

BLADELIUS EMBLA

This review first appeared in the February 2010 issue of *hi-end hifi magazine High Fidelity* of Poland. You can also read this [review of the Bladelius Embla](#) in its original Polish version. We publish its English translation in a mutual syndication arrangement with publisher Wojciech Pacuła. As is customary for our own reviews, the writer's signature at review's end shows an e-mail address should you have questions or wish to send feedback. All images contained in this review are the property of High Fidelity or Bladelius Design Group - Ed.

Reviewer: Wojciech Pacuła

Review system: Go [here](#)

Review component retail: 29.999zł (that's roughly \$10.500 or €7.700 if bought in Poland in foreign currencies)



At the helm of the Swedish Bladelius brand is Mike Bladelius, a very interesting designer who headed design at Treshold (1990 – 1994), then consulted Classé Audio's engineering team (1994 – 1995). He later was often called upon to assist Primare with specific projects. Founded in the Swedish town of Alingsås in 1994, the Bladelius Design Group today owns Bladelius and Advantage and earlier also S.A.T. Machines I previously reviewed from this company all shared a few traits which I assume were reflections on the personality and tastes of the designer himself. The first is plainly visible in the clean industrial appearance of the exteriors. Their clear-anodized aluminum enclosures feature the bare minimum of control knobs and buttons to be instantly associated with classic Scandinavian design. Yet inside I always found surprisingly modern solutions. Mike does not abstain from surface mount devices, fancy displays, micro controllers and such. Together with the stark exteriors and modern circuits, we also get very saturated warm and natural sonics.



Given my prior exposure, I was still surprised to learn that the company had now authored a file player. To most engineers this is still *terra incognita* and as such not easy to pull off - particularly since Mike decided to forego hard drives in favor of flash memory. His new Embla comes in many configurations with memory capacity ranging from 64GB to 2TB. As the lower storage rates won't be sufficient, one should really aim at 1TB or more. Different from machines by Blacknote (the DSS30 Tube) and Linn (the Majik DS and Klimax DS), the Bladelius sports an integrated DVD-ROM drive primarily to rip CDs to memory with purpose-designed software which controls read errors and jitter. The integral touch screen displays the amount of detected, corrected (or incorrigible) errors. Read errors result from a combination of disc quality and extracting software. The better the disc pressing, the lower the amount of errors. I watched the error counter with curiosity while ripping discs.



XRCDs had low error rates. The XRCD24 from the new Audio Wave edition for example only started to show errors after 31% of the disc has been ripped. Altogether there were about 25.000. I was surprised that the Japanese version of Chet Baker's *Strollin'* had over 60.000. The European mini-LP remasters of Peter Gabriel turned out to have almost 90.000. On the other hand, the anniversary edition of *Dark Side of the Moon* on hybrid SACD had none at all. Again, the problem is not only with the discs but also with the drive. No computer drive is as good as a dedicated CD sled. Yet a DVD-ROM with adequate read-in software allows multiple read-in cycles of specific disc sectors to minimize captured errors, something the Embla does automatically.



But that was merely the beginning of the discoveries here. There's the type of superb touch screen I first saw on Naim's HDX. It displays large navigational buttons, meta data and cover art. Besides playing from memory, the Embla also accepts pen drives and hard discs via its USB input. We also get AES/EBU and coaxial digital inputs as well as Toslink and even Bluetooth. It's a pity that with all this functionality, LAN access is only by cable where competitor Chord integrates wireless cards. But that's only a minor issue. The Ethernet connection creates access to meta data bases for cover art, track titles and such. In lieu of an Internet connection, the Embla sports a built-in meta data library which was quite impressive. I only encountered a few cases where I had to enter the data manually which was quite easy. Covers of course require an Internet connection.

But there's more. The Embla is also a full-fledged analog preamplifier with one XLR and two RCA line inputs and outputs each, a fixed output for external preamps and an analog domain volume that's not digital as it is with Wadia, dCS, Accuphase and Ayon. In short, the Embla is a very comprehensive and complicated device. "The Embla offers a silent playback system without any moving mechanical parts when playing from its built-in flash memory. The Embla is *not* a redesigned computer system. It is built from the ground up as a high-performance audio playback system. Unlike computer-based products, the Embla is based on our proprietary audio DSP design, allowing complete control over the timing and reading of the discs. Not only is the Embla a playback system but it also includes an analog preamplifier and a world-class DA converter based on our reference CD player, the Gondul M. The DA converter also carries a switchable digital filter with analog behavior. Insert a CD and you have the option to play directly from the disc like a standard CD player or to store the disc on internal flash memory. And you're not limited to internal storage. External units can directly connect via USB and may access files on a network drive or stream music from a PC.

"The Embla comes preloaded with a database for album and track names and will display album art if connected to the Internet via its Ethernet port. Embla makes bit-perfect copies of CDs using our advanced proprietary data reading error-analysis algorithms enabled by a high-performance Teac drive. The bit perfect copies will be stored in strict WAV PCM format. The internal memory for music storage is flash-based for a completely noiseless system. The internal flash memory is upgradeable from 64 GB to 2 TB. Embla has one USB port for USB memory sticks or external hard drives and a second USB port for streaming music from a computer. Embla has also an Ethernet adapter to play music

from media servers such as a computer or NAS. If your local network is connected to the Internet, Embla will retrieve album art and update its database with the most recent data. You can play back PCM, WAV, HRx, FLAC, MP3 and OGG with tag information. Audio data files are supported up to 32-bit/192kHz. The analog volume control works in 0.5db steps and there is also the ability to choose from two separate balanced DAC configurations (two DACs per channel); select a special filter with analogue behavior; and change sampling rate up to 192kHz.”



Sound: Arne Domnérus & Gustaf Sjökvist, *Antiphone Blues*, Proprius/Lasting Impression Music, LIM K2HD 026, K2HD; Chet Baker, *Strollin'*, Enja/Ward Records, TKCW-32191, CD; e.s.t., *Viaticum. Live in Berlin*, ACT Music+Vision, ACT 6001-2, 2 x CD; Frank Sinatra, *My Way*, Reprise/Universal Music Japan/Sinatra Society of Japan, UICY-94368, SHM-CD; King Crimson, *the construKtion of light*, Virgin, KCCDX2, CD; King Crimson, *In The Court of The Crimson King*, Virgin/Virgin Entertainment, IECF-30001, HDCD; Peter Gabriel, *Us*, Virgin, PGCDX7, CD; Pink Floyd, *Dark Side of The Moon*, 30th Anniversary Edition, EMI, 5821362, SACD/CD; The Beatles, *09.09.09 Sampler*, Apple/EMI Music, 84414 2 5, 2 x CD; Tina Brooks, *True Blue*, Blue Note/Wave Audio, AWMXR-0004, XRCD24; Yello, *Yello Touch*, Universal Music Group, CD.

The digital Bladelius player was the most 'analog' sounding player I've hosted of late. This isn't to be read as synonymous with best—it had its own issues—but in terms of sound and quality, it actually was closest to the Avid Acutus turntable for a very classy highly saturated sound. On discs like Chet Baker's *Strollin'* or e.s.t.'s *Viaticum* with their almost contemplative sound, it enchanted with its ability to fill out the lower registers and show off a strong organic midrange. Mike Bladelius gave his products a certain character, which, I think, reflects his biases. He is about reproducing the 'human' side of the music, about depriving the midrange—which we are genetically most sensitive to—of any trace of a digital signature or anything else that could be attributed to mechanical playback. The fight for the best midrange and building the whole sound around it is of course not new or exclusive to Bladelius. Harbeth and Spendor pursued the same much earlier. It's one of many possible approaches to sound and a very enjoyable one. Many important sound engineers share it. I will merely quote Wilma Cozart Fine, responsible for the pearls in the Mercury Living Presence series, who claimed that the midrange was *the* critical range and the most difficult to reproduce (ref. H. Pearson, *Wilma Cozart Fine: The Muse of Mercury*, The Absolute Sound, January 2010, Issue199, p. 38-42). There is no doubt that Mike Bladelius has this written in gold letters above his desk.



Such an emphasis on one element of the sound implies a modification of others. More on that anon. If I start off by showing where other devices do better, it slams the door on how one should approach the Embla. After all, I began the review not by listening to the Embla but by *handling* it. Technophobia is a common issue which does not prove that somebody is dumb. It's simply a certain attitude towards technology on a whole. It is interesting that to some extent, most audiophiles are technophobic.

Although audiophile music lovers strive to hear the full glory of the music with the best possible performance and sound from consumer electronics, they are only passive users. The volume knob, some other controls and a few sockets are all they want to deal with. Such conservatism about the means and its attachment to familiar solutions is surprising. I am not even thinking about the positive attitude towards tubes and turntables. That's related to their specific sonic qualities. I mean the general adherence to simplicity including handling. Such an attitude would associate file players with computers. And in the hi-end world, those become *persona non grata*. This is based on bad past experiences but also certain complications which are related to how we must generally interface with 'PC sound' sources.

Against this backdrop, the Bladelius player stands out. Similar to the Naim HRX, the Embla's big touch screen makes handling a breeze. After prolonged contact with such an interface, I would like to see *all* CD players equipped accordingly. One which already is is the Boulder 1021. It displays track listing and downloaded cover art the moment a disc is inserted. With file players, this is even simpler when a pre-loaded database like the Embla's gathers all the necessary information while the disc is being ripped.



Most of the time, the Swedish player was connected to the Internet and only a few times did it fail to grab the meta data (with Frank Sinatra's *My Way* recently issued by the Sinatra Society of Japan for example) and only once did it assign the wrong data (I ripped *In The Court Of The Crimson King* in the mini LP version and got the *Lizard* listing by the same group instead). Most discs were labeled correctly from the installed data base and only the lack of album art made me even go online.

So the Embla gets an A for ergonomics! This is important because the switch from conventional CD player to the Bladelius file player was nice 'n' easy. The sound is equally important of course and for the Embla, Mike Bladelius had a clear vision. Its focus is on a full, highly saturated—even *over-saturated*—midrange. I am sure that many audiophiles will go crazy when they experience their discs this way. I mentioned the Chet Baker and e.s.t. albums on purpose earlier because their already warm sound was additionally deepened by the Swedish player. It made for a true orgy of hedonistic excess in sonic glories without even the slightest trace of artifice, sharpness or brightness. The Embla presented the world from the other side of the mirror for be a better version of it. Everything became very smooth, warm and colorful. When at the end of the first cut Chet Baker introduces his friends, their sound completely fills the room and takes over. This had a dark side I will mention later but it was secondary to the pleasure it gave. A guitar sounded as though it was in the room - by volume and saturation. Of course this remains a suggestion only as in truth, a guitar amp still sounds different. But without direct comparison, this now became hard to determine. I know because I often work with guitar tube amps whose sound, regardless of brand and chosen effect, exhibits more sharpness and harder attacks. But this I could tell only because it's been written to my memory as it were. Without this mental blueprint the Embla's rendition would have seemed absolutely true. I'll go even further and say that it was *better* than reality because it had no annoying edges.

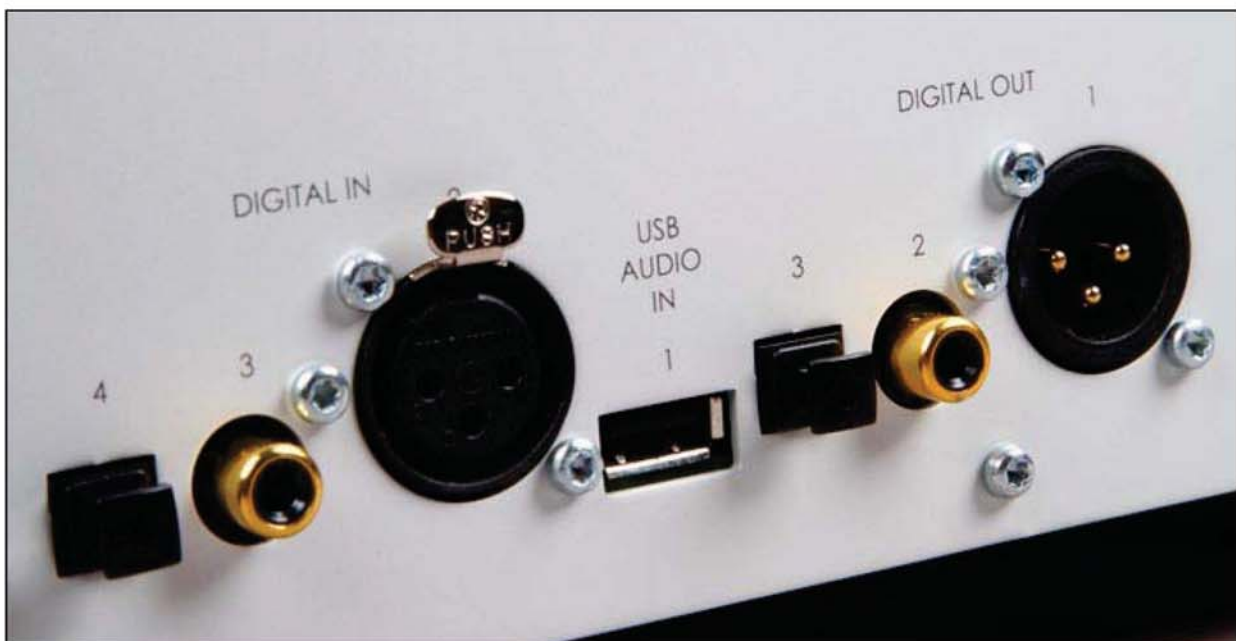
The same held true for *In the Court Of the Crimson King* where my attention was riveted to the very wide and supremely vivid soundstage. If something was recorded in counter phase, it showed up at the outsides of the speakers or behind me. Even the cymbals from this old recording were splendid, with strong attacks and a slightly sweet flavor for a simply wonderful treble with good clarity. Already on the Baker disc I'd noticed the vocals and now this was confirmed by the velvety smoothness of the voices on the Crimson disc. Don't assume that the Embla will caress you to death. It simply quiets us down and asks us to relax.



Not only well recorded Japanese reissues benefited. Peter Gabriel's *Us* whose vocals are quite forward and blatant like on "Washing of the Water" would show everything I am trying to convey. The Embla worked this album over as though to create a new master à la Japanese. There was no extra information of course but the irritating digital noise was banished. In the culmination of each number, the voice remained bright but finally the disc was listenable. To verify this, I ripped King Crimson's *The Construction of Light*, a truly abysmally recorded disc that's far worse than the earlier *Thrak*.

The signal is always clipped on both the digital and analog sides (microphone). It's absolutely horrible. The Bladelius player can't walk on water miracles nor could it transform Adrian Belew into his true self of the other albums but – except for "Prozac Blues", I now could listen to it. So I used the opportunity to get to know this disc better. Earlier I just waited for it to end and actually didn't know it at all.

If a recording shows digital flavors but is well mastered, the results with the Embla will be exceptionally good. The climatic tracks from Yello's *Touch Yello* like the beautiful "You Better Hide" had unexpected power especially in the context of a good system. Bass went very low and remained articulate and clean just like the treble. The cymbals surprised me each time in a good way. They had weight and timbre and veered in the direction of a good turntable.



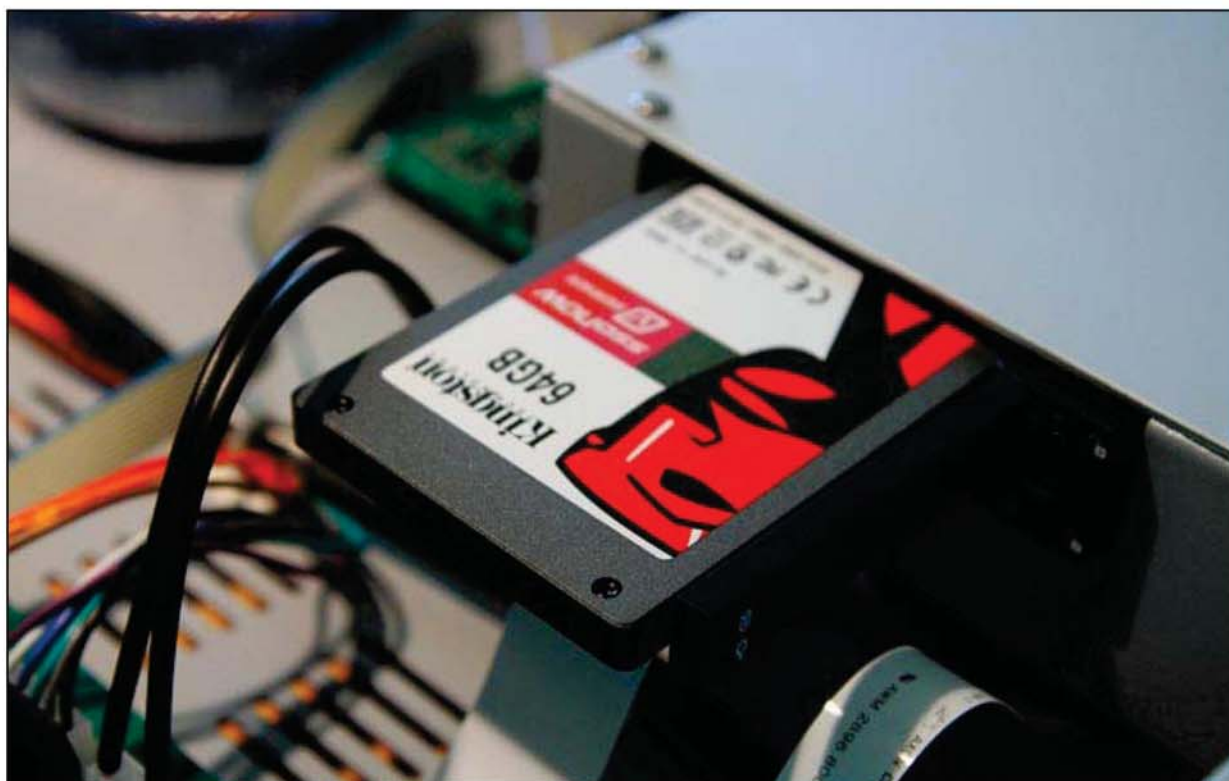
But there was a price to pay for all this. My Ancient Audio Lektor but also the Accuphase DP-700 and Linn Klimax DS as well as other top digital machines are more resolved and better differentiated. While trying to improve everything the Embla actually skirts the edge by sacrificing many elements that *make* hi-end audio on the altar of beauty and warmth. All the mentioned players place their center of gravity a bit higher which—like I wrote about guitar amps—is closer to the real world. The Bladelius bass reaches low but also loses some definition. With organs like on *Antiphone Blues* from the Domnérius & Sjökvist duo, the foundation wasn't as solid as it could have been. This could be heard even with contrabass but there the stronger upper bass helped create a big sound. Dynamics too were softened to diminish the impact from a big band as on Sinatra's *My Way* disc. On the other hand, the Bladelius preamplifier was very refined. It runs a very simple circuit (perhaps that's key) to easily replace preamps in the 10000 - 15000zl range. Then there is the option to shape the sound with various upsampling and digital filters. For me the C filter was best. With it, upsampling was selected automatically. Even though the B filter with its 192kHz upsampling made the sound

slimmer and clearer, it also sacrificed much coherence, hence the most important aspect of the Embla's sound.

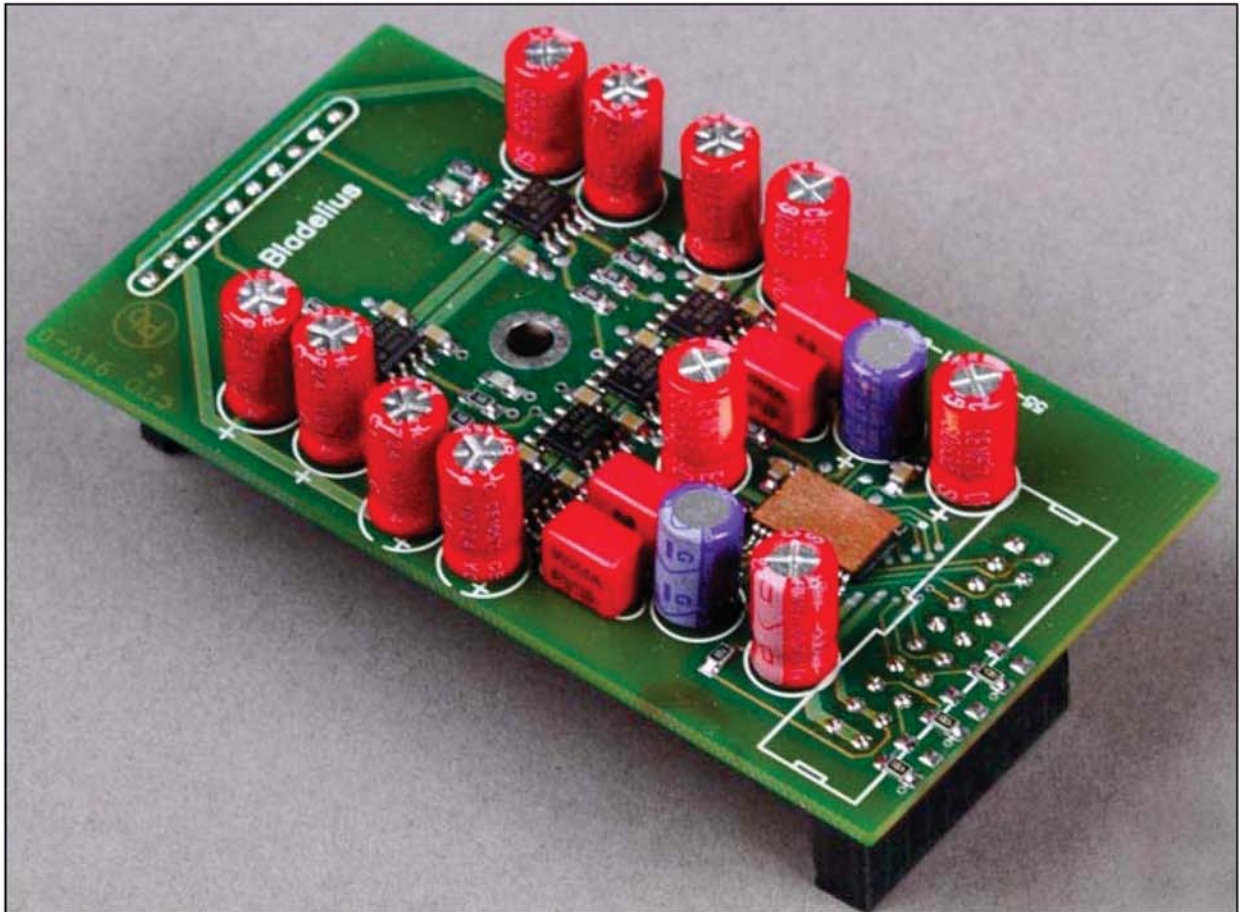


For some reason, I could not successfully connect a USB device, be a pen drive or external HDD to test the player with high-resolution material. What a pity! Maybe I made a mistake somewhere but I did use a USB stick formatted in FAT just like Bladelius requires. Still the Embla failed to recognize it. But used only as a CD player with a built-in library, it was a very beautiful sound. The preamplifier was really something and one merely needs a quality power amplifier to create a very satisfying sound. It could be done better or differently but the Embla is a well-conceived and executed concept which one should at least get acquainted with.

Description: The Bladelius Embla is an audio file player. It is equipped with a CD reader to rip discs to internal or external memory; and internal flash memory. The Embla can play PCM, WAV, FLAC, HRx (Reference Recordings) and MP3 files. The popular AIFF codec is not supported. The front panel is very classy and almost completely shrouded in black acrylic. To the left we only have the slot drive while the LCD touch screen to the right provides all the system information and control interface. On the back there are a lots of connections: digital AES/EBU, RCA, Toslink, USB and Bluetooth inputs; digital AES/EBU, RCA and Toslink outputs; and 1 x XLR and 2 x RCA analog in/outputs respectively. There is also an Ethernet socket and USB port to attach the unit to the computer, an IEC power socket with a mechanical switch, and multi-room connections via RS232 ports and 12V triggers.



Inside there are surprisingly few parts. Everything is split into three sections – the PCB with its display logic; a Teac DVD-ROM with an extra enclosure for rigidity and shielding; and the digital and analog sections. The latter is placed on one big PCB close to the back panel. There is also a multi-section power supply with a very big toroidal transformer which would be the envy of many an integrated amplifier. This is important because digital processors with high computation abilities require lots of current. We find a few dozen capacitors including splendid units from the American Dubilier firm. The power supply occupies more than half of the PCB and a part of the stabilizing circuitry is bolted directly to the thick aluminum bottom plate. I mentioned flash drives which here were big Kingston discs (2 x 64GB in the review loaner). Near the USB port the receiver chip has a copper plate glued to its top to cool it and shield it and also to obscure the markings. It is probably a very recent chip as it can process signal up to 24/96. Next we see the Cirrus Logic CS8416 digital receiver, which can accept up to 192kHz sampling rates for HD files.



Then we have a Burr Brown DIT4192I transmitter chip and finally a 24/192 Cirrus Logic CS5361 A/D converter with 114dB of dynamic range. Because we can record analog signals from radio or turntable to internal memory, this chip is not far from the analog inputs which are handled by Burr-Brown OPA2184s, one per channel. The upsampler and volume control IC too are covered by copper plates. The output circuits are mounted to the side apart from other circuitry. One channel sits on the main PCB, the other on an additional board connected via gold pin. The DAC chip on the top is also covered with a copper plate but not the one on the main PCB. Mike probably decided that shielding through the additional board was sufficient. This chip is the DSD1792, a 24/192 sigma-delta unit capable of converting DSD and PCM signals. I/V conversion is by four BB OPA604 ICs, the ones on the lower PCB run heat sinks. The outputs use two more of these chips. Everywhere we see very good capacitors – Dubilier electrolytics, Sanyos and Wima polypropylene. The clock is thermally compensated and stabilized and also used for the drive, the best solution for digital.



The enclosure is made from thick aluminum plates with mesh-covered ventilation slots. Because the insides don't get that hot, those don't seem necessary but they do allow dust in. The remote control is milled from a block of aluminum but very impractical as it has lots of small buttons and no backlighting. And you could break your foot dropping it.

The rip and drive software was written by **Mocean Labs**.

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