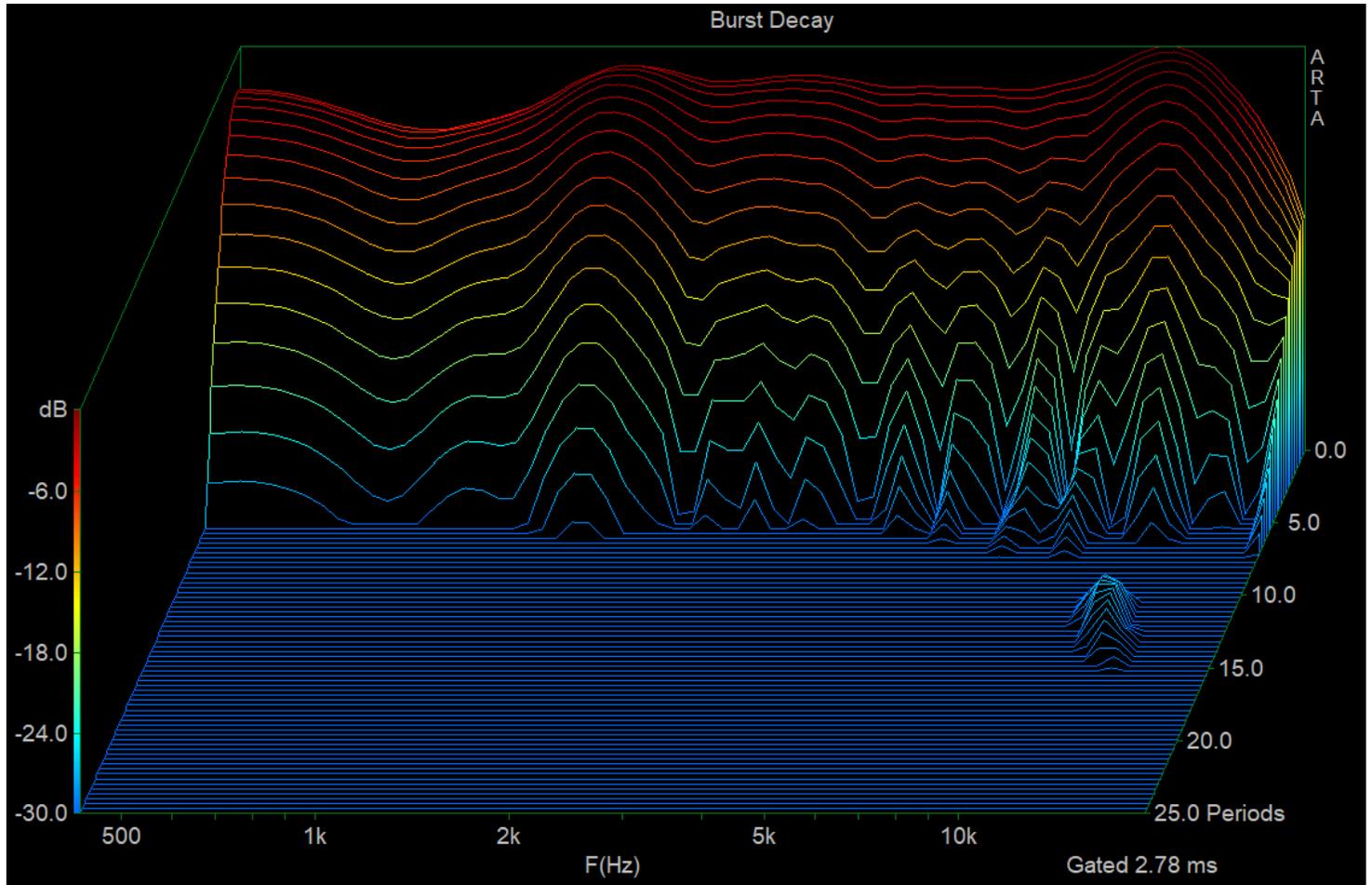
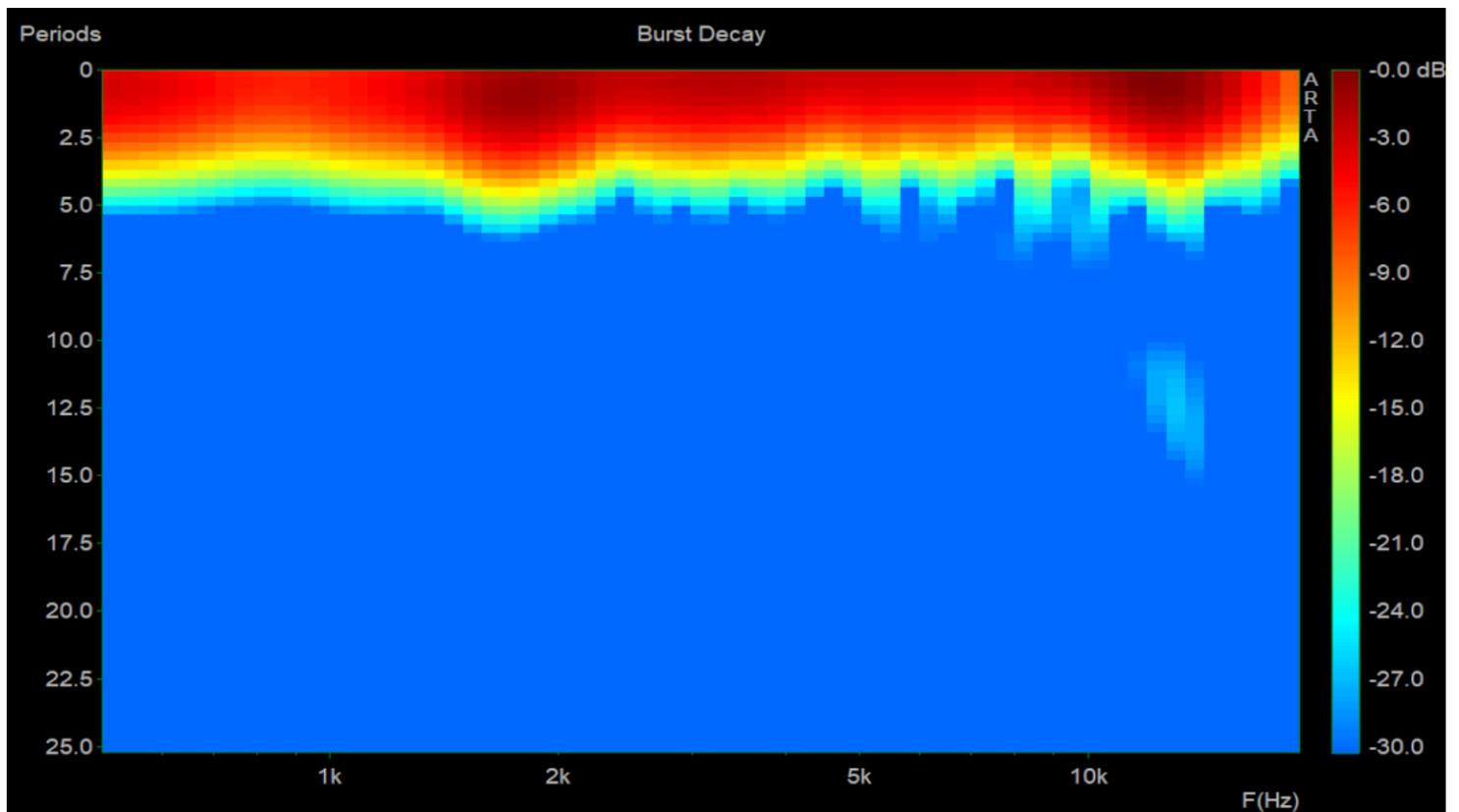


# Study of an AudiHorn X-Shape X25 based Speaker

Burst Decay without mic calibration, so it's why it's not flat, BMS 5530-16 on X-Shape X25 with returns:

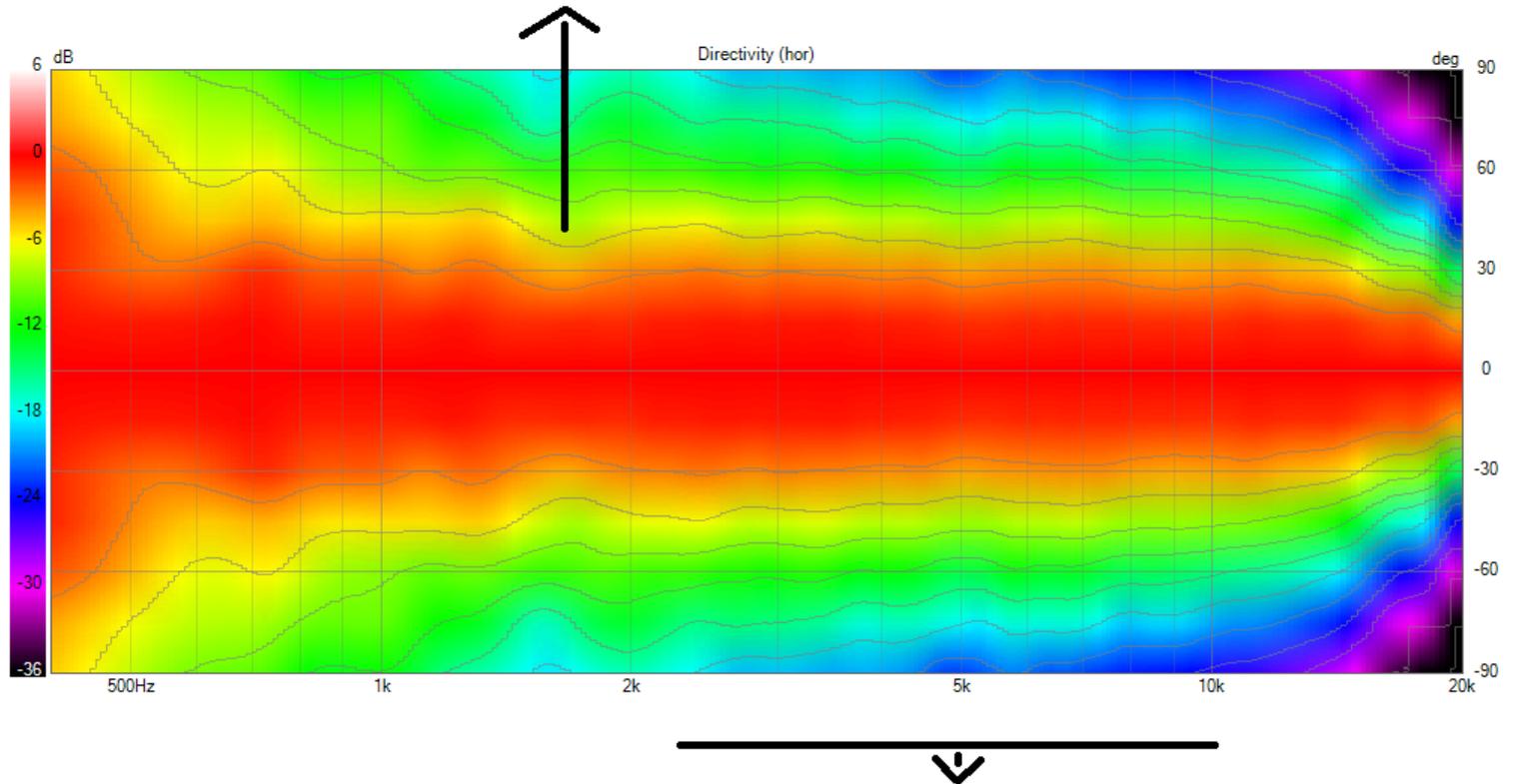


We can see a very very low trace of compression driver breakup at 15khz, completely inaudible :



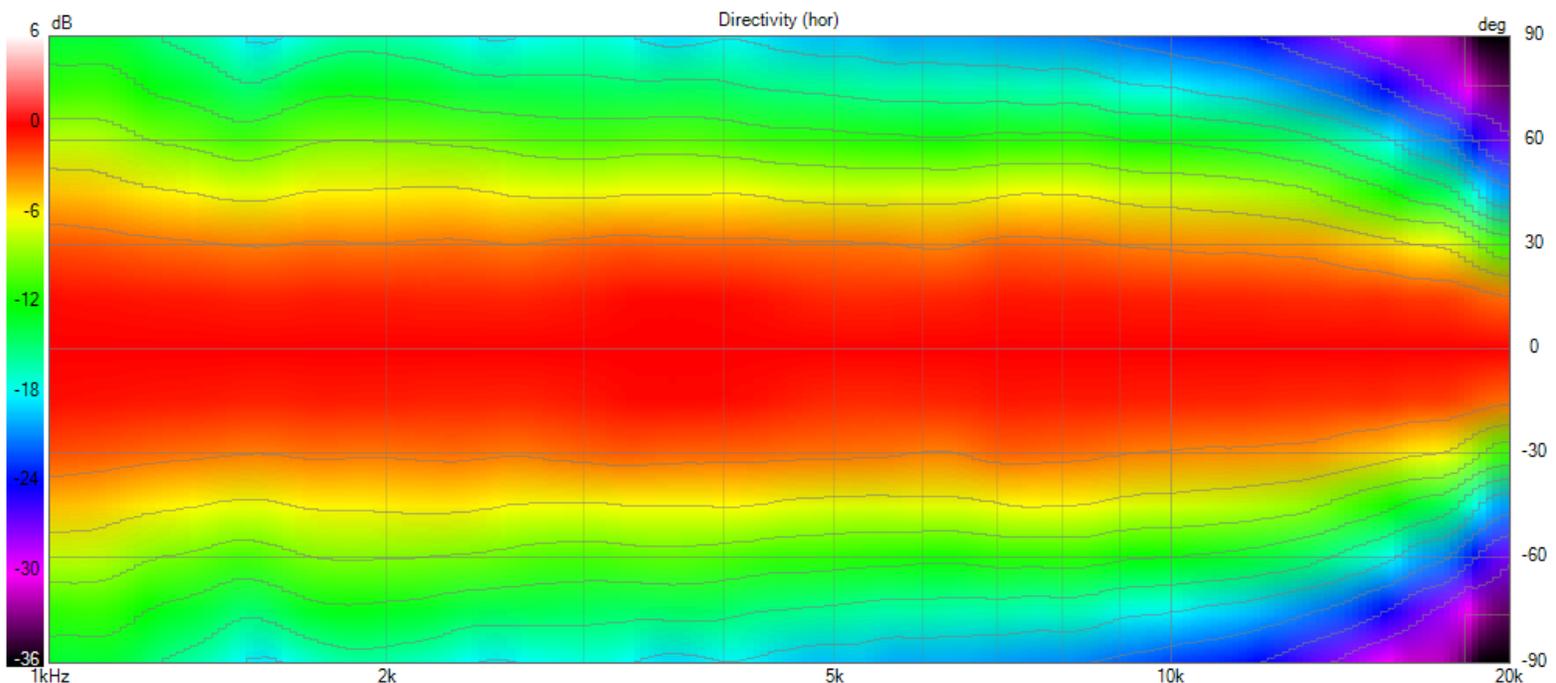
A little mismatch between horn and woofer(nothing comparing to commercial speakers), there is no options about it:

- Tiny FEA simulated (for avoid throat resonance) WG on the woofer
- Last AudioHorn FEA return that made the horn more progressive when it loose it control at the low-end (to late for this speaker, I just used a 25mm radius return)



A little bit more beaming that horn alone with full return due to presence of flat surface+woofer just below the horn, it creates a little bit of diffraction by his shape (it can be seen on impulse response), inevitable, even horizontally.

Horn alone :



Distortion at 95dB SPL (so is the amount of dB at 1m), in %, extremely low especially on horn/comp section (look at the scale), the woofer is a SbAcoustics SB23NBAC-4 cross at 1250 hz LR48 with Hypex Fusion Amp :

