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Subject: DEQX too expensive solution  
Posted by [jphaggar](#) on Thu, 10 May 2007 10:50:46 GMT  
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I'm thinking of switching to active xover and Eq , for my RS8 line array , but DEQX it way above my budget, I'm thinking about Behringer DCX 2496 and DEQ 2496, any comments or opinion or other solutions would be most welcome .

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Subject: Re: DEQX too expensive solution  
Posted by [Anonymous](#) on Thu, 10 May 2007 15:50:29 GMT  
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Try the DCX2496 [it has EQ ability], \$250 experiment. If you don'tlike it, sell it.

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Subject: Re: DEX2496  
Posted by [Marlboro](#) on Thu, 10 May 2007 15:58:47 GMT  
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Come back over the border when you buy it. It can be had for about \$230 US\$, plus shipping. You'll pay a huge Canadian duty on it.

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Subject: Re: DEX2496 or DCX2496  
Posted by [jphaggar](#) on Fri, 11 May 2007 06:46:44 GMT  
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The DCX is the crossover with built in EQ, there is also the DEQ 2496 wich they call a mastering processor for room EQ but I dont know of DEX ?I understand that to get the same results as with DEQX you need to use both behringer DEX an DEQ ? My question is : would a graphic equalizer do appoximately the same job ? What I need is some control over the midrange frequencies , what would be the effect of a 1/3rd octave equalizer like behringer DEQ 1024 Digital Stereo 31-Band 24-Bit/96 kHz Equalizer/Feedback Destroyer/Dynamics Processor , compared to the use of DCX crossover and or DEQ processor ?

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Subject: Re: DEX2496 or DCX2496

Posted by [Anonymous](#) on Fri, 11 May 2007 14:29:37 GMT

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I run only a DCX for my line arrays. I don't need more EQ ability. Why don't you try a simple setup first [DCX only] and try to extract the most out of your array before adding another piece of gear? A Parametric EQ is more precise than any graphic equalizer as it allows you to change the frequency, gain and Q. It's good to zero in on problem areas but the graphic EQ might have more control over the wider spectrum if the whole audio system is out of whack. If the DCX isn't enough, add another EQ.

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Subject: Re: DEX2496 or DCX2496

Posted by [jphaggar](#) on Fri, 11 May 2007 15:10:22 GMT

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Thanks thylander that is a wise decision and I concluded the same. By the way could you describe your arrays ?

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Subject: Re: DEX2496 or DCX2496

Posted by [Anonymous](#) on Fri, 11 May 2007 16:25:34 GMT

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>>By the way could you describe your arrays ?post  
#5<http://www.avforums.com/avs-vb/showthread.php?t=646455>

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Subject: Re: DEX2496 or DCX2496

Posted by [jphaggar](#) on Sat, 12 May 2007 10:45:04 GMT

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I've searched about the DCX 2496 and the question to ask is : do I use the integrated DAC or do I go analog ? Heard their DAC is mediocre , also found that you could upgrade the I/o board to get better transparency ? Check this site : [http://www.dcx2496.fr/en/cadre\\_en.htm](http://www.dcx2496.fr/en/cadre_en.htm) do you have any recommendations ?

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Subject: Get a DCX 2496 manual here

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Posted by [Marlboro](#) on Sat, 12 May 2007 13:14:49 GMT

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<http://www.zzounds.com/item--BEHDCX2496>click on product doc's

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**Subject: How much do you want to pay?**

Posted by [Marlboro](#) on Sat, 12 May 2007 13:22:12 GMT

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For about \$115, on ebay, you can buy an analog, Rane Ac-23For \$269, you can buy a Behringer dcx2496For \$800 you can buy the Rane digital crossover.For \$2,060.00 you can buy an Ashly PROTEA 4.24C

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**Subject: Better to stay ANALOG!!**

Posted by [Marlboro](#) on Sat, 12 May 2007 13:41:22 GMT

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So for only \$300, more than the cost of the Behringer to begin with, you can upgrade it to outstanding so that all those conversions back and forth from analog to digital to analog to digital to analog can be done right?And remember that even if you do do that, then your CD player's DAC is probably the pits to begin with unless you own one of those \$3000 players or paid someone \$500 to convert your lowly cd player to some new high tech CD DAC.How about making one conversion from digital to analog on your CD player. Use an analog crossover instead to avoid all those stinkin' back and forth conversions, each one losing more and more of the low level signal.Try(brand spanking new):Ashly XR2001Stereo 3-Way, or Mono 4- or 5-Way Active Electronic Crossover\$539.99or Rane:AC23B Active Crossover, Stereo 2 or 3-Way, Mono 4 or 5-Way \$589.00orBuild it yourself:Marchland:XM44-3EZK EZkit, 3-way model.

\$ 960.0 (\$1200 if they build it)Your choice. For the models over \$600 new, I'm sure you'll hear a difference. Of course you will, when you remember that you paid so much more money, and everyone knows the more you pay the better it is!Marlboro

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**Subject: or ebay**

Posted by [Marlboro](#) on Sat, 12 May 2007 13:49:06 GMT

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[http://cgi.ebay.com/RANE-AC-23-Active-Crossover\\_W0QQitemZ200108165188QQihZ010QQcategoryZ23790QQssPageNameZWDVWQQrdZ1QQcmdZViewItem](http://cgi.ebay.com/RANE-AC-23-Active-Crossover_W0QQitemZ200108165188QQihZ010QQcategoryZ23790QQssPageNameZWDVWQQrdZ1QQcmdZViewItem)or if you

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Subject: Re: DEX2496 or DCX2496

Posted by [Anonymous](#) on Sat, 12 May 2007 16:28:31 GMT

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I've read just about every thread on the DCX, the DIYA forum, Yahoo groups, people are going 'mod crazy' on this thing as if it has the black plague. Later, I bought one and did extensive audible tests with the analog pathways and pure digital pathways up to the amps, I can't find any real audible flaws with the sound no matter how hard I try to cannibalize the signal path. I've been into electronics and audio game for many moons, this is really a good piece of gear for \$250. I think the mod people like to mod it because they can and it's cool, electronics folks are like that, they need to do a mod to be happy. The DCX is XLR input, to get the best low noise performance, feed a preamp signal that is higher than most home audio gear supplies, ie, home gear is typically 1v preouts. XLR is around 8v preouts. You can optimize the 'gain structure' by feeding it a nice preamp signal from an XLR source, ie Parasound Halo, certain B&K receivers, etc. It's not mandatory, you can drive it with a 1v source just to get started and play around, who knows you might like it a lot like this. But there is room to upgrade if you wish. If you drive a home amp with DCX XLR outputs and your home amp is RCA input, there is a simple cable mod to lower DCX output gain so it won't drive your amp too high as it induces more hiss. Special XLR to RCA cable -6dB output gain; XLR Pin 1 = Shield ground => one RCA gnd. XLR Pin 2 = Positive balanced signal => RCA hot XLR Pin 3 = Negative balanced signal = don't connect I made my XLR to RCA connectors with a switch that connects pin 3 to pin 1 to allow selection of output gain, normal or -6dB. This simple cable mod worked nice when I connected the DCX to my Adcom 555 amp. I got less 'hiss' as gain is reduced. But now I drive DCX directly into the pro audio amps, XLR to XLR, no cable mod. I also use a Roland M1000 mixer [now discontinued], it's the volume control when using the audio system in digital pathway mode. This unit allowed to easily test analog and digital pathways instantly for quick comparison. This is a nice piece of gear for \$250, I have no idea why Roland discontinued it.

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Subject: Re: DEX2496 or DCX2496

Posted by [Rick Craig](#) on Sun, 13 May 2007 00:52:05 GMT

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Thanks for your input on the Behringer. From time to time I get questions about running the arrays actively and my only experience is with the DEQX.

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Subject: Re: Better to stay ANALOG!!

Posted by [Rick Craig](#) on Sun, 13 May 2007 03:13:36 GMT

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With the Behringer you can take measurements and see the changes that you make in the crossover in the EQ. The analog systems don't have as much flexibility and you'll need a measurement system to optimize your results.

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Subject: Certainly true..... Apex 220 & Fuzzmeasure 2.0.11, my choice.

Posted by [Marlboro](#) on Sun, 13 May 2007 03:25:49 GMT

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That's certainly true. However, anyone who is building a line array should be willing to invest in a measurement system to tweak the system to its potential. I use a calibrated Apex 220, with preamp, connected to my Powerbook. On my powerbook I use Chris Liscio's great Fuzzmeasure software. current version is 2.0.11. I usually measure at the listening position rather than 1 meter from the speakers. Line arrays are kind of always anyhow. And, of course, while its not currently in my "loop", I have a DOD 2/3 octave constant Q equalizer. Altho, modifying the crossover position and volume can serve as a kind of tone control modification. Tweaking in this way can be lots of fun and takes lots of time. I'm not currently set up for this, as I'm remodeling the room that my system is in. Marlboro

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Subject: Re: DEX2496 or DCX2496

Posted by [jphaggar](#) on Sun, 13 May 2007 08:33:40 GMT

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Thank you for the valuable information . I just recieved my DCX 2496 today I guess it will take me a few days to get acquainted with the different controls . As you know already My arrays are Rick's RS 8 using 8 fountek ribbons and 8x 7" dayton RS 180 mid/bass , I guess Rick is going to help for the Xover adjustments , as for the DCX I'll post my questions when ready , I'll be happy to recieve as much info as possible as to what to start with , being a beginner in the field or active Xover .

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Subject: Adjustment TO YOUR NEEDS

Posted by [Marlboro](#) on Sun, 13 May 2007 12:54:41 GMT

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JP, You may find, as Thylantyr and I have, that you don't need to adjust very much, or that adjusting to YOUR taste is infinitely better than adjusting to some arbitrary assigned frequency response pattern. After all, all of us humans have different hearing of frequency response across the board with some dips and rises in our perception of sound, regardless of what is actually being presented by speakers or amplifiers. Right no I have a sinus infection in one ear and my total awareness of my system is vastly different from when I did not. Marlboro

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Subject: Re: Adjustment TO YOUR NEEDS  
Posted by [jphaggar](#) on Sun, 13 May 2007 15:13:28 GMT  
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I do have a decision to make concerning the cabling .All my equipment is unbalanced RCA's except the SIM AUDIO W5 power amp that has both XLR and RCA inputs but not my other amp the Dussun V8 that only has RCA . Is it wise to have the SIM (will handle the highs ) connected with XLR and Dussun (will handle the Lows )with RCA , or is it better just to ignore the XLR and only use all RCA's ?

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Subject: no idea.....  
Posted by [Marlboro](#) on Sun, 13 May 2007 19:02:15 GMT  
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I have no idea what the best thing to do is. My Rane and the DOD equalizer have phone plugs which I converted to RCA's. I would defer to someone more knowledgeable like Rick or Thylantyr. Marlboro

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Subject: Re: I just recieved my DCX 2496  
Posted by [Anonymous](#) on Mon, 14 May 2007 16:07:11 GMT  
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>>I just recieved my DCX 2496 today. As you know already My arrays>>are Rick's RS 8 using 8 fountek ribbons and 8x 7" dayton RS 180>>mid/bass. Random notes. 1. When you use your DCX, follow proper audio system power up and power down sequencing so you don't send transients to the drivers that may harm them {usually tweeters}. Power ON audio system; 1. Turn on sources first 2. Turn on the amplifiers last Power OFF audio system; 1. Turn off amps first 2. Turn off sources last If I don't follow this procedure and turn on the amps first, then DCX, you get a popping sound that can damage sensitive drivers like ribbon tweeters. Mids and woofers should be ok. I don't know how robust the new Fountek composite ribbon is vs. aluminum found on others, but people have reported ribbon failure because of these transients, etal. An array of expensive ribbons

blowing up wouldn't be sweet. If you are ultra paranoid, some folks install a capacitor on each tweeter in series to help with some issues manifesting {DC offset, etc}, I've been using fuses on my tweeters for a long time because I'd rather blow a fuse than an expensive tweeter. Fuse value is a variable depending on how hard you drive the tweeter and how sensitive it is to failure. Typically though, I may use 3/4A to 1A AGC fast blow fuses with an inline fuse holder. {oddly enough, the fuse spec sheets show the 1A blowing first than the 3/4A, lol}. <http://www.electronix.com/catalog/images/agc.jpg> <http://www.mpja.com/pictures/4477.jpg> Maybe you can do a test with one tweeter, install a cap and fuse and do some listening tests. I usually would start with a lower amperage fuse, let's say 1/2A or 5/8A and run the system at normal levels. If the fuse blows early, step up in value. If the fuse holds up well, but blows when you crank it higher, then you are very close to finding the optimum size. Pick a capacitor way outside the intended crossover frequency range, ie if you cross at 2kHz, find a cap that crosses 1kHz or less, polypropylene is nice, electrolytics aren't. 2. DCX can store setting in memory locations. This is a powerful feature. I have 12 settings for my line array. These settings are not required, you can just set up the system and leave it alone or you can do something different because you can. I made a methodology and programmed this into the DCX where setting 1 would be a 'mellow' setup and gradually gets more aggressive in sound up to program 12. You start with a baseline and change some settings like crossover frequency, gain, EQ, etc, in small increments that allows you to customize the sound for different situations. It's kinda neat. Here's how it works. Suppose you program five settings. Your friend comes over and wants to audition the array. His taste will be different than yours. To maximize his listening experience, you want to find out which setting he takes preference to. Load program 1 and have him listen for a minute or less. Then load program 2, repeat. He will tell you 'I like setting 3 the best'. His listening experience will be better because for some reason unknown, it just works out that way and he's happy. Your line array is more successful in spite that you may like a different setting. Jedi mind tricks

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Subject: Re: I just received my DCX 2496  
Posted by [jphaggar](#) on Mon, 14 May 2007 16:45:37 GMT  
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Thanks to your valuable info. Rick told me to use a 60uF cap in series with the tweeter line !!! to protect them. The fuses are a plus protection, why not use a single fuse on the tweeter array?

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Subject: Re: I just received my DCX 2496  
Posted by [Anonymous](#) on Mon, 14 May 2007 17:02:37 GMT  
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>> why not use a single fuse on the tweeter array? Each tweeter with its own 1A fuse vs. One fuse for all tweeters - This is risky. An eight tweeter line would need a single ~8A fuse to protect the line but each tweeter is at risk because it takes much less than 8A to blow the tweeter. It's very cheap in cost to install one fuse per tweeter so why not use this method.

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Subject: Re: I just recieved my DCX 2496  
Posted by [Rick Craig](#) on Mon, 14 May 2007 21:22:30 GMT  
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In the case of the Fountek (and some other ribbons as well) the cap protects the ribbons from DC and also provides a better load to the amp. The transformer is almost a dead short below 200hz so this makes a cap mandatory. I will say that I've not had any ribbons damaged in the arrays including the older JP2 version. The CD2.0 has a different termination which is more robust so if my guidelines are followed everything will be fine.

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Subject: Protecting the tweeters  
Posted by [Marlboro](#) on Tue, 15 May 2007 11:57:44 GMT  
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If you are just bi-amping and using part of the original passive cross for the tweeters you should have some protection. I tri-amped, but my crossover is high enough so that I could put a 20mf cap in series with the tweeter lines. This impacts about 900hz or so, which is more than an octave down from my crossover. If I were you, and you are really concerned, I would consider an electronic circuit breaker with nano-sec response time on the tweeter parts of the array. There are places that build these, and failing that there are a number of EE types on the PE forum who could design one for you and you could put it together. I would be happy to find one of those guys for you if you wish. He'll charge you for the design, but it would be worth it, and you could always make a bunch and sell the rest to the line array world. I'd be interested in purchasing one myself. Marlboro

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Subject: Re: How much do you want to pay?  
Posted by [randle](#) on Fri, 25 May 2007 20:51:58 GMT  
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Im cheap so I would go with the rane. I mean you aren't going to get the best quality but its managable. It's not like you wouldn't appreciate it or anything.

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Subject: Re: How much do you want to pay?  
Posted by [Marlboro](#) on Sat, 26 May 2007 04:06:20 GMT  
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Golly, if you're gonna take the time to build an array, I sure wouldn't buy something as cheap as a



a Rane Digital. You get what you pay for, and I can't even imagine what it must be like to be using a digital crossover for only \$800. Take the time and save for something decent, is what I always say. Marlboro

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Subject: Re: Tact 2150X

Posted by [Don Muro](#) on Tue, 29 May 2007 11:42:58 GMT

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I'd like to do that except that would pay off my college loans. A couple of amps.....pay off my college loans. Decisions...decisions. GEEZ! for \$6200 the amps better be more than excellent. They should serve me dinner three times a week, tie my shoes in the morning, and snuggle up to me erotically on cold winter nights. Do they do that? DM

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