sacrifice some low end performance. With poorer quality full-range drivers, you have issues at the low end, high end and sometimes even in the mid-range, the so called "shout". A very common fault is a rising

top end and this present on some very expensive single driver designs.

So if you want to use just one driver, you really have nowhere to hide. Your driver selection must be right and your enclosure design has to be bang on the money, if you want great sound.

**Hifi Pig: I note you're using a new brand of driver. Why the change?**

**Joe Jouhal:** As you know, from mid 2011 to 2014 we built our range, ostensibly, around drivers from our previous supplier, in 2013 and 2014 we invited them to share the JoSound room at various shows, including both the HighEnd shows over that period. We even collaborated on a joint design that was kindly reviewed and much liked by Hifi Pig.

At every show that we conducted, we allowed them to have the prime position in terms of optimal placement, as their product was more expensive, and should thus be afforded the best opportunity. Late in 2013, they launched a wooden coned driver with an Alnico motor, their best sounding driver, in my opinion. It worked very well in our jointly designed enclosure. Shortly after HighEnd 2014 I received an email formally ending our collaboration and notification that they will no longer supply us with any drivers.

So I started looking for a new supplier, and I am glad to say that we have found a driver manufacturer who matches our own values. Our new supplier is AER Loudspeakers of Stuttgart, which is headed by a real gentleman by the name of Filip Keller.

Filip's drivers, at every price point, are better sounding than the equivalent from my previous supplier. So I am actually very glad to have been cut loose from my previous collaboration, it set me free, through necessity, to design Horus.

**Hifi Pig: Could the construction of the Horus be described as a back loaded horn loudspeaker and if so can you explain to Hifi Pig readers a little more about how you came to its design. Is it folded, what length is the horn...etc. Have you used HornResp, another program, or is it mostly done by ear?**

**Joe Jouhal:** As they say "necessity is the mother of all invention" and after losing the ability to produce my top end product, I had a real need to fill this now gaping void in my range.

The horn on Ra, was not my design but that of my previous driver supplier. So I

wanted to design my own horn, but I wanted it to be compact, not a trait that bass horns are noted for.

I studied as a chemical engineer, with a penchant for fluid dynamics, and ended up spending 30 years in IT with a serious leaning to software development. Since 2010, I have been modelling my loudspeaker designs using my own software and the model has been refined based on actual measurement of the end product. Based on the measured parameters, the model, after much number crunching, now generates an ideal bass loading as a transmission line, bass reflex and horn (exponential and tractrix). In reviewing the results using the parameters for the AER MK11 driver, which they sell as a mid to high driver that should be crossed over no lower than 200 Hz, we ended up with a set of results which set me on the path to designing the loading regime for Horus.

I know that a lot of manufacturers make claims about their technology being "unique". In the case of Horus all that I will say is that I do not know of any other loudspeaker that has this loading regime, is it "unique"? I'll leave that for others to decide.

In essence, Horus is designed in a way that there is a confluence of three loading regimes in its dual ported bass loading. It is a curtailed downward firing exponential bi-horn, At the same time the averaged diameter of the ports produces the same loading result if calculated as a bass-reflex. Additionally, it equally behaves as a transmission line tuned to the free air resonance frequency of the driver. So what is it? It's all three.

Unfortunately, all bass horns and transmission lines suffer from resonances created by harmonics from the fundamental note. Luckily back in the 1950's John Karlson came up with a way of solving this issue. Sometimes referred to as the Karlson resonator. The profile that forms the support for Horus is in fact a modified Karlson resonator. As a result there is no damping material in Horus.

I am obviously not going to give out the precise geometry of the workings of the cabinet, but I have given any good DIYer, with the appropriate level of mathematical ability, enough information to be able to have a good stab at a copy.

When Filip Keller heard his MKII driver in the Horus at HighEnd 2014, for the first time, he looked around it and then asked me which woofer was I using inside the cabinet as none was visible out-

side and my response was "good, but unusual mathematics". His response "Wow, I never imagined this was even possible with this driver."

**Hifi Pig: With Horus you have said you can order the speakers with the "base" level driver and work up through the range with sonic improvements as you go. How does this work with speakers having different Thiele/Small parameters?**

**Joe Jouhal:** A common mistake that loudspeaker designers get fixated on is if the famous Thiele-Small (T/S) parameters. For a start they only apply at very small excursions. Our modelling is not based on these, but more aligned to the Klippel type approach.

If you want chapter and verse on the reality of T/S parameters visit EJ Jordan's website and find his article entitled "The Parameter Games". Ted Jordan is a great loudspeaker designer, and one of my personal influencers.

Quite simply we measure drivers in real life conditions and feed our own set of parameters into our own model, which through constant refinement generates a 95% match with actual measurement, in the case of the Horus MK.

We have modelled all the AER drivers in the Horus cabinet and they all work. This has been verified through actual measurement.

Do we rely on modelling and measurement alone? No, before launching any new product, we and our listening panel spend considerable time in verifying that the product does actually play music well. We have made minor changes to designs based on listening.

**Hifi Pig: You use bamboo as the main construction material in all your loudspeakers. Why is this?**

**Joe Jouhal:** There are three real reasons:

Firstly, when I founded JoSound, my children asked me to not chop down any trees or cause any harm to our environment, in-order to make my products, I agreed. This restricted me to recycled sheet material and bamboo, which is a grass. We chose a variety called "moso", which is the fastest growing species.

Secondly, acoustically bamboo is a superb material, it has been used to make musical instruments for thousands of years. We use laminated bamboo, where the style of lamination allows us to produce an acoustically inert cabinet, so all

you hear is the driver and the port output.

Finally, I hope you do agree, it does look beautiful.

**Hifi Pig: We've been in your room here a few times over the period of the show and the sound has become more dynamic over time. What changed?**

**Joe Jouhal:** That is a great question. OK, when we set-up on the Wednesday we had 2 changes from the previous year, we went up one level on the O2A loudspeaker cable and used the Ultime cables this year and also we were using the Transrotor ZET-1 turntable with an Audio-Technica Art-7 cartridge. For digital, we had some of the RM Remaster processed files to play with as well as the original CD rips. We were very happy with the sound.

So what changes did we make. On Thursday night we managed to pick up the new driver for the Horus B3 model (our current top of the line), this driver was specifically designed by Filip Keller of AER loudspeakers, for JoSound. DIYers can buy his BD 3B, on which this driver is loosely based, but not this special JoSound edition. When we tried it, despite having no burn in, it was already significantly better, faster, smoother more dynamic. So we left it in.

We then ran this system as is until Saturday afternoon.

Audio-Technica (AT) launched their fabulous new cartridge, the ART-1000. This is an old design, that some have tried to produce but never managed to do it justice. Finally, technology and production practices have improved such that AT have been able to produce it and I for one am glad that they did.

Having the ART-7 in our room meant that their staff were coming in our room to hear what it sounded like. Late on Saturday morning Clive Atkins and Koizumi-San, from AT, came and listened to the ART-7. We got talking and I mentioned that I would love to hear the ART-1000 on my system and maybe next year they might loan us one. Clive responded with "I'll see what I can do" and they left. A couple of hours later they both returned. Koizumi-San was cradling an ART-1000 in his hand very carefully, it was one of only 28 in existence right now and this was number 10 and destined to be owned by Clive. They asked if I would be willing to make a live change to the system and switch to the ART-1000. I broke my own rules and agreed, with the proviso that they

had to set it up. They obliged and we switched over to the ART-1000, again with no burn-in but wow, yet more speed, more attack and very smooth. So we continued with it until the end of the show.

So the answer to your question in a nutshell is what you heard was a driver and cartridge match made in heaven, both burning in together and getting better, faster, more dynamic and smoother with every minute of play time.

Normally at the end of the show we turn off the system at 18:00 if there is no visitor in the room, not this year, we were enjoying the sound so much that we let the music play and popped the cork and sipped prosecco whilst listening to great music.

Sadly, we had to return the cartridge, I have to get one!

**Hifi Pig: What components in your system do you consider to be key?**

**Joe Jouhal:** Putting a good system together, is about listening and changing on component at a time and evaluating each change. This is very much our way.

As a result, what you hear is a true sum of its parts and no one item can be singled out our set-up this year worked incredibly well together. Here is what it was composed of:

Transrotor ZET-1 (turntable)

Audio Technica AT-ART7 (cartridge)

Audio Technica AT-ART 1000 (cartridge) from late Saturday afternoon

Aurorasound VIDA (phono-stage)

Tranquil PC Media One (media player)

AMR CD 777 (CD transport)

AMR DP 777 (DAC)

The Bespoke Audio Company (passive preamplifier)

Arte Forma Due Volte (mono-block power amplifiers)

PS Audio P10 (mains regenerator)

JoSound Horus MK (loudspeakers) on Thursday only

JoSound Horus B3 (loudspeakers) Friday onwards

All cabling is with the O2A interconnects

We also hosted files that had undergone the RM Remaster treatment, it works.

Can I be a little cheeky and thank all the people who visited our room and all from Audio-Technica, Aurorasound, Tranquil PC, AMR, The Bespoke Audio Company, Arte Forma, PS Audio, O2A and RM Remaster, for making the components that all added up to a beautiful sound."

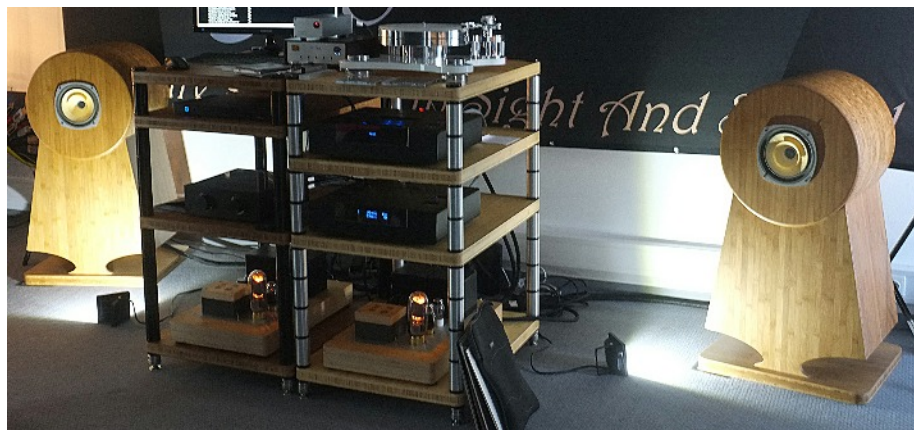
**Hifi Pig: What's next for JoSound? New models?**

**Joe Jouhal:** For some time, we have been considering producing a range that reflects a more modern appearance, by making a coloured lacquer finish. But high gloss lacquers all fail the eco credentials test that my children set me.

However, we have now found an eco friendly 100% recycled product that we will launch at next year's HighEnd. It will be called Gemini, it will be based on the Horus design, with a different look, as the material has different acoustic properties to bamboo.

Work is continuing on our own turntable, and as you know I already have a crazy sub-woofer, but next year we will have one with the speed to match Horus and Gemini and the extension to play the lowest organ notes (16 Hz) with real power.

Having recently hooked up with a gentleman of some repute in our industry who suggests that he has resolved the issues of phase alignment in a passive cross-over, you never know, we might even turn up with some smaller and cheaper models using multiple drivers.





# The 'Hifi Pig Loves You' Award High End Munich 2016

As you may have seen before, we like to give an award, to express our love for what Hifi Pig sees as our favourite room of the show. Now, this is not strictly for the 'Best Sound' at the show, though that is definitely a factor, we take other things into consideration. We pick rooms that sound great, have attentive (but not pushy) staff who are friendly and knowledgeable. The room has to look really nice and have a style about it...effort has to have gone into how it looks and feels to be in the room, as well as how it sounds.



**W**e really appreciate rooms that play a good variety of music, rather than just reaching for tried and tested "audiophile" classics. We also like to be sure that everyone, punter, press, whatever, gets treated well.

Choosing our favourite is sometimes easy, sometimes requires much 'discussion' between myself and Mr Hifi Pig. At a massive show like high End Munich, it is really difficult because of the sheer volume of excellent rooms staffed by very enthusiastic people.

On Sunday afternoon, Stuart and I sat down with a short-list. We do think that even whittling down the amazing sights and sounds into a short-list was tricky, so massive congratulations to all those who made it on there!

#### **Lampizator, EMME, Skogrand**

This room was actually a small booth on the ground floor. It had been set up exceptionally well and we were blown away by the sound, the beauty of the highly esoteric components and the general happy ambience of the room. I was particularly taken with Lorenzo Martinelli's GALILEO Diamond EMMESpeakers, in Pure Bronze Leaf finish, which were stunning.



#### **Trinnov with Vivid and Mola-Mola**

Up in the 'French Quarter' of the top floor was the Trinnov 'White Room' and oasis of calm on an otherwise hot and humid day, this room was done out simply yet effectively with the Trinnov, Mola-Mola and white Vivid Giya system playing superbly. A friendly welcome from Antonine and her team made it extra special. One of those rooms I could have stayed in for hours.



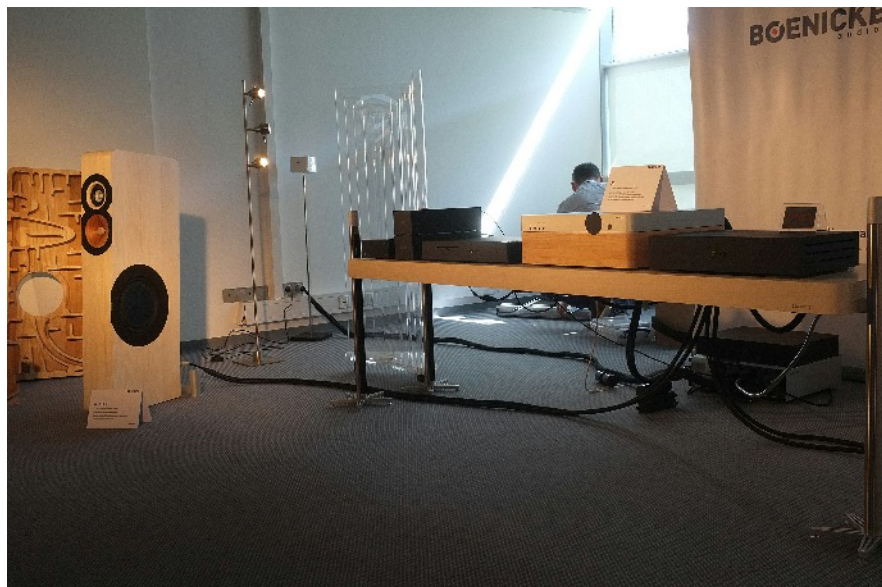
**We really  
appreciate  
rooms that play  
a good variety  
of music,  
rather than just  
reaching for  
tried and tested  
"audiophile"  
classics**



**A cool room  
with fun lights,  
great sounds, a  
larger than life  
and very genial  
host and totally  
bonkers  
hifi...what's not  
to love?**

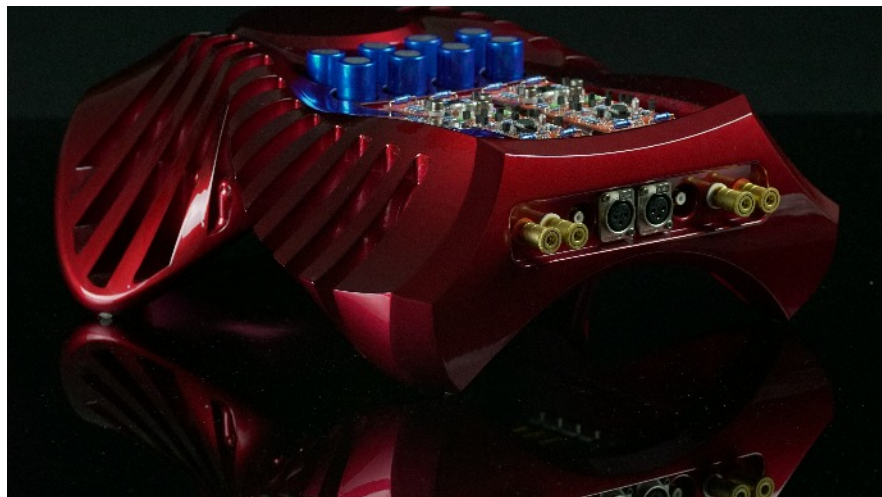
### **Boenicke and CAD**

Always an understated, no fuss room, these two brands have formed an excellent show partnership and I am consistently impressed with the sound which is exceptionally 'big' from what are really small speakers. Boenicke were also premiering their new E2 integrated amplifier and CAD were featuring their updated 1543 DAC. Very liveable-with for the home.



### **Metaxas**

Back in 2015 we reported on the development of some pretty interesting looking electronics from Kostas Metaxas. At this stage the the Solitaire, the Ikarus integrated amplifier and Opus preamplifier, were still just designs, so seeing and hearing them 'in the flesh' at High End Munich 2016, was a real treat. A cool room with fun lights, great sounds, a larger than life and very genial host and totally bonkers hifi...what's not to love.



### **Constellation Audio**

Really, really high end hifi often gets the reputation for being a bit staid and stuffy. People spend hundreds of thousands to create an epic system, and then listen to only classical music or weird plinky-plonky jazz on it. Constellation Audio were showcasing their new Reference Series Altair II preamplifier and Hercules II monoblocks in a system that included the mammoth Martin Logan Neolith loudspeakers. There was the inevitable classical playing when we went in, but when asked what we fancied listening to (something electronic with a bit of oomph) they whacked on some Deadmau5, we liked it a lot and loved their inclusive attitude.



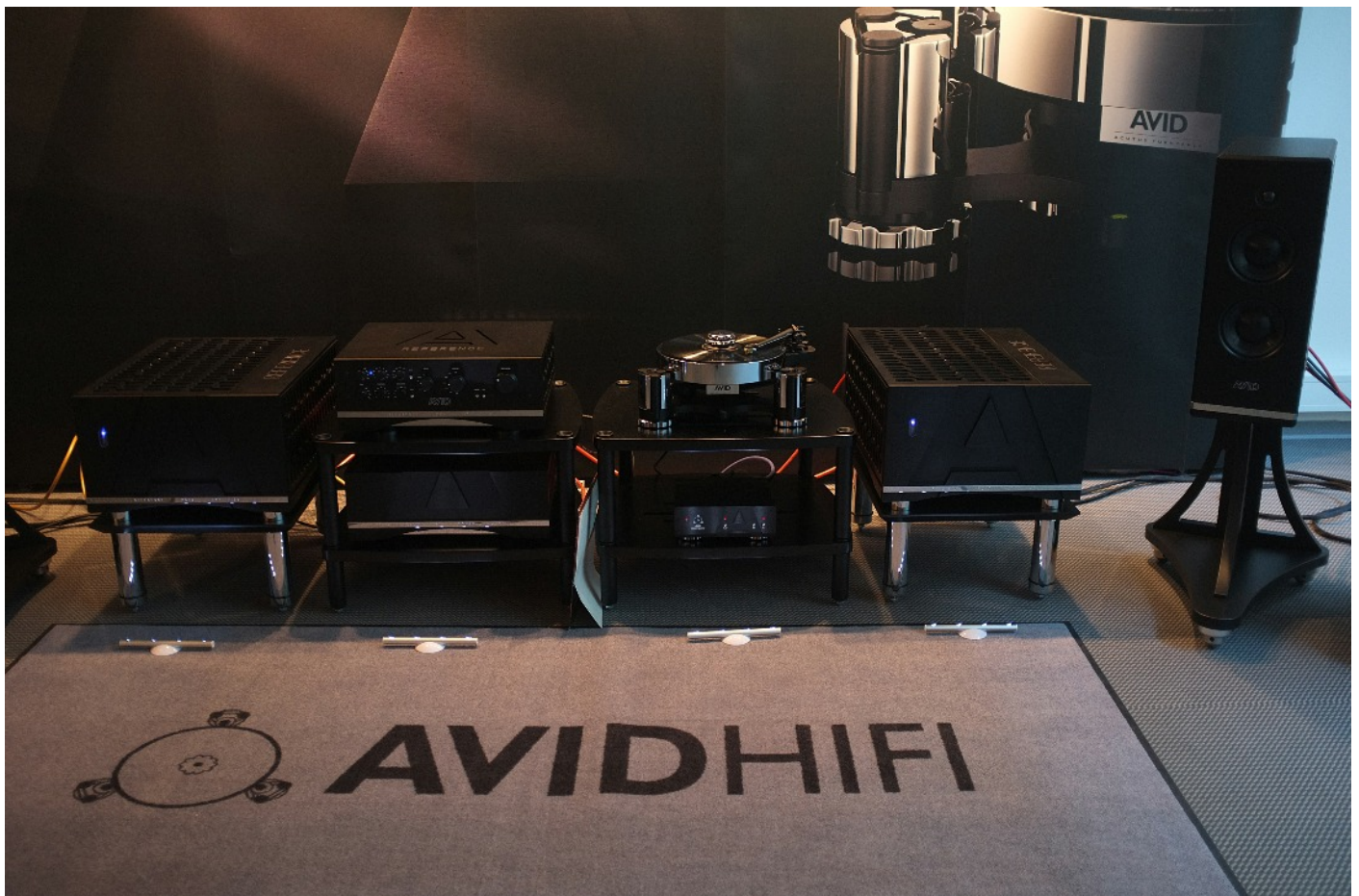
And the winner is...

**AVID Hifi**, who design and make their products near Cambridge, UK, have consistently impressed us at hifi shows over the years. Well known for their turntables, which they have been making for over 20 years, they added amplification to their range and this year launched their first loudspeakers.

AVID have created a high-end brand that produces a pure and beautiful sound. We love the purposeful, industrial look of their products that still remain elegant despite their size. This is not hifi for someone that is apologetic about loving their gear, it's for people that want to make a statement in the vein of American brands like McIntosh and Audio Research.

We were particularly impressed with the 'whole system' path that AVID have taken, just because a manufacturer can make one component of a system does not

**And the winner  
is...AVID Hifi**





**AVID have realised a full system with no weak links and this was evident from the sound at the show**

automatically mean they can successfully produce another. AVID have realised a full system with no weak links and this was evident from the sound at the show. AVID's room at the show was on Atrium 4, they had picked a good sized room and kept things simple with their stylish and distinctive branding. There was a warm welcome for everyone who came in to listen, with Conrad and his team always professional but approachable.

We think that AVID Hifi are well deserved winners of this year's High End Munich Hifi Pig Loves You Award.



#### **The System**

AVID Acutus SP turntable (12,000€) /SME V tonearm/ Benz Micro Glider cartridge, AVID Reference Pre Amplifier (60,000€), AVID Reference Mono Amplifiers (80,000€ pair), AVID Reference Three Loudspeakers (52,00€), AVID SCT Balanced interconnect cables, AVID ASC Speaker Cables, AVID ISORAK equipment supports and AVID Power Amplifier Stands.

A word from Conrad Mas, MD of AVID Hifi

Conrad Mas tells us a little more about how Avid arrived at their complete system, moving from turntables into electronics and loudspeaker development and manufacture, and their exciting plans for the future.

“It has always been our ambition to produce a full AVID system line. Years ago when we only produced turntables, people were amazed how good their electronics and speakers sounded when they introduced our turntable, especially the Acutus. Over the years we’ve seen the sonic quality of equipment eroded which lead us to introduce our Pulsare phonostage which bought back the feeling of a musical experience rather than just listening to hifi. Logically after the phonostage would come a full line of electronics and as always we start by developing the best and scale it down into an affordable range. With the launch of the Reference Pre and Mono amplifiers at last years show, the cascading has started with the début of our Reference Stereo Amplifier. We’ve already been manufacturing our own cables, equipment racks and accessories for some years, so the last piece of the chain was naturally loudspeakers. Whilst I’d agree we’re known as a turntable company, we’ve not been silent about our long term aims. Perhaps everyone’s been sleeping and looking elsewhere and not noticed us growing into a complete system provider. As our turntable power supplies are actually stereo integrated amplifiers with a fixed output two an electric motor with two coils, making ‘electronics’ is what we’ve already been doing. The phonostages were actually quite straight forward and we used much of the experience gain from developing the Acutus Reference Power Supply. The Pre and Mono amplifiers have really been a labour of love but with a clear goal of perfection to be later scaled down into a full product line ending in an integrated amplifier. With loudspeakers we followed the same philosophy as our turntables, making sure vibration is guided away from the areas that matter to reveal a clean natural sound, that again lets you experience music fully. AVID is not about to rest up any time soon. We have a product development road map extending well into the future. As I hinted our electronics will cascade down to an integrated amplifier and not forgetting our roots in analogue we intend to finally launch our own tonearm design and using our twenty years of knowledge in turntables, launch a super turntable.”

**Linette Smith**



**We have a  
product  
development  
road map  
extending well  
into the future**

# A Word From The Organisers

The show has evolved into an ideal, central and highly competent industry meeting place for audiophiles from all over the world



Once again, the HIGH END® made a splash as the world's largest trade fair for the audio industry.

518 exhibitors from 42 countries (+2%)  
19,489 attendees in total (-6%)  
7,053 trade visitors from 69 countries (+7%)

**More International Than Ever Before**

In the 35th year since its founding, the High End show has impressively underscored its significance as the world's leading trade fair. A remarkable 518 exhibitors from 42 countries (more than 60% of them international exhibitors) presented an extensive overview of the worldwide audio industry market from 5 to 8 May 2016 at MOC Munich. Nowhere else does the industry showcase its technology more extensively, or in higher quality, than

here in Munich at the High End trade fair.

Around 20,000 visitors enjoyed summery temperatures and brilliant sunshine on their way to the Bavarian capital to marvel at the latest developments related to high quality audio playback. This is commensurate to the high standards which characterised last year's trade fair. The Public Friday turned out to be the day with the most attendees by far, with several thousand music fans being drawn to the numerous trade fair stands.

Confusion was caused by a rumour that has been spread again and again since 2015, claiming that the High End will be changing venue, or that the MOC building is, apparently, to be torn down. During the press conference on the Thursday, managing director Mr Branko Glisovic issued another, official and unequivocal declaration stating that not only will the MOC building will be left untouched, but that the High End trade fair has also secured its place in the MOC for years to come and any rumours to this effect are clearly fabricated. They have obviously been fuelled by the purchase of a property in the immediate vicinity by a well-known Bayerische Motoren Werk company.

The leading international audio technology trade fair offered visitors plenty of inspiration across more than 28,000 square metres of exhibition space, with fascinating music-related experiences, trailblazing and trending topics, live demonstrations by audio industry experts, an attractive accompanying program, numerous musical acts and any number of innovations. Like no other event, it manages to unite industry, retailers, professional users and music-loving consumers. A modern trade fair venue, efficient organisation and Munich as an attractive location formed, as they never fail to do, an optimal framework for a perfect event of this type.

### **Branko Glisovic, managing director of High End Society:**

"The High End plays a decisive role for the audio industry. Making the advantages of high-quality music playback accessible to a broad public remains important. The High End has done an outstanding job in this process. Over the last few years in particular, the international presence at the trade fair has been increasing, which is good for the entire industry. I hope that this trend



continues and more and more people continue to realise that the cultural value of music can only be experienced by means of perfect audio reproduction with technically sophisticated products."

### **More Quality**

The entertainment electronics sector is booming and growing at a rapid pace. Every year, new and visionary products and technologies are launched on the market. The trend to more quality, and

an unmistakable tendency to higher quality products, are spurring on the industry impressively. The MOC was once again transformed into a paradise for all those who enjoy the pleasures of listening, becoming a place where the whole world of consumer electronics was on show. The range of products on offer was inexhaustible, regardless whether they were small systems for beginners, loudspeaker systems for filling a room with sound, or centrally controlled multiroom systems. There was something for every music fan as well. "The extensive market overview, spanning all product groups, directly its undivided attention on the audio industry, is unique within the international trade fair world," as Branko Glisovic, managing director of the High End trade fair, states. Digital all-round devices that are simple to operate will be trending over the next few years.

#### **Trade Visitors**

There's no doubt the High End show is the central industry meeting place. The show has evolved into an ideal, central and highly competent industry meeting place for audiophiles from all over the world. The trade fair set a special milestone with more than 7,000 trade visitors in attendance for the first time. Trade visitors from the retail and industrial sector – businesspersons, managers and employees of industry companies all attend the event to obtain information about current developments and technical innovations directly from

the source, and to have them showcased and demonstrated right there and then. This year, we recorded an increase in trade visitor numbers of 7% compared to last year. The high level of internationalism of these visitors is also noteworthy. The share of trade visitors from overseas totals around 64 per cent. After Germany, the European countries with the highest levels of attendance were Great Britain, Italy, Switzerland, the Netherlands, Austria and France. Overseas trade visitors largely came from the USA, Canada and China.

#### **Kurt Hecker, chairman of the High End Society e.V.**

"Once again this year, the High End impressively demonstrated its status as an internationally unparalleled, leading trade fair for the audio industry. The exhibitor presence and number of top names attending once again, as was the case in the last few years, reached the very highest level, which can also be attributed to what is always a perfectly organised trade fair. As an industry association, we are not only thrilled about a new record number of trade visitors in the 35-year history of the high End trade fair, but are also particularly delighted about the increasing internationalism on part of the exhibitors and visitors as well, with this being tangible in a very special way every day of the event. I am already looking to continuing the success story of our event with the High End 2017, which will be held in the same location in May next year".

#### **And More**

The private visitors primarily attended due to the experience-oriented nature of the show, and to get to know the industry's latest innovations. The High End trade fair creates a convivial atmosphere that invites attendees to stroll around and linger. Not only the extensive range of products, but also the substantial program of presentations and accompanying acts with numerous musical live performances all underscore this trade fair's aspirations. The trade fair, with its equally informative and entertaining products and presentations, easily did justice to this aspiration.

True to the motto "After the High End is before the High End", the course has already been set for the next Munich event and the dates have now been fixed: 18 to 21 May 2017 at the MOC in Munich.

**The course  
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# The High End In Pictures

**We at Hifi Pig know you enjoy  
reading about what's  
happened at the show, but  
equally we know you love the  
images and so here is this  
year's Munich High-End  
captured in a whole host of  
photographs**

---

By Stuart Smith

**T**he High End Show at Munich is an absolutely gargantuan task for anyone to undertake but it always ends up been worth the effort of trying to see absolutely ever room you can as you come across some real gems that you just weren't expecting...and of course some that you perhaps expected would be great anyway.

The vast majority of exhibitors go to an extraordinary amount of effort to make their rooms the very best they can be and all credit must go to them. As always though there are the rooms and stands that really leap out at you and remain in your memory for the whole of the show and a long time afterwards.

So, here are some of what I considered to be the real gems of this years show. They're in no particular order and are likely to be in the order we happened across them.

# Hifi Pig

## HIGH-END MUNICH 2016



This was one of the first rooms we found our way to as it was close to someone we had an early appointment with. I know Lampizator very well indeed as we use their Big 7 as our reference DAC and we have used Skogrand speaker cables too. I've heard the Emmespeakers at Munich in the past and the Kronos turntable too, but the rest was all new to me



Hifi Pig's coverage of High-End Munich 2016 is proudly sponsored by

**Tellurium Q®**

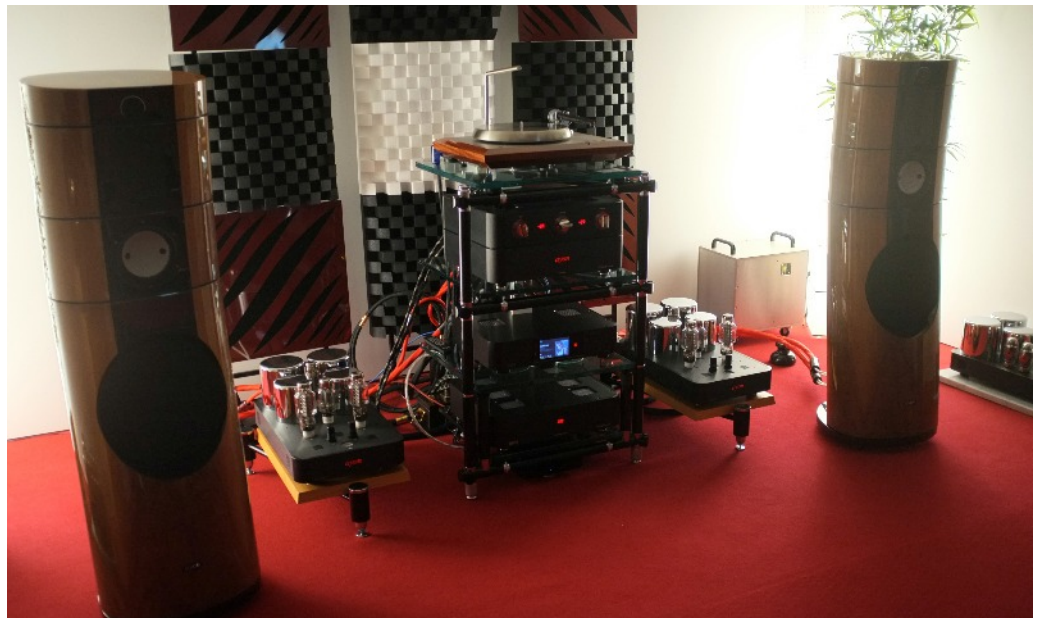
SoundKaos were last years winners of the “Hifi Pig Loves You Award” at Munich and this year they were making some very nice noises with their (launched at High-End) LIBÉRATION loudspeakers with South Korean company SOtM providing the electronics (sDP-100EX (dual battery powered DAC), sMS-100sq (network player), sPS-1000 (power supply) and sPA-1000).





The Bauta loudspeaker (left) is nothing if not impressive looking. It's a three way passive design with heavily braced sealed enclosures. It's made up of three parts consisting of the subwoofer at the bottom, the C-shaped part for the bass frequencies and the top satellite that handles mids and highs

It really doesn't take very long in a room before you either 'get it' or not. Ayons room was one of those that immediately grabbed our attention and demanded we sit a little longer to enjoy the tunes



The Fischer and Fischer loudspeakers shown (the SN1000.1) are new for the High End and are, like other speakers from the German brand made of natural slate. Mudr Akustik make the power distribution and power filtration whilst AVM take care of the electronics. Heavily high-end and undeniably cool

ELAC always do a great job at shows, whether it's showing off their really simple but effective active systems aimed at those wanting a hassle free and stylish home system, or, as they are today showing us their flagship Concerto speaker which celebrates the company's 90th anniversary.

Their turntable Miracord 90th Anniversary is a really beauty too. It's belt drive, good and heavy, comes with an arm and a cartridge and all for a very reasonable price. What's more they come in interesting colours including a rather fetching Hifi Pig Pink





The High End Show isn't just about uber high-end systems, DACs that cost more than a car and turntables that weigh more than a house, there's also a whole load of budget oriented kit which will touch on in a later article, but one of the brands that have a reputation for producing really stunning sounding loudspeakers at prices that won't make you wince are Q Acoustics.

Steve from the company took us to one side to talk to Hifi Pig about the soon to be launched Concept 500 loudspeaker...and it's a cracker. We've had the smaller models at Hifi Pig Towers in the past and have been impressed, but the new Concept 500 is aiming a little higher. The Chassis architecture uses a dual-layer Gelcore construction which is designed to provide damping and ensure minimal colouration. Visually the two way loudspeaker is rather beautiful in an understated kind of way and it will be available in white or black deep gloss finish which flows seamlessly into a lovely wooden finish round the sides and back. Prices and launch date are to be confirmed but our brief listen to the pre-production model suggests that it's going to offer a real value package, delivering both aesthetically and sonically. The room Q Acoustics were in had been treated with GIK Acoustics room treatment and we thought this helped a good deal with less than perfect surroundings the MOC allows

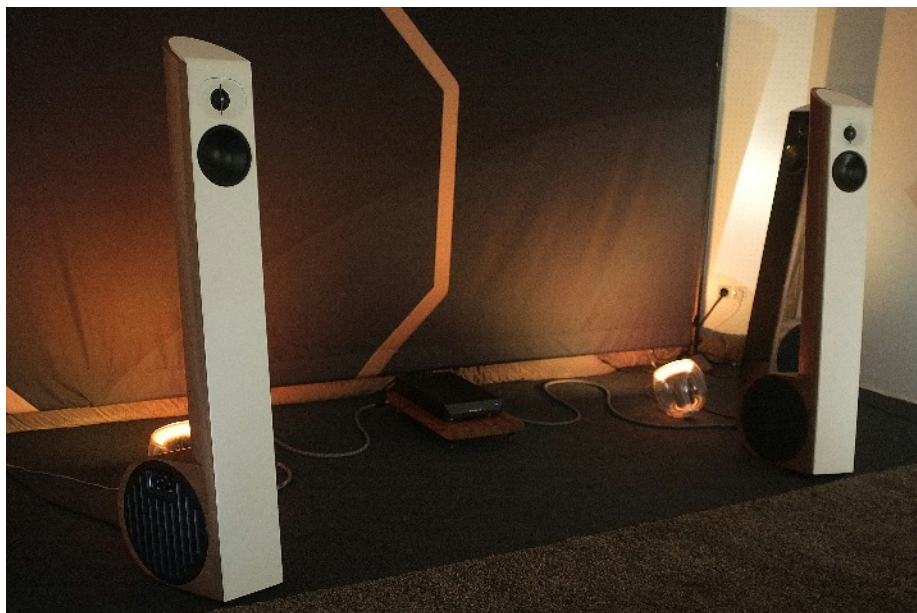


Advance Acoustics (right) is a company based in Paris but I must confess to this being a new company to me, though their logo does look oddly familiar.

The kit on display certainly looked the part with its huge oversized VU meters and the speakers appeared to be an interesting take on speaker design, but the tiny listening area was a bit cramped and the volume was so low as to make any kind of opinion all but impossible. I think this is one that, whilst interesting, needs to be a bit braver in the way they present their products to the public as it would have been great to hear what they could do



Aurum by Quadral are a German brand that seem to be able to produce loudspeakers and electronics that punch well above their weight when considering their price-point. At this years Munich Show they had the new Aurum Titan 9 on demonstration with their own electronics. The Titan 9 is the latest iteration of the Titan speaker and uses Quadral's own Atlima technology where the driver uses a composite of Aluminium, Titanium and Magnesium. Sounded great! The company also do a range of active speakers which, having heard several times, offer great value



Hifi Pig were invited along to a private demonstration of Aequo Audio's Ensis loudspeaker and we're really pleased we took a bit of time out of our packed schedule to do so. The Ensis is a very elegant and modestly sized loudspeaker that really does look rather beautiful in an understated kind of way.

It has a "time-coherent" tweeter with an acoustic lens which is fully in phase with the mid-bass and the powered subwoofer. The idea here is that they provide a realistic, 3D soundstage with a very wide sweetspot...and they do, we were really impressed by the soundstaging! Having the 500Watt active sub they are a nice and easy to drive loudspeaker. The subs, of course, can be individually tuned to give the best in room response possible.

The guys in the room asked us what we would like to hear and we requested a bit of techno which they duly provided but something was not quite right! The files they were playing were high quality MP3s and such was the resolution of the speakers it was immediately apparent. Putting on hi-res files the clarity and definition, even in the small booth, was fabulous and a real treat. If I remember correctly the speakers were around €20 000 a pair which is a pretty penny. However, for your money you get a very attractive package that is easy to position and sounds fantastic. Something of a high-end lifestyle statement with audiophile credentials I think and will appeal to those wealthy enough to appreciate the design and build but also not wanting the hassle of a half dozen boxes of electronics cluttering up their space.



There is no doubting that the Kawero loudspeakers look the absolute dog's dangle with their highly polished and beautifully veneered cabinets and, given they were partnered with what many consider to be the holy grail of audio, Kondo, I was somewhat excited about this room. However, despite the uber-price tag of the electronics and turntable in use I was left a little underwhelmed by the whole sonic experience. There was nothing inherently wrong at all, but nor was there anything that grabbed me and demanded my attention. Perhaps this is the point of truly great high-end audio though and maybe I missed the whole philosophy of this system. It was a pleasurable and agreeable aural experience without being exhilarating and electrifying



I love Wilson Benesch! They're from the same neck of the woods as from which I hail and they are continuing the long held traditions of that region by being innovative and using the latest material technologies available. Of course all this is for nought if the products themselves don't deliver the sonic goodies. I'm glad to say I've never had issue with them when I heard them...and I've even owned one of their Circle turntables.

However, I've heard folk moaning about the sound in their rooms at some of the UK shows, with people claiming the sound was harsh and cutting...but then others have said it's the best sound of the show. Just goes to show there's so much subjectivism in this game. So, what about at Munich? I can happily say that I reckon the Viva amps and Way Cables in use in this system, along with the Wilson Benesch gear, really did deliver the sonic goods...and in spades. Add to that the system looks about as cool as you could wish for and you've got a winning combination



# Hifi Pig

## HIGH-END MUNICH 2016



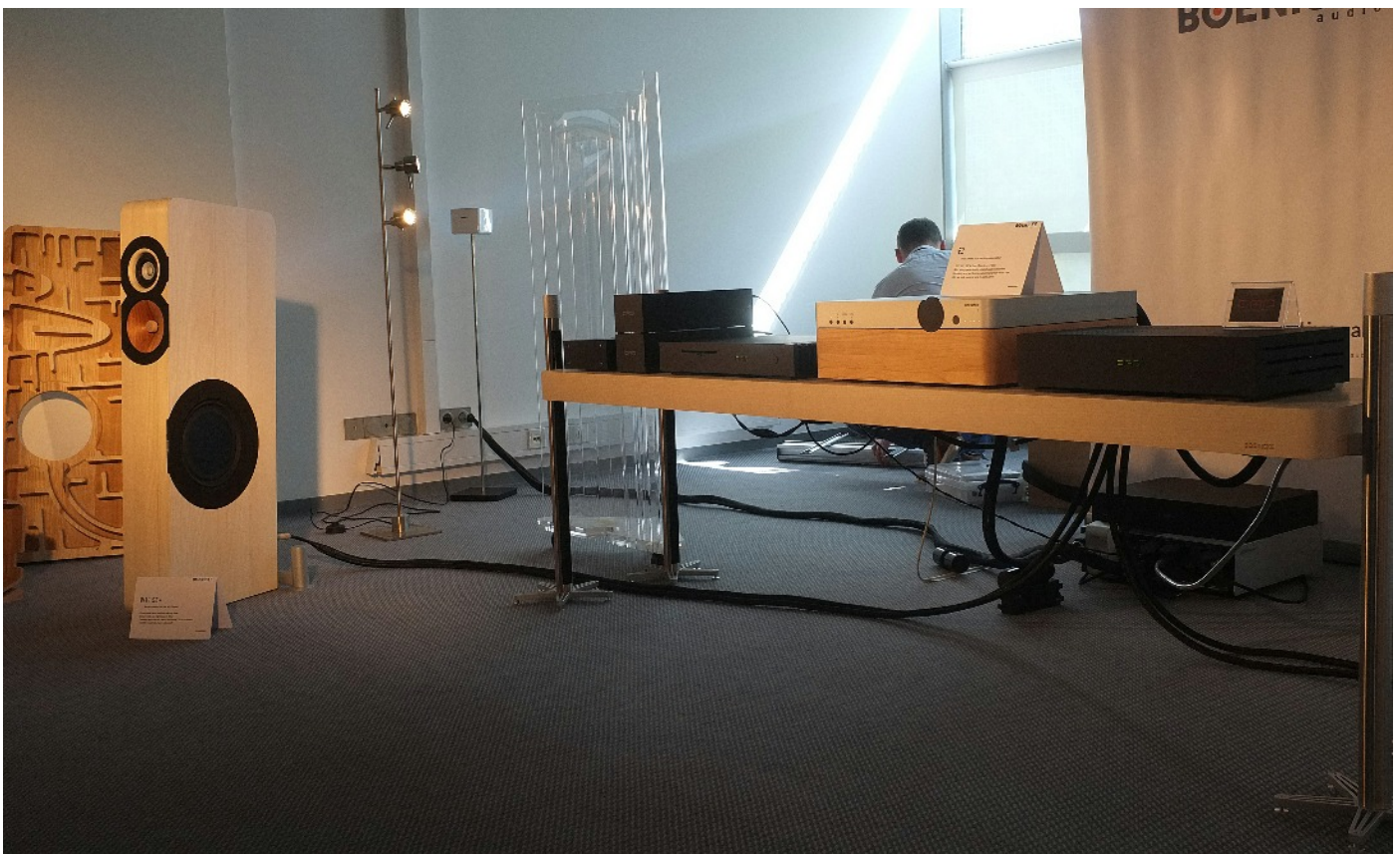
I'm a bit of a convert to Tune Audio. I didn't enjoy their small speakers a few years ago but have thoroughly enjoyed their Marvel speakers in the past as well as the speakers on demonstration at this year's High End, The Animas. They're bigguns and they're horny and today, with electronics by Trafomatic and Rockna they're really on song. One of the absolute highlights of the show for me with my only regret being I couldn't stay longer and enjoy.



If the Animas are bigguns as far as speakers go then the Trafomatic Elysium amps are downright gargantuan. I love the company's attitude in producing a cost no object, flagship product that you can't help but look at and go wow! The amps are monophonic, using Eimac 250TL output tubes and pop out their first 20Watts in Class A with the remaining extra 50 Watts being Class AB. They weigh 85KG apiece and look absolutely gorgeous, I'm sure you'll agree

I've heard the Computer Audio Design gear a good deal and it's never failed to impress. Scott that runs the company clearly knows a thing or two about how to get the very best from audio files on disks and his products are accessible and easy to use for the non-techy among us.

The sound in the room is relaxed and self-assured without being overblown and overly flashy and it's a rather pleasant listen



Silbatone are utterly nuts but in the very best way possible. They never fail to bring a smile to our faces at high End and always go well beyond the call of duty to bring something outstandingly mental to the proceedings...and this year was no exception.

As well as the vast array of Silbatone valve electronics they also bring along a classic horn system from the days of yesteryear. It's invariably massive and it's always pretty impressive





Keeping up the British end, Harbeth were making some lovely noises in their room with the fantastic sounding Monitor 40.2 loudspeakers taking centre stage. If you don't know this speaker it's inspired by the original BBC designs, as are all Harbeth loudspeakers, and is a 3 way ported box with a 300mm bass driver, 200mm mid and a 25mm ferro-cooled soft dome tweeter. It's a big bow and the specs say it will go from 35Hz to 20kHz and I don't doubt it!

Whilst Linette was having a chat with the lovely Eunice from Czech amp manufacturer KR Audio I thought I'd pop into the listening booth alongside the static display and I was very pleased I did because in there was a 440 Audio turntable, a KR Audio Kronzilla amp (look at those tubes folks!) playing through a pair of R Dacoustic Evolution horns. Ok, this set up isn't going to be to everybody's taste but I really enjoyed my short time in the room



Even if you don't know the company IAG you will certainly know the brands they have in their portfolio. Audiolab, Quad, Luxman, Wharfedale, Castle, Mission are all brands I remember fondly from my teenage years poring over the hifi rags of the day. Today's demo was an odd one with a pair of guys stood at the front playing tunes through a nice pile of Luxman kit and Quad speakers. Sounded very nice but I haven't a clue what they were on about! Perhaps learning a third language would be in order, though even the English rep in the room was a bit perplexed as to what was going on. Visitors seemed to enjoy it though!



I absolutely love the styling of Nagra gear and this year's set up looked and sounded pretty amazing through the Wilson loudspeakers. Sadly the room proved a real pig to photograph but you get an idea of what is going on. Very nice as you would expect



We were lucky enough to be invited recently to KJ West One where we were treated to a listen to the new ChordMusic cables with a front end consisting of a full dCS set up through the Naim Statement pre and amps and it was an impressive listen. Today the digital signals are feeding into D'Agastino amps which in turn fed a pair of Wilson Audio Alexia speakers. Rather pleasant!

The bigger of the two speakers in this room are the EgglestonWorks Savoy Signatures costing a whopping \$63 250 a pair, whilst the smaller are the company's Andra III. Preamplifiers are the Rogue Audio RP 5 and Ares phono tube preamplifier with the monoblocks you see being the \$15 000 Apollo Darks. Sources are the AnalogueWorks TT One (the turntable we use at home) with the Wave Mechanic Power supply, Nottingham Analogue Ace Space tonearm and the London SuperGold MM Cartridge with Decca Pod. There's also the TT One 12 using an SME m2-12R arm with the Audio Technica MC ART9 cartridge.



An absolutely stonking sound coming from the Element Fire standmmounters. Really, a sound that belies the relatively diminutive stature of these speakers. The speakers are multi-angles with no parallel lines and having a 7 inch hand assembled driver that is fully rear damped and has no passive or active cross over parts connected to it. Interesting design and a great sound.

One of the sounds of the show for me and proof that room correction in the digital domain is a great tool for audiophiles. Here the Trinnov Altitude preamp was connected Class D amps in the shape of the Mola Mola Kaluga, which in turn fed the stunning Vivid Audio Giya loudspeakers which made for a sound that was clean and pure...which was reflected in the coolness of the predominantly white room.





The speakers you see here are from Polish manufacturer hORNS and are called Universum. I'm a fan of the brand and have owned their Mummy loudspeakers in the past so I was pleased to see the room busy and people asking lots of questions. However, I think the brand deserve a bigger space to really get the best from these speakers for future shows.

These CREDO speakers are eye-wateringly expensive (around €400 000 if memory serves) but sounded awesome when playing Daft Punk's Contact. Hugely dynamic and exciting sound that got the hairs on my neck standing on end. Stayed in this room a good deal longer than I anticipated. Not pretty speakers by any stretch of the imagination. The speaker is the Cinema Reference with a quoted frequency range of 32Hz to 32kHz.

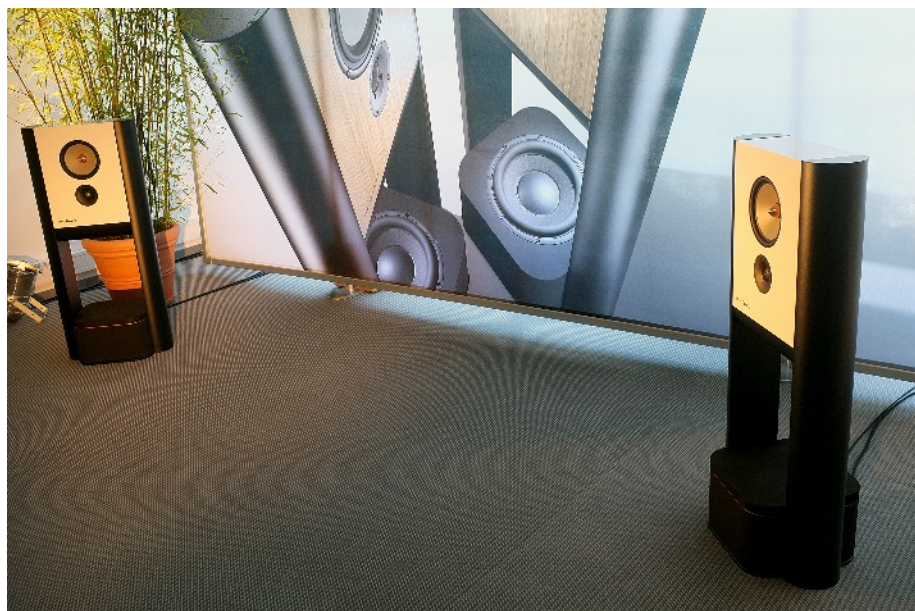


Meitner Emm Labs new DA2 DAC, Pre 2 and limited edition TX2 CD/SACD transport were feeding the signal into the company's MTRX2 mono amps which in turn fed Lansche Audio massive Cubus Mk II loudspeakers. Interesting speakers these as they have the company's Corona plasma tweeter and a midrange horn utilising a 2" compression driver. Bass is dealt with by the huge 18" woofer that deals with everything up to 400Hz. Speaker cables were from the Finnish company Graditech which is in itself very interesting as it is adjustable.



More interesting speakers and this time hailing from the Netherlands and called Daudio. The speakers in question are the company's W1 3-way dipole design which has a passive filter for the mid-high section and an active crossover between the bass and mid-high section. Your eyes aren't deceiving you there are really three loudspeakers in use in this set up. The speakers are €17500 a pair. Amps are Daudio asp/amps that have an active filter and give out 250 Watts a channel. The amps are specifically designed with the W1 speakers in mind.

Grimm speakers always intrigue me at shows as the amount of toe in the speakers are given sort of defies logic, but they always seem to sound really rather nice. For this year's munich show the Dutch company introduced its LS1be loudspeaker featuring a new Beryllium tweeter with a CNC milled aluminium waveguide that has been jointly developed by SEAS and Grimm themselves. The speakers also feature a new LS1s-dmf subwoofer.



# Hifi Pig

## HIGH-END MUNICH 2016

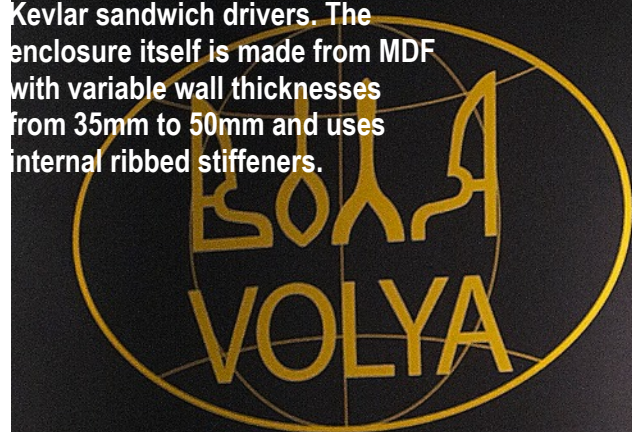


Let's face facts, Marantz isn't the first name that jumps to mind when considering high-end audio but this room sounded very nice indeed. On show in the room were the SA-10 SACD player and the PM-10 amplifier, both of which were making their world premier. Didn't get a chance to find out what the loudspeakers were sadly but look very interesting.

About as iconic a brand as you can get in audio McIntosh is pretty much unmistakable. Today we were treated to a whole load of the company's high-end gear including the MX122 AV processor, the MCD1100 SACD/CD player, the C1100 controller and their MT5 turntable. The humungous amps on the floor are the MC601 monos that are capable of pumping out 600 Watts each into 2, 4 or 8 Ohm speakers. In this case the speakers were once again from Wilson.



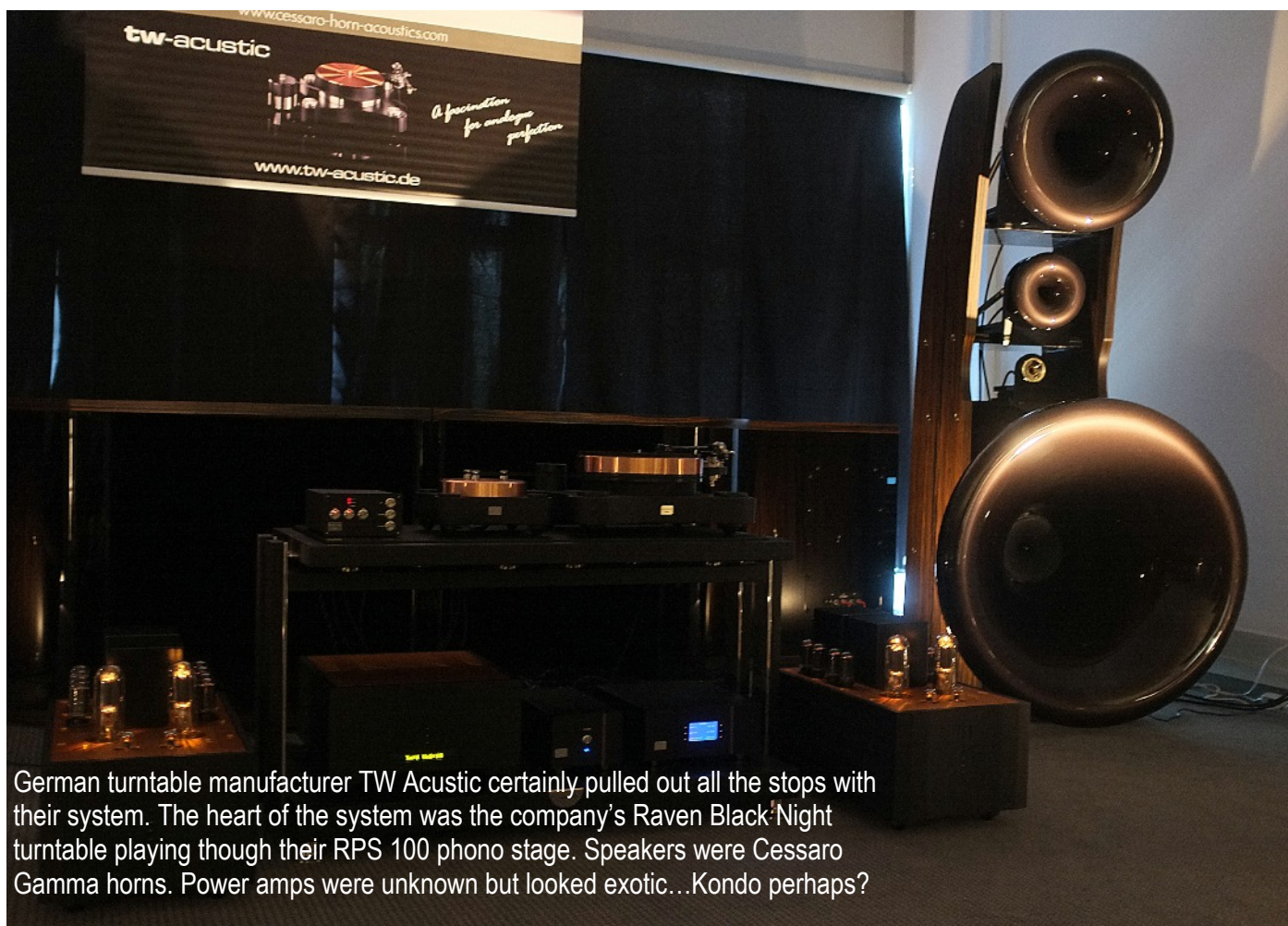
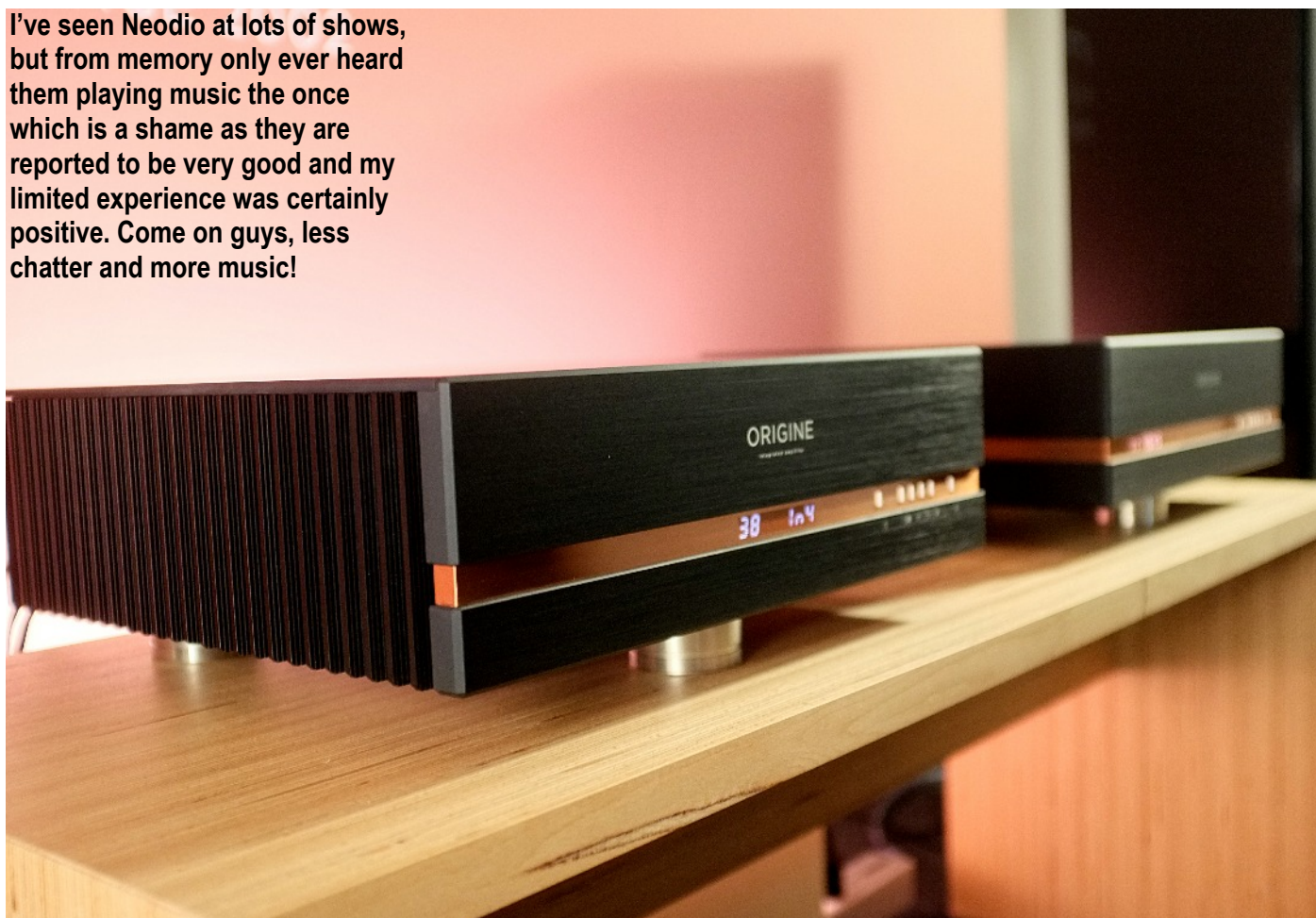
Now these really aren't going to be to everyone's taste but I really loved the Volya Audio's styling. The speaker cabs are hand-painted by Lyudmila Gorbulya who is a master of Petrikovsky painting which is unique to Ukraine. The speakers themselves are designed and assembled by Yevhen Kozhushko and feature (from top to bottom) an 8" ceramic driver, a 2" diamond driver, a 1" diamond driver and two 11" ceramic and Kevlar sandwich drivers. The enclosure itself is made from MDF with variable wall thicknesses from 35mm to 50mm and uses internal ribbed stiffeners.



SINCE 1772



I've seen Neodio at lots of shows, but from memory only ever heard them playing music the once which is a shame as they are reported to be very good and my limited experience was certainly positive. Come on guys, less chatter and more music!



German turntable manufacturer TW Acoustic certainly pulled out all the stops with their system. The heart of the system was the company's Raven Black Night turntable playing through their RPS 100 phono stage. Speakers were Cessaro Gamma horns. Power amps were unknown but looked exotic...Kondo perhaps?

# Hifi Pig

## HIGH-END MUNICH 2016



New name to me but the Audio Hungary kit looks incredibly well made. The company has two distinct lines with the first being aimed at the mid-end marketplace. This includes a compact, Class A stereo amp, a pair of monoblocks using C33C-V tubes, a phono stage and an MC stage. The second line looks equally stylish in their retro cases but are aimed at those looking for more power. There's also a valve pre in this line.



Interesting room this, with most of the gear being placed on trolleys that looked like they had come out of a Victorian mill. The turntable was a Pluto Audio 10A Reference whilst the speakers were Blumenhofer's Genuin FS1-2, a two way model featuring a 1,4" compression driver in a horn and a 16" paper woofer and is ported to the floor. Also in the room were cables by Cammino and a host of "harmonizing" devices.



I was really looking forward to hearing these after running a news item on the Bang and Olufsen Beolab 90s way back in October. The BeoLab 90 celebrates 90years of the company and will cost a whopping £54 000 if reports are correct. They have an eye-watering 8200 watts per speaker (supplied by 14 channels of ICEpower amps....plus another 4 Class D amps) and weigh in at a back-breaking 137 kilos each with the solid aluminium structure accounting for 65 kilos of this. However, on the day and in the room they were in I found the speakers a little lack lustre and definitely lacking in bass heft. They're also a lot smaller than you would imagine.





Indiana Line are an Italian loudspeaker brand that make no secret of the fact that their loudspeaker range is made in China. They have a huge range from floorstanders to bookshelf speakers with prices that are jaw-droppingly low. They also do a small range of electronics (Puro) which includes an integrated amp, a DAC stereo amp and a CD Player.

I thoroughly enjoyed the Constellation and Martin Logan at last year's high-end show and wanted to have the opportunity to spend a little more time in there this year. We walked into the room and did as we always do – find a place to listen inconspicuously. We were then spotted and invited to take a seat which was rather nice and to choose the music...which was even better. This system rocks! Dynamic and up front sound that is nimble and delicate when it needs to be.

Amps were the Hercules II monos with their Altair II line stage. Also on the rack were the Perseus phono preamplifier and the Cygnus Digital file player and DAC. The Martin Logan Neoliths are a big speaker in every sense of the word and played brilliantly to this system's strengths.





The TAD room at whatever show you go to is always absolutely rammed and Munich High End was no exception.



Audio Reference is a German distributor based in Hamburg and they always have the same huge corner room at High End Munich. Their room is a veritable Aladdin's cave of high-end treasure including: D'Agostino, Wadia, Krell, Audio Research, Meridian, EAT, Sonus Faber...

**Hifi Pig**  
**HIGH-END MUNICH 2016**

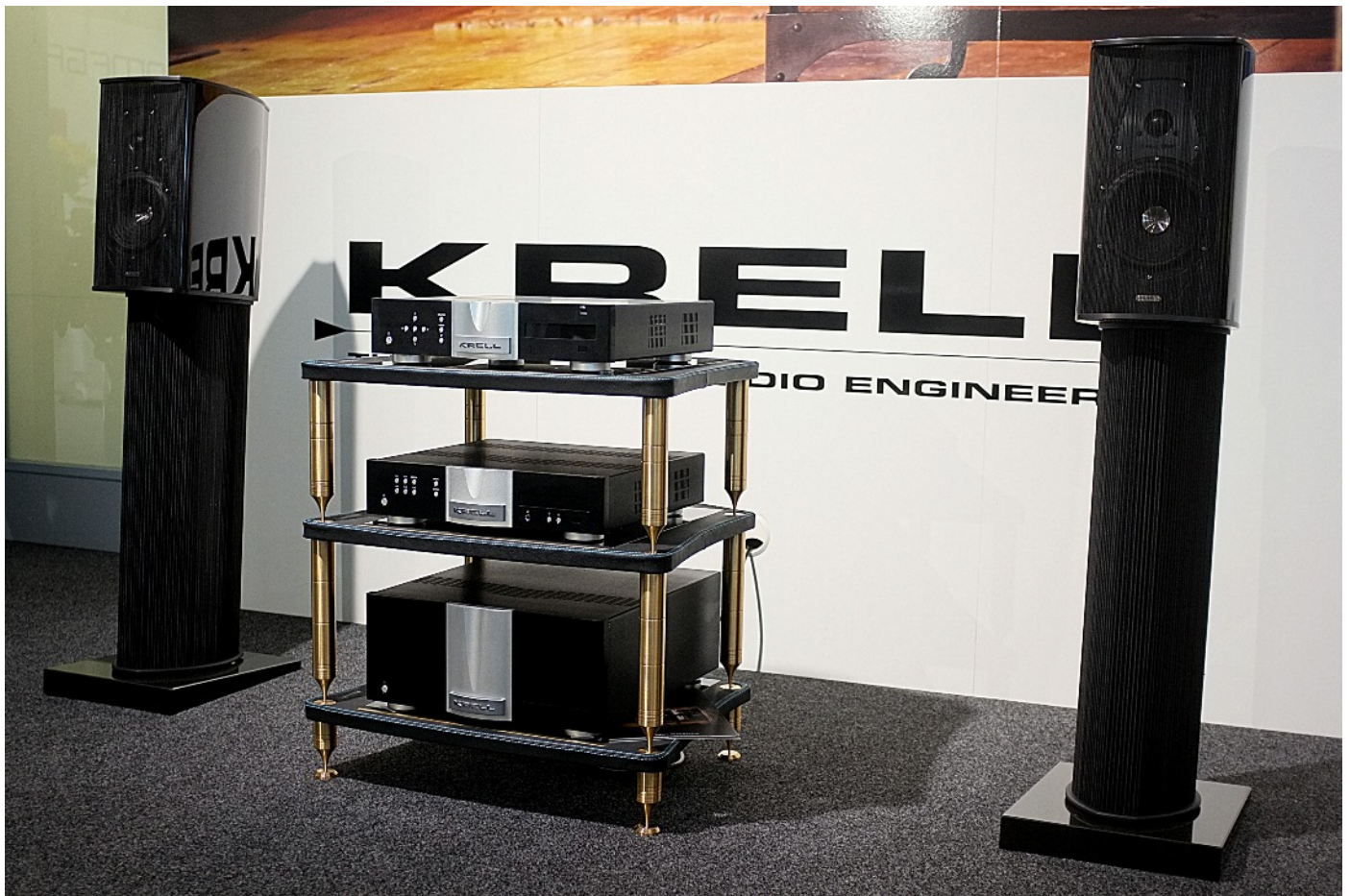


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# Hifi Pig

## HIGH-END MUNICH 2016



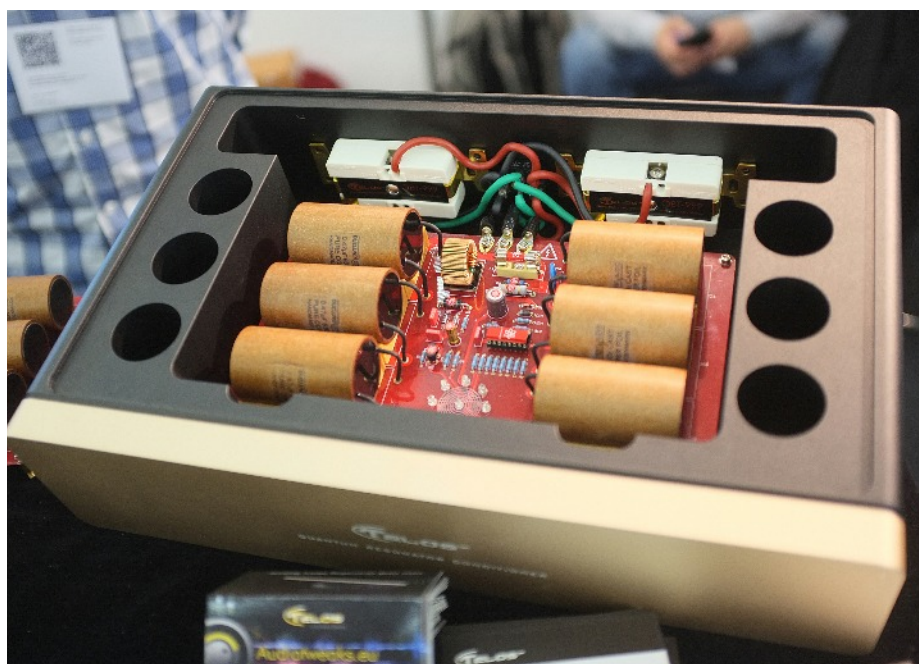
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Innuos are a relatively new company that make a series of Music servers.

The Zen play is for those who already have their music digitally stored and it will hold 5000 Cds or 1250 hi rez albums. You can connect to the likes of Sonos or other UPnP streamers or connect it directly to your DAC. You can link to your smartphone and it will connect to internet streaming services. There is a larger version called the Zen Play XL that increases storage capacity. The Innuos Zen Mini has a CD slot for automatic ripping of your CD collection and you can use it to store your existing digital files too. The Zen Mini will support files for 32bit/384 and DSD 256, gapless playback, bit perfect output via USB. The Zen and Zen XL are similar in function to the Mini but have larger capacity storage.

Innuos also launched their Zen Mk 2 at High End and partnered it with Welsh company Leema Acoustics' Libra and Hydra II. Hydra II is a bridgeable stereo amp that can be used in a whole number of "modes" for great flexibility. Libra is the company's top end DAC dealing with DSD up to 128, DXD and 384 kHz files via USB as well as having SPDIF (coax and optical) and AES/EBU inputs. Full balanced operation is offered too and it offers loads of other features too.



Formed in Taiwan in 2006 Telos Audio Design makes lots of products including fuses, stickers and lots of things with "quantum" in the title. This Quantum Resonator Conditioner caught our eye, though we have no idea of what it is supposed to do. It was quite pricey though!

Most of the speakers on Greek company Geometric Harmony's stand looked pretty outlandish and interesting but they do make more conventional looking loudspeakers. The most conventional of these two here are the T Line Towers which are a transmission line with a 6.5" mid-woofer and a 1/2 " soft dome tweeter. Claimed frequency response is 35Hz to 22kHz. The less conventional of the two is also from the company's T Line series of speakers and is called The Congas. It too is a transmission line designed to be floorstanding, go on a bookshelf or on the ceiling. It has a 5.5" full range driver.



Moon By Simaudio's room was nice and cool with an unhurried feel to it. The photograph is of the 340i Neo-class Integrated amplifier which has the flexibility of options that you can add when you buy it (nifty) such as a DAC or a MC/MM phono stage.

UK based Graham Audio make BBC licensed loudspeakers. Their display was particularly patriotic as you can see with their LS5/9 speaker adorned in the Union Jack.





Sadly we missed the press conference this year but we just had to go a long and have a look at the Naim and Focal room which was buzzing as it always is.

Naim Uniti All In One player which sits in the centre of the Uniti range is a streamer, amp, headphone amp and ripper all in one nice looking unit.

The Focal Sopra was introduced last year and sounded great at the press conference and still looks absolutely beautiful in its Sopra 3 guise.

The Utopias are the pinnacle of what Focal do and no coverage of their room would be complete without just one sneaky picture of the gargantuan beast.



Another room that is invariably rammed at whatever show they are at is Audioquest. Stars of this years show for the company was the Dragonfly Red and Dragonfly Black USB DACs that will work with Apple and Android™ phones!



Absolare were showing off their new integrated amp that uses a tube in put stage matched with a solid state output and with the Rockport Technologies Altair loudspeakers and the Kronos Pro turntable it made for an absolutely stunning sound.



Ear Yoshino Tim De Paravicini was a great sounding room. The reel to reel looks like a Denon DH-710F but we suspect it had been heavily modified by Tim De Paravicini. The speakers are Rockport Technologies Atria and the turntable is the EAR Disc Master. The preamp is the EAR 912 which uses five PCC88 valves with two being for the line level stage and three for the phonostage. It uses six output transformers and allows connection of four line, two balanced and two phono inputs and two line and two balanced outputs. Amps in use appear to be EAR 509s.

When you think of Van den Hul your mind would naturally turn to cables. However, the company also do a nice range of electronics including The Excalibur mono power amplifiers you see here and which were making their debut. They are feeding a pair of Diapason Dynamis loudspeakers from Italy. A clever twist on a common theme in this room was the "We demonstrate with van den Hul electronics" cards in the room.



Questyle make high end digital audio players including the Questyle QP1r that Hifi Pig recently reviewed and very much enjoyed. They also make the CMA600i standalone DAC and headphone amplifier.

ASTIntrew is a name that will be familiar to many and at this year's High End they introduced their AT2-2100 integrated amplifier.



Heco have been making loudspeakers in Germany since 1949 and their brand is causing a bit of a stir in the UK at the moment.

The speaker here is the Heco Direkt, a two way bass reflex design using a 275mm bass/mid driver and 30mm tweeter but sadly this wasn't playing on the day. What was playing was a bigger three way version but the name is unknown.

Nice sounding room.



## Hifi Pig HIGH-END MUNICH 2016

DiDiT come from the Netherlands and make an innovative DAC about which Hifi Pig's Dan Worth had the following to say "I really enjoyed this one. So much that I've bought two, this one and the soon to be released balanced XLR version which will also support HDMI over I2s which is my primary digital connection."



Triangle and Musical Fidelity share a room with Thorens who we covered earlier. Sadly their room doesn't play music but it is always very full of punters eager to get a close up look of new gear from this Anglo/Franco alliance.



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# Hifi Pig

## HIGH-END MUNICH 2016

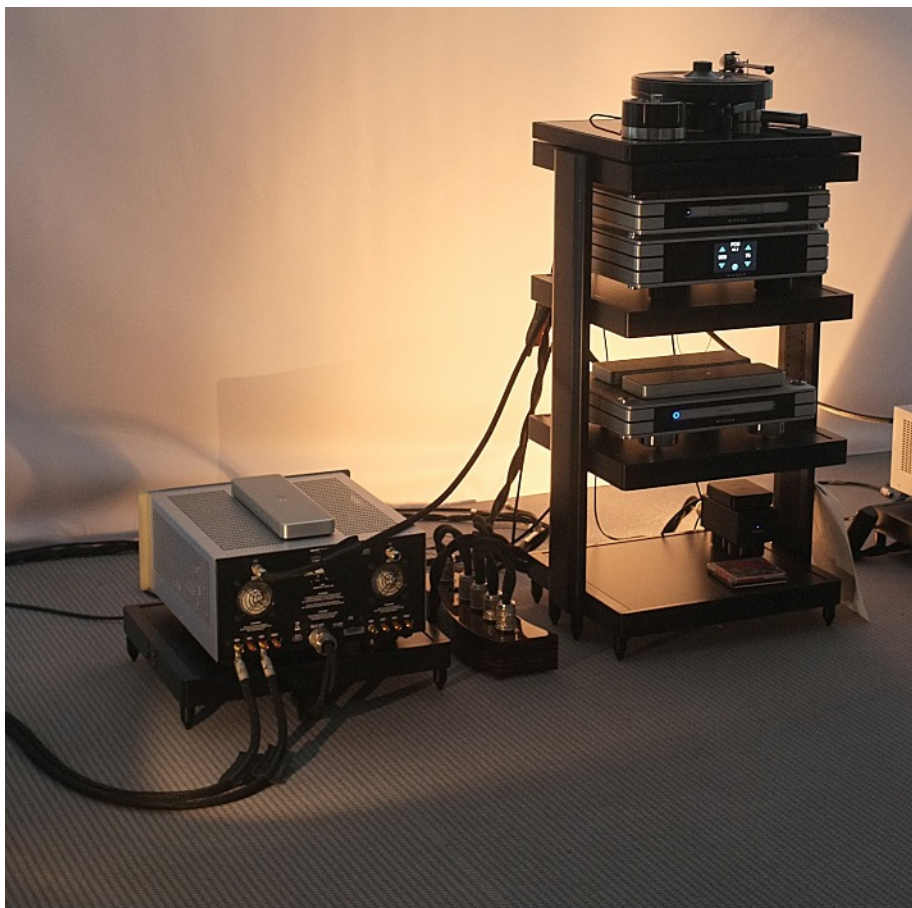


Italian Portento Audio makes a whole host of cables and now a range of mains filters. They also make a damned fine cup of coffee.

Auris are Serbian and make some absolutely beautiful looking kit. Their room was one of the bigger ones admittedly and sounded rather pleasant.



Atlas cables are made in Scotland and they offer a wide range from the relatively inexpensive to more pricey offerings. We've been using their mains cables on some of our kit for quite a while now and bought one of their mains blocks at the Munich show. Thanks for the nibbles and beer guys, much appreciated after a long hard day at the show!



From Wadax we have the PRE One Ultimate Trio is a remote controlled preamplifier of. Utilising the WADAX MusIC™ process, it operates entirely in the digital domain. The Pre1 Ultimate is composed of more than 3500 parts, more than double of the Pre1 Mk2, many are proprietary.

The PRE One Ultimate PHONO stage provides standard and custom mapped RIAA equalization curves for MM and MC phono cartridges.

Also pictured on the rack is the Wadax Hermes streamer. Hermes can playback files from 32KHz to 192KHz, 16 to 32 bits and DSD / DSD2X

Fono Acoustica are based in Spain and make some absolutely exquisite looking cables.

US based Critical Mass Systems make rather pleasant looking racks and the like whilst Swiss brand Soulutions create electronics. Soulutions had their new 330 Integrated amplifier on show as well as their new 511 stereo amplifier.



Nordost had an interesting room and a pretty high-end set up to demonstrate their cables and other doodads. We didn't get much chance to listen as the salesman was mid flow but the sound was good none-the-less.

Audio Exclusiv are German and make a whole host of gear from amps to electrostatic loudspeakers and CD players. Lautsprecher Und Mehr make the interesting looking spherical speakers. We first came across them at last year's high-end show and really enjoyed them.

The very cool looking valve amps you can see in the photographs are from Swiss company Eternity. The 300B amp looks rather pleasant.





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Not everything at Munich High End is necessarily in the rarefied world of ultra pricey gear and this is a good thing if we are to entice the general public to demand more from their audio playback. Many will know the name TEAC and here they showed off a little all in one system and their USB turntable.

Monrio may be a new name to many but this Italian company has been around for a good while, I've even owned one of their preamplifiers in the past...and very good it was too. Here we have their Asty Digital, an integrated amplifier with 7 total inputs, 6 analogue and 1 digital. It also has a USB input for your computer. The Asty Digital most important feature is the onboard Crystal DAC - 24-bit/192 kHz.

Below that is the MC 206 amplifier and also pictured is the Top Loader Type 3 CD Player combines digital and a fully differential circuit topology with dual-triode vacuum gain and solid state regulation. It too sports the Crytsal DAC stage.





Supranus is Italian and they hand-make these really rather gorgeous and funky loudspeakers. We have no idea how they sound but they certainly pack a visual punch. Of course it won't appeal to everyone but it's good to see people daring to push boundaries a little in the visual aspect of audio design.



# THE ELEPHANT IN THE ROOM... IS THE ROOM.



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Lyravox understand that not everyone who want to have great quality audio reproduction necessarily wants a room full of electronics and loudspeakers. Their elegant solutions are pretty pricey but look exceptionally well made.

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Austrian Horn Manufaktur say they make speakers out of a love for music and that reproduction of emotions is their main aim. Here we can see the company's Allegro which is 97dB sensitive with company owner Gerald Hüpfel who has been making loudspeakers since he was thirteen. Would love to have a proper listen to these loudspeakers at some



I love the Vivid Audio's Oval line as shown in the photograph, they never fail to look a bit surprised. Sound great though and a number of rooms were using their Giya series of speakers to very good effect.

# Hifi Pig

## HIGH-END MUNICH 2016



Of course you'll be needing to put your audio equipment on some kind of rack and this modular rack from Blue Horizon certainly caught our eye.

We tested the Diesis Aura loudspeakers at the start of 2015 and quite liked them. They have now added a streamer using their own software and an amplifier to their range. This company really ought to have had a room of some sort so visitors could take a good listen.



Pylon Audio are from Poland and offer a whole host of loudspeakers. What caught our eye was the obviously deliberate ploy of producing one of their loudspeakers in Hifi Pig Pink...we approve!



Hifi Pig first came across Italian company Nime Audio Design a couple or so years ago at High End Munich where they debuted their very interesting looking loudspeakers, the Elite. There are now two versions of Elite and a subwoofer in the range.

French brand Fonel really do make exceptionally good looking gear. Pictured is their Simplicité CD player.



**TAGA Harmony is a Polish company with their own factory in China enabling them to make products that represent astounding value for money. The TAGA Harmony founders defined the main criteria for sound performance of their loudspeakers, which is: to be accurate, with perfect localization, spacious soundstage and wide dispersion as well as a deep, powerful bass and impressive dynamic**



Final make some very nice sounding headphones and they always look a treat. The in ear model shown is a new prototype that is 3D printed.



Not a great deal of information on Serpentium Acoustics available but the speakers are named Quanna, come in a wide range of exotic woods, cost from €16000 to €22000.



Input Audio's room had a distinctly British feel to it with them using the new Creek Evolution 100 CD Player/DAC and Evolution 100A amplifier along with Harbeth Loudspeakers. The excellent Wand tonearm from New Zealand was also in evidence.

# Hifi Pig

## HIGH-END MUNICH 2016



Hifi Racks certainly do get around and they've been present at pretty much every show Hifi Pig has covered recently. Julie and Bradley always put on a great stand to show off their hand-made, solid wood Hifi, AV and now media racks. Expect to see them in evidence at Hifi Pig Towers in the near future.

Gruensch are from Germany and make some truly lovely looking kit.



La Boite Concept make a range of loudspeakers that also double as furniture. Certainly very cool looking and practical too.



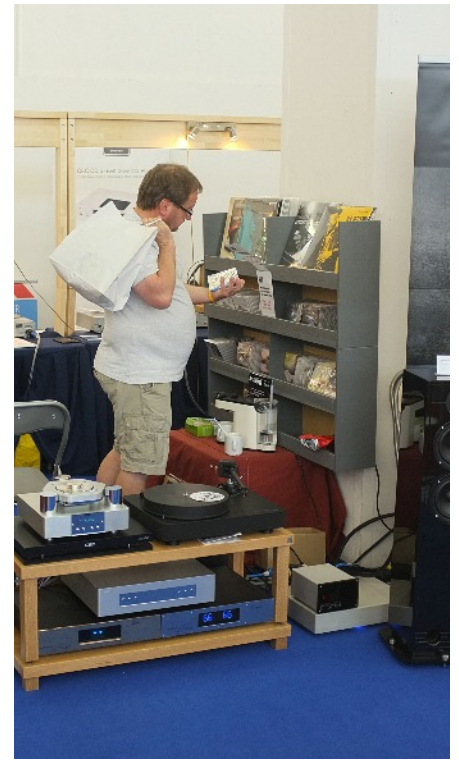
The Stromtank is a high-power battery pack with integrated pure-sine wave converter power supply. It totally disconnects your audio system from the grid. With the Stromtank you can enjoy up to 8 hours listening to music before it connects uninterrupted and automatically with the grid to recharge. During the recharging process you can listen without any interruptions.



# Hifi Pig

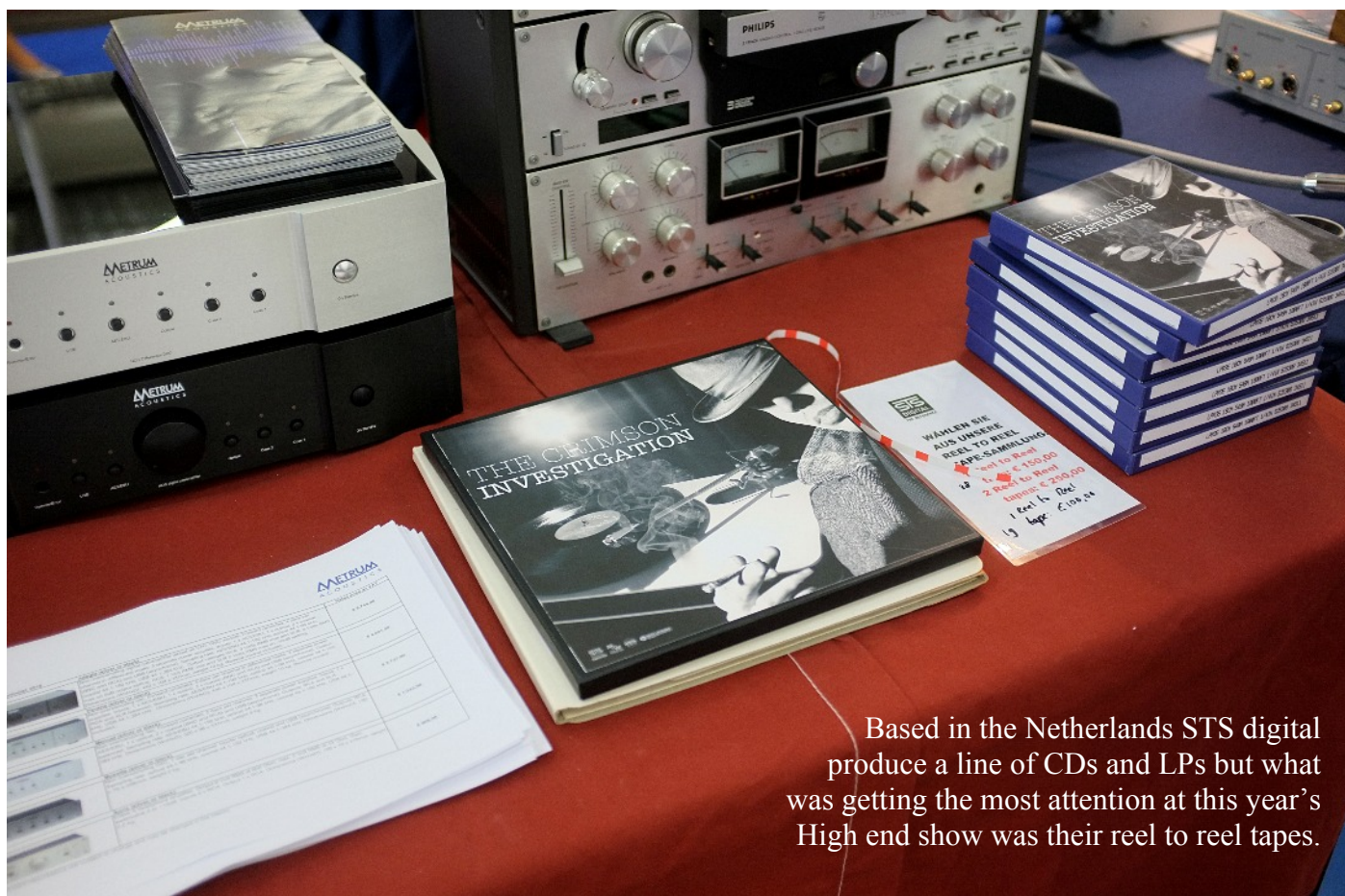
## HIGH-END MUNICH 2016

Merrill Audio make what I consider to be one of the best amps I've ever heard, the Veritas, and we use their Thor amplifiers here at Hifi Pig as our reference. Russell Kauffman (pictured) makes a small range of speakers (Russell K) in the UK that have been well received. Good to see these two brands together at High End.



# Hifi Pig

## HIGH-END MUNICH 2016



Based in the Netherlands STS digital produce a line of CDs and LPs but what was getting the most attention at this year's High end show was their reel to reel tapes.



Room treatment is an often overlooked part of an audiophiles set up but GIK prove that effective room treatment doesn't need to be expensive or overly intrusive. From their Tri Trap bass traps to acoustic panels you can have your own images printed on GIK has a product for most situations to allow you to get the best from your system. How do we know? We use their products extensively in our listening room here at Hifi Pig Towers.

The Bespoke Audio Company make just one product, a preamplifier. As their name suggests it is a high-end product that buyers can specify very particular details for. This year they brought a bubble car along to Munich by way of drawing attention to their brand and it managed to do that very effectively indeed.

— THE —  
**BESPOKE AUDIO CO**



Headed up by larger than life character Max Townshend, Townshend Audio have been in business since 1975. Many will know them for their Rock series turntables but they are making a great name for themselves with some really rather excellent supports aimed at decoupling your electronics and loudspeakers from external vibrations. They also make a lovely preamplifier and super tweeters too.





Unity Audio are UK based and make equipment for recording studios. At High End they had their Avalanche Sub with Boulder three way active monitors atop. The Boulders are fitted with two 220mm SEAS custom Aluminium woofers that provide bass down to 32Hz and beyond. The unique ELAC coaxial 5" mid-range & 50 kHz tweeter drive unit works as a point source over 7 octaves and delivers linear amplitude and phase independent of frequency.

The room was professionally treated with GIK Acoustics products and sounded really rather good. As we walked out the room someone asked disparagingly about what we thought of the room, adding that it certainly wasn't hifi. My response was that the sound was accurate and dry and whilst not everyone is going to appreciate this kind of presentation it was clear that the sound was nothing if not accurate and true to the source material.





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Hi-Fi Choice

**"This DAC is the most transparent, natural, and well timed I have heard"**

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**"I was shocked. Shocked at just how good the CAD 1543 DAC is. In terms of digital sound it is a true game changer"**

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**"The CAD paring can really drop the jaw with the sheer in the room presence it delivers"**

HiFi News

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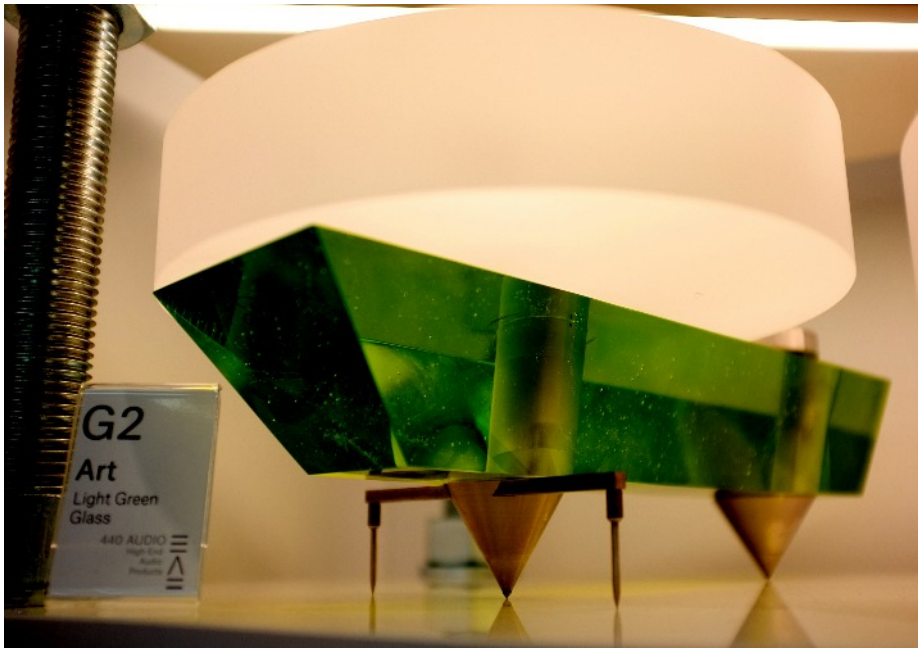
# You Spin Me Right Round Like A Record, --- Baby

By Stuart Smith

The continued success of the vinyl format shows no signs of slowing and, judging by the number of turntables on show at this year's High End, there's plenty of choice for vinyl lovers when it comes to getting into the grooves.

There were turntables pretty much at every turn at the show with everything from the highly exotic to the more affordable and sober.

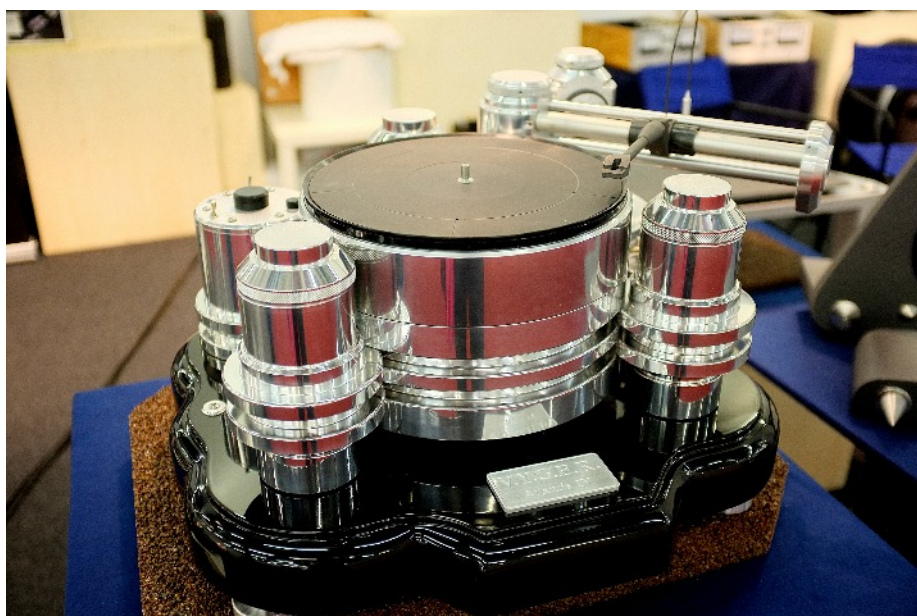
The following pages contain images that may cause vinylophiles to go weak at the knees and so you enter at your own peril.



440 Audio are based in the Czech Republic and make turntables that look absolutely exquisite with their wooden, glass and marble plinths. They also had the coolest hifi rack ever on which they were displaying their wares.



We had to do a double take at this one. From Edwards Audio! First we spot that the Apprentice turntable Mk 2 is just £379.95 in the UK with arm and cartridge, but then we spotted that the Apprentice light also comes with a tonearm and cartridge for just £299.95. This is real entry level, quality gear that is going to get younger people hooked on vinyl as well as offering those folk with a record collection but who use another source the ability to join in the vinyl renaissance without having to splash a fortune.



Amazing looking vinyl spinning contraption from Vyger.

British company Funk Firm have been around for ages and make some cool looking turntables that won't break the bank. The Funk Vector 5 was launched in 2005 and uses three pulley drives so instead of the belt pulling the bearing towards the motor as in conventional belt drives, the force is balanced around the bearing in all directions.

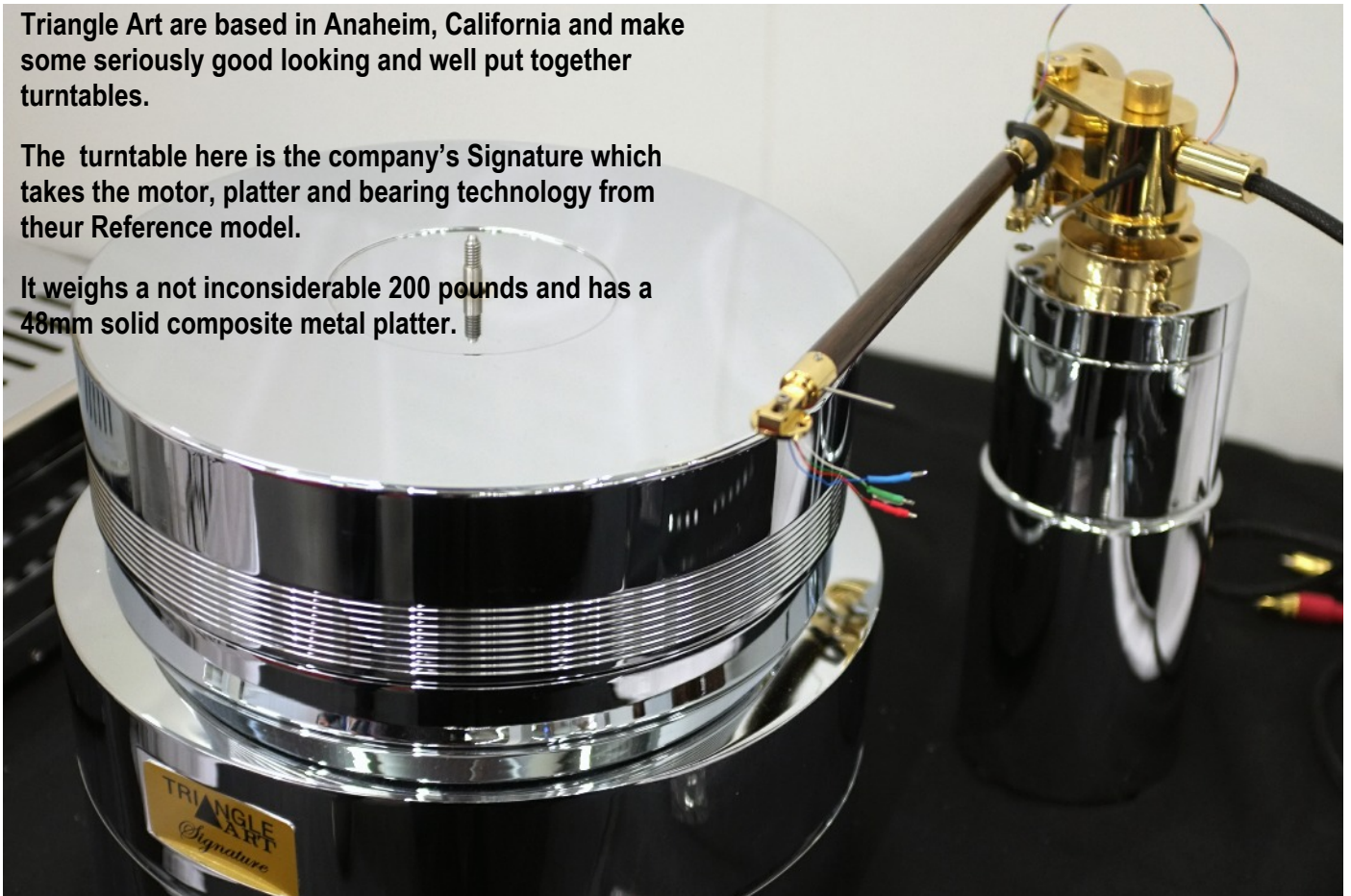
New for High end was the GET (pictured)



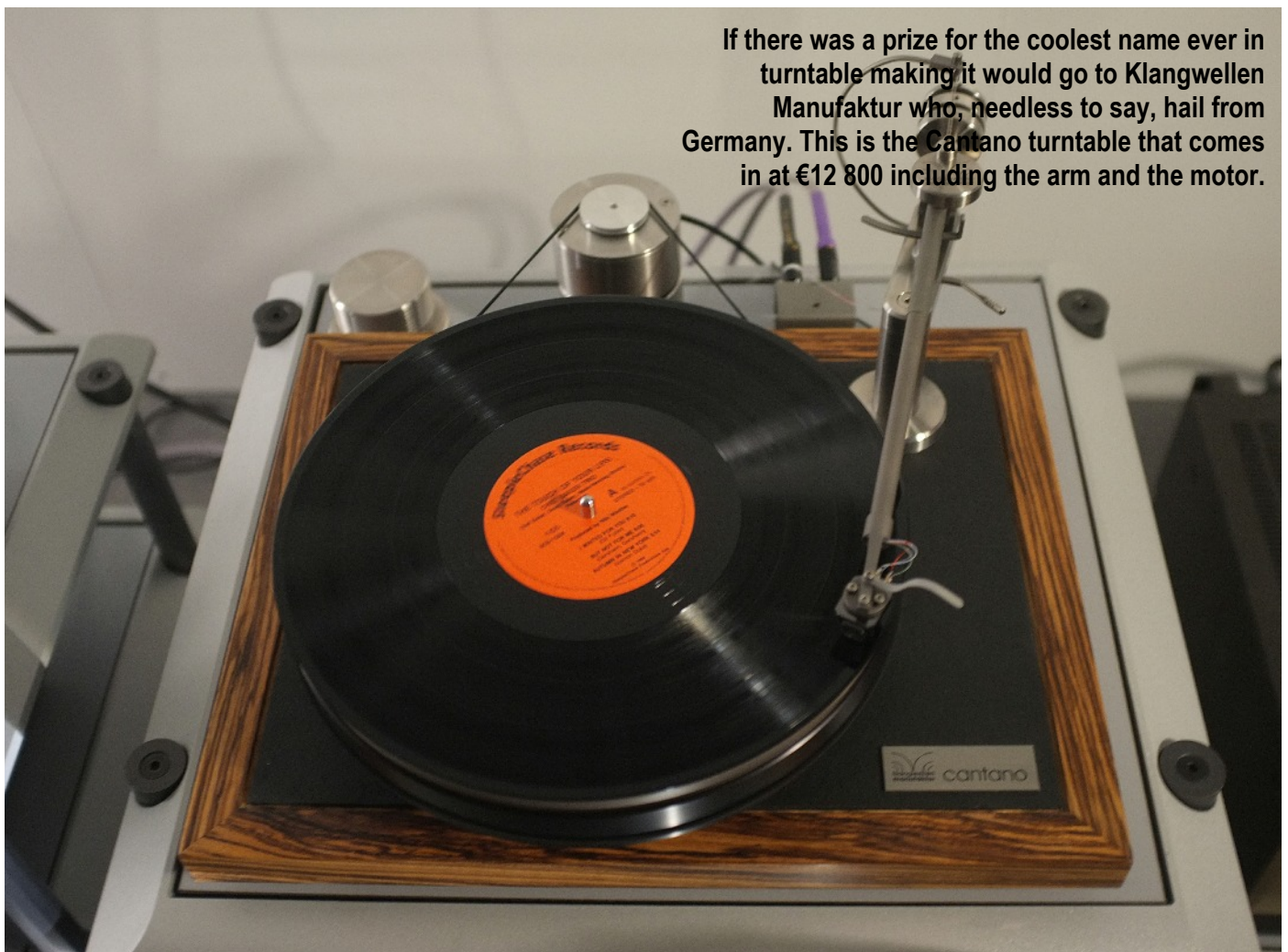
Triangle Art are based in Anaheim, California and make some seriously good looking and well put together turntables.

The turntable here is the company's Signature which takes the motor, platter and bearing technology from their Reference model.

It weighs a not inconsiderable 200 pounds and has a 48mm solid composite metal platter.



If there was a prize for the coolest name ever in turntable making it would go to Klangwellen Manufaktur who, needless to say, hail from Germany. This is the Cantano turntable that comes in at €12 800 including the arm and the motor.



## Hifi Pig HIGH-END MUNICH 2016

Saidi Audio are located in China and make six turntables and a record cleaner that all look very nice indeed. The top of the range in the company's portfolio is the pictured SD 30, belt drive turntable which weighs 40Kg.



The ELAC Miracord 90 is a beautiful looking turntable that comes as a complete package to work straight out the box. It also celebrates 90 years of ELAC.

VPI are a proudly American turntable manufacturer headed up by Mat Weisfeld. They make all their products in the US and use some pretty innovative technology such as 3D printed tonearms. At High End they could be found in the Moon room.





Thorens were once again sharing a room with Triangle and Musical Fidelity at this year's show. Sadly the display was static, which is a shame as it would be cool to hear these three brands put together a system to play at the High End.

Thales make a couple of tonearms and a couple of turntables too. Here we have the Thales Simplicity II tonearm where the tracking geometry is based on a "unique tetragon solution" that the company says reduces tracking error to  $0.006^\circ$ . Readers will note that this tonearm is a bit unusual in that it has two wands which are tuned to improve damping when compared to single tube designs.



Analogue Works are based in the UK and make a handful of turntables with the Turntable One and Turntable Two (The bigger one) being highlighted here. Interestingly the Turntable One with the Wand tonearm



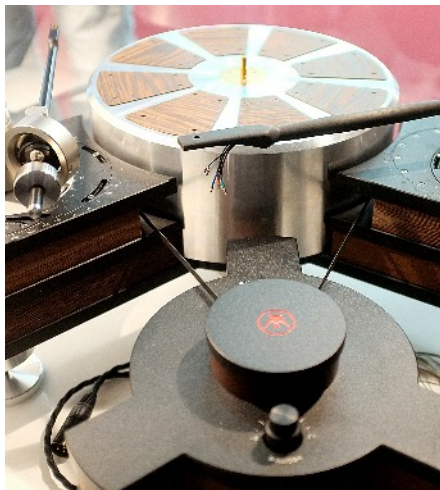
The Air Force One from Tech DAS has three 'basic' design concepts: Air bearing, Disc suction and air suspension. The air bearing system has no conventional bearings but the instead the platter floats 3mm above a glass plate once the electric pump is switched on. Air is also used to suck the record onto the platter so that is perfectly flat.

Finally there is the air suspension system where the three feet have air suspension mechanisms to isolate the turntable from ground vibrations.



Danish designed and Danish built turntables from Bergman Audio that look rather pleasant. Unfortunately we didn't get the opportunity to hear one at this year's show.

The Sperling Audio L1 heavyweight is completely manufactured in Germany, weighs somewhere between 50 and 60 kilos and consists of a massive aluminium support on which you can have both 9" and a 12" tonearms fitted at the same time.



Well loved British brand Rega had a large and interesting display of their classic turntable designs as well as an interesting queen special edition fans of the band will be able to spot in the photograph.



Audio Deva's Atmo Sfera turntable is no ordinary turntable because it doesn't have the platter.

Analog Manufaktur Germany make the Giro turntable and the Viella V12 turntable, pictured here with the DS Audio Master 1 cartridge. All machining for the V12 is done in house at the companies factory located North of Munich.



# Hifi Pig

## HIGH-END MUNICH 2016



Pro-Ject have a great reputation for producing great value audio gear including a huge selection of turntables. As well as the interesting looking wall mounted turntable system and their signature vinyl spinner, they had on display, they also introduced the Classic turntable which Hifi Pig got to take a sneaky peek at.

The Classic turntable utilises a simple and elegant “frame” design, which bears a notable resemblance to some of the most famous turntables of the 1950’s, 60’s and 70’s. Hifi Pig managed to have a dem of this at the recent High End show in Munich and it looks great in a retro kind of way (see first picture). Speaking of the design, Heinz Lichtenegger has said:

“In my first year as a hi-fi dealer, working out of my mother’s petrol station using her trade license, I sold 50 Thorens 166 MK 2. In a town of 2000 people, I made everybody into a hi-fi believer...

Later I expanded to some Linns, Aristons, Heybrooks etc. Today Pro-Ject is the leading company for hi-fi stereo turntables and sooner or later I simply had to produce what I once loved...”



**SPEC** is from Tokyo in Japan and produce a small range of amps, phonostage and this turntable, the 8000 EX. Essentially you have a very simple turntable of the deck itself, the motor and a string (rather than a belt). There's a built in manual adjustment mechanism for the string tension, the platter is 40cm diameter and made of gunmetal, the bearing is a fixed rotating axis mechanism, to lighten the thrust load there is a "magnetic force aided structure" that can effectively reduce the platter weight by 30% and the motor is a DC core-less system. The chassis is made of Finnish birch laminated veneers.



Acoustic signature make a total of twelve different models of turntables. The turntable with four tonearms is the company's Invictus whose shape is functional rather than for aesthetic reasons. It uses a total of six motors for its drive mechanism and it is said to run silent.

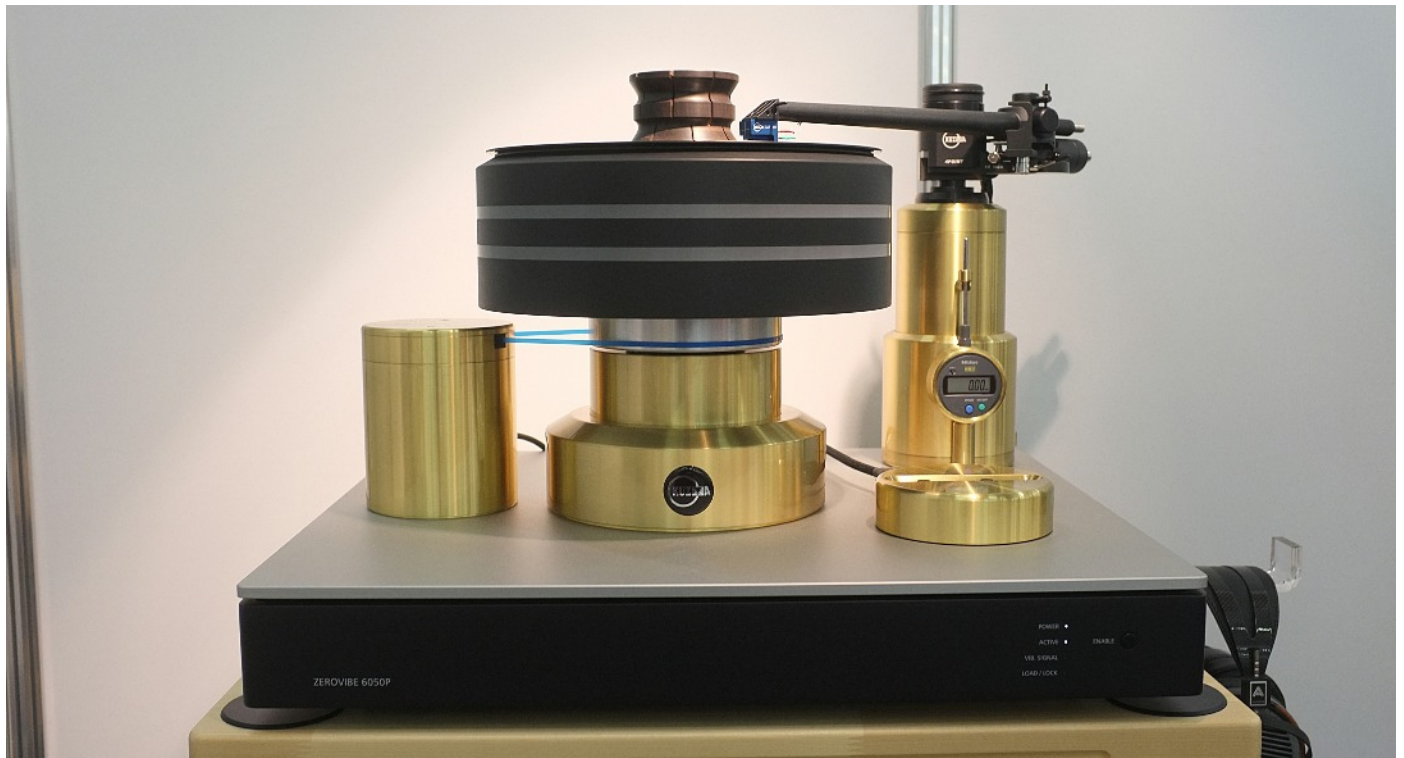
**ON (Old / New)** is the first plug and play turntable say the Italian company Gpinto and is capable of managing all kind of sources, analogue and digital. It can be connected to computers with a USB cable and to portable devices (smartphones, tablets and digital music players) via a Bluetooth® aptX® audio receiver. It houses a valve preamp with dedicated power supply and amplifiers from 100 up to 500 Watts RMS.



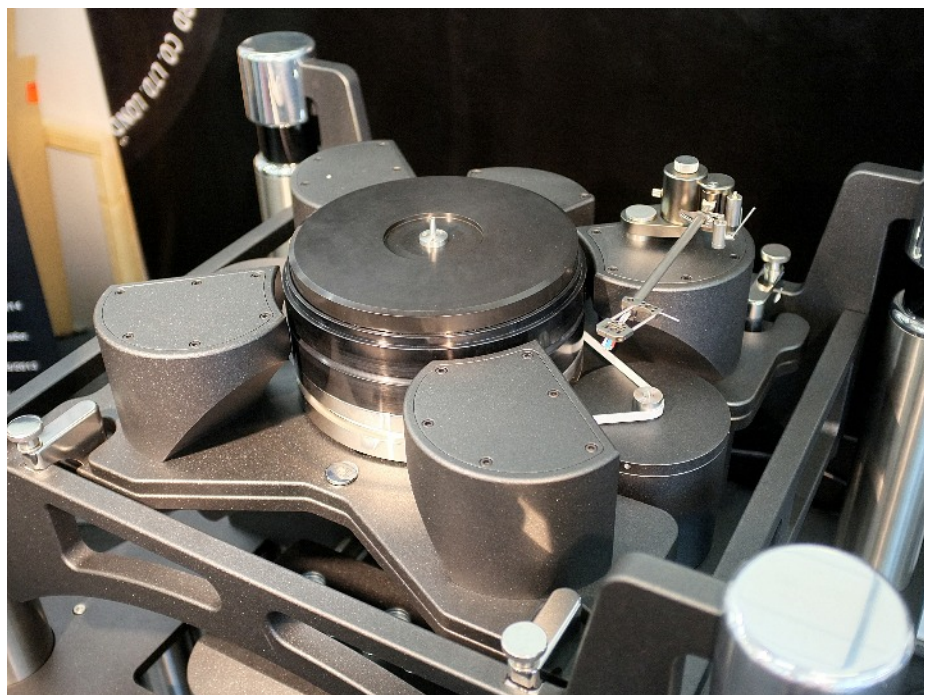


Slovenian company Kuzma have a cult following in audiophile circles and they certainly can make stunningly beautiful turntables.

Pictured are the Stabi S and the Stabi XL DC weighing at 80Kg.

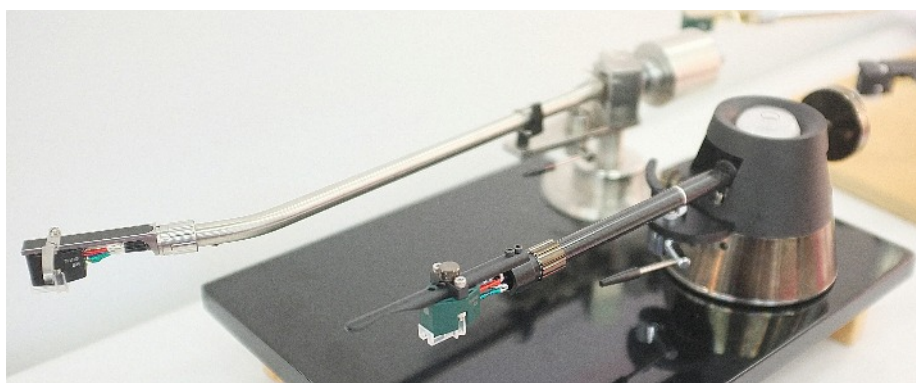
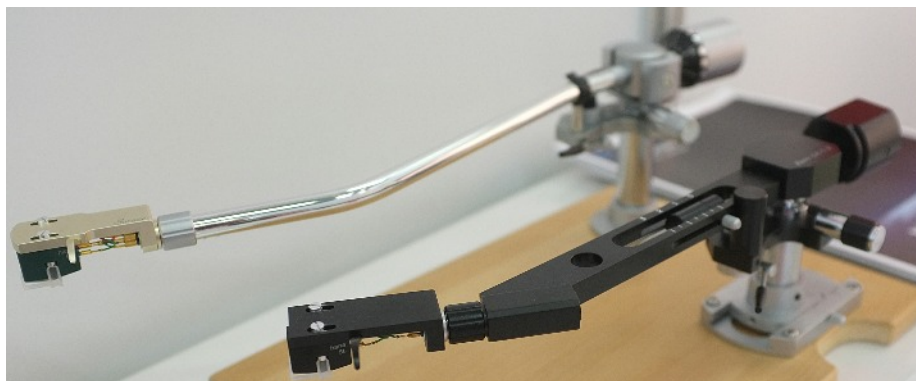


This beast of a turntable is the Apolyt turntable from Acoustical Systems. The turntable is designed by Deitrich Brakemeir and costs in excess of €250 000.



Sibatech isn't a turntable manufacturer but exports Japanese audio products around the world. The first picture shows the uniquely shaped Abis SA-1 tonearm and the TA-1 tonearm.

The second photograph shows the Viv Lab Rigid Float tonearm (the one with the cone shape at the pivot end) with an oil floated pivot and no offset angle structure. The arm requires no drilling of your plinth and the company says you can place it anywhere on your turntable...or even off your turntable. Both tonearms in the second photograph are carrying Hana cartridges



Well known German brand, Clearaudio make some of the most stunning looking turntables in existence, including the phenomenal Statement. However, they don't only cater to the high-end luxury market and produce much more affordable vinyl spinners, in this case the Performance DC



Acoustic Solid make a wide range of turntables and was founded in 1997 in Germany and originally called E. Wirth Partnership where turntables were made by the founders in their basement and garage. In 2001 they began construction of new premises in Altdorf. Their turntables are exported to 35 countries with Asia and Japan providing the core markets.





German turntable manufacturer is Trans Rotor that make a wide range of turntables including this behemoth, the Artus FMD. It features Transrotor Free Magnet Drive, Rotor Ring, Cardanic suspension and weighs a phenomenal 220Kg.

# Valves and Tubes and Tubes and Valves

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## Glowing bottles at High End

By Stuart Smith

Tubes, valves, call them what you will depending on which side of the Atlantic you reside, are one of the topics that get a certain breed of audiophile hot under the collar and despite the advances in Class D technology, not to mention some of the brilliant transistor based amplifiers available out there, there still continues to be a lot of love for hot bottles.

So without shame or remorse the following pages contain some pure and unadulterated tube pornography for your delight and delectation. Please enjoy safely!

# Hifi Pig

## HIGH-END MUNICH 2016

These lovely machines were found on the Diesis stand and come from Angstrom.



Hifi Pig's coverage of High-End Munich 2016 is proudly sponsored by

**Tellurium Q®**

# Hifi Pig

## HIGH-END MUNICH 2016



We've been using the LAB 12 "gordian" power conditioner for a good while now...it's pretty much fit and forget which is a great thing.

However, we're focusing on tube gear here and first up we have the Greek company's "integeré4" integrated amplifier (top left) that is capable of using EL34, 6550, KT120 and KT150 tubes. It's remote controlled, knocks out 45W a channel with 6550s and comes with a five year guarantee.



Next up is their "suono" power amp (left) that uses the KT150 tube, has manual bias adjustment and delivers 25 Watts a channel.

And last but not least are the "true" preamplifier and "mighty" Class A power amp. The power amp can use a range of tubes from EL34 to KT88 and delivers 9 Watts a channel with the EL34s in place.





Unison Research come from Italy and make very nice gear, we've owned it in the past. Here we have the €10 000 Performance amp that is Class A, gives 2 x 40W using 6 Tungsol 6550, 2 ECC82 and 2 x ECC 83s.



Audion are a British producing lovely looking valve amps and preamplifiers. Here we have their Silver Night 300B Special edition that was new for 2016. It'll give you 8 Watts a side of lovely 300B loveliness and is also available as an integrated version or a Parallel Single Ended version.

## Hifi Pig HIGH-END MUNICH 2016

Triode Labs were founded in Japan 12 years ago by Junichi Yamazaki and now they make a whole host of amps at various price points and with a whole load of different valve compliment.



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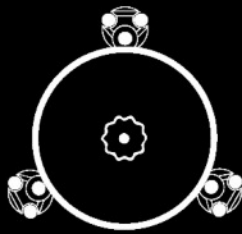
**Tellurium Q®**



Tsakiridis are from Athens, Greece and make a whole range of affordable valve amplifiers. This is the company's Theseus integrated which can use any tube you like from EL84 to KT150 enabling tube rollers to get the sound they want. There's three line inputs and a MM phono input. There's an onboard headphone out and it uses a blue Alps motorized volume pot.



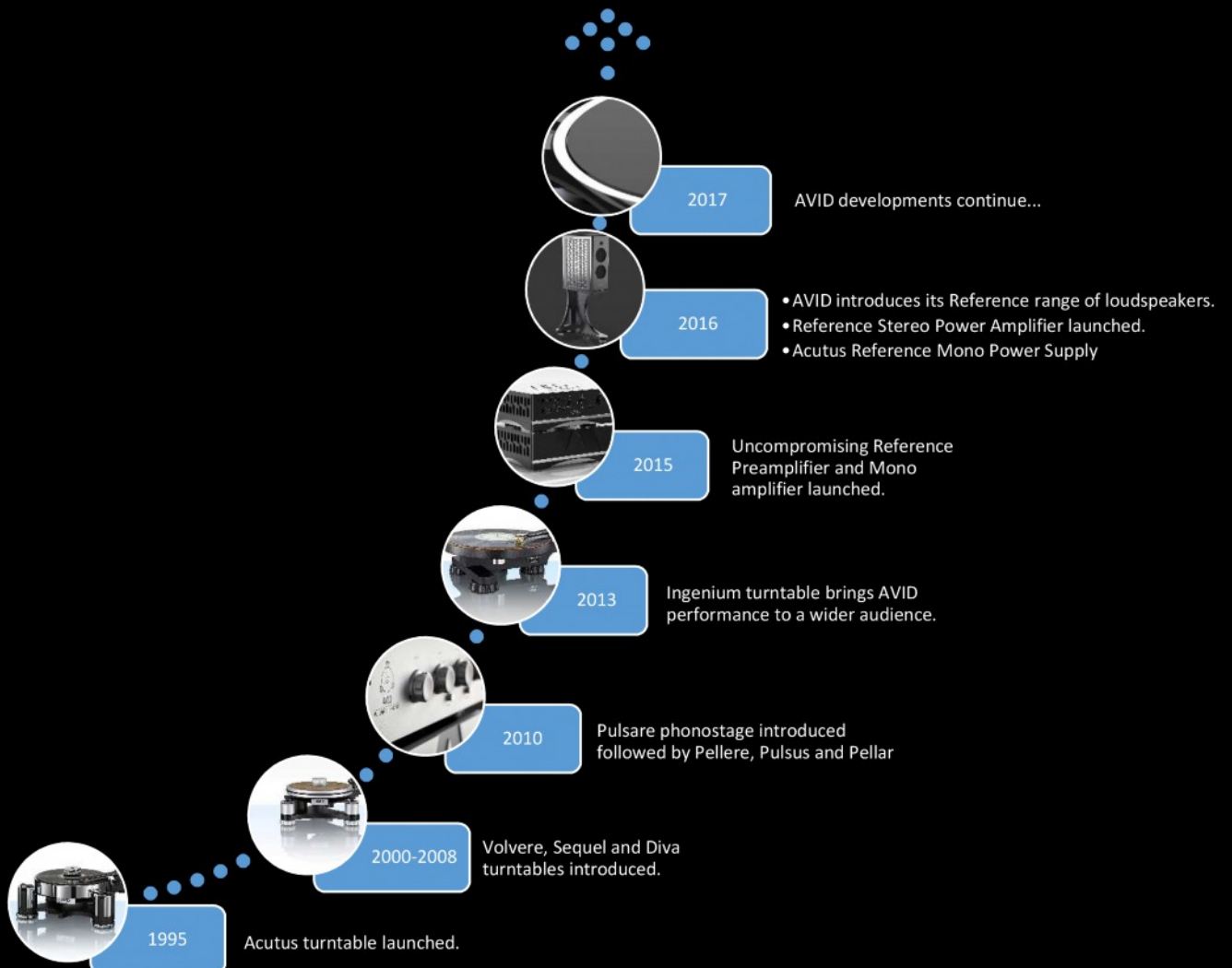
Fezz Audio make tube amps using toroidal transformers. We'll cover their room in more detail in another Highlights of High-End but we spotted this 300B cutie outside their rooms. It's going to give the standard 8W a channel, will be called the Mira Ceti and will be available later this year.



# AVIDHIFI

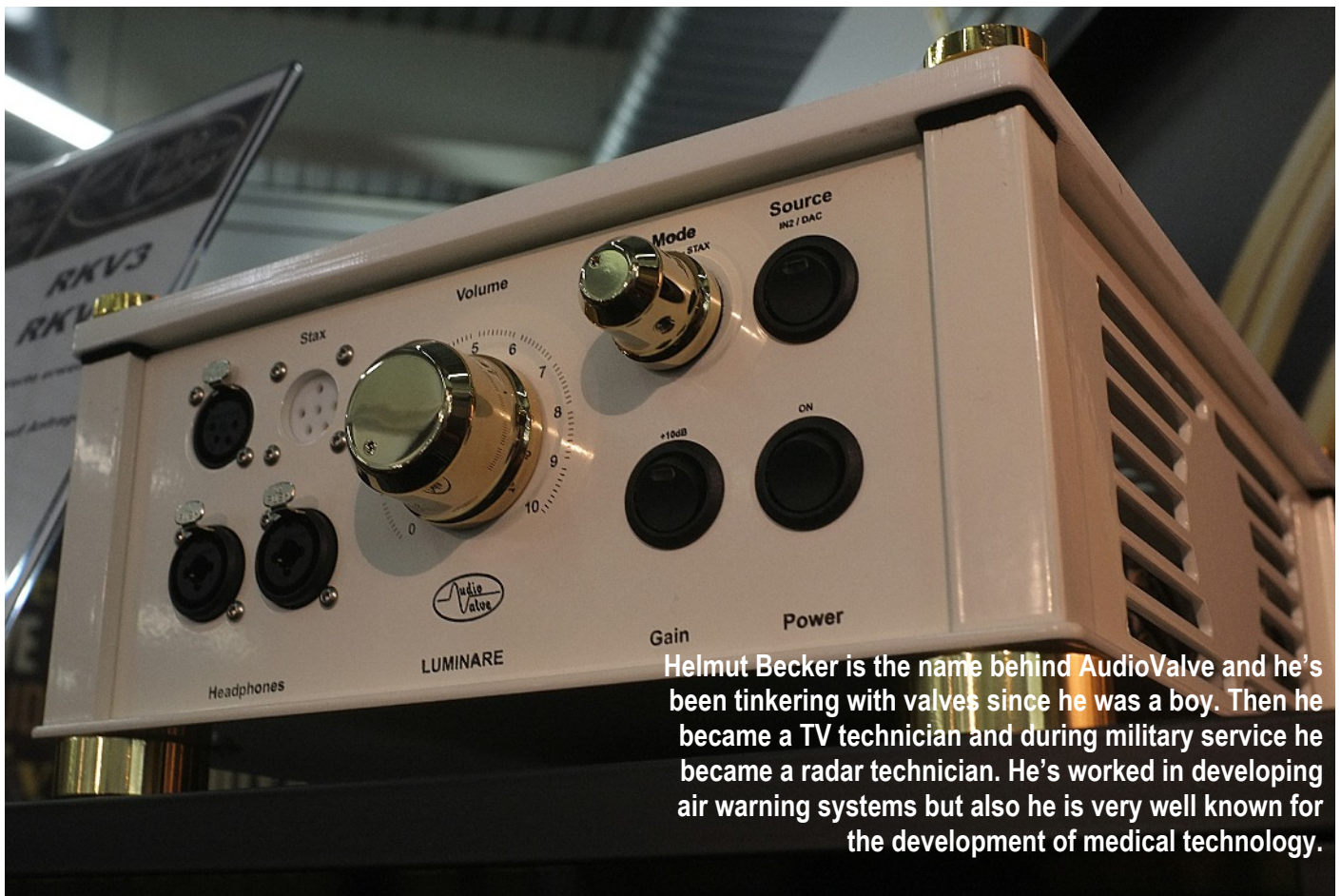


We've come a long way, but our values are unchanged...

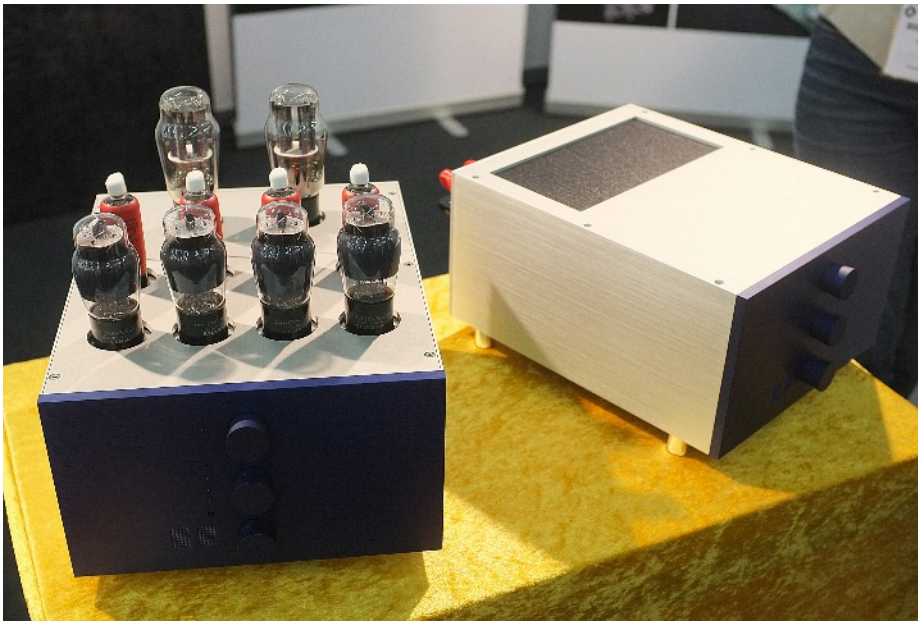


## Hifi Pig HIGH-END MUNICH 2016

Zhunhai Spark electronic Equipment Co LTD are the parent company of Cayin and so there are no prizes for guessing that the company is unashamedly Chinese, with Cayin being the brandname. They're exported to more than 20 countries and have won lots of awards. They have their own production and research foundation with more than 12000 square metres where they have their R&D and management team too.

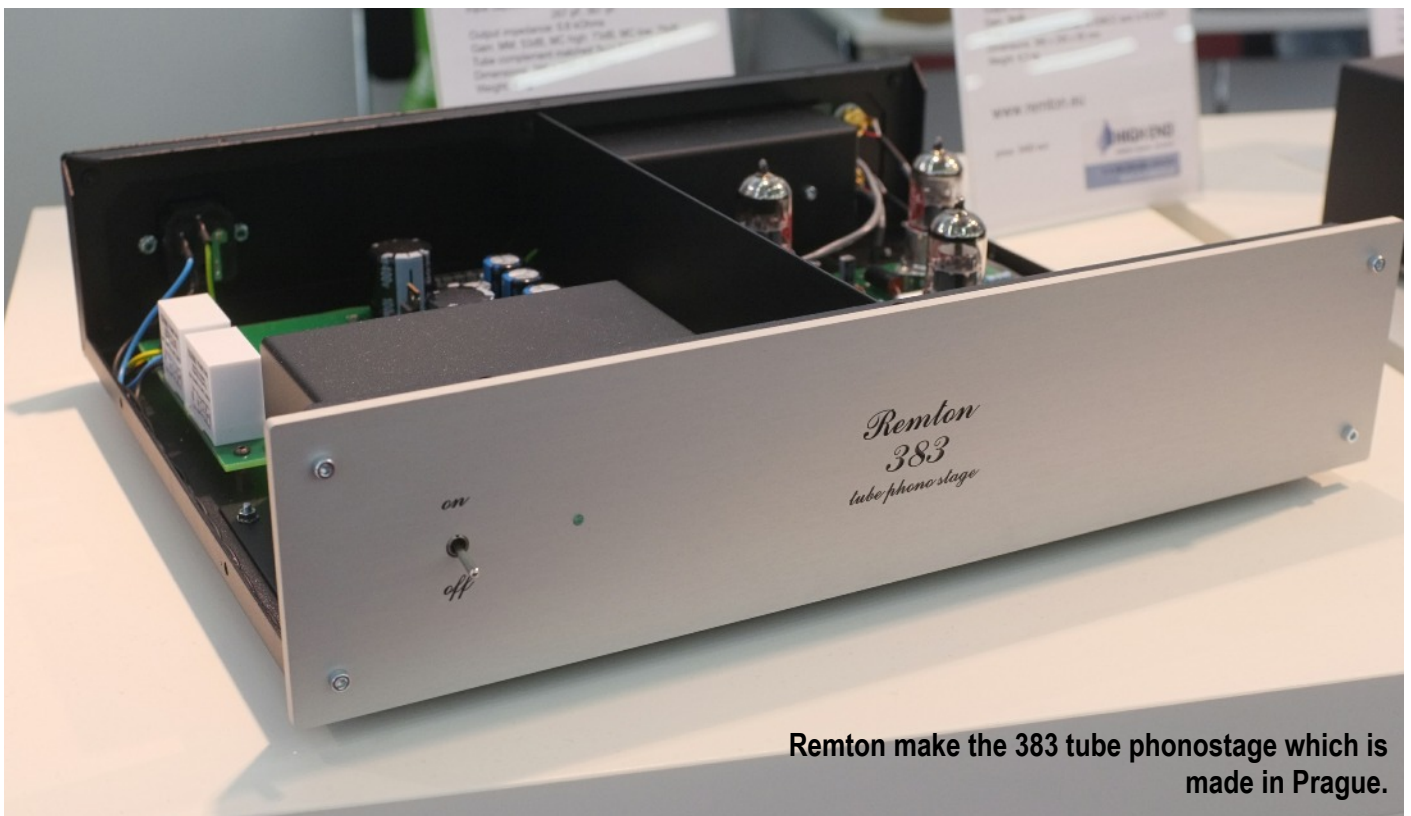


Helmut Becker is the name behind AudioValve and he's been tinkering with valves since he was a boy. Then he became a TV technician and during military service he became a radar technician. He's worked in developing air warning systems but also he is very well known for the development of medical technology.



Acoustic Plan are German based and make pretty funky looking tube gear as well as solid state kit.

We found out very little about this Taiwanese company, Rume Audio, other than they make custom built speakers and amplifiers, but their valve amps on show at High-End certainly caught our attention with their distinctive wooden cases.



Remton make the 383 tube phonostage which is made in Prague.

# Win Great Prizes

Hifi Pig has teamed up with Kralk Audio & Tellurium Q to give one lucky reader the chance to win a pair of Kralk Audio BC-FL loudspeakers and a 2.5m pair of Tellurium Q Black speaker cables, together worth over £700



This is a very special pair of loudspeakers being the 100th pair of BC-30FL loudspeakers Kralk Audio have produced and have been presented to Hifi Pig magazine and appropriately engraved on the rear terminal plate.

This is a one off special to mark a milestone for Kralk Audio as a company and their partnership with Hifi Pig.

The speakers feature special silver terminals and higher specification capacitors than those found on the standard BC-30FL and they also sport a new finish, Statement Silver Oak which really compliments the modern contemporary design of the speaker.

The BC-30 has been in production for almost 4 years and is one of Kralk Audio's bestselling models with many happy customers.

**This very special pair could be yours to win!**

Of course the lucky winner will need something to connect the speakers to their amplifier and Tellurium Q have offered up a 2.5m pair of their award winning Black loudspeaker cables.

To be in with a chance of winning this great pair of prizes all you have to do is subscribe to Hifi Pig's monthly newsletter by clicking [here](#). The winner will be chosen at random on the 21st June and notified by email.



Closing date for registration is Midnight BST 20th June and people currently registered will be entered into the draw automatically. No cash alternative is offered and judge's decision is final. No correspondence will be entered into.

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### The Diamonds are a Music Lover's Best Friend!

After a tremendous success of Platinum Special Edition series **TAGA Harmony** received a lot of requests from customers for designing loudspeakers with **even more high-end look and sound**.

The result is visible at the first glance on the beautifully crafted cabinet with its curved, clear, elegant lines and luxurious design accentuated with high grade natural wood veneers finished with high-end clear gloss piano lacquer.

When you turn on the speakers you are **immediately stunned by the exceptional sound** - super natural, super dynamic, super clear and engaging... **just super!**



## Diamond F-200