

# Klipsch THX Ultra2 Speaker System

Hallelujah! A custom-installation speaker package even an audiophile can love.



BY STEVE GUTTENBERG

**Klipsch's new THX Ultra2** speaker system boldly goes where poseur speakers fear to tread. Let's face it, the speaker industry is obsessed with producing ever skinnier and sleeker designs; you know, the sort of trendy speakers that look cool straddling plasma TVs. For their new high-end line, Klipsch's product planners took a different approach: The THX Ultra2's raison d'être is the rapidly expanding custom-installation market. No doubt most of these big-'n'-brawny speakers will be tucked out of sight or flush-mounted in a push home theater, but I'd

✓ The KA-1000-THX subwoofer amp is housed in a separate box, which means you can flush-mount your sub without worrying about making the controls inaccessible.



bet a bunch of these systems will be sold to performance-oriented buyers. They're that good.

## Meet the Ultra Quintet

Klipsch offers a small platoon of THX Ultra2 models, and one of them isn't even a speaker. There are two hefty L/C/R monitors, the KL-650-THX and KL-525-THX; the KS-525-THX surround speaker; the KW-120-THX subwoofer; and the KA-1000-THX subwoofer amplifier. If you picked up on the theme, you probably figured out that the system boasts THX certification; actually, it's their premium Ultra2 grade status, so rest assured that the super-potent Klipschs can fill very

large rooms with high-volume/low-distortion sound.

Other than their brushed-aluminum baffles, the black beauties forego any overt stylistic touches or extravagant veneers; instead, the engineers lavished their attention on features that enhance performance. The anodized Cerametallic cone woofers feature substantial cast-aluminum frames; the L/C/R and surround's backsides are fitted with biwire connectors, while key-hole and threaded OmniMount inserts facilitate wall-mounting options. The speakers' interlocked dado and rabbet cabinetry feels rock solid.

The KL-650-THX and KS-525-THX's deep-throated Tractrix horns couple to 1-inch titanium tweeters that are derived from Klipsch's professional sound-reinforcement speakers. The horns project a focused 90-degree-horizontal by 60-degree-vertical dispersion pattern, which effectively delivers a more-direct sound with less room interaction from floor and ceiling reflections than conventional, direct-radiating box speakers. The horns also boost the speakers' efficiency. They're up to 10 times more efficient than the average speaker; hook up these babies to a moderately powered (50 watts or fewer) receiver, and you'll still achieve massive dynamics and high volume levels without strain.

The KS-525-THX surround speaker doesn't conform to the standard bi- or dipole paradigm, but Klipsch claims that its "Wide Dispersion Surround Technology" design produces 180 degrees of coverage. If you prefer a monopole's more-direct sound, you can use KL-650-THXs or the smaller KL-525-THXs as your surrounds.

## Bass in Your Space

The KW-120-THX is an unusual beast in that it's a purely passive (i.e., non-amplified) subwoofer that's designed to work exclusively with Klipsch's dedicated KA-1000-THX power amplifier/crossover. The 500-watt monophonic amp features a machined-aluminum front panel and knobs, and this powerhouse can drive one or two KW-120-THXs. OK, I know that a lot of you must be thinking, "Great, but why didn't Klipsch build the amp into the sub?" Well, it turns out that separating the amp from the sub offers significant advantages for the install market, where a powered sub's level, phase, or crossover controls may be inaccessible to the user. With this system, you can stash the KA-1000-THX in your rack with the rest of the components, and your installer can place the subs anywhere that sounds good (the front slot that runs across the front baffle is a port, so flush mounting the beast in a wall opening won't compromise performance). If your room is huge or you're a total glutton for bass, feel free to daisy-chain KA-1000-THX amps and add extra sets of KW-120-THX subwoofers. I noted one small snafu with the amp: Its relatively low input sensitivity may render it incompatible with some pre/pros, like my Sunfire Theater Grand III. Even with its subwoofer output turned up to max,

the twin KW-120-THX subs' volume level was ever-so-slightly low.

Klipsch's designers imagine that most THX Ultra2 buyers will opt for the 7.1-channel configuration; however, due to space limitations,

I sampled a 5.1 variant that foregoes the twin rear KL-525-THXs. I used an Aragon Stage One pre/pro with my Ayre V-6x power amp and Denon DVD-2900 player for all of my listening sessions.

## AT A GLANCE KLIPSCH THX ULTRA<sub>2</sub> SPEAKER SYSTEM



These listings are based on the manufacturer's stated specs; the HT Labs box below indicates the gear's performance on our test bench.

<b>◆◆◆ SUBWOOFER: KW-120-THX</b>	
Connection:	NL2 SpeakOn
Enclosure Type:	Vented
Woofer (size in inches, type):	12, Cerametallic cone
Power Rating (watts):	see KA-1000-THX amp
Crossover Bypass:	see KA-1000-THX amp
Available Finishes:	Galaxy Black
Dimensions (H x W x D, inches):	20.25 x 17.75 x 17.75
Weight (pounds):	80
Price:	\$1,250

<b>◆◆◆ SUBWOOFER AMP: KA-1000-THX</b>	
Connection:	RCA ins/outs; two NL2 SpeakOn outs
Amplifier type:	Class D
Power Rating (watts):	500 @ 8 ohms, 1,000 @ 4 ohms (FTC rated)
Crossover Bypass:	Yes
Available Finishes:	Black Anodized Aluminum
Dimensions (H x W x D, inches):	4.75 x 17.5 x 12.25
Weight (pounds):	27
Price:	\$1,400

## ◆◆◆ SPEAKER:

Type:	
Tweeter (size in inches, type):	
Woofer (size in inches, type):	
Nominal Impedance (ohms):	
Recommended Amp Power (watts):	
Available Finishes:	
Dimensions (H x W x D, inches):	
Weight (pounds):	
Price:	

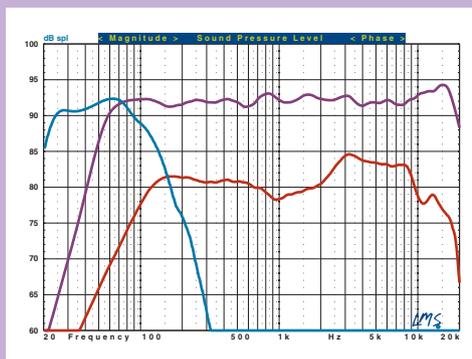
## KL-650-THX

two-way, monitor
1, horn-loaded titanium dome
6.5, Cerametallic cone (2)
8
up to 150 (RMS)
Galaxy Black
15 x 17 x 12.5
39
\$1,200

## KS-525-THX

two-way, surround
1, horn-loaded titanium dome (2)
5.25, Cerametallic cone (2)
8
up to 100 (RMS)
Galaxy Black
13.75 x 13 x 8.5
20
\$625

## HT Labs Measures: Klipsch THX Ultra<sub>2</sub> Speaker System



◆◆◆ **KL-650-THX L/C/R Sensitivity:**  
92 dB from 500 Hz to 2 kHz

◆◆◆ **KL-525-THX Surround Sensitivity:**  
88 dB from 500 Hz to 2 kHz

This graph shows the quasi-anechoic (employing close-miking of all woofers) frequency response of the KL-650-THX L/C/R (purple trace), KW-120-THX/KL-525-THX subwoofer (blue trace), and KL-525-THX

surround (red trace). All passive loudspeakers were measured at a distance of 1 meter with a 2.83-volt input and scaled for display purposes.

The KL-650-THX's listening-window response (a five-point average of axial and +/-15-degree horizontal and vertical responses) measures +1.00/-0.87 dB from 200 Hz to 10 kHz. An average of axial and +/-15-degree horizontal responses measures +1.53/-0.56 dB from 200 Hz to 10 kHz. The -3dB point is at 56 Hz, and the -6dB point is at 49 Hz. Impedance reaches a minimum of 4.15 ohms at 174 Hz and a phase angle of -59.88 degrees at 96 Hz.

The KL-525-THX's three-face averaged response measures +3.79/-2.55 dB from 200 Hz to 10 kHz. The -3dB point is at 101 Hz, and the -6dB point is at 83 Hz. Impedance reaches a minimum of 4.54 ohms at 247 Hz and a phase angle of -59.35 degrees at 123 Hz.

The KW-120-THX/KA-1000-THX's close-miked response, normalized to the level at 80 Hz, indicates that the lower -3dB point is at 22 Hz and the -6dB point is at 20 Hz. The upper -3dB point is at 111 Hz with the lowpass-crossover control set to maximum. —MJP

### It's All in the Details

During an early scene in the *Thin Red Line* DVD, Sean Penn has a heart-to-heart chat with an infantryman in the belly of a troop transport ship. I've watched this scene countless times, and I thought I had mapped out every scintilla of sound, but the Klipschs' resolution uncovered new details and textures buried way down in the dense mix. Can you say resolution? These speakers served up gobs of detail and never veered over to harsh or aggressive.

Some horn speakers are fairly directional, so I was concerned about the center speaker's sound for off-axis listeners, but the KL-650-THX's sound was consistent across my couch.

### Fasten Your Seatbelts

To test the speakers' agility at the loud end of the spectrum, I blasted through the *Matrix Reloaded* DVD, with the volume pumped waaaay up. Thanks to the system's extremely high sensitivity, my 150-watt-per-channel amp coasted through re-creating the visceral forces generated by the car-chase scenes starting in chapter 22. The low-frequency assaults seemed to take a palpable, feel-it-in-your-chest percussive quality. The bass articulation and room-energizing

powers of the twin 12-inch woofers were extraordinary, and, trust me, "boom" and "muddy" aren't in this ensemble's vocabulary; these powerhouses were always airy and palpably detailed.

The only downside to this sort of awesome low-end support is that, once you get used to it, other speaker systems sound anemic or just plain small. I loved the entire THX Ultra2 system, but it's the subs that made, literally, the biggest impression. So much so that I'd recommend the KA-1000-THX/KW-120-THX package on its own, for use with other Klipsch speakers or even other speaker brands.

### The Softer Side

Laura Nyro's recently released *Live at the Fillmore East* CD is a special treat for her fans. A warm, romantic halo settled over the singer/songwriter and grand piano. She sounds little-girl vulnerable on "Spanish Harlem," and then wham, she's wailing like a soul shouter on "Dancing in the Street." The Klipschs summoned extraordinarily nuanced dynamic shadings from Ms. Nyro's performance.

On Mobile Fidelity's *Mussorgsky: Pictures at an Exhibition* SACD, the THX Ultra2 array unfurled a tremendous sense of depth—frankly, their soundstaging dexterity is the

## HIGHLIGHTS

- Exceptional dynamic range
- Audiophile sound quality in a custom-installation-friendly design
- Hyper-articulate subwoofer

best I've heard from any horn speaker I've auditioned at home. String tone was especially fine and natural. That said, I did note that, since the speakers aren't completely full-range, their bass limitations might be audible during SACD or DVD-Audio playback, unless you have a player or pre/pro with sufficient bass-management skills.

I predict that the THX Series speakers have a chance at winning over horn skeptics, folks who are put off by the "cupped hand" coloration of some horn speakers. This system's sound is remarkably open. Better yet, the THX Ultra2's charms are democratic. Even friends who are blasé about so many of the products I review were jazzed by the Klipsch ensemble. Without any prompting from me, their reactions were always extremely positive; most of their comments can be summed up with just three words: "They sound real." Amen! 🎧

KLIPSCH THX ULTRA2 SPEAKER SYSTEM					OVERALL RATING
Build Quality	Value	Features	Performance	Ergonomics	93
<ul style="list-style-type: none"> <li>→ Robust cabinetry</li> <li>→ Passive subwoofer enhances placement flexibility</li> <li>→ Technical-knockout horn-loaded tweeters</li> </ul>	<ul style="list-style-type: none"> <li>→ The complete 7.1, dual-subwoofer package delivers awesome sound quality and quantity that surpasses systems that cost many times the THX Ultra2's price</li> </ul>	<ul style="list-style-type: none"> <li>→ Custom-installation-friendly design</li> <li>→ THX Ultra2-certified</li> <li>→ Biwired speakers</li> <li>→ The horn-loaded tweeters minimize floor and ceiling reflections</li> </ul>	<ul style="list-style-type: none"> <li>→ Ultra-low-distortion sound</li> <li>→ The twin 12-inch subs will rock your world</li> <li>→ Full-frontal dynamic-range assaults</li> </ul>	<ul style="list-style-type: none"> <li>→ OmniMount-able speakers</li> <li>→ The separate sub amp's placement flexibility is a big plus</li> <li>→ Front-ported monitors allow flush wall mount without degrading the sound</li> </ul>	
92	92	93	95	90	
<b>General information</b>					Klipsch's engineers pulled out all of the stops for this THX Ultra2-certified, custom-installation system, but I wouldn't be surprised if these speakers also develop a hard-core audiophile cult following.
KL-650-THX L/C/R Speaker, \$1,200 → KS-525-THX Surround Speaker, \$625 → KW-120-THX Subwoofer, \$1,250 → KA-1000-THX L/C/R-Sub Amplifier, \$1,400 → Klipsch Audio Technologies, (800) KLIPSCH, <a href="http://www.klipsch.com">www.klipsch.com</a> → Dealer Locator Code KLI					