

# Audioengine D1 DAC/AMP review

<http://hardforum.com/showthread.php?p=1038623277>

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Here is a bit of info on the product first for those who don't know anything about it (a link as well : <http://audioengineusa.com/Store/Audioengine-D1#overview>) :

Specs :

DAC Chip : AKM4396

USB controller : TI1020B (able to process up to 96/24-bit)

SNR : >110db

Power source : USB 5V (meaning bus powered and they do offer an optional AC adapter if you require it)

Full-scale output : 2.0V RMS (RCA and Headphone)

Output impedance : 47 ohms RCA, 10-300 ohms headphone impedance (this is excellent for a vast array of growing low impedance cans out there). It won't run any 600 Ohm monsters but you should really be looking at a beefier solution for those kinds of can's anyway , such as a dedicated headphone amp.

Input data rate : up to 192KS/s (optical), 96KS/s (USB) (tested both and they are 100 percent functional without errors or static popping).

Now for some sexy pics :





Very sleek and low profile which I personally enjoy. Solid construction as well , doesn't feel like a small brick of cheap ass plastic. All in all very minimal and well designed. The white LED button in the front (power on and off button in reality) is also not overly bright.

Now onto the sound , this DAC/AMP solution is mostly aimed at being portable. Its also designed to sound great and let me tell you , it does this quite well. It excels at high end detail , I'm noticing cues in music that I often find harder to hear (if at all) on lower end DAC's and without any required critical listening on my part to observe. For me this is a make or break feature for a DAC , if it can't pick out detail than that's a deal breaker (unless its dirt ass cheap) and really if you plan to invest in a higher end pair of headphones you should want all the detail that can be revealed without costing an arm and a leg.

I find the sound from this DAC quite effortless and all ranges of sound are well represented without any lacking points that I can find for a DAC in this price range. Overall high marks for Audioengine for its implementation. Genre's the D1 excels at : Classical , anything Acoustic and Rock/Electro.

It uses "adaptive mode" USB instead of asynchronous. In reality these two features ultimately are very hard to distinguish apart from one another in anything other than response. I've used both technologies and I find them both indistinguishable in reality. Some people "claim" they hear a difference but I find this is another audiophile "snake oil" ideal. So latency is not an issue.

The headphone amp is also quite surprising. I was able to achieve very satisfying results with my HD650's (well known for being "fussy" and very "picky" with headphone amps) and this all being done via power from my USB bus , impressive feat. My Denon D2000's are also well powered and sound amazing from this DAC/AMP. The D2000's are extremely efficient so more often than not headphone amping does little to benefit it , yet I did notice a subtle but present difference that will make my D1 the go to solution for my D2000's from this point on.

Comparing the D1 to other DAC/AMP's that I own (The Fiio E7 , E9 and ASUS ST) I would rate the D1 as the most natural sounding and at times with certain genre's of music even besting the ST. The D1 is an easy recommendation coming from the E7 , both are excellent DAC's but the detail revealing ability of the D1 makes it a superior choice (however the E7 strikes back with its ability to be independent of a power source thanks to battery operation so its not an easy comparison). The D1's headphone amp is better at handling lower impedance headphones than the E9 but it is unable to compete with the E9's ability to power higher end impedance cans by a long shot. If you own a pair of 600 Ohm cans , this is not the solution for you. The ST provides tough competition to the D1 with a stronger on-board

headphone amp but the ST falls short when it comes to properly powering low impedance headphones , so the D1 has a slight edge here.

The D1 also has the advantage of being an external solution not enslaved to a PCI bus so it has a wider array external options and the advantage of being portable. But the ST has the advantage with its huge list of Swiss knife features and options.

I tested the D1 through my Xbox 360's optical output and found it to be quite decent. Gears of War sounded as gritty and bloody as it properly should.

I don't have my speakers currently setup so I can not give any kind of results of their performance in that kind of environment. Considering Audioengine makes some pretty kick ass monitors I would imagine its quite good.

If you are looking for a DAC/AMP solution that is portable , bus powered and sounds phenomenal than this is it. At \$169 on Amazon , this is a great DAC and I don't really see any path to an upgrade without at least doubling if not tripling your budget for a dedicated DAC with a different chip entirely.

If you are looking for a long term all in one solution that offers a "plug in and go" style interface that works effortlessly across platforms (PC/MAC) than this is the DAC/AMP you've been waiting for. I'm keeping this baby

