

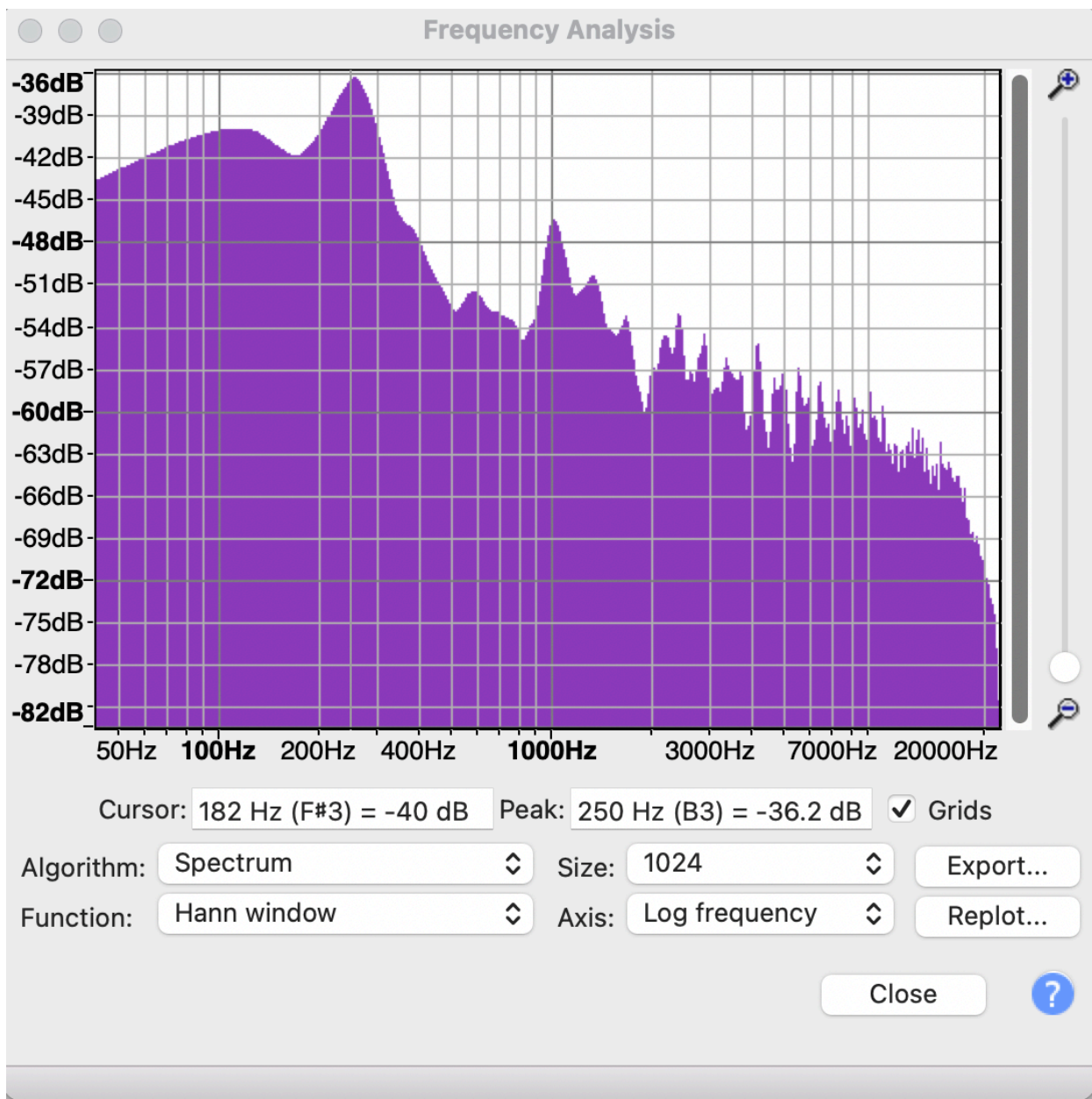
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I started out putting the speakers at what I thought would be an ideal listening position:



I wanted to be able to sit there and mix my radio dramas or soundtrack compositions. So I put the dBX room analysis mic on the floor in the spot I thought I'd like to sit.

The first thing I did was take a recording of the room itself from the left channel with pink noise. I got this frequency response:



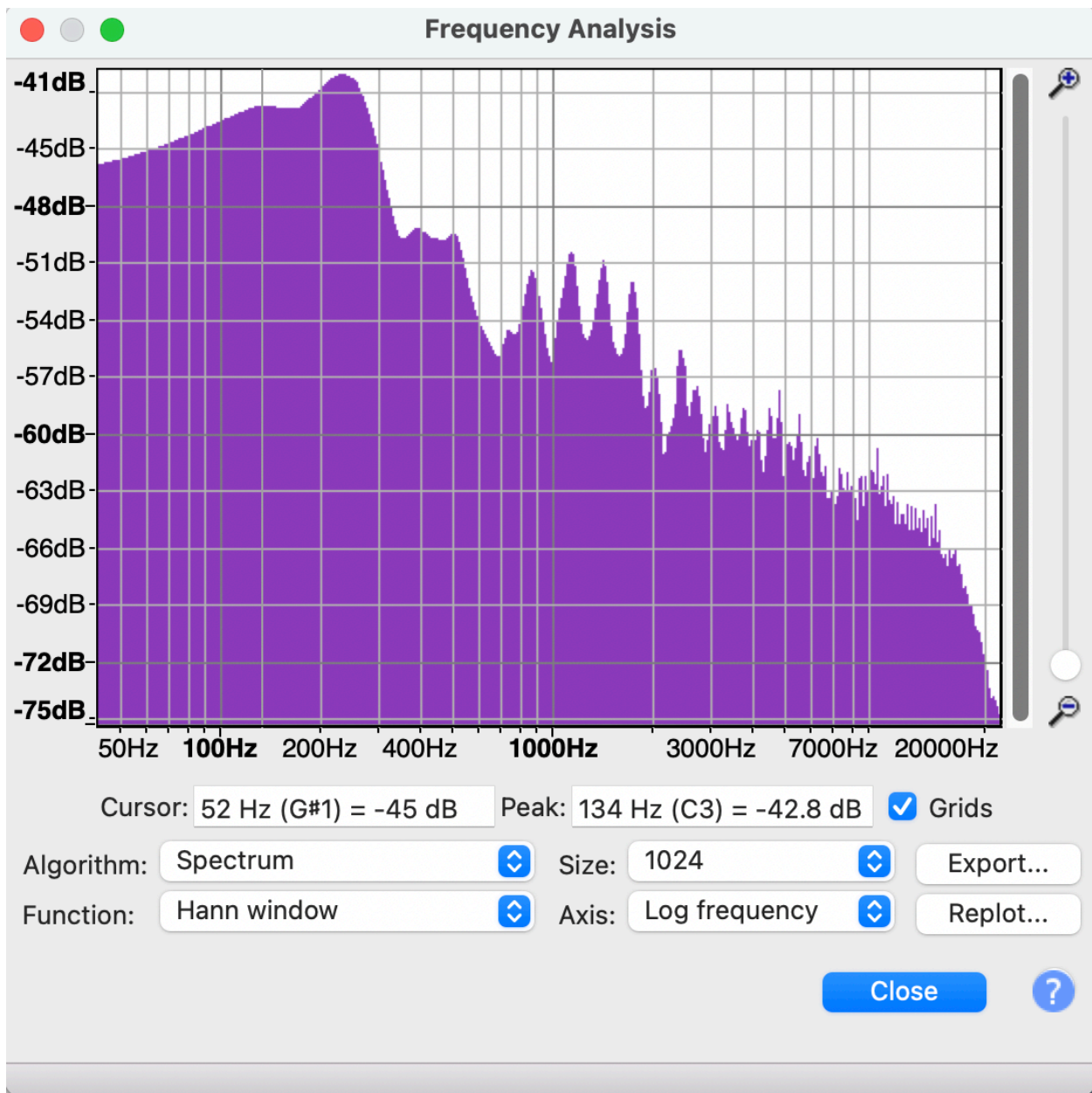
First change thing I noticed was that there was this really annoying hum. A C natural. (C5, I believe).

To try to solve this I took of the 2 DB boost on the lows, because I thought it might be part of the lights/room noise. It didn't help.

Then I moved the dBX mic to the side, and the hum was less. Though the frequency response was worse. But this told me that perhaps I was dealing with nodes and anti-nodes.

I moved the listening position back, and the hum was better, but this was impractical.

So I moved the speakers up closer. Hum was better but the listening position was still too far back.

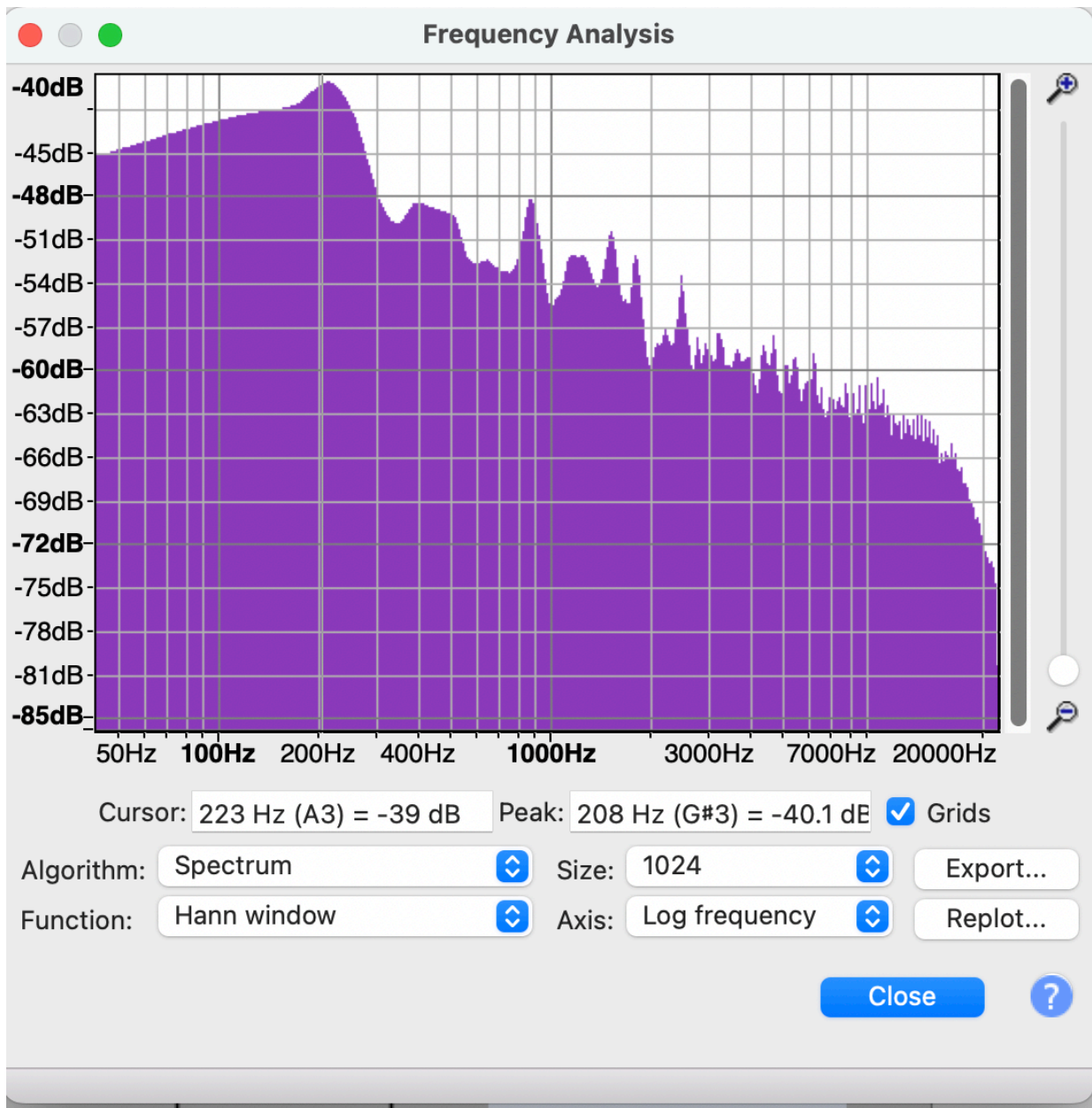


Played with the low cut notch on the frequency graph. Didn't help with my problems, so I put it back.

I put the speakers back farther, because I wanted to see if that would help (I needed to move the listening position up). So I pushed the speakers back. The hum was back again.

Moved the position forward to see if that would help. Still hum. Moved it forward more. Still more hum.

So I moved the speakers even farther forward and adjusted the listening position back. The hum was (mostly) gone, and the frequency was flatter:



At this speaker position, I moved the listening position around slightly to find the best position from the left. Mostly listening for the hum. I found it and marked it. Then I took the best position from the right and marked it. The right ideal listening position was weird, but from the left listening position (the center of the two speakers), the right speaker wasn't too bad. A tiny hum, but not too noticeable.

I took a recording of both the left and right from the left listening position, and it was good. That was my compromise.

What were the major issues?

A really annoying hum that was aggravated in (anti)nodes).

Lights and heating system hum around 200 Hz.

How did you address the problems?

Moved things around.

What was improved at the listening station?

Hum gone.

At the rest of the room?

Doesn't matter as much, I thought, since this one is for mixing.

Which problems couldn't be solved?

Hum from air handler/lights.

What would be needed to solve them?

Different lights/ventilation system.

Low tech version?

Bring a different light system in there.

High tech version?

Do a whole bunch of expensive renovations

Final position:

