NEW GEAR AT THE ROCKY MOUNTAIN SHOW ne absolute si

<u>A</u> NEW FLAGSHIP YG's Anat Signature

**Sweet!** 

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THE WORLD'S GREATEST LOUDSPEAKER?

# YGACOUSTICS ANAT III SIGNATURE

MAN MAN

BY PETER BREUNINGER, PHOTOGRAPHY BY STEVEN STONE

REMEMBER WHEN "THAT" NEW LOUDSPEAKER COMPANY CLAIMED THAT IT MADE THE BEST LOUDSPEAKER ON EARTH, PERIOD? REMEMBER YOUR FIRST THOUGHTS? LIKE, YEAH, SURE...RIGHT. OR, HOW DARE IT MAKE SUCH A PREPOSTEROUS CLAIM. WHO THE HECK ARE THESE GUYS?



If you are skeptical about high-end audio pricing/performance, if you are put off by aggressive advertising campaigns, and if you think parts quality and manufacturing expertise have nothing to do with sonic performance, do yourself a favor and skip this review. But if you want to read about what just may be the world's best loudspeaker, read on.

"That" loudspeaker company with the outrageous claims is now a pillar of the high-performance-audio community. The company's name is YG and the founder is a serious entrepreneur and music lover named Yoav Geva. There is no question that Yoav Geva aggressively believes in his designs. He is a serious engineer and a gifted speaker designer, and his life's passion is music and audio. If Geva's claims are true, his speakers will, a priori, surely impress. I was skeptical that this brash upstart could compete with established brands, the marketing campaigns notwithstanding. But not only is it competitive, the following analysis will shed light on how and why the flagship YG Anat III Signature is one of the, if not the actual, world's best loudspeaker.

Company founder and head designer Yoav Geva is part Israeli, part German. He's under forty in years of age. He's not a member of the old guard. He didn't apprentice under a famous speaker designer. He did it all by himself. He is a young lion with more passion for music, art, and audio than a hundred grey-haired audiophiles. Geva is a formidable engineer and has developed a loudspeaker that is the best reference-level loudspeaker that I have auditioned in my listening room. The speaker produces profound three-dimensional imaging

and a hyper-clarity from 100Hz to 3kHz that makes instruments and voices so realistic and believable that you will shake your head in disbelief...more on this later.

Geva grew up in a musical household. His brother is an opera signer, his father a bass player. Yoav grew up playing keyboard and bought his first stereo at age 16. A Sony Discman, Sony integrated amp, and Bose speakers were his first foray into sound reproduction. As Yoav himself says, "It didn't sound as good as my father's system." He asked his audiophile father for advice and was politely told that he had to save longer and work harder for a good system (particularly for a good pair of loudspeakers) or, as an alternative, he could build his own. Interestingly, speaker building is quite the hobby in Germany. Witness Jonathan Valin's Munich show report in Issue 215. You'll see a number of interesting horn systems that come from the hands of passionate hobbyists turned professional speaker builders. Yoav's father offered to buy speaker-building books and materials to get his son started. Yoav chose his father's do-it-yourself idea over the save-and-buy option, and thus began his quest to build the "Best Loudspeaker on Earth, Period."

How does one go about building the best loudspeaker on

earth? First you need to have a passion for machine tools; second, you need to have knowledge and expertise in analog and digital signal processing. Huh? You mean I can't build one in my garage? No, you have to know how to make a really good enclosure, and you have to know how to engineer a crossover that will allow the drive elements to operate within their optimal performance envelopes. It also helps if you have an ear for music. In 2002 YG was created to fulfill the goal of "the best." Many prototypes were built and the company refined its designs until the 2006 product launch.

The Anat III Signature is the flagship of the YG line. It comprises the Anat III Main Module, Anat III Studio Sub, and Anat III Professional Sub plus a super-quality components package, hence the name *Signature*. Each speaker stands 69" tall and weighs 464 pounds. The Anat III main module is a two-way system that sits atop the two stacked subwoofer cabinets. The two sub enclosures (named Studio and Professional) each house a proprietary 10" woofer and are bolted together mechanically and then electrically by a strapping speaker cable. Users have a choice

as to the full double-box 69"-tall system with the larger professional sub as well as the studio sub, or the 48" "Studio" system with a single woofer enclosure.

Full Professional systems include a dedicated low-frequency amplifier made to YG specifications by the Dutch firm Hypex Electronics. The amplifier sits inside the lower woofer enclosure and has a blue LED that glows when it is in the "on" position. There are level, phase, and crossover roll-off rotational controls on each amplifier module. YG recommends leaving these at the dealer-installation

settings. I, though, found myself adjusting the level controls especially with LF-challenged source material. I would like to have had the control knobs larger in size so that I could more accurately see and set positions. The Signature package adds nine additional pounds of components, mainly increased capacitance in the crossover.

The speaker has a futuristic look that would be at home in Klaatu and Gort's spaceship from the classic science fiction movie *The Day the Earth Stood Still*. In fact, if you stare at the Anat III Signature long enough, you can envision the tweeter as a death-ray ready to zap you into oblivion. The design lines are clean and sharp without any hint of being "cobbled together." The speaker looks as serious as it sounds. At 69" inches tall, these are large loudspeakers. In medium-sized rooms you will want to tilt the rear of the speaker forward to aim the main module at the listening position. I positioned the speakers in an 11' equilateral triangle, with the front of the bass unit 36" from the rear wall. This places the tweeter above head level (like many large speakers do). Interestingly, the center image height actually sits below the tweeter level. I found the presentation to be natural and immense in size.





As many speaker companies do, YG designs, machines, and assembles its own enclosures. What sets YG apart from the herd? In real estate, it's location. In audio, it's aluminum, aluminum, and more aluminum. The enclosure is aluminum, the internal fasteners and bracing components are aluminum, and, most interestingly, the driver cones are aluminum. As the company grew from start up to adolescence its machinery grew as well. In 2009, Robert Harley visited YG's Arvada, Colorado, manufacturing facility. His company visit is well documented on AVguide.com—search for "In the YG Acoustics Factory." I too visited the factory this year. It's amazing to see the CNC milling machines in action. Many companies say they build their own drive units; how many machine their speaker cones from scratch?

YG has made substantial investments in machining equipment. Each machine is run by its own internal computer and Mr. Geva programs all the processes. The coolest machine is also the most expensive. It's the Gildemeister CTX Beta 1250 TC-CNC 5-axis machining center, costing approximately \$489k. This machine has a robot-driven milling head that zips and back and forth across

the raw aluminum, fashioning 100% unique parts for each YG loudspeaker. It has water jets that cool the stock during the machining process and spray directly on the cutting bit while it's doing its job. The milling head sits behind a see-through viewing enclosure allowing the operator to follow the process. Once it's programmed for a specific part it runs automatically. It's amazing to see the robotic arm grab and install different milling bits for each machining process for each part. I watched it mill internal fasteners for the Anat and Kipod main modules. The bar stock enters

the giant machine from the right and the robotic arm moves at lightning speed back and forth across the aluminum until the part is finished. The machine then drops the finished part onto an interior conveyer belt and, then, plunk...the part is deposited in a bucket on the left side of the unit. YG also manufactures its own crossover inductors on a \$50k, F.U.R.-customized, CNC coil-winding machine.

The large slabs of aluminum that make up the sides, tops, and bottoms of the speakers are machined on a customized Portatec CNC large-format milling center. This \$350k machine is one of only eight in the United States; the others reside at the Boeing Company making commercial and military aircraft. The machining tolerances are to .0008", and when the cabinets are assembled the joints form perfect airtight enclosures. The side panels are smooth to the touch but are not yet good enough for YG's finished product. The machined panels must be polished to perfection before they are assembled. A customized \$200k Kuhlmeyer polishing robot does this job. As you can imagine, the finishes on every YG product are the highest attainable. They have a soft matte-like sheen that screams luxury. The speakers are

available in two colors, silver and matte-black with special-order colors available to match a customer's interior design. The silver YG look is cutting-edge modern art, while the black YG look is a more refined, less aggressive finish. I requested a black review sample, thinking it would better fit the review studio's aesthetic. Silver was the only available color and after several days of visual adjustment, its high-technology look assimilated with the other review components to become the most striking system I've seen.

When a top-notch designer like Yoav Geva models a loudspeaker, he computer-simulates each inductor and capacitor to optimize the signal balance between the amplitude and time domain. This is Yoav Geva the software engineer's specialty. Geva has designed the Anat III main module to be *relatively* easy to drive. That's not to say you can hook them up to a single-ended triode amplifier and be in audio heaven. The speaker's 89dB sensitivity, 4-ohm nominal impedance and 3-ohm minimal impedance are not the province of low-powered tube amps. You'll need at least a 100Wpc tube amp and a 200Wpc solid-state amp to get these speakers to their proper performance envelope.

I tested both types with the YGs.

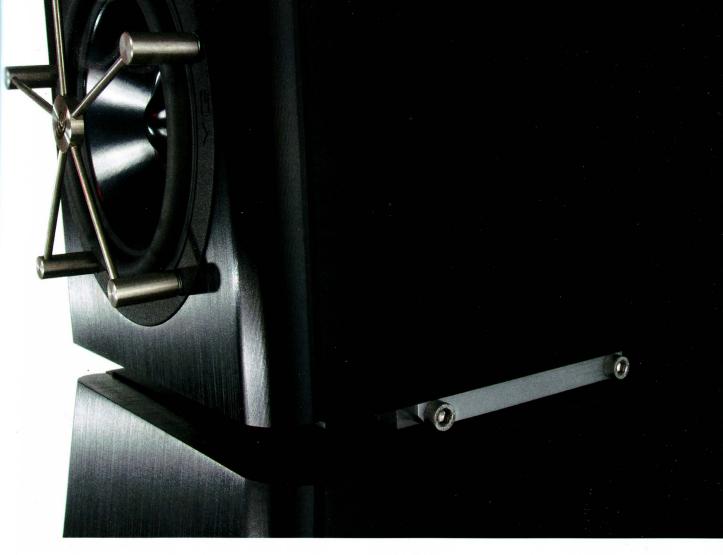
Krell Industries supplied the solid-state amplifier, a pair of whopping 1800 watt (into 4 ohms) Evolution 900e's, and Ayon Audio supplied the 200-watt tube amplifier, the beautiful KT88-based Orthos II monoblocks. As with the rest of today's upsidedown world, the solid-state amplifier was slightly warmer than the tube amplifier. Your preference will depend on what kind of listener you are.

Jonathan Valin conceived the three-listener concept: truth-tomastertape listeners, sounds-good-

to-me listeners, and absolute sound listeners (true to the sound of live instruments in space). In my "true to the mastertape" mood I would select the Ayon Orthos II. In my "good sound" mood, the Krell Evo 900e. What about the "absolute sound" mood? The nod goes to the Ayon; it offers up more realism than the big Krells, but way less balls. No surprise here.

Please note that it takes a full three months for the YG Signature system to break in. There was no doubt that the speaker was special fresh out of the box, but it was shy of other top-market loudspeakers. Over the first month there were glimpses of what was to come, such as outstanding low-frequency ambience and upper-midrange detail. But quite often, the sound was "stuck" to the speakers with a slight opaque coloration. The second month was better and the quality of the listening sessions improved. The Bach cantata "Lobet Gott in seinen Reichen (Praise God in his Kingdoms)" with soprano soloist Weiner Sangerknaben, from the drab-looking 30-box Das Alte Werk Telefunken LP set, is the ultimate test of a loudspeaker. This cantata features all of Bach's tricks—expressive recitatives, breathtaking arias, and chorales with counterpoint galore. This particular cantata is scored for four





voices with choir, standard Bach stuff. Watch out—the opening chorus can tax a loudspeaker's ability to differentiate individual voices across the stage. On lesser systems it can sound like a blob of singers scratching their fingers across a chalkboard. At first, this was what the YG sort of sounded like. In month two, the YGs were able to present the scope of the chorus and you could pick out voices, but the overall presentation was still glued to the

plane of the speakers (chalkboard-like). It was not until the end of month three that the true nature of this world-class design unfolded. It was during a latenight listening session that the cantata's chorus exploded with newfound life and vibrancy, and the Evangelist's tenor soared into the listening room with an inordinate amount of palpable presence. You could almost mark the calendar with a big black X where the transformation occurred. To the left of the X—thin, harsh, anemic, and pinched. To the

right—3D space, extreme separation of voice, and natural tone. Night versus day.

Why was this the case? Why would a designer manufacture a product that sounds so ordinary at first? Well, if one is to produce the very *best*, one must live with long burn-in and settling times, especially with large capacitors. In the Anat III Signature's main module there are two huge 270mF capacitors along with four other capacitors. A capacitor is made from two plates separated

by a dielectric material. It is the dialectic that "forms" over time, especially in high-quality limited-production capacitors such as the Mundorfs used in the YG Anat III Signatures. I had to be patient waiting for these key electronic components to sort themselves out and function properly (sonically).

The YG Anat III Signature (after break-in) is the truest to the mastertape *and* absolute sound loudspeaker I've heard. Its

presence and scale are extraordinary. It may not give you the microscopic low-level cues of the Coincident Pure Reference Extreme or Magico M5 but it comes awful damn close. What it does vis-à-vis these market-leading designs is raise the bar in the low frequencies (LF), serving up the power and punch of real instruments in your room. You get gobs of chest-pounding, head-banging verisimilitude, plus mastertape reality.

How does it do this? It gives you, the listener, control over the low frequencies.

It levels the playing field and takes more of the listening room out of the equation with LF adjustability and Class D-amplifier woofer control. This is not rocket science. LF reproduction is the foundation upon which the upper frequencies sit. If you bloat the upper bass/lower mid with a poor speaker/room interface, you spoil the overall presentation. It's the Achilles' Heel of audio. If you engineer to ruler-flat "in-room" LF response in a test chamber or design studio, you are presetting LF response and

The YG Anat III
Signature is the truest to the mastertape and the absolute sound loudspeaker I've heard. Its presence and scale are extraordinary.

assuming all users have similar rooms. I've always wondered why loudspeakers have midrange and tweeter controls and not passive LF settings—kind of like, "Why don't turntables have arms that pick up at the end of the record?"

The YG's in-room bass response is extraordinary. You must pay particular attention to the LF-adjustment level, though, to have a seamless fit with the main Anat III modules. Also, you must not overdrive the LF system. I found if I went too high in sound pressure levels (SPLs) I could induce a slight LF breakup. Granted, I do test loudspeakers at very aggressive levels, so this is not a day-to-day concern. It's like a point or two of lateral g's in an automobile skidpad test; it's not super-meaningful in daily driving.

I found the speaker to have a perfect listening level somewhat shy of rock-concert levels. And this is good thing, as I like to say. Loudspeakers and systems that need high SPLs to open up and sound realistic are not practical for anyone but Ozzy Osbourne. With that said, I was compelled to test Ozzy and discovered with the YGs that the first Black Sabbath album has very natural acoustic envelopes. Unfortunately, some of them have an early transistor signature that detracts from what could have been a sonic blockbuster. The opening rain-on-pavement sound bite that leads into the first track "Black Sabbath" sets the stage for the 1970 rock-and-roll iconic voice of Osbourne. This album, on lesser speakers, can be brittle and fragile, especially the 44.1kHz version. The YG's microscopic but super-realistic reproduction draws you in with a crystal-clear view of each instrument within the mix. It's like an auto-focus on a \$5000 camera; you get to "see" the individual image objects "pop" within the viewfinder as you scan the subject. The YG's give you this high-resolution view of Black Sabbath on stage; the guitar zaps into focus, then the drums, then Ozzy. And the kicker is...it all sounds real, even though it's a flawed recording. Mind you, the YG doesn't quite approach the MBL's concert-like realism experience thing, but it does "midrange clarity" like no other loudspeaker I've heard. It's simply magnificent.

Tracy Chapman's 1992 Matters of the Heart is a great test for the YG. The German pressing of this reference LP is a barnburner. Chapman is at the top of her vocal arts, and though I would be surprised that this is an AAA recording, it is nonetheless a greatsounding package with strong songwriting. The track "The Love That You Had" is the "Fast Car" of this album. The opening bass line is truly spectacular. It is tight and full of tone and room-enveloping. Chapman's voice hangs dead-center ten feet back between the speakers, while the percussive mix of drums, congas, and rhythm guitar swarms around you. At the moment the track starts, the YG's vanish from sight. What the heck? A disappearing act from such a large speaker? I'm afraid so. I hate to burst the myth that large speakers that image can't disappear from sight like mini-monitors, but this is the case with the YG. It's weird; when the music is off, you see them looming in front of you Gort-like. When the music appears, poof! There're gone. I've never heard pop music sound this believable.

Some (misguided) folk suggest that a speaker can do pop or acoustic, but not both. The YG is "on game" with big scale orchestral as well as it is with Kronos Quartet. No easy task, considering the reference-level pop music sound that jumps out of it. This speaker system gives JV's audio term "jump" real credibility. The way I interpret it, jump is a word used to describe the way an instrument's dynamic envelope explodes outward in all dimensions, like an instrument does in real life. You know it, but probably don't think about. YG should patent the phrase and send JV royalties. It's a far better audiophile musical descriptive than PRaT, a British inspired word for, well you know already... pace, rhythm, and timing. Of which, if a stereo system does actually have such a thing, the YG has, since my legs never seem to stop bouncing.

There are a number of recordings that test a loudspeaker's jump factor. And David Bowie's "Young American" from the *Sound and Vision* clear vinyl LP set is one of them. This box set is a hot one. Bright, white, and edgy. It will tax your nerves, and if you get through a whole side, pat yourself on the back. I can usually do the "Space Oddity" side but not the others. I like

# **SPECS & PRICING**

Type: Three-way modular speaker system; two-way passive main module speaker with dual, self-powered, separate, stackable, low-frequency modules, featuring 10" drivers jointly powered by an 800-watt internal amplifier Crossover frequencies: 65Hz,

#### 1.75kHz

Crossover type: **Proprietary DualCoherent circuit** 

Frequency response: 14Hz to

#### 47kHz

Sensitivity: **89dB/2.83V/1m** Impedance: **Four-ohm nominal,** 

#### three-ohm minimum

Power handling: Continuous

#### 800W, peak 2200W

Dimensions: Main module,

8" x 20" x 20" with Studio subwoofer module, 13" x 48" x 24"; with

Professional subwoofer module, 17" x 69" x 26"

Weight: Main module, 108 lbs. per channel unpackaged; with Studio subwoofer module 287 lbs. per channel

unpackaged; with Professional subwoofer module, 455 lbs. per channel unpackaged; with Signature crossover mod, 464 lbs. per channel unpackaged Price: \$119,000

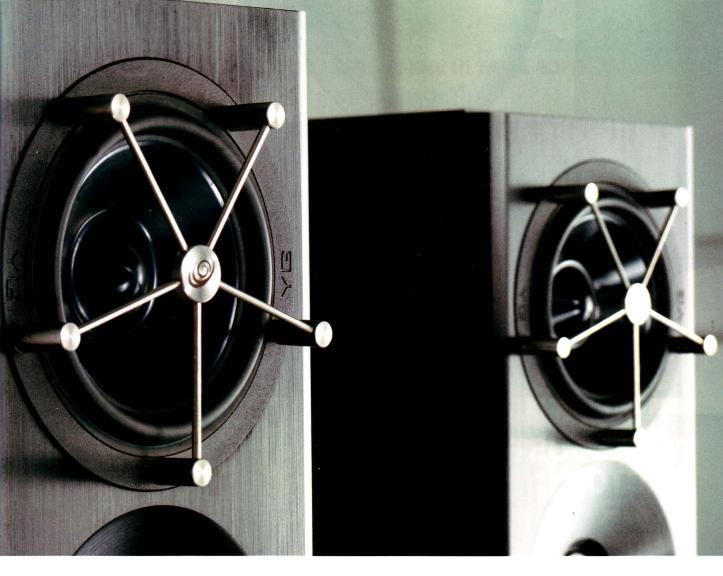
YG ACOUSTICS, LLC 4941 Allison St. Unit 10 Arvada, CO 80002 (801) 726-3887 yg-acoustics.com

Associated Equipment Digital source: MBL 1611F DAC, Ayon CD-5 CD player, Sony Vaio desktop, Emu 1616 soundcard. Analog Source: Goldmund Studio/T3F arm, Wyetech Ruby P-1 phono stage, Phase Tech P-1G low output moving coil cartridge Preamplifier: Ayon CD-5 preamp section, Motif MC11, Sam Kim Luxman CL-34 Power amplifier(s): Krell Evolution 900e, Ayon Orthos II Speaker cables: Tara Labs Omega Interconnects: Tara Labs "The Zero" Power cords: Tara Labs "The One" Accessories: VPI Turntable Stand, Sound Anchor amplifier

stands (MBL 6011), Stillpoints

with Risers, Walker Valid Points





This is the heart of the

YG experience-intense

musical connection

alongside mastertape

reality with a profound

midrange presence.

my ears attached to my head, not shaved off on the floor. This drives home the point of the big YG; it reproduces white-hot recordings with a finesse and flare that keep you in the chair, listening. No other large, super-resolution loudspeaker I know of can do this.

Big speakers can also hit the rocks with complex orchestral

music. Throw in a choir with dark scoring, I'm thinking the first Bruckner Mass here, and you have a recipe for potential disaster. Image and acoustic space smearing can occur due to multiple drivers spread across a tall standing speaker, especially if the speaker is optimized for frequency response at the expense of phase coherency. The YG Anat III Signature system is the first speaker that I've heard to nail both design

objectives. Eugene Jochum's 1972 reading of the (Bruckner) Mass with the Bavarian Radio Symphony Orchestra is one of those tastefully multi-miked Deutsche Grammophon gems. This intensely moving music is at once dark and yet majestically enlightening and joyously fulfilling. The YGs immediately unravel the broad chorus from the sweeping strings as the Kyrie begins to develop. By the time the chorus hits the tenth repetition, the structure of the movement is well determined. You know that Bruckner is at work with his dark polyphonic signature. The music is demanding for it forces the listener to "hear" how the multiple

voices fit and interplay with each other. This is where the YG's work their magic. They unravel each musical line without blur or haze. Your mind doesn't realize you are listening to loudspeakers; it's as if the music is emanating from within your soul. If you want to fully experience this, go to the second Mass, the Kyrie.

> Kyrie is one of the most hauntingly beautiful movements in classical music, period. The YGs will bring you to tears here with their unadulterated emotional involvement.

> This is the heart of the YG experience—intense musical connection alongside mastertape reality with a profound midrange presence. It's a very different experience from the MBL 3-D concert-hall effect. It's more correct

to the recording but offers the same intense musical impact as the outstanding German speaker. The YG Anat III Signature loudspeaker is thus the best loudspeaker in the world if you value musical involvement and you-are-there-at-the-recording-session reality. I was so impressed that I asked for a three-month listening extension following the review. YG's top-of-the-line system is priced below other reference designs, but is not inexpensive. It is investment grade audio, and it sounds it. The YG Anat III Signature will be a treasured possession to those who demand nothing but the very best. It's an outstanding achievement. tas

This Mass is a profound Bruckner achievement and the opening







