



Estelon XB Diamond Mk II Loudspeaker

More Than Skin Deep

Matthew Clott

Alfred Vassilkov studied electro-acoustics at St. Petersburg University before working at the Estonian Radio Electronics Manufacturing in Tallinn, Estonia where he developed drivers, crossovers, and complete loudspeaker systems. In 2006, he began experimenting with unique composite materials and designs that highlighted the concept of subtractive diminution. Alfred began focusing on streamlined shapes that employed a sculptured look. Realizing that by combining a proprietary, newly developed crushed-marble-based resin-composite material, which offered never-before attainable three-dimensional fabrication, he could create a cabinet shape highlighting organic linearity and simple elegance,

while implementing advanced acoustic engineering. In 2010, he decided to form a company that would advance his ideas on new materials and design principles, which he called Estelon. The material he developed offered excellent stiffness combined with anti-resonant properties. The resultant molded cabinets could achieve a geometry that would have been either impossible or prohibitively expensive with any other fabrication method. The new hourglass shape was dubbed “E-Ion” and avoided any enclosure reflections (look Mom, no corners!), while improving tonality, image specificity, stage projection, and low-frequency control. Today, Estelon is a thriving company that exports its loudspeakers all over the world.

Jonathan Valin reviewed, and highly praised, the company’s mid-line XB Diamond in Issue 323. I did not have the privilege of hearing the original Estelon XB Diamond, but I have been dying to get my reviewer hands on a pair of Estelons for years. When Robert Harley asked if I was up for the task of reviewing the newly redesigned XB Diamond Mk II, I think my “yes” gave him whiplash! The current model utilizes an 8.7" Accuton ceramic sandwich woofer, a 6.25" Accuton ceramic midrange, and a 1" Accuton diamond tweeter. The design places the tweeter below the midrange, which many believe helps improve staging and imaging. The woofer is located close to the bottom of the enclosure to increase acoustic coupling with the floor/room and more evenly distribute standing waves. The

distance between the woofer and midrange/tweeter is akin to an ideal sub/satellite implementation, while maintaining driver integration and overall coherency due to the convex curvature of the front baffle. As an added benefit, that woofer really does make speaker location more flexible from a bass-performance standpoint, allowing room placement to affect tonality, imaging, and staging with less of an effect on low-frequency integration. All internal cabling is Kubala-Sosna.

The Diamond upgrade includes the diamond tweeter instead of a ceramic inverted dome and an upgraded crossover with KS internal cabling. The shape of the speaker is, quite honestly, sexy as hell! At a petite 49.5" tall and a width of 16.5" at its base, its performance belies its size.

Although the review pair are finished in less-than-exciting gloss white (I was really hoping for that spectacular purple or red), the fit and finish of the enclosure, the spikes, the binding posts, and the paint job made for a spectacular overall gestalt. The XB Diamonds look every bit the 60+-thousand-dollar product they are. At a sensitivity of 87dB, they (especially the woofer) did require some juice to truly energize the room and get that petite 8.7" woofer to add its thunder and spice. And thunder it added. I remember reading a review of the original X Diamond from our resident elocutionary, Jonathan Valin, and the two things that stuck (and made me want to review a pair for myself) were his description of an impressive lack of ringing from the diamond tweeter and an overwhelmingly

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Specs & Pricing

Type: 3-way bass-reflex loudspeaker

Cabinet material: Marble based-composite

Drivers: Woofer: 220 mm (8.7") Accuton; mid/woofer: 158 mm (6.25") Accuton; tweeter: 25mm (1") Accuton, diamond inverted dome

Internal wiring: Kubala-Sosna

Frequency response: 22Hz–60kHz

Power handling: 150W

Nominal impedance: 6 ohms (minimum 3.1 ohms at 51Hz)

Sensitivity: 87dB at 2.83V

Minimal amplifier power: 30W

Dimensions: 16.5" x 49.5" x 23"

Weight: 69 kg (150 lbs.) per piece

Price: Standard paint finish is \$63,000; Violet Night is \$66,000; Red Rocket is \$70,750

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impressive bass response from a single small woofer. Without rushing ahead in the review: same and same! Frequency response is rated as 22Hz to 60kHz. While I haven't been able to hear up to 60kHz since, well, never, I can affirm that after I removed my very-20Hz-capable Wilson Alexx Vs, the little XB Diamonds outperformed their limited physique; I frequently found myself shaking my head at the prodigious bass output of these speakers. I also have to admit that I love a simple three-way design, and this was that, and that done well.

Speaking of 3-way designs, the XB Diamond's drivers cross over at 80Hz and 2.1kHz. The woofer is cut off on top at 80Hz using a third-order filter, while the midrange driver naturally rolls off on the low end, relying on driver integration with the enclosure to make that happen (it's called good engineering and reduces the bits and pieces between your cable and your driver, which improves the bits and pieces that make it to your ears). The 2.1kHz hinge point on top is also second-order and accomplished with more bits and pieces like Mundorf Supreme-EVO-Silver-Gold-Oil caps, Supreme resistors, and Kubala-Sosna internal cabling. Furutech connectors complete the circuit. The crossover is in its own isolated chamber in the bottom back of the speaker, directly connected to the speaker binding posts.

To recognize that casting a speaker enclosure in one piece has unique advantages is putting it lightly. The E-Ion cabinet offers density, rigidity, very low resonance, high internal damping, and no parallel sidewalls; inside, the cabinet utilizes cast structural stiffening spars for further rigidity and damping. The goal is a truly natural and balanced sound, permitting the advanced cabinet materials and design to strut their stuff without any detrimental effects on performance. Control of the external shape allows elimination of reflective diffraction, greater dispersion control, and a wider-than-typical sweet spot. The manufacturer claims time and phase alignment (everyone does these days). I have no technical way of saying yay or nay, but my ears and the performance characteristics suggest the claim is accurate.

I must recognize the safety, security, and convenient design of the transport flight

cases. The speakers come well secured and well protected, with rolling casters on their bottoms. This makes getting them out of the crates (with a net weight of 150 pounds), a do-able one-person job. (You should plan on two people, though. Do what I say, not what I did!) Leave the wheels attached to dial in placement then swap out the wheels for the well-designed, heavy, and attractive spikes. Spiking always makes a difference, and you should do it. The speakers settled in pretty close to my usual ideal location—about 9 feet apart and a scotch farther toward my listening position. I eventually pushed them to about 32" from front wall to front baffle and slightly toed-in. They were too hot toed-in and aimed at my head. (The manufacturer recommends a toe-in of approximately seven degrees towards the listening position (depending on the room acoustics)—in other words, barely toed in. Al-



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though I did not break out my protractor, I'd say they ended up toed-in about 10 degrees. Although my room is very well treated, and bass is less of an issue than it is in most rooms, I have to reiterate that setup and adjustment had less of an effect on low frequencies and a much greater effect on tonality, staging, and imaging. It was nice to have one less variable to consider while pushing, pulling, and toeing to optimize. They fit perfectly in my 15' x 18.5' listening room.

Sonically, the XB Diamond is neutral, clean, accurate, and dynamic. As I mentioned, the system effectively behaves like a sub/sat system, and the stage and image reap the benefits of that design. I try to use the term “holographic imaging” as rarely as I can, but this is one of those times where it applies. I would rate these Estelons as one of the Top 5 vanishing acts I've heard in my room, and certainly one of the largest speakers I have hosted to completely disconnect themselves from the music presented to me. The sonics indicate a massive, well-damped, stiff enclosure that completely gets out of the way of the drivers. That is, to say, that the cabinet is there to hold the drivers where they need to be and to do little else; it is there doing what it is physically supposed to do and looking good while doing it; yet it is acoustically transparent. The driver selection, which admittedly causes some audiophiles to put on their “I'm gonna judge before I even

hear them” outfits, suits the speaker and what the designer was targeting. With the combination of diamond-coated ceramic mid and woofer and diamond tweeter may conjure (for some) the illusion of listeners fleeing the room with blood dripping from their ears, this is simply not the case. The drivers have enormous linearity in response and low distortion. Their capacity to avoid the ceramic/diamond ringing and dynamic compression of the driver category is impossible to ignore. That doesn't mean they didn't sound like a ceramic woofer and diamond tweeter; it means that they avoided their foibles and highlighted their strengths. As

I said, clean, resolving, accurate, lighting-fast, neutral, and dynamic—never shrill, bright, analytical, or strident. They lean ever so slightly towards the blue color spectrum over red. (If you chose to interpret this as a negative, then you are reading it wrong.) By swapping out my near laboratory-neutral Pilium DAC for the Lampizator Pacific DAC, that blue almost became a beautiful lavender with hints of burgundy. And my Light Harmonic DaVinci 2 DAC (overtly on the warm end of neutral) added a sweetness to the signal path that the Estelon inhaled and exhaled with youthful exuberance. And that was just by changing the DAC! I spent some of my

time listening with my Pili-um amp and preamp, some with my Pili-um preamp and my recently acquired Lamm M1.2 Reference monoblocks, and the remainder on the currently-in-review Gryphon Diablo 333 integrated amp (full review forthcoming). The XB Diamond shined with all three in very different ways, revealing just how flexible and capable these speakers truly are.

Jumping on board the listening train, I found “Dance of the Tumblers” from the Minnesota Orchestra stunning. As a masterfully recorded reference for many, the XB Diamond deftly conveyed the sense of pace and energy this piece conveys. This track

helps to separate the proverbial men from the boys when it comes to dynamic contrast, high-gain refrains, and portrayal of an expansive stage. I have internal memory of where my volume should be at the opening string refrain just prior to the bells. If, at any point, I need to reduce the volume, it means the speakers can’t handle it. I admit I was worried that the diamond and ceramic drivers would cause me intense pain, and I kept my hand on the remote the whole time, but I didn’t touch the volume once. What I got were details, speed, and resolution, highlighted by timbral overtones of deeper complexity. Most definitely more of a they-are-here than I-am-

there presentation. I heard a palatial stage bringing those poor performers all the way from Minnesota to NJ and cramming them into my little 15' by 18' room; it certainly could not have been comfortable for them! But I thoroughly enjoyed the performance; so much so that I continued my journey to “The Sea and Sinbad’s Ship” as told by Schéhérazade through the workings of Rimsky-Korsakov with the help of Nosedá directing the Filarmonica Teatro Regio Torino— A tale told with a powerful presentation involving whiffs of violin and flute all portrayed in scale and breadth.

The XB Diamond’s capacity to present and portray detail borders on the ludicrous, and these big bold tracks know how to advangitate (I just made that up, it means, “to take advantage of”) what the Estelons are bred for. Yes, they are clean and accurate, but they are also poised and gentle. They are a youthful prima ballerina, with grace and elegance and capable of bounding exuberance while always maintaining a semblance of conviviality. There was a sense of lascivious charm that they were missing, though, which extended into other musical genres. If you continue that ballerina analogy, the XB Diamonds could dance tap, jazz, jitterbug, blues, metal, and rock ’n’ roll, but struggled to dirty dance. Not that she couldn’t recreate the movements, but she just didn’t have the physique to make it arousing.

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Changing gears dramatically, I pulled up a favorite test track, “Albo Gator” from Kevin Spacey’s *Albino Alligator* soundtrack. “Albo Gator” is a treat of gongs and rhythm, with some phase fun and Matthew McConaughey narrating. The texture of the gongs and simple percussions expands from left of my seat to four feet in front of the right speaker. And Mr. McConaughey’s voice has amazing grit and depth. The stage and imaging were best in class, which is

saying something considering the class the XB Diamonds are in. Matt’s voice (my name is Matt also so we are, by default, on a first name basis) had the depth and rich texture it always has but failed to convey its grit and Southern sarcasm 100% convincingly (that same lascivious charm). Yet Ozzy Osbourne’s ballad “Mama I’m Coming Home” nailed it with its twangy steel guitar, soulful bass notes, and electronic vocals, bringing every ounce of the emotion to the room

and blowing the walls out while doing it.

The more I listened, the more I understood what these speakers are and what they can do. My Wilsons are flexible; they play nicely with practically everything. They forgive and forget when it comes to equipment, recordings, cable, mood, or type of bourbon I’m drinking. The Estelon’s expect respect, if not demand it. They expect you to spend the time to make the system your own by not just plunking them in whatever gear you have, but by building your system around the speakers. When I brought the right combination of equipment to the room, the Estelon XB Diamond’s delivered practically everything. That said, I felt perfection was just out of my reach yet attainable with the right combination of cable, electronics, and placement. I almost believed that my meticulously treated room was somehow subtracting from what the XB Diamond could achieve, as if they were built for normal rooms with normal furniture and normal walls. They represent a transducer system with a remarkable lack of distortion. I am comfortable saying they are not for everyone, but for those who value resolution, purity of tone, clarity, dynamics, scale, base extension, and tonal and timbral purity, the Estelon XB Diamonds are a must hear, see, and feel.

The Estelons are a visual delight, and come in any color you could want them in. I believe they would have universal appeal and could fit into most decors seamlessly and elegantly. While I didn’t want them in my listening room permanently considering their partiality to certain gear over other gear (we reviewers need equipment that works well with everything), I did unrealistically fantasize about putting them in my family room (such equipment is simply not in my budget right now). My gut told me they would sound fantastic with an Octave, VAC, or Audio Research integrated. I foolishly asked, and my wife said, “Hell, no,” as nicely as she could and then mumbled something about redecorating the guest room as she walked away. Oh, well. I tried. Maybe I could sell her on a pair of Estelon’s diminutive Auras... **tas**