



Gato Audio DIA-250S

Integrated amplifier & DAC

Friday, March 24, 2017

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Does the name Gato Audio ring a bell? Does this Danish audio company have any presence where you are? If not that's a pity because Gato Audio deserves your attention for the high standards it sets in design both inside and outside its products. I want to share the joy that this amplifier has brought to me, it's great to see how innovative a smaller company can be, how it can set the trend for bigger names and become the benchmark in its price range.

The Gato Audio DIA-250S is in many respects an improved successor to the DIA-250, the version without Bluetooth, and is so striking in appearance that you won't forget its combination of curves, brushed aluminum and high gloss black, white or walnut top covers. A dot-matrix display shows the volume setting (left) and the input or the incoming sample rate (right) and below that are controls for standby and input. The display can be switched off if it's a distraction, but I liked the character it adds. On the back it is much more crowded with a power inlet, 12V trigger, USB/Toslink/RCA digital inputs, two RCA line inputs, fully balanced XLR and RCA outputs, plus a display dimmer button. One pair of RCAs can act as a power amp input for use with a home theatre processor. Above the in/outputs are the 5-way loudspeaker terminals, a Bluetooth connection button and its antenna socket. Looking at the Gato Audio from any angle everything is well thought out, with harmony between looks and functionality. Even the standard remote control with extra buttons for display dimming and mute is an ergonomic treat.



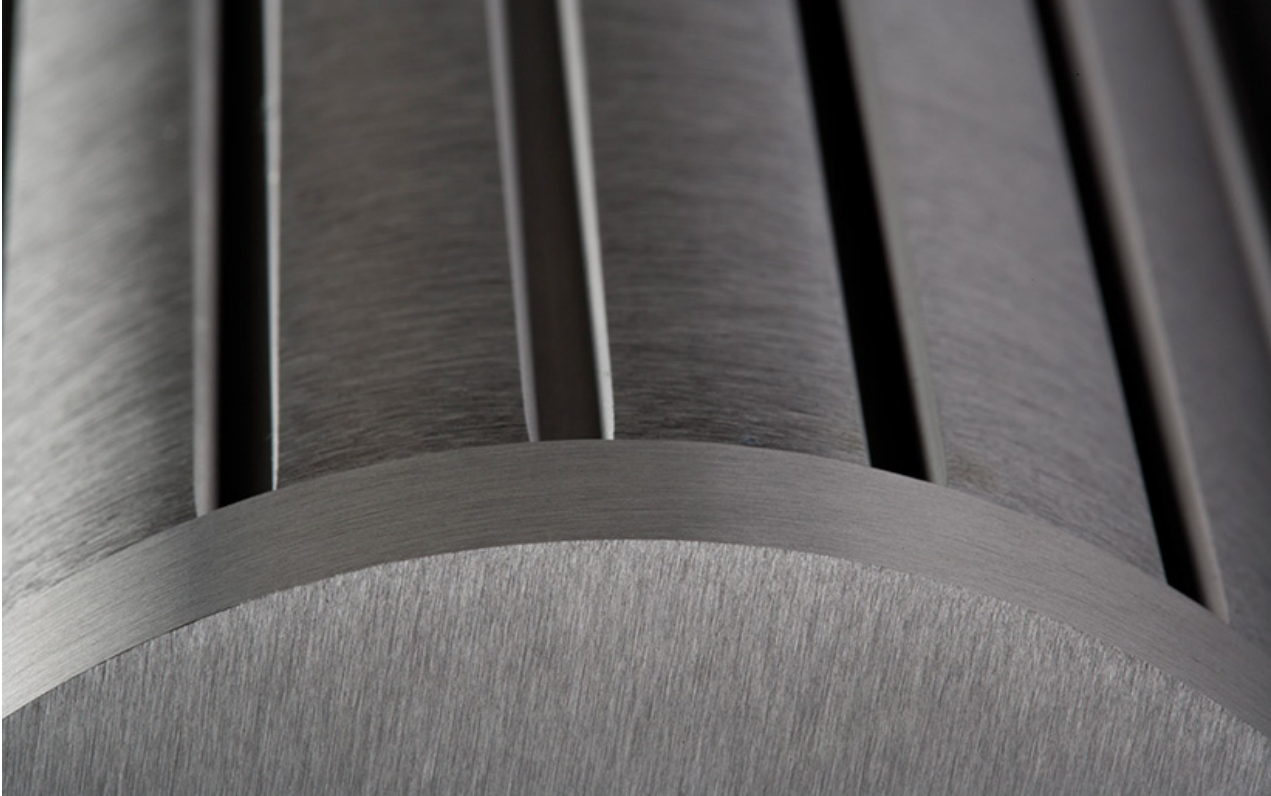
Under the hood are circuit boards for DAC and preamp. The DAC is based on a Burr-Brown PCM1794 converter chip. The USB and RCA input accept 24 bits at a maximum sample rate of 192 kHz. The Toslink input is guaranteed to accept 96 kHz but in my case it worked fine up to 176.4 kHz. Any incoming digital signal is upsampled to 24/192 before conversion starts. The power amp is a class D type, fully analogue but working as a PWM modulator with a single pair of MOSFET power transistors per channel. The power supplies are also switching types, turning the amplifier into a very efficient green machine. The class D stages are made by International Rectifier rather than the more common ICE, UcD or Hypex boards. Maximum power output is 250 Watt into 8 Ohms, which doubles into half the impedance, which suggests a decent power supply. The DIA-250S needs over 1000 Watts from the mains to deliver full output, but idles at 23 Watts, standby is less than 1 Watt.

When using the internal DAC you don't need many more boxes, in fact if you use Bluetooth the DIA-250S is the only box necessary. My digital source is a Bluesound Node 2 streamer, which I also used to feed a Metrum Acoustics DAC to pass the converted signal over XLR to the Gato. Using Bluetooth I play some music from my iPhone and iPad. I connected it up to a pair of Harbeth P3ESR speakers that are normally driven by a Pass Labs XA30.5 power amplifier. Of course you shouldn't compare the built-in DAC of the Gato with a €7000 Metrum Acoustics Adagio DAC, therefore it probably won't surprise any reader that the Metrum over XLR really gets the Gato going. I also compared the Toslink input against the RCA and the winner was RCA once again. The internal DAC in the Node 2 is of lower quality than the Gato DAC, which is fully in-line with the expectations. After all these comparisons most of the listening was with digital signals fed into the coax RCA input, the way most people are probably going to use the DIA-250S. The optical input might best be reserved for TV set top boxes or the like.



One of my fellow Dutch reviewers brought me the beautiful CD *In Winter* by Katie Melua. Her sweet and tender voice suits the Gato perfectly and the amplifier pulls the maximum from the recording. No matter the volume level Katie is always in front of the orchestra and in front of a Georgian female choir. The stereo image is big and fully projected into the room, with height and depth too. The sound is very organic and fluid and comes from so many musicians. It's suitable for the time of the year, just like the latest album by Agnes Obel, *Citizen of Glass*, a great successor to her previous work. The track 'Familiar' sounds impressive in my room, cello on the right, bass on the left, alternate male and female voices. This produces a nice deep stage in which the loudspeakers seem to disappear. A complete high quality sound picture is formed. Class D amplifiers often sound too technical to my ears and not musical enough, let alone with switching power supplies. Of course the term musical can mean anything and is hard to quantify. For me it means easy on the ear, fluid, complete, coherent and still a pleasure even after extended listening sessions. I have only ever found one class D amp that I really like, it sounds almost like a class A triode tube amplifier and is more than double the price of this Gato. Coincidentally it's also based on the development of International Rectifier electronic circuits, just like the Gato DIA-250S is. It might be this technology or something else but the fact is I like this

Gato a lot and the absence of any class D signature is key to its appeal. Enough said on amplifier types, what counts is in the listening.



A favourite for some time now is the Tingvall Trio's album *Beat* with MQA coding. Not that the Gato is MQA ready, but the Node 2 is and that helps for the final results. The first track reveals the limitless ease of the Gato. Piano, bass and percussion deliver a nice image right in front of me, and some distance away which I like. It's not too wide which keeps the trio as intimate as possible but big enough to give each instrument enough space. This is combined with enough bass to really put the small Harbeth to work thanks to seemingly unlimited power delivered by the Gato. The different drums are each part of the whole picture, bass drum placed low, cymbals placed high, everything in proportion with more than enough detail, and not a hint of the technical or unnatural. The quick 'Spksteg' is not as fast as my reference system, but that costs a lot more, so who cares. Although the drums get the most attention, in the end it is the piano that shines thanks to its naturalness and impact. This track can be very annoying because some systems lose control, the Gato follows the band members and maintains separation of instruments. That leads me to some older songs by Patricia Barber and I pull 'Early Autumn' from her CD *Split* over my Ethernet into the system. The piano plays along in rhythm, supported by bass and drums. How wonderful it sounds, urging every nerve in my body to get out of the chair and start dancing (why resist? Ed). The power reserves of the Gato seems limitless and the music keeps filling the room. The more relaxed song 'Too Late Now' brings my blood pressure down and keeps my attention on Barber's playing.

With much more recent work from Rachel Podger's CD *Guardian Angel* the violin sounds wonderful and the volume goes up to a much higher level. I guess my neighbours think I have invited a violin player into the house, so pure and easy is the music that Rachel plays only for me. Track after track I can hear how and in what kind of music hall the recording is made, you can almost feel the size of the stage. Recreating such an ambience indicates the quality of the chain in which the Gato plays a main role. I have to look for other music as well and leave Rachel for the time being, but get back to her later when the review is finished. In the same folder I find the Holland Baroque Society playing works from Vivaldi with Rachel on solo violin. Once again the fluidity of the amplifier shines on the playing, bringing a healthy tension that has everything to do with the music and nothing to do with stress in the system where artificiality would play a part. The Gato DIA-250S

follows like a slave, with little added or taken away. The only criticism is that the DIA-250S might be considered a bit slow, but Gato has another amp with a different voicing if this character bothers you. Me, I am very happy with this version and I enjoy it so much that it has become my new reference in the price category.



The first thing that attracted my attention to the Gato Audio amps when they appeared in the Netherlands was the looks. The dot-matrix display added to that experience and from the moment I heard one playing on Harbeth speakers I had to hear it at home. That took far too long because the distributor changed, but my patience was rewarded. Whatever made me decide that the Gato/Harbeth combination was the best sound at the show was recreated at home. The DIA-250S's effortless control is expressed in power, delicacy and listening pleasure. The internal DAC is in line with the quality of the amplifier, but with a more costly outboard DAC the Gato seems to grow beyond itself and produce even higher quality sound. But that little extra will cost you a lot of hard earned money and it will probably not pay off in all systems. The combination of amplifier and DAC in the one casing in front of me will be more than sufficient for many loudspeakers, either big or small, from budget to high end. If any amplifier is able to perform this well with my critical monitors it is clearly high quality. I could live in perfect harmony with the Gato DIA-250S, secretly enjoying the looks too, although a real audio man would never admit as much. I'll say it one more time, the Gato Audio DIA-250S is my new reference in its price range and a lot higher too.

SPECIFICATIONS:

Technical details:

Type: integrated amplifier with DAC

Output power: 2x 250 W / 8 Ω, 2x 500 W / 4 Ω

Frequency response: 20 Hz-20 kHz - 0.5 dB, and 2 Hz-70 kHz - 3 dB

Total Harmonic Distortion: < 0.01% at rated power

Signal to noise ratio: > 110 dB

Line out maximum level: 13V balanced, 6.5V unbalanced

Total Harmonic Distortion pre out: < 0,001%

Input impedance: 20 kΩ RCA or 40 kΩ balanced

Line output impedance: 75 Ω

Voltage gain: 26 dB (+10 dB headroom)

Recommended speaker load: 4 -16 Ω



Balanced analogue inputs: 1 pair gold plated XLR Neutrik
Unbalanced analogue inputs: 2 pairs of gold plated RCA stereo
Digital inputs: USB type B, Toslink, RCA, aptX Bluetooth
Balanced analogue outputs: gold plated XLR Neutrik
Unbalanced analogue outputs: gold plated RCA stereo
Speaker output: 2 pairs of gold plated safety banana
Trigger: 12 V 1 pc mini jack
Power consumption stdb/idle/max: < 1W/23W/1000W
Dimensions (WxHxD): 325 x 105 x 420 mm
Weight: 10 kg

PRICE:

€3,990 / £3,690

MANUFACTURER DETAILS:

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DISTRIBUTOR DETAILS:

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