Subject: 9 fostex f200a in line array
Posted by kloss on Thu, 03 Feb 2005 13:46:27 GMT
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Hi all was thinking about trying this out.A singal f200a gives me 30hz-21khz.I was thinking of 9 perside.This should give me a full range responce from just the 9 perside.I has also thinking of adding a t900a super tweeter crossed over very hi.Would 1 tweeter work like this or will I need to array them.
http://steinman.mesls.org/stereo/J%20Kalinoski%20Loudspeakers%20066.jpg

Subject: Re: 9 fostex f200a in line array
Posted by Jim Griffin on Thu, 03 Feb 2005 21:40:01 GMT
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Kloss,While those Fostex drivers are very nice full range devices when used as point sources, they have limitations when you start to array them. My line array white paper (see link) details some of the design limitations. When you bring two perfect drivers together so that at a frequency wherein they are less than a wavelength (WL) center to center (ctc) apart, then their overall directivity will increase. But beyond one WL ctc, you will start to have declining directivity and eventually at a spacing of 2WL you'll have cancellation. Bottom line is that a line array composed of full range drivers will not function up to 20,000 Hz unless they have ctc spacing of less than (theoretically) 0.68" which means less than 0.68" diameter drivers spaced with their flanges touching. You can almost get by if you use less than 1.36" drivers on the same centers as the ears have less sensitivity in the 10-20 kHz octave. I have seen and heard a line array composed of 2.125" drivers spaced 2.125" ctc and it took a lot of equalization to get the upper octave to sound right.What I suggest is that you think of a two-way design that adheres to a crossover based upon the ctc critieria that is outlined in my white paper. That works. Jim
Near Field Line Array White Paper

Subject: Re: 9 fostex f200a in line array
Posted by kloss on Fri, 04 Feb 2005 13:29:52 GMT
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Hi Jim Thxs for the info.What would the upper limited be for hi frequency? Would just 1 tweeter work if crossed over hi enofe like needles? My horn array reaches 9.5khz .If I could get something like that out of f200a array a tweeter would be easy to match.Would be nice to have no crossover on the mids and limited on the tweeter
http://www.audiocraftersguild.com/Xtreme/xtreme.htm

Subject: Re: 9 fostex f200a in line array
Posted by Jim Griffin on Fri, 04 Feb 2005 14:59:05 GMT
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I'll use a situation wherein you have 8 inches diameter drivers mounted in a line so that their frames touch. (You can get a little closer with the F200a because of its flange configuration but not too much.) Thus, you'll have about an 8 inches center to center spacing betwen drivers. You reach one wavelength at 1695 Hz with this c-t-c spacing. I wouldn't recommend that you go much above that frequency although the really bad things don't happen until 3390 Hz. But you would need to have an agressive crossover slope to go much above 1695 Hz.One tweeter would work but recognize that you would have your woofers in a line configuration and the tweeter as a point source. Nine of the 8inch woofers would create a near field over much of your listening room while the single tweet would be a point source. Sound fall off would be 3 dB per doubly of the distance from the source for the woofers while the point source would fall off at a 6 dB rate. If your listening distance were fixed, you could balance the sound but if you wish to have well balanced sound throughout the room you would need a line of tweeters (long enough to create a near field). Jim

Subject: JBL 2115
Posted by Wayne Parham on Fri, 04 Feb 2005 15:02:58 GMT
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Great link! There is some very cool stuff there!That Fostex F200 always reminds me of the JBL 2115, which was an absolutely awesome 8" driver of the 1980's. The driver was flat over an amazing range, from 30Hz to 10kHz. It had a shorting ring, so distortion was very low. The shape of the basket, the brushed finish and shape of its face, the cone, surround and voice coil cover were the same. So I'm thinkin' the Fostex F200 must share a lot with the JBL 2115 more than just looks, and that leads me to believe it must be an excellent part.Have you ever seen or heard a JBL 2115?
JBL 2115

Subject: Re: JBL 2115
Posted by kloss on Fri, 04 Feb 2005 15:40:56 GMT
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Maybe fostex was inspired by the JBL .But the f200a is a much dif driver it has a drivern dust cover its like a sudo tweeter.milled basket, looks polished but its milled from a solid metal.Has a very advanced cone material its a ceramic composite.I have heard the vintage JBL there very good but not anywhere close to f200a.It seems like a line array wouldnt be right for such a driver.Think I will just do a MTM instead ,thxs for the post.
http://www.imz-ural.com/gearup/#

Subject: Re: 9 fostex f200a in line array
Posted by kloss on Fri, 04 Feb 2005 15:43:13 GMT
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Hi Jim Thxs for your time and help maybe I will look into using 9 f120a and 3 raven r1s in a array and give up on the f200a.
http://klangfilm.chez.tiscali.fr/

Subject: Re: JBL 2115
Posted by Wayne Parham on Fri, 04 Feb 2005 16:03:34 GMT
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Thanks for your reply. I'll have to evaluate that F200 sometime.I've been meaning to do that ever since I noticed the similarity between the F200 and the JBL 2115. I was disappointed when JBL discontinued the 2115, but it didn't really fit in their 20xx/21xx/22xx/24xx product lineup, so I think that's why they moved on towards midrange products of that size. The 2115 is truly a full range driver.I appreciate your enthusiasm about the F200, but don't discount the 2115. JBL's engineers really do their homework and that 2115 was the best driver of its type I've ever heard. I'll check the F200 and see how close they've come.Thanks for the heads-up; I think I'll really enjoy the F200.

Subject: Re: JBL 2115
Posted by kloss on Fri, 04 Feb 2005 16:23:11 GMT
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F200a has a true fullrange responce tweeters are not needed ,My cab in link gets a usable 30hz-21khz and can play loud on 2a3 amp.The JBL are very good but F200A is far more advanced.JBL has made some good products.But times are a changing and even f200a is getting a bit old.Was hoping for a new improved version but then fostex pulled f200a from the market after much demand they rereleased them.So probley no planed replacement
http://www.audiocraftersguild.com/Xtreme/xtreme.htm

Subject: Re: JBL 2115
Posted by Wayne Parham on Fri, 04 Feb 2005 18:17:26 GMT
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Sounds cool, I'll bet your speakers are awesome. The 2115 is old, that's for sure. In fact, you

can't even get recone kits for it anymore, so it has become really rare. The F200 is definitely more feasable.I know that Fostex makes good products, 'cause I've heard some very nice sounding Fostex speakers. The single driver speakers I've liked the most in the last couple of years have used Fostex drivers. Who is doing their engineering over there? Do you know who any of the people are doing R&D at Fostex? I'm thinking there must be some clever folks there because they have made some very fine speakers.That's one thing about JBL, their R&D team is comprised of some very good engineering talent. I'd say they've kept themselves in pretty good shape as far as advances in technolgies and materials are concerned. The list of engineers and people involved there reads like a "Who's Who in the Audio Industry."

Subject: fostex
Posted by kloss on Sat, 05 Feb 2005 14:17:46 GMT
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Wayne I do not know fostex designers but Brian at madisound told me they are true audio geeks always messing about.Seems to me the others fullrange manufacters better get there sh..t together.And come out with some new improved product[snooze you lose]fostex drivers are far more advanced than the compition and priced lower too.
http://www.fostexinternational.com/
