



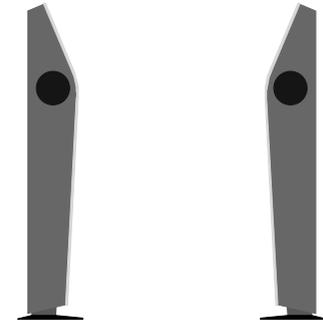
ELLA

Full active 2-way Loudspeaker-System

Tweeter:	Titan-Membrane, Waveguide
Woofer-Midrange:	3x145mmØ / HDA-Membrane (HDA = High Definition Aerogel)
Active-Electronics:	with Adaptive Output Impedance with Compensated Phase Response
Sensitivity for 100dB SPL @1m:	775mV (adjustable)
Input Impedance:	balanced, 5kOhms
Input Overload:	20Vpp
Signal to Noise Ratio:	-96dBA
Continuous Power RMS:	40+30W
Continuous max. SPL@1m:	104dB
Frequency Response (-6dB):	39Hz-22'000Hz
Crossover Frequency:	1500Hz
Roll Off below 400Hz (adjustable):	0dB -3dB/Oktave
Signal Input:	XLR F/3P
Voltage:	115/230V (50-60Hz)
Power Consumption:	7-70VA
Box Material:	MDF Nextel anthracite
Baffle Material:	CREANIT®, white, light grey, black other colours optional
Net Weight:	19kg
Dimensions: H x W x D	1050 x 210 x 170mm

Technical adaptations are subject to change without notice

K L A N G W E R K[®]

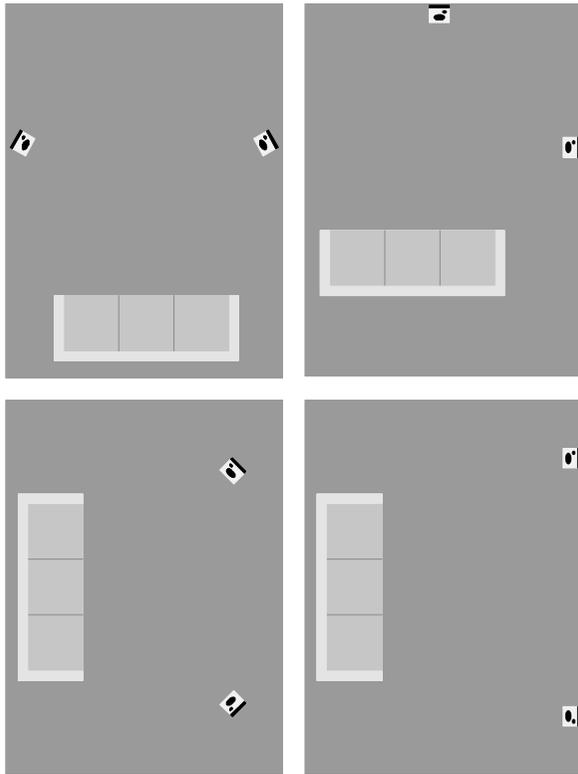


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ELLA



stereós (greek) = full bodied, spatial
 phōnē (greek) = sound, voice

A reproduction of music seems particularly realistic, when the space where the music has been recorded can be felt. Stereophonic recordings deceive the ear-brain-system to create this feeling of space. If the deception of the ear should be particularly realistic, the speakers must have a specific impulse and phase behaviour, a precise position in the space and to the listener.

ELLA is able to simulate a virtual sound stage in a surprising variety of positions and rooms. The simulation is so precise that the speakers disappear as sound sources. They seem to open the virtual sound stage for the music. This stage can be larger than usual, permitting a more intense and detailed feeling of sounds.

The precise reproduction of stereofonic recordings is the basic of a perfect multichannel / surround reproduction. ELLA can be combined with LOUI to a multichannel system. LOUI is acoustically identical to ELLA to create a seamless soundspace.

Enclosure

The form is based on acoustic criterias. The top of the cabinet is inclined backwards to suppress standing waves inside. This inclination and the flat form guarantee an optimum dispersion of sound, either near a wall or in free space.

The cabinet is divided in two parts: On a stiff structure of additionally damped MDF, a curved baffle of CREANIT® is mounted. Creanit is an artificial stone with high density and high inner damping. The baffle is decoupled from the MDF-structure with foam stripes to reduce vibration.

The Creanit-baffle is robust because the colour is in the material. It can easily be restored and even changed. It is available in white and a light grey. Every other colour is available by enamelling the baffle.

Titan-Tweeter with Waveguide and Acoustic Lens

The membrane of the metal tweeter is very light and stiff. The high output, the waveguide and our active technology allow an unusually low crossover frequency. The tweeter covers a wide frequency domain, what makes the sound open and clean.

The inclination of the baffle and the Acoustic Lens help to improve the dispersion off-axis. Another benefit of the inclination is that the acoustic centres of the tweeter and the mid-woofer are in the same vertical plane. Therefore all signals start at the same time. Other time-delays, based on the nonlinear behaviour of dynamic loudspeakers are corrected within the active filter.

The tweeters are mounted in eccentric positions to reduce edge reflections.

Mid-Woofer with HDA-Membrane

The membranes of the three mid-woofers are made of High-Definition-Aerogel, which is light, stiff and has a high inner damping. The membranes of small loudspeakers are basically stiffer than larger ones. With several small speakers, high outputs and a deep bass can also be obtained but with higher precision. Two mid-woofers are mounted on opposite sides of the cabinet. Their forces on the cabinet are therefore cancelled.

The compact mounting of the mid-woofers, the active filters and the low crossover frequency allow a simple 2-way system with minimum phase shift.

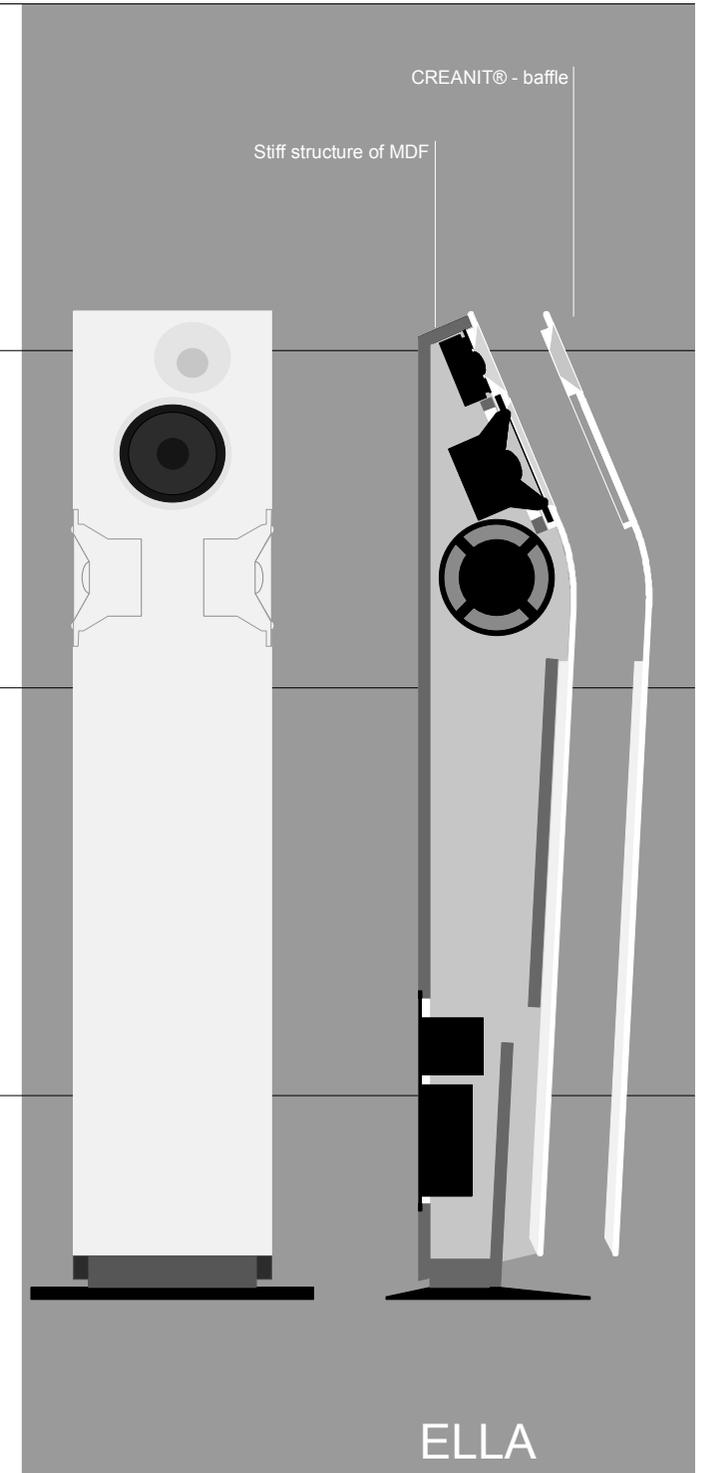
The active technology with impedance control has several advantages, particularly in the bass section: The reflex system can be designed more precise, the excursion of the membrane is reduced and the air volume is halved.

ELLA has a very deep and powerful bass, with regards to its size.

Electronics - Active Technology

The amplifier and the loudspeaker form an electro acoustic unity. The active loudspeaker is the consequent solution because both parts are conceived together. The two frequency domains of ELLA are separated and linearised before the amplification, instead of afterwards as in a passive loudspeaker. The active technology permits a more precise and elegant filtering without signal losses. Each frequency domain (Tweeter, Mid-Woofers) has its own power amplifier with its particular design. The motion of the membrane is regulated by an adaptive output impedance system (AOI) and the loudspeakers are protected from overload.

A Roll-Off control allows the loudspeakers output to be adapted when it is positioned in front of a wall. High quality components are used throughout the design.



INVITATION TO LISTEN