

NEXT GENERATION



HECO

Aleva GT 5.1 SET



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Heco's new Aleva GT series, which is replacing its former Aleva models, is truly impressive with its advanced technology and elegant visual appearance. The acoustic qualities exhibited by the speakers are also extremely good.

The extremely solid construction of Heco's Aleva GT series was revealed at the IFA exhibition. The baffles, for example, are 25 mm thick, which is even rare for more expensive speakers. In addition, the housings are internally braced, which prevents harmful vibrations from impairing the sound. Fortunately, the use of this material has not had a negative effect on the aesthetics of the series; the Aleva GT 402 front floorstanding speakers, the centre speaker (Aleva GT Center 32) and the surround speakers (Aleva GT 202) all look relatively slim and elegant. As we have come to expect from Heco, this set of speakers also exhibits high quality and professional workmanship.

Technology

The developers from Pulheim near Cologne redeveloped all of the chassis used in the Aleva GT series from scratch. Heco wisely opted not to change the kraft paper material used for the bass and bass-midrange cones, as its high degree of rigidity makes this type of paper relatively resistant to resonance. This reduces the weight of the resulting vibrating units, which proves advantageous for the impulse response.

The shape of the cone has also been modified based on new findings from state-of-the-art acoustic simulation programmes. A particularly striking feature is the flat, low-resonance dust cap that has been used for the 13 cm bass-midrange driver in the front, centre and surround speakers. In addition, the driver has also been equipped with a sturdy die-cast aluminium basket, whose streamlined struts are designed to prevent flow noise from occurring inside the speaker, even when there is excessive cone travel.

The Pulheim outfit has similarly invested a great deal in the tweeter: its 28 mm fabric dome is suspended in a particularly broad surround, which significantly enhances its maximum travel. The dome is accommodated in a short horn attachment integrated in the aluminium front panel, which is designed to improve its omni-directional characteristics.

The developers have managed to produce the surprisingly narrow front of the Aleva GT Sub 322A by using a trick: its 30 cm chassis has been positioned at the side instead of at the front of the unit. This is in no way detrimental

to the sound, however, as low frequencies are radiated equally in all directions. With an output of 320 watts the sub's amplifier is powerful enough to deliver rich levels in large home cinemas.

Surround sound quality

The frequency response of the front, centre and surround speakers appears homogeneous with relatively low ripple. All three exhibit a gentle increase towards high frequencies, which starts at 3 kHz and effects a level that is around seven decibels higher at 20 kHz. This level increase is not quite as pronounced for the front speakers; at least it's not if the bridge on the connecting terminal is set to "linear" instead of "+2 dB". We kept the bridge at this setting when conducting measurements and during the listening test.

The frequency response of the subwoofer appears somewhat unusual at the highest setting of the low-pass filter (150 Hz): it reveals a peak at 80 Hz and drops off significantly at low and high frequencies. Fortunately, this behaviour can be alleviated with the onboard bass equalizer, which increases the frequencies around 50 Hz by up to nine decibels, thereby enabling linearisation of the frequency response.

Despite the small inconsistencies in these measurements the set makes listening to multi-channel sound really enjoyable. It reproduces Omar Hakim's "Listen Up" in an exciting and spirited manner. The beats of the bass drum are precise and the electric guitar growls pleasingly. In addition, Heco's speakers sort and position all of the instruments exactly as intended by the recording engineer: we actually feel like we're in the middle of the band surrounded by the sound. If you happen to be impatient and are new to the world of Heco, however, you should bear in mind that the set really benefits from being 'run-in' for several hours. It noticeably gained in terms of airiness and lightness and its sharpness also increased slightly. The aforementioned treble boost is only noticeable with a slightly more pointed degree of airiness and it doesn't produce any interfering discolouration at all.

Movie soundtracks are also a delight to listen to. The Human Torch in the "Fantastic Four" action film whooshes through the streets of New York and around Dr. Doom in an alarmingly realistic manner. His thunderbolts crack around our ears - and in the pit of our stomach - with real gusto. The beauty of it is that Heco's units never sound intrusive or annoying even after a prolonged listening session.

Heco's set is also appealing during quieter scenes, such as Gandalf's entry into the Shire in "The Lord of the Rings", as it brings even the smallest of details effortlessly to the surface.

Stereo sound quality

When operated in stereo mode the Aleva GT 402 reproduces a sophisticated sound with a bass level and depth that is amazing in light of its small chassis. It doesn't get carried away either at higher levels in James Newton Howard's "Slipping Away II" and the bass drum and electric guitar are reproduced with zest. Clair Marlo's vocals in "It's Just The Motion" sound gentle yet precise and the stable bass, drums and guitar are sorted cleanly around Ms Marlo - which makes the dual channel sound a real pleasure.

Omnidirectional sound

At first glance this is truly amazing because the subwoofer in the Aleva GT set reproduces deep tones that can be heard and felt without any restrictions - despite the sub featuring a side-mounted chassis. But how is this possible?

On closer inspection things become a bit clearer: if a speaker cone only travels along one axis, it doesn't necessarily mean that the sound is only radiated along this axis. This only happens if the wavelength of the sound is small compared to the cone or is at least of the same magnitude. If the wavelength is larger than the cone, the sound can 'bend' around the cone and the housing so to speak; the air pressure vibrations from which the sound is generated are not hindered here at all by the cone or the housing.

When you consider the fact that the wavelength is approximately 17 metres at 20 Hz and 3.40 metres at 100 Hz, it becomes clear why the side of the housing on which a subwoofer chassis is installed is relatively indifferent. Its sound will always find its way freely to the ears of the listener.

Conclusion

For a reasonable amount of money Heco's Aleva GT set not only offers high quality technology in an extremely clean and well-manufactured package, but also a sound pattern that is shaped by a degree of impulsiveness and precise spatial imaging.

