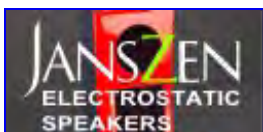Positive Feedback ISSUE 76

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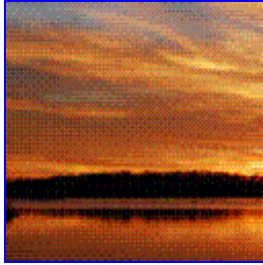
B1 Bluetooth DAC

as reviewed by Andre Marc

Audioengine, based in the USA, is one of those companies that has worked to bring music into just about any environment, and at affordable prices. This is opposed to music lovers buying playback gear that they must *somehow* adapt *their* environment to. Speaking of affordable, most Audioengine gear is less expensive than just about any Apple product, and is built to a wonderfully high standard.

How do I know all this? I have spent the past three months with one of Audioengine's products, the superb A2+ desktop speakers, and have loved every minute of it. They are *real* desktop speakers, not stand mounts masquerading as such. The A2+ allows for multiple connection options, such as USB, mini jack, and RCA. I used it with output from my Mac Mini's headphone jack, USB port, and via RCA with a variety of portable DACs, like the SOtM sHP-100 and the iFi Nano iDSD. This set up has made work hours at the desk go by *much* more pleasantly.

The A2+ are in fact so, good, I used them to edit and master several recording and audio restoration projects. When final results were auditioned on my reference systems, it was surprising how accurate the A2+ really were in comparison, despite of

course not having the life like scale or weight of Thiel and Harbeth floorstanding and stand mount speakers. So thrilled was I with the A2+ on a price, form factor, and performance level, I was eager to review other Audioengine products.

When the good folks at Audioengine sent out a press release offering for review the B1 Bluetooth DAC I threw my hat in the ring. First, because I wanted to further explore their product line, and secondly, I was curious about the growing interest in Bluetooth among audiophiles. Although, let's be clear, many 'philes *scoff* at the notion of Bluetooth. That kind of snobbery, also directed at lossy streaming services like Spotify and Pandora, is tiresome. Music lovers will consume their daily dose of tunes the way *they* wish, without the slightest consideration for what anyone sitting in a man cave thinks.

The Audioengine B1 retails for $189. It is very well made, and is housed in sturdy case about the size of a pack of cigarettes. There is an attached antenna, and a status indicator on the front, and a pair of RCA outputs on the back. There is also, interestingly, an optical digital output. A power adapter is supplied, along with a nice microfiber storage bag and starter RCA cable.

The B1 uses the AKM AK4396A DAC chip, which Audioengine uses to upsample all incoming data to 24-bits. According to Audioengine, *"the AKM AK4396A DAC, widely known for its low noise and high fidelity. B1 is essentially an upsampling 24-bit Bluetooth DAC and will pad all bit depths internally to 24-bits, thus achieving a higher signal-to-noise ratio. Due to the AK4396A's high signal-to-noise specs, the fact that digital signal is converted (upsampled) to 24-bits and the added benefit of triple redundancy power source conversion and filtering, the B1 presents impressive low noise and low distortion characteristics with a noticeable improvement over other Bluetooth devices."*

To finish up the tech profile, the B1 uses Bluetooth 4.0 audio receiver in conjunction with the aptX codec, which has universally been praised. The unit outputs a standard 2.0V RMS. The claimed range is around 100 feet, and Audioengine says that a home WiFi network is in no way affected, since Bluetooth operates on a different principle. Lastly, the B1 should work with any Bluetooth source.

I set up the B1 in my second system, connected to my McIntosh MA6600 integrated amp with Darwin silver interconnects (they cost more than the B1!), with Harbeth Compact 7ES3 speakers, and Audio Art speaker cables. As sources I used my three portable devices, including a Google Nexus 7 Android tablet, an iPad Air, and an iPhone 5S.

Exceptional
sound
and
world class
design!

Source material included AIFF, AAC, and Mp3 files housed on the devices, YouTube, and Amazon Cloud Player. Set up amounted to virtually zero effort. I went to each of the device's settings, and paired them with the B1, which took all of 30 seconds. The rest entails hitting play. So how it did sound? Remarkably musical, and uncompromised for all but the most finicky listeners. There were no obvious artifacts or unpleasant hash that previous generations of Bluetooth audio have exhibited.

Maybe in direct comparison to lossless CD files, played back via the server, one could notice a loss of resolution and refinement, but boy, do you have to listen attentively. Don't get me wrong, for critical listening I will always prefer my FLAC files streamed by the Simaudio MiND and the SOtM Mini Server, decoded by Simaudio Neo 380D and Bryston BDA-1 DACs, but they require quite a few moving parts, hard drives, cables, networks, and control apps. To be able to pick up a device and sample tunes with a few thumb taps has numerous untold charms.

A funny thing happened about halfway through the review period. I *lost* the B1. To my

wife that is. I came home one day and my wife was streaming playlists from her iPad with her premium Spotify account. Yes, my exclusive time with the B1 had come to an end. From that point on she claimed the B1, and clearly had a smug look on her face, wanting nothing to do with my silly, complicated music server, which entails navigating multiple menus. I admit to joining in on the party eventually, researching my usual long list of current artists, via Spotify.

After a few days, I had to admit that Spotify streamed via the B1 sounded pretty darn good. It creates enough enjoyment to satisfy a huge number music lovers. My wife included, who could care less about FLAC, WAV, ALAC, bit depth, or sample rate. And good for her. To have a member of the household have access to unlimited music without being intimidated by high end servers, and without having to jump through hoops is a great thing.

I love the fact the B1 is so small; it can be taken from room to room. It unlocks music from a static pile of fancy boxes. The B1 was designed with a specific purpose. It makes use of Bluetooth technology with a well thought out implementation. There is not a tablet, phone, or Bluetooth enabled computer it won't pair with. As a matter of fact, my wife also used on her laptop while using the TV streaming service Hulu. It allowed her to watch her shows without relying on the built in, thin sounding laptop speakers.

Audioengine says *"the features that we feel make our system better than most wireless products currently on the market are the overall ease of setup, fixed low latency, audio quality, lack of dropouts, and high interference tolerance—all the good stuff that's important for a wireless product to be of any real use."* I could not agree more. At $189, you can turn any audio component or product with optical or RCA inputs into a high quality Bluetooth playback system. *Highly recommended.* **Andre Marc**

Audioengine B1 Premium Bluetooth Music Receiver
Retail $189

http://audioengineusa.com