



AVM 20

“... performance
was superior.”

HOME Theater

BY CHRIS LEWIS

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THE NOT-QUITE-5K MARATHON

Two big receivers and a set of separates race for your sub-\$5,000 electronics-upgrade dollars.

What is it that we're really after as we toil away for 40-plus hours a week, try to buy stocks at the bottom of the curve, or lay \$20 on the Pick 6 at the track? Is it the satisfaction of a job well done, a feeling that we're doing our part to boost the economy, or the thrill of competition? Not likely. It's cash we're after—of the cold, hard variety. Dig even deeper because money, in and of itself, is nothing more than pieces of paper in our wallets. It's not the money we're really after: It's the upgrade—that magical process that has become as American as capitalism itself. What we really want is to upgrade our houses,

our cars, our level of restaurant and hotel patronage, and even (you guessed it) our entertainment systems.

Of course, “upgrade” is a relative term. I suppose that there are some people who view the \$4,000-to-\$5,000 range of electronics as a starting point (lucky bastards). However, the \$5,000 level is a barrier most folks are unwilling or unable to cross, especially considering that an around-\$5,000 electronics purchase isn't worthwhile without at least an around-\$5,000 speaker purchase (excepting, of course, those rare products that perform well beyond what their price tags would lead you to expect). You'll probably need to figure some decent video components into the equation, as well. So, it is with the \$5,000

barrier in mind that we fashioned this electronics-upgrade Face Off.

The contenders for this fray are a select group, including the two biggest-ticket receivers on the market today and, on the flip side, one of the least-expensive separates combinations (that offers bona fide quality, at least) Anthem's AVM 20 preamp/processor and PVA 7 amplifier. The choice of receivers seems logical enough, as the vast majority of people who are interested in upgrading are receiver users and may feel more comfortable sticking with what they know. On the other hand are separates, most of which are well beyond the \$5,000 level. However, for the sake of parity and comparison, we tracked down a comparably priced contender from this camp.

“... the Anthem combo was the clear winner with music ... a cut above ... Even in two-channel, the Anthem combo simply delivered more real estate and dynamics, with a greater degree of separation and isolation of independent events. ... crisper and cleaner ... got [our] top vote for sound-track performance, as well ...”

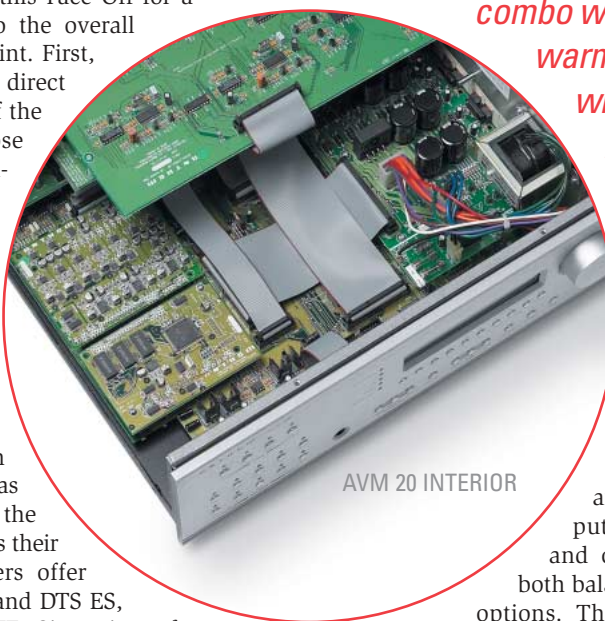
ANTHEM AVM 20 PRE/PRO AND PVA 7 AMPLIFIER

I included the Anthem combo in this Face Off for a couple of reasons that pertain to the overall electronics market at this price point. First, separates and receivers are in direct competition now that the prices of the former have come down and those of the latter have come up (significantly). Comparing the Anthem combo to the receivers is also a convenient way to demonstrate the generic differences you can expect to find between receivers and pre/pros—which don't always hold true anymore but did here. We usually expect to see more on the software side from a receiver and, of course, more on the hardware side from separates as was the case here. Features-wise, the receivers' most obvious advantage is their processing options: Both receivers offer THX Ultra 2, Dolby Pro Logic 11, and DTS ES, while the AVM 20 does not (*NOTE: Since time of printing, Anthem has released the AVM 20 v.2 with comprehensive surround-sound processing options; see note below.*) The Anthem combo's major benefits are the AVM 20's balanced outputs and, naturally, the fact that the PVA 7 amp is housed in its own large chassis. Unless you're talking about the relatively rare high-frequency switching transformers, size and space can make a huge difference for amplifier components. When they're being compared with receivers, separates stand on power more than anything else. Even amps that have seven channels in a single chassis have disadvantages when compared with monoblocks or stereo amps of the same size, so you can see that packing seven amp channels, a preamp, and a tuner into a single chassis (i.e., a standard A/V receiver) requires much more compromise.

The AVM 20's highlights (abbreviated as they must be here) include Dolby Digital, Dolby EX, and DTS processing, THX Ultra certification, 24-bit/192-kilohertz digital-to-analog converters, and Motorola's new 56366 DSP chip [Now available with the 56367 chip]. You also get two extra output zones and a choice of how you want to route your analog signals. You can route them as straight throughput (avoiding all conversion, DSP, etc.),

or you can send them through the DSPs if you want to apply processing or, more importantly, bass management for DVD-Audio or SACD players that don't have it. The onscreen menu is well done and easy to negotiate. As good pre/pros do, the AVM 20 supplies a considerable degree of control over crossovers, input logistics, individual channel levels (including settings for each source), and so on. The remote is also comprehensive and easy to use.

“For me, the hook was again the superior stage depth, the definition, and the PVA 7's ability to remain calm under pressure. Even with all seven channels pumping — the Anthem combo was focused and retained a warm, approachable character without any substantial sacrifices in dynamic range or physical impact.”



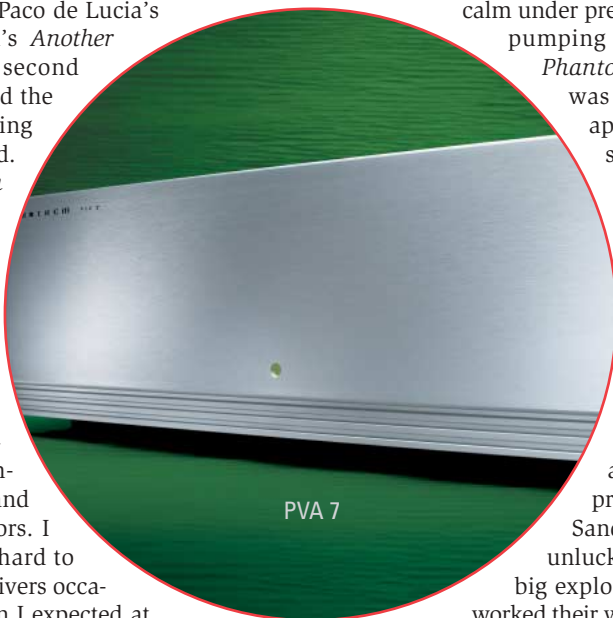
AVM 20 INTERIOR

The AVM 20's connections are first rate. There's a healthy 11 digital audio inputs (seven coax, three optical, and one AES/EBU) and eight analog audio inputs (seven unbalanced via RCA and one balanced via XLR). You also get six-channel analog audio inputs, and 10 channels of analog audio output—7.1 channels plus an extra sub and center output—are available with both balanced (XLR) and unbalanced (RCA) options. There are also two high-bandwidth component video inputs, a bevy of composite and S-video ins and outs, an RS-232 port that, (among other things) allows you to download software upgrades right from Anthem's Website (www.anthemAV.com), and even an expansion port for IEEE 1394. The seven-channel, 125-watt-per-channel PVA 7 amp lacks balanced inputs but offers unbalanced RCA connections and five-way binding posts. Both the AVM 20 and PVA 7 come with your choice of a black or silver faceplate.

“... [the Anthem combo] handled ambient effects especially well but also showed finesse in delivering the cleanest, most intelligible dialogue ...”

When the dust cleared, the Anthem combo was the clear winner with music, both during my extended time with all three systems and on the cards of two of the three Face Off judges. Adrienne and Claire shared my opinion that the receivers were neck and neck performance-wise, but the Anthem combo was a cut

above for music. The most noticeable trait, expectedly, was power—in two channels and especially with multichannel music. Both ladies made comments very similar to those in my notes from the previous weeks: Even in two-channel, the Anthem combo simply delivered more real estate and dynamics, with a greater degree of separation and isolation of independent events. Both also agreed that the combo sound crisper and cleaner in two-channel with: Paco de Lucia's *Live in America* and Pink Floyd's *Another Brick in the Wall* from the second Burmester collection and that it did the best job of the three in controlling the Cantons' boomier bottom end. "The Generals" from the *Film Music of Jerry Goldsmith* SACD really gave the PVA 7 a chance to flex its extra muscle. Even Geoffrey, who was never won over by the Anthem combo's overall sound, admitted that its performance here was superior. The stage was deep, and, as the intensity picked up and the volume levels rose, the PVA 7 maintained a more effortless feel and labored far less than its competitors. I had to push the PVA 7 relatively hard to get it to sweat, whereas both receivers occasionally worked a little harder than I expected at levels that were plenty loud but not exceptionally so.



"... performance here was superior. The stage was deep, and, as the intensity picked up and the volume levels rose, the PVA 7 maintained a more effortless feel and labored far less than its competitors."

The Anthem combo got my, Adrienne's, and Claire's top vote for soundtrack performance, as well—although we generally agreed that the gap wasn't quite as pronounced as it was with music. Claire felt that it handled ambient effects especially well but also showed finesse in delivering the cleanest, most

intelligible dialogue of the competition—going so far as to note that she could actually understand Brad Pitt's Mickey (the marble-mouthed gypsy) from chapter 17 of *Snatch*. Adrienne liked the composure the combo showed with bass and commented that its low-frequency definition was clearly the best of the bunch. For me, the hook was again the superior stage depth, the definition, and the PVA 7's ability to remain calm under pressure. Even with all seven channels pumping during the Dolby EX-encoded *Phantom Menace*, the Anthem combo was focused and retained a warm, approachable character without any substantial sacrifices in dynamic range or physical impact. As was the case with music, I had to push the Anthem combo much harder than the receivers with soundtracks before it started to sweat. During my listening time, I cranked up chapter 20 of *The Phantom Menace* as loud as I could stand it and listened for compression and image breakdown at key points: the engines revving prior to the race, the gunshots of the Sand People, and the explosions of unlucky racers' pods, especially the first big explosion in the cave. All three systems worked their way through these difficulties without major issues, but the Anthem combo did it with less effort. Both receivers compressed noticeably with the cave explosion, and, while I won't say that the separates particularly liked it at high volumes, the end result wasn't nearly as grating. Ultimately, I found the Anthem combo to have the most believable sound of the three, which may be a simplistic way of putting it—but, after all, isn't believability what this is really all about?

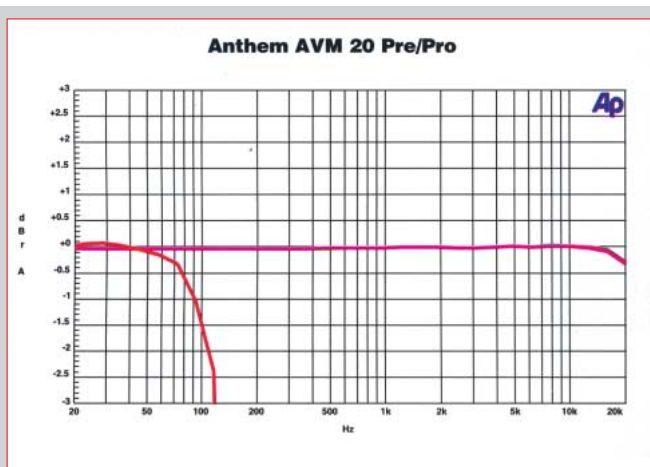
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AVM 20 REAR PANEL

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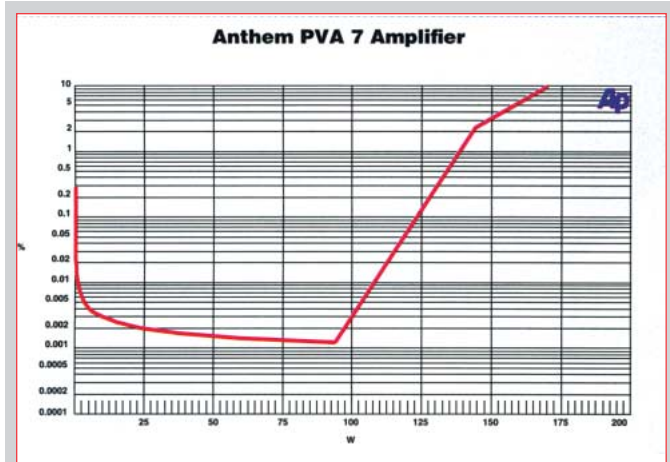
(NOTE: Anthem recently introduced the AVM 20 v.2 which, in addition to its Advanced Bass Management and THX Audio Setup, adds THX Ultra2, Dolby Pro Logic II, DTS-ES, DTS Neo:6, AnthemLogic-Music™ / AnthemLogic-Cinema™ to its surround-sound processing capabilities. A hardware/software upgrade to this new v.2 feature set is available for AVM 20 v.1 owners. For more information, contact an Authorized Anthem Dealer or visit our website at www.anthemAV.com)



HT Labs Measures: Anthem AVM 20 Pre/Pro

The above chart shows the frequency response of the left (aqua), center (green), LFE (red), and left surround (purple) channels at the preamp outputs of the Dolby Digital decoder. The left, center, and surround channels are all flat, +0.00/-0.31 decibels from 20 hertz to 20 kilohertz. The LFE channel, normalized to the level at 40 Hz, is +0.06 dB at 20 Hz, reaches the upper -3 dB point at 118 Hz, and reaches the upper -6 dB point at 121 Hz.

The analog frequency response of the left channel is -0.01 dB at 20 Hz and -0.08 dB at 20 kHz. The response dropped to -0.05 dB at 10 Hz and to -0.49 dB at 50 kHz. The analog THD+N is less than 0.016% at 1 kHz with a 100-millivolt input and the volume control set to +3. Crosstalk with a 100-mV input was -95.37 dB left to right and -93.49 dB right to left. The signal-to-noise ratio with a 100-mV input from 10 Hz to 24 kHz with “A” weighting was -95.65 dBBrA. -AJ



HT Labs Measures: Anthem PVA 7 Amplifier

This graph shows that the PVA 7’s left amplifier channel, with two channels driving 8-ohm loads, reaches 0.1% distortion at 123.0 watts and 1% distortion at 138.3 watts. Into 4 ohms, the amplifier reaches 0.1% distortion at 220.2 watts and 1% distortion at 241.4 watts. An input level of 103.5 millivolts was required to produce an output of 2.83 volts into an 8-ohm load, indicating an overall gain of 28.74 decibels. With all channels driven into 8-ohm loads, the amp reaches 0.1% distortion at 110.1 watts and 1% distortion at 122.6 watts.

The amplifier’s frequency response was +0.00/-0.20 dB from 20 hertz to 20 kilohertz. The response dropped to -0.15 dB at 10 Hz and to -1.03 dB at 50 kHz. THD+N from the amplifier was less than 0.009% at 1 kHz when driving 2.83 volts into an 8-ohm load. Crosstalk at 1 kHz driving 2.83 volts into an 8-ohm load was -81.89 dB left to right and -87.30 dB right to left. The signal-to-noise ratio with 2.83 volts driving an 8-ohm load from 10 Hz to 24 kHz with “A” weighting was -99.26 dBBrA. -AJ

HIGHLIGHTS

ANTHEM SEPARATES:

- Separates at a (high-end) receiver price
- Excellent movie and music performance