

Intermodulation distortions

For this part I used two types of measurement.

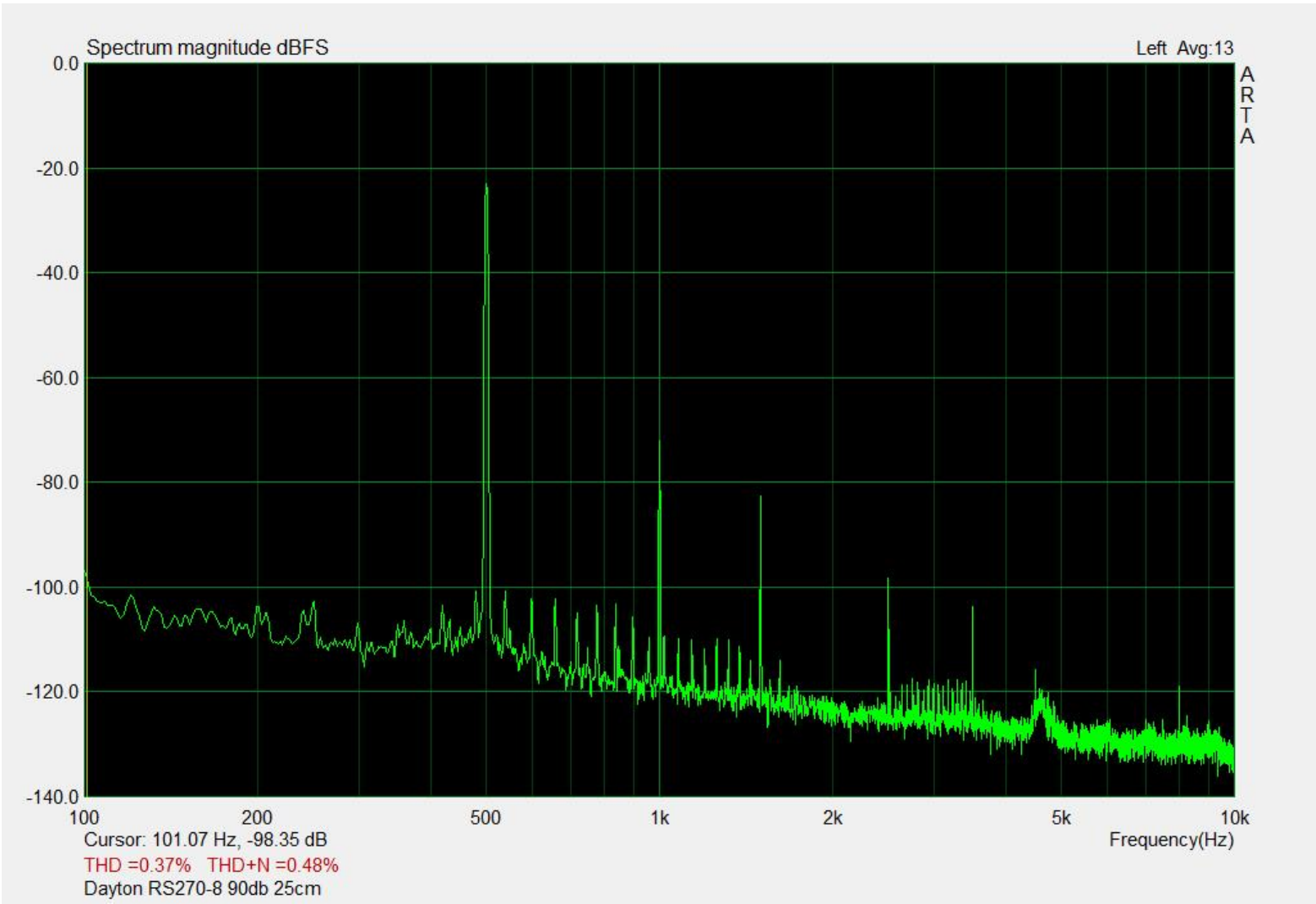
The first concerns two frequencies very close to each other. For the medium test I used 1000 and 1100 Hz but here these frequencies are too close to the end of the bandwidth and it would be possible to come across specific cases. So I decided to go on less problematic frequencies and more in the targeted bandwidth: it will be 500 + 550Hz. The measurement is made at 90db.

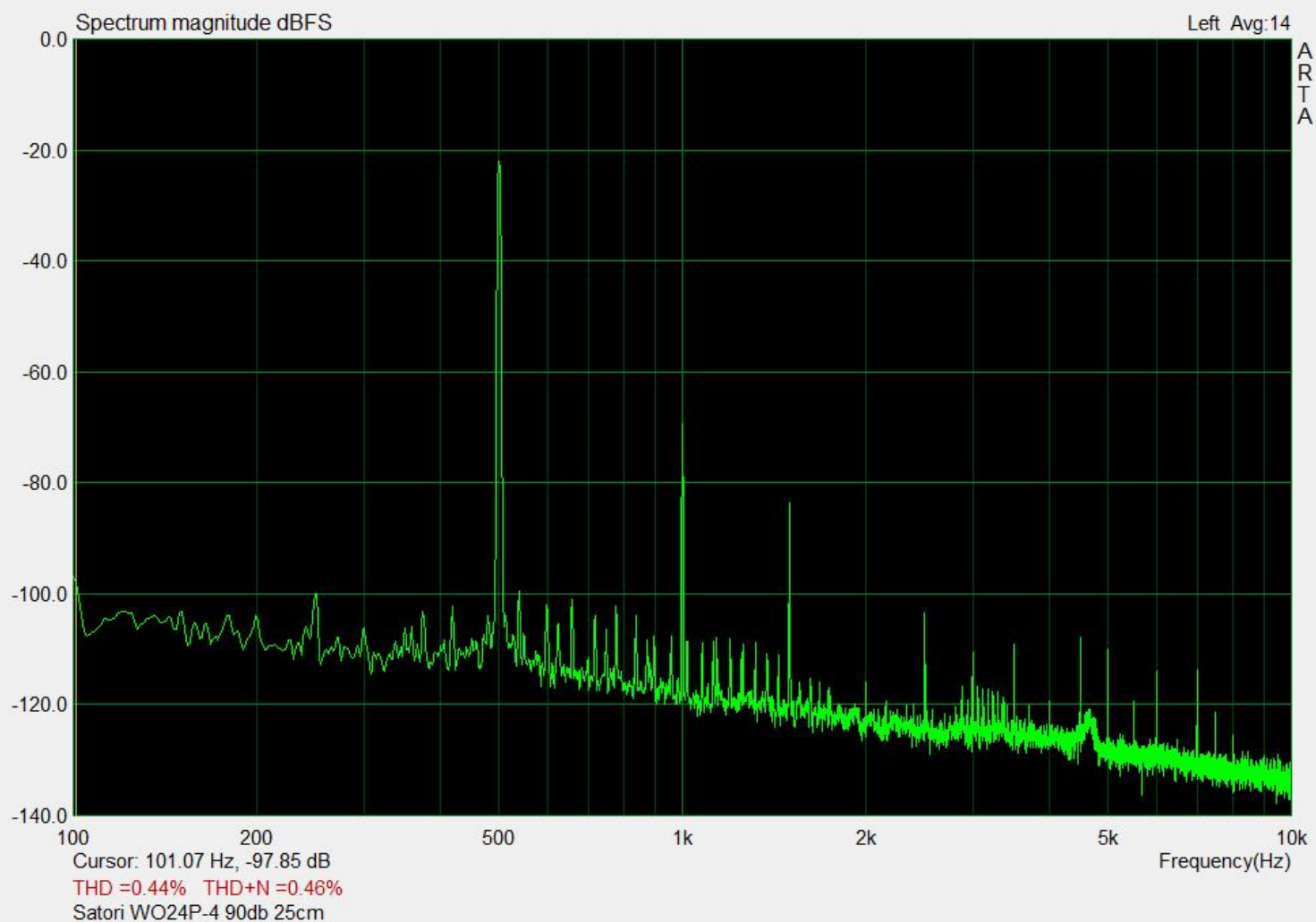
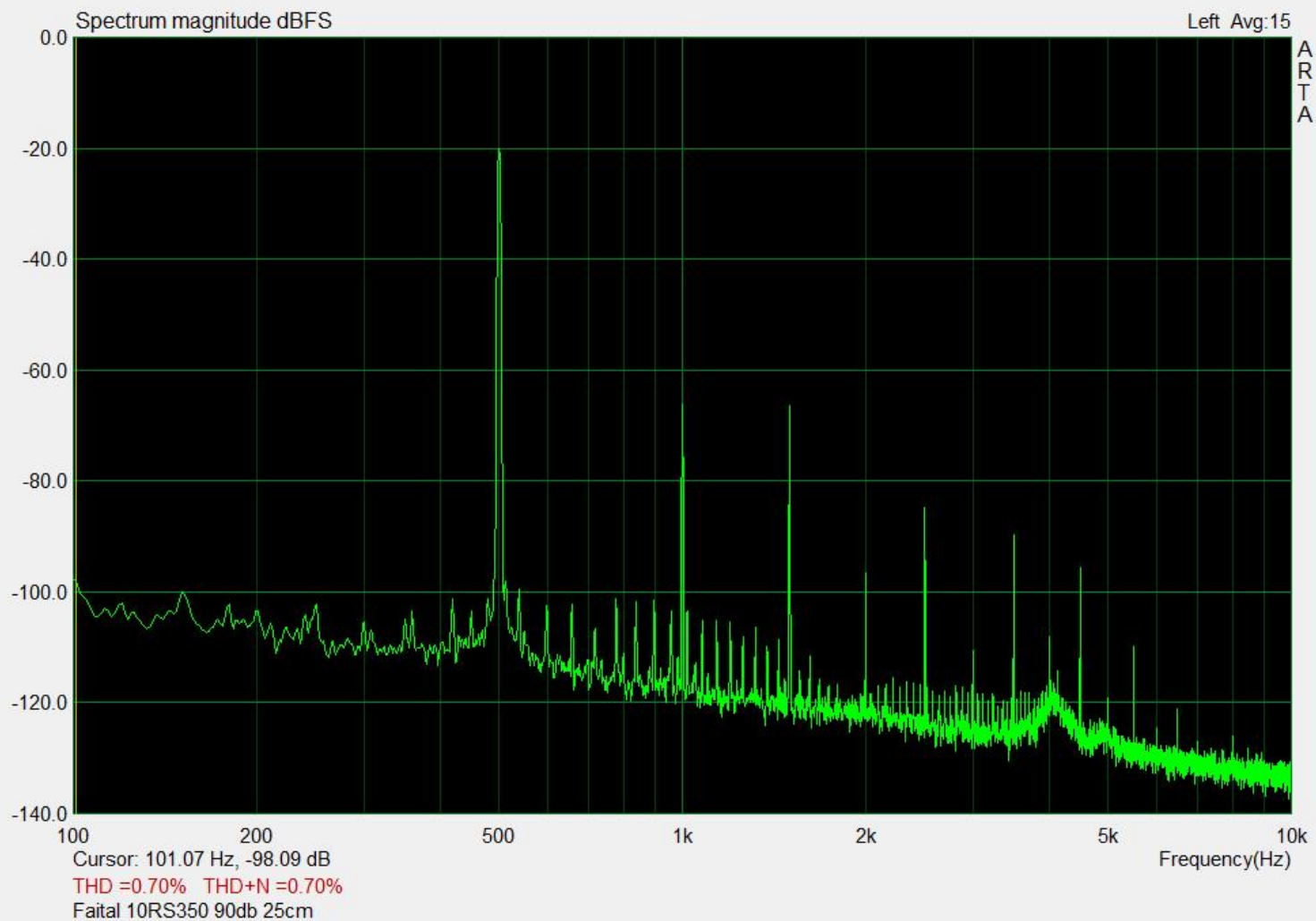
For the second measurement, I stayed on 500Hz but applying another frequency, this time in the low frequencies, of 30Hz, so as to give movement to the membrane. This time the measurement will be performed at 90db and 100db.

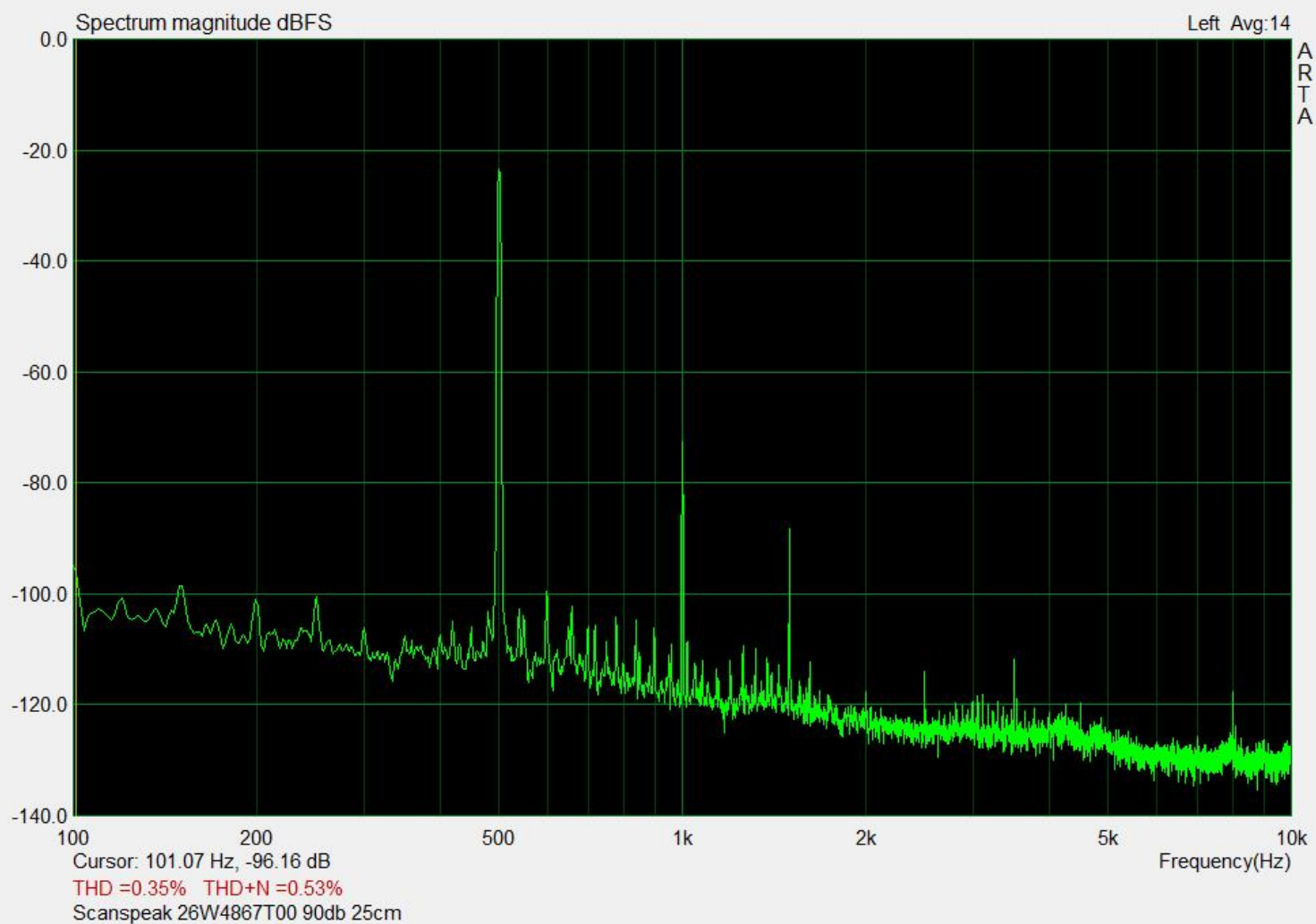
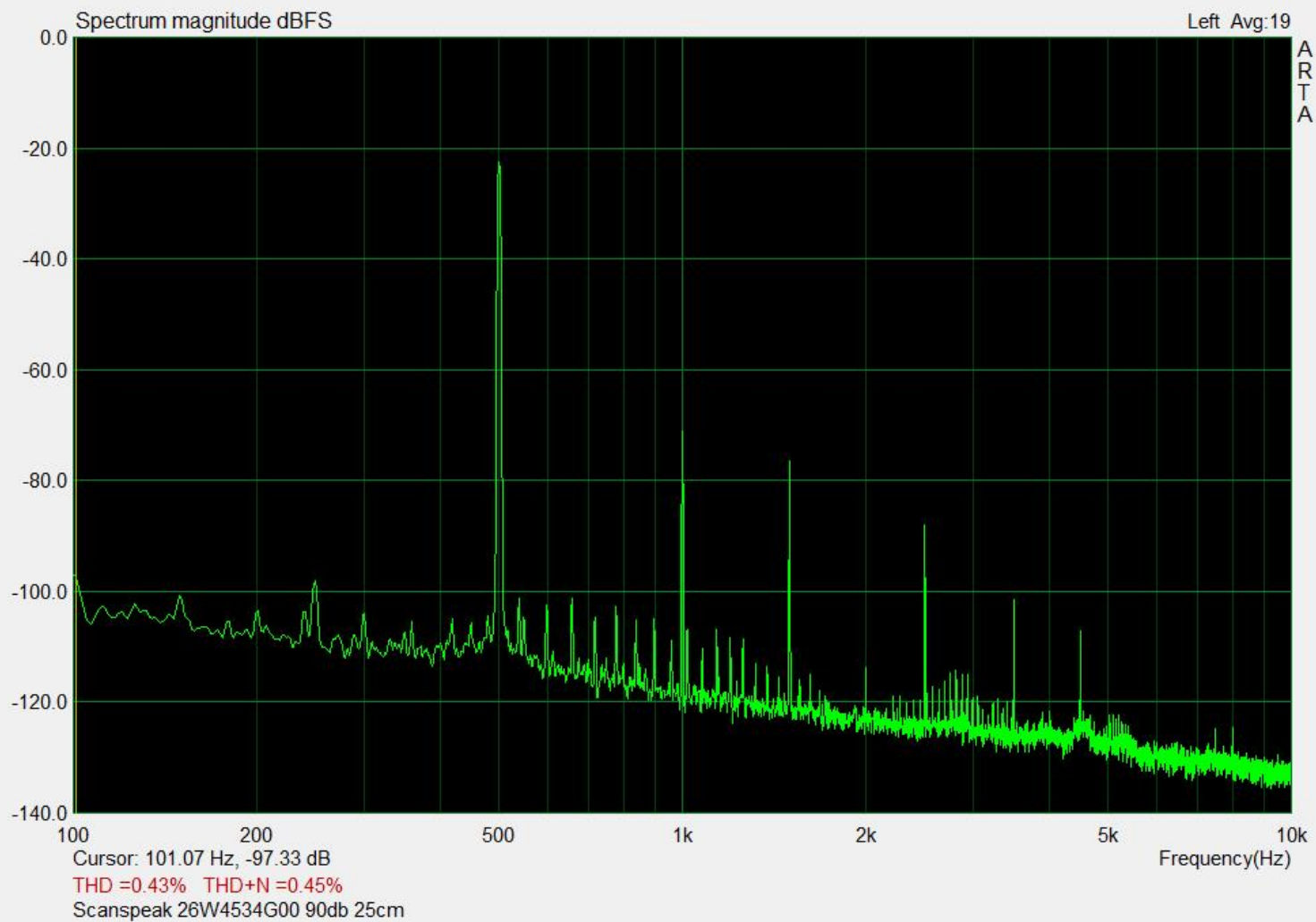
For those who would like something more visual I also made a simple FFT with the sine at 500Hz so that you can directly compare what is added by the second frequency and the intermodulation.

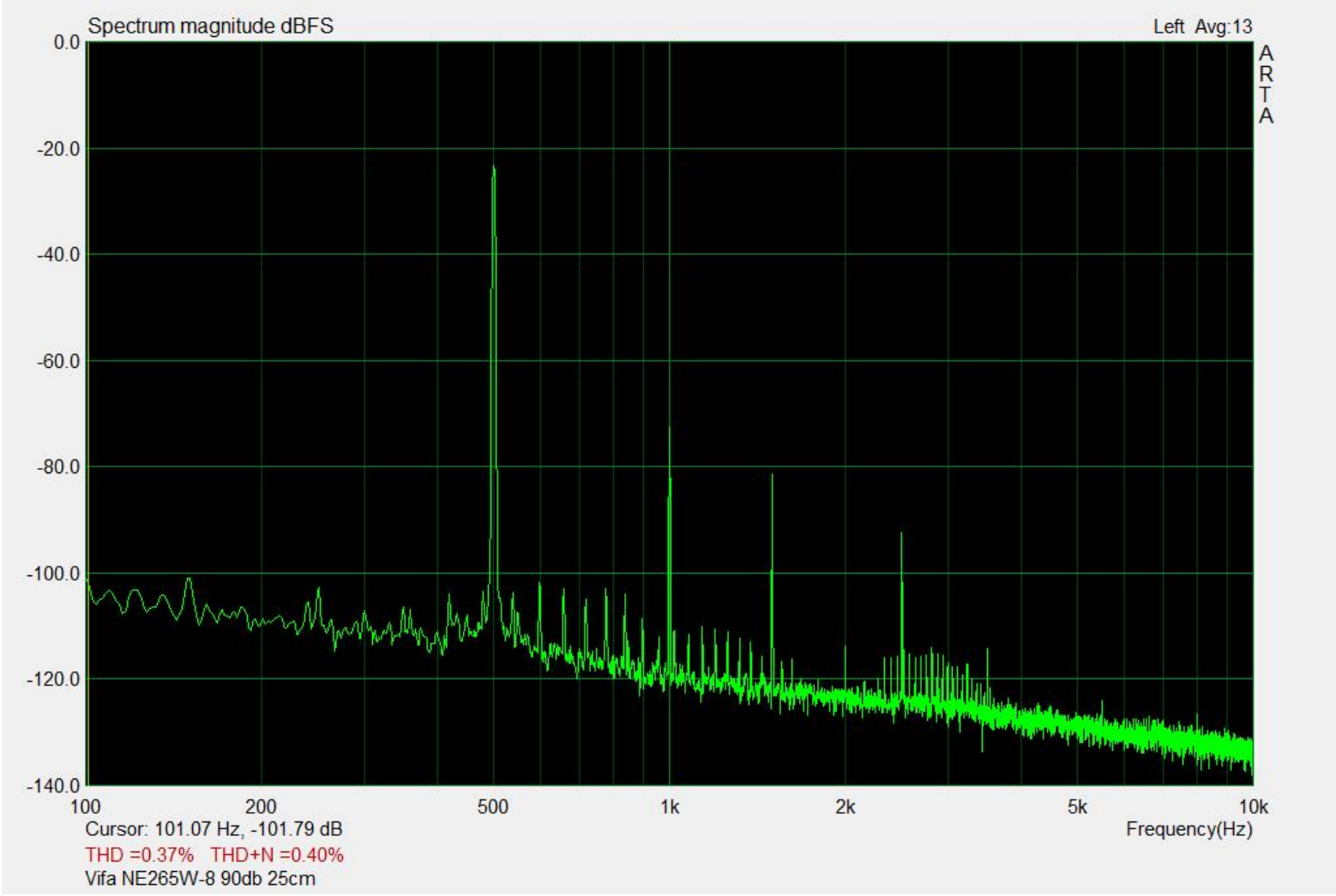
I invite you to open the images in different windows and quickly switch from one to the other, you will see: the differences are obvious!

Sinus at 500Hz

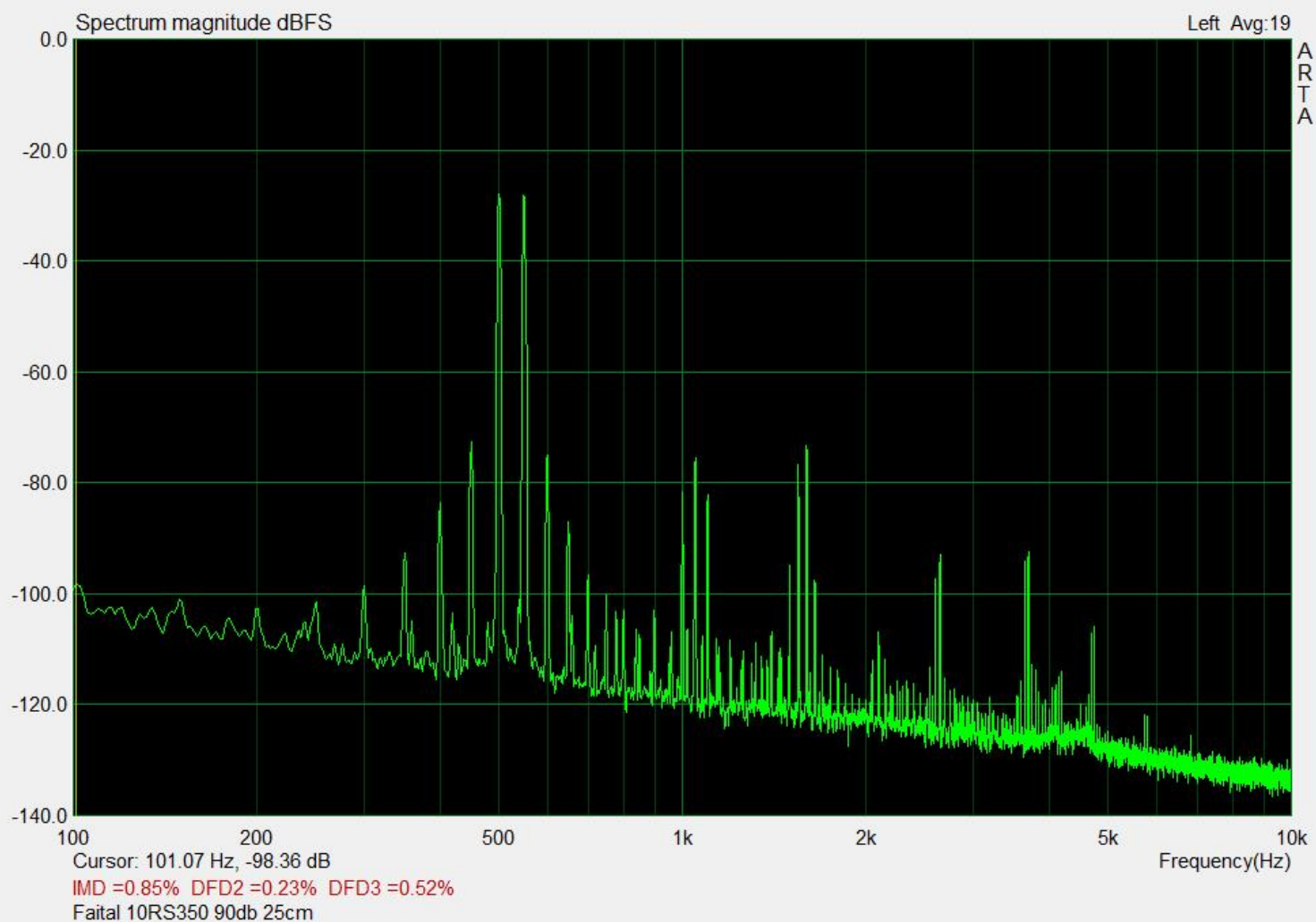
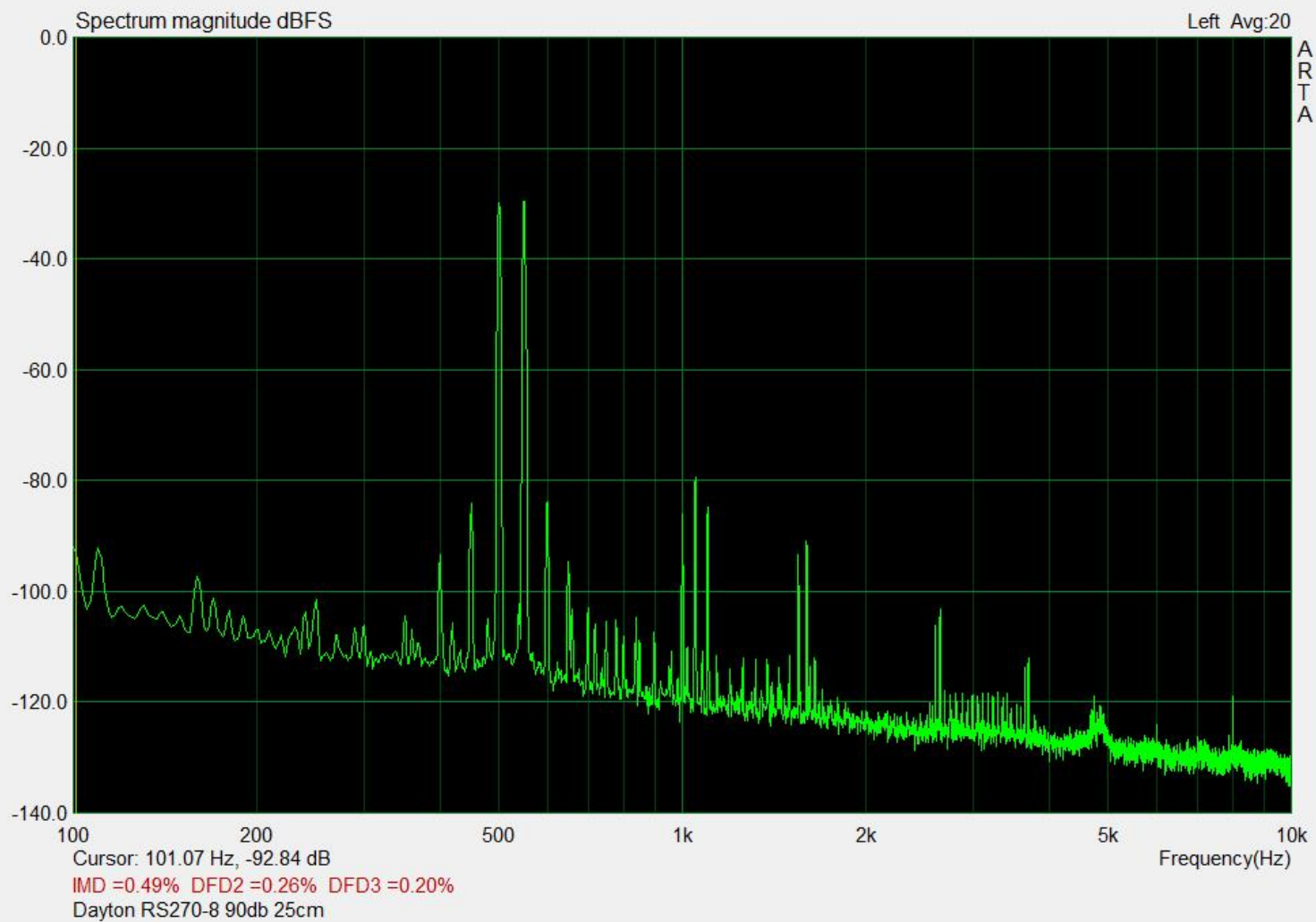


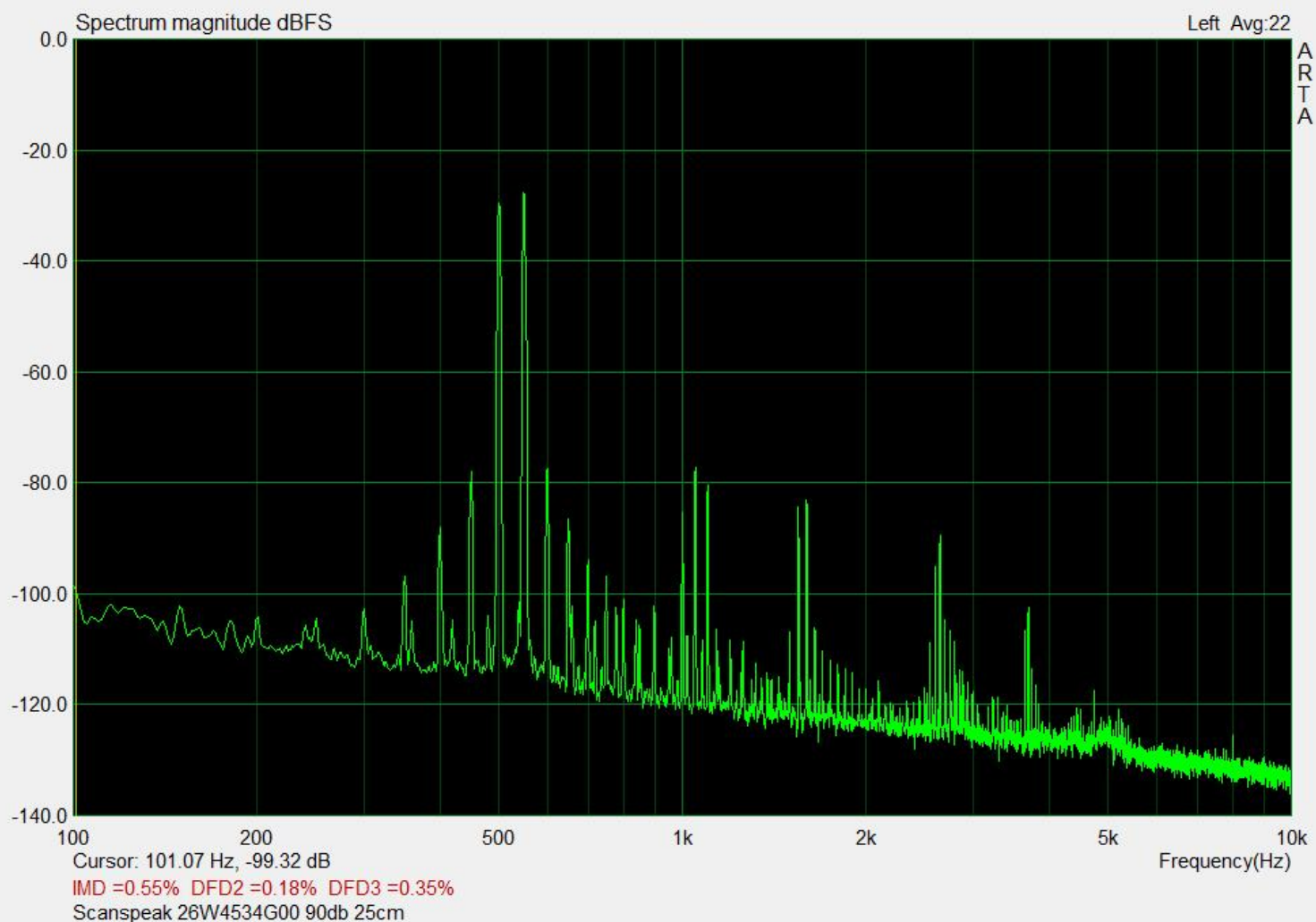
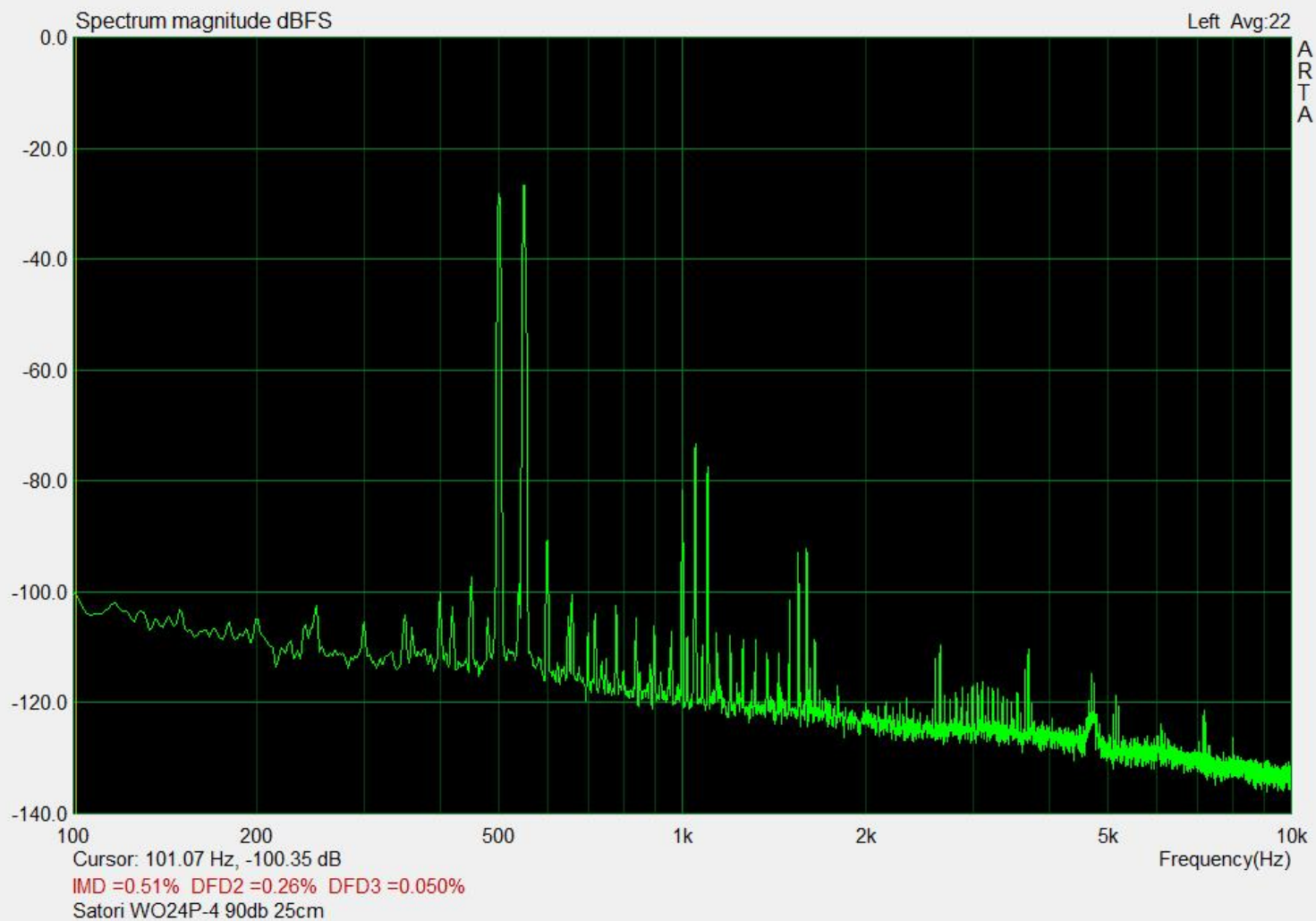


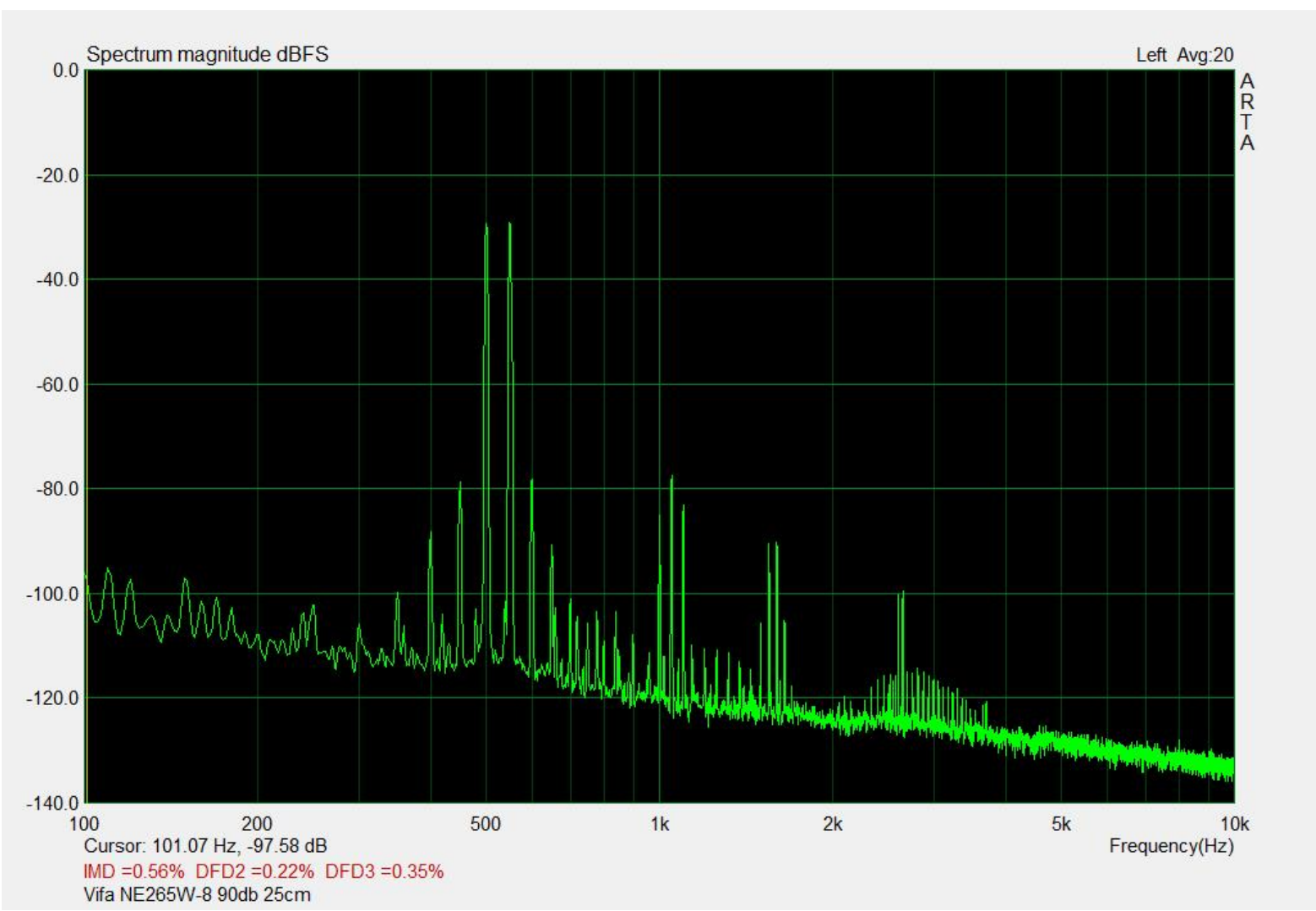
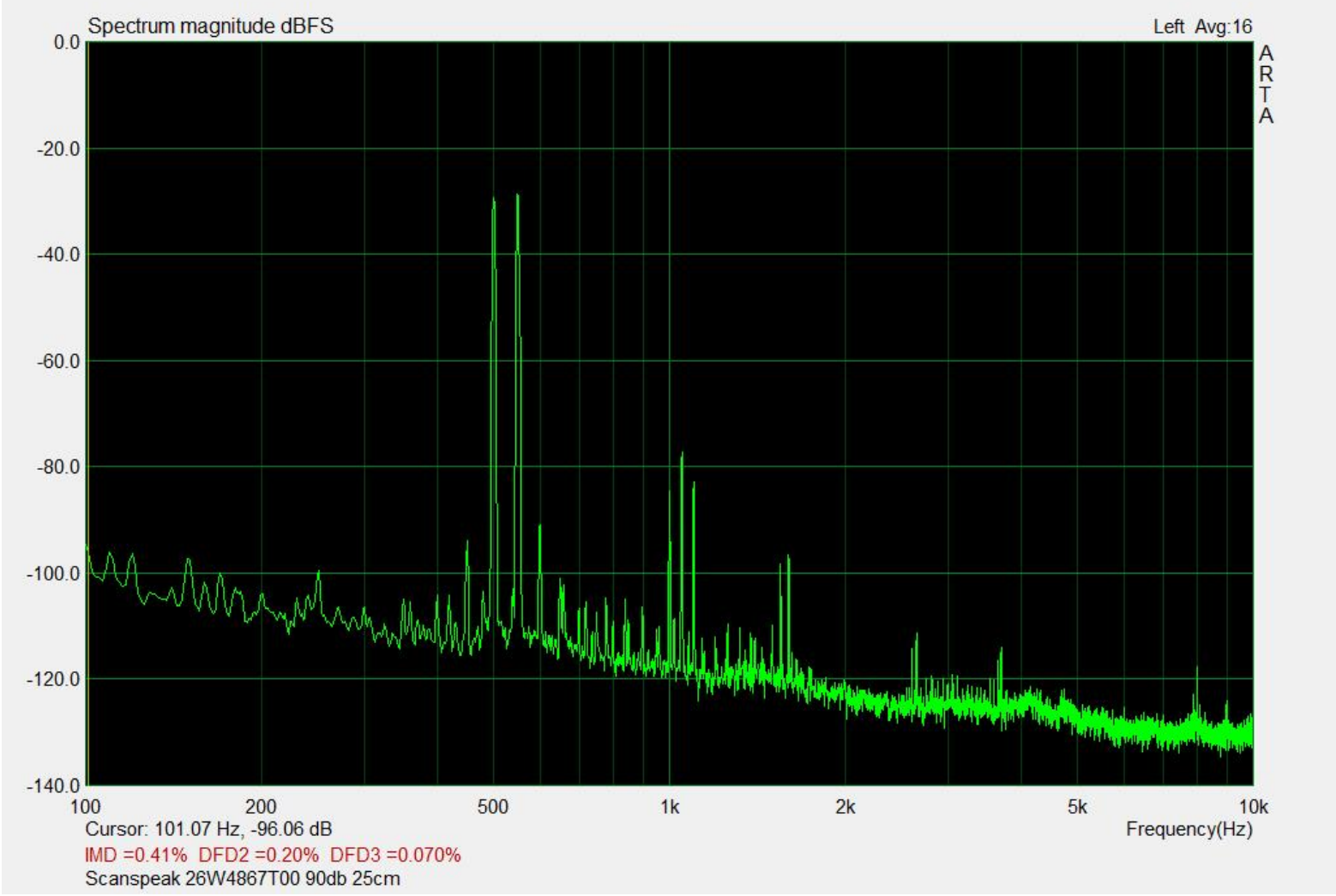




Double sine 500 + 550Hz





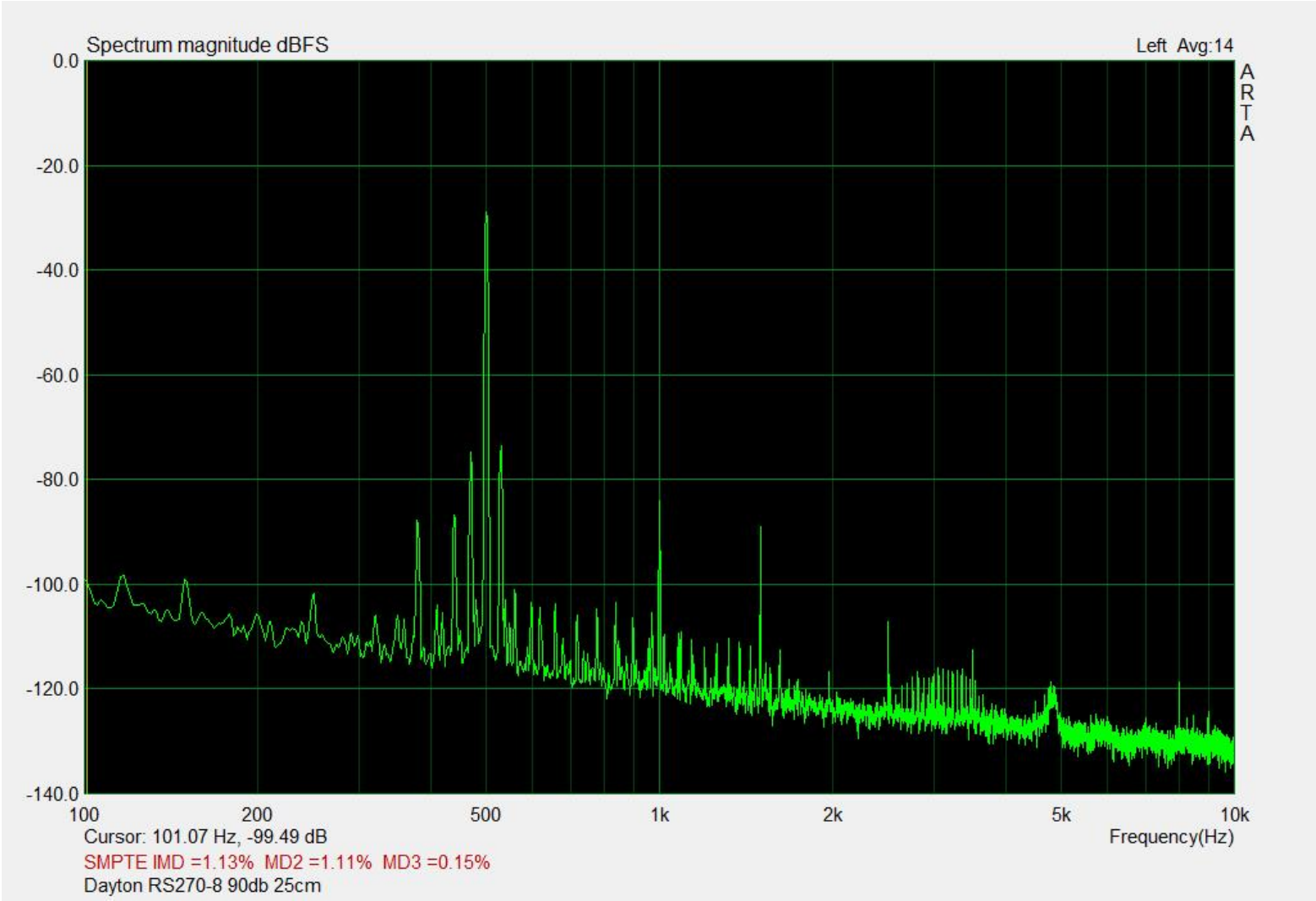


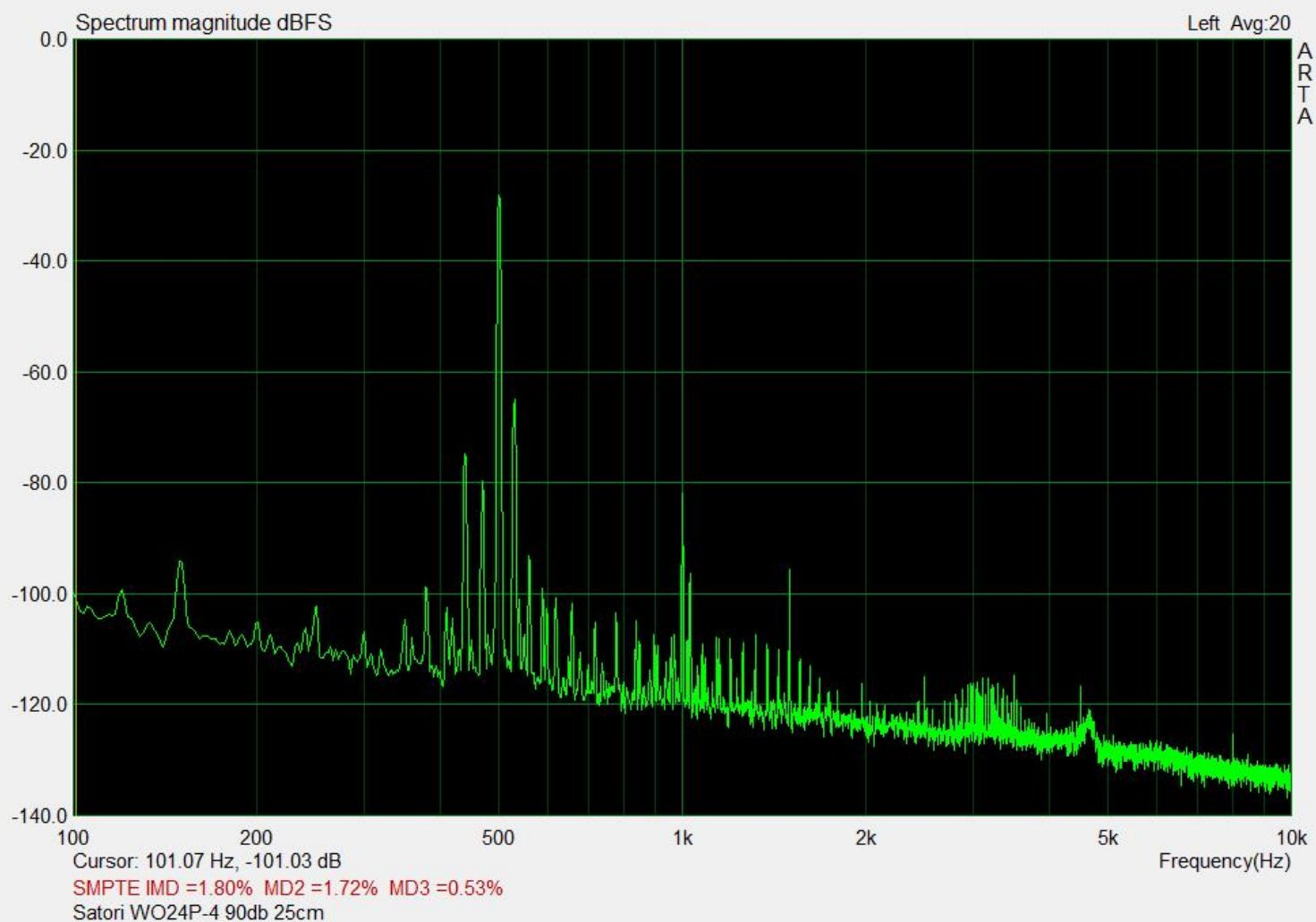
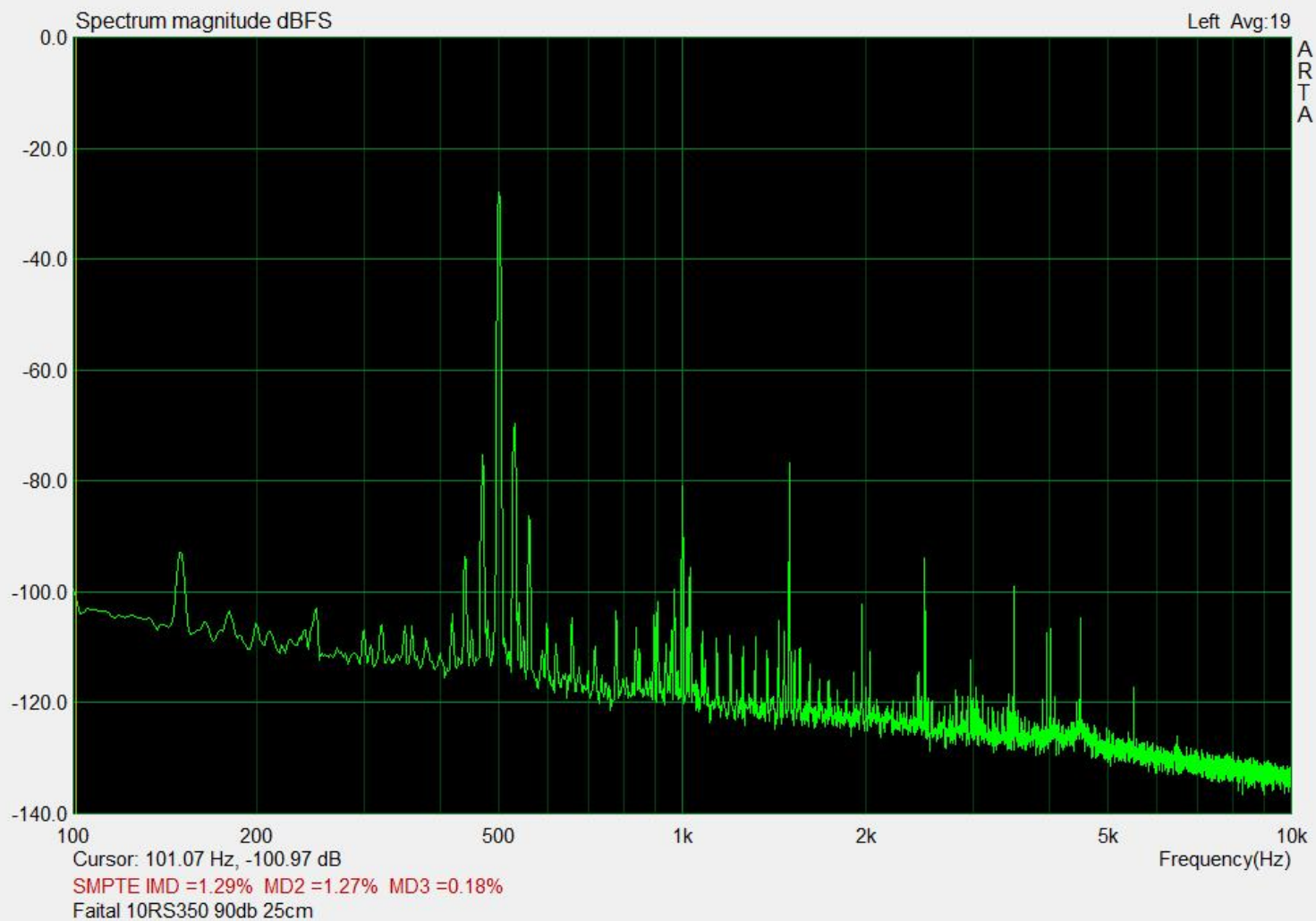
IMD 500 + 550Hz classification

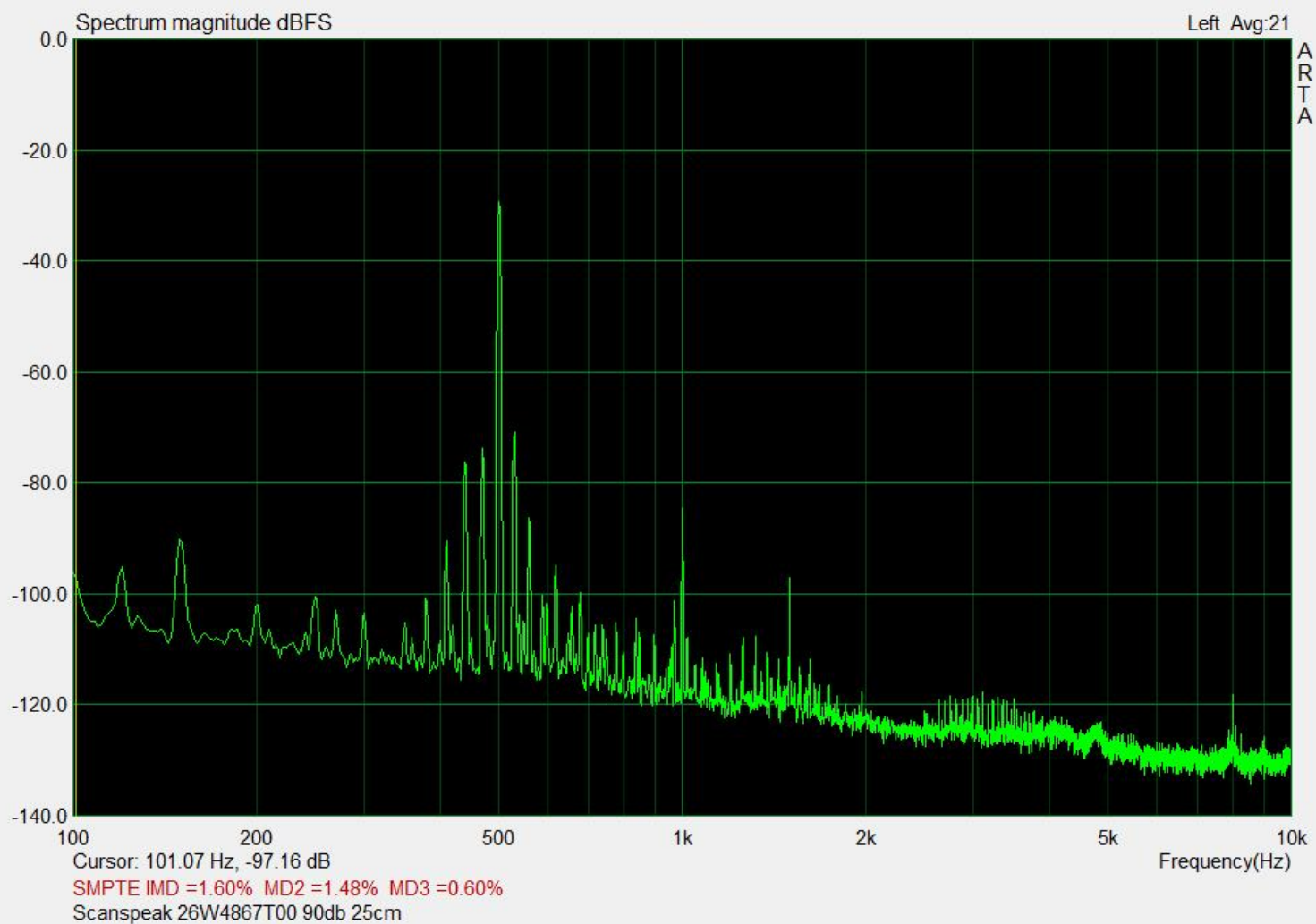
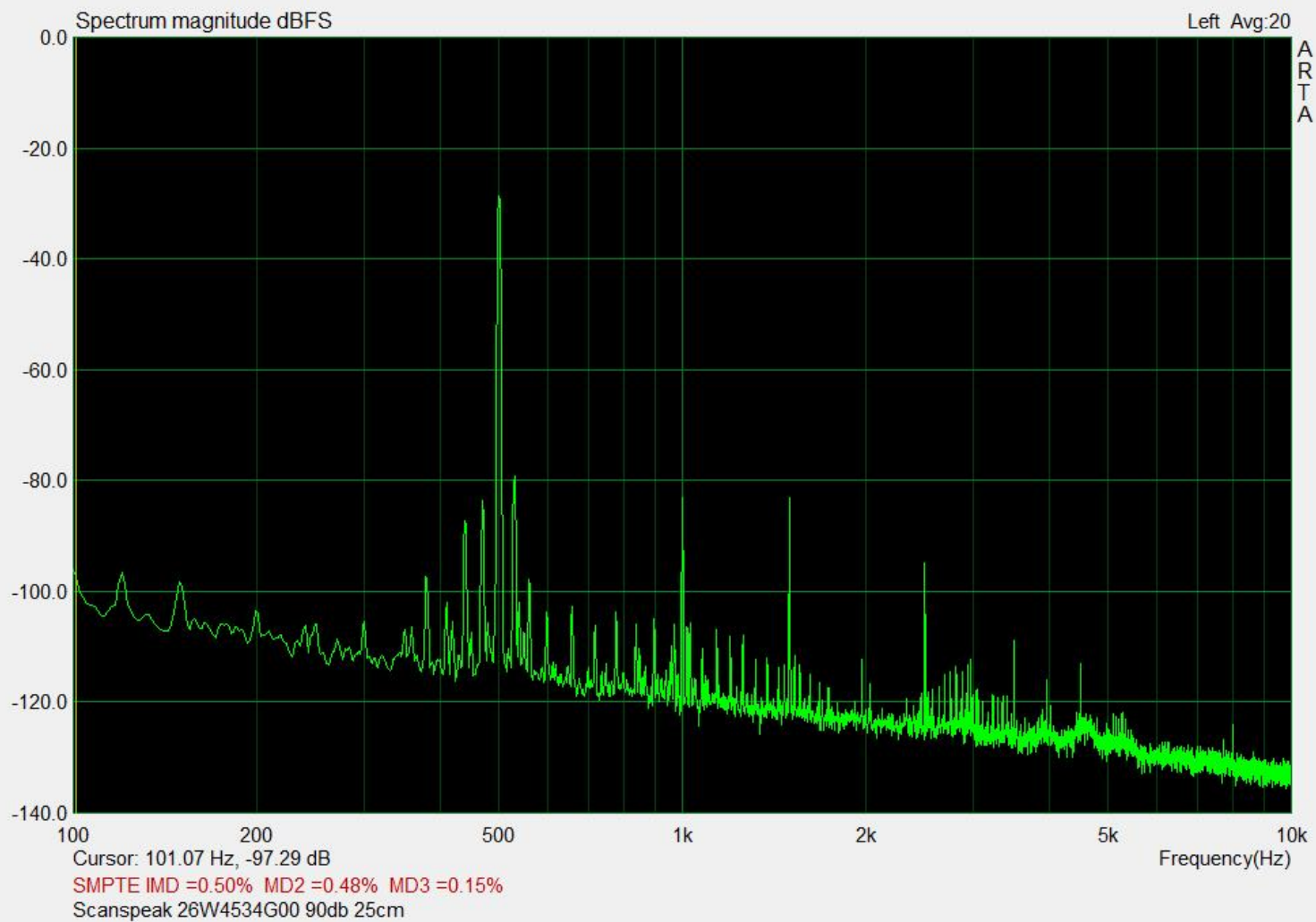
1. Scanspeak 26W4867T00
2. Dayton RS270-8, SB Acoustics WO24P-4
3. Scanspeak 26W4534G00, Vifa NE265W-8
4. Faital 10RS350

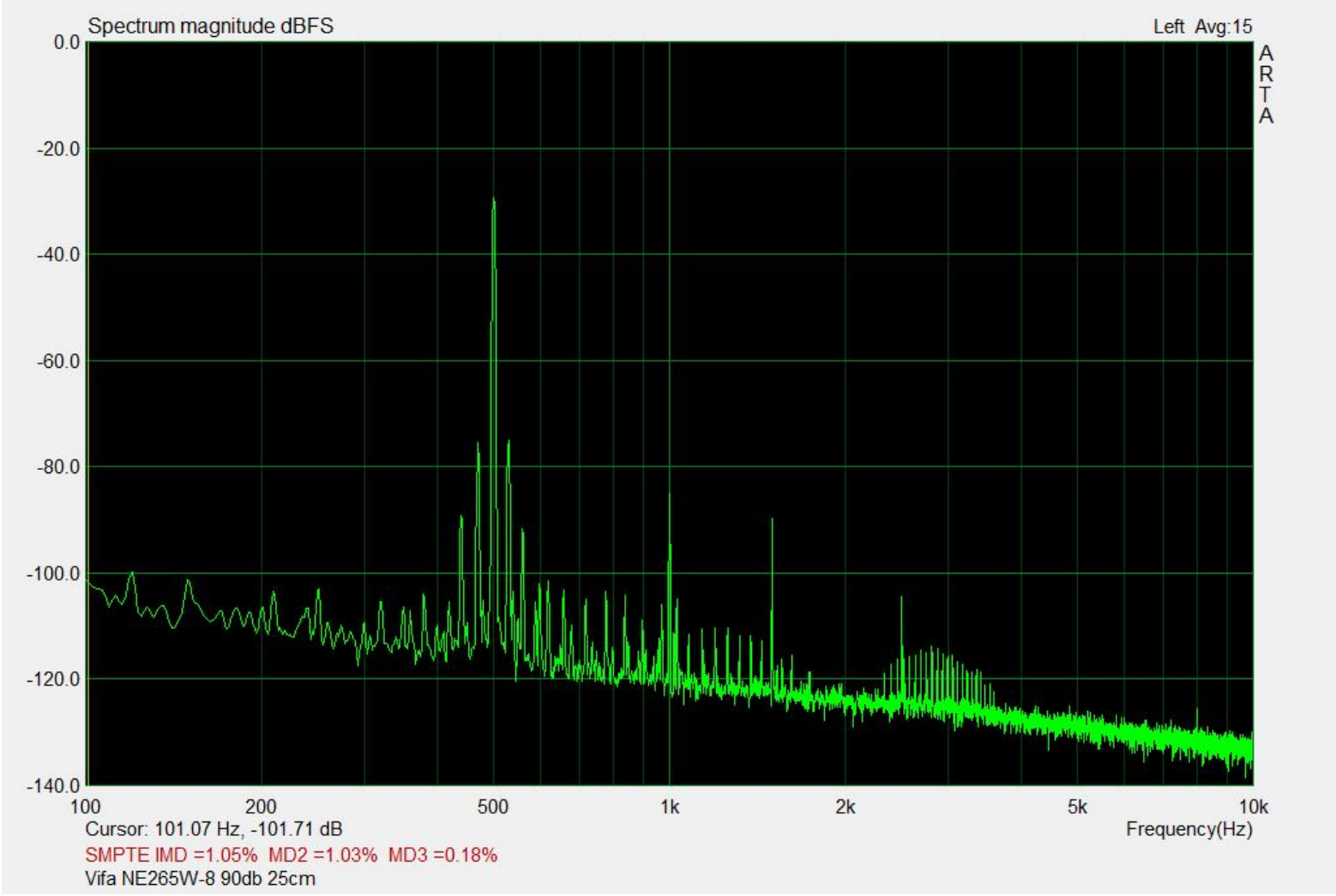
Double sine 30Hz + 500 Hz

At 90db

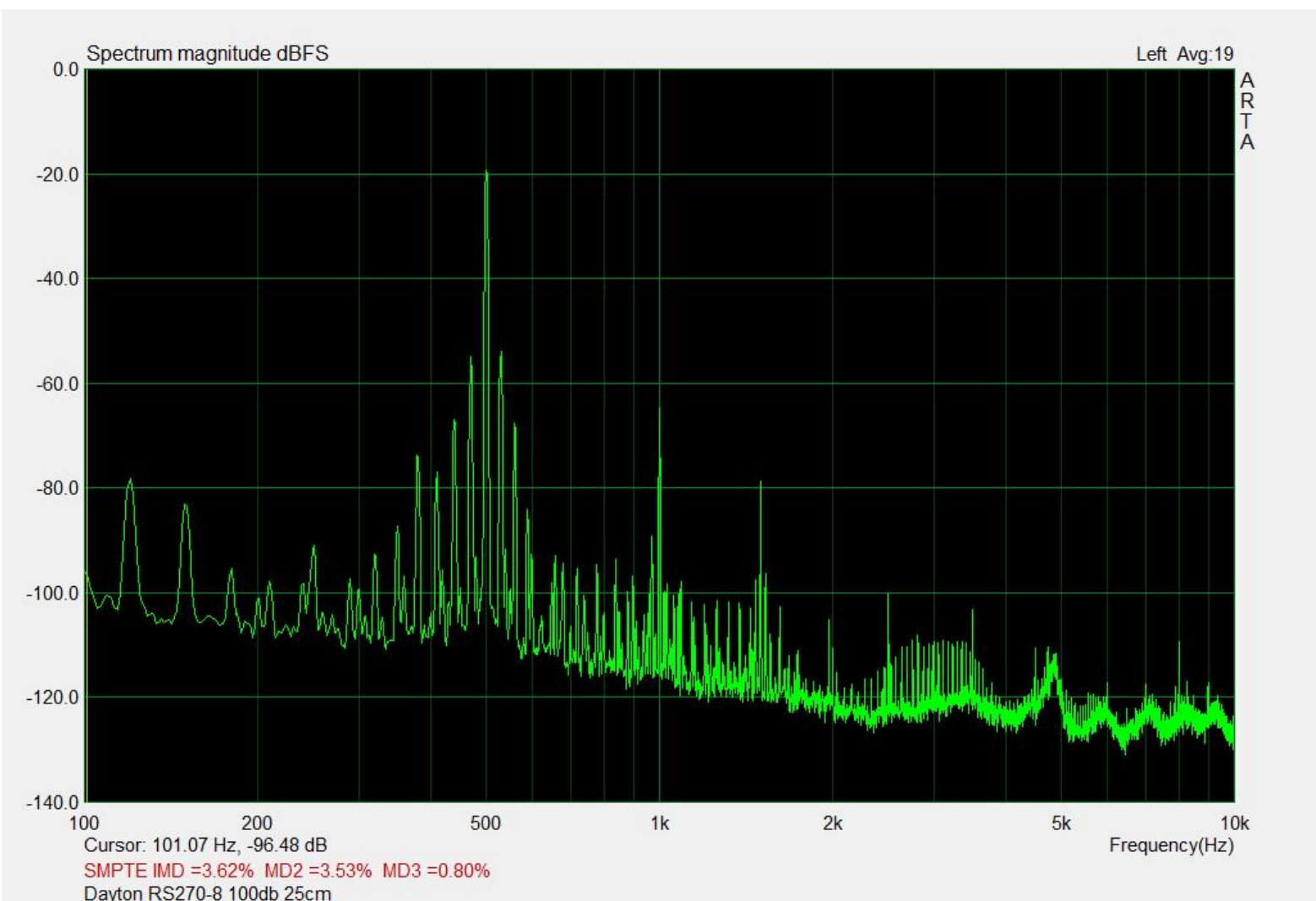


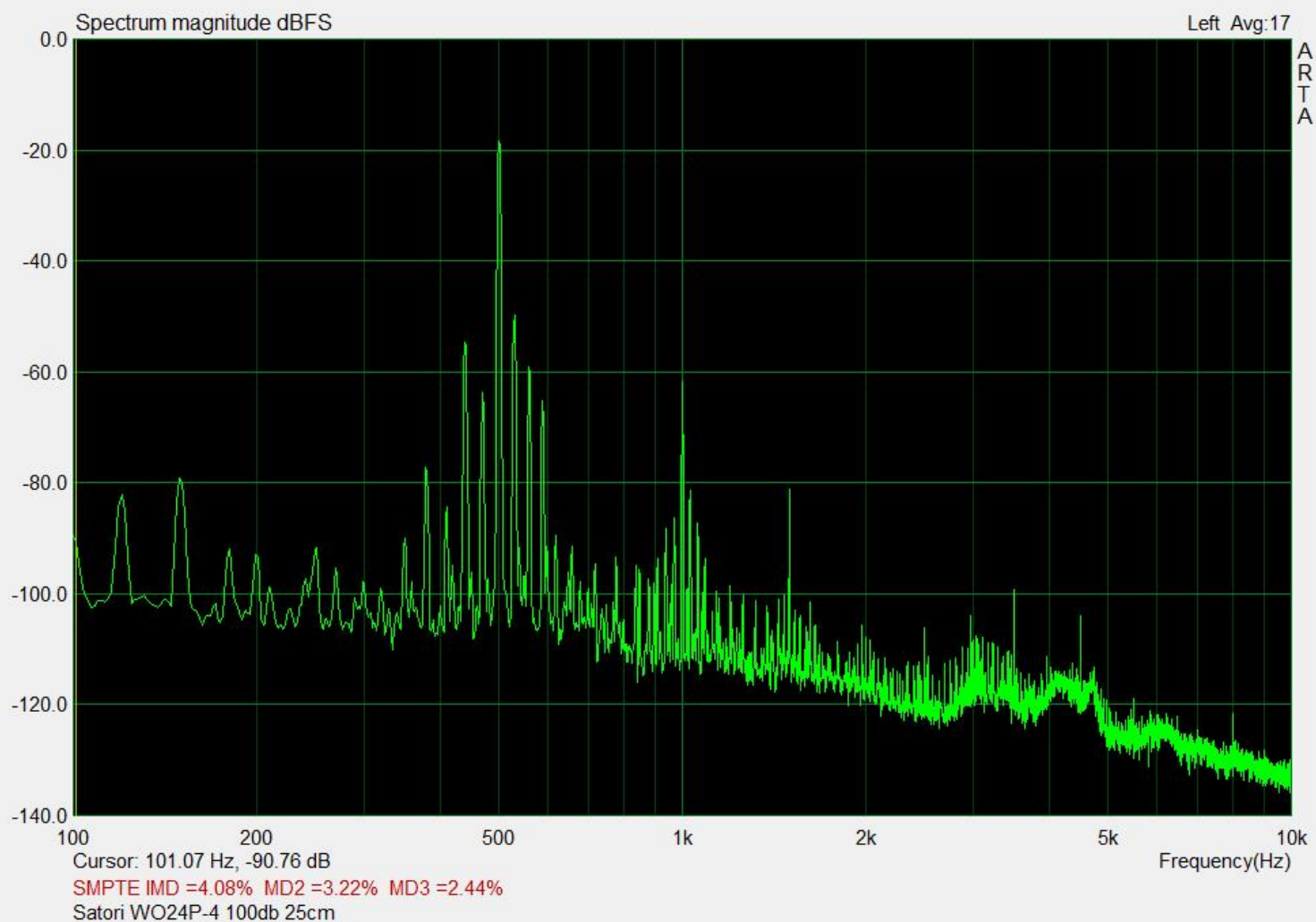
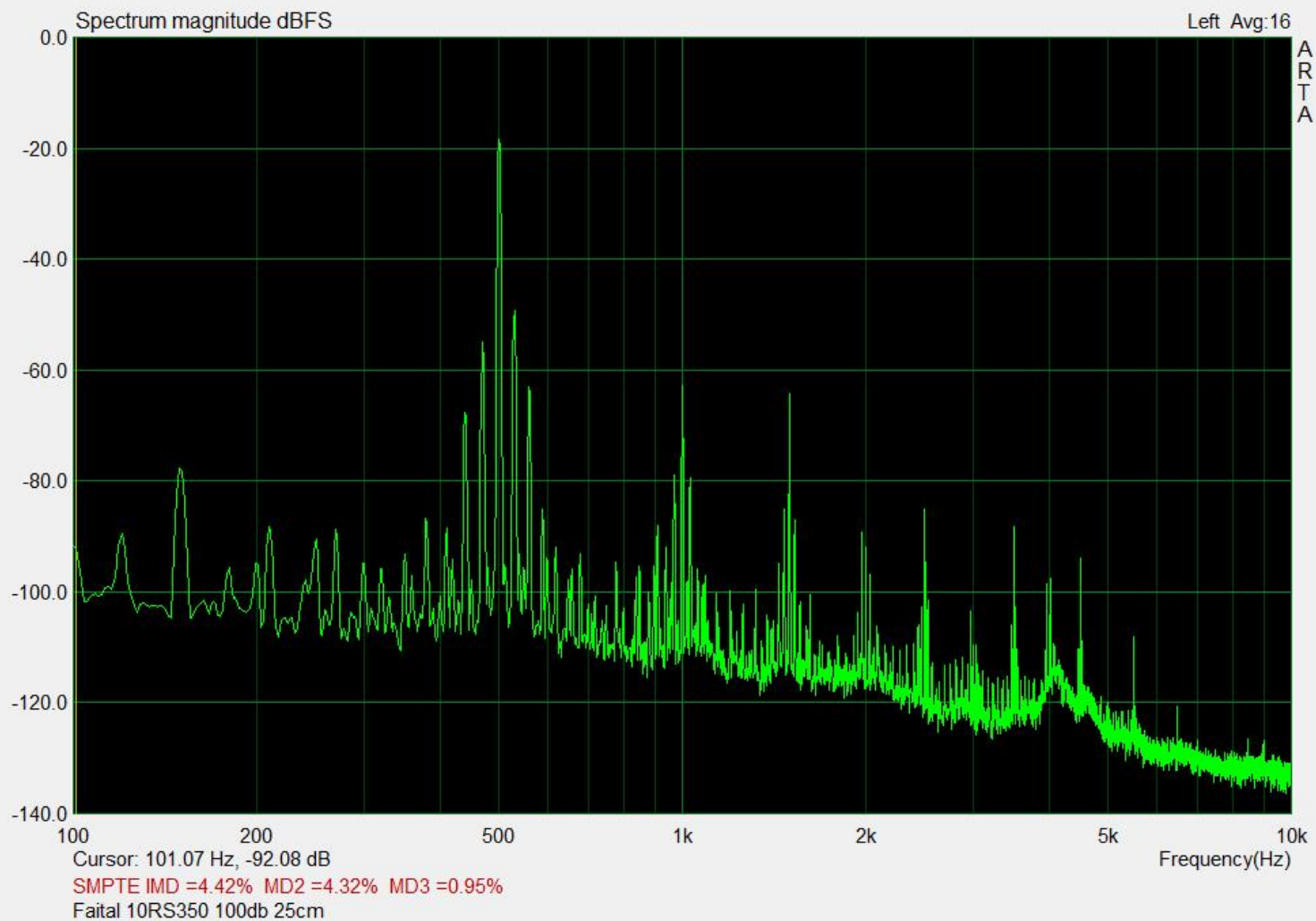


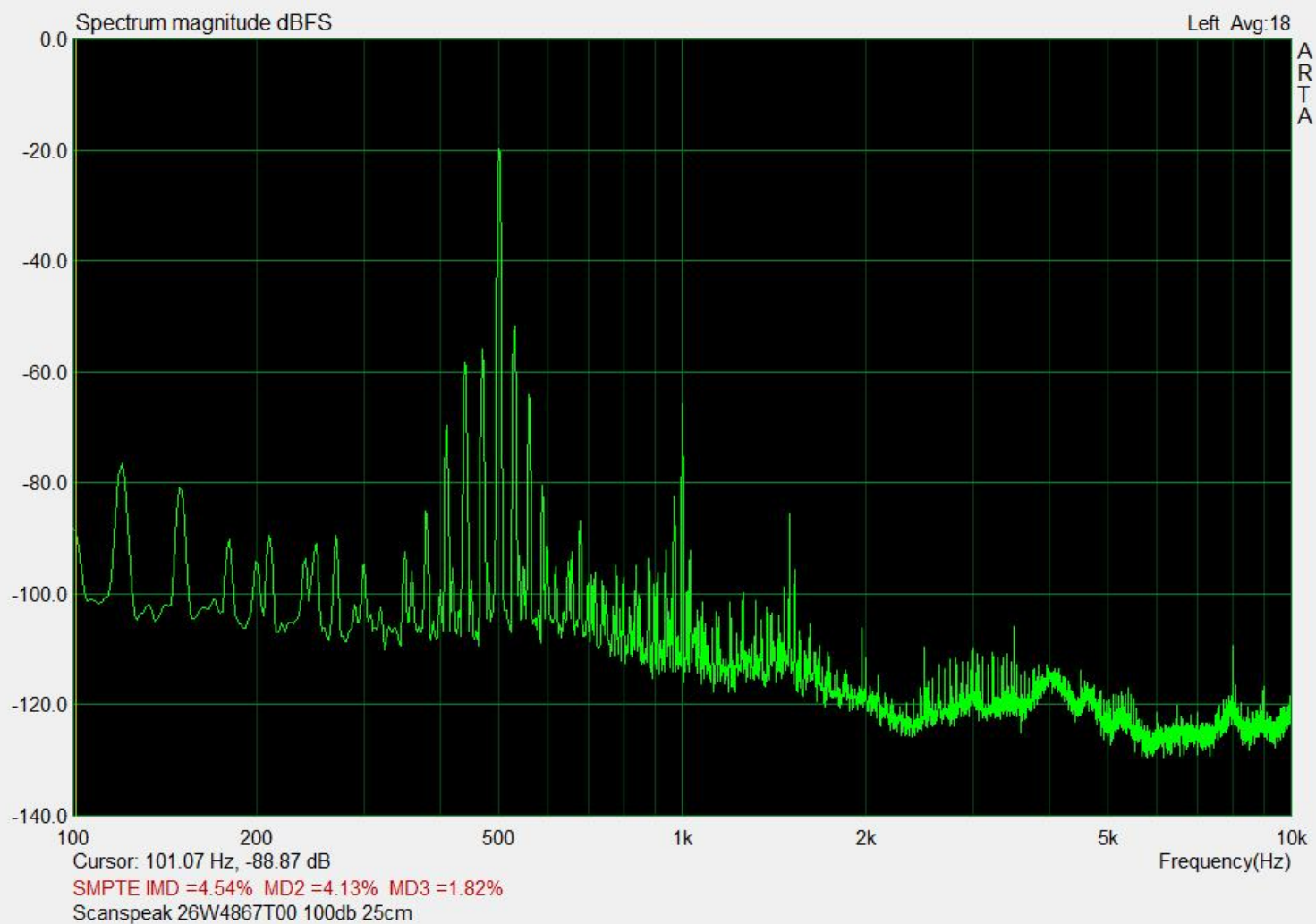
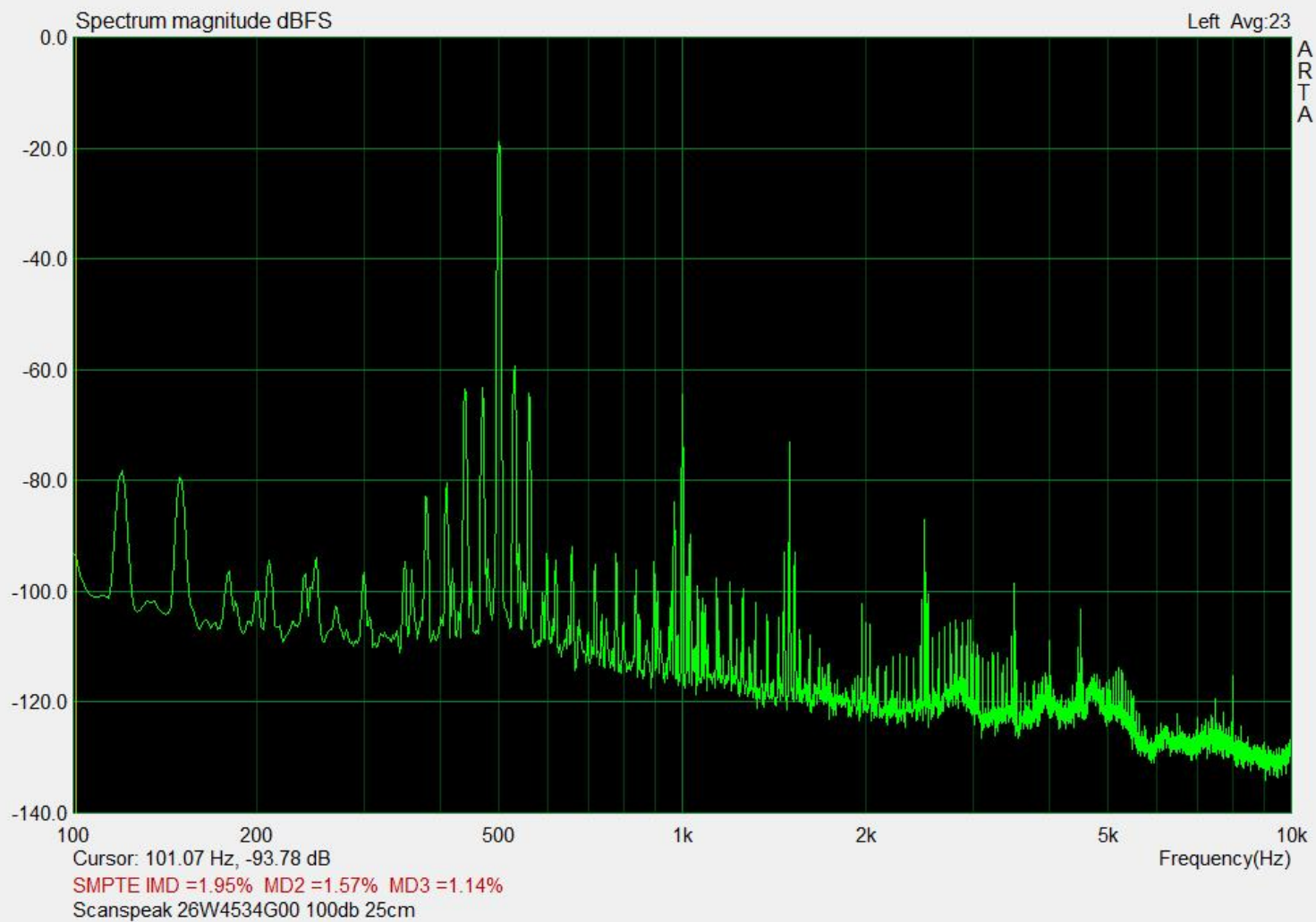


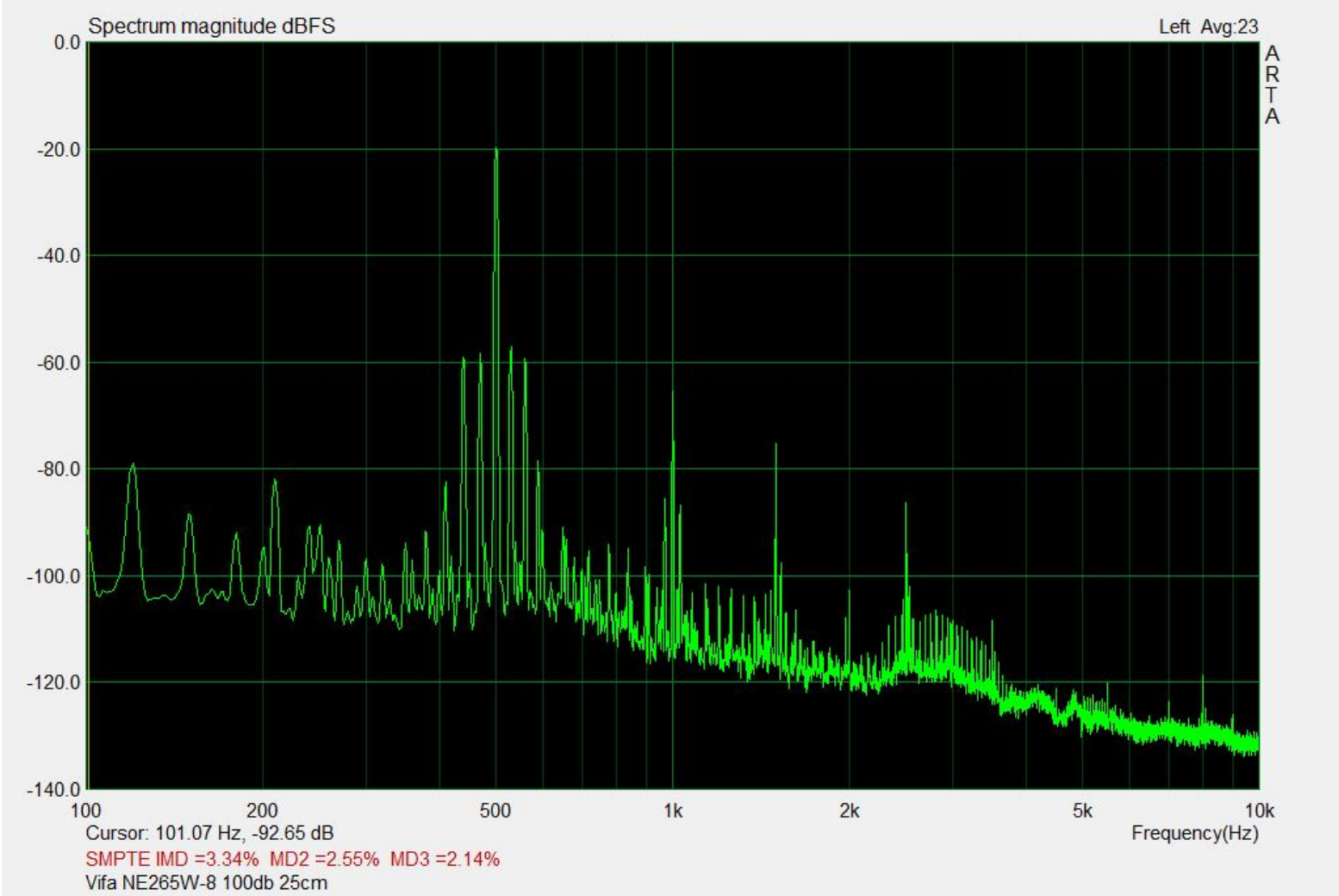


At 100db









IMD classification 30 + 500Hz

In this exercise the Scanspeak Discovery does quite well. I repeated the measurements twice because I thought I had made a mistake. The Dayton is doing well with the honors also, the logic of range is not respected here because the two most upscale that are the Revelator and the Satori are rather disappointing. Let us note all the same the honorable behavior of Vifa.

- 1. Scanspeak 26W4534G00
- 2. Vifa NE265W-8, Dayton RS270-8
- 3. Faital 10RS350
- 4. SB Acoustics WO24P-4, Scanspeak 26W4867T00