# P R O D U C T REVIEW

PVA 7

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### BY TIM HART

While even the most hardcore movie enthusiast would be hard-pressed to rattle off more than a handful of DVD or music titles in DTS ES (6.1 Surround) or THX EX (7.1 Surround), Anthem believes that 6.1 and 7.1 channel formats will eventually be the norm. DVD-Video mastering is exploring exciting new territory with surround mixes, as are the engineers mixing the first generation DVD-Audio and some SACD titles, yet it is the emerging market of video gaming that offers the most hope for advanced surround sound formatsboth discrete and matrixed formats. To prepare for the future, Anthem has created the PVA 7, a power amplifier that will allow you to use all of the capabilities available in the most advanced audio/video receivers and AV preamps.

The Anthem PVA 7 is a seven-channel, single-chassis power amplifier rated at 105 watts x 7 into 8 ohms and 140 watts x 7 into 4 ohms. This single-ended beauty is 17-1/4 inches wide, five-and-one-quarter-inches high, 16-3/8 inches deep and weighs a solid 47-1/2 pounds. It is the logical companion to the Anthem AVM 20, reviewed here previously by Bryan Southard.

For the AV enthusiast who enjoys the performance advantages of discrete components in a personal system, the PVA 7 offers the excellent build quality that won fame for Anthem's big brother, Sonic Frontiers International. Thick gauge, powder-coated steel makes up the chassis, along with a very orderly component and a heavy gauge wiring layout that looks more like it belongs in a military installation than in someone's living room. Four large heat sinks are evenly spaced and line up with matching slots in the chassis and the cover to vent the large amount of heat generated by the output devices used in the PVA 7. Seven sets of gold-plated five-way binding posts and RCA connections adorn the rear panel. The unit is finished off with a heavy perforated sheet metal cover, held in place by dozens of flathead screws that are all uniformly flush with the cover. A three-eighths-of-an-inch, thick-brushed aluminum faceplate comes in silver or black.

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The PVA 7 has some cool tricks up its sleeve, like signaldetecting Auto-on circuitry. Once a signal is detected, the PVA 7 will turn itself on. It will also turn itself off 10 to 15 minutes after loss of signal. If you own the AVM 20, you can use the 12-volt trigger I/O, or you can simply use the front panel switch. It's nice to have options. Another Anthem exclusive is the Advanced Load Monitoring circuitry. This monitors temperature, current and voltage to protect the sensitive output devices, which will increase the life of the product.

"The PVA 7's demeanor is very musical. ... crisp presence ... heavy synth bass is fleshed out nicely ... did a very nice job exhibiting its ability to capture the low-frequency – with deftness ... "

A single high-quality low-noise 850VA transformer supplies all seven channels. This common power topology is a cost-effective solution, delivering identical specs to each of its seven channels, something in the order of a 122 dB signal to noise ratio. The downside is that all channels are sharing the same transformer. Therefore, power drawn from one channel can rob the other channels, which lowers the dynamics and control of the remaining channels. Typically, this situation does not present many problems, but could add degradation to the sound quality, especially during listening sessions that cause sonic duress. That is the trade-off for economy. A difficult load of 86 dB would not be a good match for the PVA 7, but with efficient speakers, power should never be a problem.

Anthem's goal was to make an ultra-quiet amplifier that offers good musicality and dynamics at a price point that will give its owner a fair amount of power with audiophile quality. The low noise floor gives the PVA 7 the nod for low-level detail with two-channel listening, or with multi-channel material that has quiet moments in the soundtrack. There is nothing more annoying than hearing hiss through a passage of a movie that has no music or dialogue. Once it's gone, you really notice how obtrusive the noise was.

# **MOVIES AND MUSIC**

I set up the PVA 7 in my reference music and theater system, utilizing the Sunfire Theater Grand II and the NAD T571 carousel DVD player that I will be reviewing next month. For main speakers, I used my new Revel Ultima Studios (a tough load at 86 dB efficient), the NHT SC1 center channel (86 dB), the NHT ST4's for the left and right surround channels, the NHT SB3's for the effects channels, and the Sub One I sub-woofer to handle the lower octaves. After 30 or so hours of break-in, I was ready to go.

"... few would challenge anybody to find fault with this Sonic product. ... Its sevenchannel capability, with its affordable price and quiet noise floor, gives you all of the tools necessary to handle any format."

> I started off with some two-channel source material to see how the PVA 7 handled music. First up was Creed's latest effort, *Weathered* (Wind-up Entertainment). Scott Stapp's vocals on the title track are given their due through the PVA 7, with his characteristic growling voice sounding nearly as good as I've heard through my \$5,000 reference speakers. The PVA 7's demeanor is very musical.

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Next I turned to one of my all-time favorite bands, Rush, and their re-mastered Power Windows (Mercury Records) for some idea of how well the PVA 7 would portray intricate and technically challenging Canadian art rock. For good kick-drum, I used "Mystic Rhythms" to test the control of the PVA 7. The start of the tune is basically Neil Peart's drums thumping the rhythm, which is then joined by a synthesizer. The PVA 7's dynamic presentation of the kick-drum was pleasantly surprising in its ability to delineate the striking of the pedal against the drumhead and the clash of the cymbals with good control. Guitarist Alex Lifeson's single-string picking technique was rendered with a nice leading edge that gave it the crisp presence that I'm used to hearing with my Bryston 7B-ST's. The 500-watt Brystons do give this part of the tune more snap, and deservedly so, considering that the 7B-ST is in a very different performance and price class. On "Marathon," the heavy synth bass is fleshed out nicely, as these bass notes test the

power reserves of any amp. The PVA 7 did a very nice job exhibiting its ability to capture the low-frequency resonance with deftness not expected from this level of amplifier. In comparison to the recently reviewed B&K 307 receiver, the B&K 150 watt internal amp did have a slight edge in the slam department, but the PVA 7 wins the refined presentation category.

"The PVA 7 deftly handled the complex multi-channel assault ... Explosions didn't seem congested, muddied or compromised ... capturing the ambience and sense of space all around you. ... — resolution was very detailed, truly revealing the PVA 7's ultra-low noise floor ..."

For a midrange test, I turned to Willy Porter's *Falling Forward* (Six Degrees Records). The tune "Hard" has a warm bass line that is sustained and resonant throughout this ballad. The quietness of the PVA 7 is readily apparent on some of the quieter passages in this tune, which brings out more of the lower level detail than I've heard on the B&K 307.

For movies, I turned to Star Wars: Episode I-The Phantom Menace (20th Century Fox Home Entertainment) to test the EX capability of the PVA 7 on the atomic pod race scene. If ever there was an amplifier test DVD, this is it. The dynamics of this soundtrack will tax a component's performance to the limits. At loud volumes, the PVA 7 could run out of headroom at times with the demanding Revel and NHT speaker system. When listening to the pulsing low-frequency noise of Sebulba's pod racer, The PVA 7 came up a little short in its ability to render the low-level detail I've heard when running my reference Bryston 7B-ST's. However, you have to remember that this amp is more about finesse than brute strength. The PVA 7 deftly handled the complex multi-channel assault given by the pod racers when played at reasonable levels (albeit not at theatre volumes) that were loud enough to give you the desired impact. Explosions didn't seem congested, muddied or compromised, except at higher volumes, when at times the PVA 7 lost some refinement in its presentation.

For subtle spatial cues, I turned to *The Mummy Returns* (Universal Pictures). In Chapter 2, Rick enters a tunnel, first tearing through a wall of spider webs, which the PVA 7 depicted nicely, then drawing and cocking his pistol, which reverberates and echoes convincingly, capturing the ambience and sense of space all around you. The resolution of the chapter was very detailed, truly revealing the PVA 7's ultra-low noise floor by presenting some of these aspects of the soundtrack that weren't as noticeable when played through the B&K AVR 307.

"Disney's 'Atlantis' was a fun piece to hear though the PVA 7. The battle scene in which the revived machines from Atlantis are used to stop the marauders from making off with the Heart of Atlantis has them swirling through tunnels and in and out of caves, all seemingly dodging audibly around the viewer. The dexterity and articulation of the PVA 7 was very engaging."

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# DOWNSIDE

When you consider the price point of the PVA 7, few would challenge anybody to find fault with this product. The only nit I would pick would be the back panel layout. The logic of the layout is seemingly dictated more to the convenience of the electrical layout than to making it easy to hook up your components and speaker connections. I had to have the manual handy to make sure that I was hooking the right interconnects to the corresponding speaker terminals. It is not a very intuitive layout.



# CONCLUSION

The Anthem PVA 7 is a remarkable product. Its seven-channel capability, with its affordable price and quiet noise floor, gives you all of the tools necessary to handle any format. Although the PVA 7 did come up a little short with my speakers, 86dB is a very tough load to drive. Matched with a more efficient speaker the PVA 7 will yield remarkable performance. The back panel layout is somewhat confusing, but not a glaring issue. The ability to complement any component with its velvety silence and poise under demanding conditions, along with its musicality, put it at the top of its peer group. The excellent reputation and build quality that the PVA 7 gives its owner is not to be ignored. And the PVA 7 will not limit your future of music and movie entertainment, handling two-channel music as well as Dolby Digital EX and DTS ES formats with poise and control. If you are in the market for a multi-channel power amplifier, this could be just what the doctor ordered.

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