



“ ... lovely, natural, and neutral sound. ... remarkable silence and poise ... ”



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It could only come as a logical follow-through on the AVM 20 that Sonic Frontiers create the Anthem PVA 7 multi-channel power amplifier. With seven channels of amplification, the PVA 7 can single handedly deliver the full Surround-EX output of the AVM 20 (LFE channel going direct to powered subwoofer).

FROM MCA TO PVA

John Johnson, our Editor-in-Chief, reviewed Anthem’s MCA 5 a couple of years ago. “JJ” (as he is called in the popular vernacular) values the plain and simple talk, never to my recollection exhibiting jubilation, excitation, or other such hyperbole in his reviews. (*Editor’s Note: That is because I am a scientist, and medical journals don’t use words like “throbbing”.*) Knowing

this, one has to realize that the value of the MCA 5 may have been understated. At its price, five 170 watt channels of good clean power is a steal, no matter how you phrase it. The astute among us will note that the new five-channel model is but a scant bit more than its cousin, but at the same time the power per channel comes down a notch.

Let’s look at some particulars. The design starts with an 850VA transformer backed by 10 low ESL/ESR capacitors totaling 100,000 μ F of reserve. Each channel is driven by four Toshiba bipolar devices ... the same devices as used by Proceed, Levinson, and other top tier two-channel solid-state firms. Each set of four is matched for gain so that no one is working hard-

er than the others. Twenty eight output devices are going to generate their share of heat, so four generous heat sinks are completely open to air on both the bottom and the top. The chassis is fundamentally attached to these thermal transducers and ends up being not only heavy (as we expect a good amplifier to be) but, like the AVM 20, the build is rigid, secure, and craft-like. The screws fit without having to twist the case this way or that. As with the AVM 20, the front aluminum face is available in the requisite black or the elegant silver of our review sample.

So to call a spade a spade, what we have on our hands is an amplifier topology of excellent pedigree without perhaps the extreme current capabilities and

associated expense. A quick glance at the specs will show that, although stable into 4 Ohms, it's not coming close to 'doubling down' (as the saying goes) from 8 Ohms. Before you get your knickers in a knot, let's recall we are talking about an amplifier which more than likely will *not* be driving homemade ESLs at a rugby stadium. What Anthem has done here is focus on quality, not quantity.

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IT'S NOT SO MUCH ABOUT HOW LOUD IT IS ...

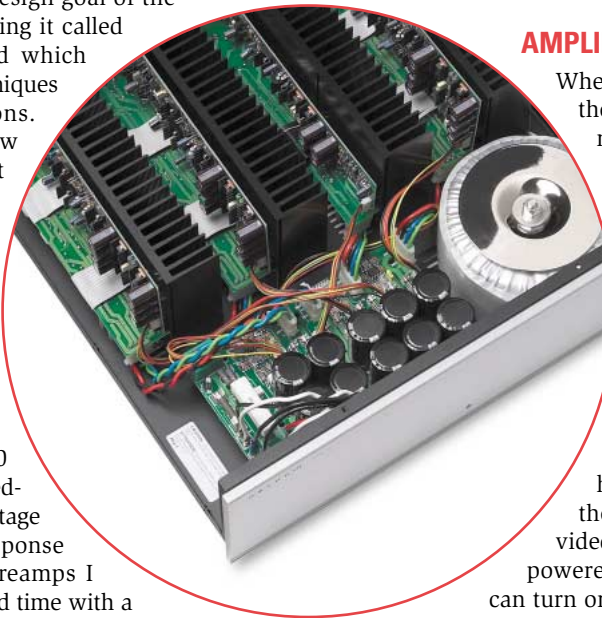
To put it into perspective, we need to realize for a moment that in reality you'll probably be driving speakers which are nominally 6 or 8 Ohms, dipping perhaps to 3 or 4, in a room which would be hard pressed to accommodate a regulation snooker game. We're talking home theater and multichannel music, so it's a safe bet there is a subwoofer in the room which will be responsible for its own juice. Now, with that in mind, we can talk about the fact that the PVA 7 (and the MCA 5 for that matter) boasts an incredible S/N ratio of -122 dB. Good grief! That's as good as no noise at all, man. This industry-leading electrical silence was a primary design goal of the amplifier series, and part of attaining it called for going without chassis ground which requires double insulation AC techniques to maintain safety certifications. Another part of attaining such a low noise floor is the 10 kOhm input impedance. It's not all that uncommon, but I know there are some out there who perish the thought. There was an unofficial rule of thumb which came about when everyone was dealing with weak sources like phono cartridges and microphones. The vernacular goes that the input impedance of the driven device should be *at least* 10 times higher than the output impedance of the source to get decent voltage transfer and to keep frequency response constant. There are some tube preamps I can think of who would have a hard time with a 10 kOhm load, but a surround sound preamp which would be adversely affected by such a load would quite frankly be a wimp! The AVM 20 ain't no phono cartridge and was designed to work well with the PVA 7 even though its 300 Ohm output impedance is not the lowest going (yet it is much lower than most mass market receivers' line outs).

In addition to the traditional S/N measurement, Anthem likes to quote the noise in terms of absolute rather than referencing it to how many dB down it is from maximum power output.

In simpler terms, this is the amount of noise you're going to hear when nothing is playing, because the absolute noise measurement doesn't care what the max output of the amp is. In other words, noise is noise and hiss is hiss, irrespective of how loud an amp will go. For the MCA and PVA amplifiers, it's 34 microvolts unweighted 20 Hz -20 kHz according to their Audio Precision, or in other words, pretty much silent.

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Why all this emphasis on quietness? Although esoteric-minded souls like to talk about how "veils of detail" are lifted as the noise floor gets lowered, and to a certain extent I appreciate that sentiment, the fact is when I have Dire Straits going full tilt, noise has long been left in the dust. Movies on the other hand, though containing music much of the time, are notorious for strategically placed silences. I will freak if my wife so much as rustles the nearly empty popcorn bowl when an emotional silence or a key whisper is playing out in my evening film. (*Editor's Note: Wait until he hears me crunching the ice in my cold drink.*) Add this to the fact that in most home theaters the surrounds are closer to the audience than speakers probably should be, and the pursuit of eliminating idle hiss from the audio chain becomes truly a noble one. Dare I say, it improves your involvement in the picture.



AMPLIFIER ERGONOMICS?

When one thinks of an amplifier, the thought of "usability" hardly comes to mind, but it was not overlooked by Anthem. I long ago gave up the notion of turning on a system with a remote because amplifiers usually have a hard switch ... end of story. True, you can elect to turn the PVA 7 on and off with the discrete switch on the front, but coupled with a piece like the AVM 20, you can use the 12 Volt trigger I/O on the back. But, not everyone who buys a PVA 7 will have an AVM 20 (though perhaps they should), so a third option is provided: Auto On/Off. Just like 99% of the powered subwoofers out there, the PVA 7 can turn on when it senses a total signal of 1V across the sum of the seven channels and will turn off about 10 or 15 minutes after the absence of a signal.

About the only thing on the PVA 7 that didn't sit quite right with me was the rear panel. Sure, the binding posts are solid, robust five-way jobs, and the inputs are gold plated. It's just that they are sort of haphazardly laid out, and it's not immediately intuitive as to what input goes with what output, especially if you are making the connections hunched over into a rack, barely able to see the labels (as I frequently am). How many times do

you have to hook up an amp though? Far fewer than we reviewers I hope for the sake of your backs, so I'll just suck it up and deal. Most of you would be connecting it just once, so don't worry about it.

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JUST LISTENING

The PVA 7 has a lovely, natural, and neutral sound. It's not as edgy as some other amplifiers in this price range and is as good as others costing more.

So how much power is there really? Enough. Not an obscene amount, but enough. The fact of the matter is, with a single power supply topology, as channels go unused or at least untaxed, the others gain some of their juice. Rare indeed is the 5.1 soundtrack which will peg all channels simultaneously, and it is impossible for a Surround EX track to ask for full throttle from all of its 7 since the steering matrix used at the back can't do it. If it sounds like I am making excuses, I am not. I just want you to understand this product is designed for quality medium-loud movie/music listening, not playing a radio so that you can hear it while you use a jackhammer.

I had the PVA 7 driving my complement of Paradigm and Paradigm Reference speakers which I feel represent an atypical load while being very revealing of the equipment which comes before them. Even when experimenting with a low crossover of 60 Hz, the PVA 7 did not run out of steam when faced with the likes of *The Pod Race* scene in the recent "Star Wars Episode 1" or *The Fifth Element's Lucia di Lammermoor* at full volume.

Switching to two-channel music and giving the PVA 7 the full signal, I was elated with the control of the low end. Double bass, electric bass, and the drums of Peter Gabriel voiced with palpable rigor. I was hard pressed to find the point of clipping.

"And quiet? You bet. ... a background of delicious, sonically black silence. ... the PVA 7 – is capable of complementing both speakers and source gear with its remarkable silence and poise in the face of demanding passages."

And quiet? You bet. About the musical score for the film "Crouching Tiger Hidden Dragon", someone in an interview noted "... it helps when you've got *Yo Yo Ma* sawing away on a \$3,000,000 Cello." Doesn't hurt either for that cello to crescendo out of, decay into, and rest against a background of delicious, sonically black silence.

FINAL THOUGHTS

With Surround EX canvassing us for more channels of amplification, the PVA 7 represents a bargain vein along which to acquire all the speaker hook-ups you need. At the same time, it is capable of complementing both speakers and source gear with its remarkable silence and poise in the face of demanding passages. A no brainer companion for the AVM 20, the two are more than just cosmetic mates: They were made for each other.

