Subject: APT-150 in Theater 7Pi?
Posted by Ed White on Tue, 02 Oct 2007 00:21:27 GMT
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Ok...it's just an idea...would an Eminence apt-150 super tweeter spice up the very upper end of a Theater 7Pi speaker?The psd2002 stars to roll off at 16k, and the APT-150 keeps on a goin', it seems.Bob Crites uses a similar speaker in his setups, would this work if used in conjunction with the psd2002? Just thought I'd share that thought!

Subject: Re: APT-150 in Theater 7Pi?
Posted by dB on Tue, 02 Oct 2007 10:21:48 GMT
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Ed, I would probably use a Fostex, for that matter (or other drivers if you go with pro/PA sound). Also (with that upgrading of the top frequency output) improving the sub-bass line is not a bad idea. (Question) Do you think the xover compensation circuit does not the job for you, with the PSD2002?

Subject: Re: APT-150 in Theater 7Pi?
Posted by Matts on Tue, 02 Oct 2007 12:54:38 GMT
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I think this if you heard the speakers, you wouldn't be too concerned about this. I have Stage 4's, and based upon the graphs thought I might add a supertweeter. I even found a JBL part looked very good. I gave up the idea as soon as I heard speakers I built. Although there are some who think the superhigh frequencies have some subconcious affect or affect the lower vibrations or something, and they might, I don't prefer the "etched" sound they can make. Great thing about diy is you can experiment if you wanna and get it to your taste.

Subject: Super-tweeters
Posted by Wayne Parham on Tue, 02 Oct 2007 17:03:13 GMT
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I find that output up to 16kHz gives plenty of sparkle. Cymbols and chimes sound right, and it doesn't sound muffled, like there is a lack of treble. Most modern 1" compression horns with titanium diaphragms will reach 16kHz.On the other hand, I can hear a little extra "air" in that region between 16kHz and 20kHz from a tweeter that goes up that high. You can tell the

difference between a tweeter with response up beyond 20kHz and a compression horn that goes only up to 16kHz. It's subtle, and you don't miss much. The compression horn gives you all the sparkle and doesn't sound like it's missing anything but a whisper of "hiss" or "air".Compression horns do a few things very well, better than any other kind of tweeter. They're designed to reach 120dB/M and more. They don't need a lot of power to reach these levels either, they're just cruising and distortion is very low. Another thing is their controlled directivity. Horns put the sound where you want it, and they can be used to uniformly cover the listening area. A good horn tweeter will put the splash of the cymbols throughout the room, not just striaght out on-axis. Their controlled directivity, low-distortion and wide dynamic range are the strengths of compression horn tweeters, and that's why I tend to prefer them over other tweeters.One way to extend the top end is to add a super-tweeter, but I'm not thrilled with this approach. The problem is there's no

problem. Super-tweeters crossed over above 5kHz sound "phasey" to me so I don't use them. One of the strengths of the cornerhorn is its uniformity of response throughout the listening room. When a super-tweeter is added, this is lost. That's the reason I use a 1" compression horn tweeter as the highest frequency device.Another way to extend the top octave is to use a compression driver with a beryllium diaphragm. There are a few compression horn tweeters with beryllium diaphragms that can reach 20kHz. That's an excellent way to get that last few kilohertz of audible sound. It's a great option, but expensive.

Subject: Re: APT-150 in Theater 7Pi?
Posted by Ed White on Thu, 04 Oct 2007 21:08:59 GMT
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Well, to my ears it sounds good so far, but I am still assembling the speakers, and I was playing around with a T-35 for fun, and when I added into the tweeter circuit, it seemed to add a little bit to the sound, especially on a solo guitar, you could hear the harmonics and the fingers sliding over the strings better...maybe it's just me and old ears! Somebody 20 something would maybe run from the room, I don't know.Either way, it sounds good, it's just that sometimes at 2 in the morning, you try funny things out of curiousity.

Subject: Re: APT-150 in Theater 7Pi?
Posted by Chris R. on Sat, 03 Nov 2007 19:48:26 GMT
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Hi Ed, Not exactly what you are asking about, but I've had a pair of JBL 3677's for a while. I added an APT-150 to one side crossed at 5KHz.For whatever reason, it never sounded quite right. I wired it so I could switch between having it in or out of the circuit. Recently, Ibought 3.5KHz xovers, and putting those (both sides now) in made a big difference. Between the bass and high end, I'm actively crossed at 1.2KHz,passive between the two horns. I'd really like to use the APT with a set of Wayne's mid horns, but they don't make it up to 3.5K.Still thinking about the

next project.Chris