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TIMELESS TREASURE
WITH THE NEW BP9000 SERIES, DEFINITIVE TECHNOLOGY'S 26-YEAR-OLD BIPOLAR TOWERS STRIDE INTO THE FUTURE

TEST REPORT

Return of the Monolith

By Daniel Kumin

Definitive Technology BP9080x Speaker System

PRICE $7,194 as reviewed

RATING

Definitive Technology BP9080x Speaker System

Performance ★★★★½

Build Quality ★★★★☆

Value ★★★★½

AT A GLANCE

Plus

- Spacious bipole sound
- Seriously full-range with powered bass section
- Astounding dynamics

Minus

- Big and demanding of floor space
- Reflective bipolar reproduction may not suit every room, taste

DEFINITIVE TECHNOLOGY'S monolithic bipolar towers—which launched the brand in 1990—have been around in one form or another almost as long as that thing in *2001: A Space Odyssey*. With the fourth generation bowing recently, the Baltimore-area manufacturer set us up with a full suite: BP9080x fronts, CS9080 center, a pair of smaller-but-still-huge BP9060 towers for surrounds, and the A90 elevation speakers (Dolby Atmos-enabled and compatible with DTS:X) to go on top of those surrounds; the marquee BP9080x fronts have the same elevation componentry to bounce height-channel signals off the ceiling built right into their top 5 inches. All except the A90 are powered-woofer designs, with side-firing (up-firing in the case of the CS9080) woofer/passive-radiator arrangements driven by onboard amplifiers, and so they need to be connected to wall power as well as to speaker outputs for their passive mid- and high-frequency sections. (Full disclosure: Our BP9080x pair was marked "engineering sample." We generally insist on production-run speakers, but such was not available in time for this issue. We were assured our towers were exemplars of initial production in every detail.)

Though this system represents the pinnacle(s) of the new line, smaller and more affordable versions of the BP9060 Atmos module-ready towers are available in the spittin'-image BP9040 ($899 each) and BP9020 ($649 each); additional matching centers are the CS9060 ($699) and CS9040 ($499). And there are two new voice-matched bipole surround speaker models should you choose not to use towers in the rear: the SR9080 ($349 each) and SR9040 ($249 each). A full house, it is.

Not surprisingly, Definitive has made the requisite technology and design improvements attendant to a classic line revamp. Some of the more aesthetic improvements to the towers are mentioned below, but performance of the midrange and tweeter drivers has also been enhanced, and some advanced digital signal processing has been applied to the powered woofer sections to positive effect. See "Inside the BP9000 Series" for a rundown on all that's new.

Of course, these wouldn't be BP's if they weren't bipole designs that fire in two directions. In keeping with Definitive's long practice, the towers each have two midrange/tweeter arrays: a front-facing mid-tweet-mid assembly and a rear-firing mid-tweet array. As you might expect, thanks to all those intentional reflections from room surfaces, bipoles tend to produce a bigger, more spacious, and somewhat more diffuse sonic fingerprint than conventional direct-radiating, front-firing-only, cone 'n' dome speakers. This can come at a certain penalty in hard-imaged soundstaging, something Definitive addresses with a further refinement in this series of the "Forward-Focused" design it introduced in the 8000 series bipolar. This results in the rear-radiating pattern being attenuated 6 decibels down from the front-firing array.

These latest-generation BPs are distinguished largely by being Dolby enabled and DTS:X compatible across the board. As mentioned, the flagship BP9080x's two-way elevation module is built right into each speaker, while the remaining members of the line accept the add-on A90 module. Otherwise, absent those evolutionary improvements in individual drivers, amplifier circuitry, and cabinet design, the new generation seems generally similar in configuration to its predecessors, with numbers, shapes, and types of drivers mostly comparable throughout (again, see the sidebar for details).

Setup

The BP9080x is genuinely good looking, even if those looks suggest a slimmed-down Sub-Zero refrigerator as much as a loudspeaker. The tower comes up nearly to my sternum, and its dramatically slim form and perforated-aluminum penthouse lend a decided presence. The comparatively subdued BP9060s (along with the smaller BP9040 and BP9020 towers) accept the A90 through a clever mortise-and-tenon

● **We used the BP9060 towers as surrounds, shown here without the add-on A90 elevation module.**

THE VERDICT

A big speaker with a sound to match, Definitive Technology's latest, Atmos-onboard, powered-tower flagship delivers the impressive imaging depth and breadth we expect from bipoles. Its response is as full-range, and its dynamic abilities as unfettered, as anything I've heard from a one-piece system.

SPEAKER SYSTEM

DEFINITIVE TECHNOLOGY BP9080X SPEAKER SYSTEM
PRICE: $7,194 (**BP9080x,** $1,749 ea; **CS9080,** $999; **BP9060,** $1,099 ea; **A90,** $499 pr)
Definitive Technology • (800) 228-7148 • definitivetech.com

arrangement that makes both a sturdy mechanical and solid electrical connection when you snap on the module. You simply remove each tower's magnetically fixed machined-aluminum top panel (nice!), exposing an oblong post-and-socket arrangement cast into the module's bottom and the tower's top. The compartment surface has raised ribs reminiscent of an amplifier heatsink—strictly a cosmetic detail here that you'll see only when you're installing the module.

Each BP9080x and BP9060 tower has an IEC power-cable receptacle and level knob for the powered-woofer output that uses the company's new DSP-driven "Intelligent Bass Control" technology. This is said to allow higher bass output without affecting the mid-to-low-end blend (see sidebar). There are also two sets of multi-way binding posts. But those posts aren't the usual biwiring connectors: The lower pair feeds the main mid-/high-frequency section, while the upper pair runs to the elevation drivers through the aforementioned connector.

Each tower also furnishes an RCA input marked LFE, for those who wish to connect the line-level subwoofer signal from an AVR or processor instead of letting the speaker employ its own woofer/mid crossover. After confirming operation, I didn't employ the RCA inputs, for two reasons. First, I figure the designers of any integrated loudspeaker/powered-woofer system have a better idea of what's ideal for crossover frequency and curve than I do. Second, I suspect most buyers never use them anyway, opting for the simpler, one-wire option (well, two, counting the power cord—actually, three, counting the elevation-module speaker cable).

After I finished a rather strenuous unboxing exercise, setting up the Definitives required nothing more than bolting on the provided aluminum outrigger bases, manhandling each speaker into position, and connecting 120-volt and speaker cables (two, in the case of each tower). Since I already have 5.1.4 wiring in place more or less permanently and have lots of AC outlets (I built the room to my own specs), once I dragged my tech/PC bench out of the space that the right-rear tower needed to occupy, a 5.1.4 Atmos suite was arrayed pretty much precisely to Dolby's angular requirements. Popping on the A90 modules for the surround towers per the procedure mentioned above was the final task prior to tweaking the speaker placements.

Although Definitive suggests that the towers can be placed as little as 4 inches from the rear wall, it's well accepted that any bipole main-channel speakers—or for that matter, dipoles (like most flat electrostatics or planar magnetics)—benefit from plenty of breathing room between themselves and nearby boundaries. Otherwise, the away-going wavefront can reflect back with so short a delay that its effect might be perceived as frequency-response weirdness (or head-movement-dependent phasey-ness) rather than the big, spacious sound-stage we expect from bipoles. Consequently, I placed the BP9080x speakers well out into my room, leaving about 4 feet between their rear panels and the wall behind them. This put them a good couple of feet ahead of my wall-bracket-mounted flat-screen TV and left space for my Seymour-Screen Excellence RM80HD-4K projection screen to drop down behind them. (In a permanent installation, I'd probably move the sound-transmissible screen forward a couple of feet and let it drop just in front of the towers.)

The potential gotcha here— as with any powered tower or big, full-range speaker—is that optimum placement for imaging and that for low-bass evenness aren't necessarily (or even often) the same. Fortunately, because I'm a veteran of countless placement exercises, I already knew these locations would work, being clear of any of the worst room-mode excitation spots (a foot or so either way in or out would be audibly inferior). But for your room, you may need to perform considerable experimentation, because moving the towers toward or away from the wall can induce substantial changes in bass tightness, boominess, or "weak-spot-ness." The BP9080x's individual sub-level knobs come into play here, of course. Once you get the overall "subwoofer" level within range of a decent balance, you really need to listen to each tower individually, on a mono music source, to fine-tune each one's low-frequency output for its place in the room. In my setup, both knobs ended up well below the "noon" position, partly because I prefer a leaner bass profile.

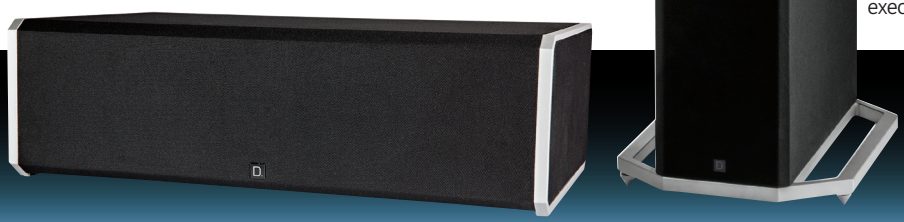
● **The A90 module plugs snugly into a compartment atop the BP9060, BP9040, and BP9020 towers.**

Using my A/V receiver's calibration noise to balance channels, I found my perception of the four Atmos elevation "spots" to be fairly diffuse and overhead, but much more so for the rearward pair. The front height channels hovered in a blurry arc upward and outward from the top-front edge of each tower, toward but not quite reaching the ceiling. The rear heights sounded both higher and more focused. (This is consistent with the three other Atmos setups with elevation modules I've undertaken and so is less a comment on Definitive's execution than with how these Atmos-enabled speakers work generally in my listening space.)

The Sound

The BP9080x towers are big speakers, and they sound like it. In fact, they sound huge: way huge. On top-shelf stereo music recordings, the soundstage is crazily deep but still impressively focused. For example, I have a live semi-pro performance of the music from Milhaud's ballet *La création du monde*, captured eons ago on two-channel 15-inch-per-second tape with an X-Y/MS microphone setup (a trifle noisy by today's standards but still goosebump-raising) and ripped to 96/24 FLAC. This sounded on-stage real, with the French composer's unique small ensemble widely and deeply arrayed; the snare-drum rolls came from the back of the stage, while piano accents came from hard-front-and-center. Even something as quotidian as a baseball game in 2.0 sounded beguilingly full. Crowd noise arced back and around, well out beyond the speakers, carrying a three-dimensionality that you simply don't get from direct radiators.

The usual drawback is, as already mentioned, a sacrifice in tightly imaged front stage, particularly on centered soloists—but the BP9080x towers didn't display this to nearly the degree I've heard from most other bipoles. A track like Suzanne Vega's classic "Tom's Diner," vocally recorded utterly dry and hard-center, sounded, well, almost utterly dry and hard-center. The BP9080x pair

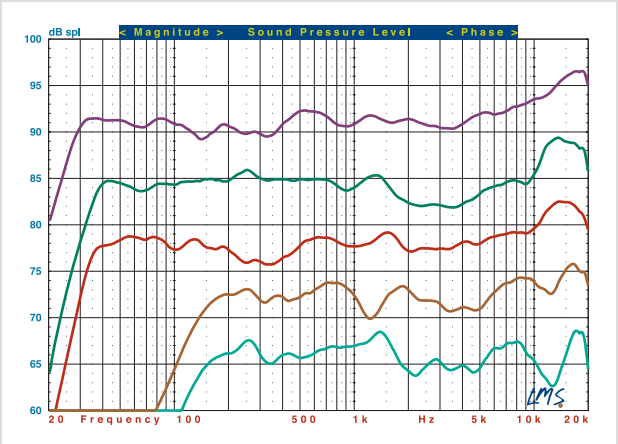


● **The BP9080x's elevation componentry is built in, housed in the perforated aluminum top of the cabinet.**

The BP9060 offers a separate pair of multi-way binding posts for the elevation module.

Test Bench

Definitive Technology BP9080x Speaker System



BP9080X (purple) +2.00/–1.99 dB, 200 Hz to 10 kHz; –3 dB @ 27 Hz, –6 dB @ 24 Hz; impedance minimum 4.76 ohms @ 347 Hz, phase angle –42.42° @ 208 Hz; sensitivity 91.5 dB, 500 Hz to 2 kHz.

CS9080 (green) +1.42/–2.61 dB, 200 Hz to 10 kHz; –3 dB @ 34 Hz, –6 dB @ 30 Hz; impedance minimum 5.02 ohms @ 326 Hz, phase angle –40.82° @ 183 Hz; sensitivity 92.5 dB, 500 Hz to 2 kHz.

BP9060 (red) +1.53/–2.31 dB, 200 Hz to 10 kHz; –3 dB @ 32 Hz, –6 dB @ 29 Hz; impedance minimum 4.59 ohms @ 365 Hz, phase angle –47.01° @ 208 Hz; sensitivity 90 dB, 500 Hz to 2 kHz.

BP9080 ELEVATION SECTION (brown) +2.31/–2.14 dB, 200 Hz to 10 kHz; –3 dB @ 128 Hz, –6 dB @ 108 Hz; impedance minimum 5.08 ohms @ 280 Hz, phase angle –34.23° @ 162 Hz; sensitivity 90 dB, 500 Hz to 2 kHz.

A90 (aqua) +1.96/–2.77 dB, 200 Hz to 10 kHz; –3 dB @ 134 Hz, –6 dB @ 112 Hz; impedance minimum 5.07 ohms @ 288 Hz, phase angle –49.85° @ 158 Hz; sensitivity 87.5 dB, 500 Hz to 2 kHz.—*MJP*

SPECS

BP9080x: Powered 12 in treated paper woofer (1), 12 in passive radiator (2), 5.25 in polypropylene cone midrange (3), 1 in aluminum dome tweeter (2); 7 x 50.5 x 16 in (WxHxD), 62 lb • **CS9080:** Powered 8 in treated paper cone woofer (1), 10 in passive radiator (1), 5.25 in polypropylene cone midrange (2), 1 in aluminum dome tweeter (1); 23 x 7 x 14.25 in (WxHxD), 36 lb • **BP9060:** Powered 10 in treated paper cone woofer (1), 10 in passive radiator (2), 4.5 in polypropylene cone midrange (3), 1 in aluminum dome tweeter (2); 6 x 43.75 x 13 in (WxHxD), 50 lb • **A90:** 4.5 in polypropylene cone woofer (1), 1 in aluminum dome tweeter (1); 6 x 3.75 x 13 in (WxHxD), 6 lb

produced an audibly bigger bubble of voice than do my everyday (direct-radiating) speakers, which focus the voice into a tight, dense ball of sound. On the bipole towers, that bubble of voice, though bigger in all three dimensions, was still dramatically tight and timbrally parched, thus doing no real disservice to the artist's "interior-voice" intent.

The BP9080x's tonal balance was in line with that of previous Definitive BP towers—which is to say, neutral indeed through the vocal range, for a scrupulous presentation of both male and female voices; the Vega track had already suggested so. But direct comparisons with my long-term Energy Veritas speakers weren't as oranges-to-oranges as usual, because the towers' bipole soundfield changes one's perception of tone color. Mine, anyway: Everything sounds slightly warmer, not in the usual sense of more lower-mids but in some other, almost ineffable way. It's a euphonic, beguiling, big, inviting sound, one that is at its very best on fine stereo full-orchestra material like Rachmaninoff's Symphonic Dances (from a Reference Recordings CD), which presented a gorgeously deep and wide soundstage with clear and abundantly airy treble. Again, the sense of instrumental location and focus was less tight and precise than that from my everyday speakers (or most other excellent direct-radiators), but this was actually more faithful to what you hear in a concert hall. The highlighted localization that high-end systems deliver from many recordings isn't what we get in the ambient, highly reflective environment of a hall. There, the feeling is of organic envelopment, which almost makes you un-yearn for music in surround sound.

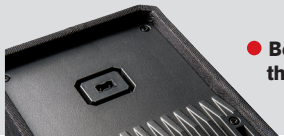
The BP9080x is as full range a loudspeaker as you'll find anywhere. Deep-bass chestnuts like the Saint-Saëns Organ Symphony were child's play, and when I streamed my handful of dubstep tracks (kept on hand strictly for scientific purposes, of course), I was rewarded with a sub-30-hertz bottom that held firm up to insane overall levels, which threatened to loosen floor joists and induce a vague sense of impending nausea. Raising the BP9080x's Intelligent Bass Control can handily deliver the bass-heavy slammin' that some owners will inevitably choose. And for the record, the BP9080x will play ridiculously loud, without outstripping its bass section; the 120-ish-watt-per-channel AVR I was using (for its Atmos surround processing) had no difficulty exceeding my preferred levels by a comfortable margin.

The CS9080 center is a direct-radiator design, complemented by a powered upfiring woofer/passive-radiator duo that extends its own response unusually low for a center speaker—though, to be sure, it's no bantam. (I found virtually no penalty in running it full range but left it crossed over at 60 Hz most of the time.) The CS9080's tonal match to the front tower pair was actually quite close—a touch brighter, perhaps—but nonetheless, it sounded quite different in direct dual-mono/one-speaker-mono comparisons. Here, the effects of both two-speaker versus one and bipole versus monopole were dramatically audible: The CS9080 sounded much closer, sharper, and more focused. However you want to characterize it, the difference was obvious. Yet back in stereo or surround modes, the center never stuck out or seemed to jump on panning sounds.

If all of that seems like a perfect prescription for hugely ambient, dynamic, extended, and wow-inducing surround theater: yes. Eager to feed the suite a Dolby Atmos gala, I cued up the deeply dopey but sonically satisfying *Pixels* and began thumbing my way through. A scene like the pixelization of the teenage boy at the Taj Mahal did the trick nicely: The pixel blocks flew up, over, and around with amazing cohesion, never sucking into one speaker or another. The "Centipede" scene in the next chapter was an even clearer demo of Atmos dimensionality. While the worms never seemed to be coming from over-head per se, the sense of height and upward-extending space was strong. (Interestingly, the movie's sound designers didn't opt to put ambience in the height channels, at least not for the most obvious scenes—such as the warehouse government-skunkworks speech, where Josh Gad's richly echoed voice lacked any overhead reflections at all. Opportunity missed, in my opinion.)

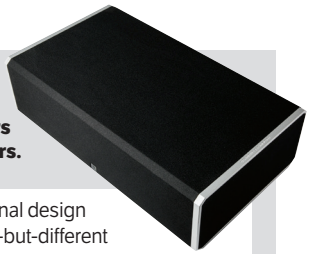
The BP9080x towers managed

The towers in the 9000 series feature a heavy aluminum base.



● **Below its removable top plate, the BP9060 has a connector for the A90 module.**

● **The CS9080 and CS9060 center speakers feature powered woofers.**



the exaggerated, movie-magic bass levels of *Pixels* without succumbing to boom or bloat, but they still delivered the rolling, floor-bending bottom that the biggest cues demanded. Equally impressive, the system would produce much the same balance at any level I asked, even many decibels beyond comfortable listening levels, for nearly frightening impact on stuff like the U-571 depth-charge sequences. Despite the center speaker's distinct design and modestly different tonality, dialogue was reliably clear and intelligible, and I didn't note any obvious tone- or space-shifting as effects panned across the front stage. Full-system music cues like the credits chapter of *Master and Commander: The Far Side of the World* were gorgeously clear yet full, for a net effect as close to the best breed of commercial cinema as you're likely to encounter.

Aural memory is notorious, but I'm confident that Definitive Technology's new generation of BP tower is a notable refinement of a proven and popular concept. It's big, brawny, and powerful, but not at any expense of delicacy or spatial ability. The bigness, of course, extends to the price tag: $7,200, the cost for this top-of-the-line system, will buy a wide variety of very serious, "value/high-end" surround systems of more conventional design and same-but-different range and finesse. As with any loudspeaker choice, it's a matter of taste—but more so given what remains the BP9000 series' uncommon bipolar approach. Either way, any dedi-cated HT-head will want an aud-ition to hear what bipoles have to offer and how Definitive Technology's latest does it. ◆

Inside the BP9000 Series

SINCE launching the BP10 as its inaugural product in 1991, Definitive Technology has evolved its bipolar tower design through four generations. The 9000 series reflects the company's latest thinking in engineering, components, and industrial design. According to Matt Lyons, senior VP of new product development, these speakers are new from the ground up, with only some design concepts (no parts) directly carried over from the 8000 series.

There are four towers in the new line, including the flagship BP9080x with top-mounted Dolby Atmos–enabled height drivers (also suitable for DTS:X), and the successively smaller BP9060, BP9040, and BP9020—the latter three are ready to accept the new plug-in A90 Atmos and DTS:X height module. Three new voice-matched center-channel speakers (CS9080, CS9060, CS9040) and two new bipolar surround speakers (SR9080, SR9040) complete the family. As with earlier BP models, all the towers and the two larger center-channel speakers feature powered woofer sections to enhance the system's dynamic capabilities.

Though bipolar surround speakers are still readily found, Definitive appears to be alone now in producing bipolar mains. Well-executed bipole towers, which radiate direct sound from the front baffle and reflected sound off the back wall from rear-facing, in-phase drivers, project a wide, deep, and naturally reverberant soundfield compared with traditional direct radiators. The inherent compromise is some sacrifice (again, compared with direct-radiating loudspeakers) in the specificity of location and/or focus of individual instruments or voices within that soundfield. But advances made by Definitive Technology through the years are claimed to have minimized those effects while optimizing that huge, open soundstage that is a bipole's calling card.

Here are a few of the pertinent tech details that highlight the new BP9000 series.

Dolby Atmos/DTS-X integration. Definitive Technology is rightfully touting what Lyons calls "best-in-class integration" for Atmos and DTS:X object-based surround sound. Upfiring, Atmos-enabled height modules for placement above tower or bookshelf speakers are becoming commonplace now, but the BP9060, BP9040, and BP9020 are unusual in featuring a hidden compartment below a brushed aluminum top plate into which the new A90 height module directly plugs to achieve both a solid mechanical connection and an electrical link to a dedicated pair of binding posts on the speaker's back panel. This avoids the ugly speaker-wire pigtail off the back of the module, and with just a fine line of aluminum trim separating the two pieces, creates a factory-look aesthetic match.

Enhanced Forward-Focused bipolar array. Beginning with the BP8000 series, Definitive Technology introduced a "Forward-Focused" topology that reduced the output of the rear-facing drivers by 6 dB compared with the front drivers, which is said to improve overall image focus and precision while maintaining the wide and deep soundstage for which bipoles are known. Redesigned crossovers in the 9000 series are said to have further improved on those results, as has the addition of Intelligent Bass Control (see below).

New Class D amps with Intelligent Bass Control. The amps driving the woofer section in all the towers and powered center speakers are now DSP controlled and employ "Intelligent Bass Control" to adjust woofer output. In essence, the system is designed to allow boosting of the bottom two octaves without altering the bass-to-midbass blending and crossover point. Lyons says this greatly helps to maintain midrange clarity and avoid low-end chestiness as the bass cranks up, which contributes to the aforementioned improvement in image focus. (RMS amplifier output ratings are as follows: BP9080x, 455 watts; BP9060 and BP9040, 300 watts; BP9020, 150 watts; CS9080, 300 watts; CS9060, 150 watts.)

Late-generation drivers. Incremental improvements have been made to Definitive Technology's pre-viously introduced BDSS (balanced double surround system) midrange driver design, which employs a dual suspension system with a flexible surround at both the outer perimeter of the polypropylene cone and, unusually, on the inside where it meets the voice coil to allow for longer and more linear cone excursion. The aluminum dome tweeters have been evolved to further smooth out frequency response. Driver size complements from model to model were mostly maintained compared with the 8000 series, with the notable exception of a bumping of the midrange drivers in the BP9040 to 4.5-inch from 3.5-inch in the BP8040ST, made possible by a wider cabinet. The improvement in dynamics is claimed to make that particular $899 (each) model an exceptionally strong value in the line. The CS9040 and CS9080 center speakers also saw driver or passive radiator upgrades from their predecessors.

Redesigned cabinet. The new cabinet design is meant to further reduce diffraction effects off the front baffle, and a new, stiffer grille sock material vibrates less while still providing the required acoustic transparency.

Industrial design. Much attention has been paid to aesthetics in the new line. An attractive aluminum base adds vibrational rigidity and improves stability compared with the outriggers on the 8000 series, and can be outfitted with gliders or spikes. The aluminum top plate for the height module compartment lends a high-tech accent and hides an attractive interior that's seen only during module installation. A glowing D logo at the bottom of each tower acts as a pilot lamp, coming on bright when the speaker is first powered up but then fading down to the user's preselected brightness (or to full off).—*Rob Sabin*

● **A cutaway of the BP9080x reveals four separate compartments for the front array, rear array, bass section, and height module.**

WHAT OBSESSION SOUNDS LIKE

EXPLORE A NEW DIMENSION OF SOUND WITH THE BP9080x

We scaled remarkable, immersive, room-filling sound to new heights with our flagship tower in the BP9000 Series.

And you still get everything that's pure and indicative of the Definitive Technology home theater experience: Forward Focused Bipolar Array, an integrated powered subwoofer and bass radiator, aluminum dome tweeters, high-performance drivers, Intelligent Bass Control™, and timeless design.

But we took it one step further, this time engineering a two-way Dolby Atmos®/ DTS:X® height module within the top of the speaker because our standards—and yours—demand it.

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D.

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