

# Product Review - Anthem MCA-5 170 Watts x 5 Power Amplifier - November, 1999

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## **Anthem MCA-5 Five-Channel Power Amplifier**

**170 Watts rms x 5, All Channels Driven, 20 Hz - 20 kHz, 200 Watts rms One Channel Driven**

**MFR: 0.5 Hz - 80 kHz - 0.25 dB**

**THD: 0.002% at Full Output**

**Input Impedance: 21 kOhms**

**Slew rate: 30 V/μsec**

**Size: 5 1/4"H x 17 1/4"W x 17"D**

**Weight: 50 Pounds**

**MSRP: \$1,399 USA**

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## Introduction

Everyone is getting into home theater. Sonic Frontiers, a noted high-performance tube amplifier maker, not to be left out, has decided to be a part of this movement. Tube amplifiers are not really very practical in home theater for a number of reasons. One is that action movies require a lot of power, and high-power tube amps are *really* expensive. The average consumer wants something that will play loud and clean, but does not want to take out a second mortgage. Solid state is much more suitable, so Sonic Frontiers has introduced its solid state line, called Anthem. Actually, the Anthem line includes some components with tubes, but, like the solid state products in this line, they are very affordable.

## What's at hand

The Anthem MCA-5 is a five channel, 170 watt per channel, amplifier aimed at the home theater market. It has a simple brushed aluminum front plate, with the logo, on/off push button, and a small LED to indicate power-on. The rear panel has a toggle for selecting auto-power on, trigger, or normal,

so you don't have to switch it on manually if you don't want to. Each of the five channels has a choice of RCA unbalanced input or balanced XLR input, although the amplifier is not fully balanced. (Sonic Frontier's upcoming SF Chanel 5 will be fully balanced, each channel having two mono amps that are bridged.) One set of speaker binding posts is at the bottom of each channel. The jacks are gold-plated, and the binding posts are standard plastic.

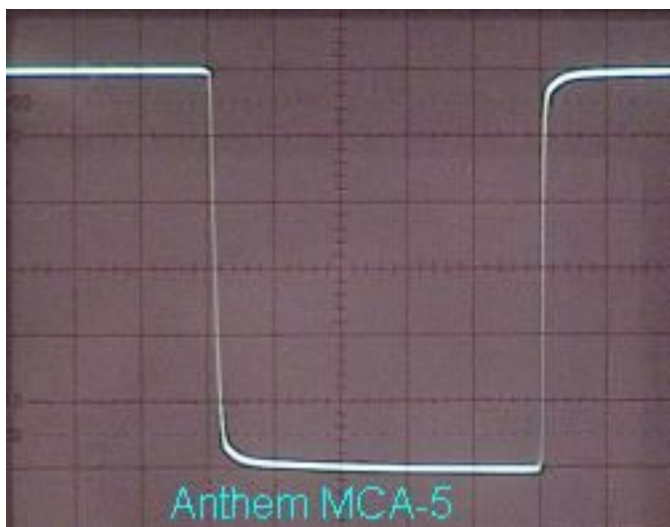


The power supply on the MCA-5 appears to be very big. There are two toroidal transformers, 0.55 kVA each. One supplies the front left/right channels and has 40,000 ㎲ of capacitance (four 80V 10,000 ㎲ caps). The other toroid supplies the front center and rear left/right channels, and has 60,000 ㎲ of capacitance six 80V 10,000 ㎲ caps). The capacitors have 70 volts DC on them, providing 98 Joules for the front two channels (as a group) and 147 Joules for the center and rear left/right (as a group). Each channel has 8 output devices (Toshiba bipolar transistors), which is more than most similarly powered amplifiers have. My impression in handling the MCA-5 is that it is built like the proverbial tank.

#### Putting it to work

I tested the MCA-5 with a variety of setups, including those in our home theater lab. It has become obvious to me over the years that rated power is just a number. What really matters is how the thing performs. I think the MCA-5 delivers more than its rated specification, because I had to turn things up very loud before I could hear any evidence of clipping. (Sonic Frontiers actually rates it as 170 x 3,

190 x 2, and 200 x 1.) So, I moved the amplifier to a situation where it was driving my Carver



Amazing Mark IVs, which are not the easiest speakers in the world. I put on a killer CD, Copland's "Fanfare to the Common Man" on Telarc. I could detect clipping using two channels for stereo, but only when it was driving the Amazings to room shuddering volume. This sort of performance is all in the power supply, and the MCA-5 appears to have what it takes.

The MCA-5 looks similar to a Bryston 9B-ST in build, down to the horrendous number of screws holding the chassis cover in place. As you can see from the figure shown at left, the MCA-5 has a very nice square wave response at 10 kHz, just like the Bryston. The bandwidth is very high - down 3 dB at 300 kHz, and the Bryston also has a high bandwidth. In fact, the Anthem and Bryston have the highest bandwidth of any five-channel power amplifiers we have tested. At almost 2/3 less than the price of the Bryston, though, the Anthem is a tremendous bargain.

One of the differences between the Anthem and Bryston is that the Anthem has a power supply that can deliver all its power to any of several channels, while the Bryston has a complete, but smaller, power supply as part of the modular design of each channel. The Anthem sounds a little like a Bryston too, complete with the slight edge in the highs. Many CDs have a little harshness to them, for one reason or another, and most manufacturers probably make sure that their amplifiers don't exacerbate this problem. Anthem and Bryston appear to have more of a show-it-like-it- is approach, making CDs' warts come to the surface. Perhaps with the new DVD Audio and SACD, we can have the cake and eat it too.

A powerful amplifier like the MCA-5 really struts its stuff with action movies, so I tossed on "The Matrix" which is one of the top selling DVDs so far. It has not only spectacular visuals, but great sound. I cranked the system up and sat back. The soundtrack is very complex, with lots of high frequencies as well as the lows. From pounding explosions, to broken glass, to the tinkle of machine gun cartridges bouncing, this movie tests just about anything connected to it. The MCA-5 did an excellent job of maintaining the illusion, making me wince along with the actors. An amplifier with this kind of power will hasten the move to soundtracks that are clean, because gritty sources are painful at 170 watts per channel regardless of how clean the amplifier is.

I also ran some of my DD and DTS music discs through the system, and the MCA-5 really shined, because I listen to music at much lower sound levels, and delivering about 10 - 20 watts per channel is a piece of cake for this amplifier. It seems to have relatively low inherent background noise levels too (rated at S/N -122 dB at full power), and this is nice for quiet evenings around the fire with some chamber music.

In summary, the Anthem MCA-5 is a very good amplifier regardless of the criteria for comparison, but at \$1,399 for 170 watts x 5, it is a remarkable one. Sonic Frontiers set out to deliver high quality at an affordable price, and they certainly have succeeded.