

JULY 2015



ADAMANTE



Reviewer: Srajan Ebaen

Financial interests: click [here](#)

Sources: 27" iMac with 5K Retina display, 4GHz quad-core engine with 4.4GHz turbo boost, 3TB Fusion Drive, 16GB SDRAM, OS Yosemite, PureMusic 2.04, Tidal & Qobuz lossless streaming, COS Engineering D1, Metrum Hex, AURALiC Vega, Aqua Hifi La Scala MkII, S.A. Lab Lilt [on loan], SotM dX-USB HD w. super-clock upgrade & mBPS-d2s, Apple iPod Classic 160GB (AIFF), Astell& Kern AK100 modified by Red Wine Audio, Cambridge Audio iD100, Pro-Ject Dock Box S Digital, Pure i20

Power & integrated amplifiers: Pass Labs XA30.8, FirstWatt S1, F6; Crayon Audio CFA-1.2; Goldmund Job 225; Gato Audio DIA-250; Aura Note Premier; Wyred4Sound mINT; AURALiC Merak [on loan], Reimyo/Combak KAP-777 [on review]

Loudspeakers: EnigmAcoustics M1, Albedo Audio Aptica; soundkaos Wave 40; Boenicke Audio W5se; Zu Audio Submission; German Physiks HRS-120, Gallo Strada II w. TR-3D subwoofer

Cables: Complete loom of Zu Event; KingRex uArt double-header USB; Tombo Trøn S/PDIF; van den Hul AES/EBU; AudioQuest Diamond glass-fibre Toslink; Arkana Research XLR/RCA and speaker cables [on loan]

Power delivery: Vibex Granada/Alhambra on all components

Equipment rack: Artesania Audio Exoteryc double-wide 3-tier with optional glass shelves, Exoteryc amp stand with Krion or glass shelves

Sundry accessories: Acoustic System resonators

Room: Irregularly shaped 9.5 x 10m open floor plan with additional 2nd-floor loft; wood-paneled sloping ceiling; parquet flooring; lots of non-parallel surfaces (pictorial tour [here](#))

Review component retail in Europa: ca. €16'000/pr (depending on VAT)



Adamant. The word traces back to the Latin *adamantem* derived from *adamās*, for 'hard as steel'. It's related to the Greek *ἀδάμας/adámas* for 'invincible' as well. In today's lingo, it means firm, unyielding, determined. Hence *adamantine* or *adamantium* also describes a mythical stone of extreme hardness to sometimes be applied to diamonds. And of course in Marvel's universe, Wolverine's claws and skeleton are bonded to a fictional metal alloy called adamantium. Now why do you reckon that the French at Apertura Audio have named their latest speaker model Adamante*? I could think of a few reasons. As 'unbreakable', it might point at chief designer Christian Yvon's determination to further perfect the particular elliptical crossover which he invented decades ago. Prof. Cauer published complex mathematical formulae describing similar networks. Hence they're often referred to as Cauer filters. Us techno-peasant civilians probably do best to imagine their complicated workings as a compound function of 1st + 2nd + 4th-order slopes stacked one atop the other. This nets more than 40dB/octave attenuation steepness. In the Adamante, the hinge of the separate hi/low-pass filters is set at 1.8kHz. This amounts to 37 crossover parts per speaker wired to high-power PCBs with 210µm copper traces. Contrary to popular expectation for such a complex network, this DRIM filter "allows for minimum intermodulation and respect of time alignment".

** "About the name Adamante, I am fully allergic to all product names which mix letters and numbers or use any superlatives. We need a little bit of poetry in this word! I often find inspiration for names in literature; and it must sound like Latin, the origin of our language. Some people even think we're Italian. And I like the reference to Wolverine. He's the least politically correct of the X-Men, hence to me one of the friendlier ones."*



For a related naming reason I can think up, adamant becomes *stubborn*. This applies to the previously second-from-the-top Onira stubbornly clawing its way up closer to the Enigma range topper. With it the Adamante relegates the Onira to third down. Whilst

looking similar, the 2nd-place usurper gets apparently very significant improvements to the 6.5" paralleled mid/woofers. Besides changes to their motors and damping for better linearity, those drivers now also flaunt copper phase plugs. The Adamante also gets the twice-sized 22cm²/88mg sandwich aluminium ribbon tweeter taken directly off the Enigma. So it's an upwardly mobile Onira with upgraded drivers and concomitant adjustments to the filter. The cabinet continues established Apertura construction. That means 28-44mm thick multi-laminated high-density molded MDF and bulging cheeks. Those curved side panels are of dissimilar width. That's because the vertical front baffle, itself significantly wider than the spine, attaches canted. Think of toe-in that's built in to see it in your mind's eye. It creates an asymmetrical cross section without any parallel walls. Only the top and bottom remain parallel to each other.

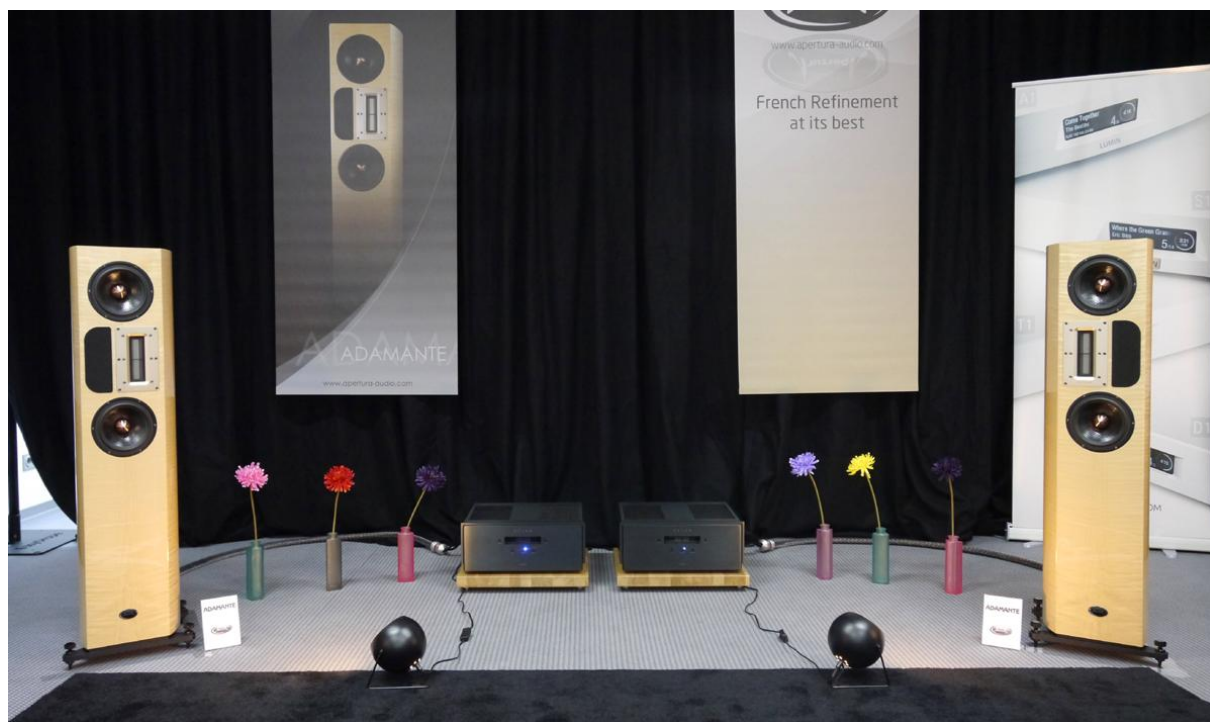
A scheme of eight cross braces fortifies this structure. Also invisible once installed are the central 'drain' cone in the middle of the four footers connected to the metal outriggers; the down-firing port with its large diameter connected to a hybrid line; and four different liner/damping materials mixed to cancel standing waves. The sum of these parts nets a claimed 32-30'000Hz bandwidth at ±3dB. Sensitivity is a useful 91dB/1w/1m, nominal impedance is 4Ω. Physically it amounts to 52kg and 22 x 35.3 x 115cm dimensions without the outriggers and footers. If you've read my prior [Edena](#) review, you already know that for his own brand—he previously contributed to Goldmund and other famous firms—Christian Yvon champions 2-ways exclusively. That makes the 3-driver Adamante a d'Appolito two-way. "We prefer two-way architectures compared to which three-ways are far more complicated and costly. The qualitative gain of a 3-way speaker is almost always seriously reduced or zero compared to a properly designed 2-way and always to the detriment of far more complex filters. Here simplicity is better." Monkey coffins will wince whilst disciples of the less-is-more doctrine applaud.

At €16'000/pr and on the slanted face of this, the Adamante plays it sparse on driver artillery. That's off-key to beliefs equating quality with *lots* of vertically stacked drivers, the bigga and mora the better. Clearly the core audience for this speaker thinks differently. Or else they'd walk right past. I had no such plans for Munich HighEnd 2015. There the Adamante would make its global debut with Lumin, Melco and Playback Designs for digital partners; Dr. Feickert for vinyl; and an Aesthetix stack of Rhea, Calypso and Atlas for the rest. It'd be my chance to presample the new speaker.

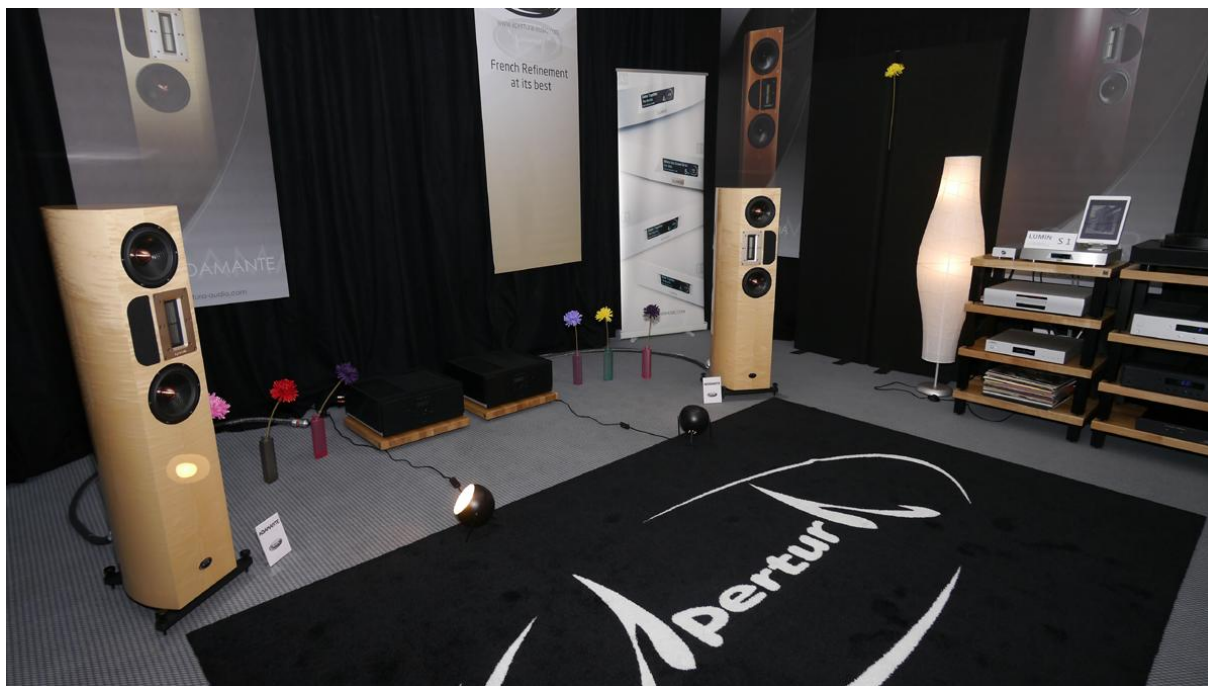


Impressed with the Adamante's showing in Munich, I took the very earliest opportunity to advance their case. A Sicilian friend, via a translator colleague, asked for speaker brand recos to

augment his current hifi import catalogue. I mentioned Apertura. The translator's first response was asking where they were from. France I said, thinking such proximity an added asset. He shook his head. As Italians, they didn't like or trust French product. Shy of possibly poor prior experiences, I thought it curious that such political bias should negate any further investigation. This seemed particularly silly when all it took here was a walk up a few stairs to seek out Apertura's room for an audition, hands-on inspection and subsequent chat with the designer and company representatives. Isn't that's why distributors attend hifi shows? But no, the Gallic *thang* interfered on basic principle. Sacre bleu !

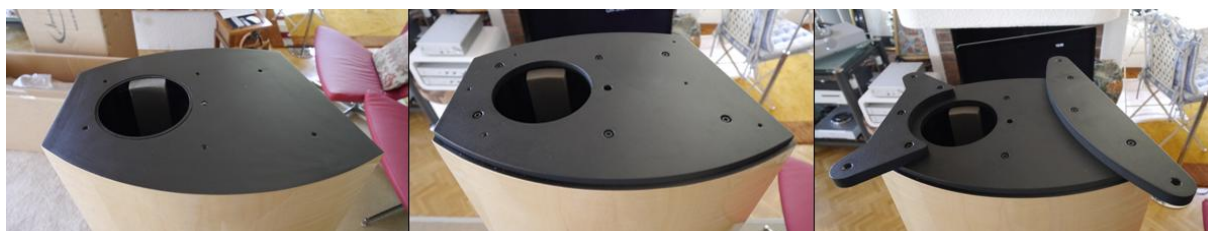


I mention it only by way of the biases we all carry. It matters naught whether it be origin, MDF, wood, aluminium, Beryllium, Titanium, silk, 1st order, 4th order, no order, dynamic, planar, fusion or confusion, narrow, dipole or omni directionality, small or big woofers or any other spec one might cite. Prior exposure, beliefs, conceptual sympathies, cosmetic requirements, price, size and much more all become filters. Their mesh determines how we size the various particles and which we let pass and which we block *by design*. Reviewers are no different. We wear the same blinders. The best we can do is articulate them openly. On which subject, the Adamante loudly rang a number of personal attraction bells: compact-enough size for our domestic situation; becoming cosmetics and finish; sufficient bandwidth to be considered full range for normal applications; down-firing porting; and great prior brand experience. Potential hang-ups based equally on prior experience if elsewhere—plus conceptual leanings that simpler is better—would be the interracial marriage of ribbons to dynamics; and a very complex filter network. These were my *things* I'd have to be mindful of.



Relative to French origins, I'd always favour German or Japanese cars. Here I most *definitely* suffer nationalist biases. With hifi however, personal curiosity and hobbyist enthusiasm could care less where something's from. Practically speaking, I'd have to admit that appeal of actual ownership would still be informed by support infrastructure and brand stability. Where does one go for repairs? Will the firm still be around when that happens? Here Apertura's years in business were a big bonus. Ditto France's status as a direct neighbour to Switzerland. Naturally if one lived very far away and had no regional or local representation, the latter feature could flip and become a tall barrier. Ditto currency exchange rates and their impact on specific export markets. C'est la vie !

By mid June, Apertura's Laurence Poyer emailed to confirm that their show samples had returned to the factory and were ready to forward to La Suisse. For the temporary importation carnet, would two months be sufficient? Absolutely, replied I and so the stubborn super-hard game of Adamante was on. Delivered strapped to a single pallet, each speaker triple-boxed, it took some sweat equity and not Uhaul but Ihaul to finally have the gloss Maple finished beauts set up. One first bolts on a solid-steel plate to their bottoms with six longer hex bolts. This plate is just a bit smaller than the cabinet to create a narrow recess. Atop the now metallized end bolt two outriggers with another six shorter bolts plus the threaded post for the central drain footer. This scheme creates added cabinet mass and lowers its centre of gravity. The included spike footers with double lock wheels each terminate not in floor-piercing points but 5mm balls. Those slipped nicely into my Track Audio floor-protector shoes. Now I could slide the speakers into position without fuss.





By fortuitous happenstance, Kazuo Kiuchi's mighty 200wpc Reimyo KAP-777 stereo amp was in residence just then to create a class A/B push-pull alternative to my usual 30wpc class A Pass Labs XA30.8 also in push/pull mode. For first proof of life, the Japanese was doing the honours with the Aqua Hifi LaScala MkII DAC and COS Engineering D1 preamp in the loop.



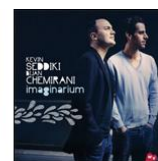
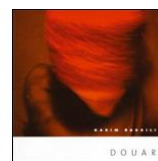
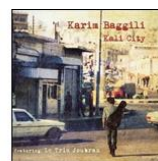
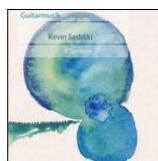
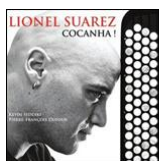
With extra efficiency over our usual speakers, these required less gas on the volume pedal. Within minutes of acclimating to being under signal again after their Schenker freight journey, our Frenchies predicted a proper energetic sound full of tonal fat, not a pale rehydrated likeness thereof. I was off to a good start.



Electrostatic hybrids—panels on top, dynamic woofers below—often suffer from textural discontinuities. Disparate operational driver tech is clearly audible. Earlier Martin-Logans suffered that. Having owned old Avantgarde Acoustics Duos, I will say that even mating hornloaded dynamics to non-hornloaded active woofers can be problematic. Here ultra efficiency on top and standard efficiency in the bass create their own challenges to blend without giveaway. Makers of various hybrids tend to refine their recipe over the years. They either minimize or outright banish earlier seams. 2-ways using folded tweeters of the AMT kind very often express a dynamic rift at higher volumes. Now the 5:1 air-motion advantage of the pleated drivers runs away from the standard dynamic brethren which begin to dynamically compress far sooner. That becomes a type of brightness. Having owned Raal ribbon-fitted speakers from soundkaos and Aries Cerat and reviewed others, I knew that seamless implementation was possible; and that lesser filters or ribbons can also exhibit a particular metallic grey-ish texture. The Adamante's steep filter enables a standard 1.8kHz filter hinge rather than upshifts the ribbon's operational range by an octave to protect it. To enhance its displacement prowess vis-à-vis the twinned mid/woofers, Christian Yvon doubled up on its surface area. These are items obvious to anyone looking at the specs, then drivers. Now it takes a personal audition to confirm whether the inherent promise in these addresses overcomes the usual issues. At even the stoutest SPL which our space, ears and downstairs neighbours tolerate, I could cause no audible distress in the treble range to indicate dynamic compression or break-up. Whatever brutality it might require to do so was beyond me. This interracial marriage was tight. On the other end of the large-diameter port, I did spot the occasional ringy bloat note with both class A/B and class A amplifiers. Moving about our space once I'd isolated a trigger track showed this to be room interaction, i.e. audible only in certain positions. Here the Adamantes hitched rides on a minor mode which our usual speakers in the same spot don't trigger because one of them is a transmission-line, the other a more compact rear-ported monitor of less ambitious port tuning. Being down-ported uses the floor gap to fix the loading. By lowering the gap, I nearly eliminated the audibility of this room-induced interaction in the listening seat. That's the advantage of such a port orientation. One needn't upset the ideal front-wall distance for best soundstaging but tweaks the floor gap instead.

The Pass Labs XA30.8 had the superior bass control (lower Ω , higher current?) to get away with a taller gap for stronger LF output. But ultimately the darker heavier more opulent voicing of the

Reimyo KAP-777 better suited the Adamante's very informative top end. This had me adjust the spike length as shown, then end up with my usual PureMusic'd iMac running into the Aqua Hifi LaScala MkII DAC, then COS Engineering D1 as volume control to exploit a fully balanced signal path. Using a deliberately bottom-heavy overcast track like "Ancient Love" from Anoushka Shankar's *Rise* album demonstrated how this tall ribbon tweeter reset my overall lighting conditions. This tendency did best with the biggest counterweight I could muster; like a crane doing heavy lifting needs an extra stack of concrete slabs. If you're used to 1" dome tweeters, the tall Adamante ribbon really turns on the very bright stage lights. Given how *efficient* this speaker acted—we all know where our volume control tends to sit and how this relates to sensitivity specs—I even suspected small line-source advantages, i.e. a cylindrical rather than spherical wave launch especially for the tweeter but likely valid also for the dual mid/woofers despite their spacing. Cylindrical loses less acoustic energy over distance.



Guitar-centric playlist with Karim Baggili, Rafael Cortés, Kevin Seddiki and Thierry 'Titi' Robin to serve a momentary mood

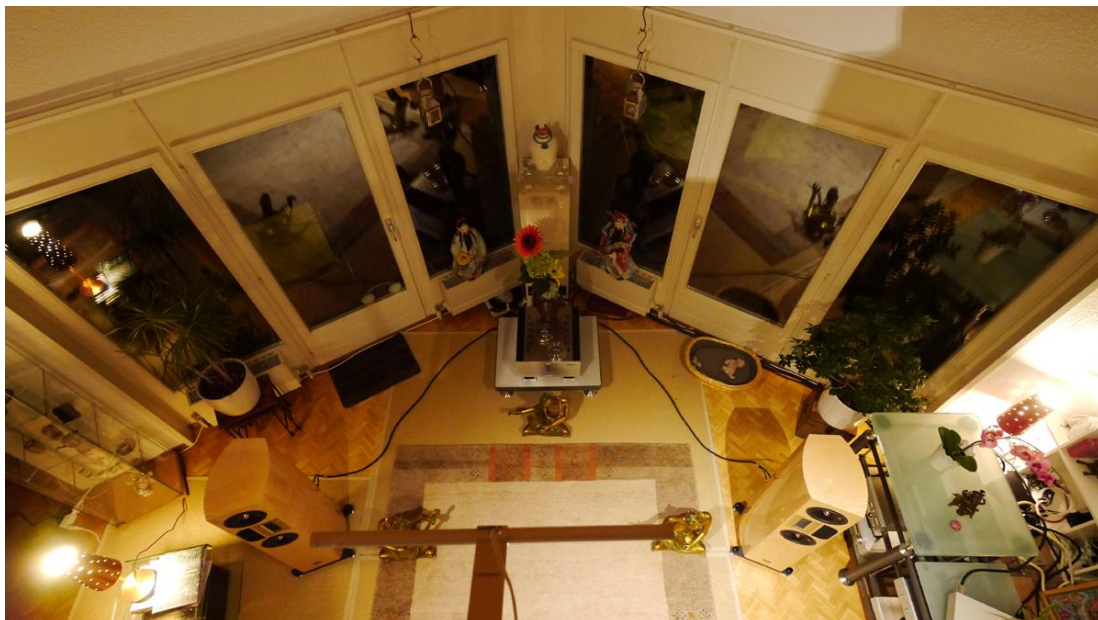
When audiophiles mention bright treble, they tend to mean an upturned tone-control effect. The treble is louder than it ought to be, hence forward, explicit and shelved up. That's not the Adamante. But there's another possibility. And that's the Adamante through and through. Think of a dynamically more expansive/responsive treble; not women's lib but tweeter's liberation. This has to do with either loading (horns) or, as plainly the case here, sheer membrane size. This unit moves mucho más air than we're used to. Coming off less gifted tweeters, our hearing at first registers more top end as though there was too much. Then the realization dawns that no, in that sense there really isn't too much. The bass is very much extended, weighty and powerful all in the proper proportions. The LF simply don't turn the overall sound dark. Despite their true anchoring, the overall sonic quality remains light(filled). I'd not call it airy per se. That often relies on bass of insufficient gravity. If such verbal fencing should drive it home, the Adamante *had* cubits of air but this quality didn't *become* airiness due to sharing equal playtime with a chunky dense midrange and grounded bass of substance. This airiness wasn't tacked on. It wasn't separate. It was enfolded like TV chefs talk of folding stiffly beaten egg whites into a batter to make a soufflé. Those whipped egg-white textures were through and through. They weren't just on top like chantilly cream floating on hot chocolate.



That's why this brightness didn't conform to core hifi chats on forward treble. Just so, it was a kind of brightness, just fundamentally different. As such it was about more in-room upper harmonic energy distribution, not about a basic tone control EQ. It likely will involve a small adjustment period and perhaps some ancillary hardware seasoning. Afterwards the previous condition could seem rather muted and dull. Gone are the Western Electric days of yore when bandwidth of 50Hz - 8'000kHz was deemed sufficient. In a headfi sense, the Adamante seemed to me a cross of Hifi HE1000 and Audeze LCD-CX, the former for speed and that filled-with-lightness personality, the latter for midband density. The Audezy aspect was enhanced by my strategic choice of Kiuchi-San's transistor amp which appears modeled on his prior 300B SET to produce far more useful power and speaker drive but which retains many of the valve virtues he fancies.

On the res with El Gordito*. To dive right into the deep end of the pool, here's the not so common balance which the Adamante strikes like a long-ringing Tibetan singing bowl. Our primary sense of detail retrieval is keenest at high frequencies. This helps us triangulate sounds between our two ears for a surprisingly exact fix in space. Our brain uses arrival-time offsets for that. Modern hifi's superior recreation of audible space as soundstaging/imaging artifacts over live sound is squarely down to our contemporary tweeters. A legacy two-inch paper-cone tweeter as championed by for example WLM won't out-image real life to that extent; if at all. Neither do most whizzers. Given what I've already said about this grown man's hand-tall ribbon, you just knew that this French speaker would score high on subjective resolving power and image specificity.

** In colloquial Spanish as our Peruvian friend Saturnino speaks it, El Gordito would be the chubby one. This should make sense shortly.*



That includes the little secondaries of how a singer moves against the microphone or turns momentarily to shade it a bit; a woodwind's key clatter; a guitarist's fingering and string slides; closed-mic'd vocals with their lip, tongue and spittle action... in short, all the percussive chicky-chicky tizz-tizz clack-clack tick-tick elements whereby many sounds begin before they blossom and feather out into harmonics of various intensity and sustain. If that was the only thing the Adamante did, we'd get a needly very quick but also thin pale somewhat whitish sound. *Pas du tous, mes cher amis!* After the left-paw Adamante hits a deceptive feint with the right fist of heightened resolution, it follows up with a killer left blow of a saturated very colour-intense meaty midband. That combination—of greased attack/fizz/sheen with a tonally rich connect, from the hip as it were—is how this pretty speaker fights. Again, the bass was perfectly satisfying and 'complementary' if that's even a word but no highlight. I expect that's where the range topper goes the extra mile. The real attraction, at least to these ears, was that wicked 1-2 combo of ribbon finesse/speed followed by the chunky timbre depth of the clearly special 6.5ers.



The reading of those twins reminded me quite a bit of the Living Voice Avatar speaker range with its likewise paralleled mid/woofers. Their voicing reflects their designer's love of valves, particularly Kondo. But where the British boxes rely on a soft-dome tweeter to create a more midrange-centric balance, the curvier Frenchies throw in a truly exploded treble - and beginning an octave lower than many competing ribbons would. If you can imagine that recipe in your mind (valve mids, Goldmund-type DC-coupled transistor treble extension), you've got the Adamante pegged as I heard it. And again like the Living Voice, the low end will strike you as perfectly adequate or sufficient but you'd not wave it around as a key attraction to steer your friends in this direction. (You should, however, point them at *The Los Angeles Sessions* where departed celebrity bassist Charlie Haden played with accordionist Richard Galliano and monster

pianist Gonzalo Rubalcaba for some gorgeous uncomplicated Jazz). To wrap up this discussion, I'd call the Adamante sassy and saucy in equal measure.



Everyone knows—but few practice more than lip service—that music lives in the midrange. It's why Western Electric's WE-91A cinema amplifier really got away with 50Hz - 8'000Hz bandwidth and nobody then thought anything was amiss. Shave off 1-plus octaves on top and bottom for perfect symmetry and tonal balance's centre won't budge. It will simply appear more prominent, like a higher peak between two plains. How exactly Christopher Yvon managed to marry such a juicy midrange with a 21st-century "32-bit/384kHz" treble is beyond my ken. All I can say is that by catering to modernity with his tweeter's very nubile acrobatics, he hasn't thrown out the baby with the bath water. Requiring only mild seasoning with actual low-level bottles in our Italian D/A converter whilst the remainder of the review system gear rode transistors, his musical centre of the vocal band exhibited the tone richness one hopes to find by using rather more and bigger valves.



I thought that was a really admirable trick. To contribute a very cheap trick from my end of "couldn't design a speaker if his life depended on it", consider the two above photos. Take the deeper detail of the first and the richer colours and contrast of the second and you have a visual approximation of the Adamante recipe.

At this juncture, I felt compelled to revisit my July 2014 review of Apertura's [Edena](#). That's their €6'500/pr two-way tower totting a bigger but single mid/woofer (8") plus half-sized ribbon. About it, I'd essentially said that it performed as though having "tubes inside" to capture some of this assignment's gist. However, a bigger midrange and smaller ribbon are bound to alter the energy balance. Consequently, one expects a downshift of the subjective centre of gravity and a less illuminated treble. It's the range-topping Enigma model which, literally, combines the Adamante ribbon and 8-inch versions of its twinned mid/woofers to turn super Edena and, vis-à-vis the the Adamante, to predictably add further density and mid/upper-bass shove. Not having heard the entire range to explore it strategically, I still expect that Christian Yvon's scheme of single and dual 6"/8" models with small and big ribbons allows him to present different degrees of modernity *folded into* his core vintage sound. The latter was traditionally tied to big mid/woofers and broad baffles à la legacy Japan-bound Tannoys. The former fancies far smaller midranges and narrow baffles à la Boenicke. Apertura split the difference.



The only glow worms in my far from secret sauce were the stock Russian ECC81 in the DAC facing you in the rack. The diagonally placed component above merely controlled volume by remote.

With a combination of filter finesse, driver selection and cabinet loading, Christian Yvon somehow manages to achieve a legacy-type midrange-first sound with far more contemporary quite unboxy cosmetics. Into that he injects modern treble illumination to different degrees based on size of ribbon and whether it mates to single or dual mid/woofers of smaller or bigger diameter. What he doesn't pursue—his 2-way concept stops short at the 8-inch driver—are big woofers, hence no US-style bass. That's sensible for a European speaker brand where house construction tends to be brick or stone for less lossy walls than American sheet rock over 16-inch spaced studs. Those who equate French speaker sound with primarily its big three of Focal, Cabasse and Triangle Electroacoustique would, I believe, be quite surprised to discover in Apertura Audio an alternate aural aesthetic. In US currency, it strikes me as a genetic cross between John DeVore's Gibbon and Orangutan primates. In UK terms, it's a modernized Living Voice Avatar. In Italiano, it's a less coloured vintage Sonus faber with far superior top end. In la française, it's Apertura Audio.

Srajan Ebaen