
Subject: Need Help understanding Fostex Line.
Posted by [GarMan](#) on Thu, 15 Apr 2004 17:46:23 GMT
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I've been finding the ideas of building a 3-way speaker around a high-efficient extended midrange driver very appealing. Stretch a midrange out on either end as far as possible, and supplement with a sub and super tweeter. I've started doing some research on what's available in midrange pro-drivers, but believe that full-range drivers such as Fostex can also be an excellent choice. Problem is, Fostex has a lot of drivers, and their websites do not do a very good job in explaining the differences between all their lines. Would anyone on this board familiar with the Fostex line be able to give me a head-start? I'm not too concern about digging deep into the bass region, so I don't think I need anything complicated like TLine for backloaded horns. Just something simple like closed-box or BR. A range of 100Hz to 5KHz would be nice. From what I can gather, the Sigma line is best suited for back-horns while the FF drivers are suited for BR. As for the FE drivers, I've seen these used in both configurations. What are their PS drivers like? One last thing. There seems to be inconsistencies with the Qts specs of some of these drivers on the web. Posts in this forum indicated that FE drivers do well in BR due to their high Qtd, the the spec sheets on Fostex's site rates the Qtd quite low (less than 0.2). thanks, Gar.

Subject: Re: Need Help understanding Fostex Line.
Posted by [akhilesh](#) on Thu, 15 Apr 2004 18:37:39 GMT
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HI, YOU have left yourself a LOT of leeway, since you start with a 3 way configuration...meaning you are not trying to make the driver do too much. Given this advantage in your design, I would still try to get a driver that goes from about 80 HZ upto about 9000 HZ. The reason is that below 80HZ is usually non directional...but if you go too high, the driver will lose in imaging. So, if you want to look for a driver that does 80HZ till about 9 Khz, many drivers will do. I would go for the most expensive Fostex driver that does these, since it's sound will probably be best. Think of the F200A. Actually with this one, you will be able to go down to about 35-40 HZ, so you may not even need a 3 way. IF you want to go a bit cheaper, remember you will have to pay for the extra woofers and crossover materials anyway, so make sure you factor that in, before deciding on a cheaper driver. I am a firm believer in spending most on the driver, and least on the cabinet & other components. My 2 cents...-akhilesh

Subject: Re: Need Help understanding Fostex Line.
Posted by [hurdy_gurdyman](#) on Fri, 16 Apr 2004 12:38:12 GMT
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I have little experience with Fostex (I have heard a few), but wanted to comment on using a

fullrange/widerange driver as an extended midrange driver. I have a pair of Electro-Voice LS-12 speakers on open baffles. They cover the range from 80-10,000Hz. OB subs are used below this and a high crossed tweeter above. This concept works great! The fullrange driver never sounds strained, and the bass and treble are clean. 80Hz crossover is virtually undetectable, and the 10'000 Hz treble crossover is above the ears critical area. This type of 3 way system may be the best overall compromise. I like it.Dave :^)

Subject: Re: Need Help understanding Fostex Line.

Posted by [TC](#) on Fri, 16 Apr 2004 21:09:54 GMT

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>>I am a firm believer in spending most on the driver, and least on the cabinet & other components. ==Isn't that like wearing sweatpants to a nice restaraunt?TC

Subject: Re: Need Help understanding Fostex Line.

Posted by [Wayne Parham](#) on Fri, 16 Apr 2004 21:43:26 GMT

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Hi Terry,You make backloaded horns I think, right? Do you make Voigt pipes, transmission lines, tapered pipes and the likes too? I seem to remember seeing some of your systems that have backloaded horns and some that were tapered pipes. Is that right?Assuming that's the case, what are your favorite drivers? Even if it isn't the case, what drivers do you like best and in what kinds of cabinets? Do you like a particular Fostex model? Or do you prefer one of the Lowthers? And finally, what sort of tuning methods do you employ? I mean, I'm just asking what your style is. I've seen your cabinets, and they're quite nice. I always assumed that was your specialty, good cabinetry. But I'm curious as to your design philosophies.By the way, check out the Craftsmen forum too. Lots of really great artists hang out there. Some wonderful cabinetmakers, that bunch!All the best,Wayne

Subject: Re: Need Help understanding Fostex Line.

Posted by [TC](#) on Fri, 16 Apr 2004 22:12:15 GMT

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Hi Wayne,I prefer simple systems to complex, and 2watts to 200. Usually means backhorns augmented. I always use Fostex only. Arguing Lowther Fostex is audio S&M. Ultimately it's the *implementation* that matters most IMHO. I have a dozen amps mostly tubed but some nice solid state amps too.My Abby model is a voigt pipe. Voigt pipes are the best compromise between a

std monkey coffin and a horn.As far as tuning methods I have eveery speaker builder article relating to high efficiency on my desk. I was a longtime Magnaplanar fan. But started with single drivers and tubes in the 60's because that's all a paper route could support. Built SpeakerLab and did prosound gigs in Seattle in the 70's. Lotsa JBL PA cabinetry for local bands.The double horn shown is my largest speaker using the fe208Esigma and t-90a. Self powered sub in the corner.
TC

Subject: Re: Need Help understanding Fostex Line.

Posted by [TC](#) on Fri, 16 Apr 2004 22:56:44 GMT

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Thanks for the compliments Wayne,>>But I'm curious as to your design philosophies.== I enjoy exploring the Japanese aesthetic. I appreclticed in woodworking to a Chinese master when I was 18 making bank and office interiors. This led to a sensitivity of Asian values. Shoji making and Japanese tools are favorite past studies.As far as speakers go I adhere to Japanese design goals. Most Japanese understand very well the analog music reproduction system. "The energy releasaeed when the needle touches the record releases an explosion of energy" I once read. "maintaining the energy's momentum and brilliance" is the goal I work for. The single driver and SET thing brings it close. Also working on a large fully hornloaded system for "show" not as a product. Each basshorn is the size of a small baby grand piano. Just to s what the fuss about front horns is all about.TC

Subject: Re: Need Help understanding Fostex Line.

Posted by [Wayne Parham](#) on Fri, 16 Apr 2004 23:36:39 GMT

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That's a great looking cabinet, Terry. I've listened to a couple of Fostex 206e implementations; They were very nice. I like the 8" Fostex 206e, it's a great little driver. Amazing how high that thing will go, and not bad bass too. I sure do like 'em on a 2 watt 2A3.

Subject: Re: Need Help understanding Fostex Line.

Posted by [roncla](#) on Sat, 17 Apr 2004 01:33:05 GMT

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Yea me too TC as far as the front loaded front horn, but DANG the size is just too much. I have a design for a front loaded/rear loaded with the front upper horn tuned for=> 200 hz and the lower front firing horn tuned for 50 hz to 200hz.I was using the parameters of the 206e driver , but as stated it is still too big for my taste.Horns gotta be BIG (IMHO) to do what they do.My present

206e horns work good in a smaller to medium size room , but i wouldnt put them in a large room. One of the drawbacks i have heard in the front horns is a very tiny sweet spot and i think that is another reason that has kinda kept me from building.ron

Subject: Re: Need Help understanding Fostex Line.
Posted by [akhilesh](#) on Sat, 17 Apr 2004 16:48:17 GMT
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Not sure if i get your analogy. It's like having a great body and wearing sweatpants, versus having a flabby unhealthy body and wearing an Armani Suit. In other words, the quality of the driver will probably determine the sound better than a fancy cabinet. However, this is just my opinion. Others can have differing opinions, and I respect someone else's opinion as well...and for many people the look of the product may make it sound better...in fact many stereophile reviews of late seem to spend quite a lot of space commenting on the appearance of the product. Anyways, that was just my opinion, and let's leave it at that. -akhilesh

Subject: Re: Need Help understanding Fostex Line.
Posted by [akhilesh](#) on Sat, 17 Apr 2004 16:51:14 GMT
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Nice cabinets! Is that a supertweeter there? What do you cross it at? What kind of crossover do you use? Also, i couldn't help noticing the amp in the pic at the bottom...those transformers look good...which ones are they?-akhilesh

Subject: Re: Need Help understanding Fostex Line.
Posted by [Wayne Parham](#) on Sat, 17 Apr 2004 18:09:46 GMT
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Yep, yep. I agree with you. I mean, cabinet tuning and build quality is important. The cabinet must be of proper size and acoustic parameters, and it also must be well-braced and things like that. So these are attributes that are important of the cabinet. But putting that aside, I understood what you meant. It's like race cars don't have to be pretty to win races. I'm into aesthetics too, but I think that's another thing altogether. Forget about psychoacoustics and the fact that some speakers just look like they might perform better. Not talking about that. I just really like having speakers that look like a supermodel and sound like an opera singer.

Subject: Re: Need Help understanding Fostex Line.

Posted by [TC](#) on Sat, 17 Apr 2004 20:05:50 GMT

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>>In other words, the quality of the driver will probably determine the sound better than a fancy cabinet. ==For the most part. Still resonance is an issue for most homemade cabs and that is directly affecting the output. How much of the output? What's another violin in an orchestra? Off with his head? It's all in expectations. Appearance is usually a harbinger of what's beneath. Including-Overall design, what are the expectations?-commitment to quality top to bottom-proficiency in applied materials and mechanics-Concept and intent. -inherent value. What are you trying to "say" by building what you build? It seems to me that disregard for a system's appearance indicates more than the systems appearance. Hey, I'm an amateur art critic.TC-----

Subject: Re: Need Help understanding Fostex Line.

Posted by [TC](#) on Sat, 17 Apr 2004 20:19:48 GMT

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>>Nice cabinets!==Thanks. >>Is that a supertweeter there? What do you cross it at? What kind of crossover do you use? ==t-90a, way up high, adjustable 12dbper oct, 2nd order, designed by Wally Malewics. That;s one design. Another couple designs can be used fixed value but have to be "in-room measured" to suit.>>Also, i couldn;t help noticing the amp in the pic at the bottom...those transformers look good...which ones are they? PX-25 monobloc by Art Audio, Sowter handwounds from England.TC

Subject: Re: Need Help understanding Fostex Line.

Posted by [akhilesh](#) on Mon, 19 Apr 2004 17:22:29 GMT

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If i were BUYING a ready made speaker i'd agree with you completely. The amount of care the manufacturer has out in the cabinet is important. OTHO, the drivers in many commercial speakers are not more than a small fraction of the asking price. However, if we are BUILDING a speaker, and one has a LIMITED budget, then i'd pay more for a driver and maybe compromise on the fancy finish (stain it yourself, skip the burl walnut...simply settle for 3/4 baltic birch, don;t get the joints dovetailed); or i might get a better driver and pay less for a simpler BR cabinet versus a complicated horn....it;s all allocation of budget. Anyways, i think we all agree...we are just talking of different things being right in different situations. -akhilesh
