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AVM Ovation PA 8.2

MODULAR PREAMPLIFIER

The digital ground seems to shift weekly. While firmware and software updates over the Internet somewhat slow the constant upheaval, when you do buy something, you just *know* that as soon as you plunk down your cash, something new will come along.

So, especially with preamplifiers, why not produce a design based on modules that the user can swap in and out, to custom-configure the preamp to that user's current needs while leaving room for later expansion? Why pay for six inputs' worth of stuff when at present you need only two? Upgrades? New features? No problem—swap out a module. Or, if a circuit in one module malfunctions, you can send only that module back for repairs, not the whole thing.

It makes sense, yet in certain purist quarters there's resistance—just as there is to surface-mount technology (SMT). If the capacitors aren't the size of bathroom-tissue rolls, they can't possibly sound any good (I'm not saying that isn't true!). Modules mean plug-in circuit cards, which sometimes means computer-style [*gasp!*] connectors, maybe even ribbon cables. Oxidation can occur at these interfaces, so the purity of the connection can't be maintained. That's the line.

The Card-Carrying Ovation PA 8.2

Audio Video Manufaktur (AVM) is a 32-year-old German company that I think manufakturs *no* video products. AVM is all in with modular design. Their new flagship preamplifier, the Ovation PA 8.2 (base price $8995), like AVM's previous top preamp, has plug-in cards for both its inputs and outputs. The standard output module is their Solid-State Output card, but the PA 8.2 can be had with an optional Tube Output card ($3395), which has two AVM 803T dual-triode tubes. The PA 8.2 provides slots for up to three output cards, so biamping or triamping can be accommodated. (Each of the AVM's cards, output and input alike, is a stereo card—there are not separate cards for the left and right channels.)

The PA 8.2 also has eight input slots, seven of which can be used for any combination of cards, though slot 8 can be used *only* for the Line Input Tone card ($2195). Once installed, the Tone card provides Bass, Treble, Balance, and Loudness Contour controls for all analog modules. Slots 9–11 are reserved for the output cards. However, the PA 8.2 is not limited to eight inputs. The Line Input Tone and standard Line Input ($1795) cards include both single-ended (RCA) and balanced (XLR) jacks, each of which can handle a different signal, selectable with the input-selector knob on the front panel.

The optional Digital Input Card ($3395) includes USB, optical, and two coaxial inputs. There's an optional FM Tuner Input card, as well as a Phono Input card ($2395) for moving-magnet and moving-coil cartridges. You can insert multiple Phono or FM or Digital cards—or none at all, and keep the PA 8.2's unused slots covered with blank plates (included). No doubt AVM will eventually release more cards, perhaps that include the streaming capabilities outlined in Art Dudley's review in February 2018 of their Ovation MP 8.2 CD player–D/A processor.[1] Of course, you can also configure the PA 8.2 with only standard analog Line Input cards—as many as you need.

1 See www.stereophile.com/content/avm-ovation-mp-82-cd-player-da-processor.

SPECIFICATIONS

Description Modular solid-state and/or tubed preamplifier with slots for 9 input modules slots, 3 output modules, class-A headphone output. Available modules: MM/MC phono preamplifier, asynchronous DAC with inputs (1 USB Type B, 2 coaxial S/PDIF RCA, 1 optical TosLink), supporting PCM up to 32-bit/384kHz, DSD64 & DSD128 (2.8MHz, 5.6MHz); FM, Line in (with or without tone & contour configurability), Line out, Bluetooth. Tube complement: 2 AVM 803T dual triodes. Frequency ranges: 20Hz–100kHz (solid-state), 20Hz–30kHz (tubed). Input impedance, line: 3.4k ohms (RCA), 13.6k ohms (XLR). Input sensitivity, 1V output: 20–450mV (adjustable). Signal/noise: >100dB (solid-state), >90dB (tubed). THD: <0.001% (solid-state), <0.01% (tubed). Phono module: Gain, MM: 43–52dB, input impedance 47k ohms/47–420pF. Gain, MC: 63–72dB, input impedance 63–72dB. Signal/noise, MM (5mV/1kHz): 79 or 84dB (A). Signal/noise, MC (0.5mV/1kHz): 70 or 76 dB (A). Frequency range: <30Hz–100kHz. Phono EQ RIAA: ±0.2dB. Subsonic filter: 20Hz, third-order.
Dimensions 16.9" (430mm) W by 5.1" (130mm) H by 15.4" (390mm) D. Weight: 26.5 lb (12kg).
Finishes Silver, Black.
Serial number of unit reviewed AVM-7-01643.
Prices $8995 (base price). Card modules: Line Input Tone: $2195. Digital Input: $3395. Line Input: $1795. Bluetooth Input: $1795. Phono Input: $2395. Solid-State Output: $1795. Tube Output: $3395. Approximate number of dealers: 8. Warranty: 3 years labor and parts, the latter including tubes.
Manufacturer
Audio Video Manufaktur GmbH, Daimlerstrasse 8, D-76316 Malsch, Germany.
Tel: (49) (0)7246-30991-0.
Fax: (49) (0)7246-30991-69.
Web: https://avm.audio.
US distributor:
AVM Audio USA, Buffalo, NY. Tel: (510) 901-9477.

ERIC SWANSON

The case is superbly machined and constructed, with no visible bolts, screws, or fasteners.

Basic Architecture

Behind the Ovation PA 8.2's front panel is a completely new non-modular, doubly regulated, oversize linear power supply, with two proprietary 35VA toroidal transformers supplying positive and negative voltages for all audio circuits. According to AVM's Udo Besser, the new design can handle all possible combinations of input and output modules, and maintains the shortest possible signal path through input card to output card, with not a single cable in between. Cards from the PA 8.2's predecessor, the PA 8, are fully compatible with the 8.2, and vice versa. The PA 8.2 automatically recognizes any newly installed card and correctly configures it.

There's also an independent, high-voltage power supply for the Tube Output, which you get whether or not you've opted for that card. In addition, there's a supply for the base unit's control circuitry, which manages all of the sophisticated switching and adjustment functionality. Behind the headphone jack on the front panel is a class-A headphone amplifier; most of the rest of the PA 8.2's interior is occupied by the card slots.

The exterior case is superbly machined and constructed, with no visible bolts, screws, or fasteners. On the front panel are two large knobs with ball bearings, for Source and Volume. Between them is a generously sized fluorescent screen that displays all operating parameters and other useful information. Below that is a row of five buttons, for navigating the menu, which I found easy to understand and use. At far left is a small Power button, at far right the headphone jack.

The Ovation PA 8.2 comes with a nicely machined brushed-aluminum remote-control handset. This lets you switch inputs, change stations (if you ordered the FM Tuner card), adjust the volume, and power the PA 8.2 off or on (in standby mode). There's even a rear-panel light that alerts you to correct the AC mains phase—something that was once an end-user fetish (oldsters will remember the Namiki DF-100 Direction Finder).

Operational Completeness, Systemic Consistency

Skeptics might say, "How can you place a noisy DAC next to a high-gain phono preamplifier?" Well, each of the Ovation PA 8.2's plug-in cards has its own voltage supply. Cards installed but not in use are automatically muted to prevent

MEASUREMENTS

I measured the AVM Ovation PA 8.2 using my Audio Precision SYS2722 system (see the January 2008 "As We See It"[1]). Looking first at the line-level analog inputs on the Tone input module: With the AVM's volume control set to its maximum of "99,5," the maximum voltage gain at 1kHz measured 18.24dB from the solid-state balanced and unbalanced outputs, 18.2dB from the tubed balanced and unbalanced outputs, and 21.85dB from the headphone terminals. The line inputs preserved absolute polarity from all five outputs (*ie*, were non-inverting), and the unbalanced input impedance was a fairly low 6700 ohms from 20Hz to 20kHz, this doubling as expected for the balanced inputs.

The headphone output impedance was 16 ohms at all audio frequencies. From the solid-state output module, the unbalanced impedance was a usefully low 46.7 ohms, this doubling, again as expected, from the balanced output. The corresponding output impedances from the tubed output module were 45.8 and 91.5 ohms, these also very low, suggesting that there might be a solid-state buffer following the tube section.

The solid-state output module's frequency response is flat up to 20kHz (fig.1), rolling off above the audioband to reach –3dB at 130kHz. The tube output module's response rolled off earlier, reaching –1dB at 20kHz (fig.2). Fig.3 shows the line input and solid-state output's responses with the Treble and Bass controls bypassed, then set to their maximum ("+7") and minimum ("–7"). The Treble control appears to be a conventional Baxandall type, though with a fairly extreme ±13dB action at 20kHz. The Bass control is a bandpass type that boosts or cuts the output at 120Hz by ±12.5dB. The response with the Contour control active (not shown) applies a 13dB bandpass boost

1 See www.stereophile.com/content/measurements-maps-precision.

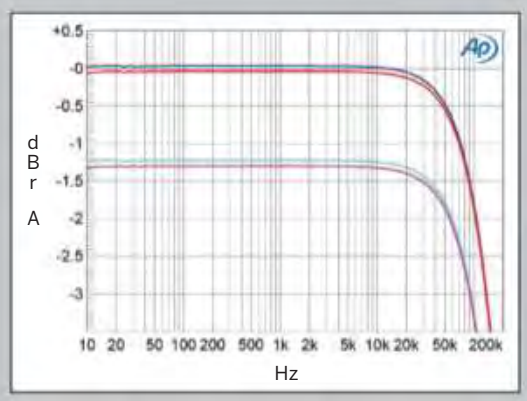

Fig.1 AVM PA 8.2, line input, balanced solid-state output, volume control = "99,5," frequency response at 1V into: 100k ohms (left channel blue, right red), 600 ohms (left cyan, right magenta) (0.5dB/vertical div.).

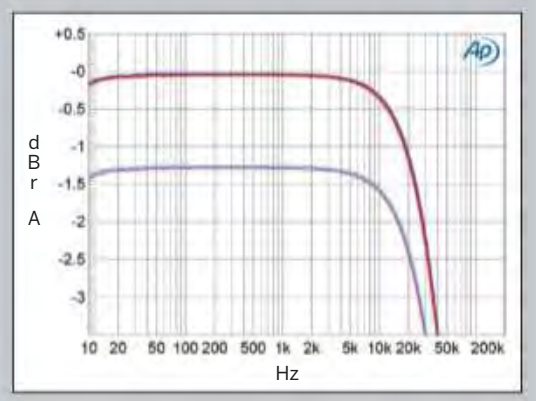

Fig.2 AVM PA 8.2, line input, balanced tube output, volume control = "99,5," frequency response at 1V into: 100k ohms (left channel blue, right red), 600 ohms (left cyan, right magenta) (0.5dB/vertical div.).

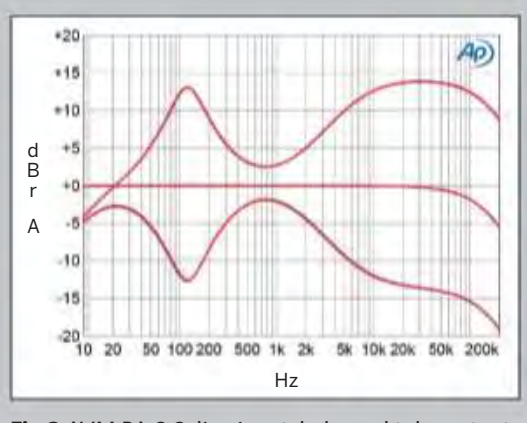

Fig.3 AVM PA 8.2, line input, balanced tube output, volume control = "80,0," frequency response with Bass and Treble controls set to ±7 (left channel blue, right red) (5dB/vertical div.).

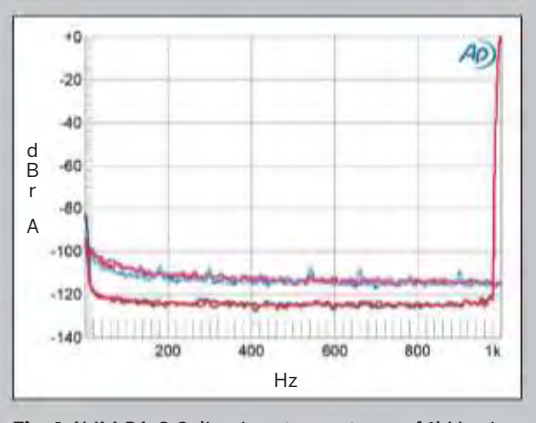

Fig.4 AVM PA 8.2, line input, spectrum of 1kHz sinewave, DC–1kHz, at 2V into 100k ohms: balanced solid-state output (left channel blue, right red), balanced tube output (left cyan, right magenta) (linear frequency scale).

interference.

The PA 8.2's configurability in some ways resembles that of a state-of-the-art home-theater preamplifier-processor: you can easily adjust each input's sensitivity so that the volume level doesn't leap up or down when you switch between them. In the Personal Setup menu you can: set the display brightness; specify whether or not the Bass, Treble, Balance, and Loudness Contour controls (assuming you've installed the Tone card) operate globally or are adjustable within individual modules; set up the system to skip any empty module slots; and name the modules. There are other options, but they don't include Mono (offered only on the Tuner card) or Mute. (The photo has a module removed to show the +15V and –15V transformers.)

Phono Input Card

This fully configurable phono-preamp module includes adjustable MM gain of 43, 46, 49, and 52dB, and capacitive loading of 50, 100, 150, 200, 260, 310, 370, and 420pF. The module doesn't include options for MM resistance loading, so I assume it's fixed at 47k ohms. The MC settings offer 63, 66, 69, and 72dB of gain, with loading options of 47, 75, 110, 150, 330 ohms, and 1k ohm.

The Phono card also has a selectable, third-order, 20Hz subsonic filter. The system is extremely convenient in that these adjustments can be made on the fly as you push the front-panel buttons—you can hear how your choices affect the sound. All that's missing (for now) are a mono option and a choice of EQ curves for pre-stereo-era mono records.

measurements, continued

centered on 120Hz, and shelves up the high frequencies by 6dB above 5kHz.

The solid-state output module's channel separation was superb, at >120dB in both directions below 3kHz, and was still 105dB at 20kHz. The tubed output module's separation was about 30dB less across the audioband. The tubed module was also noisier. Fig.4 shows the low-frequency spectrum of the two modules' balanced outputs while reproducing a 1kHz tone at 2V into 100k ohms and the volume control set to its maximum. The solid-state module's spectrum (blue and red traces) was free from any power-supply–related spuriae, while the tubed spectrum is about 12dB higher in level, and also has some low-level, odd-order, supply-related spuriae at 180Hz, 300Hz, etc.

At our usual definition of clipping (*ie*, when the percentage of THD+noise in the amplifier's output reaches 1%), the PA 8.2's solid-state module (fig.5, blue trace) clipped at 5.6V into 100kHz, but the downward slope of this trace below 3V indicates that this module's distortion is actually below the very low noise level. The tubed output module (fig.5, red trace) clips slightly higher in level, at 6.7V, and although the distortion is overall higher than the solid-state module's, and starts to rise out of the noise floor above 700mV, it remains very low in absolute terms.

Both modules clipped at close to the same output levels into the punishing 600 ohm load. However, while the solid-state module offered astonishingly low distortion into 100k ohms up to 3kHz, with only a slight rise in the top octave (fig.6, blue and red traces), it performed less well into the very low 600 ohm load (cyan, magenta). Though the tubed module offered higher distortion into 100k ohms (around 0.01% across the band), the

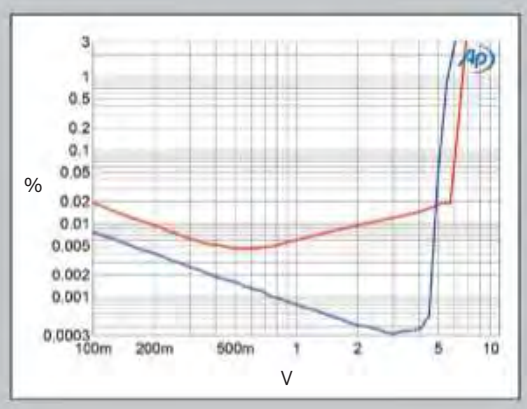

Fig.5 AVM PA 8.2, line input, distortion (%) *vs* 1kHz voltage into 100k ohms: balanced solid-state output (blue), balanced tube output (red).

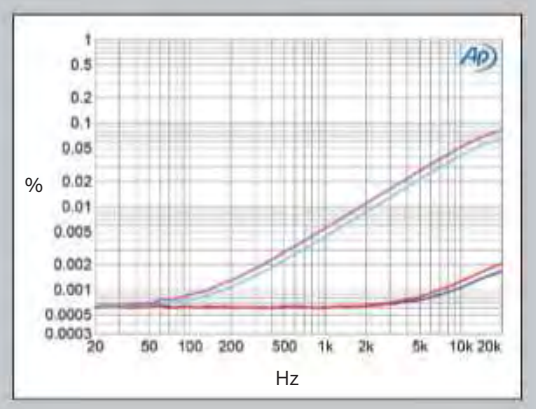

Fig.6 AVM PA 8.2, line input, balanced solid-state output, distortion (%) *vs* frequency at 3V into: 100k ohms (left channel blue, right red), 600 ohms (left cyan, right magenta).

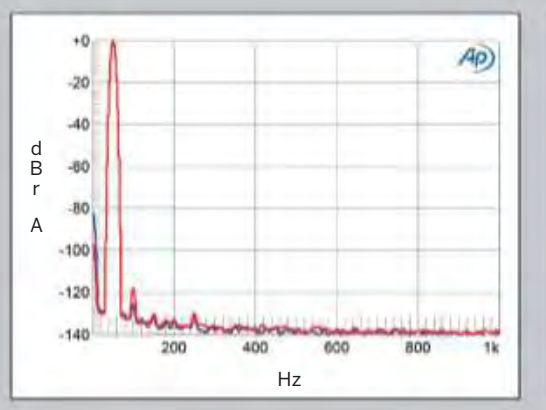

Fig.7 AVM PA 8.2, line input, balanced solid-state output, spectrum of 50Hz sinewave, DC–1kHz, at 2V into 600 ohms (left channel blue, right red; linear frequency scale).

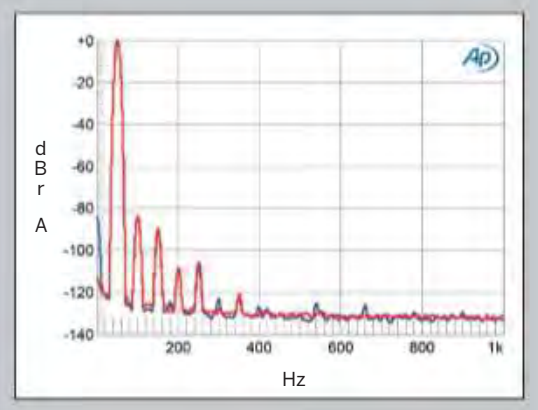

Fig.8 AVM PA 8.2, line input, balanced tube output, spectrum of 50Hz sinewave, DC–1kHz, at 2V into 100k ohms (left channel blue, right red; linear frequency scale).

Digital Input Card

The Ovation PA 8.2's Digital Input card is a straightforward asynchronous USB DAC that can up- and downsample up to and down from 44.1kHz to 384kHz. Deemphasis is automatic. The one optical and two coaxial S/PDIF inputs can accept PCM datastreams ranging from 16 to 24 bits and with a sample rate up to 192kHz. For Mac users, or Windows users with driver download, the USB input is good for PCM signals up to 384kHz, and DSD up to DSD128 (5.6MHz). With the front-panel pushbuttons you can select one of two filters: Fast, with steep ultrasonic filtering, for flat amplitude response in the audioband but considerable phase shift; or Slow filtering, for a gradual rolloff in the top end but less phase shift. The setting is stored even if the PA 8.2 has been turned off. You can also choose the Native sampling rate or choose to upsample or downsample, depending on the input signal's sampling rate, in CNV (conversion) mode.

Hopkins's voice hovered in space well in front of the speakers, his finger picking well articulated.

Other Cards

I didn't ask for the FM Tuner Input card but probably should have: The coaxial cable for my roof-mounted Yagi antenna, with rotor, is coiled behind my rack, waiting for me to find the space for a Richard Modafferi-restored McIntosh MR67. That points to another advantage of modularity: In the same

measurements, continued

level of that distortion didn't rise into 600 ohms (not shown).

The PA 8.2's solid-state distortion signature was primarily second harmonic in nature though vanishingly low in level, even into 600 ohms (fig.7). The second harmonic was also the highest in level with the tube module, with the third harmonic close in level to the second (fig.8). Intermodulation distortion was also extremely low, even with the tube module (fig.9), the difference component at 1kHz with an equal mix of 19 and 20kHz tones lying at –90dB (0.003%).

Turning to the phono module, it preserved absolute polarity when set to MM, but inverted polarity when set to MC. The MM input impedance with the shunt capacitance set to 420pF was 44.5k ohms at 20Hz and 1kHz, dropping to 32.4k ohms at 20kHz. The MC input impedance was close to the values selected, 1k ohms measuring 979 ohms across the band; "330" measured 319 ohms, "150" 153 ohms, "110" 116 ohms, "75" 71 ohms, and "47" measured 46.5 ohms. The measured gain also closely tracked the settings, with ranges of approximately 43–52dB for MM and 63–72dB for MC.

The RIAA error (fig.10) was both superbly low and well matched between channels. The phono input's channel separation was very high, any crosstalk lying below –80dB, L–R, and –100dB, R–L. Set to MM and 43dB gain with the volume at its maximum, the wideband signal/noise ratio, ref. 1kHz at 5mV, was superb at 91dB, this improving to 101.5dB when A-weighted. The S/N ratio decreased as the gain was increased, as expected. The corresponding ratios for the MC setting were 69 and 76.2dB—this is a very quiet phono stage! For example, fig.11 shows the low-frequency spectrum with a 1kHz tone reproduced at 1V with the phono

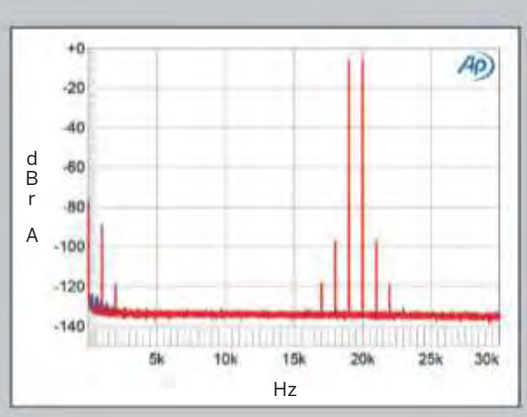

Fig.9 AVM PA 8.2, line input, balanced tube output, HF intermodulation spectrum, DC–30kHz, 19+20kHz at 2V peak into 100k ohms (left channel blue, right red; linear frequency scale).

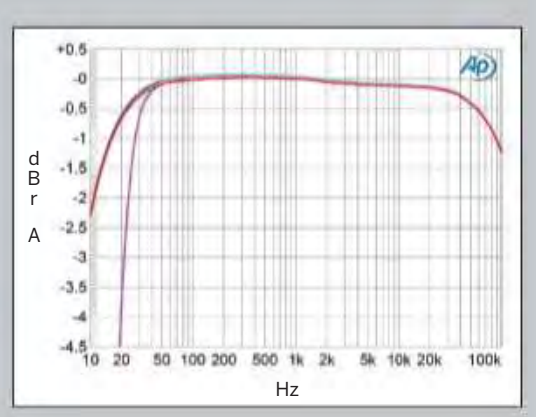

Fig.10 AVM PA 8.2, phono input, response with RIAA correction and with and without subsonic filter (0.5dB/vertical div.).

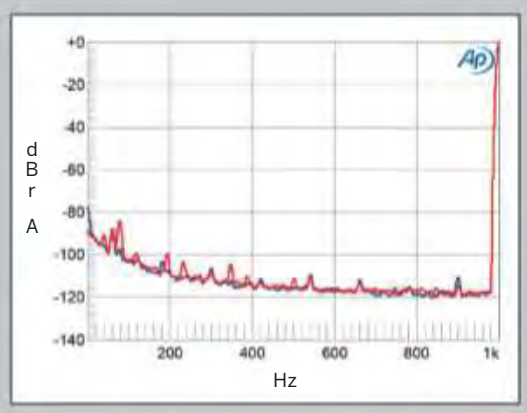

Fig.11 AVM PA 8.2, phono input, MM, 43dB gain, spectrum of 1kHz sinewave, DC–1kHz, at 1V into 100k ohms, balanced solid-state output (left channel blue, right red; linear frequency scale).

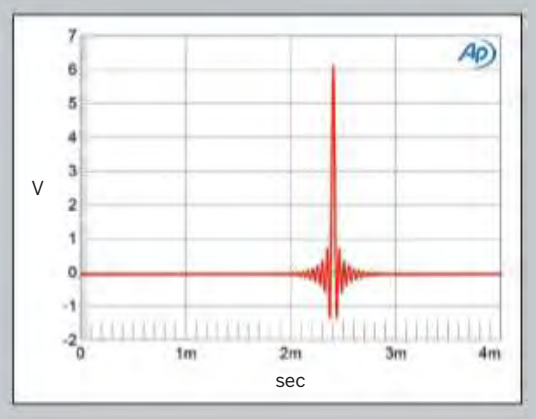

Fig.12 AVM PA 8.2, digital input, Fast filter, impulse response (one sample at 0dBFS, 44.1kHz sampling, 4ms time window).

space taken up by a standard analog preamp, you can have multiple phono preamps, tuners, and DACs.

For those who must—the Bluetooth Input Card, too, was not available until after this review had been submitted. It costs $1795. There will also be a Line Out card to feed a signal to a recorder.

Setup

The Ovation PA 8.2, with headphone amp and RC3 remote control, shipped in a flight case, costs $8995. The review sample included the Solid-State and Tube output cards, the Tone and Digital input cards, and, probably just to reinforce the point to me, six Phono Input cards. This brought the grand total to $34,145. To put that in perspective, it's considerably less than the cost of *each* of my reference phono preamps, not to mention *far* less than their combined cost. And to that you'd have to add the cost of a line-level analog preamp. I think I'm safe in saying that most buyers can do without six phono preamps, so consider a more realistic but still full-function mix of cards: one output, and these inputs: one Digital, two Line, and two Phono, for a total of about $20,000, give or take.

I installed and configured the review sample in short order, thanks to the most logically laid out and easy-to-use menu system I've yet encountered: You'll never get lost in it. The cards came already installed, but judging by the manual, installing them is an easy process, and you can swap most card positions at any time to suit your needs.

For the first half of my listening I ran balanced TARA Labs Zero cables from the 8.2's Solid-State Output card into my darTZeel NHB-458 monoblock power amps. For the

measurements, continued

module set to MM and 43dB gain.

The phono input's overload margins were also very good, at 17dB at 20Hz, and 15.4dB at 1kHz and 20kHz. Both harmonic distortion and intermodulation distortion were extremely low, the former typically measuring close to 0.08%.

Measuring the PA 8.2's S/PDIF inputs was problematic, as the digital input module was set to CNV (for sample-rate Conversion), and I couldn't see any way in the manual to switch it to Native, where the module would correctly track the incoming sample rate, even with digital input data present. (If there are no data present, the Menu buttons are inoperative.) I therefore used the Menu buttons to manually change the sample rate as necessary, and performed all measurements from the balanced solid-state outputs.

Apple's USB Prober utility identified the PA 8.2 as "AVM USB AUDIO" from "AVM" and confirmed that its USB port operated in the optimal isochronous asynchronous mode. Apple's Audio-MIDI utility revealed that, via USB, the AVM accepted 16- and 24-bit integer data sampled at all rates up to 384kHz. Its coaxial and optical inputs locked to PCM datastreams with sample rates up to 192kHz.

The PA 8.2's digital inputs preserved absolute polarity. With its volume control set to "99,5," a 1kHz digital signal at –18dBFS resulted in the unbalanced, balanced, and headphone outputs clipping, which suggests that the digital module has much too much gain. I therefore continued the measurements with the volume control set to "80,0."

The Fast reconstruction filter's impulse response with 44.1kHz data (fig.12) indicates that this filter is a conventional linear-phase type, with time-symmetrical ringing to either side of the single sample at 0dBFS. The Slow filter's impulse response (fig.13) has just a single cycle of ringing before and after the single high sample. With 44.1kHz-sampled white noise (fig.14,

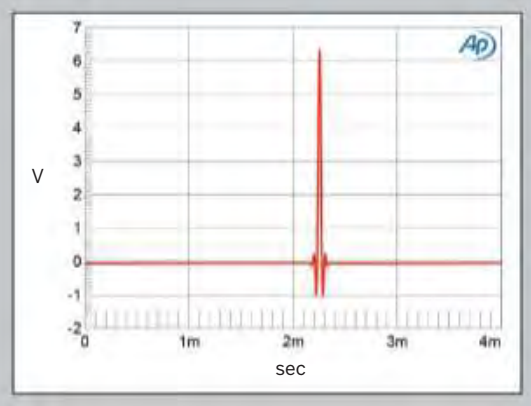

Fig.13 AVM PA 8.2, digital input, Slow filter, impulse response (one sample at 0dBFS, 44.1kHz sampling, 4ms time window).

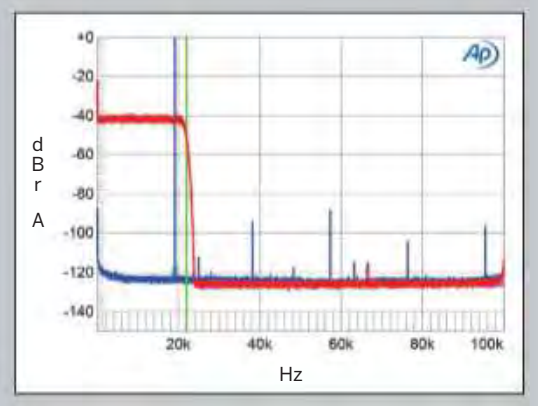

Fig.14 AVM PA 8.2, digital input, Fast filter, wideband spectrum of white noise at –4dBFS (left channel red, right magenta) and 19.1kHz tone at 0dBFS (left blue, right cyan), with data sampled at 44.1kHz (20dB/vertical div.).

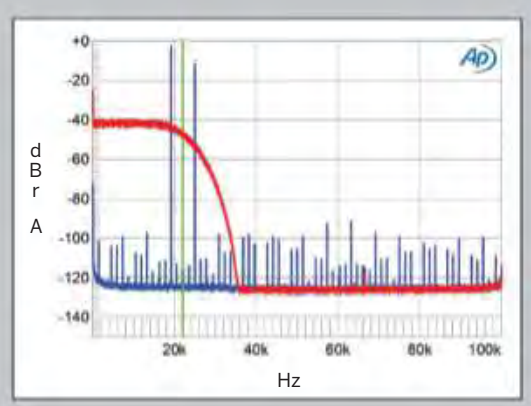

Fig.15 AVM PA 8.2, digital input, Slow filter, wideband spectrum of white noise at –4dBFS (left channel red, right magenta) and 19.1kHz tone at 0dBFS (left blue, right cyan), with data sampled at 44.1kHz (20dB/vertical div.).

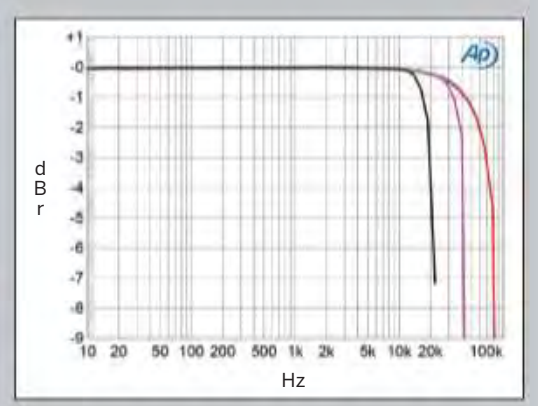

Fig.16 AVM PA 8.2, digital input, Slow filter, frequency response at –12dBFS into 100k ohms with data sampled at: 44.1kHz (left channel green, right gray), 96kHz (left cyan, right magenta), 192kHz (left blue, right red) (1dB/vertical div.).

second half, I used the Tube Output card.

Within an hour or so I had the Meridian Sooloos music server connected to one of the AVM's S/PDIF inputs, and my MacBook Air computer using Roon connected to its USB input. I had three tonearms running into three of the six Phono cards, each configured for a specific cartridge's output and loading requirements. The balanced output of my dCS Rossini CD player went into the balanced jacks on AVM's Line Input card. I also ran a few other phono preamps into the Line Input. (You can imagine how useful it was to be able to name all of those inputs!)

Listening: Game Plan

A standard preamplifier's job is straightforward: control gain, make adjustments to the signal's tonal and channel balance, and provide convenient switching among the inputs. While some argue

The Ovation PA 8.2 is shipped in a robust flight case.

measurements, continued

red and magenta traces), the PA 8.2's response rolled off sharply above 20kHz, and reached full stopband suppression above the Nyquist frequency of 22.05kHz. An aliased image at 25kHz of a full-scale tone at 19.1kHz (blue and cyan traces) can therefore be seen but it lies at –112dB (0.00025%). The distortion harmonics of the 19.1kHz tone are visible above the ultrasonic noise floor, the third harmonic being the highest in level at –89dB (0.003%).

As its name suggests, the Slow filter rolled off slowly above the audioband (fig.15), and the aliased 25kHz tone is suppressed by just 10dB. Fig.16 indicates that with 44.1kHz data (green and gray traces) the response reached –4dB at 20kHz. The Fast filter was flat to 20kHz at all sample rates (not shown). When I increased the bit depth from 16 to 24 with a dithered 1kHz tone at –90dBFS (fig.17), the noise floor dropped by 24dB, meaning that the PA 8.2 offers 20 bits' worth of resolution, which is close to the state of the art. With undithered data representing a tone at exactly –90.31dBFS (not shown), the three DC voltage levels described by the data were well resolved and the waveform was perfectly symmetrical. With undithered 24-bit data, the result was a clean sinewave (not shown).

The AVM's digital input module offered very low levels of distortion, although, as shown in fig.14, the third harmonic was predominant. There were also very low levels of intermodulation distortion via its digital inputs with both the Fast (fig.18) and Slow (fig.19) filters, though the Slow filter allowed the production of aliased images. Tested for the rejection of word-clock jitter with 16-bit J-Test data, both the S/PDIF and USB inputs behaved perfectly. The odd-order harmonics of the LSB-level, low-frequency squarewave are all at the correct levels, indicated by the sloping green line in fig.20, and no other sidebands can be seen.

Overall, AVM's Ovation PA 8.2 offers superb measured performance.

—John Atkinson

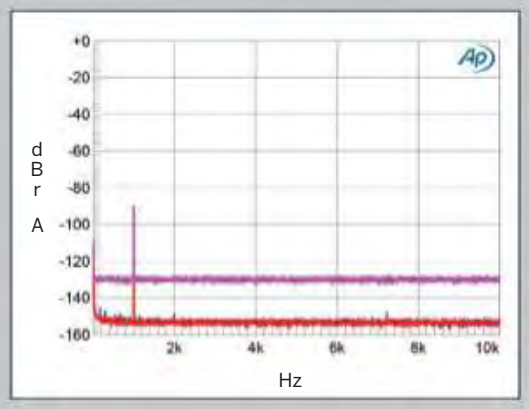

Fig.17 AVM PA 8.2, digital input, spectrum with noise and spuriae of dithered 1kHz tone at –90dBFS with: 16-bit data (left channel cyan, right magenta), 24-bit data (left blue, right red) (20dB/vertical div.).

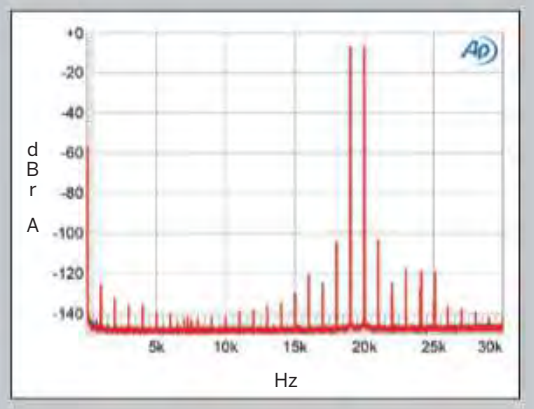

Fig.18 AVM PA 8.2, digital input, Fast filter, HF intermodulation spectrum, DC–30kHz, 19+20kHz at –1dBFS, 44.1kHz data (left channel blue, right red; linear frequency scale).

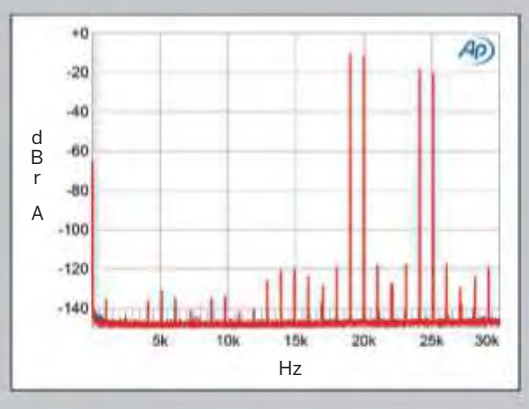

Fig.19 AVM PA 8.2, digital input, Slow filter, HF intermodulation spectrum, DC–30kHz, 19+20kHz at –3dBFS, 44.1kHz data (left channel blue, right red; linear frequency scale).

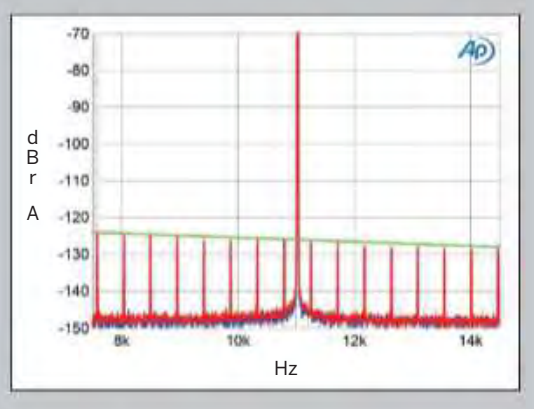

Fig.20 AVM PA 8.2, digital input, high-resolution jitter spectrum of analog output signal, 11.025kHz at –6dBFS, sampled at 44.1kHz with LSB toggled at 229Hz: 16-bit USB data (left channel blue, right red). Center frequency of trace, 11.025kHz; frequency range, ±3.5kHz.

that a preamp should pass along the signal accurately and not make it sound better or, of course, *worse*, others argue that if a preamp can change and improve the sound, why not? I'm in the latter camp.

The AVM Ovation PA 8.2 gets the highest marks for its convenience of switching. Selecting among inputs was easy, using either the remote control or the large Input knob. The ability to match input levels and name each input, as well as skip unused inputs, made things even easier, as did the other useful information displayed on the front panel, including the output level in dB.

But the PA 8.2 is anything but a standard preamplifier. First, I spent time using the Line Input card to hear how it affected the sound of familiar sources (Rossini CD player, CH Precision P1/X1 and Ypsilon VPS-100 phono preamps), compared to my reference darTZeel NHB-18NS Mk.2 preamp (*ca* $38,000 with built-in MC phono preamp), which, though modular inside, can't be configured by the user.

The Ovation PA 8.2's "pass-through" capabilities were very good through both the Solid-State and Tube output cards, particularly in terms of noise, which was ultra-low; transparency, which was very high; dynamic expression, which was very good; and frequency extension and balance, both of which were impressive—particularly the 8.2's passing of low-frequency information and its ultra-open, artifact-free top end and super-clean reproduction of transients.

In these comparisons, particularly of the analog components, I could easily hear through the PA 8.2 their sonic attributes and characteristics, as well as the differences between the two phono preamps (as outlined in their respective reviews). The CH Precision P1's bass was more authoritative, and the Ypsilon VPS-100's rich but not overripe midrange and ability to float images in three-dimensional space was easy to identify.

The Ovation PA 8.2's most notable sonic coloration or personality was a slight smoothing over and homogenization of all that it passed along, with less natural grit and grip than is reproduced (or not) by my reference darTZeel preamp. However, when I switched to the Tube Output card, most of that admittedly minor sonic character evaporated, without any penalty of added noise. The combination of the Tone input card and Tube Output card produced the most satisfying and balanced sound, especially in terms of transient grip and definition, and soundstage depth. I did most of my listening through it.

Listening: Phono Input Card

Since the PA 8.2 buyer has already paid for a chassis and a global power supply, the additional $2395 for AVM's Phono Input Card is spent on sonic performance—impressively transparent sound, with high gain (as needed) and low noise, even when using cartridges that output only 0.2mV. You also get the convenience of settings that are instantly adjustable via front-panel pushbuttons.

I listened to a reissue of Lightnin' Hopkins's *Lightnin' Strikes* (LP, Tradition 2103), recorded in L.A. in 1965 and first released by Verve Folkways, and soon thereafter by Tradition (perhaps because of a contract issue). Hopkins is backed by Don Crawford on harmonica, Jimmy Bond on bass, and Earl Palmer on drums. It was probably recorded at Goldstar—this ain't no field recording!

The Phono Input card rendered this vivid, three-dimensional, physically immediate recording with a level of sonic sophistication well above that of any $2400 phono preamp I've heard. Hopkins's voice hovered in space well in front of the speakers, his fingerpicking well articulated. You'll never mistake such a sound for anything digital. Of course, you have to factor in the cost of the PA 8.2's chassis, case, power supply, etc., but that's the point: they're baked into the cake. If you already own an Ovation PA 8.2 that you've been using in an all-digital system and want to try vinyl, $2395 will get you all the electronic performance you need to hear what good reproduction of vinyl can do. Can you hear *more* from vinyl than I heard from it through AVM's Phono Input card? Of course—it seems there's *always* more to hear. But what this module offers is plenty good in every way.

Listening: Digital Input Card

Unlike AVM's Ovation MP 8.2 CD player–D/A processor, which Art Dudley positively reviewed last February, the PA 8.2's Digital Input module isn't a media player, and of course it can't play CDs. It has asynchronous USB, optical, and two coaxial inputs, which by today's digital standards is a bare minimum. However, that's enough to play 24/192 files, though I discovered that Apple's USB–to–USB-C adapter will *not* allow my new MacBook Pro to communicate with the AVM's or dCS DAC's USB inputs, though it did let me download 24/192 files from a USB hard drive. Fortunately,

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ASSOCIATED EQUIPMENT

Analog Sources Continuum Audio Labs Caliburn turntable & Castellon stand; VPI Avenger Reference turntable & Fatboy tonearms (dual-pivot & gimbaled); Klaudio KD-ARM-MP12, Kuzma 4Point, Swedish Analog Technologies CF1-09 tonearms. Cartridges: Grado Labs Epoch (mono); Ikeda 9Gss; Lyra Atlas, Atlas SL, Atlas SL (mono), Etna, Etna SL; Miyajima Labs Infinity (mono); Ortofon MC Century Anna A95; Tedeska DST-01.
Digital Sources dCS Rossini CD player–DAC, Lynx Hilo A/D–D/A converter, Meridian Sooloos music server, Pure Vinyl & Vinyl Studio software.
Preamplification Ypsilon MC-10L & MC-16L step-up transformers; Angstrom and Doshi, CH Precision P1 & X1 power supply, Ypsilon VPS-100 phono preamplifiers; darTZeel Audio NHB-18NS Mk.2 preamplifier.
Power Amplifiers darTZeel Audio NHB-458 (monoblocks).
Loudspeakers Wilson Audio Specialties Alexx.
Cables Interconnect: The Chord Company Sarum T (S/PDIF), Luminous Audio Technology Silver Reference, Stealth Sakra & Indra, TARA Labs Air Evolution & Zero & Zero Evolution, Teresonic Clarison Gold. Speaker: TARA Labs Omega EvolutionSP. AC: AudioQuest Dragon, Dynamic Design Heritage AE15 Digital.
Accessories AudioQuest Niagara 7000 power conditioner; Oyaide AC wall box & receptacles; ASC Tube Traps; RPG BAD & Skyline & Abffusor panels, Stillpoints Aperture Room panels, Synergistic Research UEF products (various); Symposium Ultra platform; HRS Signature SXR, Stillpoints ESS stands; Finite Elemente Pagode amplifier stands; Audiodharma Cable Cooker; Furutech record demagnetizer & deStat; Audiodesksysteme Gläss Pro, Kirmuss Audio KA-RC-1, Loricraft PRC4 Deluxe record-cleaning machines.
—Michael Fremer

I'd kept my MacBook Air and used it to listen to 24/192 files. Rather than up- or downsample, I used the AVM's Slow filter and stuck to native sampling rates.

For 16/44.1 listening I chose, among other things, Dvorák's Cello Concerto, with cellist János Starker and Antal Doráti conducting the London Symphony Orchestra (CD, Mercury Living Presence 432 001), which was pleasingly presented in a velvet-smooth way. I listened to a long, eclectic series of recordings, included "Petra's Declaration," from Elmer Bernstein's score for the film *Return of the Magnificent Seven* (CD, Rykodisc 10714), "I'm Not in Love," from 10cc's *The Original Soundtrack* (gold CD, Mercury/Mobile Fidelity Sound Lab UDCD 729), and Taj Mahal singing "Betty Ball's Blues," from *Conjure: Music for the Texts of Ishmael Reed* (CD, American Clavé AMCL CD 1006). These were all familiar tracks, and all made for pleasant, unobjectionable, compelling listening free of digital etch or edge. The sound was 3D, airy, and definitely nonfatiguing, probably thanks, at least in part, to the Tube Output card.

Of course, running the same tracks through the dCS Rossini (*ca* $30,000) into the Tone card's balanced input produced a larger-scaled, vastly more dynamic, harmonically vivid and detailed sound—at about 10 times the price of AVM's Digital Input card!

Listening: That class-A Headphone Amplifier

I listened through AKG's K701 over-ears headphones and Jerry Harvey Audio's Layla in-ear monitors, and while headphone listening at home isn't necessary for me, I ended up wearing both pairs for longer than usual—the sound was so smooth, spacious, well textured, and nonfatiguing. The Ovation PA 8.2's headphone amplifier is an attractive bonus.

Impressive in Every Way

The few months I spent with AVM's Ovation PA 8.2 produced only satisfaction and listening pleasure. I didn't expect these moderately priced modules to equal or surpass the sound quality of my far more costly, standalone reference components, and they didn't—but I also didn't expect to be so satisfied with the sound quality of AVM's inexpensive analog and digital modules, especially through the Tube Output card, which I highly recommend. I switched back to my reference gear only for comparisons with the PA 8.2, and when I was working on this month's "Analog Corner."

Modularity aside, the Ovation PA 8.2 performed particularly well as a conventional, all-analog line-input preamplifier. Its operating system, easy to configure and use, and its outstanding sound from *all* of its supplied modules—each offered at what I consider to be a very reasonable price—make the PA 8.2 among the most satisfying preamplifiers I've reviewed, especially when you consider that the interconnects linking my own outboard gear and preamp together cost more than the fully loaded PA 8.2. Crazy, no?

Well, no, actually—but why argue, when with the PA 8.2 you can do without all those interconnects entirely and, for a reasonable price, own something of high physical and sonic quality that can be easily upgraded and updated for the foreseeable future? ■