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## MARTINLOGAN MONTIS RESERVE SERIES ELECTROSTATIC HYBRID LOUDSPEAKER

### The Hybrid Perfected

[Equipment report\(/articles/?type=review\)](#)

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I knew there was something special about MartinLogan's new Montis electrostatic hybrid when I first heard it at the 2013 Newport Audio Show. For one thing, my wife wanted to linger a while and listen further. Now Danielle would almost rather eat chalk than audition audio equipment, and at this particular show decent or better sound was by far the exception to the rule. We returned to the room later that day—as much for relief as for interest—and the next day I went back myself. With each visit I liked what I heard better (all kudos, by the way, to audio veteran Dan Rosca for the setup). In due time I requested a review pair. Despite my longstanding preference for planar electrostatics—all vintages of Quad ESLs and the late, lamented Acoustats—my experience with previous MartinLogans was limited; and attractive though I found many aspects of their performance, they never quite succeeded in closing the deal as it were. In one fell swoop, the Montis changes all that: This is a really great loudspeaker.

Based in Lawrence, Kansas, where the company has been designing and manufacturing high-quality electrostatic loudspeakers for well over three decades (though manufacturing is now shifted to Canada), MartinLogan hardly needs an introduction for either its products or its technology. The Montis is one of three hybrid models in ML's top-of-the-line Reserve Series, above the Ethos and below the Summit X, which my colleague Dick Olsher raved about in TAS 209. (The flagship in the Reserve line is the CLX Art, but it is a full-range ESL, not a hybrid.) I refer readers to that review for a thorough technical description of ML's electrostatic technology or better still to Dick's profile of the company in *The Absolute Sound's Illustrated History of High-End Audio, Volume 1: Loudspeakers*. The Montis is almost as tall as the Summit—both around 60 inches high—and uses the same 44" x 11.3" CLS electrostatic panel. CLS stands for ML's unique Curvilinear Line Source, which involves a gentle horizontal convex curve the better to disperse the higher frequencies, thus mitigating the narrow treble radiation of so many electrostatics (notably Quad's). Not that it scatters the sound all around the room like an omnidirectional; rather, the dispersion is limited to approximately a thirty-degree angle, which is more than sufficient to prevent the head-in-a-vice syndrome. The Reserve series as a whole incorporates several improvements over past ML panels, including aluminum-alloy frames of exceptional strength and rigidity, and both a physical and electrical ruggedness that make them almost impossible to damage. (Accessible through ML's Web site is an amusing video called "Myth," which addresses most of the so-called "problems of electrostatics," that has one of the company's engineers banging a CLS panel to demonstrate how rugged it is. Providing you don't actually poke something

through the stators—which would be difficult, as the perforations are small—any sort of accidental physical damage to the membrane itself would be unlikely in the extreme.) CLS panels play as delicately as any transducer on the planet, yet they also boast exceptional reliability: not since the fabled Acoustats of the eighties have I felt no anxiety about destroying a panel by driving an electrostatic as loud as I wanted, and no Acoustat was ever as efficient, easy to drive, and transparent as the Montis.

Impressive as ML's latest CLS panels are, it may be the woofer and its associated crossover that are the real wonder here. The main difference between the Montis and the Summit is that the latter crosses over at 270Hz to a *pair* of powered 10-inch woofers per array for the bass, whereas each Montis has just a single powered-woofer crossed over at 340Hz. The -3dB point of the Summit is 24Hz, the Montis 29Hz. But the Montis has one considerable advance over the Summit, what ML calls a 24-bit Vojtko DSP "engine." Named after Joe Vojtko, one of ML's resident engineers and designers, this circuit uses digital processing to help the CLS panel and the woofer mate as coherently as possible. It was precisely this thorny matter of ultimate coherence and integration that left me unconvinced by all ML hybrids I heard before the Montis. However Vojtko has managed it. This new model is the most completely successful ES/cone hybrid I have ever heard (though I must add that I've not heard the Summit). Once you get the speaker optimally positioned and the rear-panel control at the right level, the integration is to my ears for all practical purposes seamless and coherence absolute, banishing any sense of listening to two different methods of propagating sound waves.

Before getting down to listening, a few more nuts and bolts. Despite its height, the Montis cuts a very svelte and surprisingly unobtrusive figure; though the aluminum-alloy frame—exceptionally rigid and solid—and the stators are black anodized, the perforations in the latter make the speaker physically transparent for most of its height, so you don't feel as if a pair of Stanley Kubrick's monoliths have descended into your room. There is a nominal 4-ohm impedance, but these are electrostatics, so impedance dips much lower at certain frequencies. That said, I had no trouble driving the Montis to clean levels louder than I could comfortably stand with Zesto Audio's 60-watt Bia tube amp or NAD's M50 integrated at 180 watts a side. Sensitivity is 91dB, helped no doubt by the fact that the woofer has its own dedicated power amplifier.

The Montis is state of the art in all the areas for which electrostatics are traditionally outstanding: it has a tonal balance that while not quite dead neutral (more on this in a moment) always sounds supremely natural and extremely smooth. It is as sonically transparent a transducer as any ever made—certainly as any I've ever heard, which is to say that it rivals any Quad of my experience, which includes every Quad ESL ever made. It has dynamic range that is quite beyond the capability of any Quad and for that matter any other ESLs of my experience, including Acoustats. (Acoustats might have had the capability to play as loud, but they were so damned inefficient that I doubt amplifier power existed to make it possible.) And its frequency response, especially at the bottom end, not only exceeds Quads, it exceeds many so-called full-range cone speakers with which I am familiar. Finally, it can do size to match any Magneplanar I've ever heard without what always strikes me as the Maggies' tonal anomalies and discontinuities (much improved, I grant, in the latest models, but still not enough to persuade me).

What seduced my wife about the Montis was its musicality and warmth. Danielle is no audiophile—accompanying me that afternoon last year at Newport was her one concession to an audio show in sixteen years of marriage! By warmth she didn't mean the term as audiophiles typically use it; rather, she meant that it didn't sound "hi-fi," as in edgy, bright, topky, glaring, irritating, and relentlessly, fatiguingly over-detailed. In this she was absolutely correct. In fact, the Montis, as measured by Robert Greene in my room, is ever so *slightly* forgiving in the 2k-4k region, and above that exhibits a mild sloping response. Together these characteristics are neither gross nor obvious, and do not manifest themselves as coloration or a significant deviation from overall neutrality. The effect is rather more like a shift in perspective from, say, row A-G to H-P. This means that with recordings that are far too closely miked, which is to say most recordings, the Montis will actually sound more natural in ways that a literally accurate speaker will not. If I were to search for a thumbnail characterization, I'd say its tonal character is reminiscent of what in the old days used to be called "New England" sound: essentially neutral, uncolored, smooth, civilized, maybe a bit polite. But with one huge difference: no "New England" speaker I've ever heard was ever capable of a presentation as full of life and vitality as the Montis, able to scale instruments to life size and bring the room as alive with music. And no such speaker ever sounded as open and free from a box as this one.

Because the Montis has a tonal profile more or less similar to that exhibited by most really good concert halls, it almost always sounds musically right, natural, and realistic. Of course, the smart money will tell you that you should look elsewhere if you want to play rock and roll, and for many listeners that advice may indeed be smart. I don't listen to a lot of rock myself, but what I do listen to—from Buddy Holly to the Rolling Stones—sounds great on the Montis, not least because of how big the projection is. Mick Jagger at his raunchiest certainly doesn't come across as polite, and when the singers come in behind Cat Stevens on the last cut of *Tea for the Tillerman*, the effect—dynamically, spatially, dimensionally—lifts me out of my seat. And thanks to that wondrous woofer, any sort of drums and electronically generated bass are sensationally strong and clean with superb definition and control.

When it comes to classical music, the Montis' presentation of large orchestral and choral music or opera is spectacular in scale, impact, and once again that elusive sense of realism. The presentation open outs with tremendous size, weight, and impact. The *brindisi* from the new Chicago Symphony *Otello*, conducted by Muti, is presented exactly as recorded: a concert performance with the orchestra spread out in a Cinerama-sized array, the large chorus toward the rear, and the soloists front and center. Bass response is fabulous, clarity fantastic, and dynamic range sensational. With performances that are aurally staged for recording, like the Solti-Culshaw *Ring*, the Bernstein *Carmen*, and Joel Cohen's *Sing We Noel*, the Montis soundstage is so convincingly three-dimensional that I found myself wondering why anyone needs to bother with surround sound. On smaller ensembles, the same uncanny sense of transporting either you to the venue or the performers into your room obtains. One

of the best choral recordings of recent years is Conspirare's *Sacred Spirit of Russia* [HMUSA], which captures the spacious acoustics of a beautiful-sounding church (in Austin, Texas) to a fare-thee-well. When the small chorus sing out and the voices expand to fill the room, you'll hear an object lesson in what loudness level in relationship to volume is all about. When the material is intimate and miked well, like some string quartets, the impression of the instruments arrayed across the room behind the speakers is spooky in its dimensionality, body, and sheer "here they are" presence.

As noted, MartinLogan specifies the -3dB at 29Hz. Ladies and gentlemen, that is *very* low for a full-range system of any price and size, and for once I am inclined to take it at face value. Playing Volume Two of Kei Koito's Bach organ recital [Claves] boggles the mind that such depth, resolution, and sheer power are coming out of a single 10-inch woofer. String bass from jazz ensembles has an ideal combination of definition and fullness and never sounds dry. No, the Montis doesn't reproduce that sense of subterranean bass or the full "room sound" that a true subwoofer like the REL 528SE does (Issue 241), but that seems to me just about the only way it falls short. And you can always add a REL or one of ML's own subwoofers for performance that I doubt any full-range speaker in a single enclosure or array would equal or surpass.

No speaker is perfect, and the Montis is no exception. That mild trough in the presence region can occasionally have the effect of making the presentation, notably of solo voices, fractionally less immediate, which a comparison to my Quad 2805s or Harbeth Monitor 30.1s readily reveals. But for my tastes this is compensated for by a midrange and lower midrange of such lifelike dimensionality that I don't mind. I've called attention to the speaker's soundstaging capabilities, than which I have heard none superior. But the soundstaging is better than the imaging as such. Owing in large part, I assume, to the curvilinear panels with their increased lateral dispersion and the fact that this also seems to affect the backwave (these being dipoles), the fabulous spatial characteristic of the Montis extracts a small price in imaging specificity. I don't want to make too much of this. You will not hear ten-foot wide violins unless they're recorded that way; mono images stay focused in the center; and movements within the soundstage are clearly trackable, e.g., the way the recorder advances from back to front in the left channel, crosses the room, and recedes in the right channel on *The Christmas Revels*. As befits its spaciousness, the Montis almost always sounds realistic. Indeed, a few days before writing this review I heard an orchestra in a moderately sized hall where I was sitting in row P, and with eyes closed it was not possible to pinpoint exactly where, say, the wind soloists were sitting, though the general vicinity was obvious to within a few feet. The point I want to make is that while the Montis is not imprecise when it comes to imaging, neither is it laser-like in its ability to resolve positional cues with a cartographer's exactitude, the way, say, a Quad or a really good compact monitor like Harbeth 30.1 or a Magico is if you seat yourself in the middle, have all the levels correctly matched, and the recording allows for it. But never once while listening to music was I ever aware of this "deficiency"; I draw attention to it only because I know there are readers for whom this is an issue of supreme importance

(as it is not for me).

The Montis, like all ML speakers, comes with an exceptionally comprehensive and instructive manual to assist even a neophyte in getting the best performance in real listening rooms. This is one manual that's worth reading carefully and at least trying out some of what is suggested. The only caveat I have is a formula ML offers for triangulating the speaker to side, front, and listening position distances. I tried this formula, which situated the speakers fairly close to the front wall and which resulted in a closed-down presentation that robbed the sound of its life, vitality, and dimensionality. Like everyone else who manufactures planar loudspeakers, MartinLogan is, let us say, optimistic about how close you can move its speakers toward the front wall without seriously impairing performance. My advice is to keep them well out from the wall and as far as you can from the sidewalls without compromising a good stereo spread. Then pay careful attention to the manual's advice for toe-in and you will have a presentation that just about ideally mediates imaging precision, soundstaging, and tonal balance.

Equally important to enjoying the integration between the woofer and the CLS panel that is possible with this design is the woofer-level adjustment on the back. The natural tendency of most audiophiles will be to leave the indicator at the mid or "0" position or to raise it. Go ahead and start there, but if you begin to hear the woofer as a separate contribution to the overall sound, then you almost certainly have it adjusted too high. In my room, for example, three makings *below* the middle position yielded both the flattest measured response and the most seamless integration.

Like any accurate speaker system, the Montis will tell you what's ahead of it in the reproducing chain. I started with the Zesto Audio Bia, an all-tube amplifier with what I suspect may be a highish output impedance. The results were predictable. The midrange was gorgeous and anything I played was meltingly beautiful. But while the bass was strong and powerful with good definition and splendid bloom, I'd have to lie to say it had the kind of sheer force and crunch that the NAD M50 brought to the proceedings. Same with the top end: The combination of the BIA together with the ML's own sloping response was, well— let's just say that it was very kind to my dogs' ears. Mine too, but at the same time I never felt that certain kinds of high percussion ever "bit" the ear in that pleasingly scintillating way that high hats, cymbals, even the highest reaches of the piano can. Switch over to the NAD and you hear what you're missing. Mind you, I could listen to the BIA/Montis combination until the cows came home, so pleasing is it. But just know that it doesn't allow you to hear the whole of what the Montis is capable of, which is to say that it can kick a lot more booty and more effectively with good solid-state units. In truth, I was happy with either combination, but I suspect most listeners will lean toward solid-state.

I deliberately waited until I took all my notes and virtually had the review written before I went back and read Dick Olsher's review of the Summit X. I was pleased to discover that what we had to say tallied so closely with one another, including even our impressions of tube versus transistor amplifiers. The Montis is one of a tiny handful of the finest speakers I've ever been privileged to review and one of the finest I've ever heard regardless of design, type, complexity, or price—speaking of which, I've carefully withheld that piece of information until now so as to not to prejudice the snobs who let price determine how good an audio product is "allowed" to sound. The Montis costs \$9995 a pair. That is not a misprint, nor am I going to condemn it further by using the "b" word—you know the one I mean, the one with seven letters ending in "n," that is code among some audiophiles (and, alas, far too many reviewers) to mean the product they'll settle for when they can't afford the one they "really" want. No, as I said at the outset, this is a great speaker system. Period. Like my Quad 2805 or ESL-57 or Harbeth's Monitor 40.1 and 30.1, the Montis is capable of doing some things I've never heard bettered by any speaker regardless of size, price, or design. One thing that makes it very special, however, is how dramatically lifelike it can sound because of the way it's prioritized its sonic and musical goals in just the right order and proportions, while minimizing or eliminating inevitable compromises and trade-offs. No, I'm not about to replace my 2805—its *slightly* superior tonal neutrality and coherence, not to mention its vanishingly low coloration, still carry the day for me—but if I had room enough for another setup, the Montis would be on the shortest of short lists.

And let me leave you with this: A producer friend of mine who makes consistently some of the very finest recordings of classical music anywhere—a number of her recordings are used as references by reviewers on this and other high-end audio magazines—also owns Quad 2805s. When she played several of her recordings on the Montis in my listening room, she pronounced it the finest reproduction of any setup she has ever heard. No, she's not giving up her Quads either, but she *is* planning to purchase a pair of the Montis. That's a higher recommendation than anything I could write.

## SPECS & PRICING

**Driver compliment:** 44" x 11.3" electrostatic panel, one 10" powered cone woofer

**Frequency response:** 29Hz-23kHz +/-3dB

**Integral woofer amplifier Power:** 200 watts

**Sensitivity:** 91dB

**Recommended amplifier power:** 20-500Wpc

**Weight:** 58 lbs. each (net)

**Dimensions:** 12.7" x 59.3" x 18"

**Price:** \$9995

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