

AUDIO

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Dynamics for everyone

new speakers by Klipsch, Tri-
angle and Tannoy: Pure power
sound for 1500 Euros

High End Walkman

Sony's rival to A&K:
This posh portable is
1200 Euros



Monster Monitor

Geithain's 901K1: Giant studio
monitor in slightly more compact
format for the living room

SPECIAL REPRINT

Musikelectronic Geithain

ME901K1

Griechenland € 7,95
Finnland € 8,85
Slowenien € 7,95





ROOM AND POSITIONING

Room size

K M G

Acoustics

T A H

Placement

D W F

Near-wall or free placement, angled in towards the listener, fine tuning by adaptation filters, listening distance from 2 to 4 metres (6.5 to 13 ft.).

For the symbol key see page 134.

TEST

Active loudspeaker with bass cardioid and separate electronics

ME GEITHAIN ME 901 K1

12740 €

PERFECTLY RIGHT

Of the legendary 901 studio specialist ME Geithain now offers a new version with outboard electronics and compact dimensions, which makes the active speaker more attractive for home users. Sound and technology, including the patented bass cardioid, are simply a stroke of genius.

■ Test: Wolfram Eifert

Regarding the question if it makes sense to tie the knot with the – in professional circles almost legendary – 901 from ME Geithain, private users could so far regularly talk their way out of this by referring to its massive appearance. But that argument is now much less convincing with the recently presented K1 version. By outsourcing the power amps and filters, the designers were able to make the enclosures more compact without compromising on features or even sound.

Since height and depth were cut, the gross volume is smaller by 35 litres or nearly 30 per cent, compared to the fully integrated 901. This will not turn the coveted classic into a dwarf, yet it loses quite a bit of its familiar mighty appearance. With the home version called K1 the active electronics now sits in a pleasantly slim extra housing which the owner may park close to the speakers to his or her own taste.

Due to this separation, the electronics is also no longer exposed to the sometimes fierce vibrations from the drivers. As purists hope, this may result in enhanced sound clarity, because vibrations are by no means beneficial to the sound. A multi-channel speaker cable of a thumb's width and fitted with professional Speakon connectors on both sides, feeds the drivers with the signals that are discretely processed per path. Mixing up signals is thus impossible, owing to this foolproof connection the length of which is determined to the customer's specifications who knows best his placement conditions.



Talking about mighty: Both versions of the ME 901 are equipped with a 40-centimetre (16 in.) coax system whose bass cone is huge for hi-fi applications. The three-way unit (details later) enables the speaker to produce concert-like sound levels down to the lowest audible depths and, not least because of its big size, has a very high sensitivity. Not without reason the acoustically identical pro version is classified as a so-called main control room speaker, which can play back in a sovereign manner all required dynamic peaks even at about four metres (13 ft.) of listening distance. The electronics of the 901, based on great sounding MOSFET power amps, uses conventional, analog frequency crossovers. The company from Saxony deliberately waives digital filters because – according to the corporate credo – they have no sonic advantages and also to avoid that the basically extremely durable active speakers could be beyond repair only some years later. Highly integrated components such as DSPs are often available for just a few years. Although there are “barely” 400 watts of power amp output available in every 901, the test subjects easily achieved peak levels beyond 110 decibels in the measuring lab above 50 Hertz at very low distortions. Even in the high-energy sub bass, which goes down linearly to al-

OUTSOURCED: The electronic section is equipped with various pots for fine adjustment which are accessible after taking off the rear wall. There is a level control top right.

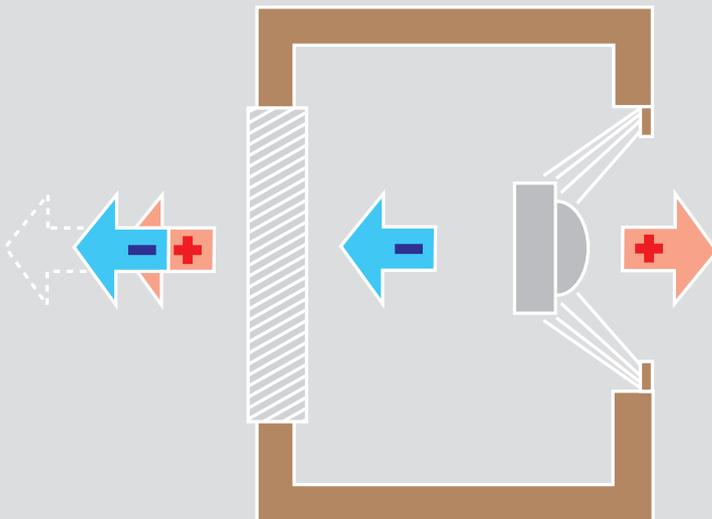
most 20 Hertz, more than 100 decibels can be delivered. This is, above all, remarkable because the concept of a bass cardioid with a precision-boosting directivity at low frequencies (see box below) puts enormous demands on drivers and amplifiers alike.

The mid-high unit is mounted in front of the woofer and made up of a classic metal dome in combination with a midrange cone driver of almost 13 centimetres (5 in.) in diameter which is damped on the rear by a flow resistance. This helps to prevent an acoustic short circuit; moreover there’s no compression present as in sealed compartments. Compared to coaxial systems from other manufacturers, the driver alignment with its slightly rustic air is meticulously balanced in all dimensions and shows an extremely homogeneous radiation pattern over all room angles. Not without reason the identically constructed pro version of the 901 is regarded as the reference system by numerous broadcasting stations.



As accessories the loudspeaker specialist offers a custom made stand for the 901 which leaves a very solid impression and brings the acoustic centre to the correct position for seated listeners. The proud owners will probably not dwell on visual features, for the functionally designed cubes do not nearly appear as visually big as the objectively massive driver unit has us fearing. Remaining concerns

FUNCTIONAL PRINCIPLE OF THE BASS CARDIOID



Conventional loudspeakers show a pronounced beaming effect at high and middle frequencies which decreases towards lower frequencies and finally changes into a spherical behaviour. When near boundaries are involved, the sound becomes a lot bassier and, due to more intensely stimulated room modes, also boomy which can really get on your nerves under unfavourable circumstances. At Musikelektronik Geithain the models labelled with a “K” feature a patented internal construction with different damping materials and large openings on the rear side, as can be seen in the left-hand diagram. Part of the sound energy is radiated phase-inverted which causes cancellations and gives the radiation pattern the shape of a kidney. The bass behind the loudspeaker becomes quieter by up to 10 dBs which makes its placement much less critical. The bass cardioid sounds spectacular, yet unfortunately it only works actively.

that one might have purchased a little too big will evaporate at the latest when the first halfway bass-heavy music piece is called up. Classical pieces which are preferably used for demoing purposes like the "1812" Overture by Tchai-kovsky (notably spectacular the recording with the Cincinnati Symphony Orchestra and Erich Kunzel) revealed the outstanding dynamic talents of the 901. The martial gunfire had a terrific blast and came without any warning. The scene is just one of many examples that a musical life also exists below 40 to 50 hertz which is withheld from us by many passive speakers, because they largely cut out this range.

Also with plucked double basses the sophisticatedly equalized woofer section demonstrated its ability to deliver a superb transparency. In fact, only loudspeakers of the absolute world elite produce such a deep and bone dry bass; however, these are usually way more costly and in most cases also need more space than the 901 K1. As measured by its overall dynamics, the Saxon sound cube is downright small in size. Those who don't like classical music may be



susceptible for the electronic gimmicks of Swiss studio project Yello who, already in the late 1980s, created some kind of benchmark for bass-heavy and potentially system killing tracks with their hit "The Race". Certainly also because the bass cardioid reduces the room influence so significantly, the violent and fast-paced pulse sequences sounded affectingly complex and structured over the noble Geithain. All that came out so perfectly integrated that the testers simply couldn't get away from the otherwise rarely used repeat button. Music fans from the editorial environment, who were less familiar with this matter, seemed to be paralysed for minutes because they could witness for the first time how impulsive and stirring such a relatively compact loudspeaker can sound.

Enthusiasts who are not into the 1980s should definitely check out on the album "The Last Resort" from 2006 on which Danish techno producer Anders Trentemøller spoils his listeners with 13 subtle tracks that will normally develop their full feel-good flavour only through top-notch headphones or world-class loudspeakers. Now the Geithain was performing in such a self-evident and delicate way and with utmost room precision that after dismantling them, we didn't feel the slightest desire to content ourselves with less open sounding speakers. This, dear purists, is pretty much the biggest compliment one can pay to a loudspeaker as a reviewer.

PROUD GIANT: The coaxial system consists of three individual drivers with a common acoustic centre. An LED below the midrange driver serves as an operating control lamp and limiter indicator.

BOTTOM LINE



Wolfram Eifert
AUDIO editor

Who treasure neutrality and precision will hear why the 901 acquired cult status with broadcasting stations. Its tonal character is joyful, open and with a fascinating spatial imaging. The bass cardioid sounds ultra authentic, and despite all the precision emotions will not be neglected. The more compact K1 version is perfect for home use.



PROFILE

ME GEITHAIN	
ME 901 K1	
Distributor	Musikelektronik Geithain GmbH +49 (0) 34 3 41 / 31 10
www.	me-geithain.de
List price	12740 Euro
Warranty period	2 years
Dimensions (W x H x D)	46 x 48 x 40 cm (18.1 x 18.9 x 15.7 in.)
Weight	15.7 in.
Veneer/foil/lacquer	34,9 kg
Colours	• / - / •
	Ash black, others on request
Design principles	3-way, bass cardioid
Room adjustment	Internal adaptation filters
Special features	Optional speaker stands

AUDIOGRAMM

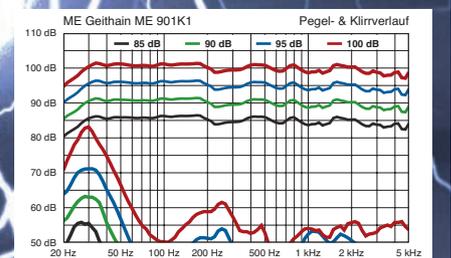
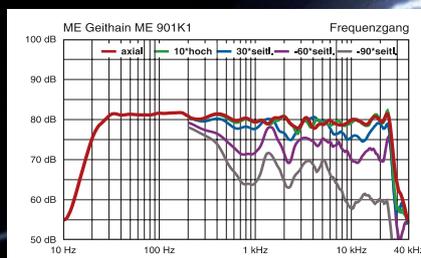
➕ Tonally and dynamically without exaggerations, very natural, stickler for details, precise room imaging, great level stability, extremely deep and accurate bass.

Neutrality (2x)	105	<div style="width: 105%;"></div>
Detail precision (2x)	105	<div style="width: 105%;"></div>
Locatability	105	<div style="width: 105%;"></div>
Spatial imaging	100	<div style="width: 100%;"></div>
Fine dynamics	100	<div style="width: 100%;"></div>
Maximum SPL	95	<div style="width: 95%;"></div>
Bass quality	100	<div style="width: 100%;"></div>
Bass depth	100	<div style="width: 100%;"></div>
Workmanship	outstanding	

AUDIO AUDIO SOUND SCORE 102 POINTS
PRICE/PERFORMANCE SUPERB

MEASURING LAB

Upon measuring its sound pressure curves in the anechoic chamber, the ME 901 K1 shows an extremely linear behaviour. At -3 dBs of level drop-off, an impressive 22 Hz is achieved in the sub bass. Above 50 Hz the peak levels reach more than 110 dBs, below the values still have three digits. Compression at 100 dBs (red curves on the right) is definitely no issue. Except for the fundamental bass the 901 produces extremely low distortions.





musikelectronic geithain

ML 811K1

audiophile resolution in XXL format



www.me-geithain.de

STUDIO MONITORING SYSTEMS

HIGHEND LOUDSPEAKER

SOUND REINFORCEMENT SYSTEMS