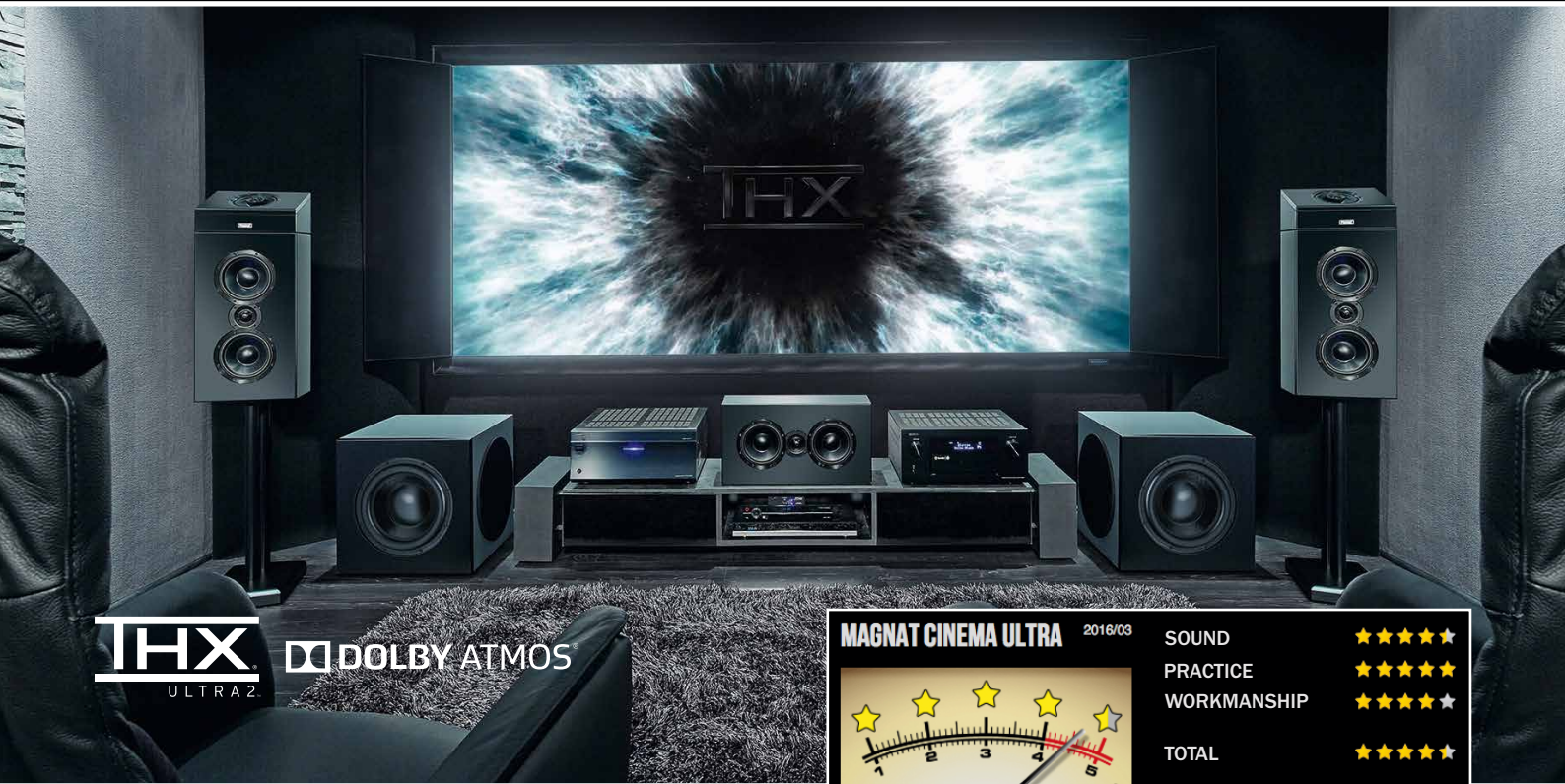


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THX
ULTRA 2

DOLBY ATMOS

MAGNAT CINEMA ULTRA 2016/03

SOUND	★★★★★
PRACTICE	★★★★★
WORKMANSHIP	★★★★★
TOTAL	★★★★★

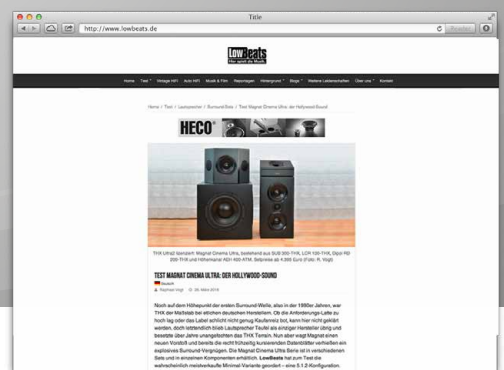
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OUTSTANDING

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- + Sensational macro and micro-dynamics
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Magnat Cinema Ultra Test : the Hollywood sound

Still at the pinnacle of the first wave of surround sound, i.e. in the 1990's, THX was the standard for a number of German manufacturers. Whether the bar was set too high in terms of requirements or the label simply didn't provide sufficient incentive to buy, Teufel Loudspeakers was the last remaining manufacturer in this area, dominating the THX domain for years uncontested. However, Magnat is now taking the initiative again, with the early datasheets already in circulation promising explosive surround sound enjoyment. The Magnat Cinema Ultra range is available in different configurations and as individual components. LowBeats ordered what is probably the most widely sold minimal version - a 5.1.2 configuration.

The different components

THX loudspeakers are fundamentally designed as a partially active concept, i.e. nothing can happen without an actively controlled subwoofer. That means a Magnat Cinema Ultra SUB 300-THX in this case, taking up about 1/8 of a cubic metre of the space. The role of the center speaker and left and right front speakers is played by the Magnat Cinema Ultra LCR 100-THX, which is the first THX loudspeaker that can be used vertically or horizontally. It can also be used as a surround sound speaker, though the compact Magnat Cinema Ultra RD 200-THX dipoles are also suitable, at least for the sides. And last but not least, there is also the extremely smart development in the form of the Magnat Cinema Ultra AEH 400 ATM add-on speaker, which is primarily designed for the treble or ceiling effect channels with the option of reflective - Dolby Atmos Enabled - or direct sound.

THX: What's that? Do I need it?

There may be some people who do not know where the idea of "THX" comes from and what its use is. When George Lucas brought "Star Wars" to the big screen in 1977, he was disappointed or even shocked at how his film sounded in the cinema in many places. The reason for this: it didn't really reflect what he was trying to deliver. He took the money he earned from the blockbuster and built "Skywalker Ranch" close to San Francisco, his own small Hollywood, where he founded the THX project. He hired acoustics guru Tomlinson Holman to elaborate a concept of how movie sound could be reproduced in comparable quality in the studio, cinema and at home. In the early 80's, the first cinemas were fitted out and certified according to the THX concept. The conditions included parameters like acoustic pressure and low distortion, as well as such seemingly mundane things as inaudible air-conditioning and seating with acoustic compensation, irrespective of how many or how few viewers are present. After years of development, THX eventually made its way into the home cinema domain in the late 1980's. In this segment, distortion, achievable acoustic pressure and frequency response, as well as decoder quality and amplifier power also have to comply with a very thick catalogue of requirements to guarantee that all of the components match each other acoustically and are able to reproduce unchecked what the director and sound engineer have created. Here, too, a number of the original THX developments are now taken so much for granted that they are no longer perceived as such. This includes correct calibration with band-limited noise at the standard level, as well as the mechanical tolerances for RCA plugs and sockets, which were not subject to any standard at all prior to the introduction of THX. In brief: THX guarantees a defined minimum quality standard at a very high level. There are different THX licence packages for loudspeakers, roughly divided into THX Select2 (for small rooms up to approx. 25m²) and THX Ultra2 (for large rooms up to approx. 40m²).

Magnat Cinema Ultra

So, to get the licence, Magnat Cinema Ultra had to meet conditions and pass tests that had already been failed by many developers. And this even led to a few records being set: The largest dome tweeter in the world (42 mm in diameter) was developed specially for the set. It is the most compact THX Ultra2 loudspeaker set ever to be awarded the licence. The front speakers are the first to meet the strict requirements regarding frequency response and dispersion characteristics in both horizontal and vertical set-up mode. The subwoofer is the smallest ever to meet the requirements, even when used as a single woofer. Most manufacturers need two subwoofers to meet the acoustic pressure requirements. The detail of the solutions common to all the components in the range is a clear indication that the Magnat developers really did have the ambitious home cinema application in mind. This starts with the very flat, space-saving design and seeming trivialities like a completely black and predominantly matt look to avoid irritating reflection of light. After all, the film should only be shown on the display or, better still, on the screen and not somewhere else as an irritating reflection. All of the speakers in the set (except the subwoofer, of course) have wall brackets on the back and appropriate, padded spacers to ensure that nothing vibrates or rattles. It could be said as a criticism that this perhaps does not leave quite enough room to run the cables. To counter this, screw connections are provided for wider wall brackets according to the VESA standard. All of the speakers have a removable, magnetically fastening front cover that does not need any visible bracket whatsoever on the housing. (...)

Listening test: Opera and space opera

Given that the guidelines are clear, the test set-up in the home cinema was typically simple. Front speakers at ear level, the dipole surround speakers at least at ear level, tending towards being positioned a little higher and, in particular, in such a way that sound radiation to the front and rear is not directly impeded. In any case, however, the zero axis of the dipoles must point towards the listening position, which means in most cases, also in the LowBeats test cinema, at 90° directly next to the listening position, or sofa. For reasons of timing, the subwoofer should be positioned more by the front speakers. Set the AV receiver or, in this case, the Marantz AV8802A AV pre-amplifier and the matching MM8077 power amp to "low" for all the speakers and the crossover frequency for the subwoofer at 80 hertz. It doesn't matter in this regard what a calibration system like Audyssey thinks it has analysed. Only in this way will all the phase transitions match consistently and everything sound like a unified whole. The first round comprised a normal stereo playback of CD and high-resolution streaming files. And this also led to the first, positive surprise. Whereas early THX loudspeakers liked to tend towards a dry, gnarled sound, the Magnat Cinema Ultra played in a refreshingly airy and micro-dynamic way. The cymbals had a wonderfully warm metallic brass shine, while the depth and spatial sound distribution came across as vivid and completely detached from the loudspeakers standing freely in the room. Critical, unadulterated vocal recordings from the 1950's in high resolution from good old Ella & Louis (mono recording) sounded sensationally vivid, with Ms. Fitzgerald positioned firmly and realistically proportioned in the centre between the front speakers, as if cast in stone. Only when very tricky mid-tone balance was required, as with Maceo Parker's saxophone in "Children's World" on Roots Revisited, for example, could a slight tendency towards nasal discoloration be detected. But that really is complaining for the sake of it. In the next stage of escalation, I put on the Blu-ray disc from Pink Floyd's Division Bell box set, which also contains the 5.1 mix of the album in 24bit/96kHz. The name of the challenge here is "High Hopes", which starts on

a summer meadow with insects buzzing throughout the room. The "Division Bell" then comes from very far away on the right, sending the entire number into a syncopated beat. The piece becomes increasingly complex acoustically and develops towards a bass dynamic that has already caused many a loudspeaker to fail. The Magnat Cinema Ultra masters this scenario in a supreme way that would have previously been inconceivable in this price category. Regardless of what was going on acoustically, the bell could always be heard crystal clear on the spot in the syncopation, where it would otherwise be likely to be lost amongst everything else that is happening. And anyone who thinks it is not possible to produce anything with precise localisation using dipoles for surround sound will realise they're mistaken after experiencing the annoying insects buzzing around their head right at the beginning. And all of this at practically any level. So the dynamics and reproduction were spot on. Time to put the subwoofer through its paces. It also coped with everything thrown at it, like the low bass onslaughts from Tron Legacy or the tracking shot through the crashing spaceship Serenity, where you got the feeling of being whizzed burning through the atmosphere together with the entire cinema. Fantastic, that's cinema! Although there was only one small pair of the Atmos speakers available, it was enough for us to establish whether they harmonise well with the rest of the set. And they do it amazingly well despite their compact size. Old hands will notice this immediately during calibration, when the test noise sounds very similar. The treble channels round off the reproduction at the top of the scale in a wonderfully seamless way and the small units even hold their own astonishingly well in terms of level. A very consistent chain.

Conclusion: Great dynamics, but with feeling

With the Magnat Cinema Ultra, the developers have created a loudspeaker set that is fun in the truest sense of the word. The concept and finish are consistent and coherent, from the well thought-out details like the VESA brackets to the add-on speaker that can serve as a Dolby Atmos enabled speaker and be switched over for wall or ceiling use. The front and dipole speakers play together in an amazingly harmonious way and reproduce acoustic events consistently throughout the room and beyond. The exceptionally powerful subwoofer also enables the set to not only play in an airily detached way with good microdynamics; it can also pack a powerful punch, easily reaching cinema or live concert level even in large rooms. Hard to think of a better all-rounder. Great!

For the complete test, go to:
www.lowbeats.de/test-magnat-cinema-ultra-der-hollywood-sound

