



# **JA shape DML**

3mm corrugated polypropylene membrane

# JA shape DML

- The panel on the top of the 38cm woofer
- panel 43 x 55cm
- membrane 35.5 x 46cm
- rear view



# 1st measurements @1m

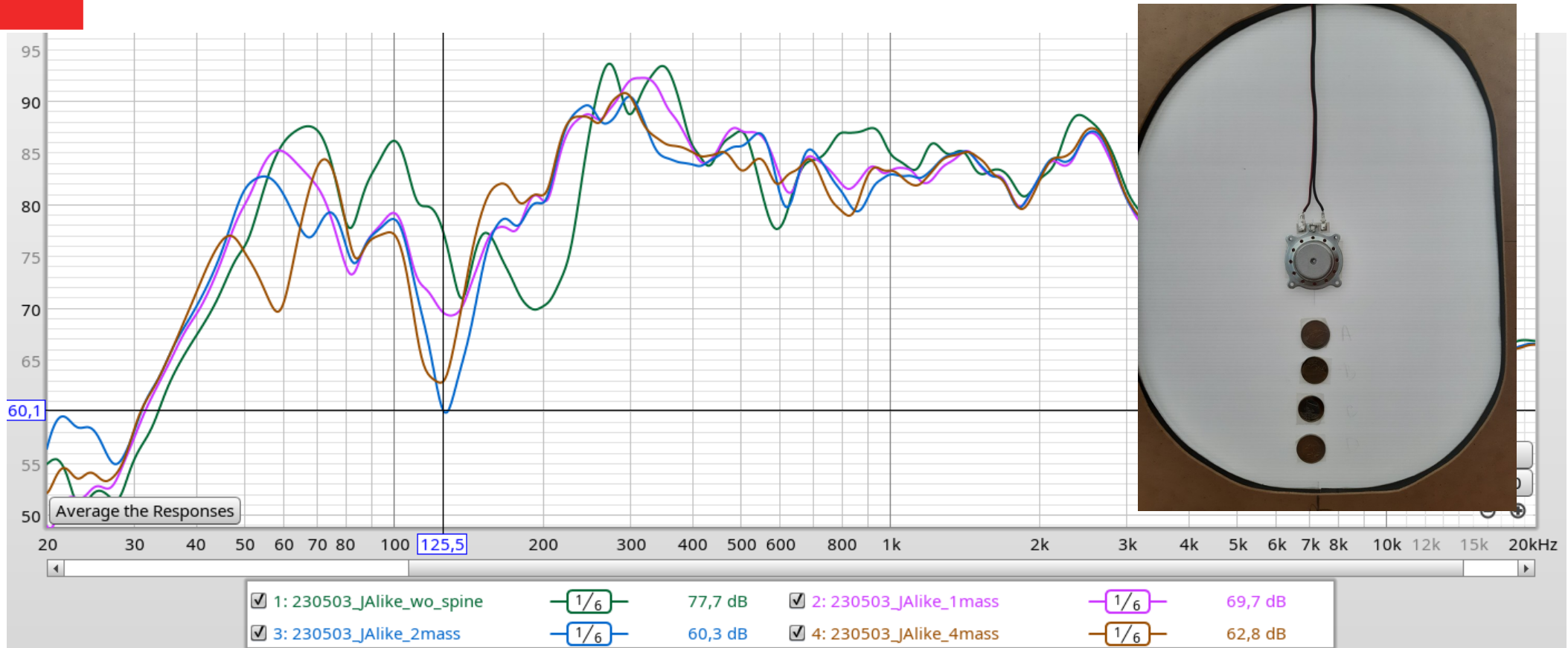


\* without or with spine : no difference on the FR

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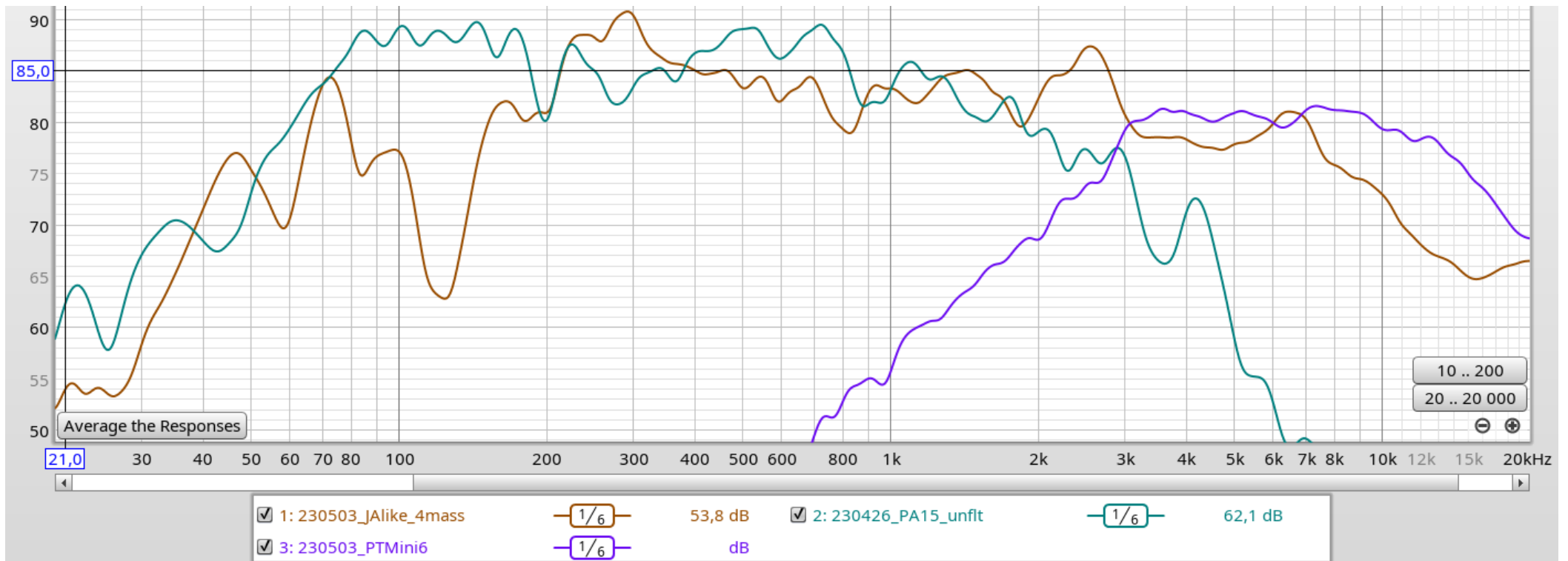
\* pink noise + 1/6 octave RTA : same FR than with a IR extracted from a sweep log

# 300Hz hump mitigation with mass



- \* adding up to 4 masses :
  - \* reduces the hump above 300hz
  - \* limits the amplitudes of the hump just below 300Hz
  - \* fills the 200Hz hole
  - \* creates a hole at 125Hz

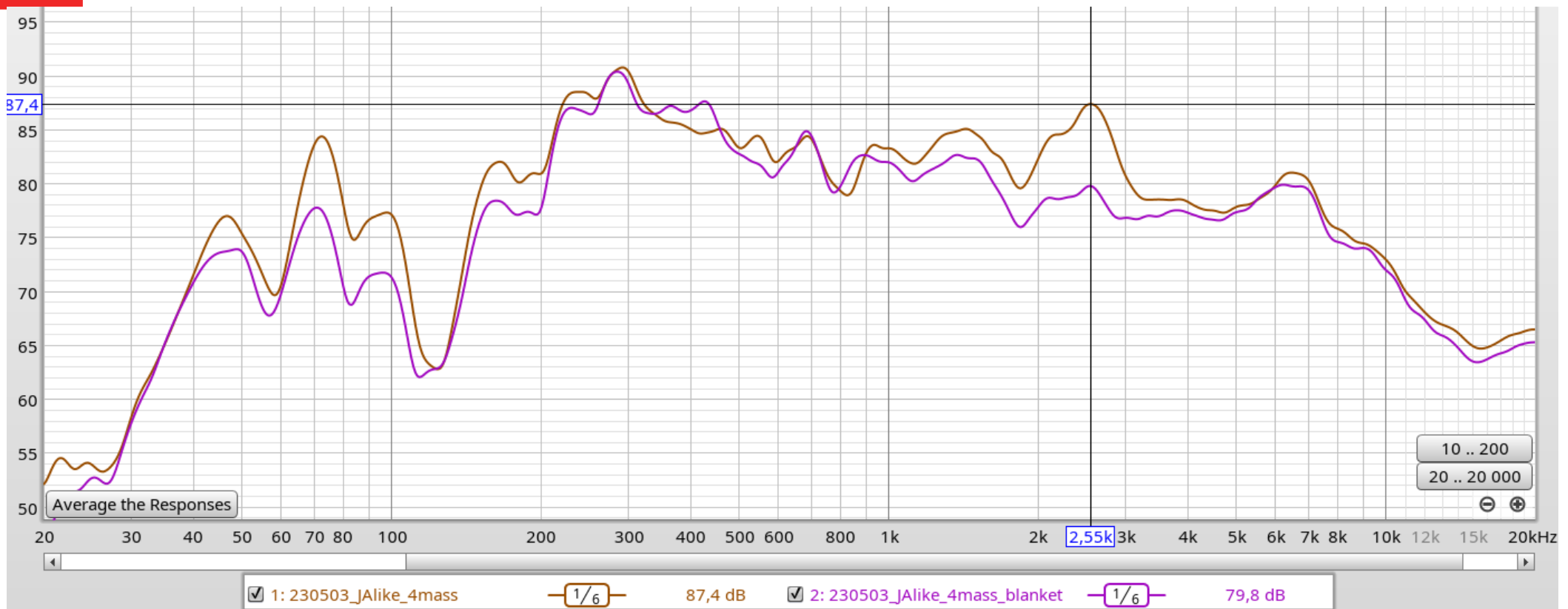
# With the woofer and a tweeter



\* Woofer : Conrad PA15 (38cm low cost). the efficiency fits not too badly (even if the target is biamp)

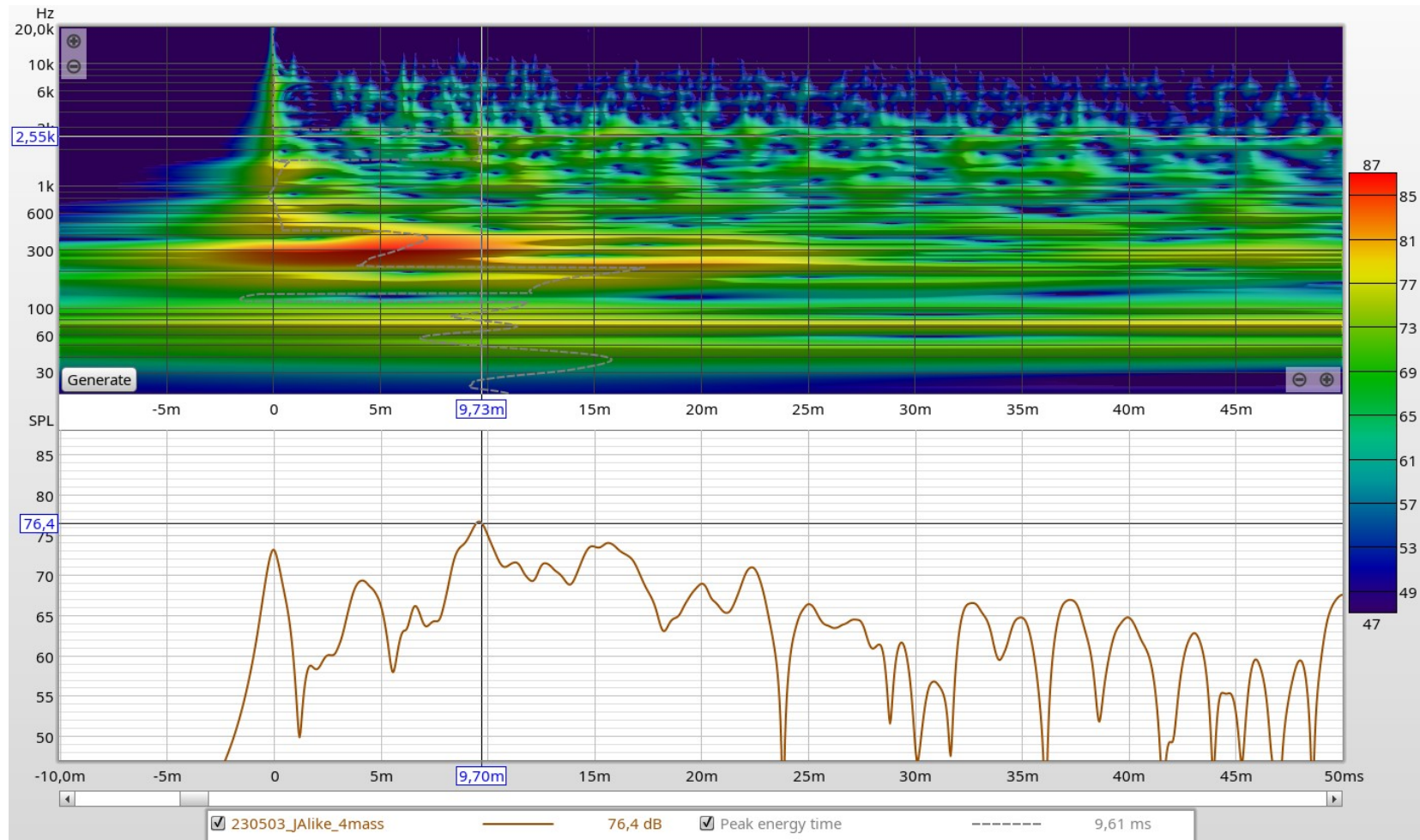
\* Tweeter : Dayton Audio PTMini-6 given for 90dB/1W/1m, 6Ohm

# Research of the 2.5kHz hump



\* A thick blanket on the rear side mitigates the 2.5kHz hump => this hump comes from an emission from the rear side.

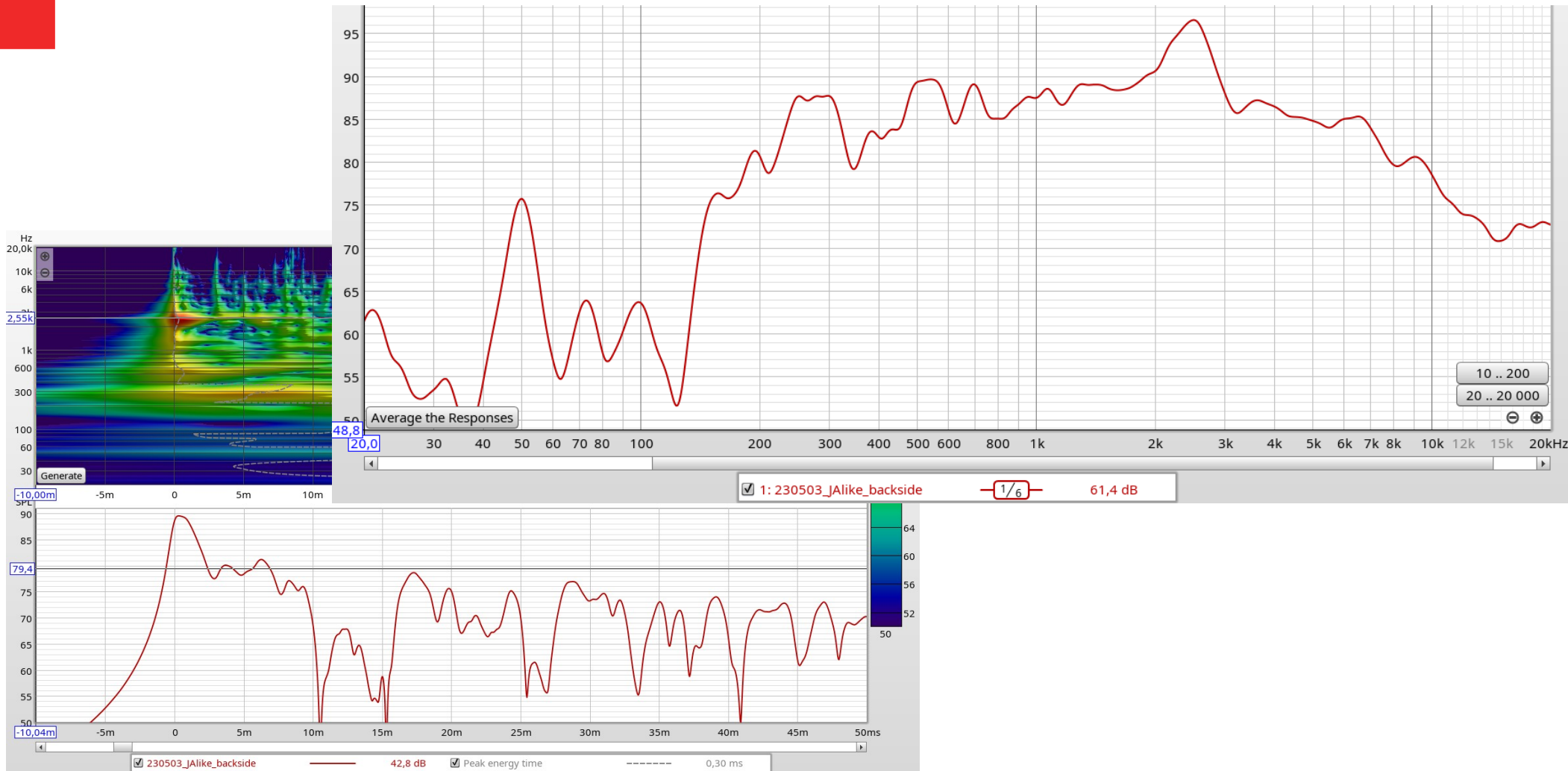
# Research of the 2.5kHz hump



\* A « slice » in the wavelet spectrogram at 2.5kHz confirms the reinforcement of the level occurs at 9.7ms.



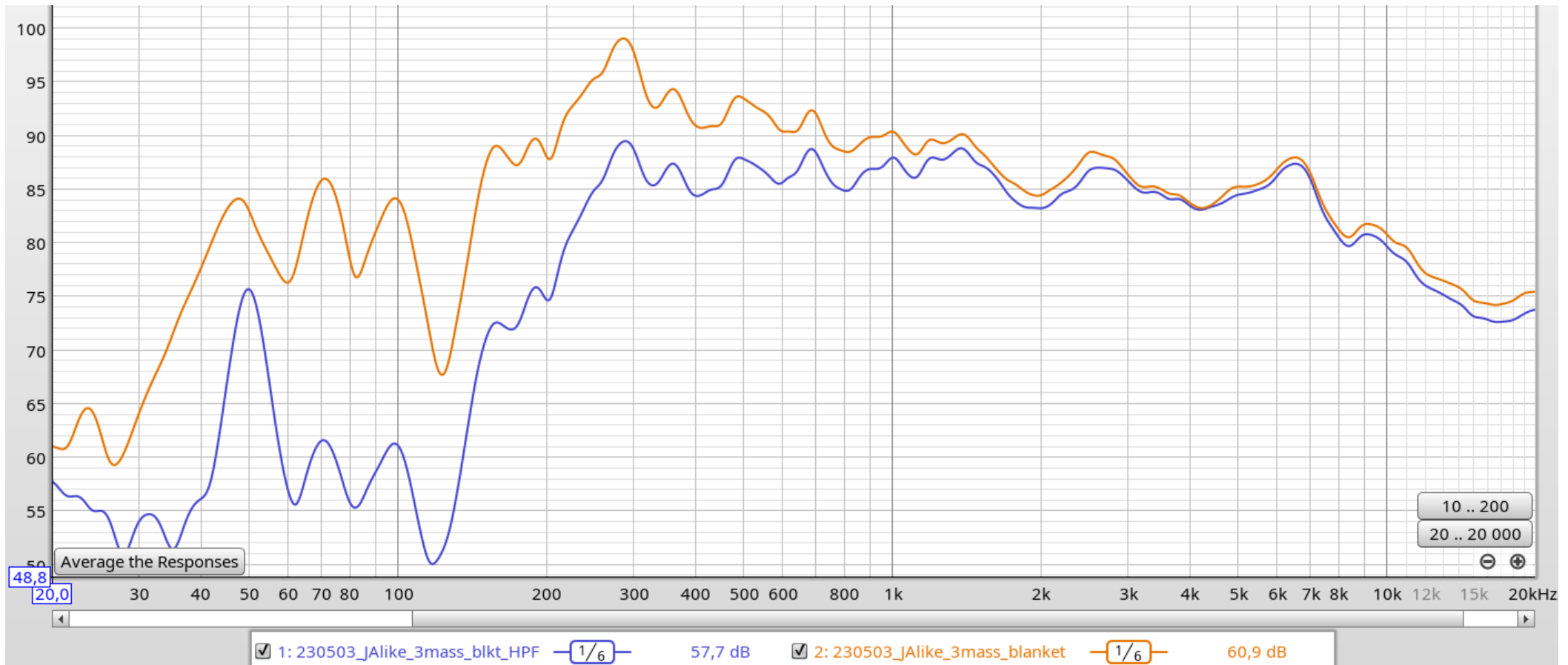
# Research of the 2.5kHz hump



\* A wavelet spectrogram with the rear side of the membrane facing the mic shows the 2.5kHz at 0ms confirming it comes from there.



# Filtered with mass and « blanket »



\* 3.7mH series, 60 $\mu$ F and 6.8Ohm parallel

\* The 50Hz hump is a measurement set up problem (electric hum).