
Subject: SPL meter confusion (long)

Posted by [newsjeff](#) on Fri, 19 Dec 2003 03:02:25 GMT

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I was playing around with my Radio Shack SPL meter today. I was measuring the sound in my home theater, using only the front speakers and a sub. The meter was set at 80db, C weighting, slow response. I used the Stereophile Test CD #3, tracks 17, 18 and 19. These tracks use 1/3 octave warble tones. Below are the results, with and without meter corrections done by Michael Sims of Prairie State Audio Construction Society. My numbers may not be that exact. This was actually a test before I examine my main listening room and main stereo. By the way, my home theater is 17X12 with 9 foot ceilings and hardwood floors. There are windows against my back wall (behind the TV and stereo) covered with curtains. The only furniture I have in the room is a couch. Needless to say, this is a very live room.

	Uncorrected	Corrected
76	83.5	25Hz
83	88	31.5Hz
81	84	40Hz
76	78.5	50Hz
73	74.5	63Hz
81	83	80Hz
86	88	100Hz
87	89	125Hz
85	85.5	160Hz
82	82	200Hz
81.5	82.5	250Hz
84	84	315Hz
83.5	81	400Hz
81	81.5	500Hz
80.5	81	630Hz
81	81.5	800Hz
81.5	81.5	1000Hz
79	79.5	1250Hz
82	82	1600Hz
80	80	2000Hz
82.5	87	2500Hz
6.3Khz	10Khz	-
-12.5Khz	-	-
-16Khz	-	-
-20Khz	-	-

If you graph the numbers, there is a peak at 25Hz, a dip at 50 Hz, and another peak at 6.3Khz. A dip starts at 8Khz and continues down and off the scale from 10Khz to 20Khz. Can anyone tells me what these numbers mean? Is it normal for speakers to fall off at 8Khz on? The only room treatments I am considering are Risch DIY tube traps and HF panels. Will these help? Any suggestions would be greatly appreciated. Thanks.
