
Subject: New amp and old Theater 4 Pi -Blown Away!
Posted by [GarlandGarland](#) on Sat, 21 Mar 2009 16:06:22 GMT
[View Forum Message](#) <> [Reply to Message](#)

Hi Wayne and all, While my new 4 Pis are slowly progressing, I've been listening to my Theater 4s with a new kit amp I've built: the Amp 6 Basic from 41Hz.com. This is a class D amp based on the TDA 2020 chip and produces about 12 watts/channel into 4 ohms, less into 8 ohms. I have to say, this little amp about the size of a deck of cards is one of the best amps I've EVER heard! While not quite as visceral and 3D as my tube amps, the clarity, and musical flow is astounding. And the Bass? -Wow! And unlike many low power amps, these do ALL kinds of music beautifully: from classical guitar, 50's jazz vocals, full on orchestral, to head banging R&R. Expressive is the word that come immediately to mind. You guys who like DIY just have to try one of these! The kit is dirt cheap (thirty something) and just needs a 12V power supply. I've used the 2 amp regulated supply sold by Parts Express which sounds great (no hum) but am thinking that a 75 watt switch mode P.S.borrowed from work sounds even better though a bit more money. Still, the total cost is WELL under \$100 and the sound rivals anything I've heard in my system. Of course, my Cambridge Audio 640C V2 with new opamps and Black Gate caps swapped in has had some positive impact as well. But the amp really is good with the Pi's and several would make a great cost effective multi-amp system: good highs and deep, well defined bass. Huge soundstage for those that like that. I know that this sounds like an ad but I'm really jazzed about the sound of my system these days and wanted to share!Happy Spring to all!Garland

Subject: Re: New amp and old Theater 4 Pi -Blown Away!
Posted by [Wayne Parham](#) on Sun, 22 Mar 2009 08:17:55 GMT
[View Forum Message](#) <> [Reply to Message](#)

That's excellent, Garland, thanks for posting!A couple years back, the T-Amps were all the rage at LSAF. I got to hear a few that I thought sounded quite good. Glad to hear you're having fun with them, making good sounds!

Subject: Re: New amp and old Theater 4 Pi -Blown Away!
Posted by [Champion](#) on Mon, 23 Mar 2009 21:32:43 GMT
[View Forum Message](#) <> [Reply to Message](#)

Hi Garland, sounds really interesting. In fact, I have ordered one based on your recommendation! Thanks alot!One question - do you need a heat sink on the chip?

Subject: Re: New amp and old Theater 4 Pi -Blown Away!
Posted by [GarlandGarland](#) on Tue, 24 Mar 2009 14:12:46 GMT
[View Forum Message](#) <> [Reply to Message](#)

From what I've gleaned from various web sources, you only really need a heat sink if you run the chip at full power at it's max rating. With a 12V regulated supply and at moderate volume with efficient speakers like our Pis you probably are OK without one. The assembly instructions say that mounting the chip to the metal chassis case is adequate in most cases. Since I built my case out of acrylic I opted for the heat sink. I had an old one lying around in the parts bin. I'll check to see if the chip gets warm after a good listening session soon and report back, if you like. One other thing about the amp... If you plan on up-grading any of the components on the board such as the various capacitors or resistors you might want to add them in the first build since the traces on the boards are fairly fragile. I pulled one in dismantling the electrolytic input caps to replace with film caps and had to do some finagling to get back in business. Also check the lead diameter of new parts since the holes on the board are fairly small, though they can be drilled out larger with care.Garland

Subject: Re: New amp and old Theater 4 Pi -Blown Away!
Posted by [Frank Mena](#) on Thu, 26 Mar 2009 19:14:50 GMT
[View Forum Message](#) <> [Reply to Message](#)

Did you have to solder any super tiny surface mount SMT's (I think that's the term) leads onto the board?Thanks FM

Subject: Re: New amp and old Theater 4 Pi -Blown Away!
Posted by [GarlandGarland](#) on Thu, 26 Mar 2009 19:31:40 GMT
[View Forum Message](#) <> [Reply to Message](#)

The only surface mount components on the boards were a few diodes and inductors which fortunately were fairly large like maybe 1/4 inch cubes. The rest are through hole. The boards are fairly small and compact so if swapping components, you may want to pay attention to size.
