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Dynaudio Confidence C1

Wes Phillips

LOUDSPEAKER

"No, the Dynaudio Confidence C1 isn't a *small* loudspeaker, but it *is* a stand-mounted two-way monitor." I was struggling to explain to Fred Kaplan what I was working on for this month's deadline.

"So it would be good for people with smaller rooms?"

"That's what I thought at first, so I set them up in my small listening room, where they were fantastic, but later I decided I had to hear them in my big room, too. So I brought the C1s upstairs—and darned if they didn't shine in a room that most 'monitor' speakers can't fill."

"So let me get this straight," said Fred. "It's not small, it's not puny, it fills large rooms, and you say its bass is 'sufficient.' So what separates it from a full-range loudspeaker?"

"Just audiophiles' preconceived notions, I reckon."

Little, Big

I certainly underestimated the Confidence C1 when Dynaudio's Mike Manousselis first proposed that I audition it. I'd called him to request a pair of Confidence C4s to complement the Krell Evolution 202 preamplifier and Evolution 600 monoblocks I was reviewing. Manousselis was accommodating, but couldn't help himself: "As long as I'm filling out a bill of lading," he said, "why don't I send you a pair of Confidence C1s to review? It's the 'unknown' speaker in our line, and I think it's unjustly overlooked. It just might be my favorite Dynaudio."

Everybody in marketing uses hyperbole, but Manousselis has never steered me wrong, I bit. "Sure, Mike, send 'em over. I've been reviewing a lot of expensive speakers lately. It wouldn't hurt to slip something affordable into the queue."

"I never said they were *cheap*."

Indeed they aren't, at \$6500/pair plus \$450 for the stands. The money shows, however. Under its wonderfully finished veneer (rosewood, in the case of my samples), the C1's cabinet is as solid as they come: the enclosure is 0.8"-thick MDF, while the baffle, which stands proud of the box, is 1.25"-thick MDF sandwiched to a 0.3" MDF "spacer." All of that is assembled with antiresonant adhesive and internally braced and reinforced with 0.4" damping plates. The port on the rear panel is flared at both ends, which, Dynaudio claims, controls "turbulence."

The drivers are mounted to the baffle in an "inverted" array: the 1.1" (28mm) Esotar tweeter is below the 6.6" (170mm) molded-cone MSP woofer. Both drivers are designed and built by Dynaudio, and are used in the more expensive Confidence models as well.

The crossover employs a phase-correcting network that "correctly sums the acoustic responses of the tweeter and woofer," according to Dynaudio. That, plus the inverted array, says the company, minimizes high-frequency surface reflections while minimizing boundary loading from the bass driver—by which I presume that Dynaudio means that the first floor reflection is moved farther from the speaker. Further, the crossover imparts an "upward polar tilt, due to the distance of the voice coils to the baffle, emulating the effect of a sloped baffle... providing a much larger sonic window than would be otherwise possible."

The optional, 27"-high stand bolts onto the C1's base plate and can be filled

DESCRIPTION Two-way, reflex-loaded, stand-mounted loudspeaker. Drive-units: 1.1" soft-dome tweeter, 6.6" plastic-cone woofer. Crossover frequency: 1800Hz, with first-order slopes. Frequency range:

44Hz–22kHz. Nominal impedance: 4 ohms. Sensitivity: 86dB/2.83V/m. IEC long-term power handling: 170W.

DIMENSIONS 17.4" (445mm) H by 7.8" (200mm) W by 16.8" (430mm) D. Weight: 24 lbs (10.9kg).

FINISHES rosewood, maple, cherry, black ash veneers.

SERIAL NUMBERS OF UNITS

REVIEWED 519841, 519842.

PRICE \$6500/pair in standard veneers; premium gloss black or rosewood lacquer finishes add \$500/pair; matching Stand4 stands, \$450/pair. Approximate number of dealers: 95.

MANUFACTURER Dynaudio A/S, Sverigesvej 15, 8660 Skanderborg, Denmark. Tel: (45) 86-52-34-11. Fax: (45) 86-52-31-16. Web: www.dynaudio.com. US distributor: Dynaudio North America, 1140 Tower Lane, Bensenville, IL 60106. Tel: (630) 238-4200. Fax: (630) 238-0112. Web: www.dynaudiousa.com.



ERIC SIMONSON

with sand and/or shot—something I didn't do, as I'll need to disassemble them and ship them back to Manousselis. But if I were keeping the C1s, it would be worth the effort.

Little pot soon hot

I auditioned the Confidence C1 in both my small, treated downstairs listening room (9' by 15' by 7.5') and my big-rig upstairs room (13' by 25' by 9'), and with a variety of systems ranging from my ancient Creek 4340 integrated amplifier (40Wpc) to the big rig's combo of Conrad-Johnson ACT 2 Series 2 preamp and Musical Fidelity Nu-Vista 300 power amp. The C1s sang with 'em all. Dynaudio says the speaker's crossover network is impedance-corrected, making it an easy load for any amplifier. That's undoubtedly correct, technically—in practice, I found the C1s bloomed if I gave 'em grunt. I could drive them with less, but starting at around 200Wpc, they definitely came alive. As Jim Thiel is wont to say, these days, watts is cheap.

Dynaudio is correct in that the C1 is relatively easy to place in relation to room boundaries. This was a bigger issue in my small room, where being able to place them near the front and sidewalls returned huge benefits in sonic holography. In my large room, I found it less significant because of my need to balance the speakers' distances from the boundaries against my distance from the speakers—therefore I brought them into the room a bit more than might have been optimal, if only so that all of my furniture wouldn't be grouped at one end of an otherwise empty room. Did I lose some bass impact? Maybe, but the C1 certainly didn't lack that.

How far that little candle throws his beams

Some speakers are too big for small rooms; others are too small for big rooms. The Dynaudio C1 was a lot of speaker—but not too much—for my small room, and punched outside its weight class in my big room. However, whether in a small space or a big 'un, the pair of them always delivered magic.

In my small room, the C1s were majestic. They had slam, they had power, they carved images out of solid granite—from wall to wall and floor to ceiling. How could they fit an entire orchestra into a small space? Well, in the case of Leif Segerstam and the Helsinki Philharmonic's recording of



Dynaudio Confidence C1 loudspeaker on stand

Einojuhani Rautavaara's Symphony 7, "Angel of Light" (CD, Ondine ODE 869-2), they didn't—quite—but they presented a massive soundstage that seemed larger than the room, if not quite life-size, with wave after wave of shimmering string sound that crested in immense, dissonant surges. It was as much an emotional as a sonic epiphany.

In my larger room, with the speakers farther from both the side and front walls (and, of course, from me), the soundstage was slightly less physical and was contained more between the C1s. The ebb and flow of Rautavaara's

work had been overwhelming downstairs; upstairs, it was more illuminating. The brightness of the score was more apparent in the large room—partially the result of its greater volume, but also of my sitting farther away from the speakers. What I gained was greater clarity and detail.

I'm not tiptoeing around the impact issue. In the small room, the C1s could deliver a room-shaking low end that was truly impressive; in the larger room they didn't have quite the same slam, but their ability to deliver dynamic power (other than in the bottom octave) was spectacular, as dramatically proved by the percussion battery in the Rautavaara's *Molto allegro*. Some of those tam-tam rimshots could have cracked eggs.

Where the C1s absolutely slew me in the large listening room was in their re-creation of the soundstages of small-ensemble recordings. Take a well-recorded jazz quartet, as on Javon Jackson and David Hazeltine's *Sugar Hill: The Music of Duke Ellington* (SACD, Chesky SACD333): the Dynaudios precisely placed the tenor sax, piano, double bass, and drums between and behind the speakers themselves, life-sized and breathing. Especially breathing—in "In My Solitude," the C1s' capturing of Jackson's deep, silver-tinged tenor breathiness and drummer Tony Reedus' cymbal sparkle wasn't simply convincing, it was compelling.

Again, in the smaller room, Hazeltine's piano was bigger and Paul Gill's bass dug a bit deeper; it was more like sitting in the first row of a jazz club. In the larger room, it was more like sitting one riser or so up. But no matter which room I had them in, the C1s put me there with the musicians.

The C1 and vocals? Don't get me started. This speaker was made to reproduce the human voice, from the

ASSOCIATED EQUIPMENT

DIGITAL SOURCES Ayre C-5xe, Muse Polyhymnia universal players; McIntosh MS750 media server.

PREAMPLIFIERS Ayre K-1xe, Conrad-Johnson ACT2, Krell Evolution 202.

INTEGRATED AMPLIFIER Creek 4340.

POWER AMPLIFIERS Krell Evolution 600, Musical Fidelity Nu-Vista 300, Portal Paladin, all monoblocks.

LOUDSPEAKERS Dynaudio Special Twenty-Five, Sonics Anima, Wilson Audio Specialties WATT/Puppy 8.

CABLES Interconnect: Shunyata Research Aries & Antares, Krell CAST. Speaker: Shunyata Research Lyra.

ACCESSORIES Ayre L-5xe line filter; Furutech eTP-609 distribution box; APC APCS15 AC line conditioner; Furutech RDP panels, RealTraps Mini & Mondo Traps.

—Wes Phillips

slightest soprano to the buttery thunder of the basses of the male vocal group Cantus. My Quad 57s may finally have a rival for "best vocal speaker—evah!"

Wendell Holmes' gravelly tenor on "What's So Funny 'Bout Peace, Love, and Understanding?" on the Holmes Brothers' *State of Grace* (CD, Alligator ALCD 4912), sounded as though he'd buffed it with steel wool—and his yips in "Gasoline Drawers" made me jump every time I heard them. Wendell was in the room.

Joni Mitchell's voice on *Both Sides Now* (DVD-Audio, Reprise 48083) broke my heart every time I heard it. With Mitchell, and with Emmylou Harris on her *Wrecking Ball* (CD, Asylum 61854), the Dynaudios revealed the ravages of time

and life on both singers' once-crystalline overtones—but they also revealed how much those same forces have taught these musicians. They may not be girls any more, but by God, they are *women*.

SSC-1149). Duets of fretless electric bass and piano can be a hard row to hoe, but Swallow is endlessly inventive, and Rodman has a Debussyan flair for melody and dynamics. The C1 seemed particu-

THE C1 WAS MADE TO REPRODUCE THE **HUMAN VOICE**, FROM THE SLIGHTEST SOPRANO TO THE BUTTERY THUNDER OF THE BASSES OF THE MALE VOCAL GROUP CANTUS.

Shouldn't any speaker be able to do that? Yeah, but the Dynaudio *did* do it—and in spades.

While auditioning the C1, I received a copy of *Twin Falls*, by Deidre Rodman and Steve Swallow (CD, Sunnyside

largely adept at conveying the nuances of touch and attack—and at capturing the instantaneous shifts in direction that occur in improvisation at an exalted level. The combination of e-bass and piano seems designed to bedevil any

MEASUREMENTS

The Dynaudio Confidence C1's sensitivity on its woofer axis, which is 37" from the floor, is both below the specification and below average, at an estimated 85dB(B)/2.83V/m. As Wes Phillips found in his auditioning, it will benefit from being driven by a powerful amplifier. As can be seen from fig. 1, however, its impedance is relatively kind to the amplifier,

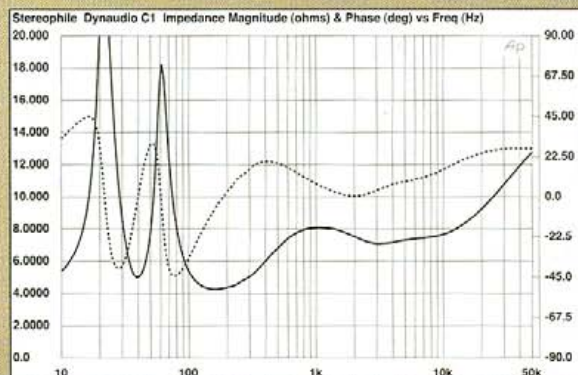


Fig. 1 Dynaudio Confidence C1, electrical impedance (solid) and phase (dashed). (2 ohms/vertical div.)

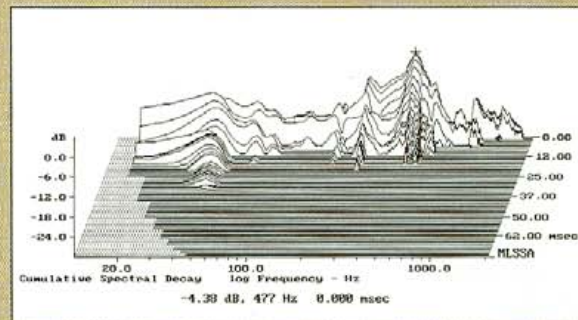


Fig. 2 Dynaudio Confidence C1, cumulative spectral-decay plot calculated from the output of an accelerometer fastened to the center of the cabinet's side panel (MLS driving voltage to speaker, 7.55V; measurement bandwidth, 2kHz).

though a dip to 4.3 ohms in the upper bass and a combination of 5.9 ohms magnitude and a -38° electrical phase angle suggest that tube amplifiers would work best with this speaker when used from their 4 ohm transformer taps.

The traces in fig. 1 are free from any of the wrinkles that would suggest the presence of enclosure resonances, though I did find one on the sidewall at 477Hz (fig. 2). This is low enough in level and high enough in frequency that it will probably have no audible consequences. What alarmed me more was a fairly strong resonance just above 500Hz in the two tubular metal pillars that comprise the stand to which the speaker is bolted (fig. 3). Though the Q of this resonance is very high, which will work against its being excited by music, the stand does offer a fairly large radiating area. This resonance could be heard with a stethoscope while the speaker was playing pink noise; though WP noted no untoward effects using the Dynaudio stands *au naturel*, I strongly suggest that they be filled with dry sand or cat litter once the owner has decided on permanent positions for the speakers.

Turning to the Confidence C1's acoustic performance, its farfield anechoic response, averaged across a 30° horizontal angle on the woofer axis, is impressively flat

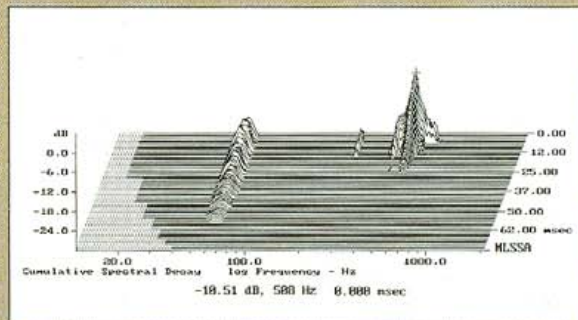


Fig. 3 Dynaudio Confidence C1, cumulative spectral-decay plot calculated from the output of an accelerometer fastened to the center of one of the stand's pillars (MLS driving voltage to speaker, 7.55V; measurement bandwidth, 2kHz).

two-way loudspeaker; if the crossover has any weaknesses, the leap from woofer to tweeter is bound to accentuate the difference between tonic notes and their harmonic overtones.

Piano and bass a problem? Not here—not for a minute.

Many a little makes a mickle

Usually in a *Stereophile* equipment report, this would be the section where the device under review is compared with a similar product that has already been covered in our pages. Choosing such a product in the Confidence C1's

case was not so clear-cut. An expensive thoroughbred, it should be able to stand comparison with others of that ilk—say, the Wilson Audio WATT/Puppy 8 (www.stereophile.com/floorloudspeakers/607wilson).

However, one stand-mounted two-way loudspeaker should be compared with another. In the end, I decided it was horses for courses and had it both ways, comparing the C1 to the WATT/Puppy 8 (\$28,000/pair) in my large room, and, in the small room, with my long-term reference monitor, Dynaudio's own Special Twenty-Five

(\$5200/pair, www.stereophile.com/standloudspeakers/605dynaudio).

As you'd expect, the Special Twenty-Five and C-1 share a family resemblance. Both sounded full-bodied in my small room, and both developed detailed, solid soundstages. However, the C1 had a top-to-bottom coherence on the Rautavaara that the Special Twenty-Five just didn't match. This was caused by two distinct effects. First, the Twenty-Five is a bit forward in the upper midrange, which can come across as hardness. I'm not convinced that it is hardness, but it can lead

measurements, continued

and extended (fig.4, black trace above 300Hz). The traces below 300Hz in this graph were taken in the nearfield and show the output of the woofer (blue), reflex port (red), and their sum (black), the last taking into account both acoustic phase and the different distances of the woofer and port from a nominal farfield measuring point. This doesn't feature the usual nearfield bump in the upper and midbass regions, which suggests that the C1's bass alignment is somewhat overdamped,

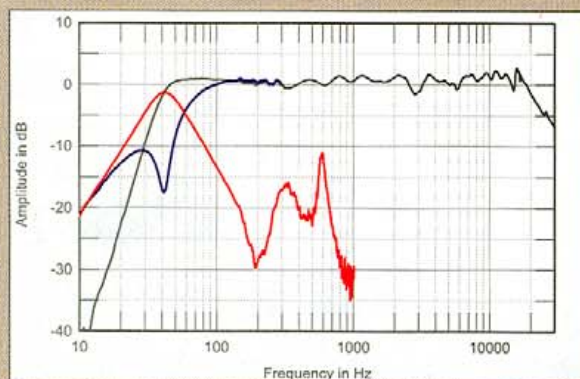


Fig.4 Dynaudio Confidence C1, anechoic response on woofer axis at 50°, averaged across 30° horizontal window and corrected for microphone response, with the nearfield responses of the port (red) and woofer (blue) plotted below 1kHz and 300Hz, respectively, and the complex sum of the nearfield responses plotted below 300Hz (black).

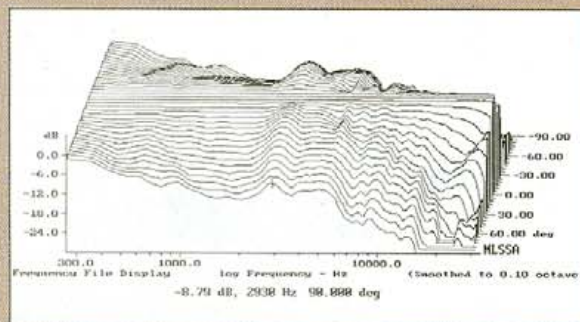


Fig.5 Dynaudio Confidence C1, lateral response family at 50°, normalized to response on woofer axis, from back to front: differences in response 90–5° off axis, reference response, differences in response 5–90° off axis.

optimized for clarity and definition rather than bass weight. Even so, the speaker's output extends to below 40Hz, which WP found more than adequate, even in his larger room. The woofer's output (blue) features the reflex minimum-motion notch at 41Hz, the center frequency of the low-frequency "saddle" in the impedance magnitude trace—this is the frequency where the back pressure from the port resonance holds the woofer cone motionless. The port's output (red) neatly covers the octave bandpass between 30 and 60Hz, but a couple of small peaks can be seen in its upper-band response. The fact that the port faces away from the listener will reduce the audibility of these modes.

The Confidence C1's impressively flat on-axis anechoic response doesn't necessarily mean that its perceived balance in-room will also be flat, as this will also depend on the speaker's radiation pattern. The C1's horizontal dispersion is shown in fig.5. (The on-axis response has been subtracted from those off axis in this graph, which means that it appears to be a straight line, which is not too far from the truth!) The woofer's output falls off to the speaker's sides in the top two octaves of its passband, with then a flare apparent at the bottom of the tweeter's range. The tweeter itself becomes quite directional above 8kHz. In the vertical plane (fig.6), the balance doesn't change over quite a wide angle, although a suckout does appear in the crossover region more than 5° above the woofer axis.

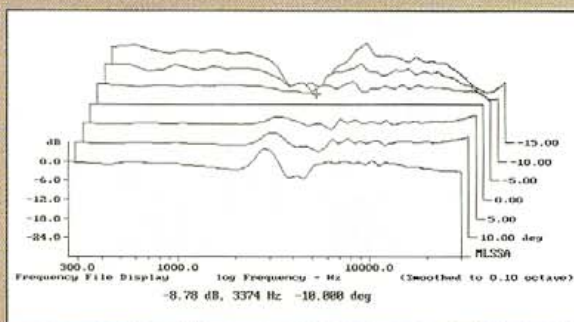


Fig.6 Dynaudio Confidence C1, vertical response family at 50°, normalized to response on woofer axis, from back to front: differences in response 15–5° above axis, reference response, differences in response 5–15° below axis.

to listening fatigue, so I'm not sure the difference is worth the argument.

The Special Twenty-Five also has an oddity in its high-frequency response that John Atkinson described as affecting the soundstage depth. I might not have picked up on that without his noting it, but the Twenty-Five has a conviction in the bottom two-thirds of its response that its top end lacks. Not so the C1: its mids are to die for and its top end is *solid*.

In general, the Dynaudio house sound is "revealing," which can some-

times be audio code for "forward" or "overly detailed." I understand why some listeners think this, but I haven't ever been as sensitive to it as the most outspoken of them. Yet the C1 had less of this characteristic than any other Dynaudio speaker I've heard. Nor did the C1 give up the Special Twenty-Five's strengths of dynamic authority and weight. In other words, while the Special Twenty-Five is still quite special, the C1 is new *and* improved.

Things weren't quite so clear-cut in

my large listening room—which may not be quite a shocker, given the \$21,000 difference between the Wilson and the Confidence C1. Long story short, the WATT/Puppy 8 has a lot more bass and couples to my big room's acoustic more holistically, delivering a lot more of the recorded acoustic than the C1.

That said, even while offering less deep bass, the C1 sounded rounder and fuller in the midbass than the WATT/Puppy 8. The Rautavaara's soundstage was smaller

measurements, continued

Fig.7 shows how the Confidence C1's on-axis output and horizontal and vertical radiation patterns add up in WP's listening room. To produce this graph, I averaged 40 measurements taken for each speaker individually in a rectangular grid centered on the position of Wes's ears in his listening seat. I used Fuzzmeasure running on my Mac laptop, in conjunction with an EarthWorks omni mike and a Metric Halo MIO2882 FireWire sound processor.

Despite the C1's flat anechoic response, Wes sits far enough away—4.5m, or nearly 15'—that the speaker's dispersion dominates the measured in-room response at the listening chair. The woofer's directionality at the top of its passband results in a shelved-down output above 1kHz, relieved by the tweeter's wider dispersion between 2 and 5kHz. The balance slopes down in the top two octaves due both to the tweeter's increasing directionality in this region and the increased absorption of the sound by the room furnishings at high frequencies. This does not mean the perceived balance will be rolled off, as the ear tends to discriminate between the direct sound from the speakers and the room's reverberant field. But this graph does suggest that the Confidence C1 will tend to sound mellow rather than bright in all but small rooms. At low frequencies, the spatial averaging hasn't totally eliminated the effects of the resonances in WP's room, which has minimal acoustic treatment. But the speaker's output is strong down to just below 30Hz, which is excellent extension given the

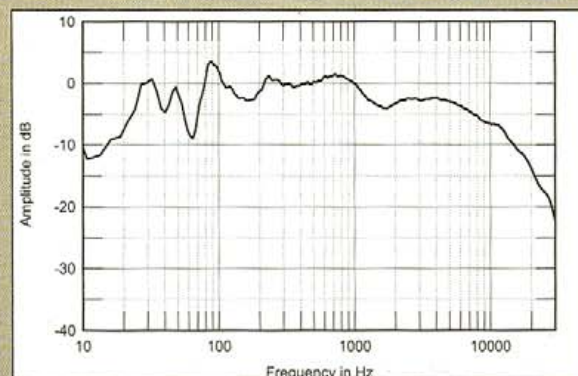


Fig.7 Dynaudio Confidence C1, spatially averaged, 1/3-octave response in WP's listening room.

speaker's fairly small footprint.

In the time domain, the C1's step response on the woofer axis (fig.8) indicates that both drive-units are connected with positive acoustic polarity and that the tweeter's output still leads that of the woofer on this axis. However, the former smoothly hands over to the latter, correlating with the good frequency-domain integration in the crossover region seen in fig.4. The cumulative spectral-decay plot on the woofer axis (fig.9) is superbly clean, suggesting that the Confidence C1's treble will be smooth and free of grain.

This superb measured performance is beyond reproach (other than that lively stand).

—John Atkinson

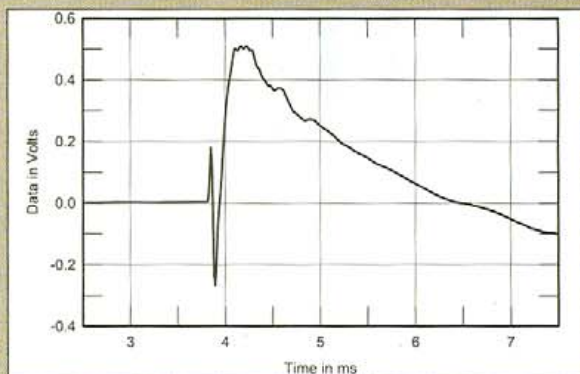


Fig.8 Dynaudio Confidence C1, step response on woofer axis at 50° (5ms time window, 30kHz bandwidth).

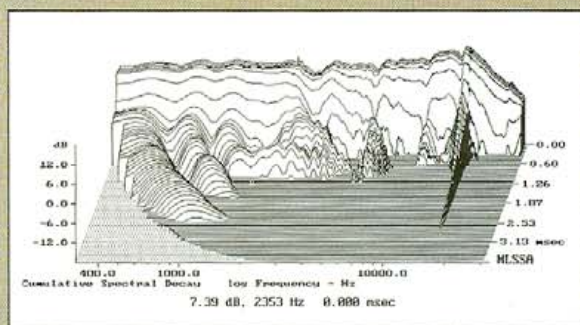


Fig.9 Dynaudio Confidence C1, cumulative spectral-decay plot at 50° (0.15ms risetime).

with the C1s than with the Wilsons, but also a touch more alive in its bottom third. Less punch, more bloom might be one way of saying it.

Through the WATT/Puppy 8, *Twin Falls* sounded more like a Steve Swallow album than a duet session. The C1, while balanced more toward a joint delivery, did present the music on a smaller canvas, which will bother listeners who value impact. I understand that, but I felt the C1 made a more convincing argument for the "truth," whether or not it *was* truer.

There's no question that the Holmes Brothers benefited from the WATT/Puppy 8s' slam and low-end extension. However, if not as big as life, the C1s certainly delivered Wendell, Sherman, and Popsy Dixon in tremendous detail and convincing solidity. Those yips in "Gasoline Drawers"? Well, they were as dynamically explosive through the C1s as through the Wilsons—and that's saying something.

There's no denying that the C1's diminution in scale affected the impact of *Sugar Hill*—after all, both the piano and the tenor sax need effortless power to be realistically recreated, and the

same is even truer for acoustic bass and drums. If you have a large listening space and you need your jazz life-size, there's just no substitute for power, and the WATT/Puppy 8 delivers it as few other speakers do.

But what if I *weren't* comparing the C1 to a full-range, state-of-the-art loudspeaker? I would be quite happy with the sound of *Sugar Hill* as conjured

an impulse purchase, and as a two-way stand-mounted monitor, it doesn't fit many audiophiles' notions of a "real" loudspeaker. That's okay—the C1 is an "inside baseball" product.

The Confidence C1 delivers world-class performance in a real-world package. If you value openness and tonal clarity, the C1 is a contender. It will mate with small to midsize rooms in ways that

THE CONFIDENCE C1 DELIVERS **WORLD-CLASS** PERFORMANCE IN A **REAL-WORLD** PACKAGE.

into being by the C1s. However, when listening to Joni Mitchell or Emmylou Harris, I preferred the Dynaudios. No, they didn't sound as big as life, but female voices sounded sweeter and rounder through the C1s. Not a lot, but enough. Oh my yes, enough.

Little bodies have big souls

In many senses, it's difficult to know what to make of the Dynaudio Confidence C1. At \$6950/pair (stands included; add \$500 for a premium finish), it isn't

larger speakers simply can't (yes, you *can* have too much loudspeaker), and it won't be overwhelmed by large spaces.

All which makes it sound as if I'm trying to convince you to buy the C1 because it's a logical choice. Maybe it is, but there's nothing inherently logical about a \$7000/pair loudspeaker—you buy it because you've fallen in love with it. That's something no amount of logic can convince you of.

So I'll shut up. You listen. You'll know what to do. ■