

YG Acoustics Carmel Loudspeakers

Written by Uday Reddy

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Yoav Geva, founder of YG Acoustics, must have some kind of nerve. After all, he'd proudly proclaimed his flagship Anat Reference II loudspeaker

"The Best Loudspeaker on Earth. Period.," even before a single review had been published. But given the critical acclaim the Anat II would eventually achieve, he was obviously on to something. Not only did this speaker win rave reviews, its published specifications were pretty impressive. In addition to the Anat Reference II, YG's product line has since been expanded to include the Kipod and the Carmel, reviewed here. Given the reception that YGA's flagship model has received, the Carmel has some big shoes to fill. I can just hear the skeptics: "So, is this the third best loudspeaker on earth? Period?"

Design

Despite its appearance in YGA's ads, the Carmel (\$18,000 USD per pair) is actually quite attractive. In the ads, the speaker looks monolithic; in the flesh, it's a sleek design in the Danish or German style that will complement contemporary and modern décors, yet won't look out of place among more traditional furnishings. The upright upper segment contains a recessed tweeter; a 7" midrange-woofer is at the top of the much larger lower segment, with its sloped baffle. The Carmel utilizes Scan-Speak drivers, modified to YGA specifications. The tweeter, assembled in-house, is a modified 1" ring-radiator type claimed to have greatly extended frequency response, linearity, and power handling. The 7" midrange-woofer, a modified Scan-Speak Revelator, is claimed to provide clarity and bass extension in a compact enclosure.

The Carmel is quite compact at 40.25"H x 11"W x 14.25"D and only 66 pounds. Its cross-section is triangular, the cabinet tapering to end in a narrow rear panel; the binding posts (suitable for biwiring) are arrayed vertically. The Carmel is affixed to a black base with threaded spikes and supplied with four Delrin pucks - not to protect wooden floors, but to place under the front spikes to adjust the rake angle. Also supplied is a removable, magnetically attached, minimalist grille for the midrange-woofer, which can be removed if desired.

All of YGA's speaker enclosures are made of panels of machined aircraft-grade aluminum. While other materials were reportedly investigated, YGA's measurements showed this material to be the most resonant-free and thus the most desirable for speaker enclosures. While other manufacturers have built enclosures of aluminum, YGA says that theirs differ in being made using five-axis instead of three-axis CNC milling, a type of construction that, they say, helps them build cabinets without parallel inner surfaces, and thus reduce mechanical losses by combining the minimal turbulence of a sealed loudspeaker with the low friction of enclosureless designs.

YG speakers also feature the company's Dual Coherent crossover technology, which, according to



Geva, “allows us to design crossovers that are [simultaneously] coherent in both the time and frequency domains. This means that they offer both a flat frequency response and near-zero relative phase [shift], rather than one or the other. This is achieved through software developed entirely in-house, rather than the commonly used off-the-shelf software.” All measurements are verified through extensive listening tests, but YGA claims that their speakers are not voiced to any particular house sound, and are therefore not subject to human bias.

The Carmel's frequency response is stated to be from below 35Hz to above 40kHz, but no absolute upper or lower limit is given. The sensitivity is a claimed 87dB/2.83V/m, the nominal impedance 8 ohms (4 ohms minimum). The speaker should not be difficult to drive, and should be suitable to a wide variety of amplifiers.

Setup

The Carmels were delivered in a single, thin-walled crate, firmly packed side by side. Although the speaker is relatively lightweight, the way the pair of them are packed made their removal from the crate a two-person chore. I maneuvered my first-generation Wilson Audio Sophias out of the way and placed the Carmels in the same positions, with a similar toe-in. Immediately, I noticed that the sound was primarily localized to the two speakers, with poor center fill for the soundstage. I left the speakers in the same positions, adjusting their toe-ins so that their tweeter axes crossed behind me, but this only exacerbated the problem. Gradually, I moved the speakers closer to the sidewalls; there was some improvement, but the sound was still too bound to the speaker positions. Only after I'd moved each speaker 1.5' from its original position and adjusted the toe-in so that the tweeter axes now crossed in front of my face did the soundstaging become acceptable. However, while the center fill did improve, there was a distinct lack of focus, and the sound was still too restricted to the two speaker positions.

Dick Diamond, YGA's vice president of sales and marketing, was already planning a visit to ensure that the speakers were set up properly, and when he arrived he set up the speakers himself. After taking detailed measurements of my room, Diamond played some demo tracks he'd brought with him, first listening, then adjusting the speakers, and repeated this until both of us were satisfied. This took about 3.5 hours, but once the final positions were achieved, I was satisfied that the Carmels were optimized for my room. The funny thing is that the final positions were virtually the same as where I'd started, the difference being that the tweeter axes crossed in front of my face - something I hadn't considered at the outset because it seemed so counterintuitive. My only complaint was that the Carmel's narrow base and footprint seemed to make it physically unstable. Although neither speaker ever came close to tipping over, they never felt fully planted on my carpet. I would have felt more at ease had their bases been wider, or if outrigger feet had been supplied.

The Carmels had been shipped to me straight from the factory. Diamond recommended a two-week



break-in period, and by the time we had the speakers optimally positioned, that had been achieved, though I noticed no change in their sound during or after that time.

Sound

Although the YGA's exterior dimensions and internal volume are much smaller than those of my Wilson Sophias, the Carmels were able to produce equally room-filling sound - music poured forth with no sense of strain. As a result, I found myself listening to a lot of large-scale orchestral works, a genre to which the Carmels were particularly well suited. Despite their relatively diminutive size, the Carmels were able to convey all the dramatic impact of Beethoven's Symphony No.9, performed by the Berlin Philharmonic Orchestra conducted by Claudio Abbado (CD, Deutsche Grammophon 469 005-2). My friend Max, who is not easily impressed, often prefers my reference gear to the products I review - but when he heard the opening notes of this recording, his jaw dropped. This was due not only to the Carmel's ability to handle wide dynamic swings and the sense of ease that they displayed, but also to the illusion of immense physical spaces the pair of them could convey. Like any good slim tower or minimonitor, the Carmels' imaging and focus were considerably better than those of larger speakers I've heard - but unlike those other speakers, the Carmels didn't create the kind of hyper-realistic or unnatural-sounding images that had me focusing on the sound rather than the music. Sure, I could notice individual details, but only as parts of the performance as a whole, not because they were being spotlit with laser-like focus.

While images of the musicians themselves were largely limited to the space between the speakers, the acoustics of performance venues were very large. I found this surprising - although the Carmel is restricted in the lower frequencies, where much of this sense of acoustic space resides, this quality turned out to be one of the speaker's distinguishing characteristics. Miles Davis's *Kind of Blue* (CD, Columbia/Legacy CK 64935) was recorded in 1959 at Columbia Records' fabled 30th Street Studios, and the remastered edition includes an alternate take of "Flamenco Sketches." Most alternate takes leave me with a distinct feeling for why they were left off the album in the first place, but not this one - in my opinion, it easily betters the original. In this version, Davis's elegant, moody solo just floats in the studio, adding to the drama of the performance; this re-creation of that performance and the space in which it was recorded was much like what I was also hearing from orchestral works through the Carmels.

A bonus was that, as much as the Carmel was capable of stretching its legs dynamically, it was also quite comfortable at lower volume levels, where there was no loss of detail and the soundstage did not collapse.

The Carmel's treble response was extremely accurate, with a speed and clarity that reminded me of a well-designed ribbon tweeter but with none of a ribbon's drawbacks, such as excessive leading edges or beaming. Despite this increased clarity, I found that tape hiss on older recordings was less noticeable than I would have expected, resulting in inner details that were easier to hear, and that stood out in relief from the black backgrounds without drawing undue attention to themselves; they were present but never distracting. While the Carmel was fairly neutral, I did feel that the midrange was somewhat cooler than what I'm used to; strings sounded more crisp than smooth and lush. The midrange was also a bit more recessed than through my Sophias, with the front of the soundstage a bit farther back than I'm used to, but this was hardly a problem.

The big concern with a two-way speaker in a sealed enclosure is its ultimate bass reproduction: the trading-off of a ported design's low-end extension for the ostensibly tighter bass of a sealed cabinet.

Comparison



Room-filling sound with orchestral works or acoustic jazz is nice, but could these babies rock? The Carmel did not disappoint. I played Led Zeppelin II (CD, Atlantic 82633-2) all the way through, and not once did I feel that the bass was insufficient. Although the "Lemon Song" is not the last word in bass, I do find this track helpful in evaluating overall bass quality. John Paul Jones's funky bass line in the middle break anchors the underlying rhythm of the track, and this bass output was more than satisfying, allowing me to follow every note, with all of Jones's little inflections and subtle colorations. The opening segment of "Bring It On Home," from the same album, has bass galore in all its swampy, bluesy mess, yet the Carmels nailed it solidly.

If your tastes run to pipe-organ music, you'll need a subwoofer - but that would be the case even with many supposedly full-range speakers. I didn't have any recordings of pipe organ, or of music with deep synthesized bass, but I did play Richard Strauss's *Also sprach Zarathustra*, with Fritz Reiner conducting the Chicago Symphony Orchestra (CD, BMG Classics 09026-61494-2), and the deep organ-pedal notes at the beginning of the piece were clearly present, and as well reproduced as I have heard. Keep in mind, though, that in a medium-size room such as mine (15'W x 17'L x 13'H), the room gain was helping with the lower octaves. In a larger room, the Carmels would benefit from some further augmentation with a subwoofer.

Comparison

The Wilson Audio Sophias, now in their third generation, are among the most highly lauded speakers of the last ten years -- justifiably so, I think, with performance on a par with speakers that cost far more. So how did the new YGA kid compare to my first-generation Sophias (\$11,700/pair when available)?

While the Sophia isn't veiled in the upper octaves, it couldn't match the Carmel's overall clarity. Through the YGA, the treble was more delicate, with more airiness, which increased the overall sense of space, despite the absence of the Sophia's lower - octave support. Regardless, both speakers exhibited smooth, grain-free treble; your preference will largely depend on the type of music you prefer. If your library consists mostly of classical music, the Carmel should appeal to you more.

In the midrange it was more of a tossup. While I've always felt that the Sophia is fairly neutral, it sounded definitely warmer than the Carmel. That said, I didn't miss that warmer tonality while listening to the Carmels, noticing it only after I'd reinserted the Sophias in my system. The Carmel seemed to be less colored in the midrange. Within that midrange, however, lay a major difference between the two speakers: stage perspective. Because the Carmels' midrange was a bit more recessed, the perspective was one of being seated somewhere in the middle to the rear of a hall's orchestra section; with the Sophias, the perspective was more of being seated in a row somewhere between the middle and the front of the hall.

While the Carmel's bass output was more than satisfying, the Sophia had the YGA beat in terms of ultimate low-frequency extension. While the Carmel's bass reproduction was tighter than the Sophia's, the Wilson's bass never seemed woolly or indistinct. Additionally, what defined the difference between the two speakers was that the Sophia's bass seemed to have a heft and a palpability that the Carmel's bass lacked. With the Sophia's claimed low-frequency limit of 29Hz, it had a sense of weight in the lowest octave that helped better define the soundstage. While the Carmels had a very deep soundstage, that stage's width was largely limited to the space between the speakers; with the Sophias, the soundstage often extended well beyond the speakers' outer margins. Would a subwoofer help the Carmels in this respect? I'm certain it would.



Conclusion

I really enjoyed hearing in my room the YG Acoustics Carmel - a loudspeaker that is, in my mind, a state-of-the-art design. Yes, it's limited in the lowest octave, but this is a tradeoff that many are willing to make who prefer the tightest, most tuneful bass possible. More important is the kind of clarity and sense of space the Carmels were able to produce, which I believe is more important than the ultimate in bass extension. Although a dynamic speaker, the Carmel's clean, clear imaging and wonderful transient response reminded me more of an electrostatic speaker.

At \$18,000/pair, the YGA Carmel costs a chunk of change. But given its level of engineering, heroic construction, excellent fit'n'finish, and terrific sound, that price doesn't seem out of line. I haven't had a chance to hear YGA's Anat Reference III or Kipod II, both of which cost significantly more, but given their published specifications, I'm confident that most of the differences between them and the Carmel will be heard in the lower octaves. The fact that the Carmel achieved a level of performance near that of its big brothers at this price is one impressive accomplishment.

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Associated Equipment

Loudspeakers	Wilson Audio Sophia, Audioengine A2 powered desktop speakers
Integrated amplifier	Jeff Rowland Design Group Concentra
Digital sources	Wadia 830 CD player, Logitech Transporter music server, Apple iMac OS 10.6.4 with iTunes, Amarra 2.1, Devilsound USB DAC
Interconnects	Cardas Audio Neutral Reference, Halid Design S/PDI asynchronous USB bridge with BNC termination
Speaker cables	Cardas Audio Neutral Reference
Headphone system	Sennheiser HD600 with Cardas headphone cable upgrade, Ultimate Ears UE 11 Pro in-ear headphones, Ray Samuels Audio Emmeline The Predator headphone amplifier
Accessories	Audio Power Industries Power Pack II power conditioner, Cardas Audio Signature XLR, RCA, and BNC caps

YG Acoustics Carmel Loudspeakers
Price: \$18,000 USD per pair.
Warranty: Five years parts and labor.

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YG Acoustics responds:

We would like to thank Uday Reddy and the SoundStage! Network for the time and energy spent in evaluating our Carmel speakers. We especially appreciate the clear and logical method Mr. Reddy applied to the review process. Uday's detailed analysis of the fine qualities of the speakers was very insightful.



Over the past year I have had the opportunity to set the Carmels up in a wide variety of challenging acoustical environments; from small bedrooms to seemingly infinitely sized ballrooms; from great sounding dedicated rooms to tragic salons. In each case, without a great deal of effort, the speakers were able to sing beautifully. Uday's listening room presented certain challenges to the task at hand, but actually sounded quite nice. I must confess, though, that in the 3.5 hours we spent in his listening room, most of our time was spent having wonderful audio discussions and conversing about our favorite musical artists, with a little measuring and moving around in between. Even though I didn't sense much low - frequency support from the room, the system Uday had assembled, to his credit, sounded very nice indeed.

Once again our thanks for the opportunity of participating with your fine publication and the great people involved.

Sincerely,

Dick Diamond
Director of Sales and Marketing
YG Acoustics