



## Focused Elimination™

Pinpoint elimination of resonances without loss



Loudspeaker drivers have to “fight” friction, which hinders their precise and timely movement. The quality of a speaker is measured, among others, by how “lossy” it is, i.e. how much friction exists in the system. A loudspeaker with a high-loss enclosure suffers from boxy, slow sound. Low losses, on the other hand, indicate a quick reaction-time, freedom from boxiness and a tight, punchy bass.

To measure losses, the driver is examined both in free air and inside its enclosure. The lower its impedance peak drops when enclosed, the “lossier” the enclosure. The higher the impedance peak remains, the lower the loss (better).

YG Acoustics™ Focused Elimination™ eradicates standing-waves at their source through anti-resonance technology, applied to pinpoint locations inside the cabinet.

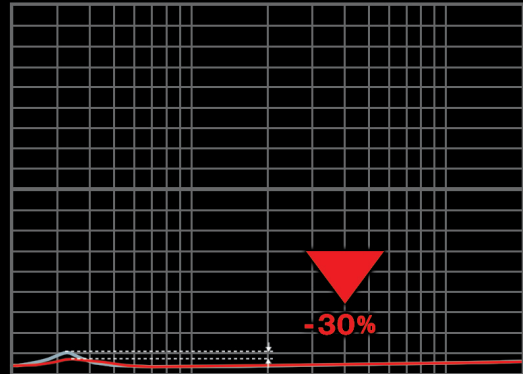
Following is evidence that cabinets employing Focused Elimination™ technology offer dramatically lower loss than enclosures fully stuffed with damping material.

# FocusedElimination™

## The Traditional Approach

Below is a loss measurement of a respected competitor that uses sealed enclosures with full stuffing. 30% of the music signal in the bass is lost due to friction. Numerically (for gearheads only) this equates to  $Q_L=3.2$ .

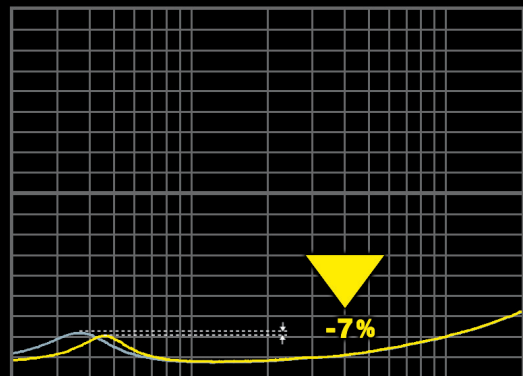
**Competitor's woofers**  
20~20k Hz 10Ω div  
Impedance in free air  
Impedance inside enclosure



## The Modern Approach

Below is a loss measurement of the leading competitor. It uses vented enclosures with varying damping materials to minimize loss<sup>1</sup>. 7% of the music signal in the bass is lost due to friction. Numerically this equates to  $Q_L=23.1$ .

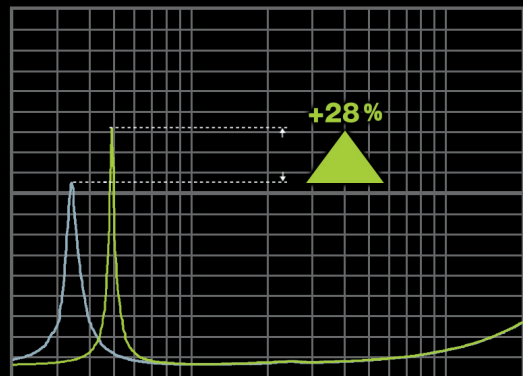
**Competitor's mid-woofers**  
Impedance in free air  
Impedance inside enclosure



## FocusedElimination™

Below is a loss measurement of a YG Acoustics™ speaker. Virtually none of the music signal is lost (immeasurably low loss). Numerically this equates to an immeasurably high  $Q_L$ .

**YG Acoustics™ mid-woofer**  
Impedance in free air  
Impedance inside enclosure



Engineered by Yoav Geva

### YG Acoustics LLC

4941 Allison St. #10, Arvada, CO 80002, U.S.A.  
Tel. 801-726-3887 • info@yg-acoustics.com  
www.yg-acoustics.com



All measurements performed in YG Acoustics™ state-of-the-art lab

<sup>1</sup> Reflex ports were sealed to eliminate their own losses from the measurement