

Cambridge Audio Minx S325v2 Speaker System

PRICE: \$1,449 **AT A GLANCE:** Second-gen high-end compact satellites • Mix of flat and cone drivers • Incredible dispersion

The Cube That Bends Sound

Compact cube speakers are an intriguing subset of the satellite/subwoofer speaker genre. Though not invariably high performers, cubes have achieved iconic status, and some manufacturers have made a fortune marketing them to folks whose significant others look at the diminutive geometric forms and say, “Bingo. That’s what I want your speakers to look like. Now get those big tombstones out of our den.”

Cambridge Audio has tapped into the cube mystique with its Minx sat/sub sets. In fact, the Minx has done so well that it is now a separate division of the company. Part of the Minx success story is, believe it or not, performance. The first-generation Min10 (single cube) and Min20 (double cube) earned rave reviews all over the place, and the single-cube version found a coveted perch on our Top Picks list.

Now, the second-generation Min11 and Min21 are out. Having reviewed the single cube before, I went for the double cube in round two. But would it be double the fun?

The Two-Cube Solution

The Min21 is 6 inches tall and actually seems smaller. It is not two discrete cubes but a single rectangular solid with a fingertip-sized groove at the sides that suggests two cubic shapes in one piece. The glossy surface is an

ultraviolet-hardened, scratch-resistant plastic. A strip of silver-gray matte plastic at top and sides frames the baffle. On the back is a pair of banana sockets containing removable small metal-nut binding posts and a large screw that can be removed to install the supplied keyhole wall mount.

Pull off the fabric-covered grille, and you’ll see a pair of 2.25-inch flat drivers. The diaphragms are a composite honeycomb sandwich made of a paper core and skins. They appear identical, but actually the top driver is a second-generation hybrid BMR (Balanced Mode Radiator) operating full-range, while the bottom one functions as a long-throw woofer limited to frequencies below 500 hertz. In this respect the Min21 is different

from the outgoing Min20, which used two identical BMRs.

The new design has a deeper chassis for the top driver, and an even deeper one for the bottom driver, to allow for greater driver excursion and longer throw. It also boasts a more refined magnetic structure, a revised crossover, and improved driver components and materials. The result is that the Min21 slightly extends bass response, improves power handling, and removes a previous high-frequency spike at the 8-kilohertz mark.

Bending, and not always acting like a piston, is what makes BMRs different from conventional cone and dome drivers. Conventional drivers attempt to move like pistons, with the entire diaphragm moving back and forth in unison. A BMR driver creates controlled ripples in the diaphragm like a bunch of



SPECS

SPEAKER:	MIN21
TYPE:	Satellite
FULL-RANGE DRIVER (SIZE IN INCHES, TYPE):	2.25, BMR paper composite
WOOFER (SIZE IN INCHES, TYPE):	2.25, paper composite
NOMINAL IMPEDANCE (OHMS):	8
RECOMMENDED AMP POWER (WATTS):	25-200
AVAILABLE FINISHES:	High-Gloss White, High-Gloss Black
DIMENSIONS (W X H X D, INCHES):	3.1 x 6 x 3.3
WEIGHT (POUNDS):	1.88
PRICE:	\$180/each

stones tossed into a pond, bending the diaphragm to generate high frequencies. Effectively, the higher frequencies are being produced with the diaphragm in a controlled version

of what is often called 'breakup mode'. Once out of the 'piston band' of the driver, different frequencies are causing areas of the diaphragm to move in different

directions relative to one another, resulting in phase behavior which yields a sonic character that many would describe as "spacious" or "larger than life." On the plus side, sound is disbursed so evenly horizontally and vertically that the distinction between on- and off-axis response all but disappears. This phenomenon applies here to frequencies above about 800 Hz; below that point, the driver has a more conventional pistonic movement. Shift around the sofa all you want: The sound will move with you. To anyone weaned on ordinary speakers, this can seem like a miracle.

The X300 subwoofer has two 8-inch aluminum drivers. One is active, and the other is passive—Cambridge calls it an auxiliary bass radiator. For greater rigidity, both are continuous-profile cones, with no hole in the center. DSP keeps the subwoofering under control, so you won't hear clipping or any other signs of

audible distress at high volumes.

Associated equipment included a Pioneer Elite VSX-53 A/V receiver, Oppo BDP-83SE universal disc player, and for downloads, a Lenovo Win7 laptop running FooBar 2000 and feeding a Wadia 121 digital-to-analog converter. All movie demos were on Blu-ray Disc.

How You've Grown

I'd been warned that the Minxes needed break-in time. What I had not expected was how dramatically they would morph from a stingy bass-light sound to a full, rich tonal balance. As uncrated, the speakers could barely muster a soundfield or a stereo image. Within just a few hours, they commanded the room with a swagger, transcending both their size and positioning to produce a huge and seamless soundfield, with a vertically and horizontally spacious front soundstage that didn't seem to come from the little cubes at all. Imaging was generous, with effortless integration between the fully fleshed-out midrange and fine airy treble. The crossover from satellite to subwoofer also improved steadily as I dialed it in and the sub and sat drivers began to loosen up. While never rock-the-house powerful, the sub had enough bass extension and pitch to do justice to music, and I became less and less aware of the crossover until it ceased to be an issue. Normally, I don't make a big deal of break-in, but the reader who buys these speakers needs to know that the first few hours will not be even remotely indicative of long-term performance. Be patient.

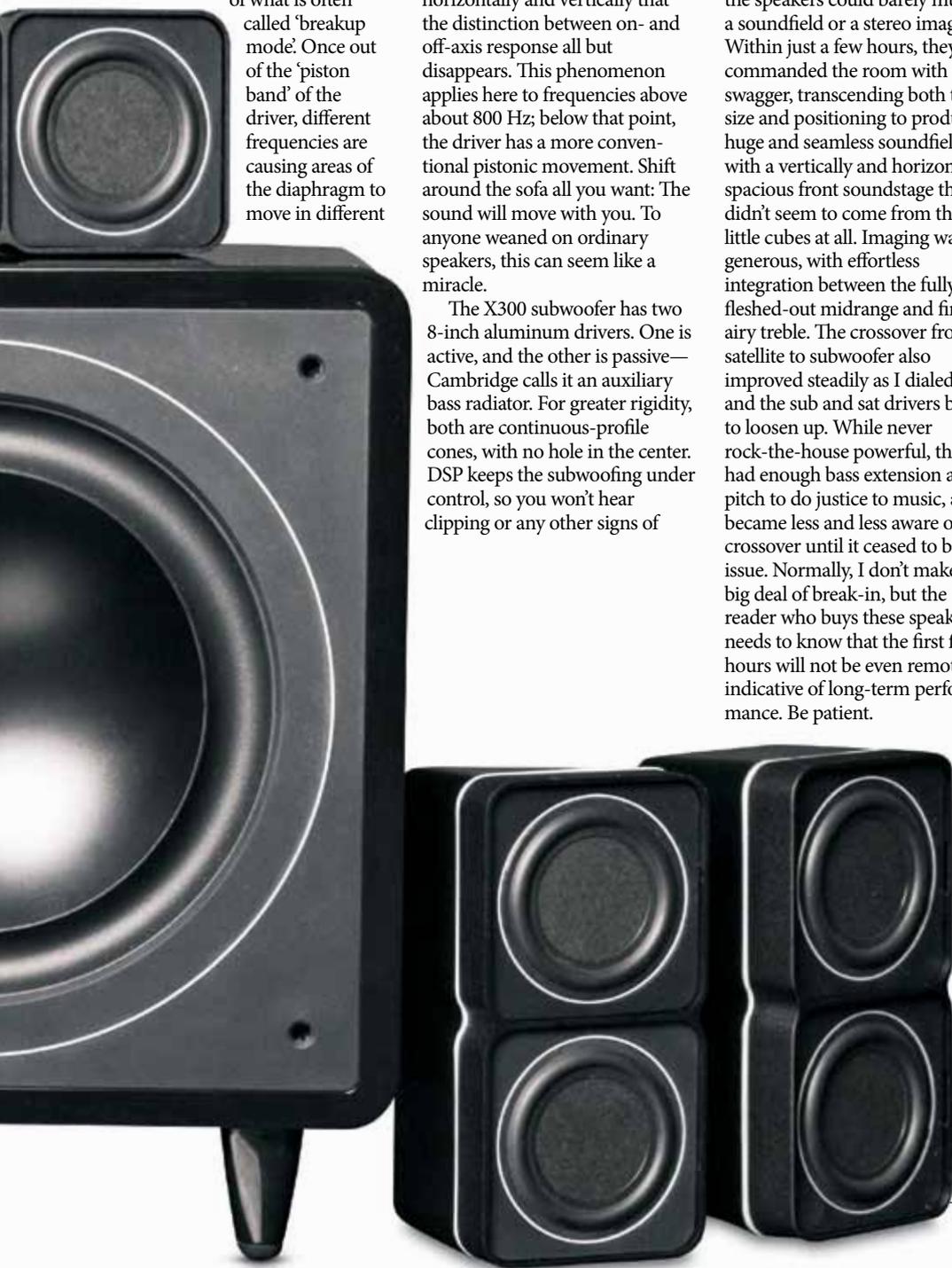
Notes from the movie sessions document this steady improvement. A getting-to-know-you demo, the Dolby TrueHD soundtrack of *One in the Chamber*—with the nimble Cuba Gooding Jr. and monumental Dolph Lundgren as dueling paid assassins—was bland and flat spatially, with uneven and often unsatisfying bass. The satellite's low end sounded as small as they looked. However, their excellent dispersion made itself known immediately, and the soundfield got more spacious as the movie went along.

Skipping ahead, the Prohibition-era rural epic *Lawless* (DTS-HD Master Audio) started to reveal the Minx's true talent. Suddenly the sound had lifted clear of the speakers—"Where are the speakers?" I asked my notebook. A Pentecostal church scene was "incredible," meaning spatially three-dimensional and texturally vivid. The system became a dynamically assured handler of gunshots and explosions. But when serving up a gently ruminating acoustic guitar, it also excelled at low-level resolution and harmonic wholeness. Dialogue was clear throughout. I was beginning to have fun.

Sparkle (DTS-HD Master Audio) is the story of three teenage girls uneasily immersing themselves in the Detroit music scene of the 1960s. Its virtuoso soul-singing performances showed off the sats' and sub's ability to deliver natural vocal timbre and the virtuoso dynamics of the performers. It brought out details in the music like the Auto Tune used to tweak one vocal—I suspected this was more of a stylistic flourish than a need to correct the amazing singing. Bass by this time was musically appropriate, well pitched, and reasonably slick in the handoff between sats and sub.

How Sweet It Is

Glenn Gould's best-selling 1955 performance of Bach's *Goldberg*



ENTRY LEVEL CAMBRIDGE AUDIO MINX S325V2 SPEAKER SYSTEM

HT Labs Measures

CAMBRIDGE AUDIO MINX S325V2 SPEAKER SYSTEM

Satellite Sensitivity:
87 dB from 500 Hz to 2 kHz

This graph shows the quasi-anechoic (corrected for on-wall boundary gain and employing close-miking of all woofers) frequency response of the Min 21 satellite (purple trace) and X300 subwoofer (blue trace). The passive loudspeaker was measured with grille at a distance of 1 meter with a 2.83-volt input.

The Min 21's listening-window

response (a five-point average of axial and +/-15-degree horizontal and vertical responses) measures +2.01/-4.99 decibels from 200 hertz to 10 kilohertz. An average of axial and +/-15-degree horizontal responses (in horizontal mode) measures +2.50/-4.78 dB from 200 Hz to 10 kHz. The -3dB point is at 168 Hz, and the -6dB point is at 143 Hz. Impedance reaches a minimum of 6.31 ohms at 144 Hz and a phase angle of -53.61 degrees at 100 Hz.

Visit our Website for a detailed explanation of our testing regimen, plus a list of our reference gear.

on the web

The X300's close-miked response, normalized to the level at 80 Hz, indicates that the lower -3-dB point is at 32 Hz and the -6-dB point is at 129 Hz with the Crossover frequency control set to maximum. —MJP



SPECS **X300 Subwoofer**
ENCLOSURE TYPE: Passive radiator
WOOFER (SIZE IN INCHES, TYPE): 8, aluminum **PASSIVE RADIATOR (SIZE IN INCHES, TYPE):** 8, aluminum
RATED POWER (WATTS): 300 RMS
CONNECTIONS: Line-level stereo, RCA
CROSSOVER BYPASS: LFE **AVAILABLE FINISHES:** High-Gloss White, High-Gloss Black
DIMENSIONS (W X H X D, INCHES): 10.5 x 12.4 x 11 **WEIGHT (POUNDS):** 16.5 **PRICE:** \$600 **SYSTEM PRICE:** \$1,449

that sit on my desktop, they didn't downplay the hard electronic edge of Fripp's Soundscapes (guitar synth). The music's undulations and mood swings got the dynamically wide and nuanced treatment they deserved. Spatially, this demo was a marvel: The Minx's output was so un-speaker-bound that the 2.1-channel playback often took on a surround-like character, spilling out of the two satellites and filling the entire room.

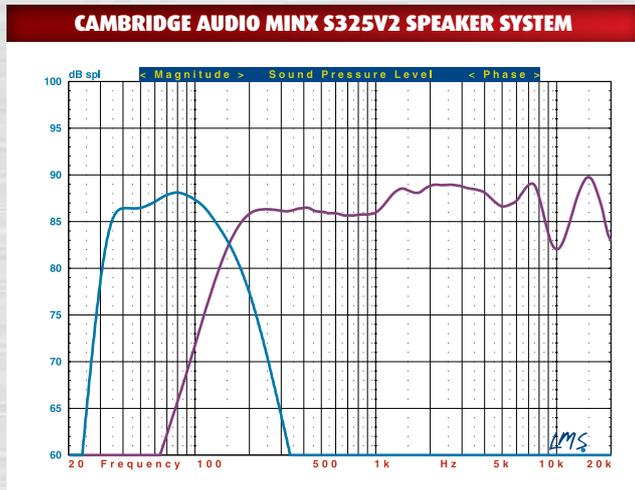
I go out of my way to review compact satellite/subwoofer sets and have acquired a large frame of reference for the category. Cambridge Audio's S325v2 speaker package is one of the best I've heard. Let me be more specific: As far as the Min21 satellite is concerned, I've never heard a better one, and I can count its equals on the fingers of one hand with a few fingers left over. As often happens in even the best sat/sub sets, the X300 subwoofer lags behind, but in this case, not far. Its ability to tunefully mesh with the satellites was never in doubt. For this system, the sub does well—and the sats are just extraordinary. As long as you don't need to rattle the crockery, the Minx offers a completely satisfying listening experience, both musically and cinematically. If I were buying a compact sat/sub set today, this would be the one. ¶

* Audio editor Mark Fleischmann is also the author of the annually updated book Practical Home Theater (quietriverpress.com).

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merge and vanish into the white walls of the room. With my glasses off, I couldn't see them at all.

An untitled live recording by Robert Fripp and the League of Crafty Guitarists (Argentina, May-June 2007) arrived as a FLAC download. This group of impressively well-coordinated guitarists playing shallow-body instruments often sounds like a harpsichord. Though the Minxes downplayed that effect compared with the Era Design 4 speakers



Variations came as a 24/96 FLAC download from HDtracks. What sounded bland in the first-generation CD release and slightly richer in the later CD remastering (*A State of Wonder*) acquired a more distinctive beauty in this high-resolution download. Minx pulled together several subtle elements, including the piano's austere harmonic body and the gentle percussive attack of each note. The system's wide and comprehensive soundstage made every seat on the sofa a good one, enabling me to relax into the music without keeping my body rigidly fixed in the sweet spot. There was hardly an unsweet spot anywhere in front of the speakers. I have never heard a speaker that so effectively ameliorates stereo's

notorious Achilles' heel, the hole in the middle for listeners not directly between the two speakers. It sounded almost as though the center speaker were operating, though when I checked, it was silent.

Stevie Wonder's *Innervisions* was another 24/96 download from HDtracks. Bass was now at its peak, not only in weight, but in pitch definition and timbre, as was evident in the unison synth and bass guitar line of "Too High." The drum sound was as well integrated as anything I've ever heard from a sat/sub set operating at a high crossover. As I was musing about how big the system sounded in just 2.1 channels, I happened to glance at the satellites, and they seemed to

