Subject: Concern frequency response 16Khz?
Posted by G4ME on Mon, 16 Jun 2003 00:18:09 GMT
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Okay compleat NOOBIE here, i have been looking far and wide for a great set of high eficency speakers that will knock my socks off. After looking over Pi Speakers and thinking about what i might end up with, one thing caught my eye, the frequency resonse only goes up to 16khz. I am just curious at how you guys get the full spectrum, or if you don't how do they still sound with the high highs. I am just looking for a pair off speakers that have great low end, but can also hit the high notes, i am going to mostly use these in a relatively small room, IE dorm room (don't laugh), but i listen to almost anything from movies in a HT set up to Nine inch Nails to Zeppelin.Thanks for any help you can provide :P

Subject: Compression horn tweeters - Strengths and weaknesses
Posted by Wayne Parham on Mon, 16 Jun 2003 01:05:44 GMT
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You're right that compression drivers usually don't have extension in the top octave above 16kHz. That's their one drawback. But they do offer improved dynamic range and that's their strength.The highest frequencies in concerts are provided by 1" compression drivers just like

solutions that offer more top-end reach at the expense of reduced sensitivity and total output. I suppose it is really a matter of goal-setting, and implementing a solution that does what you need it to do.

Subject: I think you will like them
Posted by ToFo on Mon, 16 Jun 2003 01:37:13 GMT
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I see I like some of the same tunes you do, and dynamic wide range music is where the Pi's are the most fun. Thats what they do best.If pianos covered 10 octaves, the range from 16 to 20Khz would be the last 3 white keys. (not a lot)If being close to a TV set still bothers you, thats 15Khz. the hetrodyne squeal from behind the picture tube actually hurt my ears when I was young. It quit bothering me after 3 or 4 concerts. If a TV squealing doesn't bother you, I would say your acuity there is getting low and I wouldn't worry about the last half of the top octave too much. You aint gettin' it tweeters or not. There is something to be said for that air up there. If I play real loud I can still hear it, but it isn't pretty from most mass production recordings and players, so I can live without it. Reviews and advertisements can make us feel like we all have the ears of a bat. If you are young you might, but if you have been to a few loud clubs or concerts, slammin' car systems,

drove the highway with windows down often or worked any place louder than Kinkos, you are probably already losing a bit off the top. Americans adults who hear decent at 20KHz are seriously in the minority.Oh! I have owned and sold a lot of nice speakers. I put hopped up Acoustats in the closet to make room for the Pi's.Thomas

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Subject: Re: I think you will like them
Posted by G4ME on Mon, 16 Jun 2003 02:07:09 GMT
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> If I play real loud I can still hear it, but it isn't pretty from most mass production recordings and playerswhat do you mean by this? the sound on the recording isn't great to begin with? I can still hear the TV whine, but i have been to my fare share of concerts 3 Tool, Red Hot Chili Peppers, Les Clay Pool, Incubus. I am just worried that i will be missing the high notes of Gilmore and Hendrix. thanks for your quick replies I guess i will still have to think about it, and oh yeah that whole money issuse :)

Subject: drinkin beer and mouthin' off (longer than i planned)
Posted by ToFo on Mon, 16 Jun 2003 05:05:11 GMT
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Better tech and filtering have improved player sound, but I am saying that to my ears CD performance above 16KHz is such that sagging top octave loudspeaker response is the lesser issue in my mind. Yours is just as valid a concern, so six of one, 1/2 dozen of the other. Im full of opinion, but I keep it real.I can still hear the whine too, but it used to hurt 6 ft away. now I have to be within a foot for it to bug me. After 100 or so shows I don't really hear it unless i'm moving wires behind the TV. My hearing tests show the difference, but what I experienced with music is way worth it. Some have tougher ears so...I think the slightly rolled off top end sounds better with pop, rock & alternative CD's coming out of the big labels. Even some of the remastered classic rock stuff is bright. For an example, play (or borrow then play) Sarah Mclachlin - fumbling towards ecstacy and crank the song possetion, if you make it through the first line of the song without wincing from the "s" sounds, you are a tougher man than me(or your tweeters are blown). Now if you were a golden eared classical fanatic I would be singin a different tune. Worst case, you might have slightly skewed timbre on violins with compression drivers. As for the high guitar notes, I am not an expert, but a guitar has it's highest fundamental at 880 Hz. Playing artificial harmonics might get you to a 3520Hz fundamental, but the higher you make the aftificial harmonic, the weaker the fundamental is, and so less overtones for fewer octaves. You could use studio tricks to get several octaves of overtones out of a guitar, but limitations of the best 12" guitar amplifier speakers are far worse than the limitations of the average 1" exit compression tweeter. Between the differences in gear, studio monitors, engineers and mastering houses, compression drivers

are probably small change.

Subject: I wouldn't worry.
Posted by mollecon on Mon, 16 Jun 2003 12:39:48 GMT
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In reality, there isn't much happening in that last 1/3 octave anyway, music wise. Our loss of hearing in the top octave(s) is something that starts already around the age of 20, & it's a completely natural part of aging. When my father got in his sixties, he could no longer hear the grasshoppers high pitched 'fiddling' in the late Summer evenings. When it comes to the noises of a modern society, our ears are actually more prone to be damaged in the lower trebble area, ~3-4kHz. Here our ears also have a natural amplification of sounds due to the length from the outer ear to the ear drum.So I say, give it a try. Just my two cents.