
Subject: Latest Impressions

Posted by [FredT](#) on Mon, 05 Jun 2006 13:06:08 GMT

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When I first listened to these speakers my initial impressions were that the bass was surprisingly strong for speakers with 4.5" full range drivers and the treble was surprisingly weak. The first impression hasn't changed with time; the second impression has changed. The bass: I did a quick check of the in room response with my Radio Shack sound meter and found the bass is flat down to 40hz, rolling off to -6dB (uncorrected for sound meter errors) at 32hz. In other words the bass is essentially flat down to the fundamental frequencies of almost all musical instruments. Even the deep organ pedal notes from Jean Gillou's Mussorgski "Pictures at an Exhibition" are impressive, as are the acoustic bass notes from Brian Bromberg's "Wood" CD. This is interesting compared to some of my other speakers having 8" or even 12" drivers whose bass begins to fall off below 50hz, or to some more "conventional" single driver speakers (Fostex & Lowther), where you say it has good bass if you can hear anything below 60hz. (Bob Brines' single driver speakers are an exception with good bass into the 40's). Jim, correct me if I'm wrong, but when you combine a front facing driver with a rear facing driver wired in phase, don't you eliminate the baffle step effect that causes the bass to sound attenuated on other speakers that don't have baffle step correction built into the crossover? If I'm correct here this would account for the amazingly strong bass I hear from these speakers. The midrange is exactly what I would expect from a \$70 driver. It's comparable to the midrange I hear from the \$80 Vifa PL series drivers in my Eros MKII and the \$100 Vifa XT series drivers in my Selah Audio XT-8 line arrays. You couldn't ask for better. All the people whose listening experience is limited to speakers with \$25 to \$35 drivers (almost all under-\$1K mainstream speakers) need to hear this to appreciate how much better midrange sounds from higher quality drivers. Since I posted my first impressions about the attenuated treble I made two changes: 1) I toed the speakers inward so they're almost facing the listener, and 2) I rewired and recabled them with very bright sounding Apex Jr silver-plated teflon-insulated stranded copper wire with teflon insulation. Now I'll digress a moment to explain what I'm hearing. Vandersteen speakers are often described as "laid back" and are disliked by some reviewers. Jim Vandersteen's response is that his speakers test flat to 20khz, and that the listener perceives them as laid back because of two characteristics: 1) The tweeter isn't tipped up by 2 to 6dB as on some other speakers to create a "WOW" factor which will eventually be perceived as harsh artificial brightness, and 2) the sound of his phase-aligned tweeter isn't hitting the listener's ears a bit ahead of the woofer's sound, as is the case with non time aligned speakers having high order crossovers. Jim Griffin said "My on-axis measured data shows performance within a 5 dB (that is +2.5/-2.5 dB) window between 1000 Hz and above 20,000 Hz. That is exceptional for an inexpensive full range driver. Off axis the treble beams a bit as you would expect. Of course you don't have quite the sparkle that a quality tweeter would convey". This is consistent with my impressions, especially when you consider the perfect time alignment of single drivers. Interestingly, after listening to these speakers for a while I switched back to my Zaph Audio design two ways using high quality Seas metal dome drivers, and they sounded waaaaaay too bright at first. So my advice for anybody considering building these speakers is this: If you like a really bright in-your-face sound these aren't for you. But if you want a speaker that's flat across the full musical spectrum, having deep rich well-controlled bass, and are easy to listen to, you will like these speakers a lot. The soundstage isn't quite as precise as some mini monitor speakers I've heard, but with recordings of large scale pieces, including live rock concerts, it's more realistic sounding. I'm not implying that the soundstage is deficient - Sweet little miss Norah is still there in

the room with me, whispering from dead center between the speakers, when she asks me to come away with her. Of course, being a happily married man, I decline the invitation:)The only downside I have found with these speakers is in the maximum absolute volume they will play at without sounding congested. They will play almost as loud as my Zaph Audio two ways with 7" Seas woofers and 1" tweeters, but not as loud as my Three Pi Theaters or my Selah Audio line arrays. With most music this is a non-issue, but if you want a pair of party speakers that will play all day at 100+ dB without strain get the 3 Pi's instead. Also, if you frequently listen to large scale orchestral recordings, where the dynamic range may exceed 40 dB, these will not be able to play the soft passages loud enough without congesting during that ffff crescendo. Another consideration is that the drivers are 86dB sensitivity and are wired in parallel to create a four ohm load, so they are not appropriate for flea power SET tube amps. I have been driving them with a pair of Monarchy class A sand amps, and even one of these amps rated at 40 watts into four ohms is more than adequate to drive them. I suspect any low priced solid state integrated, like the 50 watt/ch NAD 320BEE would be a good match. The bottom line is if you listen to these speakers within the parameters I have described as appropriate for their sensitivity, impedance, and maximum loudness level you will find it hard to go back to a traditional two-way. If you already have really good speakers in a first system and are considering a pair of DIY speakers for a smaller second system they would be perfect.

Bipolar MLTL Full Range Speakers
