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Subject: FE127E Design

Posted by [jackmoai](#) on Tue, 07 Jun 2005 15:28:58 GMT

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I've just done small BR cabinets for my new speakers, waiting for them to break-in. A bit disappointed til now, but i know i have to WAIT. I did these cabinets with "rounded" faces, it is supposed to reduce the impact of standing waves (?). So I'm looking very hard for TQWT or BLH plans for my next design, but it seems that these drivers are not very famous among diyers... I made a few designs with MJKing sheets, TQWT, flat SPL, but not sure it WILL work... Something to recommend ?

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Subject: Re: FE127E Design

Posted by [akhilesh](#) on Tue, 07 Jun 2005 16:00:00 GMT

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try a subwoofer. These are not suitable for full range in ANY box!-akhilesh

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Subject: Re: FE127E Design

Posted by [jackmoai](#) on Tue, 07 Jun 2005 17:14:32 GMT

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Uhhh ! Is it a joke ? How can a driver with  $F_s=70\text{hz}$  be used as a subwoofer driver ? I've seen a few designs with this driver, but the main question always was : How to get MORE bass ? Here we come with TQWT i guess... TQTW plans anybody ?

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Subject: Re: FE127E Design

Posted by [akhilesh](#) on Tue, 07 Jun 2005 20:08:40 GMT

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I meant try a subwoofer with ANOTHER driver, that fills frequencies till around 90-100 HZ. That might be better than trying to get an extra 10 HZ from this driver and still only reaching 65 Hz. thanks-akhilesh

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Subject: Re: FE127E Design

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Posted by [jackmoai](#) on Tue, 07 Jun 2005 20:25:33 GMT

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Would you have a plan to suggest ?

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Subject: Re: FE127E Design

Posted by [akhilesh](#) on Tue, 07 Jun 2005 20:31:14 GMT

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Yeah, i'll be happy to give you suggestions. Here are a few questions first that will help us all understand your situation better:How did you build your BR boxes. Did you tune it using some CAD software/ How is the construction? Did you build them yourself? Are they properly sealed except for the vent? What kind of carpeting did you use inside? These may seem like a lot of questions, but will help us (at least me) provide some sensible suggestions. -akhilesh

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Subject: Re: FE127E Design

Posted by [jackmoai](#) on Tue, 07 Jun 2005 21:22:13 GMT

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Thanks for your prompt answers.Yes, i build my BR boxes myself.I used as reference the small BR fostex recommended enclosure, keeping the volume(9L) and cross sectional area, but i "customized" them with rounded walls (Sonus Faber style !).Hard time to do this, but in fact i'm quite satisfied by the AESTHETIC result.Then i tuned the port using Bassbox software, around 70-75Hz.I used MDF 19mm with 3 coats of blackson (car damping painting).Plus fiber layer i'm still trying to adjust.At that time, i had never heard of MJ Kling, Bob Brines or TQWT...That why i'm trying to get a better result, using modern designing theory !55Hz would be nice !

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Subject: Re: FE127E Design

Posted by [paba](#) on Wed, 08 Jun 2005 14:44:50 GMT

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Did you build the Fostex double bass reflex or the fostex standard small bass reflex cabinet?looking at the specs of the double bass reflex cabinet it should give you some 55HZ content.good luckpaba

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Subject: Re: FE127E Design  
Posted by [akhilesh](#) on Wed, 08 Jun 2005 15:58:12 GMT  
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You can use TQWT and get a bit better bass. My advice is: stay with what you have and buy a good powered sub. There are many out there. I know Bob Brines sells one for \$575. Hsu research is another place to allok at. Or you can try parts express titanic subs (probably not flat). -akhilesh

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Subject: Re: FE127E Design-- MLTL  
Posted by [lon](#) on Sat, 02 Jul 2005 22:07:55 GMT  
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I have a preference for the MLTL and Fostex FE127e based on the numbers givenby GM at the full range driver forum.This is my best build to date. The MLTL is wider and more shallow. The driver ismounted 8 in. down from the top and a port tube extends out the bottom about 6 inches.The MLTL plan calls for a 45d baffle at the port tub end (bottom) in a similar design for the Jordan 92s. I've done a variation this which is still acceptable bybut required less wood and woodwork. No meter results available but I enjoy the sound-- even on organ recitals.I've also recently found a discontinued vtl (I think) design from Fostex. It looks like a fun build.I had overlooked this thread when it was first started. The FE127 was the firstsingle driver pair I bought and it's still the favorite. Lots of styles and build possibilities.

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Subject: Re: FE127E Design-- MLTL  
Posted by [jackmoai](#) on Sun, 03 Jul 2005 09:24:17 GMT  
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Thanks for your answer !Are you speaking about this design :  
[http://fullrangedriver.com/tiki-view\\_forum\\_thread.php?forumId=1&comments\\_parentId=3297](http://fullrangedriver.com/tiki-view_forum_thread.php?forumId=1&comments_parentId=3297)  
???But i'm not sure i really understand the port placement.Would you have a plan ?

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Subject: Re: FE127E Design-- MLTL  
Posted by [lon](#) on Mon, 04 Jul 2005 02:29:39 GMT  
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Hi again, I got pretty close on all the measures but changed the portsubstantially. There is a description and drawing of theGM MLTL at the EJ Jordan Website. You could use the measures inthe link above for the FE127e. Here's what I did: I got some 69 cent shelving whichI didn't

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have cut at all in the long length and the end panelshad to be trimmed to the right depth. Having your own table saw helps with all this: I haveto ask someone occassionally to borrow some table time...even that is real sketchy. Cut the speaker hole with a 3 11/16 hole saw or a 4 in.4 in is easier to find. I chamfered out the back using a 3 dollar chamfer bitmounted in a spin saw (spin saw is like a Rotozip). The 6 in port I used is made from 2 in od pvc pipefrom the hardware/plumbing store and the hole is cutwith another hole saw of 2 in. diameter. So far we have a box with speaker mounted on the face, chanmfered back and \_no stuffing\_ with a couple holesdrilled in the back to let the speaker leads out.... anda 6 inch white pvc tube sticking out the bottom. What to do? I tried making a custom stand from more of the shelving stock but the easier solution was to take 2 ofthose cheap 3 shelf plant stands that are found in any big boxstore in their so-called furniture department. Well their so-called furniture is my \_only\_ furniture just about. I used the 2 inhole saw to cut holes in the plant stands and pushed theports down through those. They're almost the right height at ear level but closeenough. I made some grilles from some double knit fabric gluedonto some 1/4 in masonite. I managed to cut the centers outwith the spin saw, but this is not recommeneded. Back to the original port design from GM: that can be puton the front, on the back or out the bottom... it can be madewith a 1 in. hole saw and a couple layers of whatever comes up to the1.125 (whateves) depth. I didn't like the sound from the stubby ports... it was low but not \_clear\_ on plucked string bass. So I lost a bit on the organ recitals I use to test builds. However my main application is jazz shows and use withthe dvd-tv and streaming audio net news broadcasts. If you aren't faint hearted when it comes to using EQ,this design works well and will teach a lot about how muchcan be done with a little. Any questions, come back again. The link below is another design that looks interesting foran inexpensive driver in the Fostex line: a labyrinth tlwith mirror side ports. I cannot find the MLTL Jordan design at the moment. In afull speaker cab design, the longish port extends out the bottomand the side panels can be full length to the floor. A 45dbaffle is used to focus the port energy out toward the listener

| ( | \_ \sort of like that in stick men terms: profile view.  
Fostex design for a FE108 Sigma

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Subject: Re: FE127E Design-- MLTL photo from Full Range Driver site

Posted by [lon](#) on Mon, 04 Jul 2005 02:36:27 GMT

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Here's a sample of the GM build from a guy that did a bunch ofthem. These are for the Jordan, but the general idea isthe same.

GM MLTL photo