
Subject: Thiel-Small Parameter Search

Posted by [Spinjack](#) on Thu, 01 Sep 2005 12:15:42 GMT

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I have two Radio Shack 40-1034 drivers that I'd like to use to build a subwoofer but I'm not having any luck finding the T-S parameters for it. Any suggestions on where to look? Also, any hints as to how make these sound good? I've read that they can be a bit sloppy. I don't need them to be "audiophile" quality since they will be used in a furnished breezeway to supplement some homemade bookshelf speakers that the 7pi's will be replacing. My plan is to go the Isobaric (sp?) route and I thought about matching them to one of those subwoofer amps available from Parts Express (either that or an older NAD amp I bought on eBay). I don't want to go horn because of size constraints, but I thought about a tower configuration to minimize footprint if the required box volume was too high. Any thoughts?

Subject: Re: Thiel-Small Parameter Search

Posted by [Wayne Parham](#) on Thu, 01 Sep 2005 12:24:31 GMT

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You probably already know about this website but just in case, did you check ThieleSmall.com?

Subject: Re: Thiel-Small Parameter Search

Posted by [Spinjack](#) on Thu, 01 Sep 2005 13:58:50 GMT

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Actually, I didn't know about it. I had been using Google with little success. Thanks for the link.

Subject: Nothing

Posted by [Spinjack](#) on Thu, 01 Sep 2005 15:45:41 GMT

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There doesn't appear to be any info about RatShack drivers on the T-S site. Any other suggestions?

Subject: Re: Nothing

Posted by [Matts](#) on Thu, 01 Sep 2005 16:09:28 GMT

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you could try to find out who made them for R.S.- may be a clue in a part # or something, then look up equivalent model. Fostex made some of their smaller full-range speakers.

Subject: Re: Nothing

Posted by [Spinjack](#) on Thu, 01 Sep 2005 16:31:25 GMT

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I thought of that, I'll have to take a close look at any labelling on the drivers.

Subject: Re: Nothing

Posted by [Wayne Parham](#) on Thu, 01 Sep 2005 21:17:43 GMT

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You could also have a go at measuring the T/S parameters. You don't need specializd test equipment and can obtain reasonably good data with your PC (as a signal generator) and a good DVM. See the post called "T/S Measurements" for a write up on this process.

Subject: Re: Nothing

Posted by [Spinjack](#) on Fri, 02 Sep 2005 12:13:11 GMT

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Yeah, that was the direction I was going to go. I'm not sure how I will do Vas, though. I'm not sure I want to build an extra enclosure. If I did build it, I'd want to do it such that I can mount anything from a 6.5" up to an 18" driver. Can you recommend some signal generation software for the PC? I don't have an oscilloscope, so I'll be restricted to an RMS DMM, but from the research I've done it appears that I should be able to get pretty close.

Subject: Re: Nothing

Posted by [Wayne Parham](#) on Fri, 02 Sep 2005 12:15:41 GMT

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I forgot where I got my signal generator, but I'll E-Mail it to you if you like. You can probably search the internet and find several.

Subject: Re: Thiel-Small Parameter Search
Posted by [GM](#) on Sat, 03 Sep 2005 03:29:44 GMT
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Greetings! These are car audio 'IB' sub drivers so OB, very large sealed, or aperiodic is best, with the latter yielding the highest SQ. Its specs are ideal for a 'classic' stuffed TQWT and going isobaric will keep the line's CSA reasonable, so 12" square (inside dims) should work fine and a ~93.63" pathlength will tune it to ~30 Hz if stuffed along its length with ~48 oz of R-19 fiberglass. The beauty of this design is that the specs can be off quite a bit and still perform well by adjusting the amount of stuffing. Catalog specs: $F_s = 30 \text{ Hz}$ $V_{as} = 6.83 \text{ ft}^3$ $Q_{ts} = 1.04$ $P_e (\text{RMS/max}) = 75/150$ $W_{sens} = 88 \text{ dB/W/m}$ (+/- 2 dB) nominal 8 ohms GM
