

Test Bench

BY Darryl Wilkinson

Definitive Technology Mythos XTR-50 On-Wall Speaker System

PRICE: \$3,912 **AT A GLANCE:** Less than 2 inches thick, including the wall mount • Catenary-geometry-derived aluminum-dome woofers, aluminum enclosure

How Perfect Can Perfect Get?

It's always a big deal when Definitive Technology introduces a new speaker. Why? Well, as I've written in the past, the company has hit as many home runs than Mark McGwire—without the engineers taking any banned steroids, testosterone supplements, male-enhancement products, or vitamins. (That last part about vitamins probably isn't true. I'll leave it to your imagination about the rest.) In the same way fans watched with anticipation and cameras flashed every time McGwire came up to bat, those of us who are lucky to do this sort of thing for a living eagerly await the chance to get our remote-control-stained hands on any new pair of Definitive Technology speakers. However unlike with McGwire, it would be big news for the Def Tech team to strike out. None of us sitting in the press box really expect that to happen, though. We're most interested in finding out how good the new speakers are going to be.

That's the way it was with the company's first bipolar tower speakers—the design that gave Definitive Technology its start—as well as those that followed: the ground-breaking (almost literally) bipolar towers with built-in subs, the gut-punching SuperCube subs, the initial svelte members of the Mythos line, and most recently, the near-mythic Mythos ST speakers, to name a few. The newest member of the Def Tech family offers us more of the Mythos ethos; or maybe it's better to say “less,” because the new Mythos XTR-50 speakers are the slimmest on-wall speakers Definitive

Technology has ever produced. Of course, for a speaker today, being slim as a characteristic by itself isn't really that newsworthy. There are plenty of slender on-wall speakers—lots of HTIBs feature them. But a high-performance, super slender speaker that's only 1.5 inches deep (even when mounted on the wall), now there's a story!

As if a pushing-the-limits-form-factor speaker from Def Tech weren't exciting enough, there's an added twist. A couple of years ago, Def Tech went from being privately owned speaker company to one that was beholden to a bigger corporate overlord. Now, I've got nothing against big companies per se. Some are good, and some are bad, just as with everything else. But in case you're unfamiliar with some of this industry's history, more times than I care to tally, a company has gone to complete and utter doo-doo after the founder sells and leaves. Time and again, we've seen the folks who buy the company lose the focus that made the company successful in the first place, and before long, there's the inevitable attempt at salvaging the investment by going mass market. Fisher and Marantz are two well-known examples—although after a tumultuous period, Marantz has come back as strong and vibrant as it was in the early days. In this case, Def Tech's new daddy took great pains to assure all who asked that it

intended to maintain the company, including its musically oriented soul, as it was. And to the parent company's credit, they did—even to the point of keeping the management and design teams mostly intact.

But all manufacturing companies—even those that have

nothing to do with plumbing—have pipelines. Def Tech is no exception. It takes time for products to move from conception to the reality of a retail store shelf. Sometimes it's a while before a new owner's influence



SPECS

SPEAKER:	XTR-50	XTR-50	GEM
TYPE:	Two-way, monitor	Two-way, center	Two-way, monitor
TWEETER (SIZE IN INCHES, TYPE):	1, aluminum dome	1, aluminum dome	1, titanium dome
WOOFER (SIZE IN INCHES, TYPE):	3.5, aluminum (2)	3.5, aluminum (2)	3.5, aluminum (2)
	3.5, aluminum (4, passive)	3.5, aluminum (4, passive)	None
NOMINAL IMPEDANCE (OHMS):	8	8	8
RECOMMENDED AMP POWER (WATTS):	20-100	20-100	10-200
AVAILABLE FINISHES:	High-Gloss Black	High-Gloss Black	Gloss Black
DIMENSIONS (W X H X D, INCHES):	6 x 27 x 1.5	6 x 27 x 1.5	4.1 x 10.25 x 4.25
WEIGHT (POUNDS):	5.1	5.1	4.5
PRICE:	\$699/each	\$699/each	\$279/each

begins to show up in a product line, and now is about that time for Def Tech. So the new XTR-50 on-wall speaker should offer a pretty clear insight into the future direction of the company. Has

management chosen to suck out the soul and cheapen the line with gimmicky designs in order to chase sales volume (the technical term, I believe, is “to whore them out”). Or will they remain true to

their heritage and continue to push the limits on performance and innovative style at relatively affordable price points?

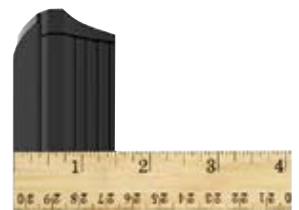
Winging It

I know appearances can be deceiving; but if the looks of the Mythos XTR-50 are any indication, the Def Tech crew hasn't missed a pitch yet. Like its companions in the Mythos line, the new model is made from what Def Tech describes as aircraft-grade extruded aluminum, incorporating stiffening ribs and channels to help keep the 27-by-6-by1.5-inch-deep cabinet rigid. Although the speakers include a slender wall-mount bracket (really not much more than a plate with knobs on which to hang the speaker), you can, in fact, mount the speaker directly on the wall using a screw without the bracket. This means that in many installations, the XTR-50s will only stick out from the wall a mere 1.5 inches. It's hard to imagine even the slimmest flat-panel TV being able to beat that depth once you hoist up the TV and bolt it to its mount on the wall. But even if a technological miracle were to happen, and Mitsupanisonishiba introduces a flat-panel TV that's only an eighth of an inch thick and can be hung on the wall using one of the late Billy Mays' Hercules Hooks, the XTR-50s still won't look too thick or out of place thanks to the bow-shaped curvature of the front of the cabinet. Seen from the front, the curve reminds you of an airplane wing. If you look down at the speaker from the top, you'll see that the left and right sides of the cabinet curve inward instead of continuing the outward curve from the front as you'd find with a wing made for flying instead of playing music. Def Tech says this inward curve helps to make the



speaker look as thin as possible from nearly any angle in the room, and they're right.

A black grille covers approximately four-fifths of the front of the speaker, and the remaining fifth is a strip of high-gloss black aluminum. In a normal installation, you'd mount the speakers with the black strips facing away from the TV. When you use an XTR-50 horizontally for the center channel, you can mount the speaker with the strip on the



HT Labs Measures

DEFINITIVE TECHNOLOGY MYTHOS XTR-50 SPEAKER SYSTEM

L/R Sensitivity:
92 dB from 500 Hz to 2 kHz

Center Sensitivity:
92 dB from 500 Hz to 2 kHz

Surround Sensitivity:
90 dB from 500 Hz to 2 kHz

+1.49/-2.90 decibels from 200 hertz to 10 kilohertz. The -3dB point is at 179 Hz, and the -6dB point is at 151 Hz. Impedance reaches a minimum of 4.33 ohms at 565 Hz and a phase angle of -44.87 degrees at 254 Hz.

The center XTR-50's listening-window response measures +1.84/-2.83 dB from 200 Hz to 10 kHz. An average of axial and +/-15-degree horizontal responses measures +0.75/-3.13 dB from 200 Hz to 10 kHz. The -3dB point is at 179 Hz, and the -6dB point is at 150 Hz. Impedance reaches a minimum of 4.53 ohms at 754 Hz and a phase angle of -36.14 degrees at 254 Hz.

The Gem's listening-window response measures +2.06/-2.25 dB from 200 Hz to 10 kHz. The -3dB point is at 183 Hz, and the -6dB point is at 143 Hz. Impedance reaches a minimum of 4.60 ohms at 350 Hz and a phase angle of -47.96 degrees at 188 Hz.

The SuperCube III's close-miked response, normalized to the level at 80 Hz, indicates that the lower -3dB point is at 50 Hz and the -6dB point is at 29 Hz. The upper -3dB point is at 100 Hz using the LFE input.—**MJP**

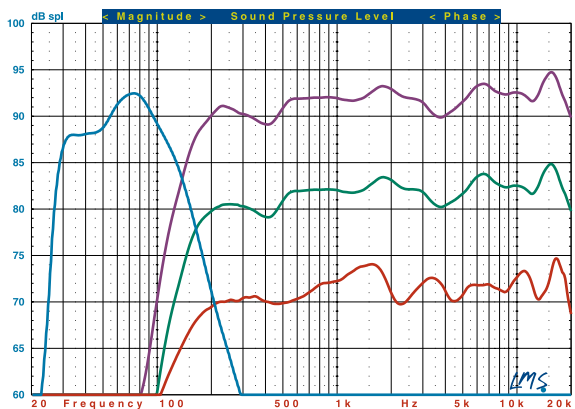
Visit our Website for a detailed explanation of our testing regimen, plus a list of our reference gear.

on the web

This graph shows the quasi-anechoic (employing close-miking of all woofers) frequency response of the XTR-50 (vertical) L/R (purple trace), SuperCube III subwoofer (blue trace), XTR-50 (horizontal) center channel (green trace), and Gem surround (red trace). All passive loudspeakers were measured with grills at a distance of 1 meter with a 2.83-volt input and scaled for display purposes.

The left XTR-50's listening-window response (a five-point average of axial and +/-15-degree horizontal and vertical responses) measures

DEFINITIVE TECHNOLOGY MYTHOS XTR-50 SPEAKER SYSTEM



bottom for under-TV locations, or on the top for above-TV installs. Of course, this is merely an aesthetic issue—the XTR-50s can be used regardless of the way you orient them. Def Tech also ships the speakers with two adjustable support feet that include tempered smoked-glass bases (à la the other Mythos speakers), so you can also use them off the wall.

Of course, the real question is

how the hell it's possible to get decent drivers and a crossover into a cabinet like this. The depth of most tweeters generally isn't a problem, and the center-mounted high-frequency driver here is akin to the silky-smooth tweeter found in those incredible, I-bow-down-before-thee Mythos ST floorstanding speakers. However, the low frequency drivers are unlike anything you'll find in any other Def Tech



SPECS **SUPERCUBE III**
SUBWOOFER ENCLOSURE TYPE: Passive radiator **WOOFER (SIZE IN INCHES, TYPE):** 7.5, active (1), 7.5 passive (2) **RATED POWER (WATTS):** 650, RMS **CONNECTIONS:** speaker- and line-level RCAs **CROSSOVER BYPASS:** LFE **AVAILABLE FINISHES:** Piano Gloss Black **DIMENSIONS (W X H X D, INCHES):** 10.25 x 10.25 x 10.25 **WEIGHT (POUNDS):** 25 **PRICE:** \$699

speaker. That's because the engineers rethought, retooled, redesigned, and re-engineered just about everything in order to come up with a re-diculously thin mid- and low-frequency transducer. In true Definitive marketing-speak, they call it XTDD technology (not to be confused with an STD, the catching of which doesn't require much technology at all); and it's quite ingenious.

First of all, these black-anodized aluminum (Def Tech must have cornered the market on aluminum) dome-shaped drivers use catenary geometry. A catenary curve is the shape you'll observe if you hold the ends of a rope made of hemp, the chain between a pair of handcuffs, a string of freshwater pearls (how cultured!), or a diamond necklace that supposedly belonged to Zha Zha Gabor (but you bought it on eBay for \$200) between your hands. The traditional iconic image of St. Louis, Missouri, the Gateway Arch, is actually a 630-foot-tall modified catenary curve. People who spend their lives dreaming about curves (other than the feminine kind) claim that the catenary curve is the most structurally sound arch shape. Def Tech says that's because, at each point in the structure, opposing tension and compression forces are balanced (that sounds like the belt around my waist). The result is a shape that's stable and strong (oh, not like my waist) and provides important stiffness without requiring added mass.

The voice coil's copper-clad aluminum wire maintains low mass with good conductivity, and the wire is wound around a polyimide (the stuff used to make space suits) voice-coil former that's stable to 400 degrees centigrade. This means you should be able to play the XTR-50s Ozzy Osbourne-ishly

loud for an extended period of time without seeing or smelling smoke emanating from behind the speaker grilles. The voice-coil assembly itself is coupled to the aluminum dome using a fiber-dome/coil coupler that looks as though you've rolled the top part of the voice coil over and glued the resulting strip to the inside of the dome. It's supposed to provide more diaphragm support and reduce resonance in the drivers. Interestingly, the drivers' magnet assemblies protrude through the rear wall of the XTR-50's cabinet. (Think of it as if the speaker had large, magnetic hemorrhoids.) There's a thermally conductive gasket that seals the gap between the magnet and the cabinet, and it lets the driver use the aluminum cabinet as a large heat sink to help keep the driver cool.

Speaking of pressure, the two active XTDD drivers are pressure-coupled to four dome-shaped low-bass radiators. (Def Tech says these radiators





system performed on say, *Sherlock Holmes, 2012*, or *Avatar* (no, sorry, you can't force me to watch that one again), two older movies now on Blu-ray really caught my attention. Even though I've seen them both more than once, I found it hard to eject either of the discs out of my PS3 in order to

move on to other things. The new XTR-50s are that engaging.

“vibrate in sympathy with the active drivers”, but I think they're more empathetic than sympathetic.) It helps extend the speakers' midbass response, but you'll unsurprisingly want to use a subwoofer with the XTR-50s. In fact, in my setup, which included one of the company's tiny-but-mighty SuperCube III subs along with two pairs of Mythos Gems to make a full-blown 7.1-channel system, Def Tech recommended that I set the crossover in the bass management at 100 hertz. That's a little higher than the traditional 80 Hz you'd use with a lot of other bookshelf speakers. If you're going to do this, you'll need to make sure you use a subwoofer that's capable of reproducing more than just 60 Hz (a “one-note flatulence canon” as Paul Scarpelli at Triad once described a competitor's product to me). The SuperCube III is an amazingly small sub that does an excellent job of smoothly handling the deep bass all the way to the upper-bass region where the XTR-50s take over. The result is a great blending of speakers and subwoofer in which you only notice the subwoofer (or actually the lack thereof) when it's not powered on. When on, it just seems like the XTR-50s have impossibly low bass response.

Sound Quality

Of course, you always want to try out new movies when you have a new system to test. But while I could talk about how well the

The first movie was the musical, *Chicago*. As I watched it, I at first thought I'd write about Queen Latifah's intro song, “When You're Good to Mama,” but what really blew me away was the intense “Cell Block Tango.” This song, full of snaps, pops, and Ciceros, is at times about as dynamic and in your face as any you'll see on the stage or screen. Two things become immediately apparent. One, the Def Tech tweeter—similar to the one that the Mythos ST speakers use—is as smooth and sweet as I remembered it to be. The sibilants that fill the performance could slice through your eardrums with a lesser tweeter, but not here. If your body could take the driving beat, you could listen to the song all day and not suffer any ear fatigue. The second thing is the XTR-50's dynamic capability. It's amazing to me that a speaker this shallow—remember, we're talking about speakers that are only 1.5 inches thick—can handle such dynamics without bottoming out or cracking up. On the opposite end of the acoustical spectrum, “Mr. Cellophane,” a slow solo sung by John C. Reilly, shows how revealing the XTR-50s can be with less dynamic source material.

Less dynamic, more bizarre, and equally engaging is how I would characterize the other movie the XTR-50s brought back to life for me: *A Scanner Darkly*. Surround sound isn't this movie's forte, but gritty, slipping, shifting dialogue is. The XTR-50 worked flawlessly as a center channel. It

brought out the differences drug-influenced voices and their emotions. Likewise, for stereo music, as I was listening to “Promises,” a cut from Lyle Lovett's *The Road to Ensanada* CD, the same crystal-clear vocal detail was there at the beginning of the track when Lovett takes a breath just before starting to sing. The XTR-50s make it sound like he's in the room directly in front of you. The more dynamic “It Ought to Be Easier” would sound a bit more full playing on a full-f floorstanding speaker (such as the Mythos STs), but the performance for an on-wall speaker was outstanding.

Sade's voice, on “Morning Bird” (from *Soldier of Love*), is clear, clean, and layered in the center over the accompanying piano and percussion. Although it can sometimes happen that you'll hear a speaker straining to reproduce Sade's unique vocal characteristics, the XTR-50s showed none of that. Later, with the disc's title song, the SuperCube III proved its mettle once again (I reviewed it several years ago as part of a Mythos Gem-based surround system). The entire system—XTR-50s, SuperCube III, and two pair of Gems—came alive with The Killers' “Human” video on one of Dolby Lab's Blu-ray demo discs. The active surround mix showed off how well the Gems blend with the XTR-50s.

Conclusion

There's no doubt about it. Flat-panel TVs rule the day. I feel certain that we're not in danger of folks suddenly deciding they want big, bulky picture-tube TVs any time soon; and the days of feeling like you're slumming it if you don't live in a 5,000-plus-square-foot house aren't likely to return, either. That means slim



speakers will continue to grow in popularity—unfortunately (sometimes) whether or not they sound good. In this particular case, the beauty of the new Mythos XTR-50 is more, much more, than skin deep. At the moment, I don't think there's a better combination of size, appearance, performance, and price in any other on-wall speaker you can buy. The XTR-50's beautiful styling is apparent upon first sight, but it doesn't take much listening time to realize that this fabulous-looking speaker sounds fabulous, as well. It's a stunner that will simply steal the show, regardless of how good your flat-panel TV is. The Definitive Technology crew may have a new parent, but they're still the boss. ☪

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