

Vienna Acoustics Imperial Liszt Loudspeakers

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At the 2008 Consumer Electronics Show, Vienna Acoustics introduced their flagship loudspeaker, the Music. As the top dog in their top line, the Klimt Series, the Music embodied several new design innovations, most obvious of which was a 7" midrange driver of Vienna's Flat-Spider-Cone design (see below), replete with a newfangled silk-dome tweeter at its center. These coincident drivers, aligned in time and phase, were housed in an independent, pivoting cabinet atop the larger main cabinet, itself home to three transparent 9" Spider-Cone woofers. The adaptable cabinet architecture was intended to permit ideal alignment of both driver arrays in a room and, almost overnight, proved so successful for Vienna Acoustics that, less than two years later, the company began thinking of ways to offer these design principles for much lower prices. At CES 2014, Vienna introduced their realization of this vision, the first speaker derived from the Klimt Music: the Imperial Liszt.

Not one box, but two

The Klimt Music is a large, imposing, expensive speaker whose price of \$35,000 USD per pair will put a big dent in your bank account. The Imperial Liszt is roughly half the Music's size and internal volume, and costs less than half as much: \$15,000/pair. Standing 47.2"H x 11.5"W x 17"D (with base) and weighing 99 pounds, the Liszt is the flagship of Vienna Acoustics' new Imperial line, of which it is, for now, the only member. I was told by Vienna Acoustics' North American marketing manager, Kevin Wolff, that there are plans to extend the series soon.



The Imperial Liszt is a three-way, bass-reflex design that mimics much of the appearance and functionality of the Klimt Music. Unlike its costlier brother, the Liszt forgoes the use of a supertweeter, instead depending on a 1.2" hand-coated, hand-assembled, silk-dome tweeter -- a heavily modified version of the tweeter currently found in Vienna's less expensive Concert Grand Beethoven. Peter Gansterer, the mastermind behind the Liszt's drivers, and his team spent nearly two years re-engineering this tweeter, which was too big to be used in the Liszt's coincident driver. The solution was to replace the ferrite magnets driving the Beethoven's tweeter with smaller, more efficient neodymium magnets. The advantages of doing so were twofold: the tweeter was now small enough to be used coincidentally with the Liszt's midrange, and it could now sing up to 25kHz, giving it the range demanded by the Liszt's new, modified first-order crossover. Wolff pointed out to me that the improvements in performance realized using this new tweeter were so impressive that, mounted on a standard faceplate, it is part of the driver upgrade for the new Beethoven Baby Grand Symphony Edition. It is also being used in the new Beethoven Concert Grand Symphony Edition, which debuted at CES 2015.

Surrounding this new tweeter is a 6" Flat-Spider-Cone midrange driver that Vienna claims is "new for the Liszt," and is also driven by high-powered neodymium magnets. The entire coincident assembly resides in its own cabinet, much as in the Music. According to Wolff, this "allows for the optimization of bass loading in most rooms while still being able to make fine adjustments to frequencies from about 200Hz and up." Wolff told me that Vienna Acoustics designs all of their drivers at their headquarters in Vienna, Austria, has the cones molded at a separate facility elsewhere in Vienna, and then has the entire coincident driver built by Scan-Speak. Every driver Vienna uses, down to the baskets, is proprietary to the company, and each bears a Vienna Acoustics badge; the drivers used in the Liszt also carry patents.



During my time with the Imperial Liszts, I found their midrange to be their most compelling aspect, technically and sonically. The flat midrange driver is based on the Klimt Music's Eton-made coincident driver, which was very similar to KEF's Uni-Q driver at that time (circa 1989). It took over five years of development before first being released in the Music loudspeaker, and after that underwent three years of further development before being ready for the Liszt. As with all Vienna Acoustics midrange drivers, this one's bandwidth is very wide, covering nearly seven octaves: the entire range of the human voice. The advantage of this approach, I'm told, is that there are no crossover or driver transitions in this most critical range. The disadvantage is that any midrange driver given such a task must be rigid enough to effortlessly convey the lower octaves *and* light enough to transparently transition to the higher octaves.

However, rigidity is not usually a characteristic of flat-coned drivers. I asked Kevin Wolff why Peter Gansterer was so keen to use such a transducer. He explained that traditional conical drivers can induce "horn loading" into the upper frequencies, and that this is sometimes further emphasized in a coincident driver, as the tweeter is usually horn loaded as well. Gansterer maintains that using a flat midrange driver obviates this problem while simultaneously improving the driver's dispersion. It also allows for a simpler crossover network to be used, for a more direct connection between the amplifier and the driver.

To realize his vision of a flat midrange driver, Gansterer used Finite Element Analysis (FEA) to identify stress points in the driver. Knowing the locations and magnitudes of these stresses, he was then able to develop a unique bracing system that would eventually be molded into the back surface of the driver. This so-called Flat-Spider-Cone is said to dramatically enhance the strength and rigidity of the driver while adding little to no mass.



Managing the bottom of the audioband down to a claimed 28Hz, +/-3dB, are three of Vienna's new X3P Spider-Cone transparent 7" woofers, enclosed in their own cabinet. All three woofers are wired in parallel and are identical to each other in construction, but not in operation. The top woofer is sealed in its own inner, braced enclosure of less than half the volume of the box holding the two lower woofers, and is vented independently via a modified port. Collectively, these changes are enough to enable this driver to function more as a midbass. Rather than add parts and complexity to the crossover design, Gansterer used this clever approach to maintain the first-order network.

Particular attention was paid to the design and construction of the cabinets. The top, bottom, and side panels, and the internal bracing, are made entirely of various thicknesses of MDF worked to very tight tolerances. The Imperial Liszt's front and rear panels are twice as thick as the sides and braces. This is claimed not only to reduce internal resonances but, more important, to maintain structural rigidity. The veneer on all panels is bookended: that is, the grain is mirror-imaged at each seam. My years of experience in woodworking have taught me that this is very difficult to do properly. Extremely tight tolerances must be adhered to while milling the panels, followed by the utmost care and attention in assembling the panels and applying veneer. From what I can see, the craftspeople at Vienna Acoustics have this down to an art. The Imperial Liszt is available in standard finishes of Cherry, Piano Black, or Piano White; Rosewood costs an additional \$3000/pair.

The Imperial Liszt's grilles (each speaker has two) are magnetically attached, to reveal a clean, smooth surface when removed. This is nothing new, but perhaps unique to Vienna speakers are the redundant magnets installed in each grille in case of magnet failure down the road. Furthermore, the magnets' poles are so oriented that the grilles can't be attached incorrectly -- particularly useful with the smaller, square grille covering the coincident driver. The floor spikes and outriggers that support the Liszt are also well thought out: They can be adjusted in place from the top of the base, using a lock nut, rather than having to tilt the speaker up, adjust the spike, and lower the entire assembly back into place. This greatly simplifies leveling or tilting the speaker.



The Liszt also shares the Klimt Music's terminal connectors, which are machined entirely in-house and provide very quiet, secure connection with spade lugs or banana plugs. All internal wiring in the Liszt is of oxygen-free copper, twisted in-house before installation; all crossover parts, most of which are made by a German company, are specified within 1% tolerances or better, with the inductors specified to 0.7%.

Setup

Few will argue that properly positioning a loudspeaker in a room is of paramount importance. For the most part, this process, which can be time-consuming, is a relatively simple one -- with most full-range speakers, there are only so many things one can adjust to get them to perform ideally in their environment. The Liszt is a somewhat different animal in being able to be independently fine-tuned for frequencies above and below 200Hz. This not only simplifies the positioning process, it makes possible previously unattainable levels of performance without the aid of room treatments or room-correction software. I was curious to see how Kevin Wolff would approach this process, once the Liszts were freed from their considerable packaging.



He began by placing one speaker deep in my room's front left corner, and completely ignoring the other speaker. As he moved the left speaker around, he explained that he was focusing only on its bass performance. He continued to incrementally shift the speaker's position, moving it away from the front wall but keeping it fairly close to the sidewall (my room is only 12' wide). We settled on a distance from the front wall where the bass sounded decent, then further fine-tuned the bottom end by slowly, inch by inch, moving the speaker away from the sidewall, and toeing it in slightly. The left speaker ended up 4' from the front wall, 14" from the side wall, and toed in about five degrees. We then roughly mirrored this position with the right speaker, then began fine-tuning the two speakers' cumulative bass performance by making small adjustments in the right speaker's toe-in and distance from the sidewall.

Only when all of this was completed for both speakers did we move on to positioning the head units. Once that was done, we locked the heads in position using a supplied key, and began adjusting the tilt of each speaker, having first ensured that it was properly anchored to the ground using the large floor spikes. The entire process took less than an hour -- less time than it took me to dial in my more *conventional* Rockport Technologies Atrias.

Sound

Properly positioned, the Imperial Liszts produced levels of realism, depth, dynamics, and scale that I did not expect from a speaker of this size. Listening to "Nobody's Fault But Mine," from Tom Jones's *Praise & Blame* (CD, Lost Highway B001455502), I heard a precisely sculpted voice locked center stage against a deep, punchy bass line. It was immediately apparent that the efforts taken to produce a midrange unpolluted by such things as multiple drivers or obvious crossovers had been successful. Jones's voice sounded coherent and in the room, and reminded me of what I've heard from good electrostatic speakers. I particularly enjoyed how naturally the Liszts conveyed the weight and depth of Jones's baritone when called for, without muddling it into the bass line. The ability to accurately delineate and convey subtleties such as these emphasized just how successfully the first-order crossover and coincident drivers have been implemented. I was beginning to be convinced that Vienna Acoustics' Imperial Liszt was something special.

Captivated by what I was hearing, spending hours in my listening room became more an obsession than a hobby. Track after track, I put the Liszts through their paces, listening for faults or flaws, but few could I hear. The Liszts' tonal balance was consistently exemplary for this price range, sounding neither too warm with female voices -- "Brand New Me," from Alicia Keys's *Girl On Fire* (16-bit/44.1kHz FLAC, RCA) -- or too raspy or chesty during Tom Jones's "Nobody's Fault But Mine."



Now, with a good understanding of the holistic sound the Liszts were capable of, I began to focus on finer details, starting with an old favorite: the title track of Norah Jones's *Come Away With Me* (SACD/CD, Blue Note 5 41747 2). I was again struck by how well Jones's voice was articulated while filling the 9' gap between the speakers. The scale with which the Liszts consistently presented music was, in a word, *big*. Rich piano notes floated delicately in the air, accompanied by well-articulated brushes against drum skins, and cymbals soothingly decayed into inky-black backgrounds. The music simply bloomed, with an openness that stretched well beyond the confines of my room's walls, and with compelling senses of ease and effortlessness.

Mixing things up a bit yet still trying to focus on the details rather than getting lost in the music, I listened to various electronica tracks, ranging from Daft Punk to Armin van Buuren. When I got liberal with the wick during "Unforgivable," from van Buuren's *A State of Trance 2008* (16/44.1 FLAC, Armada Music), the Liszts exhibited excellent levels of pace, rhythm, and timing, and continually laid down authoritative yet controlled bass lines. "Unforgivable" begins with a prologue, as does so much electronica, initially focusing on various electronic and synth effects, such as pops and synthesized cymbals. As the bass line thumped in, the transient speed of the pops and effects was readily apparent, making this track sound faster than I'm used to. In fact, transient speed and a punchy bass line were what stood out in "Unforgivable." It wasn't until the next track, "Spring Breeze," that I was able to appreciate improvements in the tonal purity of the synthesized piano, and hear newfound aural effects throughout an expanded soundstage. This, in combination with newfound microdetails, such as a rapid tick so well delineated it sounded almost like an immense insect filling the space between the speakers, allowed me to clearly hear the speed and textural ability of Gansterer's new tweeter.



To further explore the Liszt's ability to unravel layer on layer of detail, I cued up a particularly nuanced track: "What a Shame," from Patricia Barber's *Café Blue* (24/88.2 FLAC, Premonition/Blue Note/Mobile Fidelity Sound Lab). Not unexpectedly, Barber's smoky voice was precisely imaged at center stage against Michael Arnpol's rich yet articulately deep-digging double bass -- also near center stage. Adding another layer of complexity, perhaps the most difficult to communicate correctly, Barber's piano was also positioned center stage, right along with John McLean's eerie yet evocative electric guitar. Because the Liszts seemingly thrived on presenting precisely delineated instruments within vast soundstages, there was barely a hint of congestion in the sound. Instead, the Viennas convincingly layered Barber's voice and piano, Arnpol's bass, and McLean's guitar among each other in stride -- while, to the right, I could hear percussionist Mark Walker casually rapping away on his tight-skinned bongos with almost holographic dimensionality.

Competition

While I admire the Imperial Liszt for what it brings to the marketplace for \$15,000/pair, there's no denying that it has lots of competition at or near that price. One could consider anything from Sonus Faber's beautiful Olympica III (\$13,500/pair), which Doug Schneider reviewed favorably in December 2014 on SoundStage! Hi-Fi, to KEF's new Reference 5 (\$18,000/pair). I haven't heard either of those models -- but for just over two years I did own a pair of Bowers & Wilkins' formidable 802 Diamonds (\$15,000/pair). The 802 Diamond's diamond tweeter is perhaps more articulate and airy than the Imperial Liszt's. It goes higher, and better communicates that last iota of detail. The transition from tweeter to midrange is slightly more audible in the B&W than in the Liszt, however, as is the transition from midrange to woofers. As a result, the Liszt's sound is a bit more balanced, smooth, and cohesive from top to bottom. Dynamically, I found the speakers pretty much on a par with each other, despite the Liszt's slightly higher efficiency rating of 91dB vs. the B&W's 90dB. I also found the Liszts capable of throwing a consistently wider soundstage. Finally, while the 802 Diamond is claimed to extend down to only 34Hz compared to the Liszt's 28Hz (both +/-3dB), the B&Ws seemed to dig deeper in my room, if at the expense of some textural detail.

Conclusion

The Liszt is a wonderfully neutral-, natural-, and cohesive-sounding loudspeaker; it grabbed me with its realism simply by sounding so right. While they didn't produce Magico levels of resolution, the Liszts did portray expansive soundstages replete with well-fleshed-out voices, solidly imaged instruments, and spooky spatial nuances. And, as with speakers from other quality manufacturers that offer coincident driver arrays, such as KEF and TAD, you won't be forced to sit directly on the tweeter axes to realize the Liszts' full potential -- which makes them ideal candidates for a high-end home theater. What makes the Vienna Acoustics Imperial Liszt truly special is that it evokes genuine emotion and excitement. I can't think of better reasons on which to base a confident recommendation of them.

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