

LAUTSPRECHER
Test Thiel CS 7.2

Pleasure without effects

Its immense crossover design efforts, highly developed drivers, and precise cabinets make Thiel's new CS 7.2 one of the most cultivated and precise speakers worldwide.

From the finest
*The CS 7.2's cone
drivers are extremely
distortion-free and
very rigid. Aluminum
is used as the
diaphragm material.*



stereoplay

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When putting sonic characteristics such as naturalness and lack of distortion first in importance, a speaker designer runs the risk that the “dazzlers” and “show-offs” will steal their thunder with each slapdash speaker demonstration. Jim Thiel, owner of the speaker company that bears his name in Lexington of the U.S. state of Kentucky, is not impressed by that type of speaker. His latest design, the CS7.2, is an expression of his 20-year-long design experience and incorporates his dream of an accurate and color-free loudspeaker performance.

The *Technology*

Since crossovers are required to correct driver characteristics and smooth the frequency response, every speaker designer faces the dilemma that, on one hand, the most effective method for separating frequencies is a network with steep slopes, but on the other hand, the increased steepness introduces phase changes, which impairs the impulse response.

However, Thiel, the perfectionist, wants to have the best of both worlds and is therefore trying, against all odds, to realize smooth and phase-correct first-order networks with only 6dB/octave rolloffs. Since such shallow slope networks are not able to keep unwanted frequencies from the drivers, extremely reliable and well-balanced drivers—and THIEL produces its own in-house—are necessary.

The crossover (see photo on next page) is truly a vault of components despite the seemingly simple first-order network design. Numerous coils and capacitors in parallel connection correct the drivers' frequency response and the impedance response so that the system's amplifier will find ideal working conditions.

Achieving a high degree of speaker efficiency was not of foremost consideration during the CS7.2's conception. In the interest of lower distortion, the driver's voice coil length is unusually short so that it remains within the magnetic gap, providing a more constant magnetic field strength upon the coil. Despite very large driver magnets throughout, the CS7.2 produces only approximately 86 dB@ 2.8 Volt-meter; less than many a compact speaker.

The CS7.2 is a four-way system with an additional passive diaphragm. This radiator helps amplify the deep bass range similar to the way a bass reflex port works, however a passive radiator generates no sound of its own and, above all, is impervious to reproducing any cabinet noise, which can hardly be avoided in such large cabinets. The result is a lower frequency extension of 25 Hertz, a great mark for passive radiator speakers and is nearly without competition.

The woofer, built with a metal diaphragm like the other 3 drivers, is a 30 pound showpiece; all of it of a production quality that would delight any driver fan.

The heart of a CS7.2 is its coaxial driver system, which consists of a 3-layer aluminum sandwich cone for the upper midrange and a central dome tweeter with a highly effective, four-part, neodymium magnetic system. This masterpiece of modern driver construction in the photo on next page shows its individual components.

To provide the drivers with rigid support, and to not hamper their dispersion with unnecessary cabinet corners or edges, Thiel has cast a mineral baffle with rounded sides for the CS7.2. This greatly contributes to the total speaker weight of 168 pounds. The cloth grille, which is stretched over the baffle without creating protruding corners or edges, proves to be very well thought out.

The testers allowed the two test speakers, which were fresh out of production, an entire weekend of break-in time. The speakers increasingly sounded more supple over time and soon revealed that these are no ordinary speakers.

The *Sound*

From the beginning, the CS7.2 inspired us with its extraordinarily velvet transparency, far from any sense of aggressiveness. At first listen, it may seem to be missing the pseudo “dynamics” that many low-brow listeners may expect from a speaker of this size and price range, however, in reality, the big Thiels simply sounded more refined, delicate, and ultimately more accurate, than most other speakers.

That this exceptional speaker is no miracle in power efficiency was obvious. This voracious piece of sound “furniture” reacted sensitively to cables and electronics. The AudioNET SAM power amplifier, a well-liked sparring partner in numerous other speaker comparisons, and the proven, slender, Fast-Audio speaker cabling, demonstrated themselves as just good enough, but not truly adequate.



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A SMALL MASTERPIECE

The midrange-tweeter-coaxial is largely responsible for the CS 7.2's fascinating spaciousness. At the picture's left margin, the cone diaphragm's structure can be seen in its aluminum sandwich construction.

The CS7.2 harmonized much better with cables like the Wireworld Eclipse III and amplifiers such as the brand new Nemos from Electrocompaniet (the test of these will follow in one of the upcoming issues.)

These huge mono-amplifiers with more than 1000 watts at 4 ohms provided the reserves that the CS7.2 obviously needs to fully display its talents. Incredible, how powerfully and, at the same time, how purely and seemingly untouched this set processed the most massive volume peaks. The same ones that, for example, a JM Lab Mezzo Utopia, which had been given a very high rating of 60 points, at a minimum sounded somewhat tenacious, if not overextended when compared to the Thiel. It was found that the Thiel's true strengths were not so much in the area of mere "strong-arm stuff", but rather are much more distinctive even in the area of spaciousness and fine dynamics.

It's phenomenal how matter-of-factly this American speaker delivered seemingly secondary finger-snapping as a freebie, or how it transmitted the recording's spatial atmosphere without neglecting the sound source locations like no other four-way-system we've heard before.

The Conclusion

With the new CS7.2, Thiel has created, without a doubt, one of the most honest and precise loudspeakers that has ever been in the *Stereoplay* listening room. It's a speaker, which sounds extremely well-balanced and cultivated in all its clarity, and to which one can listen stress-free for hours.

—Wolfram Eifert



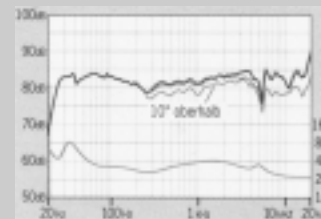
ABUNDANTLY EQUIPPED

Despite its "simple" 6-db/octave network, the crossover is abundantly equipped. The black tubes serve the purpose of isolating the woofer and midrange backwave. (Internal cabinet damping material was removed for this photograph.)

Thiel CS 7.2

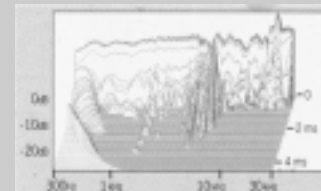
Price per pair	DM35,000
Distributor:	Sun-Audio, Munich
Dimensions	14" w x 55" h x 19" d
Cabinets	15 finishes available
Placement	free-standing
Phase response	10° minimum

Frequency response, impedance



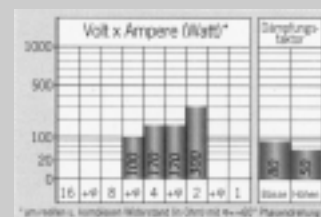
A little forward in the midrange, otherwise very well balanced with extremely deep bass; Impedance decreases to 2.3 ohms at 20kHz.

Transient response



In the basic tone range very efficient transience, light resonance at 5kHz

Usage profile



Requires amplifier with good bass-damping factor starting at 300W at 2Ω

Sound

Outstanding, 61 points (out of 62)



Large stand-up speaker with high watts requirement, extraordinarily precise reproduction and extremely cultivated timbre. A Cadillac with Mercedes quality.

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 test evaluation
very good