



Audioengine B1 Bluetooth Music Receiver Review *Highlights*

This neat little product connects to your audio system in a snap, adding the latest version of wireless Bluetooth connectivity. It uses Bluetooth 4.0 protocols and the aptX codec. These technologies extend the range up to 100' and make for superior audio reproduction. The B1 has a very nice internal DAC as well but you can even bypass that and feed an SPDIF signal to your own DAC via the optical digital output. The sound from the B1 far exceeds most every other Bluetooth audio product I have tried, offering a high quality of reproduction to go along with the amazing convenience of the wireless hook up.



Audioengine B1 Bluetooth Music Receiver *Highlights Summary*

- o Quick setup
- o Solid build quality
- o Universal Bluetooth compatibility
- o Rejuvenated my small bedroom system
- o Excellent midrange response
- o Slightly etched treble

Introduction to the Audioengine B1 Bluetooth Music Receiver Review

Audioengine opened for business in 2005 with their first product being the A5's. These were powered bookshelf speakers that

were warmly received by consumers. Over the ensuing 9 years, Audioengine has continued to develop and sell low-cost high quality products in the loudspeaker, subwoofer and accessory categories.

AUDIOENGINE B1 BLUETOOTH MUSIC RECEIVER REVIEW

SPECIFICATIONS

- Bluetooth 4.0 Audio with aptX Codec
- Inputs: Bluetooth (up to 100' range)
- Outputs: Stereo Analog RCA and Digital Optical (SPDIF)
- Analog Output: 2V Max
- Analog Output Impedance: 57 Ohms
- DAC: AKM AK4396
- S/N Ratio >100 dB
- THD+N <0.02% (1 kHz)
- MFR: 10 Hz – 20 kHz, ± 0.5 dB
- Native Bit Depth: 24-bit
- Dimensions: 1.0" W x 4.0" W x 3.5" D
- Weight: 1 Pound
- MSRP: \$189 USD
- [Audioengine](#)
- SECRETS Tags: Bluetooth, Audioengine, Audio Accessories

One area where they are particularly well known involves a number of wireless audio products that they have brought to market. These started with the Wx series of wireless adapters. I personally used a W1 for several years as the interface for my outdoor system and was impressed by its performance and reliability.

Now Audioengine is continuing to up their game with the B1 Bluetooth receiver. This compact little accessory uses the latest aptX Bluetooth protocol to boost its range and offer high quality audio over the somewhat maligned Bluetooth interface. So the big question here is “will an audiophile be able to really enjoy music over Audioengine’s newest Bluetooth receiver?”

Design and Setup of the Audioengine B1 Bluetooth Music Receiver

The Audioengine B1 Bluetooth receiver is a small audio accessory that adds Bluetooth playback capabilities to any audio system. It comes complete with everything you need – a USB power supply, stereo RCA interconnects and a microfiber carry bag.



The component itself is housed in a solid aluminum case that is around the size of a standard deck of cards. There is a bright blue “Pair” LED light on the front. The swivel antenna is also on the front.

In back, you have the micro USB power input jack, an SPDIF digital out and an analog output via high quality, gold-plated RCA’s. That’s all there is to it.

Set up is as simple as you can get. Connect the analog outs to an available input on your preamp, amp or powered speakers. Or you could bypass the internal DAC and connect the optical out to an optical input on your DAC or receiver. The Audioengine B1 outputs a native 24-bit 48 kHz signal when connected this way. Then you connect the power input and the unit is ready to play.



When you connect a Bluetooth player wirelessly, the handshake is automatic – you don't need a password. This is the way it should be as far as I am concerned. Plus, there are no drivers or special downloads required.

The B1 uses the latest Bluetooth aptX codec which is specifically designed for music playback. The B1 also has special circuitry and a precision-tuned antenna to extend its wireless range. Audioengine therefore claims a playback range of up to 100 ft (30 m). I was not able to get that much range in my house but it did play music in the adjacent room about 30 – 50 feet away. That is not bad at all but I am not sure how important it is to play music from a long range. Wouldn't you want to be close enough to the system to actually hear the music after all?

The Audioengine B1 Bluetooth Music Receiver In Use

When I got the B1 in, I was already in the midst of several other reviews and did not have time to start on it right away. So I put it in my daughter's bedroom system at first. I wanted to let her play around with it for a little while.

She already had an older, inexpensive Bluetooth receiver that we replaced with the B1. In all honesty I had forever been disappointed with the sound of her system. She and her friends usually play back their music either over the older Bluetooth receiver or off the analog outputs on their phones or iPods. The sound over Bluetooth was always grainy and fragile. Via analog, the sound would be closed in and lifeless.

The Audioengine B1 instantly changed all of that. It sounded like a whole new system! All of a sudden the sound was dynamic, extended and much more lifelike. It may have been the aptX technology but I think the B1's DAC's were at least an equal part of the amazing transformation I heard. The exact reason for this improvement really wasn't all that important to me. All that really mattered was the incredible boost in performance that changed my attitude from thinking we needed to replace her system to an attitude that hey, this was a pretty darn good system now!

I later moved the B1 into our big system to give it a real run for its money. Of course the little B1 would be tested much more deeply with my high resolution main system. So there were two areas where I heard very minor weaknesses in the unit's performance.

The highs and some percussive transients were a little etched sounding with an overall tonal balance that was slightly thin and tilted up. Also the bass was not as extended as bass played through my reference DAC. These were not major problems. The thinness was slight and easily lived with while the bass was lacking only the very deepest extension but was still a decent foundation, clean and properly proportioned especially good for Bluetooth.

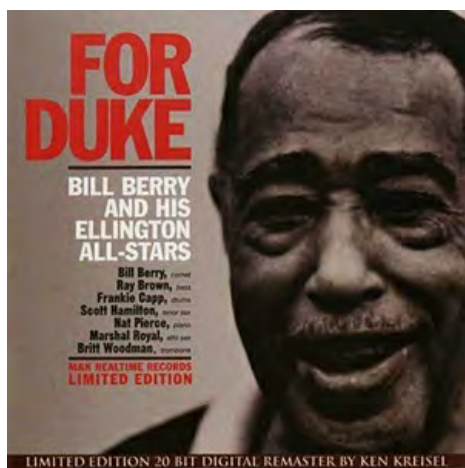


I noted the above weaknesses at first when listening to Talking Heads "Naked" which was ripped in Apple lossless to my iPod Touch from a Redbook CD. The above were the only downsides of the Audioengine B1 that I heard while the biggest plus in the sound was the all important midrange. The B1 served up smooth, balanced mids with a vibrant character that was hard to turn

away from. I was mostly quite impressed with what I heard.



Another CD I ripped in lossless to the iPod was Lorde "Pure Heroine". I can't get enough of this album and I thought it would be a fine torture test for the B1's bass response. The bass here left nothing to be desired. Sure it wasn't as extended as the bass I get from my reference DAC but you wouldn't have known that short of a direct comparison. Again, the treble and transients were somewhat etched and forward but it was not objectionable. It in fact added some extra excitement to what I was hearing.



Then I went in for a highly regarded audiophile recording with Bill Berry and his Ellington All Stars "For Duke". This quality recording showed its pedigree with the smoothest, best balanced sound from all the music I tried that day.

Now we were finally getting somewhere! The sound on this record was nearly all one could ask for, smooth and natural with a solid and stable stereo image. Cymbals floated with a natural attack and decay. The acoustic bass had a realistic timbre. The Audioengine B1 also preserved the front to back stage depth which was an unexpected feat for a Bluetooth receiver. I was impressed.

Conclusions about the Audioengine B1 Bluetooth Music Receiver

I am very glad I had a chance to evaluate the Audioengine B1. I will be hanging on to it methinks. It is an excellent product to use when you are having a gathering or party and you want people to be able to share their music. It is also a handy way to quickly fire up some music with no hassle. When using the B1, your phone, tablet or iPod becomes your remote control which is pretty sweet as well.



I now wonder, "Has Bluetooth finally come of age?" The answer is definitely "Yes!" Please don't take that too far. I am fussy about audio and I personally wouldn't use the B1 for serious listening. There were some very minor shortcomings with the sound that would keep it from filling that role for me. But it is great for background music or at parties like I wrote above.

My closing thoughts are that the Audioengine B1 is fairly priced, easy to set up and use, adding Bluetooth connectivity to any audio system. The sound is smooth, grain-free with a warm and welcoming midrange. I recommend it for anybody who wants to take advantage of the latest Bluetooth technology and get some pretty good sound in the process.

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A U D I O
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P R E V I O U S A R T I C L E

A U D I O E N G I N E

N E X T A R T I C L E

G E T O N U P - B L U - R A Y M O V I E R E V I E W

J I M C L E M E N T S

Jim Clements has been an audio nut since childhood where you could find him underfoot at his local high end store on most weekends. (This particular shop was within walking distance of Jim's home, much to the chagrin of the owner and his staff.) Jim's audio journey started early because he loved great music of all kinds. And he still does. Like most audiophiles, Jim was not particularly inspired by a vast majority of the audio systems he encountered. So his quest grew through his efforts to recreate a live listening experience in the home. This has proven to be a never ending quest. One major offshoot of all this is that Jim has become something of a cinema enthusiast as well. So now he's working on the video and surround sound conundrums too. Since perfect recreation of sound and video is a goal to be pursued but never attained, Jim derives his pleasure from the journey itself. He wants to help our readers on their own personal quests by reviewing products thoroughly and objectively. On a personal note, Jim is a Professional Engineer, licensed in California and Texas. He currently has his own engineering practice in San Antonio, Texas. Jim is also part owner of a small chain of craft beer growler stations in South Texas.

R E L A T E D
P O S T S
