Subject: Ideal freq. to tune Fostex 206 cabinet
Posted by Peter Swartz on Fri, 22 Apr 2005 03:04:17 GMT
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Hello, For those of you who are using a fostex 206 in a ported cabinet, can you recomend wheather I should tune the port/ cabinet to 40hz. or 50hz. ? My cabinet is 45 liters and fostex recomends 50hz. with a port 3.14 in. Dia. x 2.95 in. length, per their website, and I paid a guy at speaker city by me to give me his evaluation using the drivers specs and his computer software and he came up with a port 2" dia. x 1.2 in. long for a 41hz. tuning.David at commomsense was roughly saying a 3" or 4" hole only.So I'm not sure what's best. Could some of you 206 users please tell me which way should give the best quality smooth low end? Thanks, Pete

Subject: 206 in 45L cab tuning suggestions
Posted by ronbrady on Fri, 22 Apr 2005 04:18:38 GMT
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Hi PeteI ran a quick simulation on WinISD for you for the 206E and it looks like it really doesn't want to fit a 45liter cabinet smoothly without quite a lot of series resistance to raise the qts. from .18 to .40. I have tried this trick in the past and it works but I think that it robs some of the detail from the mids and highs but it should produce good bass. My results are a port tuning of 40Hz with a 3"ID tube 5.15" long.This will give a port velocity of Mach 0.15 . This alignment will require at least a 6 Ohm audio grade resistor in series with the driver.You should be happy with this combination unless you are expecting to use a low powered amplifier at which case your efficiency will suffer terribly especially if you intend to install a baffle-step correction circuit.Good luck with your projectRon Brady

Subject: 206 in 45L cab tuning suggestions
Posted by ronbrady on Fri, 22 Apr 2005 14:51:04 GMT
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Hi PeteI failed to add in my last post that I personally haven't used the f206 and as such I am only commenting on its performance based on its published T/S parameters using WinISD bass reflex design software. I think that it would be wise for you to get in contact with someone who has extensive experience with that driver. Martin J. King runs a web-site called [Quarter-wave.com] which deals with his very successful MLTL software which many have used with the 206e. MLTL stands for Mass Loaded Transmission Line. You might want to consider giving a good look at this approach for your 206e drivers. In his gallery section you will see many examples of member built enclosures which you can click on the builders name and e-mail them some questions directly. One of the designs also shows the BSC (baffle-step correction circuit) I mentioned earlier. Martin and many of his group are regulars on this forum and the Fullrange Driver forum. You may get

lucky enough to be able to copy a existing sucessful design.Have funRon Brady

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Subject: Re: Ideal freq. to tune Fostex 206 cabinet
Posted by roncla on Fri, 22 Apr 2005 23:19:28 GMT
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Just build Martins MLTL design and it wont be a question. I am not a big fan of correction circuits, but in the case of the 206e in anything other than a BLH, with a proper phase plug, its necessary along with some series resistance. Or have a current drive then its parallel resistance instead of series. Probably wont have any larger, possibly a smaller, footprint than a BR with a stand.ron

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Subject: Re: Ideal freq. to tune Fostex 206 cabinet
Posted by roncla on Fri, 22 Apr 2005 23:22:46 GMT
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And a BLH can get quite complicated.
http://fullrangedriver.com/tiki-browse_image.php?imageId=27ron

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