



ROBERT J. REINA

Dynaudio Excite X14

LOUDSPEAKER

n the March 2010 issue I reviewed Dynaudio's Excite X12 bookshelf speaker (\$1200/pair), then the least expensive speaker in Dynaudio's line. It mightily impressed me, and I wrote that it had "become my new benchmark for speakers costing under \$2000/pair." Despite the many newer, competing bookshelf speakers costing somewhere between \$1000 and \$2000/pair that have visited my listening room since then, my enthusiasm for the Excite X12 has not waned—I've used it as a reference against which to compare all of those of those models. So when Dynaudio USA's Michael Manousselis contacted *Stereophile* to tell us that the entire Excite line had been redesigned, and offered review samples of the Excite X12's successor, the Excite X14 (\$1500/pair), I jumped at the opportunity.

New Design

Except for its grille, the two-way, rear-ported Excite X14 looks identical to the two-way, rear-ported Excite X12. (The X14's grille is attached with concealed magnets, the X12's with plastic snap locks.) The 1" fabric-dome tweeter in both models features a proprietary Precision Coating that Dynaudio declines to describe. In the X14, however, this coating is applied by a high-precision machine that allows it to be deposited more evenly than was possible in the X12. Like the X12, the X14 has a long-throw, 5.7" woofer with a small, lightweight voice-coil. However, in the X14, the spider suspension and voice-coil have been redesigned to improve headroom and the accuracy of the cone's motion. The tuning of the bass port has been refined, and the crossover is a new design trickled down from Dynaudio's more expensive Focus line. Finally, while the X12 was a 4 ohm design, the X14 is a truly linear 8 ohm design, in an attempt to make it an easier speaker to drive—the X14 will draw less current from the

The Excite X14 is available in real-wood veneers of walnut or rosewood, as well as lacquer finishes of Satin Black or Satin White. I found the tiger-striped rosewood of my review samples particularly sexy.

To listen to the X14s, I set them on my Celestion Si

stands and left their grilles off; I felt that the latter revealed a tad more detail.

Sound

The Excite X14s' dead-neutral, detailed, and holographic midrange made them a perfect showcase for well-recorded voices. In "The Losing End (When You're On)," from Neil Young's Everybody Knows This Is Nowhere (LP, Reprise RS 6349), Young's voice was silky, every sibilant reproduced with crystal clarity and no trace of spittiness or harshness as it floated on a bed of air above the interplay of Billy Talbot's bass and Ralph Molina's drums. Higher in the audioband, the upperregister melodies in "Donatella," from Lady Gaga's ArtPop (CD, Streamline/Interscope B0019295-02), were reproduced with an airy sense of body over a foundation of electronic instruments. Woodwinds were equally intoxicating. In Seven Standards 1985, Volume 1, master composer and reed player Anthony Braxton deviates from his usually abstruse original work, cranking through straight-ahead covers of jazz standards (LP, Magenta M0-0203). Through the Excite X14, his slightly forward alto sax was vibrant and lyrical, and the speaker was able to reveal every subtlety of his unique phrasing.

The X14's reproduction of high frequencies was extended, pristine, uncolored, and delicate with all recordings I listened to. The many colors of Bill Frisell's electric guitar in an early (1987) recording, The Paul Bley Quartet (LP, ECM 1365), were easy to dissect throughout his instrument's entire register. Miles Davis's trumpet in Workin' with the Miles Davis Quintet (LP, Prestige P7166) had the requisite bite of burnished brass throughout its upper register, and his rich melodies bathed the rhythm section in a golden glow. The acid test of a speaker's high-frequency capabilities is its reproduction of the strings in a good recording of a baroque chamber ensemble. The massed violins in Vivaldi's Concerto for Two Trumpets in C, RV 537, from the Academy of Ancient Music led by Christopher Hogwood (LP, L'Oiseau Lyre DSL 0544), sounded extended and airy, and revealed an ideal and delicate balance of bowed string bite and silky seductiveness.

SPECIFICATIONS

Description Two-way, ported, stand-mounted loudspeaker. Drive-units: 1" (26mm) silk-dome tweeter, 5.7" (145mm) magnesiumsilicate polymer-cone woofer. Frequency response: 50Hz-23kHz, ±3dB. Sensitivity: 85dB/2.83V/m. Impedance: 8 ohms. IEC power handling: >150W.

Dimensions 6.7" (170mm) W by 11.2" (285mm) H by 10" (255mm) D. Weight: 14.3 lbs (6.5kg).

Finishes Rosewood, Walnut

real-wood veneers; Satin Black or White lacquers. Serial numbers of units reviewed 03777754/5 Price \$1500/pair. Approximate number of dealers: 63. Manufacturer Dynaudio A/S, Sverigesvej 15, 8660 Skanderborg, Denmark. Tel: (45) 8652-3411. US distributor: Dynaudio North America, 1852 Elmdale Avenue, Glenview, IL 60026. Tel: (847) 730-3280. Web: www.dynaudiousa.com.





BJR left the Excite 14s' grilles off for his auditioning.

Very impressed with the Excite X14's bass performance throughout a wide range of recordings, I mined my collection of jazz vinyl for bass solos. My notes

for Paul Chambers's solo in "The Theme Take #1," from Miles Davis's Workin', and for Scott La Faro's solos in Bill Evans's Live at the Village Vanguard (LP, Riverside RS 3001), read the same: "clean, clear, warm, and resonant." But these little bookshelfs were also quite capable of handling dramatic passages in the lower bass. The opening organ-pedal motif in Philip Glass's score for Godfrey Reggio's film Koyaanisqatsi (UK LP, Island ISTA 4) was blooming, airy, and powerful, with no overhang or loss of definition in the lower notes.

I'm quite taken with the interesting synth patch Lady Gaga uses for the bass line in "Donatella." It has an organic and intoxicating yet artificial buzzy quality, and the Dynaudio untangled its unique textures with clarity.

Finally, the Excite X14 was able to unravel a considerable amount of bass detail from difficult recordings. On Last Exit's first live, eponymous recording, (LP, Enemy EMY 101), there are many busy passages in which bass saxophonist Peter Brotzmann and bass guitarist Bill Laswell play rapid-fire improvisations in the same register while guitarist Sonny Sharrock and drummer Ronald Shannon Jackson thrash about in full throat. The X14 was able cut through the instrumental density to clearly delineate and separate Laswell's and Sharrock's riffs.

And for its price, the Dynaudio did a spectacular job of laying out inner details. It unfurled the blockbuster recording of Krzysztof Penderecki's *Polskie Requiem*, with Antoni Wit conducting the Polish Radio Symphony Orchestra (LP, Polskie Nagrania Muza SX2319/20). In the mid-1980s, a year after this recording was made, I heard, from a choice seat at Carnegie Hall, the composer and the Cracow Philharmonic perform it in what became one of the three best

MEASUREMENTS

used DRA Labs' MLSSA system and a calibrated DPA 4006 microphone to measure the Dynaudio Excite X14's frequency response in the farfield, and an Earthworks QTC-40 with its \(^1/_4\)" capsule for the nearfield responses. Though the Excite X14 is supplied with a grille, and an optional foam plug for its port, I performed the measurements without either. Dynaudio specifies the X14 as having a voltage sensitivity of 85dB/2.83V/m; my estimate was 83dB(B)/2.83V/m, which is both lower than the specified figure and 1dB lower than my estimate of the earlier Excite X12's sensitivity. Despite this low sensitivity, the X14 is very easy to drive, its impedance remaining above 8 ohms at almost all frequencies (fig.1, solid trace), and about 2 ohms higher than the X12's impedance (see http:// tinyurl.com/o623bdf). The minimum magnitude is a mild 6.4 ohms at

210Hz, and the small electrical phase angle (dashed trace) is relatively benign.

The traces in fig.1 are free from the small wrinkles in the midrange that would suggest the presence of panel resonances, and indeed, cumulative spectral-decay plots calculated from the output of a simple accelerometer attached to the cabinet walls confirmed this absence. Fig.2 was taken with the accelerometer attached to the center of one of the sidewalls; the only modes present are both high in frequency and low in level. (Ignore the broad hump in the bass in this graph, which I suspect is due to the speaker's port-tuning resonance exciting the wooden floor of the room in which I performed this measurement.) The X14 is much better than the X12 in this respect, and I suspect that this is why Bob Reina found the X12's midbass to sound "a bit sluggish and warm by

comparison."

The notch centered on 55Hz in the blue trace in fig.3, which is the woofer's response measured in the nearfield, suggests that this is the tuning frequency of the large, flared port on the cabinet's rear. The port's output (red trace) is identical with that of the X12, peaking between 30 and 100Hz, and with a strong resonant mode apparent between 700 and 900Hz. As

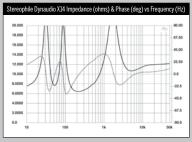


Fig.1 Dynaudio Excite X14, electrical impedance (solid) and phase (dashed) (2 ohms/vertical div.).

concerts I've ever heard.¹ This long work features dense, complex vocal and instrumental textures replete with subtle dynamic inflections and dissonances that resolve into beautifully simple sonorities. Throughout, some of the hairier choral parts are very difficult for a speaker and/or phono cartridge to make sense of. (My Clearaudio Virtuoso Wood perfectly tracked the entire LP.) But the Dynaudio was able to precisely resolve each nuance of even this work's most complex passages.

The Excite X14 resolved all transients with lightning speed, and with no trace of edge or blunted attacks. The rapid-fire electronic blasts from Laibach's *Nova Akropola* (LP, Cherry Red BRED 67), and singer Milan Fras's guttural growl, were clean and crisp. In the title track of Metallica's *Master of Puppets* (LP, Elektra 60439-1), the speaker resolved all of the subtleties of the delicate acoustic-guitar introduction, and didn't smear a drop of the gut-slamming fortissimo speed-metal passages in the rest of this track.

I was very impressed with the wide dynamic contrasts the Excite X14 was capable of. Playing "Starless," from A Young Person's Guide to King Crimson (LP, Editions EG KC10), the speaker revealed the entire dynamic range of ppp to fff in linear and organic fashion. Although I thought I knew this track intimately, I realized for the first time that it has the dynamic capabilities of a classical orchestral work.

And these little bookshelfs were great rock speakers—they had no problem ripping it loud

¹ The other two, both from the same time period, were: 1) John Zorn conducting a 25-piece ensemble in his arrangements of works by Ennio Morricone. Imagine guitarists Bill Frisell, Fred Frith, Arto Lindsay, and Robert Quine, and drummers Anton Fier and Bobby Previte, all onstage at the same time! 2) The Talking Heads' Stop Making Sense Tour. The night after that performance, I bought another ticket and saw the show a second time.



measurements, continued

the port fires to the speaker's rear, it's possible that this mode will not affect the X14's sound quality. The complex sum of the woofer and port responses, taking into account both acoustic phase and the different distance of each source from a nominal farfield microphone position, is shown in fig.3 as the black trace below 300Hz. The broad hump in the upper bass is

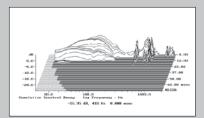


Fig. 2 Dynaudio Excite X14, cumulative spectraldecay plot calculated from output of accelerometer fastened to center of side panel (MLS driving voltage to speaker, 7.55V; measurement bandwidth, 2kHz).

primarily an artifact of the nearfield measurement technique; the speaker's bass will be down by 6dB at the port tuning frequency, which is actually okay low-frequency extension for so small a speaker.

Higher in frequency in fig.3, the X14's response, averaged across a

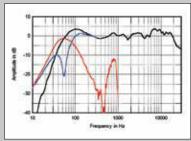


Fig.3 Dynaudio Excite X14, anechoic response on tweeter axis at 50", averaged across 30° horizontal window and corrected for microphone response, with nearfield responses of woofer (blue), port (red), and their complex sum, respectively plotted below 300Hz, 1kHz, and 300Hz.

30° horizontal window centered on the tweeter axis, is quite similar to the X12's, but with more energy apparent in the presence region (2-5kHz). As I would expect, BJR described the X12's high frequencies as being "less detailed" than the X14's, which were "cleaner and more articulate in highlevel passages." In fig.3 the top two octaves are seen to be a little exag-

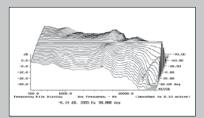


Fig.4 Dynaudio Excite X14, lateral-response family at 50", normalized to response on tweeter axis, from back to front: differences in response 90–5° off axis, reference response, differences in response 5–90° off axis.

if I wanted them to. I put on the greatly underrated, eponymous first album of the Vanilla Fudge (LP, Atco SD33-224)—it was way head of its time—cranked up their unique arrangement of Holland-Dozier-Holland's "You Keep Me Hanging At \$1500/pair, the Dynaudio Excite X14 is an extraordinary value.

On," and reveled in the crisp, coherent dynamics and heavy slam of the rhythm section, bathed in Mark Stein's distorted Hammond B3. And my high-volume spin of Jeff Beck's Beck-Ola (UK LP, EMI 8 55665 1) reproduced the rhythmic interaction of Beck's guitar, Ron Wood's bass, and Tony Newman's drums with perfect coherence. My notes read: "Pow! Sock! In the pocket!" Finally, I cranked up to 11 My Bloody Valentine's first album, This Is Your Bloody Valentine (LP, Creation CREEEP 060)—the band's name should be My Bloody Eardrum—and let my entire house bathe in the sustained wash of distorted guitars.

Comparisons

I compared the Dynaudio Excite X14 (\$1500/pair) with my original review sample of the Excite X12 (\$1200/pair), as well as the Epos Elan 10 (\$1000/pair).

The Excite X12 had a richer lower midrange but less midrange detail, and its highs were less delicate and less detailed. The X14's high frequencies were cleaner and more articulate in high-level passages. The ability of either Dynaudio to articulate sounds at low levels was excellent; I heard little difference between them. The X14's midbass was much cleaner and clearer than the X12's, which sounded a bit sluggish and warm by comparison. At first I thought the X12's bass went a bit deeper than the X14's, but I believe that impression may have been created by the older speaker being slower and less articulate in the bass. I look forward to

ASSOCIATED EQUIPMENT

Analog Sources VPI TNT IV, Rega Planar 3 turntables; Immedia, Syrinx PU-3 tonearms; Koetsu Urushi, Clearaudio Virtuoso Wood cartridges.

Digital Sources Lector CDP-7T, Creek Destiny CD players. Preamplification Vendetta Research SCP-2D phono stage, Audio Valve Eclipse line stage.

Power Amplifier Audio Research Reference 75. Loudspeakers Dynaudio Excite X12, Epos Elan 10. Cables Interconnect (all MIT): Magnum M3, MI-350 CVTwin Terminator, MI-330SG Terminator. Speaker: Accent Speaker Technology Blue Thunder. AC: manufacturers' own.

Accessories Various by ASC, Bright Star, Celestion, Echo Busters, Salamander Designs, Simply Physics, Sound Anchor, VPI.—Robert J. Reina

seeing John Atkinson's measurements of the bass extension of the two Excite models.

The Epos Elan 10 had clean, clear, deep bass and excellent midrange detail. Its highs, however, were less detailed and less delicate than the Excite X14's. The Epos's articulation of low-level dynamics was almost as good as the Excite X14's, but the Elan 10's ability to produce high-level dynamics and slam was the best of the three.

Wrap-Up

With the Excite X14, Dynaudio has taken all of the aspects of the Excite X12 that I liked and improved them across the board. At \$1500/pair, this speaker is an extraordinary value. It has become my favorite bookshelf speaker for under \$2000/pair.

measurements, continued

gerated, which, in a room of small to medium size, will compensate for the narrowed horizontal radiation pattern in this region (fig.4). The slight off-axis flare between 3 and 5kHz in this graph will add to the impression of treble detail, but it might also make the X14 a bit fussy about system matching in rooms that are not acoustically well damped. In the vertical plane, the X14's

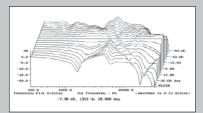


Fig.5 Dynaudio Excite X14, vertical-response family at 50", normalized to response on tweeter axis, from back to front: differences in response 45-5° above axis, reference response, differences in response 5-45° below axis.

dispersion (fig.5) suggests that low stands will work better than high ones, a suckout at the crossover frequency developing more than 10° below the tweeter axis.

The Excite X14's step response on its tweeter axis (fig.6) reveals that its two drive-units are connected in positive acoustic polarity. The decay

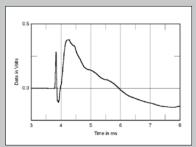


Fig.6 Dynaudio Excite X14, step response on tweeter axis at 50" (5ms time window, 30kHz bandwidth).

of the tweeter's step smoothly blends into the woofer's step, correlating with the good frequency-domain integration of their outputs. Other than some low-level hash in the crossover region, the X14's cumulative spectral-decay plot on the tweeter axis (fig.7) features a very clean initial decay and, overall, a cleaner decay than the X12.

Like its predecessor, Dynaudio's Excite X14 is a well-engineered design.

—John Atkinson

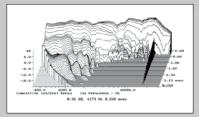


Fig.7 Dynaudio Excite X14, cumulative spectral-decay plot on tweeter axis at 50" (0.15ms risetime).