

# ALEXIA™



## Video Links

### [Announcing Alexia](#)

The original teaser video introducing an entirely new loudspeaker platform



### [Alexia: Concept to Reality](#)

The question was: what would happen if you brought the time domain accuracy and driver technology of the Alexandria XLF into a form factor similar to the Sasha? This video details how the design team, led by Dave Wilson undertook that challenge.



### [An Audiophile's Journey](#)

The experience of one devoted Wilson Audio customer and his family, as they assembled a dream system featuring the new Alexia loudspeaker.



# ALEXIA™

With the WATT/Puppy, Wilson Audio launched perhaps the most successful compact high-performance loudspeaker in audio history, as the thousands of units in use around the world attest. At the same time, Dave Wilson and his engineering team have constantly pushed the absolute boundaries of music reproduction in products like the Alexandria XLF. The musicality of the big Wilson speakers is due in no small part to their unrivaled ability to time-align the leading edge of waveforms from each driver for any specified listening position and ear height.

For WATT/Puppy and Sasha owners, this added dimension of performance has only been available by trading up to the MAXX Series 3 or the

Alexandrias—a choice often rendered impractical by room size. Now, those constrained by their listening environments who crave the next level of musical realism have a new answer. *Introducing Alexia.* With a footprint scarcely larger than a Sasha, and musicality to rival the XLF, Alexia sets a new standard for ultra-high performance in a compact full range loudspeaker.



The quest to achieve the performance of the larger Wilson loudspeakers in a more compact enclosure began over two years ago.

The Wilson team knew from the beginning that it would require more than simply separating the tweeter and mid-range modules, more than simply putting existing drivers into a larger cabinet.

What it would, in fact, require was a clean-slate approach to the design of the speaker, along with the deployment of new technology. One of the most promising concurrent developments was nascent work on a new Wilson-designed tweeter.

Indeed, the decision was made to put the Alexia project on hold while the Wilson Convergent Synergy Tweeter was readied for its unalloyed debut in the Alexandria XLF. Once the transformative qualities of this new driver were clear in the no-holds-barred context of the XLF, Dave Wilson knew a slightly modified version of it was destined for Alexia.

Wilson's laser vibrometer provided fresh insights into cabinet thickness and internal bracing during the development of XLF's patented dual bass port. Thus emboldened, Dave and his team recommenced work on Alexia in earnest in the early spring of 2012. For months, the design and engineering teams strove to find the right form factor for Alexia to meet its design objective: not merely a diminutive MAXX nor an enlarged Sasha, but an entirely new thing—a distillation of the highest Wilson ideals of musical realism in a universally sized loudspeaker.

Instead of the “wings” that flank the midrange and tweeter modules on MAXX and Alexandria, the midrange module sits more Sasha-like atop the bass cabinet, yet extends a set of mini-“wings” upward to enclose the time-alignment track of the tweeter module. Finally, an ingenious top bridge provides the settings for forward-back adjustment of the tweeter in the time domain.

The final design is at once fresh and familiar—instantly recognizable as part of the Wilson family, yet capable of doing things no speaker of its size has done before.



Two rejected early design concepts





## Aspherical Propagation Delay

It might sound like a deliberately arcane marketing slogan, but in actuality, Propagation Delay refers to one of the least understood concepts in loudspeaker design. Every designer understands the importance of flat frequency response; no controversy there. Some also tout the importance of principles like phase coherency and first order crossover design. There are those who would maintain that the careful application of enough “correct” technical principles will inevitably result in a good-sounding product.

For Dave Wilson, though, the measure of success is something else: the degree of verisimilitude to live, unamplified music in his speaker designs. Years of empirical listening have taught him two terms to describe the essential character of live music: Dynamic Contrast and Harmonic Expression.

Dynamic Contrast refers to the clarity and speed of transients, both the macro- and micro-dynamics that we experience in live music: the pluck of a string, the attack of a snare drum. Harmonic Expression describes the ability to accurately reproduce the structure and propagation of overtones that reveal the distinct character of an instrument or a voice.

Extensive listening has confirmed to Dave that in order to maximize both Dynamic Contrast and Harmonic Expression, the leading edge of waveforms (especially transients) produced by woofer, midrange and tweeter (in a three-way system, for example) must arrive at the listener’s ear at *precisely* the same time. Recent research has confirmed that not only is the ear/brain mechanism more sensitive to timing errors than even frequency response anomalies, but also that ordinary people can hear timing errors on the order of less than *20 millionths of a second!*

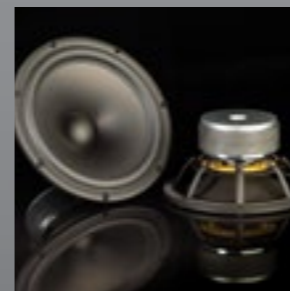
Every Wilson loudspeaker is time-aligned. In the case of the non-modular Sophia, it is correct at one typical listening distance and ear height. Sasha expands that to a range of four positions.

*Aspherical Propagation Delay* describes the ability of MAXX Series 3 and Alexandria to correctly time align all the drivers for literally hundreds of potential listening positions, as well as rotate the drivers on their polar axes to optimize the dispersion characteristics of the midrange and tweeter for the chosen listening spot.

And now there’s Alexia—the newest member of that very exclusive club.



## New Drivers for a Bold New Loudspeaker



With minor changes, this is the same silk dome tweeter developed for the Alexandria XLF. Unlike many modified off-the-shelf designs, the Wilson Convergent Synergy Tweeter was designed from the ground up to offer the extended bandwidth of many of the new exotic breed of diamond and beryllium tweeters, without the limitations inherent in those designs, namely lack of power handling capacity, and the ability to play low enough in its frequency range to mate with the acclaimed Wilson Midrange Driver.

Since its debut in Alexandria Series 2 in 2006, the Wilson Midrange Driver has served music’s most critical bandwidth with its uncanny speed, resolution, and harmonic expression. Modified versions of the midrange driver are found in every post 2006 Wilson loudspeaker, from Alexandria XLF to Sophia Series 3. Alexia sources its version directly from the Alexandria XLF.

Like its larger brethren, Alexia uses two different sized woofers—in this case an 8 inch and a 10 inch driver. Unique to Alexia, the drivers were optimized over an 18 month period to achieve bass extension extraordinary for an enclosure of this size, without sacrificing upper midbass detail or the explosive dynamic speed and contrast that are signature traits of every Wilson loudspeaker.





## Specifications

Enclosure Type Woofer: Rear Ported, X-Material

Enclosure Type Midrange: Rear Ported, X- & S-Material

Enclosure Type Tweeter: Sealed, X-Material

Woofers: One—8 inch (20.32 cm) Paper Pulp

One—10 inches (25.4 cm) Paper Pulp

Midrange: 7 inch (17.78 cm) Cellulose Composite

Tweeter: One—1 inch (2.54 cm) Doped Silk Fabric

Sensitivity: 90 dB @ 1W @ 1m @ 1kHz

Nominal Impedance: 4 ohms / minimum 2 ohms @ 80 Hz

Minimum Amplifier Power: 20 watts/channel

Frequency Response: 20 Hz—32 kHz +/- 3 dB

Overall Dimensions: Height—53 1/4 inches (135.29 cm)

Width—15 1/4 inches (38.74 cm)

Depth—21 1/8 inches (53.70 cm)

System Weight Per Channel: 256 lbs (116.12 kg)