Subject: Klipsch RS-7 clone
Posted by Kim Schultz on Tue, 25 Sep 2007 07:16:44 GMT
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Hi.I want to make some high efficiency dipole surround speakers for my HT.The front and rear speakers for multi channel music are all Pi7 cornerhorns, and the center speaker is a Pi4 with added midhorn.But I would like to try a 7.1 setup with dipole speakers for movies.To keep up with the dynamic and high efficiency of the Pi´s, I think I need some horn tweeters, and that´s why I thought of a Klipsch RS-7 clone. I will use an Eminence Beta 8A for the bass/mid and need a horn with about 90x60 coverage for the highs.The RCF H100 horn looks nice and fits the bill, but what driver should I use, or should I rather go with a complete horn tweeter like the Beyma CP09 ?I would like to cross over at 2-2,5khz and have looked at the new Eminence ASD1001 driver, does anybody know how that sounds ?If anybody has any other suggestions please speak up.

Subject: Re: Klipsch RS-7 clone
Posted by Wayne Parham on Tue, 25 Sep 2007 13:53:53 GMT
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If what you're talking about is a sealed or vented cabinet for the midwoofer with a pair of flanking tweeters, then you could probably use the Beta 8 just fine. A pair of ASD1001 tweeters mounted similarly to the Klipch RS-7 could be setup to work nicely.I wouldn't configure the tweeters as a dipole though, because to do that, they would need to be wired out of phase. The idea is to reduce side radiation by cancellation. A dipole radiation pattern forms two lobes, in front and in back. If the horns in an RS-7 were configured as dipoles, you would have no treble out in front of the speaker, only out to the sides in narrow lobes directly on-axis in front of each tweeter.I'd wire the tweeters in phase, and attenuate them to match the midwoofer.

Subject: Re: Klipsch RS-7 clone
Posted by Kim Schultz on Thu, 27 Sep 2007 06:40:31 GMT
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Hi Wayne, thx for the reply.I think I will change the design a bit though.After looking at the Klipsch RS-62, I think it makes more sense to have a complete set of drivers on each side.I will use two Monacor SP-6/150PA mouted in a 14-16liter bass reflex triangle shaped cabinet, that should give me a F3 of about 75hz.For the compression drivers I think I´ll go with the new BMS 4524, it can be used down to 1900hz and is still very cheap.The horns are not yet completely decided, but something nearly square with a 90x60 pattern is fine.After thinking it over again, the dipole arrangement makes NO sense at all when using horn. I´ll just wire them as you suggested in a bipole arrangenment.

Subject: Re: Klipsch RS-7 clone
Posted by Wayne Parham on Thu, 27 Sep 2007 14:36:06 GMT
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Sounds interesting. Keep us posted as you progress!