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BLADELIUS

EMBLA

A new breed of flash memory-based source

PRICE £4,850 **CONTACT** Symmetry Systems ■ 01727 865488 ■ www.bladelius.com

The Bladelius Embla is the first of its kind. Flash memory has the potential to be the best storage format for digital audio yet created: with no moving parts, it operates silently and doesn't have to deal with error-correction on the fly as a disc drive does. Embla can be used as a straightforward CD player or as a music server playing material from discs you have loaded onto it, from an attached drive or streamed from a computer. Combine this with an onboard preamplifier and you have one of the most forward-looking products on the market today.

Bladelius is a Swedish company founded by designer Mike Bladelius, a man who spent time working for Threshold in the US and has been a consultant for Classé in Canada – good high-end credentials by any standard. Up until now, his company has concentrated on amplifiers and CD players, but the Embla is the sort of product that should put Bladelius well and truly on the map.

Mike is keen to point out that Embla is not a redesigned computer, but when you look at the features it offers and admire the touch-screen that fronts the unit, there can be no doubt that it contains some serious processing power. Loading a disc onto the flash drive is easy: just push it into the slot-loader and press the red 'record' button. Several minutes and much whirring later, you get a read out of how many errors it has

corrected, which produces a surprisingly high figure of 70,000 plus on most discs.

Playback is less obvious, but with the aid of the stylish Mjölner remote or your finger on the screen, it's possible to find the list of uploaded albums and pick out the one you want. Embla is said to have an internal database which should provide album titling information, but it only had information for about half the discs we loaded. This will be where the Ethernet connection comes in.

There are numerous set up parameters, including optional resampling filter, three digital filters, phase inversion and separate listen and record-style digital outputs. In audio settings you can choose to convert an analogue input to digital at 96 or 192kHz, or you can adjust sensitivity of that input and just pass it through without conversion. There are two RCA line inputs and a balanced input alongside digital in- and outputs of the usual varieties. Analogue outputs mirror the inputs and can be fixed or variable. Embla is essentially a digital and analogue preamplifier with a flash drive and a CD player all in one. It also has USBs for data and audio and makes a big deal about being able to transfer material from the flash drive onto an external USB device. Calling the Embla fully featured is an understatement.

Inevitably, with such an ambitious project, updates are ongoing and there are a few minor glitches. Although it will playback hi-res WAV files, it can't load them onto the flash drive at present. There doesn't seem to be a way of loading only selected tracks, but you can delete them afterwards, achieving the same result. Also, the touch-screen is not always terribly responsive, but its sensitivity can be changed.

A number of drive sizes can be purchased. The unit tested had 64GB – enough for about 120 albums – but drives up to 2TB are available for larger music collections. The point to remember is that while this can be used as a music server, its appeal lies in the ability to play your music with a non-mechanical source. In this regard, it's impressive indeed with a bold, dynamic sound that projects the music into the room in no uncertain terms.

SOUND QUALITY

Pick the right filter (C with 'optimised' resampling) and it also times with aplomb. This is the first time we've heard the Yerba Buena *Jump* HRx disc really swing in true Hot Club style. You can summon up the vast expanses of space that other players reveal with filter A but, while this 'looks' impressive, it doesn't get you to the nub of what the material's about, which is old-school groove. It's

not just an acoustic thing either: Radiohead's *In Rainbows* reveals all the distortions and effects that make it up, while the underlying tempo is as strong as it can be.

We expected this to be a quiet player and it doesn't disappoint. Only the big money Boulder 1021 upstages it in this respect and that's the best we've heard. This gives the Embla wide dynamic range and the ability to pull out low-level detail with ease: Lambchop sounds positively ethereal and quite entrancing as a result. Using the onboard volume

control requires some caution;

output is pretty high and even our 'deafest' power amp wouldn't let the numbers past the 30 mark. But this volume route bettered

a Classé CP-700 preamp, if not the Leema Pyxis, which has the advantage of LIPS2 operation.

While its user interface could do with some refinement, this is a very exciting machine with great sound and huge potential. Future software upgrades will hopefully see it being able to take onboard WAV files that you have downloaded. Combine this with great timing and low noise and you have the most potent source component we've encountered for a long time. ■■

Jason Kennedy

"You could say that the Embla is fully featured, but that would be an understatement"



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KRELL
EVOLUTION
900



KRELL

EVOLUTION 900

Top of the premium range, this amplifier conjures up audio alchemy

PRICE £21,500 (each) **CONTACT** Absolute Sounds ■ 020 8971 3909 ■ www.krellonline.com

For reasons of logistics and availability, this review and a handful of others were conducted on a different basis from the rest – not at the author's own premises, but in the distributor's demonstration room. If you have ever tried moving an amplifier that weighs 61kg, or more than 170kg a pair when packaged, you'll understand that transporting them is not to be undertaken lightly. We auditioned the Evolution 900 with a single loudspeaker, so this is not a full review but a listening assessment based on the limitations outlined.

Evolution is Krell's premium range, upstream of the KAV family. The 900 is the manufacturer's biggest, heaviest and most powerful Evolution amplifier. The relevant statistics other than weight are 900 watts into 8ohms, doubling with each halving of load impedance up to 3,600 watts into 2ohms, over a $0.5\text{Hz}-120\text{kHz}+0/-3\text{dB}$ bandwidth for 0.02 per cent THD at 1kHz. The power supply is rated at 6,000VA and output voltage is 240V peak-peak. Current yield is 60amps peak and each monoblock is a reassuringly chunky affair.

On-paper alone, this is a prodigiously powerful amplifier. Even in standby mode, it consumes 440 watts per monoblock and there are also figures in the spec sheet for heat output – from 1600BTU/hr at standby, to 7700BTU/hr at maximum output. In the Absolute Sounds' listening room, ambient temperatures climbed remorselessly in use, which meant taking regular air conditioning breaks.

The amplifier uses all the major Krell proprietary technologies, including Krell Current Mode topology, Active Cascode topology, Architech construction, and the CAST current mode interface, which is how it was used on this occasion from the matching Evolution 202 two box preamplifier (also CAST) and Audio Research CD player. Extensive use of internal screening of critical stages and line conditioning circuitry compensates for everything that can go wrong with the mains supply.

CAST stands for Current Audio Signal Transmission. Any system connected with CAST in cooperation with Krell Current Mode keeps the audio signal in the current domain throughout the amplification chain. We have used this interface on previous occasions and have already learned that it give a slightly more penetrating, but less grainy sound than balanced or single-ended.

What we can say without fear of contradiction is that Krell is the master of engineering big amplifiers. No one else we know of has a model with similar power and technical prowess. In short, this is an area of the market that Krell rules.

Of course, technical sophistication means little if it doesn't deliver the goods. There have been times in the manufacturer's history when the musical results didn't quite stack up against the engineering, but not so here.

That said, we must reiterate that most of the possible conditions of use had to go untried on this occasion and that only one loudspeaker model was involved. That model was the Magico Mini 2 (reviewed separately on p46) which although not especially large, was undeniably suited to the task. It is a sealed-box, infinite-baffle design, rather than being reflex-loaded and its low sensitivity and high power handling predispose it to powerful amplification. Its resolving power demands good-quality amplification.

SOUND QUALITY

The results are close to audio alchemy. First, the Evolution is devastatingly fast and powerful (the two don't always go hand in hand). As we anticipated, there is no detectable change in sound as the volume level climbs – there's no edginess or lack of rock-solid

control. But, what we had not fully anticipated is how refined the beast is with more subtle programme material. One of our highlights was playing recordings of Madeline Peyroux and of Patricia

Barber (the latter backed by Carlos Santana), both of which have a mesmeric, spine-tingling quality that is clearly unrelated to raw power.

One work we could not resist playing was the finale of Mahler 2, the excellent version with Abbado and the Lucerne Festival Orchestra. This in many ways covers every musical base – from solo soprano, unison (choral) singing, full orchestra, an orchestral organ and offstage bands. The effect is nothing less than devastating, both in the final overwhelming crescendo and in the hushed first choral entry: this has never been so starkly portrayed against the inky-black acoustic. The unusually complex sound picture is fully resolved, so that individual instrumental lines and voices could be followed. The offstage band with its distinctive acoustic, which is very different from the full orchestra acoustic (this is a live recording), is also fully resolved. This is a recording that is realised superbly by the test system. It is not just loud – it is also soft, even muted where the music demands,

making the musical impact all the more telling.

What stands out here is the ability of the system to highlight all the finest detail without any overt emphasis. It was not all down to the Krell, of course, but the Evolution 900 played an important role. It is without question a great amplifier. ■■■

“What we can say without fear of contradiction is that Krell is the master of engineering big amplifiers”



Alvin Gold



MAGICO

MINI II

Maximum performance from a misleadingly named loudspeaker

PRICE £35,000 per pair (including stand) CONTACT Absolute Sounds ■ 020 8971 3909 ■ www.magico.net

Although it does slot, with some difficulty, into the category of a compact standmount, the Mini II is no baby. It measures 38x106x45cm (WxHxD) and is supplied as standard with a pair of floorstanding pedestal stands. It's not out of keeping with other compact standmounts, but at 90kg per speaker and stand combination, it is extraordinarily heavy.

The hardware complement parallels that of the Magico V2, but with variations – the main difference is the enclosure, with no attempt made to simplify the construction to keep the price in check. The enclosure shape in cross section is comparable with many wood-bodied musical instruments: there are no internal parallel edges or straight lines. The structure consists of Baltic Birch plywood, layered horizontally, which Magico claims to be three times stiffer than the usual vertical panel-based MDF box structure. The claim for stiffness is credible, especially when you take into account the reamed-out internal X-shape structure which is used to reinforce and stiffen the enclosure. It's not all about mechanical integrity, though – everything about the speaker's presentation is clearly of the highest quality.

The front and rear panels are made from 1.5 inch-thick aircraft grade aluminium panels, shaped to follow the external contours of the box and to reduce diffraction. Rather than coupling the drive units to the box, they're offered up to the baffle from behind. The front and rear aluminium sections are secured to each other using steel rods in a configuration designed to ensure they loosen up over time and to reduce energy-storage effects in the cabinet.

The two-way drive unit complement is roughly similar to those of the V2. The bass/mid driver is the same home-grown Nano-Tech unit. It has a sandwich cone with textured one-piece (no dust cap) carbon front and rear outer sections that employ carbon nanotubes, sandwiching a Rohacell cellular core. The unit has a three inch titanium voice coil and a rare earth (neodymium) magnet. The result is a drive unit whose back is relatively unobstructed. It breathes well and is said to offer much lower than usual levels of distortion. The tweeter is a version of the Scan Speak Revelator also used in the V2, but is apparently a different model.

The opulent crossover is a dedicated design, using inductance-free interleaved capacitors and oxygen-free copper coil inductors, made by Raidmund Mundorf in Cologne. The pedestal stand weighs 50kg and is made from aluminium instead of the more usual steel, because it is stiffer and has less propensity for ringing and also has lower energy-storage. The speaker platform includes a 2.7-degree tilt for time-alignment and a ball bearing coupling.

The Mini II is lower in sensitivity than the V2 and it clearly benefits from an amplifier capable of laying down the law, which on this occasion was the unfeasibly powerful Krell Evolution 900 (see p92). The result is a combination that is not just devastatingly authoritative: it is also subtle, organic and responsive.

SOUND QUALITY

There were a number of surprises in store during this all too short test, which for logistical reasons took place on the distributor's premises. First, this speaker sounds absolutely and completely stunning. No matter what music was being played – which included Mahler, Brahms, Madeline Peyroux and more, with material ranging from solo soprano to full orchestra, chorus and organ – the system sounded gloriously fully grown and convincing. The sheer scale of the sound was staggering.

There is nothing about the music reproduction sound that could be described as comparable with other compact speakers: it is full, authoritative and has tremendous presence. Reach out and you can all but touch the musicians, but there is real depth to the proceedings, too.

Of course you could tell that the orchestral organ in the Mahler was not being reproduced full-scale, but it got surprisingly close, though. Stereo imagery is expansive too, not just in one dimension, but all three. This is a trick we've not heard equalled elsewhere from a speaker so compact – impressive stuff. It's also surprising at how hard the speakers can be driven, with no hint of strain or inability to cope in a far from small room.

It's not just about weight and scale, though. The speaker is also remarkably clear and transparent. It is also true to the source material and capable of giving the listener that spine-tingling quality that only a first-rate system is capable of delivering.

It is expensive, for sure, but a convincing case can be made that the bill for materials, labour costs and the limited production scale make a high price inevitable. The speaker is also demanding of the electronics it is coupled to. You don't need to use a Krell Evolution 900 of course, but this is clearly an loudspeaker that requires plenty of volts and amps.

The Magico's product name, Mini II, sounds harmless enough, but that's misleading: in our experience you simply won't find a better speaker of similar proportions. ■■■

"It's capable of giving the listener that spine-tingling quality that only a first-rate system can deliver"



Alvin Gold



SUMIKO

PALO SANTOS PRESENTATION

Popular specialist elevates its cartridge to high-end status

PRICE £1,995 CONTACT Symmetry Systems ■ 01727 865488 ■ www.sumikoaudio.net

Sumiko is a company that has long been associated with good-value moving coil cartridges, a reputation it has carved out primarily with the Blue Point Special. It's a model that is now in its third incarnation and one that continues to set the standard at its price point. This is also the least expensive nude cartridge on the market – something which is not so much the case with the Palo Santos Presentation, the manufacturer's most ambitious design to date.

This is not Sumiko's first foray into the high end, however. The Pearwood Celebration started the trend: it's now in its second iteration and incorporating some of the features which the Palo Santos builds upon, but at nearly half the price. These include the connoisseurs' choice of magnet, Alnico, a long-grain boron cantilever and a machined Teflon back-plate, the latter housing tapered hollow mounting pins which make fitting fiddly cartridge tags far easier than usual.

The latest model ups the ante with a Brazilian rosewood palo santos body, one that is shorter in height than the Pearwood in order to make it easier to align the cartridge. It has a new generator anchoring system that has been created to improve rigidity and thus reduce resonance. Unusually, you can clearly see the workings of the cartridge because there is no cover plate on the bottom. It's not something we've come across in a wooden body design before and it's a tacit way of saying that the hardwood is there for sonic rather than structural reasons. It's topped with a polished stainless plate that's tapped for a pair of stainless bolts that are supplied in three lengths, along with an Allen wrench to suit. The shiny plate looks great sticking out underneath our SME V headshell.

The stylus is a Vital PH line contact type in diamond that is designed to track at between 1.8 and 2.2g, with 2g being the optimum. The cartridge itself weighs a fairly manageable 8.3g.

Internally, the generator system's front yoke is put together with a high-pressure fit against the Alnico, in an attempt to ensure linear magnetic density. The cartridge is described as low output and produces half a millivolt – quite manageable for MC phono stage. The preferred load impedance varies according to whether you reference the box or the web page (the former is probably correct at 10 – 100ohms). The boron cantilever is suspended in a synthetic rubber that Sumiko selected not only because of the potential for controlling its characteristics, but also because it has a far greater life expectancy than natural designs which suffer when exposed to UV.

The Palo Santos is nicely packaged and supplied with an informative booklet on the dark art of cartridge set up. Even if you don't buy this cartridge, we'd recommend you download the set up PDF from the Sumiko website. Of particular interest is the manufacturer's recommendation that you run anti-skate at two-thirds of downforce. This is something that we have done for some time, but is different to the usual recommendation of equalling downforce.

SOUND QUALITY

This is undeniably a revealing and neutral cartridge and one that responds quite dramatically to the subtleties of set-up. Sumiko recommends using downforce as a means of making small VTA changes which, as it recommends a 1.2-degree rake for the cartridge.

It is also extremely quiet: surface noise is well-repressed, a result of the extremely small profile of the stylus. In action, it gets out of the way rather effectively, letting the quality of the music and recording shine through and only rarely revealing any inclinations of its own. This could be a vagary of set up, of course,

as setting VTA perfectly for one slab of vinyl is not the same as having it correct for all of them – especially when mixing heavyweight and regular pressings.

With Keith Jarrett's *Changes*, the slow build up of the piece is mesmerising, with shimmering piano and fine cymbal work gradually transforming into a crescendo of Jack De Johnette's drums. Here, the kit really jumps out of the speakers. There is no shortage of transient attack, but it is never accentuated by the cartridge, which does pretty well exactly what the groove defines. It also does scale with aplomb. Whether it's Felix Laband's handcrafted halls of echo and reverb or Lamb Chop's multi-instrument

soundscapes, there is no sense of the speakers limiting the soundstage – they just disappear into it. With Joni Mitchell's *Court and Spark*, the voice is enormous.

At times it could be a little more colourful and exciting, but that is clearly not its remit – this cartridge is all about revealing what's on the disc. It turned in a more convincing result with a Townshend Rock 7/Rega RB300, a combination that allowed for a more musically engaging result that brought out the greatness in old favourites such as Steely Dan's *My Old School*.

Sumiko has produced an extremely revealing and subtle cartridge in the Palo Santos Presentation. It requires careful setting up for best results, but is better than most at getting out of the way and letting the character of the record take centre stage. ■■■

Jason Kennedy

“There is no shortage of transient attack and the cartridge also does scale with aplomb”

