

# TRIO<sup>Ω</sup>



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Some things just cannot be understood at first glance. And to be honest, the TRIO<sup>Ω</sup> with an efficiency of 109 dB at an impedance of up to 27 ohms is not absolutely essential for life. But then there is the search for further technical possibilities, for the utmost feasibility and then products like the TRIO<sup>Ω</sup> become reality. The TRIO<sup>Ω</sup> embodies our conviction, the conviction to go one step beyond. And this in all aspects. The TRIO<sup>Ω</sup> is a platform for technological research. It is the synthesis of technological precision and extravagant design. The TRIO<sup>Ω</sup> gives proof to the trueness and elegance of the hornspeaker principle.

However, the TRIO<sup>Ω</sup> is no eccentric, technical piece of art but first of all an "everyday" loudspeaker. It is a system that easily produces power. Every subtle nuance of the musical signal is reproduced with utmost precision and directness which renders the musical output as lifelike as the original recording. The TRIO<sup>Ω</sup> is a technical piece of art. A landmark in loudspeaker design that once experienced will not be forgotten.

# TRIO<sup>Ω</sup> STANDARD



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# TRIO<sup>Ω</sup> CLASSICO



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# TRIO $\Omega$

The TRIO $\Omega$  is a 3-way horn-speaker system, equipped with additional active subwoofer systems for the bass range below 100 Hz. Its hybrid concept with self-powered subwoofers and the really outstanding sensitivity (109 dB/W/m) makes it easy to drive with any amplifier and delivers ultimate dynamics and resolution.

## DRIVERS

With the development of the new OMEGA-drivers (with special high impedance voice coils) the TRIO $\Omega$  is again setting new standards in High End sound reproduction. The TRIO $\Omega$  is worldwide the first speaker system which consequently utilizes this innovative technology.

The specially optimized low-midrange driver - L3 $\Omega$  OMEGA - is characterized by its extremely high efficiency of 109 dB (1W/1m) and utmost power handling capabilities. A huge magnet, a 16 ohm voice coil and a very stiff, mass reduced membrane will ensure highest resolution and authority even with complex signals at extreme sound pressure levels. Due to our CDC system, the L3 $\Omega$  OMEGA works exclusively within its optimal frequency range and automatically rolls-off at the crossover frequencies. Thus only one crossover component is required for seamless integration with the midrange. Connected to the impressive low-midrange horn SH9504, the L3 $\Omega$  offers a very neutral, dry and contoured sound reproduction across the entire mid-bass range. Vocals, instruments and complex signals are reproduced with speed and

ease that will let you forget that you are listening to a recording.

M3 $\Omega$  OMEGA, our midrange driver system, is the core of the TRIO $\Omega$  and especially designed and matched for our spherical midrange horn SH5702. With its outstanding 27 ohm voice coil it amazes with its high sensitivity, very low distortion and an excellent linear response. The exactly calculated CDC system allows us to reduce the passive crossover to only one single component in the signal path, which is purely required for thermal protection.

Further characteristics of our M3 $\Omega$  OMEGA system is the specially shaped mylar dome, which provides perfect in-phase radiation into the spherical horn SH5702 avoiding any reflections of the acoustical waves inside the horn curvature. The generously dimensioned magnet structure offers very high power handling and long linear excursion of the diaphragm. In contrast to typical compression drivers, the M3 $\Omega$  OMEGA uses a very low compression ratio.

The energy which is needed for the lower frequency range is provided by a strong and linear movement of the voice coil and not by a high compression ratio. It is this special design that makes a major contribution to the crystal clear transparency of the midrange frequencies even at extremely high power levels.

H3 $\Omega$  OMEGA is our statement for the TRIO $\Omega$  high frequency range. The H3 $\Omega$  features a voice coil former made of Kapton with a minimized air gap, a special



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geometrical shape of the 17 ohm voice coil and an ultralight diaphragm makes this special driver really outstanding. Its massive 3 kg magnet with high magnetic flux density help produce enormous power and authority on the movement of the voice coil. With the spherical horn SH1801 the H3<sup>Ω</sup> offers an ultra wide bandwidth down to 900 Hz.

Instead of a 2-way system with an additional super-tweeter, the TRIO<sup>Ω</sup> actually is a real 3-way satellite-system. The L3<sup>Ω</sup> OMEGA midrange-bass driver works exclusively up to 600 Hz; thereby eliminating the critical "break-up" of the cone as well as distortions that are typical of the upper frequency range of a cone driver. The tweeter H3<sup>Ω</sup> OMEGA starts working at 4 kHz and thus avoiding the problems of an excessive membrane movement. Thus, the H3<sup>Ω</sup> OMEGA could be optimized for the high frequencies, instead of being misused for the midrange. The result is a harmonic system with 3 drivers working exclusively in their own well defined frequency range.

## SUBWOOFER

As an option, the TRIO<sup>Ω</sup> can be ordered with the active subwoofers SUB225CTRL, the SUB230CTRL or the exclusive BASSHORN. All subwoofer systems are described in dedicated PDF brochures.

## MECHANICAL CONSTRUCTION

The low-midrange, the midrange and the tweeter horn are mounted into circular housing cylinders. A straight three pillar steel-tube frame is used to support the horns with chrome screws on lateral fixtures with the standard version of the TRIO<sup>Ω</sup>. The vertical tubes are mounted on a square frame. The TRIO<sup>Ω</sup> and the subwoofers can be aligned and de-coupled with spikes.

The horn alignment is a functional straight line and demonstrates visual integrity without any frills. Due to this compact design the TRIO<sup>Ω</sup> satellite only has a width of 950 mm (37 in).

## CLASSICO VERSION

Alternatively to this mechanical design, the TRIO<sup>Ω</sup> CLASSICO is

available with a circular frame structure. Even more so than the straight version, the TRIO<sup>Ω</sup> CLASSICO with its circular support is the distinctive ambassador for the unique quality of Avantgarde Acoustic<sup>™</sup>. Contrary to static constructions, the rounded shape of the TRIO<sup>Ω</sup> CLASSICO perfectly reflects the esthetics of its spherical horns. Its unique sculptural shape has become the visual trademark of Avantgarde Acoustic<sup>™</sup>'s innovative horns systems for the past 10 years. The TRIO<sup>Ω</sup> CLASSICO version uses the same horns and drivers and is technically identical to the standard TRIO<sup>Ω</sup> version with its straight frame structure.

## FINISHES

The standard version of the TRIO<sup>Ω</sup> is delivered in several different metallic color finishes of the horns. The circular housing cylinders and the three pillar steel tube frame is powder coated in elegant black. The rear covers and the subwoofer enclosure are coated in high quality NEXTEL finish. Special designs are available upon request.



# TEST REVIEWS



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"An unbelievable high end sensation. The BASSHORN plays extremely civilized and extremely unlimited. No colorations, beautiful separation of the chorus – fantastic. The drums can best be described as controlled explosions. The air is erupted out of the nowhere, so clueless and so seaming less. The music stands like a big wall in front of us: stable and incredible transparent in all its musical details. What an experience! Absolutely fabulous. " (STEREO, M. Böde, Germany)



"This speaker reveals details, which no boxed speaker is capable of. Listening in front of these majestic horns is like driving a racing car. The acceleration is incomparable. Enormous efficiency. The big acoustical magnifying glass: deeper soundstage than probably any other speaker on the world market. Fascinating presence and incredible analytical detail. Engineered and built to perfection - like a sculpture." (STEREOPLAY, A. Günther, Germany)



"They are unquestionably the finest loudspeakers I have heard in my home and, without any doubt, one of the best loudspeaker systems in the whole blooming world ... and from an engineering standpoint the most remarkable. There is no sense of stepping up o the next dynamic level - no hard-ceilinged upper limit, no lost-in-the-murk lower limit, no mechanical ratcheting in between. Well-recorded music breathes forth with the naturalness of the real thing." (FI, J. Valin, USA)



"They are easily the fastest and most realistically dynamic loudspeakers I've heard. Their greatness lies not only in their huge dynamic capabilities but in the natural lifelike speed with which they recreate dynamic gradations. They can shade dynamics as Sinatra can shade a lyric, eliciting the most subtle emotional nuances from music. I can think of no higher praise." (STEREOPHILE, A. Kay, USA)



"A percussion solo or the powerful cue of a large orchestra quickly teaches us that absolutely perfect sound reproduction is possible. Realised to an extent that turns even high-quality standard speakers into tired, worn-out background figures. Concurrently, just as a side effect, a nearly imperceptible network of details comes to the surface which - due to its transparency and neat structure of details - offers another, so far unknown quality." (IMAGE HIFI, R. Kraft, Germany)



# TEST REVIEWS



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"The only criteria that really counts - capability to reproduce music – the TRIO<sup>Ω</sup> is an offer without any competition in the top end. The TRIO<sup>Ω</sup> controls the atmosphere and dominates the air in the room like no other speaker. The level of radiated energy is over-whelming. Thanks to the perfect clarity - cleanness of the world's best low/mid combination - the TRIO<sup>Ω</sup> mainly mediates the emotional impact of music. A "true" speaker for real music lovers." (HAUTE FIDELITE, O. Corton, France)



"If you have any affinity for horn speakers, you must admire and perhaps even lust for the TRIO<sup>Ω</sup>. This is another speaker that makes a statement big as life. The TRIO<sup>Ω</sup> made beautifully dynamic music, displaying the qualities I would look for in a big horn speaker without showing any traditional weaknesses. And remember not to close your eyes all the time while listening - the TRIO<sup>Ω</sup>s are very nice to look at. (SOUNDSTAGE, M. Frank, USA)



"These gorgeous flowers make music and music-makers sound astonishingly realistic. There is no loudspeaker on the planet with better dynamic range and scaling than the TRIO<sup>Ω</sup>. Considering that they rival their competition, they are something like a bargain. You cannot buy a loudspeaker that gives you more 'in the room' presence." (THE ABSOLUTE SOUND - Golden Ear Awards, J. Valin, USA)



"Horn culture par excellence: three spherical horns guarantee unlimited dynamics and a new level of fun. The natural tonal balance - which I absolutely did not expect - did the rest. Incredible: For the first time I did not hear any horn-typical colorations! On the contrary, the TRIO<sup>Ω</sup> impressed with a lifelike and sheeny reproduction. The TRIO<sup>Ω</sup> is without any doubt the most fascinating and sensible speaker system of our times." (STEREO, H. Barske, Germany)



"Utterly compelling and intoxicating performance from a system representing high-end technology from two continents. Capital intensive, but the results make for unquestionable value. This is a system that remains true to the spirit and the execution of the music, and which never performs for effect only. Musicality rules - and tubes have never sounded this good. Visual presence of the TRIO<sup>Ω</sup> horn speakers will drop jaws." (AUDIO VIDEO MAGAZINE, D. Schoenman, South Africa)

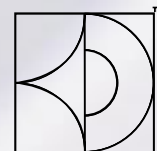


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<b>SYSTEM DATA</b>		
Frequency response	satellite	100 - 20.000 Hz
Frequency response	subwoofer	18 - 220 Hz
Power capacity		300 Watts
Sensitivity (1W/1m)		> 109 dB
Crossover frequencies		100/600/4.000 Hz
Nominal impedance		19 Ohm
Recommended amplification		> 2 Watts
Recommended room size		> 25 m <sup>2</sup> / 250 ft <sup>2</sup>
CDC (Contr. Dispersion Characteristics)		yes
<b>HORN</b>		
Horn-type		spherical horn
Horn material		ABS injection molding
Horn finish	front- and backside	polished
Dispersion type		180°
Horn mouth area	low mid range	0.709 m <sup>2</sup>
	mid range	0.255 m <sup>2</sup>
	high range	0.025 m <sup>2</sup>
Horn mouth diameter	low mid range	950 mm / 37.4 in
	mid range	570 mm / 22.4 in
	high range	180 mm / 7.1 in
Horn length	low mid range	650 mm / 25.6 in
	mid range	430 mm / 19.9 in
	high range	85 mm / 3.3 in
<b>DRIVERS</b>		
Diameter	low mid range	200 mm / 8 in
	mid range	50.8 mm / 2 in
	high range	25.4 mm / 1 in
<b>TRIO</b>		
Dimensions	width (p/Satellite)	950 mm / 37.4 in
	depth (p/Satellite)	830 mm / 32.7 in
	height (p/Satellite)	1,620 mm / 63.8 in
Weight	Satellite (p/piece)	53 kg / 117 lbs
<b>TRIO CLASSICO</b>		
Dimensions	width (p/Satellite)	1.300 mm / 51.2 in
	depth (p/Satellite)	830 mm / 32.7 in
	height (p/Satellite)	1,500 mm / 59.0 in
Weight	Satellite (p/piece)	76 kg / 170 lbs



<b>TWEETER DRIVER</b>	
Throat diameter	25 mm
Voice coil diameter	44.4 mm
Nominal impedance	17 Ohms
Power capacity	70 Watts
Frequency range	950 – 20.000 Hz
Sensitivity	109 dB
Magnetic assembly weight	3.2 kg
BL factor	7.0 N/A
Magnet	Ferrite
Diaphragm	Polyester
Overall diameter	146.5 mm
Depth	75 mm
Net weight	3.25 kg
<b>MIDRANGE DRIVER</b>	
Nominal diameter	140 mm
Voice coil diameter	56 mm
Nominal impedance	27.3 Ohms
Power capacity	150 Watts
Sensitivity	109 dB
Magnetic assembly weight	3.3 kg
Magnet diameter	140 mm
Magnet	Ferrite
Voice coil	copper-clad aluminium
Diaphragm	non-metallic
Overall diameter	140 mm
Depth	51 mm
Net weight	3.6 kg
<b>LOW/MIDRANGE DRIVER</b>	
Nominal diameter	208 mm
Voice coil diameter	63 mm
Nominal Impedance	15.7 Ohms
Power capacity	300 Watts
Sensitivity	109 dB
Magnetic assembly weight	5.5 kg
Magnet diameter	205 mm
Moving mass	17.3 g
Max. excursion	+/- 3 mm
BL factor	14.9 N/A
Magnet	Ferrite
Diaphragm	Paper
Overall diameter	208 mm
Depth	90 mm
Net weight	7.5 kg

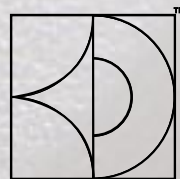
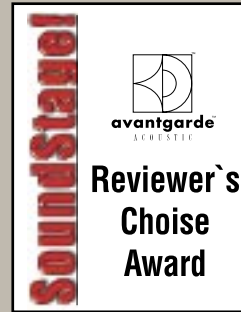
SOLO

UNO

DUO

TRIO

Milano  
Design Award



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