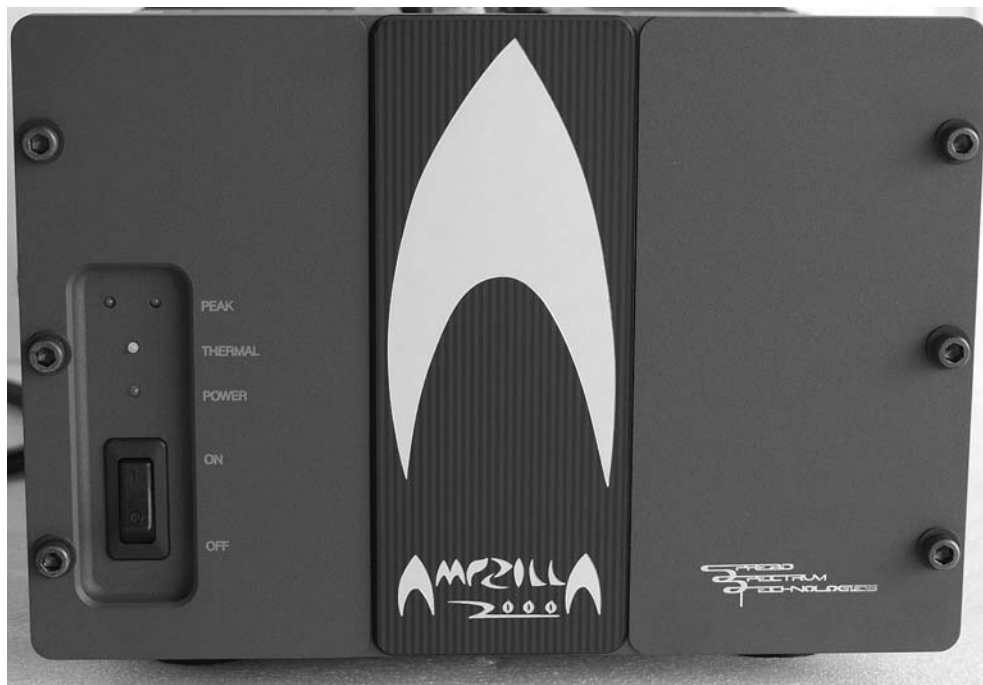


Ampzilla 2000 Power Amplifier

Anthony H. Cordesman



I AM A BIT RELUCTANT to begin writing this equipment review. And my difficulty is not because the Ampzilla 2000 is not an excellent amplifier. It is one of the better amplifiers I've encountered. Rather, it is that virtually all amplifier reviews have these days gotten so overblown and exaggerated, that I'm afraid honest praise, with honest qualifications, are going to hurt a good product.

The unfortunate reality is that we have gotten so used to reviewers having emotional epiphanies over each and every piece of audio gear that every advance in sound quality seems to demand a new form of emotional hyperbole. I'm sorry, but my emotional life just isn't dictated by the latest piece of audio equipment, and particularly by the latest amplifier.

Amplifiers sound different, but not *that* different. Whatever solid-state amplifiers were during the 1960s and 1970s, today good amplifiers can be found even the better receivers. There are excellent and affordable moderately priced power amplifiers available from a wide range of manufacturers. When you escalate in price to a product like the Ampzilla 2000, which costs \$5,500 a pair, you get some real improvements in musical nuance, but not blinding psychological insights. If what you hear from a change in power amplifiers is a life changing experience, I suggest that you are in need of therapy.

Amplifiers also are hard to review because the sound of a system is colored more by the source material, the cartridge, the digital source, and the speakers than by the preamplifier and amplifier. In fact, the better an amplifier is, the more the colorations of the other elements in the system will dominate the sound.

This is why the amplifiers that make the most easily identifiable differences in terms of audible changes in sound quality are usually colored or have something wrong with them. A sweet, under-powered triode amplifier, for example, will exaggerate the midrange and warm the bass, but will also compress dynamics so that the sound appears more "intense." A little tweaking, and a transistor amplifier will raise the level of deep bass or upper midrange, a bit more tweaking and you can either get a touch of tube-like warmth, mid-range shifts that alter apparent depth, or more upper-octave energy that provides a touch more life and musical energy.

Poorly designed amplifiers also tend to produce more dramatic changes in sound quality because they are more sensitive to the interactions between the amplifier, the speaker cable, and the speaker, particularly if the speaker has an odd load and the speaker cable is a design that tries to defy the laws of physics by creating another trick load so that it sounds "different."

Unfortunately, no reviewer can accurately predict what these interactions will sound like with another product. All a reviewer can say is that if an amplifier makes a truly striking and unexpected difference in the sound of his system, you are either swapping a good amplifier for a bad one, introducing a colored amp into your system, or you have uncovered a problem with another components, most probably the speaker.

In short, you ought not buy an amplifier for a life-changing experience, buy one to improve the nuances. Moreover, the better the old amp, the less striking these "improved" nuances are likely to be. Making something more musically realistic, in ways where other components and the listening room will dominate the overall sound of the system, should be the goal of all amplifier buyers or designers but the resulting improvements are subtle.

Breakthrough or No Breakthrough

I have a more specific problem in reviewing the Ampzilla 2000. I just cannot get into the idea of pushing any amplifier's claims of "technical breakthrough," even when a new amplifier does mark the most-recent achievement of one of the great designers of transistor amplifiers.

Don't get me wrong, the Ampzilla 2000 has a designer that deserves the respect of every audiophile. James Bongiorno helped pioneer the high-quality, high-powered transistor amp some 30 years ago. At various times, I owned or used designs of his like the Dynaco 400, his original Sumo amplifier, and the original Ampzilla. All were designs that moved the state of the art forward at a time when most solid-state amplifiers had serious sonic problems.

The sales lit for Ampzilla 2000, available at the web site, does, however, make strong technical claims:

"The new Ampzilla 2000 is a radical departure in amplifier topology. Not many designers can make a claim like this. The only other designer capable of true innovation is Bob Carver although his application of technology and marketing go in different directions. Needless to say, James has created something truly new and innovative. All that can be said is, 'It's about time.' To expound on this theme a little, the following words will describe amplifier topological 'styles' of which the descriptions are ours alone and are not to be found in any reference.

"Forward gain topology has without a doubt been the standard bearer of solid-state circuits for the last 35 years. It is virtually impossible to make a tube power amplifier with this topology. However, the latest 'foolhardy' rage of single-ended tube amplifiers does use this topology WHEN THERE IS ONLY A SINGLE OUTPUT TUBE (OR PARALLEL TUBES) in the entire amplifier. So much for that nonsense.

"Reverse gain is the absolute de facto standard for tube amplifier topologies although, some of the earliest solid-state amplifiers used this style before all of us engineers learned how to use complementary devices properly.

"Quasi-infinite gain topology is something totally new that is being currently worked on, however, it will be a while before all of the philosophy of this style is cemented.

"Likewise for common-mode gain topology, which in the future may become the de facto standard circuitry for the next millennium.

"Finally we come to what we call Remodulation gain topology. This topological family includes any and all types of switching, PWM, FM, etc. circuitry. It is our belief that enough damage has already been done to the signal. Why screw it up even more by

converting to another format and then have to convert back again?

"The new Ampzilla 2000 uses a completely new variation of the Forward Gain topology to achieve unprecedented improvements in linearity. As a matter of fact, the new circuit is so smooth, that it can be actually listened to OPEN LOOP, WITH NO FEEDBACK. Of course, we aren't going to make it that way. The PROPER use of feedback is necessary in order to tie down all of the operating points so there will be no variations in performance from unit to unit.

"The new Ampzilla 2000 uses 12 250-watt output devices per monoblock. This is three times more devices than the original Ampzilla. In addition, since it is a monoblock, there is a separate 2000-VA transformer for each. In addition, the amount of heat sink radiating area is three times greater than the original, meaning that there is NO fan. Also, the B+ and B- supply fuses are EXTERNAL. Also, the entire circuit is totally balanced from input to output although there is a totally and uniquely new unbalanced to balanced converter for single ended inputs. Each monoblock has 100,000 microfarads of power supply filtering with dual rectification as pioneered in the original Sumo's."

I'm afraid I have been around too long, however, to get excited about any claims from even the best designers. I have not only heard other designers make similar claims about other audio equipment on countless occasions, I have spent a good part of my life listening to engineers and scientists make claims of similar breakthroughs in military and energy technology. In the process I have heard or seen many important evolutionary improvements, and some have even cumulatively had a revolutionary effect. Ampzilla 2000 is a truly good amplifier, but does its design produce quantum-leap sonic breakthroughs, the equivalent of going from candles to electric light bulbs? Well, not really.

The Sound of Ampzilla 2000

I should stress, however, that my auditioning of the Ampzilla 2000 has made me respect every aspect of its sound quality. It may not have changed my psyche or brought me a sonic revolution, but it is an exceptionally good and very musical amplifier. While it may not push each and every other top design aside, it is highly competitive and deserves serious respect.

The Ampzilla 2000 is quite exceptional in its ability to reproduce musically natural musical changes.

The Ampzilla 2000 is one of the most dynamic amplifiers that I have heard in terms of musically natural power in handling orchestral climaxes and its ability to reproduce truly loud rock (above 100-dB SPL). It is also exceptional in its ability to accurately reproduce musically natural dynamic changes even in very complex music and at very high power levels.

In assessing the Ampzilla 2000, I compared its sound to the Pass X600, the Mark Levinson 436, and the Theta Dreadnaught II amplifiers. Each of the latter amplifiers has at least the rated power of the Ampzilla 2000. Each is an excellent amplifier in its own right, and each has had excellent reviews.

The Ampzilla 2000 is rated at 200 watts minimum into 8 ohms and 400 watts into 4 ohms, but I've found over the years that such ratings don't tell very much about musical life and excitement. What is important is that Ampzilla 2000 really does make my Dynaudio Temptations and Thiel 7.2s come alive, as well as a friend's older Apogee ribbons, which have some of the most demanding loads around. Moreover, the Ampzilla performs equally well with highly efficient speakers; unlike some transistor power amplifiers, its dynamics are as clean at low power levels with simple loads as at high power levels with difficult loads.

The Ampzilla 2000 was as capable as the other three amplifiers of driving my speakers to levels higher than I wanted to listen to, and did so with excellent control and without any change in timbre or clarity beyond the limits of the speaker. If you like letting your sound levels creep above peaks of 100-dB SPL, the Ampzilla will probably still be going long after most speakers have seriously begun to distort. Which, in one sense, is a considerable achievement, given the Ampzilla 2000's volume and weight, about half the cubic inches of the other three amplifiers and around 52 pounds ("light" by comparison).

Let me also stress here that when I talk about musical power, I don't just mean loud. Any good modern amp can play loud. When you pay for nuance, you pay for the ability to take rapid complex musical peaks and give them dynamic detail and life. The Ampzilla 2000 did an outstanding job of this with my favorite Telarc and Reference Recording's bass spectaculars, with the demanding climax of Saint Saens' Third Symphony and with the more complex passages of Mahler's Eighth. My son informs me Ampzilla 2000 does equally well with electronic synthesizer and bass guitar, his music, more than mine.

When it comes to microdynamics and dynamic contrasts, the Ampzilla has very life-like energy and excellent ability to deal with rapid changes volume and resolve orchestral music and jazz bands where there are complex mixes of low and high level dynamics. The Pass X600 was superior in these areas, but the Ampzilla 2000 only slightly softened dynamics, and usually in ways that proved euphonic with most modern recordings. The Mark Levinson had "softer" dynamics. They were still quite natural but more equivalent to those you hear in midhall, while the Ampzilla and Pass had more life, Row E or Row F dynamics. The Theta had softer dynamics than the other three, but was very musical. It

gave music a hint of the dynamics you hear in an older, more absorbent concert hall.

It is dangerous to generalize about amplifier timbre when the speaker and listening room do so much to dominate the actual sound, but amplifiers do have a timbre. The Ampzilla 2000 again was competitive with the sound quality of the other top amplifiers. It managed to balance tight bass with the proper warmth in the upper bass and lower midrange, produce all the needed energy in the upper midrange, and move smoothly on into the treble and then to ranges beyond the limits of my hearing.

I found the Ampzilla 2000 to have a slightly warmer timbre that I felt was a bit more musically realistic

than the timbre of the Pass X600, but at the cost of a bit less-revealing upper midrange. The Mark Levinson 436 had a timbre largely similar to the Ampzilla's. Once you allow for the difference in handling dynamic contrasts, The Theta Dreadnaught II had a bit less upper midrange energy and was the warmest of the four.

Parsing out the sound quality, all four amplifiers had excellent bass, but each produced slightly different levels of low bass energy with my reference speakers. I suspect that amplifier-cable-speaker interactions will determine the real world results in your system as much as the amplifier per se. The Ampzilla 2000 did, however, produce excellent resolution of percussion (including the usual Telarc and Reference Recording bass drum sounds) and very good articulation of the bass from complex organ music.

The Pass X600 produced the most dramatic bass drum transients and the deep bass was just a bit more defined than in the Ampzilla's while the Pass provided just slightly more dynamic excitement. The bass dynamics and energy of the Mark Levinson 436 sounded a bit restrained by comparison, but the Mark Levinson gave plenty of very deep bass when it was present on the recording. The Theta gave a very well articulated, but warmer and slightly less dynamic bass. Once again, the Mark Levinson and Theta tended towards a slightly mid-hall sound, while the Pass and Ampzilla had bass energy that sounded a bit more forward.

The midrange and treble of all four amplifiers was very good. None exhibited problems with low-level signals or hardened at any listening level I was willing to explore. Both the Dynaudio Temptations and Thiel 7.2 have very flat and extended treble, and present more of a challenge to the amplifier that drives them in terms of upper midrange and lower treble transparency and sweetness than most speakers.

The Ampzilla had a very open and extended upper midrange and treble, and never added a edge or hardness that was not present in the recording or my front end. In comparison, the Mark Levinson had a very neutral mix of lower and upper midrange energy, a great deal of detail, but a little less excitement or dynamic energy than the Ampzilla 2000. The midrange of the Theta was warmer and sweeter, but a bit less dynamic and with less upper octave energy. The Pass X600 provided the most sheer detail in terms of the midrange and treble, but was just slightly lean in the lower midrange. Once again, all four amplifiers has a musically natural

I auditioned Ampzilla 2000 against the best amps I know of; it held its ground.

sound: You could hear similar differences in sound quality by listening to music in different concert halls or by moving forwards or backwards in a given hall.

I am reluctant to get into too much detail in discussing the sound stage performance of the Ampzilla 2000. Once again, the listening room and speaker, as well as the listening position, are far more critical than the amplifier. The Ampzilla 2000 did, however, provide an outstanding capability to reproduce all of the small sonic details you hear in live recordings, as well as hall or ambient effects. The Pass X600 did provide slightly more detail, but only slightly. The Mark Levinson provided similar detail, but tended to soften it, again pushing the sonic perspective back in the hall. The Theta provided less apparent detail but gave the largest feeling of space.

All four amplifiers did an excellent job of resolving imaging detail, providing the same image size and stability as the recording. They did, however, differ in sound stage width and depth. As I have noted, both the Ampzilla 2000 and Pass X600 have a more forward sound character than the other two amplifiers. All other variables being constant, this translates into a somewhat wider apparent sound stage and a bit less depth. Let's say Row E to F, with the Ampzilla sound a bit more like it was reproducing music from an older hall and the Pass X600 sounding a bit more like it was reproducing music from a newer and more live one. The Mark Levinson 436 and Theta Dreadnaught were more mid-hall, with less-wide and immediate soundstages, but with a bit more depth. The Theta had the most depth of all four amplifiers, and the most three dimensional imaging, but lost a bit of sound stage life and energy.

Which is best? Which nuances do you like? I use the Pass X600 as my stereo reference and the Theta for surround music, but I'd be happy to live with any of the four in a well-matched system.

Compatibility and Complaints

I was impressed with the compatibility of the Ampzilla 2000. It easily drove any speaker I used it with, and it was more revealing of any associated components' coloring than any other amp I was able to use similarly. In addition, Ampzilla 2000 is so compact and light, compared to most high-end power amplifiers with similar power, that I was able to easily try it out in the systems of several friends, including one with Quads and another with an old Spondor, which are hellish loads. Worked fine. It also worked fine with all of my speaker cables as well.

As for complaints, I have none beyond the petty level, particularly in regard to sound quality. Though certainly ruggedly made of 14-gauge steel, Ampzilla 2000 doesn't sport the armor-plated battleship-style construction of some top high-end products, though many feel this just adds to the overhead. The entire amplifier circuitry (except the power output stages) is also contained on one main drive card that contains the input jacks. This means that the amplifier is easily upgradeable with future circuit improvements. Other small quibbles: I would like a detachable power cord, the speaker terminals could be spaced further apart, and I'd like two sets for bi-wiring.

I don't like the blue front panel and overly cute Ampzilla logo, but several of my children feel it's interesting where most audio gear is dull. (They referred to

the styling of other high products as being a monotonous mixture of "fool's gold," "synthetic silver," and "mortuary black.")

Summing Up

I won't get the Editor's Award for "Most Exciting Review of the Year" for my comments about the Ampzilla 2000, but quite frankly, I don't want it. As I have said from the outset, amplifiers differ largely in nuance. Moreover, I remain concerned that some audiophile might actually go out and actually buy an amplifier on the basis of one of my reviews, without bothering to listen and without seeking a loaner to see how a given amplifier works in his or her system. It strikes me that no sane person would regard a review as more than aid in focusing his search for what to listen to, not to mention relying on a dealer demo without a home trial, but then, audio isn't the sanest of hobbies.

What I do hope comes through clearly from this review is that the Ampzilla is a damn good amplifier and does deserve a careful listen. It may not be the breakthrough of the century, but then nothing ever is. What it does prove is that James Bongiorno was a great designer then, and is obviously still a great designer.

NOTES

Ampzilla 2000 Power Amplifier, \$5,500.00. Spread Spectrum Technologies, Inc., 716 No. "G" Street, Unit 2, Lompoc, CA 93436; phone 805/740-9902; website www.ampzilla2000.com

ASSOCIATED EQUIPMENT

Audio System

Van den Hul Black Beauty, Sumiko Celebration, and Koetsu Onyx phono cartridges; VPI HR TNT turntable and HWJr II tone arm; Pioneer Elite DV-47A SACD/DVD player; PS Audio Lambda CD transport (modified); Mark Levinson 360S D/A converter; Pass Xono phono preamp; Pass X0 stereo preamp; Pass X600 power amplifiers; Dynaudio Evidence Temptation and Thiel 7.2 speakers; Kimber XL, Transparent Audio Reference XL, and Wireworld Supereclipse and Eclipse interconnects and digital cables.

AV System

Lexicon DC-10 DVD/SACD/DVD-A player; Meridian 861 AV preamp-processor; Lexicon MC-12B AV preamp-processor; Theta Dreadnaught II seven-channel amplifier; Infinity Intermezzo speaker system with four 4.1T towers, two 2.6 rear speakers, and 3.5C center channel; Revel B-15 subwoofer (his unit also auditioned using a 6.1-channel Revel F-50 speaker system); Zenith P60W38/38H plasma monitor; Zenith HD-520 receiver; Mitsubishi WS-65907 65-inch HDTV rear-projection TV set; Kimber, Discovery, and Wireworld video and audio interconnects, and Kimber, Wireworld, and Discovery Cable speaker cables.