

AVM Ovation MA8.2 monoblock power amplifier

Stereophile <https://www.stereophile.com/content/avm-ovation-ma82-monoblock-power-amplifier>

Jason Victor Serinus | Mar 30, 2017



I've known Peder Bäckman, international sales director for the German firm Audio Video Manufaktur GmbH (AVM), for many years, ever since he worked with Electrocompaniet. When I told him that I was looking for products to review in the reference system in my new 20' by 16' by 9' music room, he invited me to browse AVM's large catalog and see what tickled my fancy. In consultation with John Atkinson, it became clear that AVM's largest, most powerful monoblock amplifier, the Ovation MA8.2 (\$29,990/pair), seemed a good fit.

I admit, I felt uneasy about my impending audio blind date: Not only did I hope that the first amps I reviewed in my new system and room would be ones I loved, I didn't want to spend months listening to and reviewing music with something that left me wishing it had been lost in transit.

As it turned out, the already-broken-in Ovation MA8.2s were lost in transit on their way to their previous destination, the CEDIA Expo. Caught empty-amped, AVM's president, Udo Besser, stood in the company's booth with nothing to play. After the Expo had closed and the missing MA8.2s magically reappeared, they were re-routed to my home in Port Townsend, Washington, and the review commenced.

Description

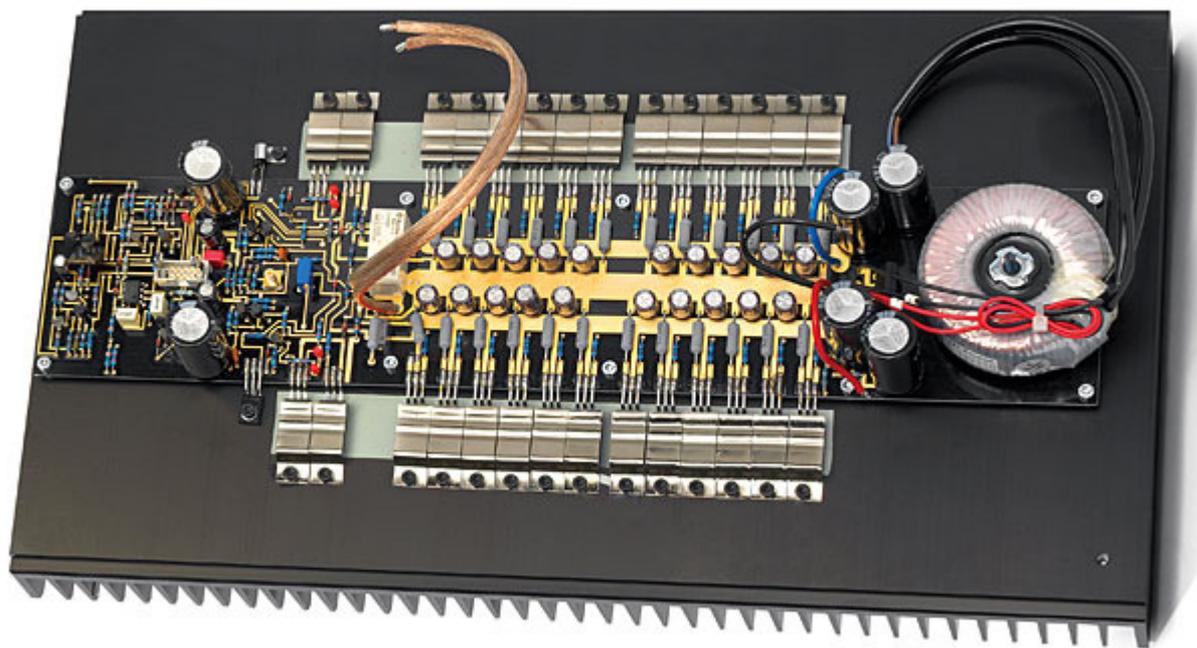
Via Skype, Udo Besser described the company's Ovation MA8.2s as "classic A/AB amplifiers that, depending upon speaker impedance, output class-A up to 40Wpc." For my 4 ohm Wilson Alexia loudspeakers, that meant that the first 16.6W (assuming Besser's on-the-fly computations were correct) would be in pure class-A, the rest in class-AB.

The Ovation MA8.2 is a fully balanced, push-pull design that contains 24 N-channel and 24 P-channel MOSFETs, each device theoretically capable of outputting 18A max before self-destructing. Inside each monoblock are two heavy, 1000VA toroidal transformers, two smaller, 120VA transformers, and a fifth, standby transformer that powers the MA8.2's standby circuitry.

Transformers for the input and driver stages are kept as far from each other as the amp's interior allows.

"It's tricky to build a fully balanced amplifier based on MOSFETs, where the N and P parts are identical, and to get the two parts of the amplifier to work together without making it slower," Besser told me. "We experimented a lot with the front end, where the sound is tuned, by giving it a completely separate power supply. In other words, the main amplifier stages in the middle of the unit have these huge power supplies, but the driver stage and input stage have a completely independent power supply."

image: <https://www.stereophile.com/images/417avm.circuit.jpg>



The MA8.2 uses 30dB of negative feedback. "We like the amplifier to accurately follow the signal, for which this feedback is necessary in solid-state designs," Besser said. "This stops the amplifier from building its own sonic signature on top of the music. The amplifier . . . should not add anything, and [should] leave out as little as possible. 'Neutrality' describes best what we want to do."

I certainly liked the fact that, for a 4 ohm load, at idle, each MA8.2 draws about 20W. That's many hundreds of watts less—and much less heat—than my class-A Pass XA200.8s. In fact, while in winter I still have to use our heat pump's air-conditioning in the music room with the Passes, for evening listening with the AVM Ovations I actually had to turn the heat on.

On the MA8.2's front panel is a small display, and below that a row of five small buttons. The central button controls the menu. The other buttons control: the operating mode (Permanent, Remote, Trigger, Auto), which makes a difference with preamps; the power-output display mode; the display's brightness (100%, 60%, 30%); and the speaker impedance setting (2, 4, or 8 ohms), which enables the MA8.2 to accurately display its power output. Once you've set the operating mode, you need set the rest only if you want to leave the display on and stare at ever-changing power-output

numbers or a moving bar. Though I find such light shows distracting, I kept the display on during my critical listening, ignoring it for everything but *fff* passages heavy with brass and percussion.

In the faceplate's lower left and right corners are two larger buttons, respectively for Power and Display. These light up blue when activated.

Do Not Try This at Home

With guarded anticipation, I opened the two sturdy, 107-lb shipping cases that held AVM's big babies. That the amps themselves weigh "only" 92.6 lbs each—the Pass Labs XA200.8 monoblocks weigh 160 lbs apiece—was a relief. Once I'd switched the Sorbothane supports of my [Grand Prix Monaco](#) amp stands to ones made for a lighter load, connected the Ovations to my dCS Paganini-Rossini-Scarlatti front end and [Wilson Audio Alexia](#) speakers with Nordost Odin 2 interconnects and cables, and powered the AVMs with Nordost's Odin 2 20-amp power cords, I discovered that I had nothing to worry about . . . almost.

Anyone evaluating an audio component must follow one cardinal rule: Add to the reference system no more than one audio product at a time.

Simultaneously adding two or more products—even tweaks, which I consider vital accessories—introduces too many variables, and leaves the reviewer unable to ascertain which (if any) alterations in the sound can be attributed to which new component.

As much as I'd intended to stick by that rule, it proved impossible. First, power expert and blazing percussionist Garth Powell, of AudioQuest, visited my home in Port Townsend, Washington, and declared that there was far too much noise in the music room's dedicated 8-gauge power line. His edict: "Call the utility company and have them check your transformer." A subsequent visit by AudioQuest's Kevin Wolff revealed that the circuit-breaker panel feeding the room lay at the bottom of our main breaker box, and was picking up noise from every noisemaker in the house (save our three rabid terrorers).

Because taking action based on both men's observations could only improve the system's sound, I phoned our audiophile-friendly electrician, Hans Frederickson, as well as Kevin Street, the maximally responsive field supervisor of our Public Utility District No.1 here in Jefferson County. Switching around the breaker-panel wiring happened within the week, but it took three days for my audio-system components to completely settle back in.

If I then didn't hear much of a difference, that was because the main source of noise turned out to be the rusted-out mess of a 35-kilovolt-amp transformer that fed our house and four others. While PUD No.1 promised—bless Kevin Street's heart—a new and significantly more powerful 50kVA transformer, all they could say was "within the month."

As fate would have it, installation day arrived soon enough, after which the sound of my system was noticeably smoother and less zingy.

With so much less noise to contend with, I finally felt comfortable with Udo Besser's request to plug the Ovation MA8.2s directly into the wall rather than into my Nordost QB8 eight-outlet power distributor. (Because the Nordost QB8 is designed to be non-current limiting, I'd always plugged my reference Pass Labs XA200.8s into it to minimize noise.) At that point, given all the changes to my power setup, I no longer had any idea what the Passes sounded like, regardless of what they were plugged into.

Without a reference, I was lost at sea (not that anyone would want to be lost at sea chained to a 50kVA transformer). I had to start my listening from scratch, on a new, level playing field that included plugging the AVM Ovation MA 8.2s directly into the wall.

Listening

As I played CDs, SACDs, and high-resolution files, the first thing that struck me about the MA8.2s was how clean, clear, and neutral they sounded. Listening to "Bahia Com H" and "Insensatez," from *Entre Amigos*, by bossa nova singer Rosa Passos and double bassist Ron Carter (CD, Chesky JD247), left me marveling at the transparency of the sound, as well as the

ability to hear the different acoustic envelopes around Passos's voice, Carter's bass, Lula Galvão's guitar, and Paulinho Braga's percussion. I felt I could hear the natural beauty of each musician's "voice," without added warmth or sweetness. The AMVs' control of the bass was exemplary.

I listened to soprano Eileen Farrell's recording of Amelia's "Come in quest' ora bruna" (How in this morning light), from Verdi's *Simon Boccanegra*, with Max Rudolf conducting the Columbia Symphony Orchestra, from *Eileen Farrell Sings Verdi* (CD, Columbia Masterworks 62358). I was surprised to hear that her voice seemed a bit cut-out and superimposed on the sound of the orchestra. I play this track often, and feel that my Pass amps do a better job of blending voice and orchestra—which is not to deny that the AVM MA8.2s' presentation of such recordings may be ultimately more accurate. Some of the cello richness I usually hear was missing in action, and orchestral textures were less dense.

Nonetheless, when the orchestra emits a sudden chord of dread as Amelia sings, of her long-dead mother, "Memories of the dark and cruel night / When the dying woman exclaimed, 'May Heaven watch over you,'" the accompaniment sounded more focused, and had far more emotional impact than I'm used to. After umpteen listens, this was the first time I was actually startled by that chord, and by what it represents emotionally. I was also thrilled anew by the beauty of Farrell's voice. Such "like new" experiences count for a lot in my book.

While the voice of soprano Elly Ameling sounded extremely clear in several Schubert songs with piano accompaniment from her *The Art of Elly Ameling* (4 CDs, Philips 473 451-2), in "Die Sterne" (The Stars), the sound was, again, a bit more spare than I'm used to. This is one of those earlier stereo recordings for which the engineers divided the sounds of piano (left) and voice (right), the latter reverberating a lot in space. There was just a bit too much dead space between the two for the presentation to convince. But the beauty of Ameling's voice was to die for.

image: <https://www.stereophile.com/images/417avm.2.jpg>



"What a gorgeous sense of space, with such beautiful tonalities," I wrote in my listening notes upon playing, through the AVM amps, John Atkinson's recording of the male vocal ensemble Cantus performing Eric Whitacre's *Lux Aurumque*, from the group's [While You Are Alive](#) (CD, Cantus CTS-1208). "These amps really capture how these voices sound in this acoustic." Dynamic swells were convincing, and all vocal ranges were perfectly balanced, the high tenors floating beautifully above the rest.

Antonio Bertali's (1605–1669) Ciaccona for Violin, Keyboard, and Chittarrone, from violinist Rachel Podger's *Perla Barocca: Early Italian Masterpieces* (SACD/CD, Channel Classics 36014), was equally captivating. As Podger and the other musicians went to town, her piquant playing was depicted with greater veracity and clarity than I'd ever heard on my system. A major wow experience.

I may think the music of Mason Bates, despite its hard-to-resist techno/dance beats, more silly than profound. But *Chicago, 2012*—a movement from Michael Tilson Thomas and the San Francisco Symphony's recording of his *Alternative Energy* (SACD/CD, SFS Media) that includes the recorded sounds

of particles in a Fermi accelerator zooming across an exceptionally deep, wide soundstage—is loads of fun. While I wished for even stronger bass, and wanted the lower midrange and bass sounds to expand spatially, as they would in a live concert, there was no denying that the opening crash of glockenspiel, brass, and timpani was startling, and the subsequent deep rumblings of timpani and accelerator exciting. Percussive attacks were as tight as can be. As for the sense of depth and space, it was supreme.

Speaking of percussion, listening to musical snippets of Channel Classics SACD/CDs of recordings of Mahler's Symphonies 2 and 9 by Iván Fischer and the Budapest Festival Orchestra (23506 and 36115), and another disc from that label, *Homenaje a Revueltas* (SACD, Channel Classic CCS SA 21104), devoted to the music of Silvestre Revueltas, confirmed that while the bass could have been weightier, its control was excellent, with virtually no boom. The MA8.2s were very, very fast. For the first time, I could hear individual notes in fast timpani rolls cleanly articulated—something I can't hear with my Pass amps. I could also listen deep into the vast violin sections of the Mahler works and pick out contributions from individual players.

The biggest percussive ear-opener came when I played "Black on White Paper," from Zen Widow's *Screaming in Daytime (Makes Men Forget)* (CD, pfMentum PFMCD 069), which producer [Joe Harley](#) recorded live to two-track analog. The brutality of this take-no-prisoners music showcases Garth Powell's slamming percussion and Wadada Leo Smith's bright, eloquent trumpet, and will likely send your pet kitty flying in fright. The Ovation MA8.2s nailed it all, from Gianni Gebbia's breathy alto saxophone to the weird rhythms of Powell's precision-perfect attacks. Even the violence of Matthew Goodheart's piano attacks was replicated to perfection. The effect was sensational.

After finishing my formal listening evaluations, I re-experienced the MA8.2s' strengths when I reviewed, for [Stereophile.com](#), Craig Hella Johnson conducting the choir *Conspirare* in Johnson's requiem, *Considering Matthew Shepard* (SACD/CD, [Harmonia Mundi 807638](#)). While my focus was on the

music rather than on sound quality per se, I couldn't help noting that the loveliness of the women's voices, the expert contributions of several soloists, and the superb percussive and dynamic contrasts were touching me deeply. That I found the composition itself far too sentimental and saccharine was made possible, in part, by the AVM monoblocks, which reached into the music's emotional center and shared it with me without editorializing on it.

Conclusions

If your priorities in sound include precision, speed of attack, exciting dynamic contrasts, a truthful presentation, and tonal neutrality that allows a recording's inherent beauty to sing, you owe AVM's Ovation MA8.2 monoblocks a long listen. At \$29,990/pair, cheap they ain't. But if you can find a way to let them sing in your system, you will, in many ways, feel rich indeed. Most highly recommended.

Specifications

Description: Solid-state (MOSFET) monoblock power amplifier. Inputs: 1 balanced (XLR), 1 unbalanced (RCA). Power output: 600W into 8 ohms (27.8dBW), 1100W into 4 ohms (27.4dBW), 1750W into 2 ohms (26.4dBW). Frequency range: 0.3Hz–400kHz. Voltage gain: 30dB. Input impedance: 20k ohms balanced, 10k ohms unbalanced. Damping factor (8 ohms): >1000. THD (1kHz at 25W into 4 ohms): <0.005%. Signal/noise (ref. 25W into 4 ohms): >100dB, A-weighted.

Dimensions: 17.1" (435mm) W by 9.8" (250mm) H by 16.5" (420mm) D. Weight: 92.6 lbs (42kg) net, 107 lbs (48.5kg) shipping.

Finishes: Black, Silver.

Serial numbers of units reviewed: 6-01438, 6-01445.

Price: \$29,990/pair. Approximate number of dealers: 12.

Manufacturer: AVM Audio Video Manufaktur GmbH, Daimlerstrasse 8, 76316 Malsch, Germany. Tel: (49) (0)7246-30991-0. Fax: (49) (0)7246-30991-69.

Web: www.avm.audio. US distributor: AVM Audio USA. Email: avmusa@avm-audio.com.

Sidebar 2: Associated Equipment

Digital Sources: dCS Paganini SACD/CD transport & [Rossini DAC](#) & [Scarlatti clock](#); Oppo Digital BDP-93 NuForce Edition universal BD player; Apple MacBook Pro with Intel i7, SSD, 8GB RAM; external hard drives, USB sticks.

Power Amplifiers: Pass Labs XA200.8 monoblocks.

Loudspeakers: [Wilson Audio Specialties Alexia](#).

Cables: Digital: AudioQuest Diamond (FireWire, Ethernet), Nordost Odin 1, Odin 2, & Valhalla 2 (USB). Interconnect: Nordost Odin 2. Speaker: Nordost Odin 2. AC: Nordost Odin 2.

Accessories: [Grand Prix Monaco](#) rack & amp stands, Apex feet; Nordost QB8, QX4, QK1 & QV2 AC power accessories; AudioQuest NRG Edison outlets; Stein Music Signature Harmonizers, Blue Suns/Diamonds, Speaker Matches, Super Naturals, and crystal Quantum Organizer; Synergistic Research Tranquility Base UEFs & Basik, Transporter & PowerCell; Bybee Room Neutralizers; Finite Elemente Cerapucs; Absolare Stabilians; Resolution Acoustics room treatment; Stillpoints Aperture panels.—**Jason Victor Serinus**

Sidebar 3: Measurements

I measured the hefty Ovation MA8.2 monoblock with my Audio Precision SYS2722 system (see the January 2008 "[As We See It](#)"). Before doing any testing of a power amplifier, I precondition it by running it at one-third its specified power into 8 ohms for 60 minutes. (With an amplifier having a class-B or -AB output stage, this power level results in the highest thermal stress on the output devices.) After an hour driving 200W into 8 ohms, the temperature of the MA8.2's heatsinks was a moderate 125°F (51.6°C), and its the top panel was warm, at 107.8°F (42.1°C). The front-panel meter was accurately calibrated, reporting as "199.6W" an actual level of 198.8W into 8 ohms.

The voltage gain into 8 ohms for both the balanced and unbalanced inputs was 29dB, and both inputs preserved absolute polarity, the XLR jack being

wired with pin 2 hot. The input impedance was slightly lower than the specified figures, at 9k ohms unbalanced and 14k ohms balanced, both values consistent from 20Hz to 20kHz. The output impedance (including 6' of cable) was very low, at 0.08 ohm at 20Hz and 1kHz, rising very slightly to 0.1 ohm at 20kHz. As a result, the response with our standard [simulated loudspeaker](#) varied by just $\pm 0.05\text{dB}$ (fig.1, gray trace). This graph, taken with a balanced input (the unbalanced behavior was identical), shows that the audioband response is flat into 8 ohms (blue trace), with the ultrasonic rolloff reaching -0.5dB at a very high 100kHz. The response rolled off earlier into lower impedances, reaching -1.8dB at 100kHz into 2 ohms (red trace), but was still flat up to the top of the audioband. The AVM's reproduction of a 10kHz squarewave was therefore excellent (fig.2), with short risetimes and no overshoot or ringing.

image: <https://www.stereophile.com/images/417AVM-fig1.jpg>

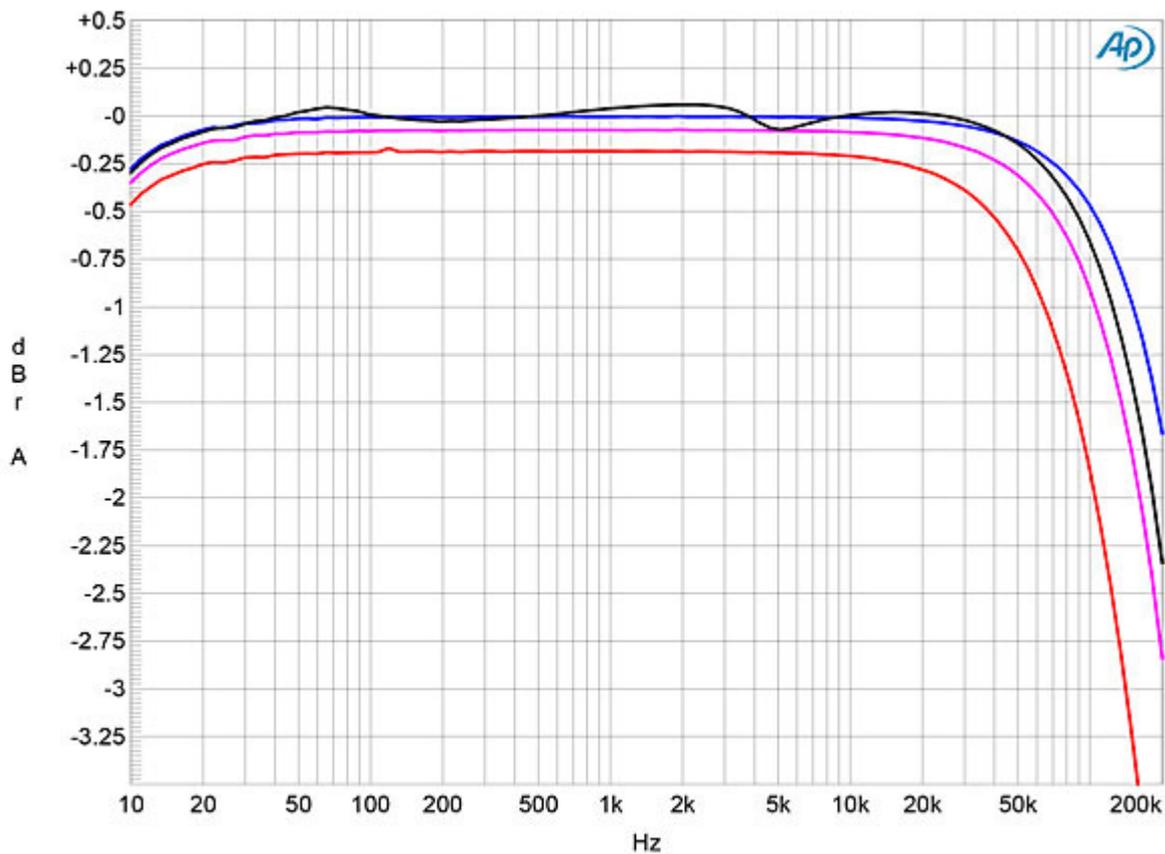


Fig.1 AVM MA8.2, frequency response at 2.83V into: simulated loudspeaker load (gray), 8 ohms (blue), 4 ohms (magenta), 2 ohms (red) (0.5dB/vertical div.).

image: <https://www.stereophile.com/images/417AVM-fig2-2.jpg>

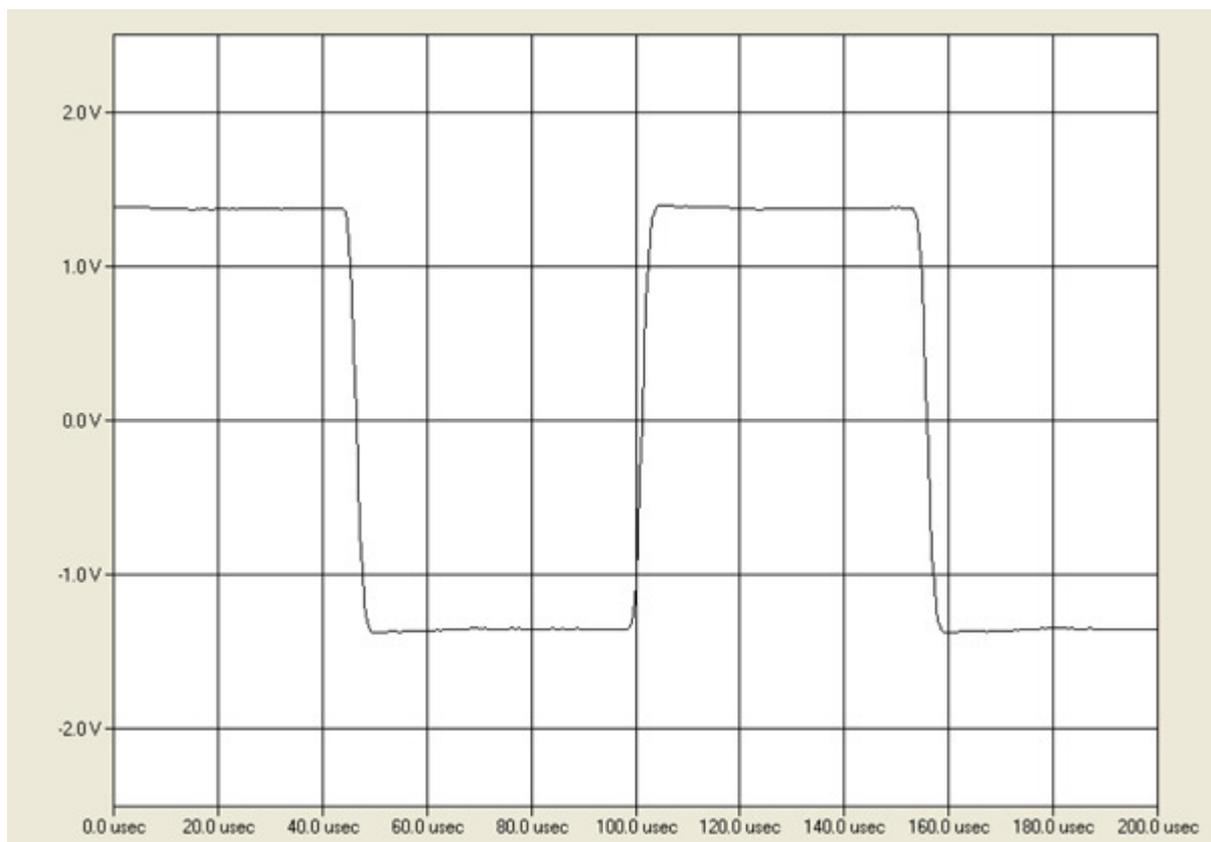


Fig.2 AVM MA8.2, small-signal, 10kHz squarewave into 8 ohms.

With those massive toroidal transformers close to the audio circuitry, I was not surprised to find in the MA8.2's output some supply-related artifacts at 60Hz and its odd-order harmonics (fig.3). These will be due to magnetic interference, but it's fair to note that although they're visible in this graph, they all lie at or below -100dB ref. 1W into 8 ohms. The wideband signal/noise ratio ref. 1W into 8 ohms, taken with the input shorted to ground, was okay, at 74.6dB, but this improved to 82.9dB when the measurement bandwidth was restricted to the audioband, and to 84.3dB when A-weighted.

image: <https://www.stereophile.com/images/417AVM-fig3.jpg>

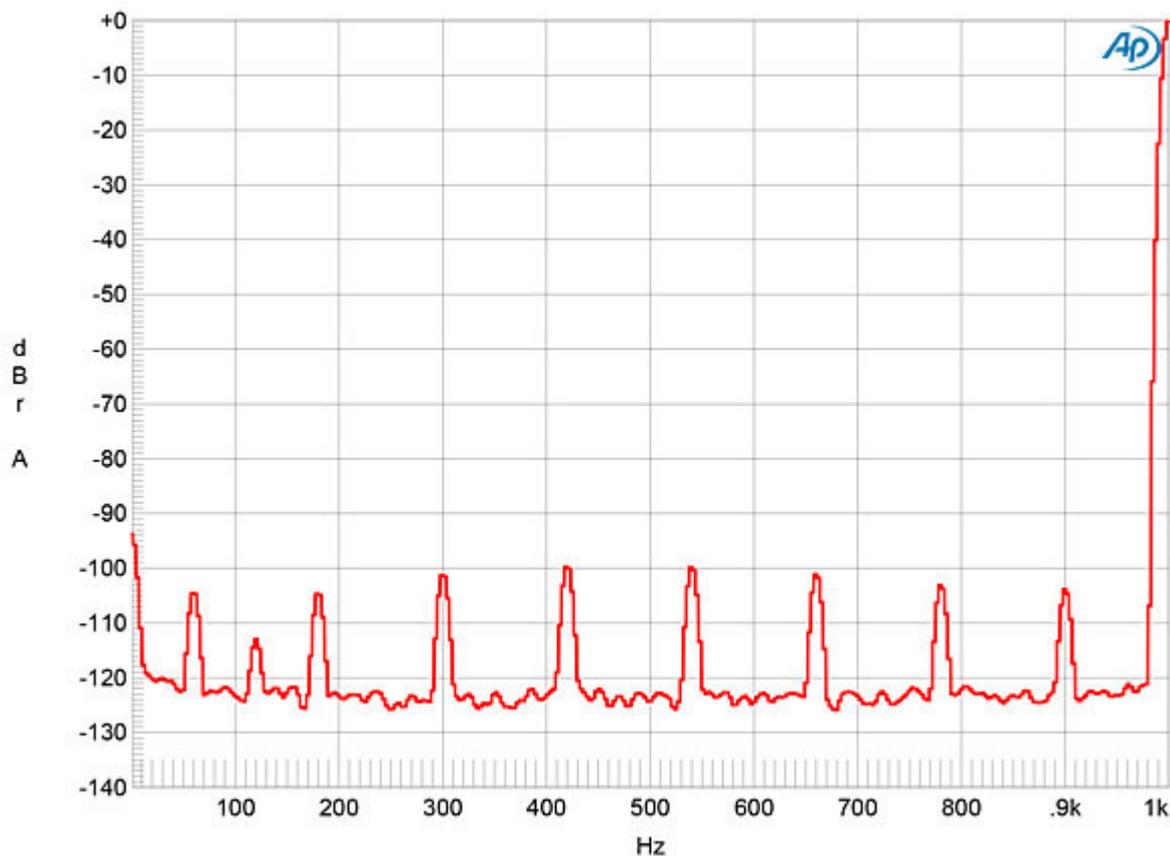


Fig.3 AVM MA8.2, spectrum of 1kHz sinewave, DC–1kHz, at 1W into 8 ohms (linear frequency scale).

The AVM amplifier is rated to produce >600W into 8 ohms. Fig.4 shows that it didn't actually clip (defined as when the THD+noise reaches 1%) until 805W (29.1dBW), at which power output the AC wall voltage in my test lab measured 121.1V. The downward slope of the trace below 100W into 8 ohms in this graph indicates that the actual distortion lay below the noise floor at powers less than 100W. Into 4 ohms (fig.5), the MA8.2 clipped at 1320W (28.2dBW); into 2 ohms, it clipped at 1820W (26.6dB, not shown), even though at this power output the wall voltage had dropped to 115.8V.

image: <https://www.stereophile.com/images/417AVM-fig4.jpg>

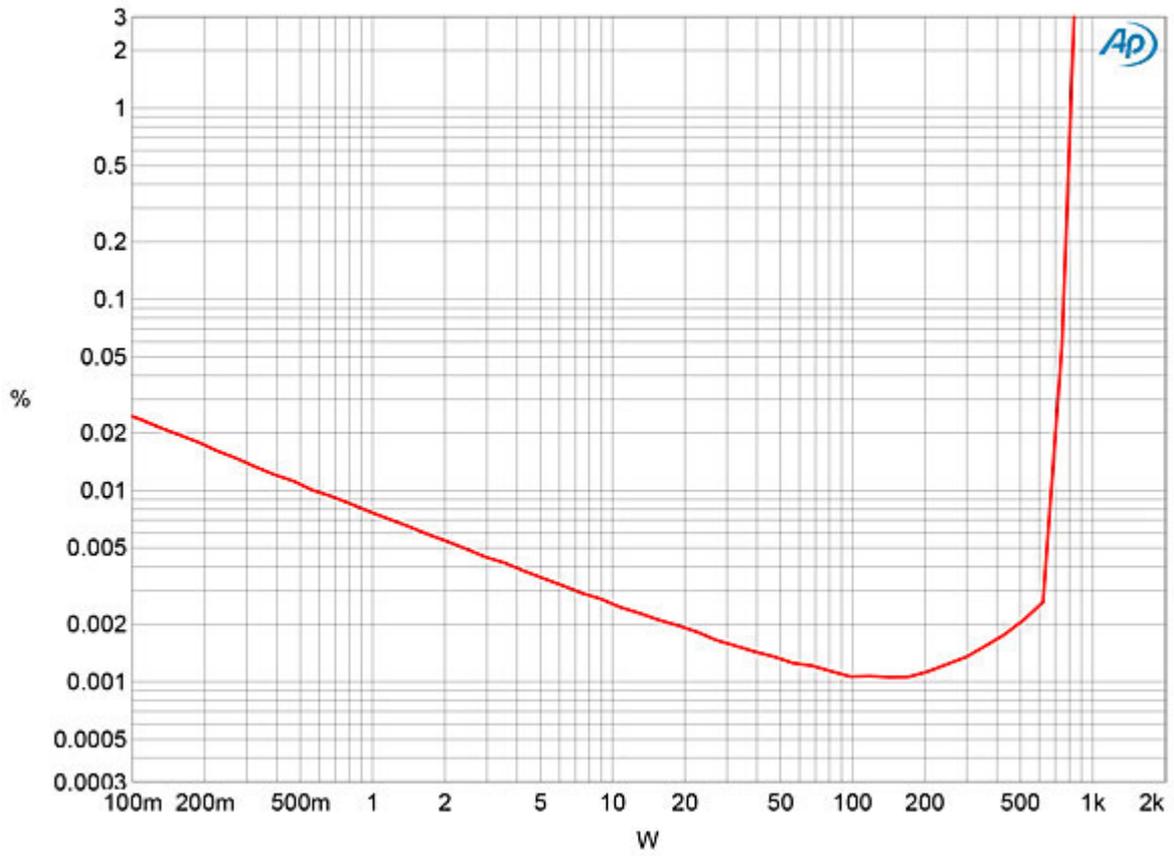


Fig.4 AVM MA8.2, distortion (%) vs 1kHz continuous output power into 8 ohms.

image: <https://www.stereophile.com/images/417AVM-fig5.jpg>

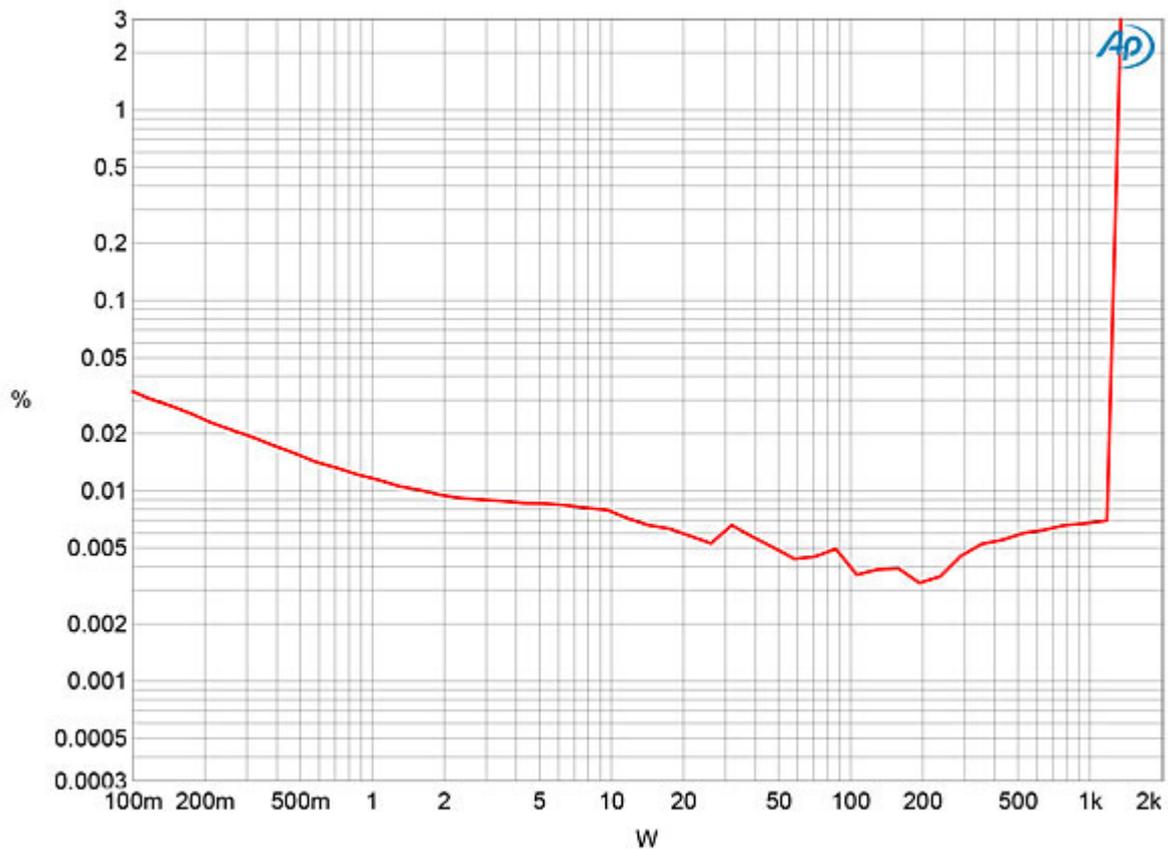


Fig.5 AVM MA8.2, distortion (%) vs 1kHz continuous output power into 4 ohms.

I measured how the percentage of THD+N varied with frequency at 28.3V output, which is equivalent to 100W into 8 ohms, 200W into 4 ohms, and 400W into 2 ohms. The results are shown in fig.6: The distortion is very low overall, but does rise into 4 and 2 ohms and in the top octaves and, to my surprise, below 50Hz. The distortion is primarily the third harmonic (fig.7), and, even at a very high power into 4 ohms (fig.8), doesn't rise above -90dB (0.003%). However, you can see in this graph the low-level, supply-related spurious, which also appeared when I tested for intermodulation distortion (fig.9). But note how low are the actual intermodulation products in fig.9, despite the very high power. The high-order products are all at or below -96dB (0.0015%), and the second-order, difference product at 1kHz can't be seen at all above the level of the low-frequency supply spurious.

image: <https://www.stereophile.com/images/417AVM-fig6-2.jpg>

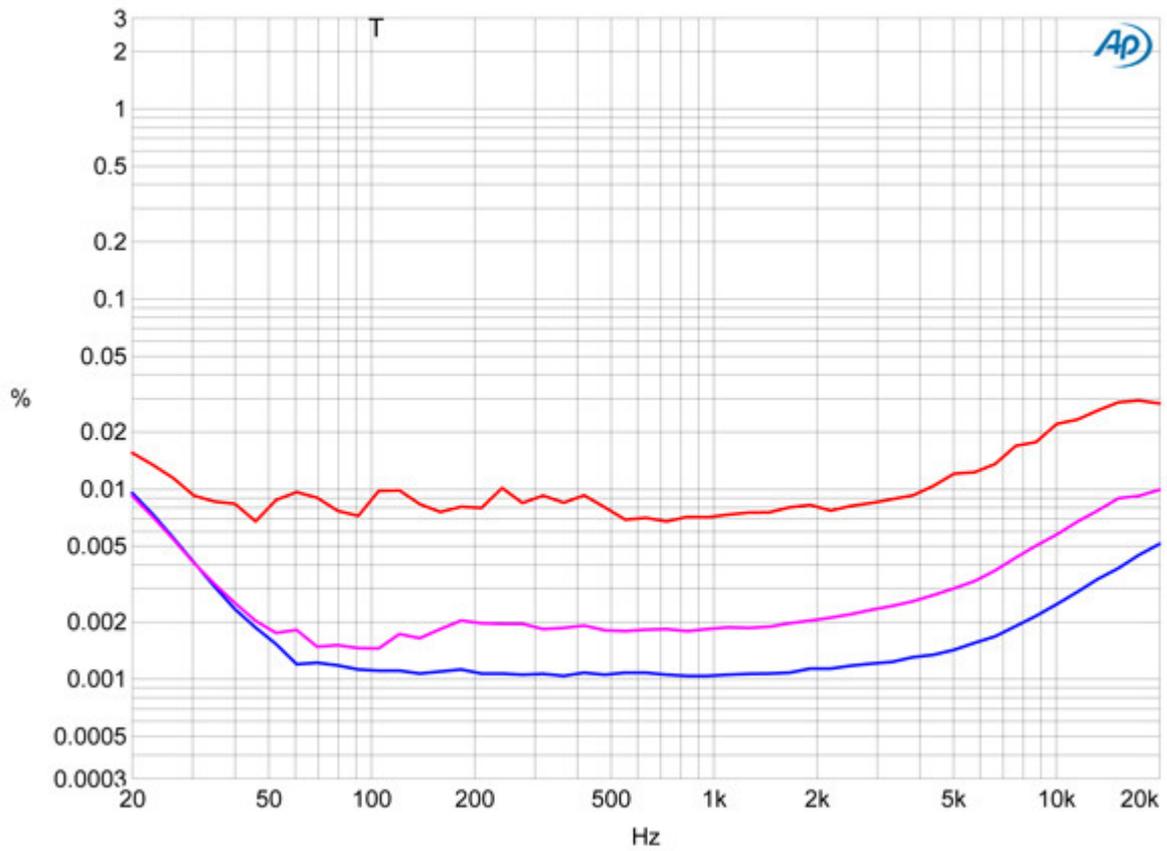


Fig.6 AVM MA8.2, THD+N (%) vs frequency at 28.3V into: 8 ohms (blue), 4 ohms (magenta), 2 ohms (red).

image: <https://www.stereophile.com/images/417AVM-fig7.jpg>

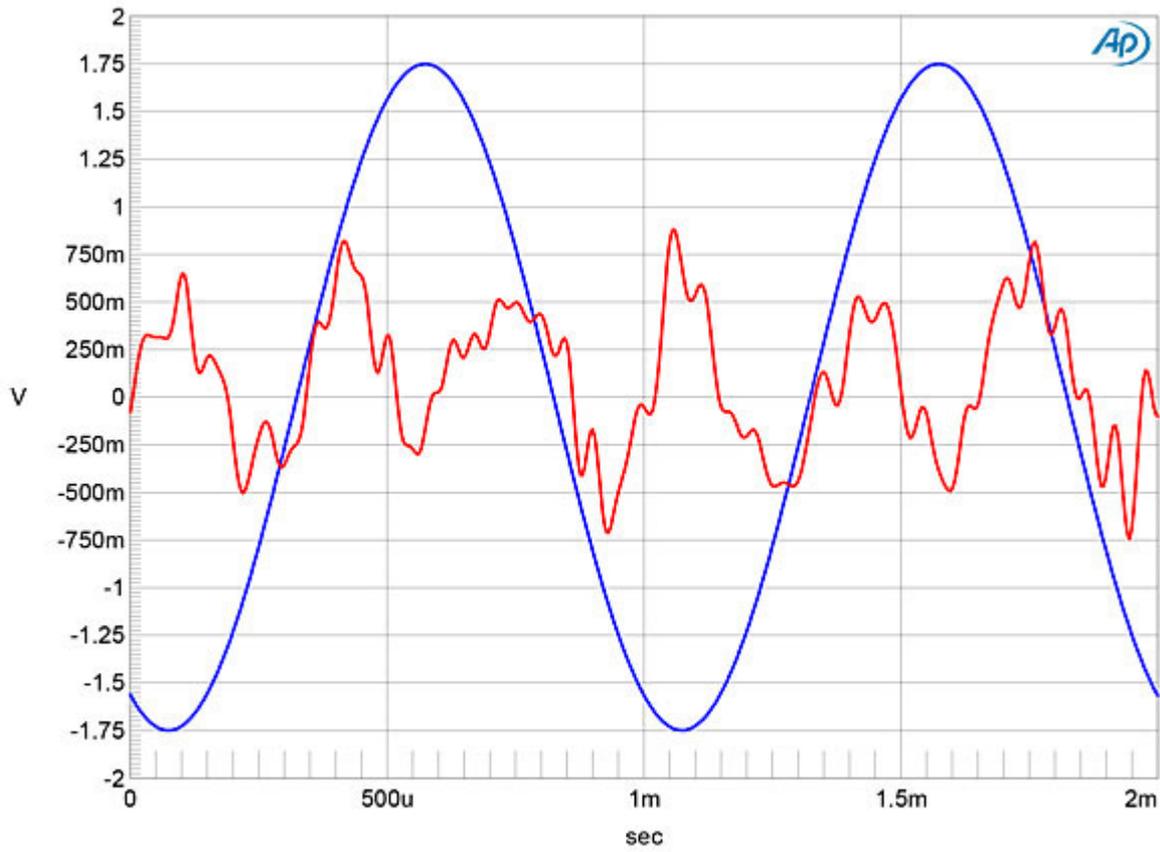


Fig.7 AVM MA8.2, 1kHz waveform at 200W into 8 ohms, 0.0013% THD+N (top); distortion and noise waveform with fundamental notched out (bottom, not to scale).

image: <https://www.stereophile.com/images/417AVM-fig8.jpg>

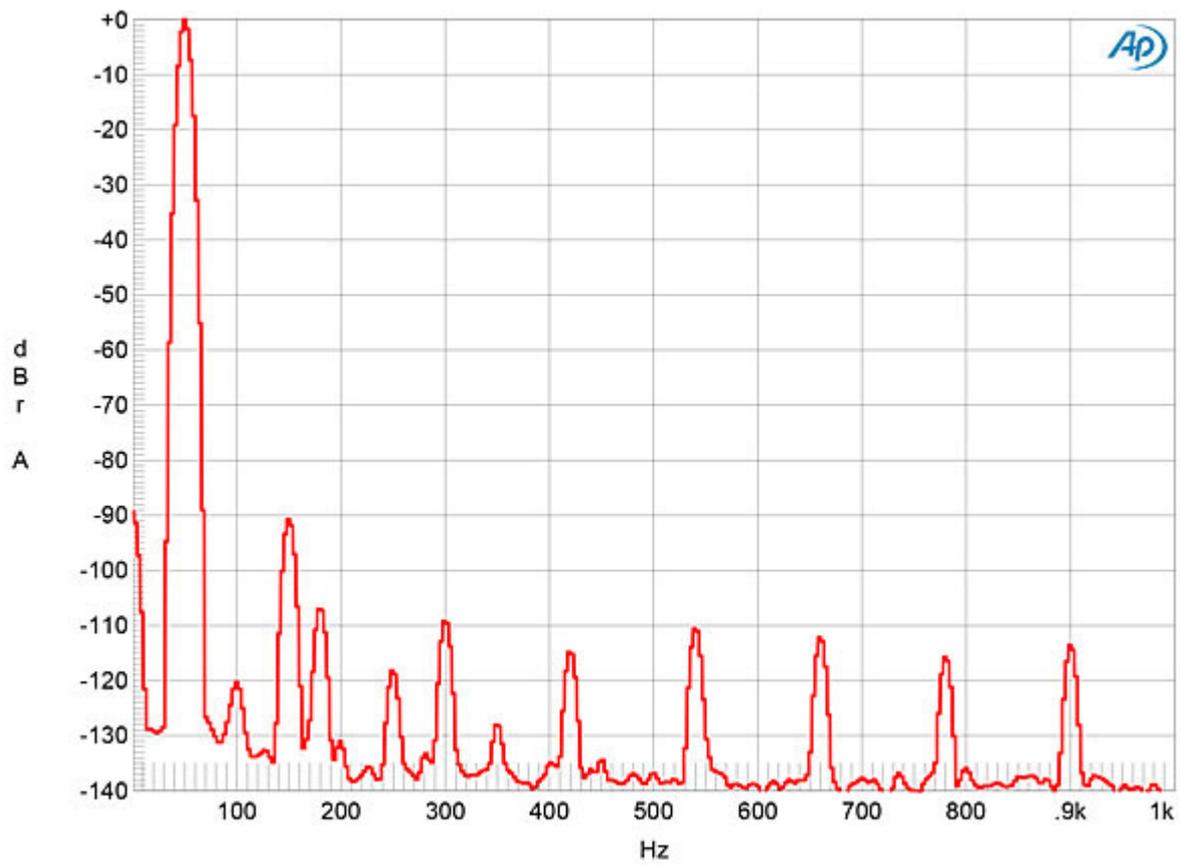


Fig.8 AVM MA8.2, spectrum of 50Hz sinewave, DC–20kHz, at 400W into 4 ohms (linear frequency scale).

image: <https://www.stereophile.com/images/417AVM-fig9.jpg>

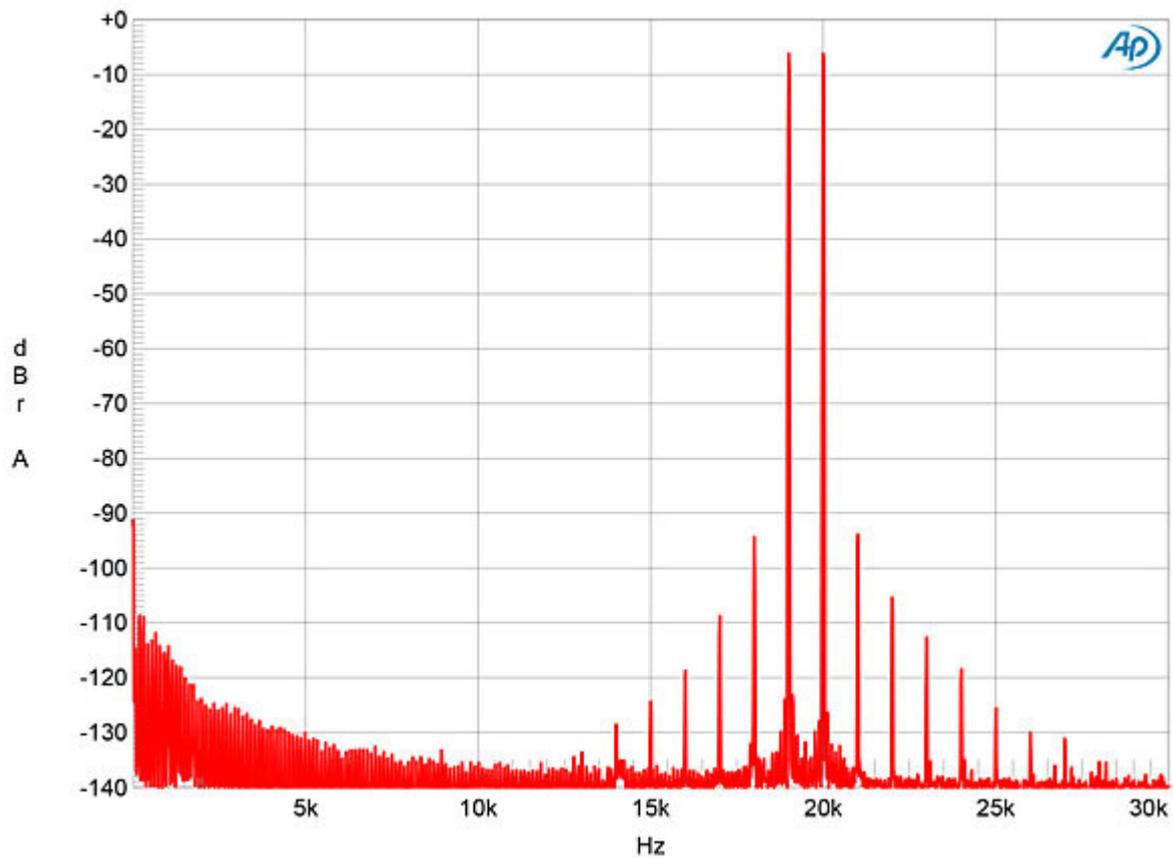


Fig.9 AVM MA8.2, HF intermodulation spectrum, DC–24kHz, 19+20kHz at 400W peak into 8 ohms (linear frequency scale).

After having had some, shall I say, "idiosyncratically engineered" amplifiers pass through my test lab in recent months, it was a pleasure to measure such a well-engineered, conservatively specified amplifier as AVM's Ovation MA8.2.—**John Atkinson**