Subject: DCA 5.5 T/S Specifications
Posted by DrD on Tue, 09 Oct 2007 20:17:55 GMT
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I have a pair of the 5.5's on the way. I am hoping someone could provide me with some manufacturer's spex, so I can attempt to calc an optimal alignment for them. Nothing against the PAWO, I would like to start with a BIB for > line gain, > bass resp.Fs/Qts/Vas/Qms would be great. Stated SPL I would be curious to know about. Ikhalesh mentions using a 2A3, others, PPEL84, sounds fairly easy to drive at low levels, but likes some power. Thanks in advance.

Subject: Re: DCA 5.5 T/S Specifications
Posted by akhilesh on Sun, 14 Oct 2007 10:15:23 GMT
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Sorry about the delay. I'll search and get back to you..i know I have them somewhere. -ahkhilesh

Subject: DCA 5.5 Just Arrived!!!
Posted by DrD on Mon, 15 Oct 2007 18:43:10 GMT
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The new drivers arrived awhile ago; I can report that the 5.5 are VERY well constructed, well beyond my expectations, frankly. Nice phat magnet [endomagnetosis] is always a good thing, tough butyl rubber surround, there appears to be BUCKETS of Xmax [!!] which bring dynamics to a backloaded aligment, nice solid milled steel, or aluminum phase plug, cone appears to be coated with some ceramic, perhaps ALuminum oxide to reduce ringing, and oxidation of Al cone material.Although the PAWO and Mini Onken have proven themselves with this driver, they are non-optimal alignments for this driver. to this end, I have calc'd a BIB folded pipe/horn for them which is a WAF size with ~65in^2 CSA, ~70in height, and sports a line gain of ~10db in the lower register, [horn gain] and F7=30Hz Resp. Not too shabby. With the 5.5 in a BIB, at lower listening levels, [nearfield, night time, etc] flea power should be okay. Although I will also use a PP triode or T amp. Color me impressed. www.zillaspeak.com/bib.asp

Subject: Re: DCA 5.5 Just Arrived!!!
Posted by akhilesh on Tue, 16 Oct 2007 00:12:52 GMT
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Cool! Glad you liked them. PLease tell us your experiences once you have built the enclosure.

Sometimes, an optimal enclosure may lead to a lower bass response, but at the expense of more IM distortion, in which case a sub optimal box may become optimal I have only heard these in the PAWO horns, and in those they are good enough for pop music, in the right room and right placement of course. I also think these work a lot better with PP amps, for some reason! like a simple el84 pp, driven by the 12a*7. Do tell us once you build!-akhilesh

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Subject: Re: DCA 5.5 Just Arrived!!!
Posted by DrD on Tue, 16 Oct 2007 00:45:24 GMT
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I agree with the assessment, but in the smaller BIBs, ripple is not really too much of a concern, these loads are surprisingly accomodating, and their history of near universal success stories bears this out. I would HP the driver @50Hz, and go from there. The important part with these alignments seems to exist in a driver with a suitably low Fs, and especially mid Q, which the 5.5 satisfies brilliantly. Its mid size DIA is great for midrange quality, and several people have reported preferring it to the Jordan JX92S. I cannot help but think the 5.5 will make for a stunning BIB, particularly in use with more powerful amplifiers like PP, and nice T amps.

Subject: Re: DCA 5.5 Just Arrived!!!
Posted by akhilesh on Tue, 16 Oct 2007 02:00:49 GMT
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SOunds good! Now you've got us all excited, and have to share with us how it sounds/measures, and if it works well, do post the dimensions for others to build! These are nice drivers. What I like about them is the 100 hz to 5 khz flat curve, and the decent freq extension. They are sensitive to placement, though. -akhilesh

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Subject: BIB Dimensions for DCA 5.5
Posted by DrD on Tue, 16 Oct 2007 19:17:43 GMT
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Minimum CSA 65in^2, but more is good, anywhere to 140in^2. Bigger is better.Length, 130 inches, or 65 inches as folded pipe. Internal DIM's ex: 6.5 X 10 X 65 = High WAF BIB. Line gain @ Fs =10db (!!!) this is before room loading, which generally adds ~2-3db. (no kidding)Zo Driver 27.75 inches from sealed end.FR ~Flat to 34Hz, F5=30Hz. *this is a very full range horn alignment. This calc is VERY similar to the Jordan model on www.zillaspeak.com/bib.asp I will attempt to learn how to post the FRP to this forum. (techno-peasant)

Subject: Re: DCA 5.5 Just Arrived!!!
Posted by Eric Gonzales on Wed, 17 Oct 2007 03:54:16 GMT
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i'm excited too. build the box. i plan on having an el84 wired in triode paralleld in triode to power it. 2 tubes per channel would net 2.6 watts or maybe even go 4 tubes to net 5.2 watts.Guys, post your dca5.5 cabs in this thread. I'll take a pic of mine tomorrow and post it. I think the only way to add a picture is :-upload to your website-when posting a reply, look for Optional Image URL at the bottom and enter the website address. Don't forget to preview.

Subject: Post your DCA5.5M cabs
Posted by Eric Gonzales on Wed, 17 Oct 2007 03:56:18 GMT
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i'm excited too. build the BIB box. i plan on having an el84 wired in triode paralleld in triode to power it. 2 tubes per channel would net 2.6 watts or maybe even go 4 tubes to net 5.2 watts.Guys, post your dca5.5 cabs in this thread. I'll take a pic of mine tomorrow and post it. I think the only way to add a picture is :-upload to your website-when posting a reply, look for Optional Image URL at the bottom and enter the website address. Don't forget to preview.

Subject: DCA5.5M cab picture
Posted by Eric Gonzales on Wed, 17 Oct 2007 16:00:42 GMT
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here's a picture of the minionken on a stand

Subject: Food For Thought For Builders
Posted by DrD on Thu, 18 Oct 2007 00:33:43 GMT
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It needs to be pointed out that although the PAWO and Mini Onken work well with the 5.5, these alignments were not intended for this driver, making it a sub optimal load. I had Scott Lindgren, who is a wiz at Martin J King's MathCAD tables do his own calc for me, for a BIB, which concurred with my own calcs. With the bigger cabinet, and long 138 inch line to keep the driver in check, I would bet a paycheck that as good as the PAWOs and Onkens sound, the BIB will be streets ahead in all ways, including SPL, and fantastic bass reach, we both calcd F0/34Hz, F5/30Hz, with

~92db in the presence region, and all this without room gain. Imagine what a bipole 5.5 BIB would be like...

Subject: If Someone Knows How To Post Attachments...
Posted by DrD on Thu, 18 Oct 2007 00:37:09 GMT
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they can email me at dsmason80@gmail.com and I will forward the computer FRP for a 5.5 BIB.

Subject: Re: If Someone Knows How To Post Attachments...
Posted by Eric Gonzales on Thu, 18 Oct 2007 03:01:05 GMT
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i can post it for you. i sent you my contact info

Subject: new amplifier
Posted by Eric Gonzales on Thu, 18 Oct 2007 03:03:36 GMT
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i need a little help with amps for the DCA5.5M. I'm beginning to really like Eddie Vaughn's Carina EL84 SET amplifier for 1.3w of triode cream. That should be enough for a townhouse, right ? If not, Eddie can add up to a total of 3 tubes for around 3.5w triode.

Subject: Addendum: new amplifier
Posted by Eric Gonzales on Thu, 18 Oct 2007 03:06:45 GMT
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3.5w but with less oomph since tubes will be compounded

Subject: From DrD
Posted by Eric Gonzales on Thu, 18 Oct 2007 03:39:25 GMT

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By the usual T/S pipe-horn calculations Greg Monfort came up with, it'd need a bloody big box due to that high 0.657Qt (see specs sheet 003 you sent). Footprint would be ~150in^2, plus build materials, which is a bit daft for a small driver. However, due to Vas being low, an under-sized box with a CSA of 65in^2 can be used, because although the LF drops off compared to the ~'ideal', in the LF it's still at least 10db over the driver's nominal IB response, & ~flat to about 34Hz & that's before room-gain kicks in. See the example FR I've attached for a 64in tall box with driver 27.75in down & 65in^2 terminus CSA. The low Vas also means the box air-mass should still be sufficient to help keep the the driver in check. Basically, it's not going to be too critical. Minimum CSA 65in^2, anything you can add to that up to about 145in^2 is a bonus. The 64in tall box BTW looks favourite to me, so it's tuned fractionally below Fs.

Subject: FRP
Posted by Eric Gonzales on Thu, 18 Oct 2007 03:40:53 GMT
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http://homepage.mac.com/vizion8/undersized.gif

Subject: Re: FRP
Posted by DrD on Thu, 18 Oct 2007 03:54:54 GMT
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Note that the program calcs the 5.5 ~95db SPL in half space, and this is without added room gain, which with the bigger BIBs is considerable. Note F7 is 30Hz. Note also how it can be EQ'd from the lower register right through into the treble region, at greater than 90db, more like 95db. Note also that if one subtractively EQ'd to ~90db, F3-30Hz. Interested yet?Thanks Eric for doing the thang.

Subject: Re: new amplifier
Posted by DrD on Thu, 18 Oct 2007 03:58:46 GMT
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I would bet PP EL84 would be absolutely stunning with the 5.5 in a BIB. i have heard good PP el84 with good Axiom aluminum 6.5, and also Jordans, and could easily live happily ever after with that set up. EL84 is an amazingly musical tube, and gives up NOTHING to DHT, in my

opinion.

Subject: specs
Posted by Eric Gonzales on Tue, 13 Nov 2007 22:10:06 GMT
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Here are some specs I received courtesy of DrDhttp://homepage.mac.com/vizion8/DCA5.5M-specs1.jpghttp://homepage.mac.com/vizion8/DCA5.5M-specs2.jpghttp://homepage.mac.com/vizion8/DCA5.5M-specs3.jpghttp://homepage.mac.com/vizion8/DCA5.5M-specs4.jpg

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Subject: Re: specs
Posted by akhilesh on Wed, 14 Nov 2007 20:06:41 GMT
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Thanks a lot Eric! THis will make it easier for anyone else contemplating a build. -akhilesh

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Subject: Re: Post your DCA5.5M cabs
Posted by Eric Gonzales on Tue, 08 Jul 2008 19:58:05 GMT
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here's an optimized 24" tower onken
