Subject: Adding super-tweeter to my Fostex FE-206's
Posted by Peter Swartz on Tue, 28 Feb 2006 01:10:56 GMT
View Forum Message <> Reply to Message

Hello, I'm considering adding super tweeters to my system and I am not sure if I want to go down that road or not. I have the 9 watt Consonance M500 mono block S.E.T.'s and am contemplating a little more top end. Do super tweeters take up much power? Is the sound going to be worse in respect to having two point sources instead of one?Any suggestions would be appreciated. Thanks, Pete

Subject: Re: Adding super-tweeter to my Fostex FE-206's
Posted by akhilesh on Tue, 28 Feb 2006 03:34:27 GMT
View Forum Message <> Reply to Message

I would STRONGLY recomned supertweeters. Hereare some points to consider:1. Get dome supertweeters that go upto 25,000 Hz at least. 2. Cross them aboe 3500 Hz for no loss in omaging that you will be able to hear. 3. No they will not consume much power. How much power do you think it takes to drive a small dome like that? ALmost none!4. THe crossovers you use may consume some power. If you go with a simle 6db/octave low & high filter, and get the crossover points right, my guess is you will have a much better sounding system. -akhilesh

Subject: Re: Adding super-tweeter to my Fostex FE-206's
Posted by Duke on Tue, 28 Feb 2006 15:07:22 GMT
View Forum Message <> Reply to Message

It depends on what supertweeter you use. If it's a low-impedance ribbon that could give your amp a pain in the, ah, output stage.I use FE206E's with a T90A on top, padded down somewhat, and rolling off first order below 15 kHz (still contributing significantly an ocatave or so below that point). I don't use a high pass filter on my FE206E, but I do some response shaping down in the lower treble region. The FT17H is also a very nice unit at a much lower price, and if you're going to cross over that high it's probably just about as good.Duke

Subject: Re: Adding super-tweeter to my Fostex FE-206's
Posted by Peter Swartz on Tue, 28 Feb 2006 17:54:56 GMT
View Forum Message <> Reply to Message

Thanks for your reply. Do you have some specific advice on 4ohm vs. 8ohm? Minimal sensitivity

figures? To be a good match with the 206 8ohm 96db. Is this critical? Because the 206 has a freq. bump around 10k I'm really interested in using a tweeter for like 15k and above with cross over easing it in from around 12k. Does this sound feasable to you? Do you know where I can get some advice on the specific crossovers to use for a specific tweeter to give me only the upper range? Thanks again, Pete

---

Subject: Re: Adding super-tweeter to my Fostex FE-206's
Posted by Peter Swartz on Tue, 28 Feb 2006 18:03:10 GMT
View Forum Message <> Reply to Message

As I am in a very near field application, could you recommend a nice cloth dome tweeter, 4ohm vrs. 8ohm? Minimal sensitivity to match the 206? Should I expect to use a variable pad to adjust the volume of the tweeter or is this a bad sonic idea? After I choose a driver where can I learn more info as to what specific cross-over components to use, values,brand etc.. for the best results? Since the 206 has a bump around 10k I'm actually only interested in using the tweeter for 15k and above, easing in around 12k. Does this seem like a good way to go? Thanks again for your advice, Pete

---

Subject: Re: Adding super-tweeter to my Fostex FE-206's
Posted by akhilesh on Tue, 28 Feb 2006 18:17:27 GMT
View Forum Message <> Reply to Message

Here are some options:1. VIfa tweeter dome from parts express, look for one around 96dbIT is 8 ohms. I forget the part number, but iot retailed for arounf $26. I use that one with great sound. 2. I don;t thin kthe impedancewill matter a whole lot. All else being equal, go with 8 ohms. 3. You can measure your 206 rolloff and then put in an appropriate high pass only xover, with the requisite slope. IF the slope is > 6 db, it may complicate things in terms of phase. But, at the frequencies you are talking about, it won;t matter. Jst put a 1.5 MuF cap in series with the 8 ohm tweeter to begin with. -akhilesh

---

Subject: Re: Adding super-tweeter to my Fostex FE-206's
Posted by Wayne Parham on Tue, 28 Feb 2006 19:14:00 GMT
View Forum Message <> Reply to Message

The Vifa soft dome tweeters with high 2.83v sensitivity ratings are all 4 ohm models. I think the one you bought is no longer carried by Parts Express, although DST (now Tymphany) still makes it. It's an MG27T if I remember correctly. I like the DX25, it has high sensitivity and a large surround so is relatively forgiving of crossover frequency and slope. You can get 'em at Parts

Express for about thirty bucks each.

Subject: Re: Adding super-tweeter to my Fostex FE-206's
Posted by Peter Swartz on Tue, 28 Feb 2006 22:56:18 GMT
View Forum Message <> Reply to Message

Thanks again Wayne, I just printed out the specs for the MG27T from Madisound, but yes it is a 4 ohm driver with 96 db sensitivity. Would this be a good tweeter to run with my 206's? or would you recommend the DX25 also 4 ohms with a sensitivity of 93.5?I do want this tweeter for mainly very high freqs. like 12k and above. Can you recommend a capacitor value best for me to use?Also a good high quality brand name cap? Thanks, Pete

---

Subject: Re: Adding super-tweeter to my Fostex FE-206's
Posted by Duke on Wed, 01 Mar 2006 00:55:02 GMT
View Forum Message <> Reply to Message

Personally I wouldn't go with a cloth dome tweeter for this application, but if that's what you want then the Vifa recommended by Akhilesh and Wayne looks like a good choice to me.

Subject: Re: Adding super-tweeter to my Fostex FE-206's
Posted by Wayne Parham on Wed, 01 Mar 2006 04:17:13 GMT
View Forum Message <> Reply to Message

Do the FE206's have a BSC circuit?I ask because my gut feeling is that if the overall system sensitivity is 93-95dB then I think the DX25 would be better. If it's 96-98dB then the MG27 would probably be better. It wouldn't be cost prohibitive to try them both and see. As far as cap value, that depends on what frequency you want to crossover. The DX25 allows a fairly low crossover point, so you can take advantage of that if you like.

Subject: Re: Adding super-tweeter to my Fostex FE-206's
Posted by Duke on Wed, 01 Mar 2006 04:33:45 GMT
View Forum Message <> Reply to Message

I'd suggest shooting for 93-94 dB on the tweeters, whether or not he smooths out the long treble

"bump" in the FE206E's response. If the FE206E's are unequalized, then 96-98 dB of supertweet is going to make a somewhat bright-leaning speaker even brighter.Duke

---

Subject: Re: Adding super-tweeter to my Fostex FE-206's
Posted by Wayne Parham on Wed, 01 Mar 2006 05:29:08 GMT
View Forum Message <> Reply to Message

Makes sense, I agree.

Subject: Re: Adding super-tweeter to my Fostex FE-206's
Posted by Peter Swartz on Thu, 02 Mar 2006 06:47:33 GMT
View Forum Message <> Reply to Message

Sounds good, I'll go with the DX25 at 93.5, so one more question,what value of cap would you suggest to have the tweeter ramp up around 12k?

Subject: Why not try a ribbon?
Posted by kloss on Thu, 02 Mar 2006 12:28:23 GMT
View Forum Message <> Reply to Message

fountek neocd 3.0 only a cap needed and HI VI RT82 same only a cap needed these tweeters as well as other ribbons work great with fullrange in BR TL or back horn.

Subject: Re: Adding super-tweeter to my Fostex FE-206's
Posted by Wayne Parham on Thu, 02 Mar 2006 14:44:35 GMT
View Forum Message <> Reply to Message

Go with a 3.3uF cap. You might also try 4.7uF to cover a little more range from the tweeter or 2.2uF to have a bit less.

Subject: Re: Adding super-tweeter to my Fostex FE-206's

Posted by Peter Swartz on Thu, 02 Mar 2006 18:34:59 GMT
View Forum Message <> Reply to Message

Thanks Wayne I ordered the 3.3 caps and DX-25's as you recommended.Can't wait to take a listen. Now I need to design a nice wood holder for these atop my cabinets, so a couple hours at the drawing board then off the the wood shop. You had mentioned to me last week about contacting Brian Cherry about my M500 amps and I've emailed him three times and they keep coming back to me. The email address I'm using is bcherry@diyhifisupply.com Do you know an alternate email address for him? Thanks, Pete

Subject: Re: Adding super-tweeter to my Fostex FE-206's
Posted by Wayne Parham on Fri, 03 Mar 2006 15:51:55 GMT
View Forum Message <> Reply to Message

I haven't talked to Brian in a while, but I would have expected that address to work. You might try the generic "sales" address listed on the website: sales@diyhifisupply.com