Subject: Non Oversampling DAC Shootout
Posted by FredT on Sun, 14 Aug 2005 09:57:02 GMT
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At yesterday's Houston Audio Society meeting we compared the Scott Nixon tube dac, the dAck! dac, and the Audio Mirror dac. In the ensuing discussion it was clear that the Audio Mirror was preferred, followed by the dAck!, and then the Scott Nixon. We also heard a highly modded Benchmark ovesampling dac (cost with mods about $2,200) which was clearly superior to the less expensive non-os dacs.An Examplar-modded Denon and a Sony XA9000ES were used as transports and as a SACD benchmark for comparison to the non-os dacs. Both were preferred.

Subject: Re: Non Oversampling DAC Shootout
Posted by Wayne Parham on Sun, 14 Aug 2005 10:48:46 GMT
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Very interesting. What were the differences between them? Do you know what kinds of output filters and buffer amps were used on each, if any? Were the differences night and day or more subtle?Do you think the reason you liked the oversampled DAC was due to the fact it was oversampled, or do you think it may have been due to components or something else? Seems like there would be more differences in oversampled DACs than non-oversampled units because of the different algorithms used. That would make another good listening test, to compare various algorithms on an oversamped DAC.

Subject: Re: Non Oversampling DAC Shootout
Posted by FredT on Sun, 14 Aug 2005 13:24:26 GMT
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I can't comment in detail on the differences because I was coordinating the comparison and had to sit alongside one of the speakers to do the changeouts and restart the transport. But even from my vantage point, when we replaced the AM with the SN it was clear to me the AM sounded better, (and the SN is mine:(Some technical differences are: Both the Scott Nixon and the Audio Mirror use the TDA1453 DAC chip, but the SN uses one while the AM uses eight in parallel. The 1453 chip definitely isn't state of the art by today's standards. For example, it's a 16 bit chip with at THD of .018 and a S/N ratio of 96, while a state of the art chip like the Burr Brown 1704 is a 24 bit chip with a THD of .003 and a 120 S/N ratio. But when you parallel eight of these you apparently get an averaging effect that reduces the error rate plus and improved S/N ratio. The SN uses a tube output stage while the AM uses OPA602 OP amps. The dAck! dac (should use the Aflac duck in their ads) uses the TDA1545 chip, claiming the 1453 output is "utterly anemic". The duckdack is battery powered too.The differences between the three wasn't pronounced, but there was a marked difference between the three and the far more expensive modded Benchmark dac.

This tends to comfirm my belief that "you don't always get what you paid for, but you never get what you didn't pay for". Someone described the difference, after we heard the Benchmark after the other three as "It's not broken like the other three". A bit of an exaggeration, but it did sound more natural and less fatiguing. I believe the bottom line is that these very inexpensive non oversampling dacs are a meaningful step up from a mass market player, and if you're looking to upgrade a mid fi player like an older Marantz Cd-67 or such, with a good transport mechanism, any of them would be a practical alternative to buying a new $1,000+ player. But despite the hype their sellers use, they aren't the equal of a $2,000+ oversampling dac or a premium SACD player like the Exemplar modded Denon ($4,000+) or the Sony ($3,000). Not that this should be a surpise to anyone.

Subject: Re: Non Oversampling DAC Shootout
Posted by Wayne Parham on Sun, 14 Aug 2005 13:55:16 GMT
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Excellent info. Thanks, it's appreciated very much.

Subject: Re: Non Oversampling DAC Shootout
Posted by audioengr on Sat, 10 Dec 2005 18:32:41 GMT
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Who modded the Benchmark DAC-1?
