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Subject: HmMMM

Posted by [Adrian Mack](#) on Wed, 10 Dec 2003 09:50:33 GMT

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Re-measured my conical horn today with speakerworkshop.... and guess what, it now reckons response only goes to 1.1/1.2KHz or so :@ It did say 1.6KHz just yesterday. I dont know whats happening there but I tried a million times and it just doesn't wanna do 1.6KHz any more. Perhaps it was a resonance or noise or some other sort of crap that isn't coming up anymore, although I did smooth and filter out quite a lot of that junk... so I still am not sure whats happening there. Perhaps its time to try a new driver. Just analysing the Alpha 6 I was using again, its Fs is 120Hz, BL is 8Tm and Qts is 0.54. I think that the Qts is rather high for use in a horn.... perhaps this is limiting its HF response. Using driver mass rolloff equation  $=2*Fs/Qes$  gives a mass rolloff on the Alpha 6 of 393Hz. After searching around a lot, I saw an offering by Eighteen Sound which looks like a good candidate for my horn, model 6ND410. Its a 6" driver with a BL of 11.6Tm, and low Qts of just 0.24, and Fs is 120Hz. Driver mass rolloff equation gives mass rolloff of 888Hz! Very high compared to all other drivers I have looked at such as P.Audio ones and a couple of JBLs. Hornresp predicts that the Alpha 6 and the 6ND410 both have about the same HF response in my horn. But the Alpha 6 in reality doesn't.... perhaps, the higher BL and lower Qts of the 6ND410 will make it better for the HF response that I (apparently, grrrr at SW!) am missing with the Alpha? Below is the spec sheet for the 6ND410. Of course JBL LE5 would be nice... but very rare. Anyhow if anyone has comments on the 6ND410 etc, I would appreciate it. I would like to know weather or not its worth buying and testing out in my horn or not. I know 18-Sound does not make cheap quality stuff, however I want comments on the suitability of this driver in a horn etc, weather or not I would see an advantage over the Alpha 6... Thanks for any advice guys! Adrian