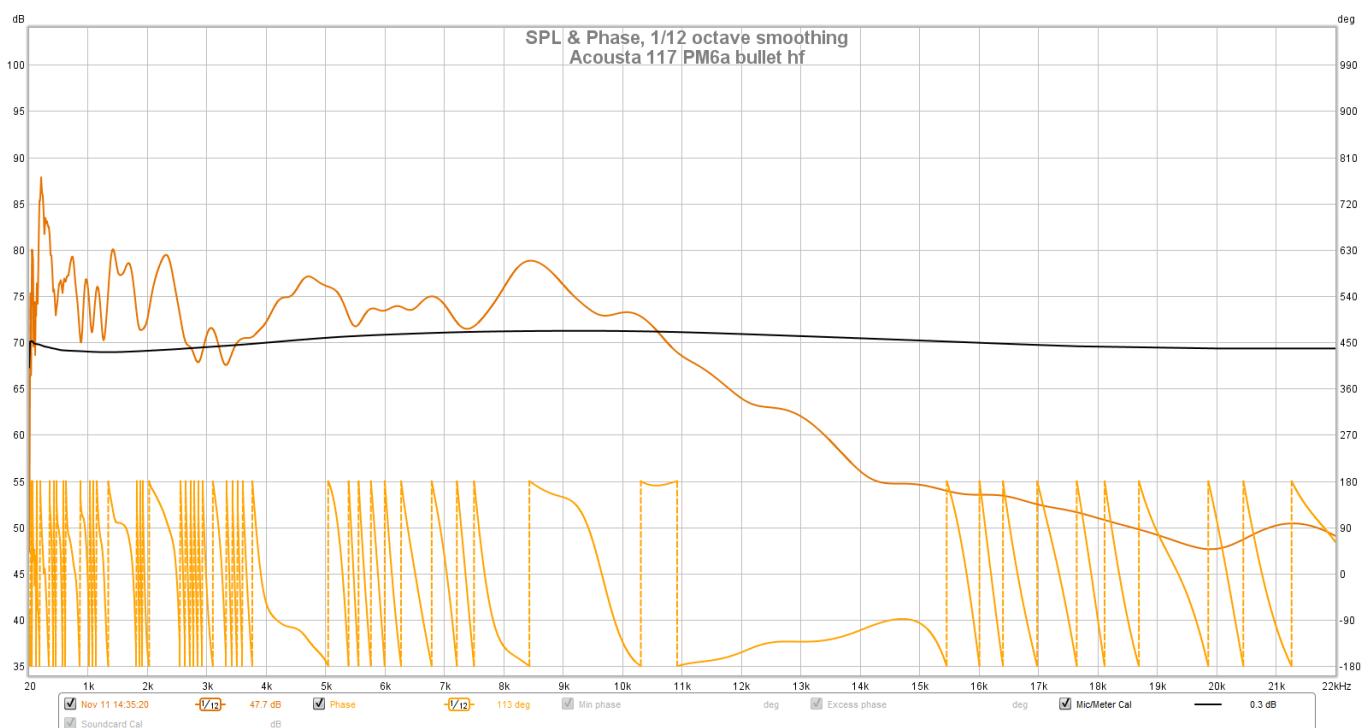
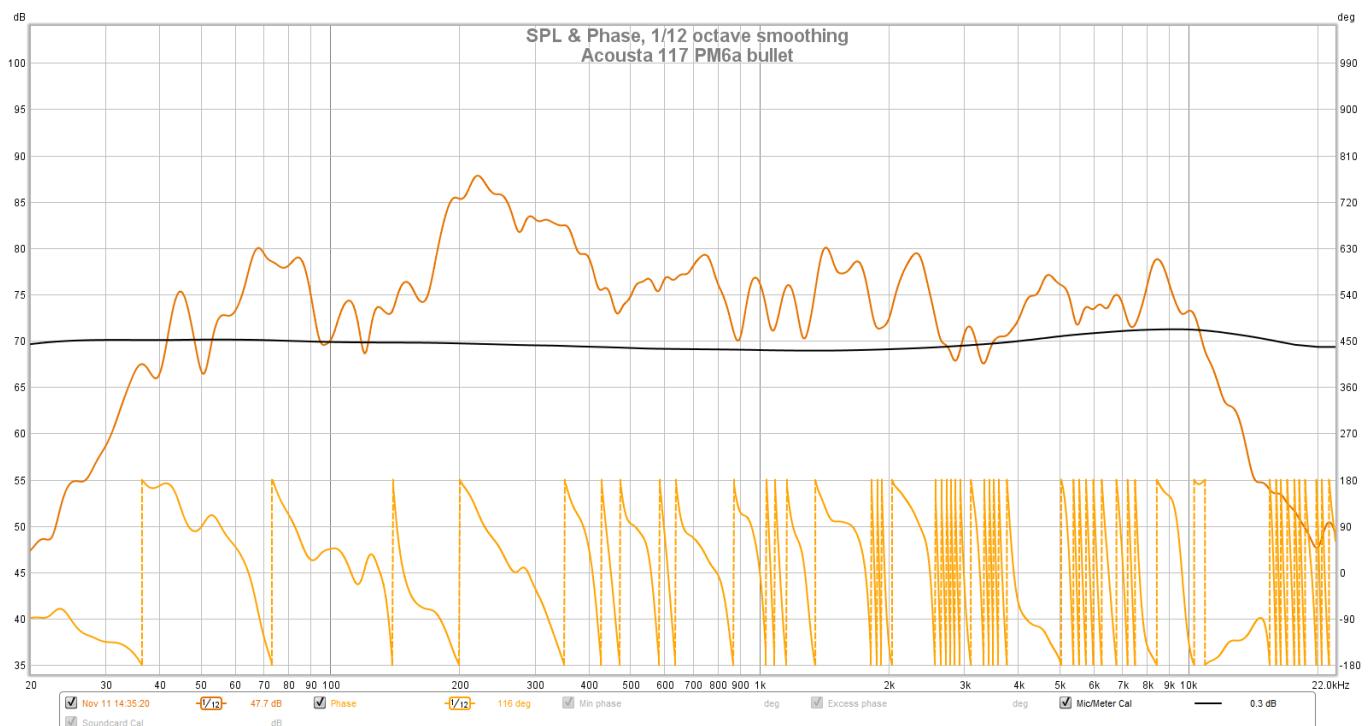


Acousta 117



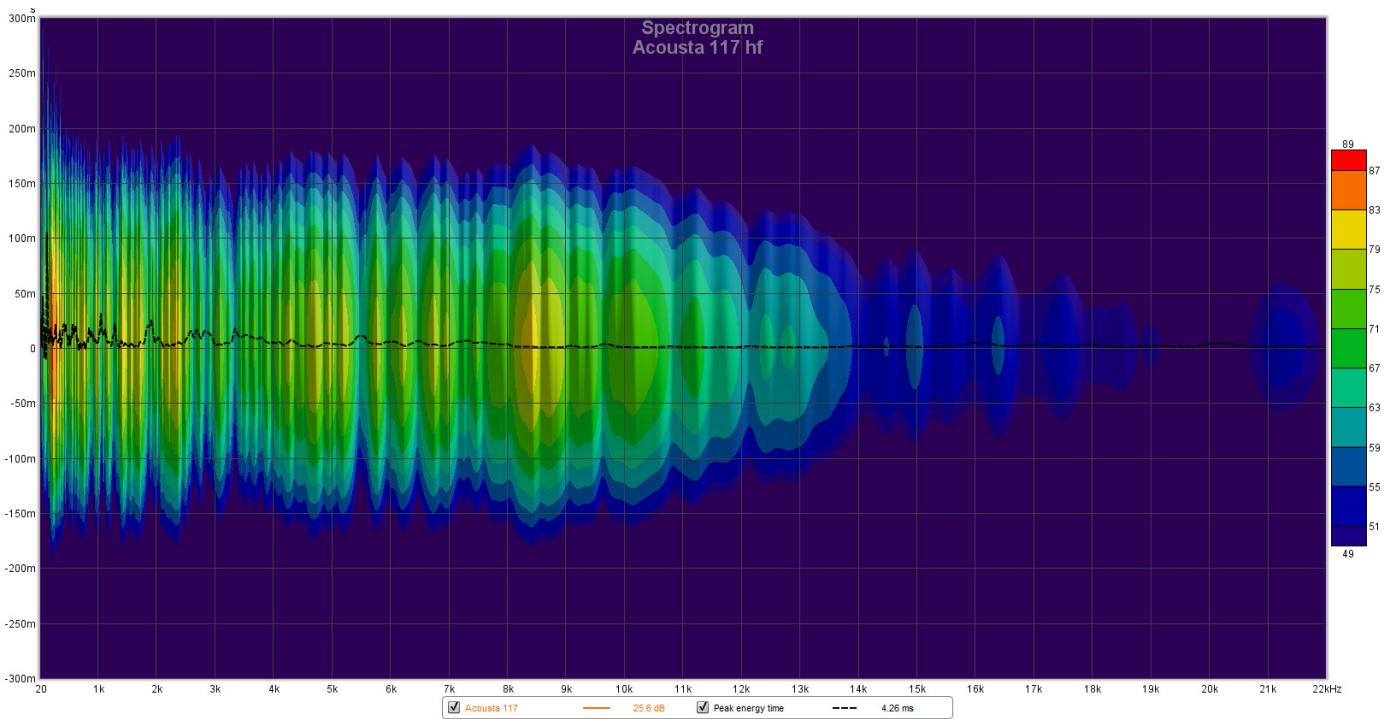
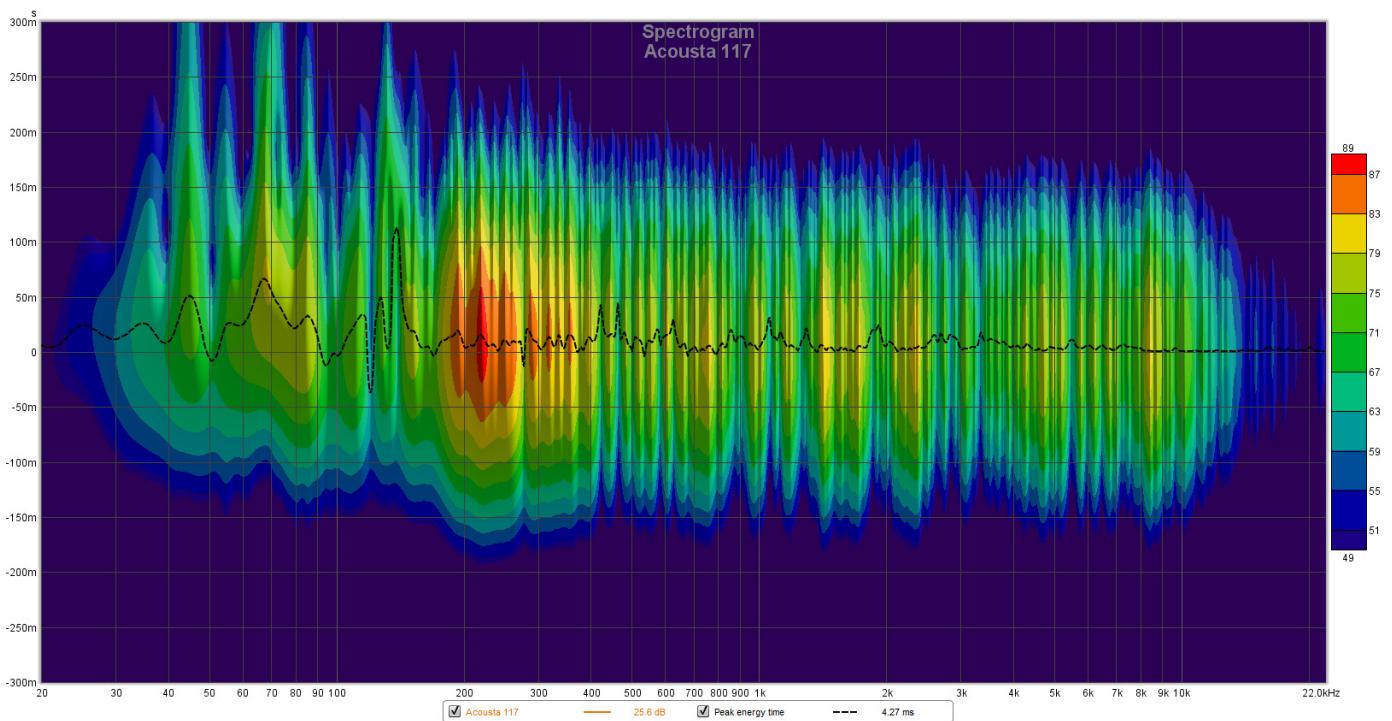
Lowther Loudspeakers

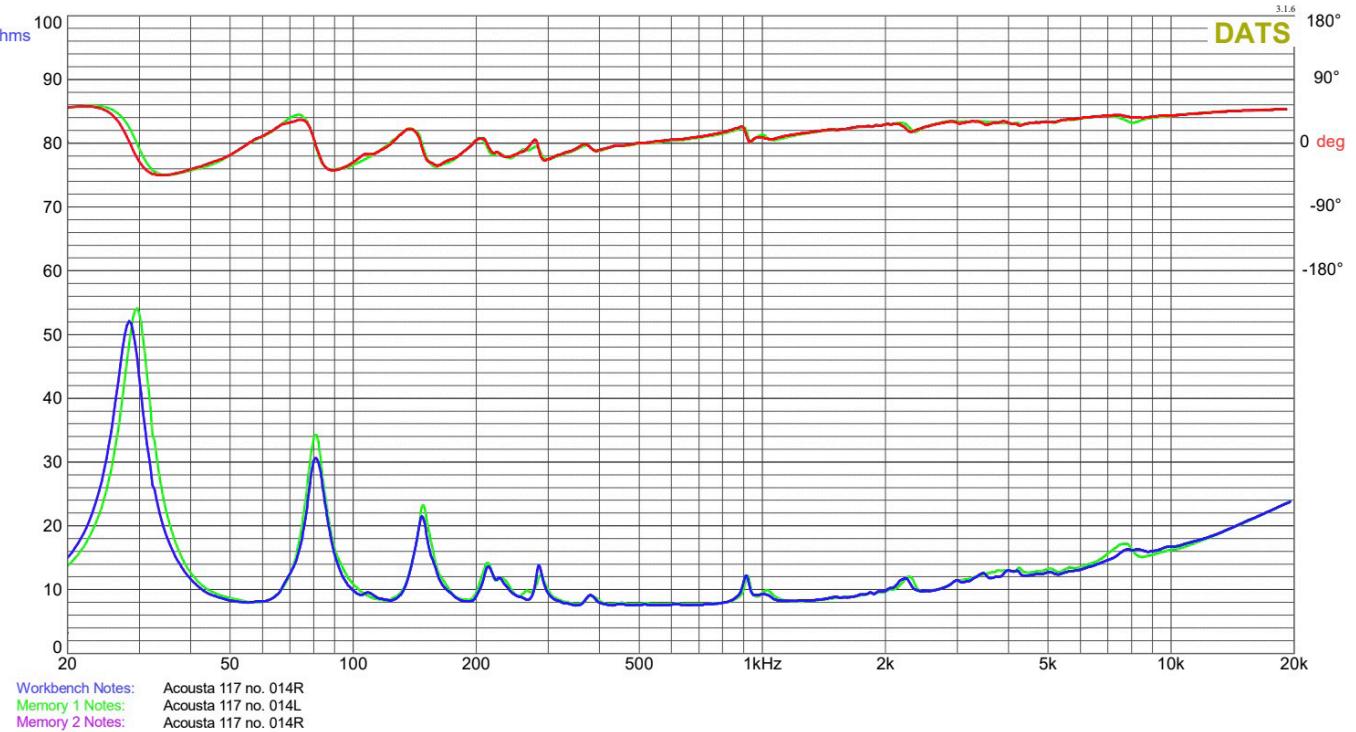
1 Foundry St. Northampton NN1 1PR

hello@lowtherloudspeakers.co.uk

Measurements by: M. Williamson

Title: Impedance sweep





Notes

We analyse loudspeakers in our demonstration room using basic functions of the REW acoustics software. The goal is to visually compare each Lowther enclosure on display by fitting the best suitable driver unit for model.

While specifications and graphs from Thiele-Small parameters determine cabinet suitability for individual driver units, our “in-house” testing differs - we do not measure specific speaker performance. We seek a visual representation of how the finished stereo speaker pair works within the room environment, important since horn-loaded speakers couple differently with air compared to ported or sealed boxes. The listening room setup is critical when auditioning or comparing enclosures.

Our demonstration room replicates a typical living space, about 5x4 metres, with reflections and bass standing waves minimised but not overly “dead”. Tests are conducted with each pair positioned the same (TP2 designed for close corners). Grilles are removed unless noted on graphs. Drivers have a minimum 50 hours “run-in” where possible. The microphone, gain levels and amplifier are calibrated to common settings with the microphone at the listener’s central head position.

SPL and phase information identify visual general performance differences between designs, helping customers shortlist models to audition. Spectrograms provide a more accessible “at-a-glance” visualisation. Each test usually shows 2 graphs with the same data but Hz axis compressed for low or high frequency clarity.

These tests also demonstrate how phase plugs, compensation boards, supertweeters, etc. modify room presentation. Combined SPL graphs simply indicate comparison between cabinet models, typically confirming what we already hear - subjective to taste - not replacing a proper audition.

Driver specifications and settings are noted on graphs. Impedance graphs for each new speaker pair utilise the Dayton DATS test unit.