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The Authoritative and Potent Vioelectric V281 Headphone Amplifier

By [John Grandberg](#) " Posted: Jun 19, 2015



INTRODUCTION

Roughly three years ago I [reviewed a pair of headphone amplifiers](#) from a German firm called Lake People. I quite liked both models and to this day they remain very strong recommendations in their respective price categories. The Lake People gear is geared more towards studio applications, meaning less creature comforts and practically zero eye candy- depending on your definition of course...I happen to like the black box look.

Lake People also has a division specifically for audiophiles and their unique needs. Dubbed Vioelectric, it takes those pro-audio sensibilities and ratchets them up a few notches. The result is a range of amplifiers which formerly culminated in the \$1,069 [HPA V200](#). The V200 is practically legendary these days- seems like nearly everyone has heard one at some point, and I know many people who use it as a reference. I did the same for several years and might still be doing so to this day were it not for the topic of this review: the [Vioelectric V281](#). At \$2,299 the V281 is serious business in every sense of the word, with the looks, features, and most importantly, sound, befitting a world class device.

Frankly, I'm a little late to the party here. Vioelectric set me up with a V281 review unit some months ago, and I've been using it extensively for various other product evaluations. It's served me so faithfully, without drawing attention to itself, that I found myself slipping on the actual review. I also

decided early on that I simply must have one of my own for my reference system. I arranged to buy my own unit, in a different configuration (which I'll discuss shortly), but kept the review loaner around so as to compare the sonic impact of certain upgrades. So, I feel apologies are in order both to the folks at Violectric as well as the many readers who have patiently waited to read this review. I get emails and HeadFi messages on a regular basis asking when it might be complete. The time has finally come, and the V281 certainly deserves the attention.



DESIGN

The V281 is by far the largest piece of equipment Violectric has done. Prior amps including the V200 all used the same compact form factor which made for very easy placement and system integration at the expense of some flexibility. There was only so much room for inputs and outputs, so the devices weren't the most suitable for complex systems. Violectric sought to counter that by offering a wide range of gear in matching compact enclosures. V600 phono stage, V800 DAC, V630 preamp, and of course the various headphone amps. The V281 has the same width (five inches) but is exactly twice as tall as the other units. So V800 DAC and V600 phono stage stacked together would perfectly match a V281 in height and width, though not in depth where the V281 is about three inches deeper. Think "shoe box" and you're on the right track.

This extra room allows for a broader feature set than ever before. The V281 is equipped with inputs and outputs in both RCA and XLR format along with the very useful pre-gain switches, and there's room on board for an optional DAC module. The DAC adds \$240 to the bottom line and comes in three flavors: Asynchronous USB, Coaxial, or Optical, all of which boast 24-bit/192kHz capabilities. Up front we get a 4-pin XLR output along with a pair of 1/4" jacks, balance control, a humongous volume knob, and individual buttons for input and output selection. The device also acts as a high quality preamp, allows for routing of any input through any output, and can independently activate headphone out, line out, or both together. It's really quite versatile and should be able to insert into just about any system without much trouble.

Build quality is phenomenal. These are hand assembled at Lake People headquarters in Konstanz Germany with stereotypical Teutonic attention to detail. Even in things as simple as pressing the power button or cranking that huge volume knob, one can feel the quality at hand. It just feels right. I've had dozens of DACs, amps, and other gear come through here in the past year alone and I have to say the V281 is right up there with the very best. The Nextel coated chassis is somewhat unique and the grey color fits in whether one chooses the silver or the black faceplate. Did I mention this thing was fairly customizable? The footers can be had in silver, black, or gold. Factor in the various DAC options and the several optional volume control upgrades, and there are quite a few possibilities to be sorted through.

Inside that lovely chassis, the V281 is a beast. Violectric took their already quite potent V200 concept. a discrete design using 8 output transistors per channel. tweaked it for improved performance, and then essentially doubled it, along with beefing up the power supply. We're talking a pair of large toroidal transformers flanked by 36,000 uF worth of capacitance. When using the XLR

output this is basically like having an improved V200 driving each channel of your headphones. This makes for some very serious juice. Max output is 5600mW per channel into 100 ohm loads which corresponds almost perfectly with Audeze's LCD-3 Fazor. For higher impedance headphones, V281 can swing over 40 volts into a 600 ohm load, which is head and shoulders above most others.



Competitors such as the Bryston BHA-1 or Schiit's Mjolnir, both powerful amps in their own right, do less than half that. Of course, power means nothing if it isn't of utmost quality, and Vioelectric certainly isn't just going for big numbers alone. Their strategy remains the same as always- high damping factor due to very low output impedance (.1 ohm single ended, .2 ohm balanced), high current due to powerful output stage, low noise due to low internal gain, and very high output voltage. The formula is unchanged from the lowest Vioelectric model to the highest- it just gets more extreme as you move up the range, culminating in the V281.

It might be worth noting that Vioelectric also has another new model called V220, for those who aren't interested in recabling their headphones in the 4-pin XLR termination. The V220 (\$1,669) sits between V200 and V281- it has the upgraded V200 circuit (but only one, rather than one for each channel) while offering increased inputs and options like the V281. My first thought is that it makes sense to either save money by using the still excellent V200 or else go all out with the flagship V281. But I suppose intermediate options are always nice to have. Then again, someone using the device primarily as a preamp in a nice speaker setup, with headphone use as a secondary function, might find the V220 just the ticket. More casual headphone users won't be as likely to have balanced headphones, and the expanded inputs/outputs over the V200 would certainly come in handy. So perhaps the V220 makes more sense than I initially thought.

Of course, expensive gear must do a lot to justify such a high price. At over \$2k, Vioelectric's flagship belongs to an exclusive club with only handful of members. A select few of these expensive offerings do in fact justify the dough in my book. But there are quite a few others which I don't consider worth the money at all. Is the big Vioelectric worth the increase over the already stellar V200? Let's find out....

When using a flagship amp like the V281, I see no reason to mess around. I go straight to my best gear so there can be no excuses, and nothing to hold back even the smallest bit of performance. The system includes an Equitech power conditioner, an Aurender X100L music server, the Audiophileo 1

with PurePower, and a Resonance Labs Invicta Mirus DAC. This setup is about as revealing as they come, giving the amp an absolutely pristine signal to work with. I used a wide variety of headphones including Sennheiser HD800, HiFiMAN HE-6, AKG K812, Audeze LCD-3, beyerdynamic T1, and even some custom in-ear monitors like the Noble Kaiser 10 and EarWerkz Legend R. Suffice to say I covered all my bases for every type of headphone imaginable.



How does the V281 handle such a broad variety of loads? In a word: effortlessly. The first thing that struck me was how truly effortless the amp sounded regardless of the headphone being used. I started with the notoriously temperamental HD800- a higher impedance headphone with a reputation for being fickle with amplifier matches. Make the wrong call and the HD800 is sure to get on your nerves, its technical brilliance overshadowed by a bright top end and less than ideal bass impact. Using a balanced cable with 4-pin XLR termination I could tap the full measure of Violectric's design, and what I heard was breathtaking. Or, to use less hyperbole, it simply sounded "correct", in every sense of the word.

I cued up Gerry Mulligan and Chet Baker playing their Live at Carnegie Hall which I often use to get a sense of dynamic ease. The CD version of this album is pretty good but I use a copy ripped from the 1975 vinyl release which is comparatively unfettered- more dynamic, with a sense of transient flow not present on any of the CD versions I've heard. I admit I have yet to track down the limited edition gold plated MasterSound release from 1995, but I'm not holding my breath on that one. In any case, the vinyl rip has explosive dynamics at times, and the V281 makes the HD800 jump like I've rarely heard. I expect this sort of thing from an LCD-3 or HE-6 but HD800 can often sound more restrained. Not so in this system. The funny thing is, this album is musically on the smoother side; this is no Holst The Planets in terms of sweeping dynamic bombast. And yet, the V281/HD800 combo made the hair on my neck stand up when it came to approximating a true live performance, with all the authority that entails. Brightness? Thin low end? Nope, not here. It struck me that the HD800 has been on the

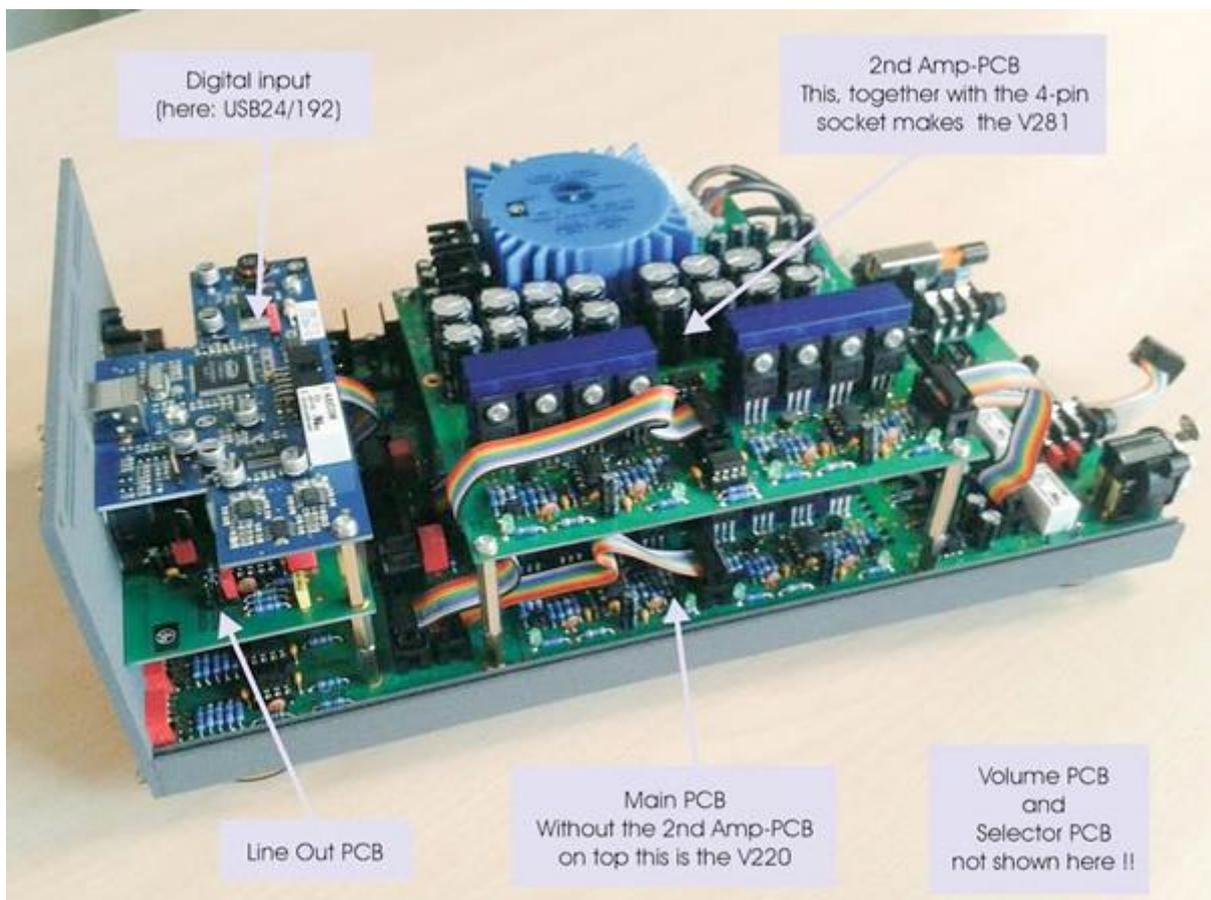
market for over 6 years now, and has yet to be definitively surpassed or even matched in the case of some competitors. I can sympathize with folks who don't love it but I also feel they perhaps need to hear what the Sennheiser is capable of when really driven to the limit. V281 does just that.

Switching gears, I grabbed my HiFiMAN HE-6 (again with balanced cable) and put on Felix Hell's Organ Sensation. A product of Prof Johnson by way of Reference Recordings, this is a killer release no matter which version you grab. In my case I went all the way to the top- the 24-bit/176.4kHz HRx release, because...why not? That said, the CD quality version streamed from Tidal is excellent in its own right. Young Hell, a prodigy in every sense of the word, displays his technical mastery in what is truly full range demo material. Very few real instruments dig down to a solid 20Hz (or below) which means we typically only get that type of deep sub-bass impact from artificial sources. Now, I do enjoy electronic stuff from Benga, Skream, and Pendulum, or old school bass music like DJ Magic Mike and Bass Mekanik, but it's refreshing to hear such massive rumble from a real life instrument. Not to mention the recording quality is in a higher league as would be expected from anything in the Reference Recordings catalog. The V281 drives the difficult HE-6 with pants-flapping aplomb, making this a highlight of my listening for the week. Prelude and Fugue on B-A-C-H: Prelude hits like a young Mike Tyson on this setup. The only thing missing is that visceral full-body subwoofer experience which sadly remains out of reach for headphone listening...but the V281/HE-6 combo does so well that my brain almost fills in the blanks.

The difficult HE-6, when not fed enough juice, tends to underwhelm. It remains decent but nothing special, and honestly I prefer the more affordable HE-500 under those circumstances. Running HE-6 from a powerful amp like Violectric's own V200 is where things start to change. The headphone begins to "wake up" and show its true abilities- bass slam solidifies which is a lot of fun, but more importantly the mid to high transition becomes more evenly balanced. Without proper amplification I find the somewhat bright HE-6 top end to overshadow the midrange. The V200 helps level things out but the V281 in balanced mode goes a step farther, showing HE-6 as a truly world class headphone. V281 clamps down on those highs with vice-like authority, letting clarity shine through while maintaining control and focus. And that midrange, so often buried, really comes out to play, showing a sense of swiftness and versatility rarely matched by other headphones. I dare say this is the best I've heard HiFiMAN's stubborn flagship. Other powerhouse amps I've tried (including speaker amps) have done a very good job but the V281 takes top honors in my experience. Keep in mind, it's not purely a numbers game. The Schiit Lyr for example is very potent but doesn't come anywhere near this level. It's great for what it is but just can't match a Bryston BHA-1 or Schiit Mjolnir, much less the V281. If raw power alone was the criteria we'd all be running the HE-6 from speaker amps. I've done so myself and know a few people who swear by it. All I can say is, I have here a few rather nice amps here at the moment including an Anthem A2, a BAT VK-220, and a pair of Merrill Audio Thor monoblocks. Each of these amps is a powerhouse, sounding great with the HE-6. Yet none do anything amazing that I don't already get with the V281. Color me impressed.

Moving on once more, I settled on the LCD-3 Fazor and prepared to be underwhelmed. I've been running the big Audeze from a monster setup consisting of two Questyle CMA800R amplifiers in monoblock mode. Surely the V281, as nice as it is, would not be able to compete. Or would it? Initial impressions showed the competition to be tight, but after more thorough listening I give the definite edge to Violectric. The monoblocks sounded quicker and more insightful for micro-detail fact finding missions. Soundstage may have possibly been a tad larger, though both options were exceedingly open sounding. Where the German model took the edge was what I'd like to call "authority". You want to hear the resonating body of Yo-Yo Ma's 2.5 million dollar Montagnana cello? How about the full-throated authority of singers from Johnny Cash to Leonard Cohen to Brad Roberts? What about the textured attack and decay of the various Taiko on the XRCD release Dancing with Drums? The V281 accentuated the "Audeze-ness" of the LCD-3, which in this case seems the only way to go. In comparison, the Questyle duo was more lit up, more snappy, but also lacking in comparative tonal richness. If forced to choose, I'd take the V281 most every time, unless the DAC in play was of the slower, darker variety. That might end up being too much of a good thing.

The V281 seemed unflappable in its ability to unravel complex material. Shostakovich, Ozric Tentacles, The Bad Plus, Animals as Leaders, Respighi, Meshuggah... whatever tricky, complex, downright difficult music I have in my collection, the V281 never faltered in presenting it about as clearly as I've heard. Soundstage? Massive, but believable. Imaging? Precise. Microdetail? Plentiful. And again, it never seemed to care what type of headphone was connected. Low impedance, low sensitivity planar magnetic? High impedance dynamic? Multi-armature in-ear monitor with wild impedance swings? Doesn't matter, V281 handled them all brilliantly. Another benefit: seemingly endless reserves of juice. When comparing to other amps at moderate volumes, the differences were often quite small. But with a twist of the volume knob I'd often hear the competition fall apart or take on some new characteristic- strident upper mids, flabby bass, etc, while the V281 maintained the same poise it had shown at low levels. This reminds me of the best electrostatic amps such as my KGSShv or the Blue Hawaii Special Edition- such overkill specs might not make sense until you hear what happens to lesser amps as the volume climbs.



VARIETY

One thing I enjoy about the AURALiC Taurus MKII is the fact that it gives a slightly different flavors- the 1/4" jack and the balanced output are configured differently and thus have their own character. It's almost like having two amps in one...almost. The same can be said of the Vioelectric flagship. Everything I've mentioned above applies to the XLR output. Using either of the two unbalanced outputs taps only half of the circuitry, which essentially means listening to a V220- not the full potential of the V281, but still nothing to sneeze at. Some of my headphones are hard-wired (Ultrasone Edition 12, Grado PS500) while others use a single-entry detachable cable (AKG K812 and K7XX) making balanced conversion a chore. For those models I use the single ended jack and am still plenty impressed with what I hear. It's a slightly darker, more laid back presentation, with a bit less treble energy than the balanced configuration. This could be good or bad depending on the headphone in question- but let me clarify, this is by no means a massive coloration. The V200 was never an overly warm, syrupy amp, but rather a generally neutral one with just a touch of warmth and

a slightly smooth top end. V220 seems to follow accordingly. At times, depending on my mood, I'll run my HD800 with an XLR to 1/4" adapter to tap the single V220-style output just to help make edgy recordings more presentable. Then I'll switch back to balanced when I play a better recording and want the whole picture. It's great to have options.

In keeping with the truly universal nature I've been harping on, the V281 is excellent with IEMs- but only when certain conditions are met. First off, don't use the XLR output. The increased gain (6dB, or twice as loud) of balanced mode is simply too much for sensitive IEMs, resulting in noise-floor issues. Single-ended mode has potential to work very well but care is required. The V281 seems rather sensitive to things like ground loop issues, so make sure your setup is buttoned down if IEMs are your thing. Just know that the potential is there for this amp to be exceptional with a JH13, Noble K10, Westone ES5, etc. That huge volume knob is perfect for very fine control of levels. Set pregain for -12dB and you have quite a nice range to work with- far better than most other power-packed desktop amps I've experienced.

Let's talk options. The first thing to mention is the DAC- I had the USB version installed in my review loaner, which would add \$240 to the price. It's an asynchronous 24-bit/192kHz capable USB DAC using the Tenor TE8802 USB chipset and a Texas Instruments PCM1798 for actual D/A duties. While the idea of an all-in-one DAC/headphone amp/preamp is certainly appealing, I'm not convinced the DAC is worth it for most people. It's a competent DAC which doesn't really commit any glaring offenses. But it's just not up to the level of performance we get from the headphone and preamp stages. Not that I can think of many \$240 alternatives that would sound anywhere near this good, but I think most buyers of a \$2k+ amplifier will likely have something nicer available. Which relegates the optional DAC card to backup status at best.

Next up, volume control. The base model comes with an Alps RK27 potentiometer which is a solid choice, commonly found on many nicer headphone amps. Nothing to complain about. The first upgrade adds \$290 for a motorized version of that same pot. We get a reasonably nice remote control covering all the bases, meaning true preamp functionality for speaker listeners. That may very well be everything one could ever need.

Going one step further will cost you \$580. This replaces the RK27 with a custom made 128-step relay-based unit, with .75dB intervals between each step. This one is also motorized and uses the same remote. Designer Fried Reim tells me this version "produces the best channel balance, step precision, absence of distortion, and minimized crosstalk." This is the option I chose for my own personal V281, which allowed me to handily compare with the motorized RK27 in my review loaner. Any differences to be heard? Nothing drastic, but after extensive back and forth I did hear an improvement in transparency and focus- especially at lower volumes with sensitive IEMs. At this high of a level I don't believe there are any major gains left to be had. A small improvement may sound trivial for the price, yet is more of a big deal than it might initially seem. I'll put it this way- I'm used to my electrostatic system using a KGSShv driving the Stax SR-007 or SR-4070. The "basic" V281 paired with LCD-3 or HE-6 seems like a step down from my Stax rig, while using the upgraded V281 feels closer to a sidestep. Again, absolutely nothing wrong with the stock volume solution but if you can swing the extra dough I really do recommend the upgrade.

COMPARISONS

The Luxman P-700u (\$6,000) is a stunning amplifier. It's one of the few components to match or even exceed the V281 in craftsmanship, as it should for the price. The Luxman has a beautiful, sweet presentation which oozes charm- when the mood strikes, there's no other amp I'd rather use. That's the thing though, a significantly colored amp is fun at times but doesn't really make for a great all-around performer. The P-700u is a bit of a sonic lightweight. It emphasizes vocals and sounds really airy, but the rhythm and drive of the music seems lost much of the time. Which is just weird coming from such a beastly looking amp. I have to assume this is a deliberate voicing rather than a technical deficiency, but it doesn't work for me as a general purpose amp - I just can't justify the pricing for such a specialty product. Needless to say, I prefer the V281, even before considering any price discrepancies.

The Meridian Prime with matching PSU (\$3,250) is another letdown for me. If this thing was \$1,100 it might be worth considering given the small form factor and all-in-one DAC/amp functionality. But at three times that price? No thanks. The V281 outperforms the more expensive Prime at every turn. Deeper, more palpable impact, more convincing imaging, smoother, more refined upper mids.... and it never runs out of steam (as the Prime sometimes can with difficult planar magnetic designs). Removing the Meridian power supply restores parity to the cost, but also widens the performance divide that much more. Another easy victory for Violectric.

Ok, so I'm cherry picking expensive amps which I don't particularly care for. I could do this all day. Sennheiser HDVD800, Cavalli Liquid Fire, RSA Dark Star, Bakoon HPA-21... My point is to show that one can easily spend big money without any guarantee of corresponding top level performance. How about a more realistic comparison, with an amp I actually enjoy? An obvious alternative would be the AURALiC Taurus mkII (\$1,899) [which I raved about](#). It's a killer amp that drives anything you throw at it, and as mentioned earlier it offers differing flavors based on which headphone jack is used. I like it so much I gave it a spot on the Wall of Fame for solid-state amps. As good as the Taurus is, when I remove my reviewer hat and just listen for fun, I find myself using the V281 more often. I end up not wanting to analyze what I'm hearing at all, but rather just get lost in the music. That's a really good sign. The Taurus seems slightly more lit up, while the V281 is smoother, more dynamic, with a greater sense of musical ease. That said, I never feel that I'm missing any details when running V281 fully balanced. It's like the top end strikes an ideal balance between extension and control. If you asked me last year I would have said Taurus hit that balance perfectly and could not be improved upon. Then the Violectric came along and surpassed it. At \$500 less the Taurus may well be the better bargain, though I'm not sure how much that will matter to someone shopping in this category.

Another obvious competitor is the SPL Phonitor 2. It's priced within a few hundred dollars of the big Violectric, and is made just across town...ok, it's more like a 6 hour drive, but close enough. The Phonitor 2 is, in my opinion, a big improvement over the original model. Both have tons of great sound adjustment features but I always felt the amp section of the original was severely lacking. Phonitor 2 is quite a bit better, enough to where I considered giving it a write up here. I decided against it after spending some time comparing it directly with the V281 and Taurus. As fun as the various sound tweaking options can be, as a pure amp I still don't quite find the Phonitor 2 competitive in this tier. It's good, but not great. I find it a little flat sounding, somewhat closed in and boxy, and lacking the massive authority of the other amps. It just couldn't keep my interest. Again, a very nice piece of equipment, and possibly the better choice depending on what one might be aiming for. For my particular needs, it's not something I could see myself using in the long term.

FINAL THOUGHTS

There really is no easy conclusion to be drawn here. I am obviously smitten by the Violectric V281 and find it very easy to recommend if one truly desires a top caliber headphone amp. I count it right up there with the very best in existence. HeadAmp GS-X mkII, some of the nicer Eddie Current models, and the discontinued ECP L-2. All of these are statement pieces which I consider far beyond the optimal price to performance ratio. Common sense would dictate we spend a lot less and still get a very good amp. Several more affordable Vioelectric/Lake People models offer just that. However, at some point common sense goes out the window, and we just want the absolute best available. If that's your situation, the Vioelectric V281 deserves very serious consideration. and a spot on our Wall of Fame.

