Subject: Re: Yes CP-25 a supertweeter w/ 2.5-20khz freq. resp.
Posted by Adrian Mack on Tue, 02 Mar 2004 10:55:32 GMT
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What are the T/S parameters for the 12G320? The Beyma website doesn't seem to have it. It will determine weather or not it can reach 70Hz flat. The CP25 looks OK. It's a 100x60 deg horn though, I would prefer to match the dispersion to be the same as the TD400 horn your also using, which is 90x40deg. Even then though the directivity varies with frequency so they won't be exactly matched. Actually at the 10Khz crossover point the DI between the two subsystems are definitely not matched. That vertical dispersion is really a bit large in relation to the other subsystems - more lobing error will result especially up this high. It's a shame Beyma don't publish much about vertical on and off axis response for the CP25. I couldn't find the CP650Ti comp driver response curves on the TD400 horn on the Beyma site either. In fact that compression driver model number did not even seem to be listed. In terms of distortion, if you compare to the JBL's curves they are clearly a lot lower, though thats not to say the Beyma's are bad. I've never used Beyma before so again, I can't offer opinion on how they will sound subjectively, only design advice to make it good academically. About the port length's, yes, there are formulas. Boxplot and WinISD should also give you port sizes too. I'll load up the 18G40 later and get you the port requirements if you want me to. Here is my 300L vented box tuned at 25Hz that I built for my 18" driver about one and a half years back: I'd still prefer a 1" exit compression driver on a horn with compensation to cover 1.6KHz to 16 or 18KHz rather than a supertweeter crossed at 10KHz. It's not worth it in my opinion, too much polar response error and parallax is introduced for the small gain in HF bandwidth which you don't need. Adrian