
Subject: OT: DIY Surround Processor
Posted by [Spinjack](#) on Thu, 08 Dec 2005 20:02:53 GMT
[View Forum Message](#) <> [Reply to Message](#)

Off topic, but does anyone here have any suggestions on where to start, other than Google ;-), to look for information about DIY surround. I've been on the lookout for a good surround processor, but you can't get anything for less than \$2000 unless you get a full receiver. I want to avoid the receiver because I have no need for the crappy power supply, amps and pre-amp that goes along with them. Basically, I want to take a surround processor board and add my own pre-amp stage (at the DAC) and power supply to it. I thought about going all out and getting an Analog Devices Dev Kit with a SHARC Melody processor to do the whole thing myself, but the licensing requirements required for DTS, Dolby, etc. make that route very unattractive (development time aside). As an extension of this, I wanted to use my PC as the DVD transport, fed the digital signal into a processor (whether a surround decoder or just a DAC depending upon the implementation) and from there into a good pre-amp stage. Any hints?

Subject: Re: OT: DIY Surround Processor
Posted by [Wayne Parham](#) on Thu, 08 Dec 2005 20:28:55 GMT
[View Forum Message](#) <> [Reply to Message](#)

I haven't looked into this, so I'm interested in how you like the AD development kit (if you get it). That will let you do a whole lot more than just surround processing, I suspect. Seems like I recall some talk on the Digital Audio forum or in General about DIY processors, but it was a while back.

Subject: Re: OT: DIY Surround Processor
Posted by [GarMan](#) on Thu, 08 Dec 2005 20:39:25 GMT
[View Forum Message](#) <> [Reply to Message](#)

It's funny how a standalone processor can cost 10x more than a full receiver. Why not buy a cheap receiver, pull out the processor board and build around it.

Subject: Re: OT: DIY Surround Processor
Posted by [Spinjack](#) on Fri, 09 Dec 2005 16:53:08 GMT
[View Forum Message](#) <> [Reply to Message](#)

I thought about the receiver board approach, but seem to put so much other crap on their boards that I didn't want to mess with (simulating this, enhancing that). It would more difficult to reverse

engineer a receiver than to start over. The standard line from the guys at Audio Concepts here in Dallas is that the standalone processors are more expensive because of the high quality of components. That's probably true to a point, but I suspect most of the additional cost is due to licensing fees that are easy to offset in the high volume world of receivers, rather than the relatively low volume world of separates.

Subject: Re: OT: DIY Surround Processor
Posted by [Spinjack](#) on Fri, 09 Dec 2005 17:38:27 GMT
[View Forum Message](#) <> [Reply to Message](#)

I posted a duplicate message on the Digital forum, but it appears that there isn't much activity over there. Yeah, the dev kit would open an entire world of decoding, processing, converting, etc. My pipedream project is to develop a power speaker system with an amp dedicated to each driver fed by an active digital crossover that handles not only the frequency distribution (for lack of a better word) but also the phase and time sync for the drivers. That way the amps are matched to the frequency range of each driver (removing many of the compromises that have to be made in amp design) and driver placement/configuration is more flexible. But to do that, I need a DSP that is relatively easy to program and still accomplish what I need. The processor would include a high rez A/D so that I could use analog sources as well. The Pi 7's that I'm getting ready to finally build are intended to be a first step in getting to the point where the pipedream project can be realized.

Subject: Re: OT: DIY Surround Processor
Posted by [Wayne Parham](#) on Fri, 09 Dec 2005 19:34:05 GMT
[View Forum Message](#) <> [Reply to Message](#)

You'll certainly be able to realize your pipedreams with a system like that. You can do a lot with digital processing that just isn't possible with analog systems. More tools, more abilities.
