

Re: Audio Op Amp power

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- *From:* "Jon Slaughter" <Jon_Slaughter@xxxxxxxxxxx>
 - *Date:* Sat, 11 Aug 2007 15:17:58 GMT
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"Winfield" <winfieldhill@xxxxxxxx> wrote in message
<news:1186714169.509967.5470@xx>

On Aug 9, 9:25 pm, "Jon Slaughter" <Jon_Slaugh...@xxxxxxxxxxx> wrote:

I guess a few things I'm not sure of besides running at the min voltage is if order matters and if I should do things even though its not necessary.

For example, I need to filter the input and amplify it. Does it matter which order? (of course it shouldn't but maybe it does in practice) Also, should I buffer the input first even though its going to an amplifier that I would imagine also is sorta acting like a buffer.

I think I could probably combine the filter, buffering and amp all into one circuit and just use one op amp?

Jon, it's admirable to make a circuit from scratch, but you can first work with a professionally--designed circuit to see how it works and get some experience. One issue is making the hardware--software interface work. For example, many digital audio compaines, such as Creative and E--Mu, use 24--bit 48 or 96kHz A/D converters with a standard audio/digital interface data stream called ASIO. Most of the relevant hardware is available cheaply on eBay, to help you get off to an easy start.

For example, the Creative USB Sound Blaster, Audigy 2 NX, (model SB0300) has two stereo 24--bit A/D inputs and both USB and optical outputs, and meets the ADIO standards. You can get used ones on eBay for \$40 to \$70. This one went for \$40, although that was likely a bit of a fluke.
<http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=170134761750>

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USB Sound Blaster Live! may be another possibility.

If you want better, more professional, but still cheap stuff, check out E-MU products on eBay, like the 0202.

If your saying I should first work in the software out I have already played with some FIR's(mainly delays) using matlab and non-real time processing. I long time ago I got interested in asio a bit but never really could find decent information on it. (Steinberg has some SDK or something. Although I thought about first doing my project entirely for the pc and using either VST's or asio I think I'd rather learn about the hardware(I'm mainly doing this for the hardware. Conceptually I think I got it down but I know thats only part of it).

Besides, the newer sound blaster cards are pretty bad. The Live and Audigy both have some type of "glitch" problem where they overload the pci bus and cause the computer to "stutter". (I do have the audigy 2 BTW)

In any case I do not think the software side is going to be an issue(simple convolutions) and I have done enough programming in my time that I can figure that part out on my own. What worries me is the hardware... but I guess that might be why I want to do it ;)

Thanks,
Jon

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