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Audioengine HD6 Premium Powered Speaker System

Perfect for music lovers in need of a small self-powered speaker.

Review By Tom Lyle



I don't usually participate in discussions in Internet audio groups. Of course if I'm directly asked a question I'll answer, but if you know anything about me you'd know that I'd much rather *listen* to music than chat about the equipment that reproduces it on an Internet group. I'm more of what some call a "lurker", yet I have gleaned much information from these groups. Nevertheless, I was taken aback by a comment that was made by an otherwise intelligent audiophile that there are no longer manufacturers that produce high-quality, affordable high-end audio equipment. I'm paraphrasing, but what he said was "gone are the days of DB Systems, Audio Alchemy, etc., and other great deals on equipment like one could get in the 1970s and 1980s". I didn't bother replying, and neither did many others in this group -- as I have a feeling that not many agreed with him. There are obviously a slew of manufacturers of very affordable high-end components and accessories, many of them reviewed in the pages of *Enjoy the Music.com*. Audioengine, the company that produces the subject of this review is certainly one of them.

Component

The last time I [reviewed an Audioengine component was back in April of 2012 when I reviewed their D2 24-Bit Wireless DAC](#). For less than \$600 one can transmit digital music files with a sample rate as high as 96k with a word length of 24-bit anywhere in one's home (for that skeptical Internet audio group commenter, taking into account the rate of inflation the D2 would cost him a bit over \$200 if he were able to purchase it in 1980, which obviously, he couldn't). At one point in the review period I paired the D2 with a pair of Audioengine's A5+ two-way self-powered speakers, which I described as having a "larger than life sound that fit in very well into spaces that were, to say the least, not acoustically perfect". I still recommend the Audioengine \$399 A5+ to anyone who wants great sounding pair of self-powered speakers, but doesn't necessarily have the room for larger "bookshelf" speakers. The A5+ measures only 11" x 7" x 8". But Audioengine has done quite a bit more than make the speaker's cabinet larger with their new HD6 Premium Powered Speaker System, as they have raised the bar with these newer, larger models that I will review here.

Designed

Audioengine's website is well designed and chock full of information. On it you'll discover that Audioengine considers their HD6 Premium Powered Speakers (I'll simply call them the HD6 from this point forward) a giant step forward from their other successful self-powered speakers, and represents all they've learned in their 10 years in this business. I assumed that the HD6 used an on-board Class D amplifier to power the speakers, but the HD6 is powered by a Class A/B 50 Watt per channel amplifier that uses a linear power supply with a toroidal power transformer. It also sports both analog and digital inputs. The optical digital input can decode signals as high as 24-bit / 96kHz, and the HD6 also comes with an aptX Bluetooth input. This Bluetooth input obviously means that one will be able to play through the HD6 whatever streaming service they desire on their smartphone, tablet, or computer. The HD6's speaker grilles attach magnetically, and the speakers have a very

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Necessary

Connecting the HD6 to whatever source one chooses couldn't be simpler. Audioengine even provides all the necessary cables, including the power cable, a two-meter mini-jack interconnect, a two-meter interconnect terminated with RCAs, and 12 feet of 16 AWG speaker cable. Simply connect the left speaker's power cord to a wall or power conditioner's AC receptacle, connects the left speaker to the right with the supplied speaker cable, and then connects the source or sources to the inputs on the rear of the left speaker. Done.

The HD6's silver-colored remote might be a bit small, but its solid metal case and good "feel" while resting in my hand is fine compensation for that, and its relatively simple lay-out became very intuitive after a very short time. After I was satisfied that they were broken-in (which didn't take nearly as long as I thought it would) I used the HD6 self-powered speakers in my main system, which I admit was a bit silly as they were out-classed by every source component that fed them. Soon after this they spent some time in my second system in a common space in my home, situated on a pair of 24" speaker stands. This system is comprised of components only a bit below the main system's, but I was able to get more of a real world grasp on what these speakers sounded like. Much better was using them in my desk-top system, and obviously this is the way many customers will use the HD6. I was able to use the HD6 not only for the enjoyment of tunes while performing everyday tasks on the computer, but more often when listening to music sourced from the hard-drives that are attached to this computer. This computer has two major tasks: as my music server and as the nucleus of my home studio where I spend much of my day. With the Audioengine HD6 I mastered a few projects, listened back to some studio tapes sourced from the hard-drives, from the DAC / ADC I use for mastering projects, or from analog sources I use for mastering and other jobs.

Majority

I've used many different self-powered speakers over the years; the majority of them have been designed especially for home and pro studios. I didn't have any on hand during this review, but I have many memories of these self-powered studio monitors that I've used in my desktop studio, the studios of others I know, and some professional brick and mortar studios -- some of them considered state-of-the-art by their owners and the engineers that run them. Regardless of cost, (and some of them cost much, much more than the HD6) 90% of these workhorse self-powered studio monitors I've come across over the years are quite similar to the HD6. Some may have larger drivers, and many have on-board power amps that have more power than the HD6, but again, my thoughts turned to these monitors as soon as I laid my eyes upon the HD6. So I figured since their so closely resemble these monitors, this is the type of sound I should expect from the HD6. Wrong. After only a short time I realized that the HD6 is not in the same league as monitors. And I mean that as a compliment. These other speakers have a much more detailed sound, and not only because they most often have tweeters that are set back into their baffle giving them a horn-loaded appearance and sound. Detail and nearfield listening is the name of the game with these monitors. Sounding like music isn't. Thank goodness I discovered relatively early in the review that comparing the HD6 to these self-powered studio monitors is pretty much a waste of time. The HD6 should be compared to other high-end two-way speakers. The game changer is that the HD6 has over most all of these other high-end speakers, though, is that they are self powered and contain a rather decent upsampling 24-bit DAC.

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Speakers

As I mentioned previously, the last Audioengine self-powered speakers I had the pleasure of hearing were the A5+ (\$399 as standard or \$469 finished in bamboo), which I used when reviewing the Audioengine D2 24-Bit Wireless DAC. In the review I said that the A5+ speakers "were voiced to vary a bit from perfectly flat, but this was fine by me – the slightly elevated mid-bass and somewhat scooped-out midrange gave the speakers a larger-than-life sound..." This description does *not* fit the HD6. The HD6 are much more neutral sounding, and again, sound more like other high-end two-way speakers not only within their price class, but beyond. Add in that they are self-powered and have a DAC and we're talking about a stone cold bargain.

Using the music server in my computer as a source was a great way to not only evaluate the sound of the HD6, but to simply enjoy the speaker and listen to music. This review is written only a week or so after the death David Bowie, rock 'n' roll's Thin White Duke. I'm not one of those who have his picture plastered all over my walls, but I am a huge fan of his music, that's for sure. I have pretty much his entire catalog on the hard-drive of my music server, and a considerably large number of David Bowie LPs, including his first dozen or so pressed on Japanese vinyl, and many other pressings beyond his 70s and early 80s work, along with many 7" and 12" singles. I'm not much into the cult of personality, but yes, I'm keenly aware of his cultural influence -- but I'm much more into the music he produced, and luckily much of it was recorded meticulously in some of the best recording studios on Earth. No, these are not "real music recorded in real spaces" reference type of audiophile recordings, but they are excellent multi-track rock recording that many audiophiles listen to. Including yours truly.



Many of Bowie's 1970s albums are incredible sonic showpieces. I'm speaking of course of *The Man Who Fell To Earth* through perhaps his Berlin trilogy with producer Brian Eno: *Low*, *Heroes* and *Lodger*. If a system is good enough, one can hear each track on the multi-track recorder's contribution to the song's sonic structure. When played through the HD6 I could hear this quality. Of course I can hear it much better when played through a 6 foot plus tall pair of electrostatic speakers. Through the much larger speakers I can hear each track throughout the song without much distraction from the other tracks laid to tape. The HD6 does not defy the laws of physics, so hearing each track's contribution and characteristics is a bit of a fleeting experience, but when the music get simpler and only a few instruments or voices are playing, or if one instrument is featured within a track, and its level is pushed higher into the mix and thus more forward into the HD6 soundstage one can follow the track and hear the acoustic environment in which it was recorded to a considerable degree.

But this does happen quite often, and for a small, two-way self-powered speaker it's quite an amazing feat. Of course when a song on like Bowie's "Changes" from 1971's *Honky Dory* is played through the HD6 the soundstage is quite crowded. Yet even in this packed sonic field I can form a mental picture of David singing into the microphone in the sound booth. I can also hear that Rick Wakeman's piano (some may have heard of this keyboardist?) is obviously recorded in a larger space. And when David Bowie's sax comes in I could perceive the dimensions of the room it's played in. That this is all happening within the confines of a small two-way self powered speaker is quite surprising. But more surprising than even when hearing these things with the detail in which the HD6 is capable of, it does not present the music as it is being put under some sort of sonic microscope, as it is when played through the host of self-powered studio monitors I've heard over the years, nor does it sound like sonic mush, as I've heard from many inexpensive two-way bookshelf speakers – *but like music*. The HD6, even with its on-board electronics loaded into one of the cabinets manages to sound as if a direct connection to the source. Of course a good source helps, and if you're expecting to hear this type of sound when feeding it a signal of a compressed file from your phone through the HD6's Bluetooth input -- think again. Not that Bluetooth sounds bad through the HD6. It doesn't. It sounds like a Bluetooth signal, all that is sonically lost is gained by convenience, and I'm all for convenience when I can have it.



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So, when using the HD6 flanking my computer screen as part of my desktop system being fed by my tricked out computer's music server the HD6's were definitely the best "computer speakers" that I've ever used. And so when used in my other systems it was easier to hear what the HD6 was and wasn't capable of. First of all, the frequency extremes of the HD6 sound excellent, especially its the treble, where other two-way speakers don't have much over the HD6's silk-domed tweeter. It was able to handle all the high-end sound that passed through it. The treble was as extended as the source demanded, and I didn't hear any nasties such as sibilance or distortion unless it was the fault of the source it was reproducing. There might have been a bit of harshness in the lower treble, but that could have been the fault of some of the digital signals I fed it, although I played little or no lossless material through it other than when I was testing the Bluetooth's functionality.



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The bass of the HD6 is rated to 50Hz, which for all intents and purposes, doesn't reach into sub-sonic territory. And even though the speakers specifications state that the bass doesn't go as low as the lowest note on a four-string bass guitar, I never thought I was missing anything when I played music that had a bass guitar in it, which at the present time is just about 80% of the music I currently listen to. Perhaps the fundamentals are missing, but these relatively small speakers manage to reproduce these lowest notes through sonic illusion, as there is a slight mid-bass hump that these speakers present – not to the point of distraction – but enough so that one gets the sense that the speakers are reproducing these lowest notes, even though they actually are not. When playing some raucous rock 'n' roll I can hear the kick drum's "thud" very well, and when cranking the volume of the HD6 (these speakers play *loud*) the bass shakes my desk and anything else that is touching it, including the air around me.

Recommend

I can't recommend the Audioengine HD6 highly enough. This amplified speaker is perfect for music lovers and audiophiles who need a small self-powered speaker that works in many applications – from replacing one's crappy computer speakers, or to enjoy in a second system in one's office or other room where a larger speaker will not fit – I can't think of any other self-powered speaker that can provide *much* more than simply a "decent" sound plus negate the need for an amplifier, preamplifier, and DAC. Plus, when one considers the price of the HD6, it's a no-brainer. A beginning audiophile can easily connect a turntable's phono preamp's cable's to the

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Tonality	
Sub-bass (10Hz - 60Hz)	
Mid-bass (80Hz - 200Hz)	
Midrange (200Hz - 3,000Hz)	
High Frequencies (3,000Hz On Up)	
Attack	
Decay	
Inner Resolution	
Soundscape Width Front	
Soundscape Width Rear	
Soundscape Depth Behind Speakers	
Soundscape Extension Into Room	
Imaging	
Fit And Finish	
Self Noise	
Value For The Money	

Specifications

Type: Two-way bookshelf-style speaker system featuring wireless and digital optical inputs
Drivers: 5.5" Kevlar midrange/woofer and 1" silk dome tweeters
Frequency Response: 50Hz to 22kHz (+/-1.5dB)
Power Output: 150W peak power total (50W RMS, 75W peak per channel)
Inputs: 3.5mm mini-jack, RCA L/R, digital TosLink optical and Bluetooth aptX
Outputs: Variable line-out w/2.0V RMS max output, 47 Ohm output impedance
Input voltages: 115/240V, 50/60Hz manually-switchable

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Power Output: 150W peak power total (50W RMS, 75W peak per channel)

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Outputs: Variable line-out w/2.0V RMS max output, 47 Ohm output impedance

Input voltages: 115/240V, 50/60Hz manually-switchable

Amplifier Type: Analog dual-class A/B monolithic

Signal to noise ratio: >95dB (typical A-weighted)

THD+N: <0.05% at all power settings

Crosstalk: -50dB

Analog input impedance: 48 kOhms unbalanced (mini-jack and RCA inputs)

Protection: Output current limiting, thermal over-temperature, power on/off transient protection, replaceable external main fuse

Bluetooth Specifications: AKM AK4396 with 24-bits upsampling DAC and 4.0 with aptX

Wireless Operation Range: Up to 100ft (30m) typical

Optical Input: Up to 24-bit/192kHz

Speaker Dimensions: 11.75" x 7.25" x 10" (HxWxD)

Weight: 17.5 lbs for active and 12.5 lbs for passive

Price: \$749

Company Information

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