

STEREO

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MAGAZIN FÜR HI-FI

• MUSIK

REPORT

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TOP-REFERENZ



NEUSTART BEI AVM
Pleite
abgewendet

LISTEN LIKE THE PROS



Manger MSM c1

Powered speakers are often designed as “monitors”. In fact they find more acceptance in recording studios than with hi-fi fans. But why should professional loudspeakers not also work at home? We took a closer look at two models from Manger and Geithain.

So what are the unique characteristics of studio monitors or control room speakers, as they are sometimes called? A controversial and much discussed issue, since recording engineers and hi-fi aficionados assume, that the requirements of professional and consumer environments are totally incompatible.

The characteristics an audio engineer demands from his tools of the trade are nonetheless pretty familiar to us: While in the engineer’s opinion, music lovers look for emotions, often represented by flabby and fat bass as well as mellow and warm, but nonetheless present treble, professionals expect punch, precision and superb timing as well as maximum resolution and soundstage depth. This sounds like a bunch of preconceptions, doesn’t it? On the other hand consumers consider studio monitors to be bland and aseptic. In any case they are supposed to be completely unsuitable for high fidelity. But when you listen closer and open your ears, you will find that this assumption too is incorrect.

The Manger Scalpel

The fact that hi-fi speakers can often be seen on fotos of recording studios is clear evidence, that the discrepancy between loudspeakers and monitors cannot be so large. Consumer products exhibiting a distinctive proprietary sound are unacceptable, of course. The Danish slogan „Nothing Added and Nothing Subtracted“ should serve as a guideline for professionals and demanding music listeners. In fact, many manufacturers already offer almost identical loudspeaker models in a studio version and a hi-fi version. And the only difference between the two is the more pleasing finish of the hi-fi option which fits better into home environments.

This goes for Manger, too: The MSM c1 compact speaker, if a baby of 66 lbs. can still be called compact, exhibits clearly noticeable similarities to the Zerobox 109. Instead of nice veneers, the MSM is limited to an assortment of RAL spot colors, which can be freely chosen by the customer at no additional costs. At a 200 EUR surcharge, a speaker version with Nextel coating can be ordered. For an additional 1550 euros all colors are available in high gloss lacquers, which can turn the MSM into a downright bird of paradise, compared to the Zerobox. And the MSM is active, too!

This is insofar a pretty important difference, as the loudspeaker not only is equipped with an internal amplifier, but also with a crossover that works differently than the one in the passive speaker version. This represents a conceptual barrier between the MSM and Zerobox. In addition the c1 provides a filter system common to active speakers, which facilitates adapting the unit to room acoustics and to nearfield monitoring, although „nearfield“ in this context means at least 10 feet listening distance, considering the MSM's large dimensions and a LF cut-off point of remarkable 40 Hz.

The acceptance of active speaker systems seems to be growing in private listening environments, too. In recording studios this technology is already established, since the monitors can be connected directly to the mixing console. Moreover, chassis and amp have already been matched perfectly at the factory. With hi-fi this concept becomes more and more important, mainly with respect to „new media“, since many source devices like streamers, servers and iPod docks as well as peripheral devices like USB DACs are equipped with high-quality level controls. And this fact virtually calls for direct solutions: network player plus powered monitors – there you have it, the smallest possible high-end chain!

The Membrane with that special Something

Of course, the MSM c1 is equipped with the large – and in this case proverbial – „star“ of the Manger portfolio, an eye-catching MF/HF wideband driver. This unit works according to the principles of bending-wave transducers, but its unique design features differ from all the other flat membrane systems. The peculiarities of the concept have already been explained sufficiently, so we will confine ourselves to the general framework here. If you are interested in the subject, please take a look at the „About us“ section of the Manger website (www.manger-msw.de), which offers many informative PDF documents.

The star has been developed by company founder Josef Manger in the 1960s and it is constantly being fine-tuned since 1974, when the first loudspeaker using this technique was introduced. The wafer-thin, circularly spanned foil membrane is excited in the center by two voice coils and the generated frequencies spread like waves on a water surface. The distinctive look of the chassis is achieved by a boundary of thin, jaggedly cut damping material, which prevents diffractions and



Geithain RL 906



The MSM c1 is simply put on the stand and decoupled using a piece of foam rubber.

at the same time ensures that different pitches are generated in different sections of the driver. The highs originate from the center and the frequencies constantly become lower the closer they get to the driver's edge.

Josef Manger copied this behavior from the structure of the human inner ear, in which a stretched membrane discerns different pitches in different areas. The sum of those pitches, i.e. the final sound, is actually formed by the brain.

The star is supported by a 8" bass driver using a polyester-glass fiber sandwich membrane. The closed cabinet contains two analog amplifiers with 180 watts (HF/MF) and 250 watts (LF) output power at 8 ohms respectively.

To optimize the Manger design you can expand the loudspeaker with a separate passive bass module (about 810 EUR per unit), which is connected via a rugged Speakon interface and simply placed on top of the MSM. There is no need for additional fixation since its sheer weight will make the module stay in place. Furthermore the impedance is reduced to 4 ohms and the bass output is increased to 400 watts. In addition to the noticeable increase in dynamics and control the speaker gains in dimension, since the bass membrane surface is expanded upwards.

The construction of the MSM is pragmatic. The electronics are attached to the cabinet's aluminum back which doubles as an extensive heat sink. A screwdriver has to be used to modify the filter system consisting of volume, bass and treble controls. This is a good idea as it prevents annoying "accidents".

The sophisticated and elaborate speaker stands (about 770 EUR per piece) can be ordered in custom height at no additional costs. For perfect performance the star-shaped membrane should be at ear height. To have it preadjusted by Manger, you simply tell them your personal sitting height. No need to mention that speaker stands are really indispensable when using compact transducers of this dimension. The MSM c1 is by no means a shelf speaker and must be set-up free-standing. Even the excellent filter system cannot change this fact. As an alternative an adjustable „lift“ stand is available (about 1670 EUR per piece).

Since the Manger monitor's performance in the listening space was absolutely convincing, we will make a big exception and start with its only bad property: The MSM c1 is, like many excellent monitors, a loudspeaker for egotists. The bundled sound radiation of the HF/MF chassis allows only one ideal listening position. People nearby will already experience declined acoustical imaging. In addition, the MSMs should be aligned to a fictive point just in front of the listening position. Only then will you achieve maximum soundstage and three-dimensionality, which is actually very impressive.

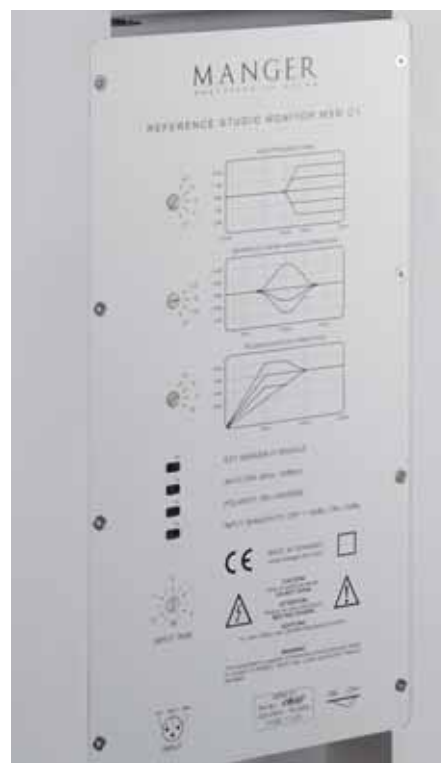
This fast active speaker creates a life-sized and tangible projection of the musical performance in the listening space. The orchestral instruments of Camille Saint-Saëns' „Danse Macabre“ from our test CD V can be located exceptionally well and never lose their positions on the soundstage, no matter how

complex the music gets. Things changed, when we listened to Thom Yorke's vocals in „Karma Police“ from Radiohead's brilliant „OK Computer“, although the Manger is not to blame for the eccentric sound effects created by the audio engineer. Guitars and drums stood out clearly and relative to their natural dimensions. Surprisingly, even this consciously rough rock mix sounds smooth and silky through the Manger speakers.

What we liked even better than the excellent acoustical imaging was the superior flowing performance of the MSM c1. Somehow the voluminous speaker succeeds in bridging the gap between dry analytics and enthusiastic reproduction.



The Speakon connector for the optional bass module is located directly below the convenient handle of the MSM c1.



You need a screwdriver to adjust the Manger's filter system. This prevents inadvertent modifications.



Power and signal inputs are located on the bottom side of the c1 to keep people from tripping over cables.

KEYWORD
Speakon:
 Very reliable loudspeaker interface developed by Neutrik. Mostly used with studio and live equipment.

The bass goes very low and sounds crisp, growling and very detailed. At higher levels it hits your stomach with proverbial punch and crude straightforwardness without sounding artificial or pompous. Even with techno-oriented pieces like Depeche Mode's pounding „Wrong“ the synth bass and bass drum are clearly distinguishable.

The same goes for the other end of the frequency spectrum, where the HF/MF transducer extends up to 40 kHz and doesn't miss any subtleties. Fortunately the dissecting abilities of the Manger speaker are softened by a pleasantly mild and silky performance. The highs appear lively and clear, disclosing the slightest nuances and highlights, without being biting or aggressive. They sound gentle and fluent and can be enjoyed for hours without ear fatigue.

Finally, the third and maybe most important element of the Manger monitor is its timing. The chassis' convince through their tight, yet flowing performance, their refreshing liveliness and high fun factor. A level of precision that can be enjoyed by sound engineers and music aficionados alike!

Geithain's little Geniuses

Based in the Saxon city of Geithain, the speaker manufacturer of the same name offers a different product range of „active stars“, which are also very popular in German sound studios. The Geithain RL 906

has the dimensions of a mid-sized shoe box and would fit about four or five times into the enclosure of a Manger MSM c1. With a performance almost as punchy, focused and lively as the Manger, the RL 906 is about 60 per cent cheaper and falls into a different price range.

With Geithain too, the source of musical delight consists of a chassis – or in fact a chassis layout – that is unique and used by no other manufacturer. Since many years company founder, owner and chief designer Joachim Kiesler “bundles” multiple drivers in a confined space. The bass driver always serves as a „base plate“, in front of which a narrow plastic bracket with additional drivers is mounted. Its exact width is determined by the units attached to it. Since bass waves are omnidirectional, this center bracket does not disturb the acoustic signal path. In the upper half of the RL bracket a 25 mm fabric center cap and a green LED is installed, which constantly informs you visually about the op-



Three sockets are included with every Manger speaker, which enhance the acoustical imaging.



The optional bass module is simply placed on top of the MSM c1. The rubber sockets ensure rudimentary decoupling.

erational status of the loudspeaker. That's one of the subtleties that distinguish active monitors from most active hi-fi speakers. A second feature are the balanced XLR inputs, although they require RCA adaptors, if there's no appropriate preamplifier in the signal chain. The same goes for the Manger, by the way.

The layout of the chassis represents an ingenious solution. Both signal paths are



Geithain's filter system has to be adjusted using a screwdriver. As with all studio monitors only a XLR input is provided.



The multiway chassis is screwed to the damping material. The picture also shows the damping and rounded edges within the enclosure.

reproduced via conventional drivers, which in this case radiate like a point sound source, however.

The standard discussion as to whether point source advantages pertaining to localization and precision make up for inevitable compromises pertaining to tonality – which goes for many wide-band speakers or coaxial chassis' – are inapplicable here. You wonder why Geithain seems to be the only manufacturer that takes advantage of such an "intermediate stage". Just as a reminder: With normal coaxial designs the tweeter is recessed in the center of the bass driver, which is cone-shaped and acts as a horn – with all the positive and negative consequences.

With some models, Geithain nests up to three signal paths in this manner. The small RL 906 limits itself to two paths, however, which are driven via analog 80 watts (LF/MF) and 40 watts (HF) power amps. Despite its output power, the 906 is not made for excessively high volume levels or pounding party sounds. With its compact size and special acoustical imaging the RL 906 is optimized for different tasks.

Like the MSM c1, the RL 906 focuses the sonic events on the central listening position and should be aligned to this point in the same way as Manger's large active speaker. Although we experimented quite a bit with location and alignment, we always came back to direct radiation. It ensures very homogeneous three-dimensionality and soundstage depth and gives high frequencies an additional sparkling quality. When oriented straight into the room, the 906 performance was still crisp and time correct, but the imaging appeared diffuse and less tangible. In addition the soundstage depth got lost.

In contrast to the voluminous MSM, the RL 906 may be positioned with a good conscience on any kind of „sideboard“ or in a book shelf, if the signal and power cables permit it. In this case the excellent bass filter comes in very handy, as it reduces the bass frequencies in a linear fashion starting at 100 Hz. This not only allows you to perfectly adapt the RL to its setup position, but also to match it to a subwoofer. The 300 Hz filter facilitates clean adjustments of the fundamental note especially in nearfield monitoring

situations. This is a big advantage, when the speakers are positioned on a tabletop. As with the Manger, filters and level controls can only be adjusted using a screwdriver.

Although Geithain has designed the compact RL 906 mainly with project studios or comparable nearfield environments in mind, it also performs well on a speaker stand or on a bookshelf in a hi-fi environment. The monitors incredibly flat frequency response has been combined with excellent time correctness and superbly structured imaging. This combination results in musical conciseness and straightforwardness, which make up

for the limited output power – as far as party levels are concerned. In everyday listening situations power amps and drivers will deliver more output power than you'll ever need.

In combination with Olive's No. 2 the small active speaker demonstrated its hidden qualities. The shiny, noble and

creamy timbre of the network player gave the RL 906 a soft quality, which was further enhanced by the contoured bass and the lively mids.

Of course, active speaker designs are still a matter of taste. But these two impressive studio monitors proof, that this kind of loudspeaker and its features can also be greatly enjoyed by hi-fi fans in their familiar listening space.

Carsten Barnbeck

KEYWORD

point sound source:
Point sound sources radiate all frequencies from a single acoustical center.

COMPONENTS OF THE TEST SYSTEM

NETWORK PLAYER: Meridian Sooloos, Olive Melody 2

CD PLAYER: Denon DCD-SA 1, Einstein „The Source“, Marantz SA-15 S2

D/A CONVERTER: MBL 1511F

PRE-AMPLIFIER: Accustic Arts Tube Preamp II, MBL 5011

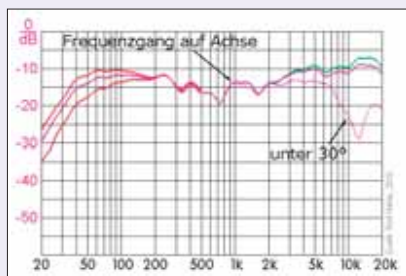
LOUDSPEAKER: B&W 805 Diamond, Dynaudio Focus 140 and others

RACK/ACCESSORIES: Finite Elemente Pagode Reference, NF cable from Neyton and HMS

MANGER MSM C1

From € 8320/pair (matte finish), stand from € 1540/pair, dim.: 10.6" x 19.6" x 16.5" (WxHxD), warranty: 3 years, distributor: Manger, phone: 0049 9776/9816 www.manger-msw.de

Manger's MSM c1 is a majestic monitor. The compact active speaker impresses with outstanding workmanship, elaborate features and sophisticated acoustical adaptability. The manufacturer offers a setup service at no additional costs. The monitor's performance is unbrilliantly candid and very fascinating.



MEASUREMENTS*

lower cutoff frequency (-3 dB) 40 Hz

LAB COMMENTS

Manger's frequency response exhibits some notches in the midrange, the highs rise softly. The bass response goes as low as 40 Hz. There's a strong frequency dip at 30 degrees off-axis. It's not surprising that the MSM c1 sounds best, when it is aligned to the listening position. Finely tuned filters (red/green) and superb timing.

FEATURES

Balanced input (XLR), power switch, connector for external bass module, three multi-stage filters (bass, highs, peak filter at 3.25 kHz), input gain (+/-2.5 dB), switches for AV high pass filter (80 Hz), input sensitivity and polarity.

STEREO -TEST

SOUND QUALITY 94%

PRICE/PERFORMANCE

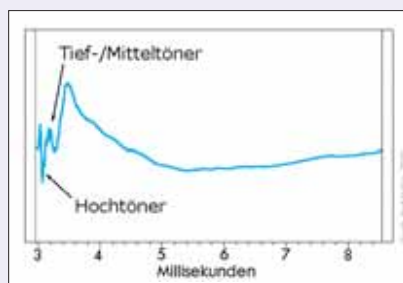
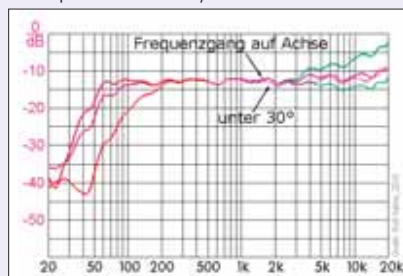
★★★★☆
EXCELLENT

GEITHAIN RL 906



From € 2520/pair (black), dim.: 7.0" x 10.2" x 7.8", warranty: 2 years, distributor: Musikelektronik Geithain, phone: 0049 34341/31110, www.me-geithain.de

Although Geithain's compact pipsqueak is optimized for nearfield monitoring, it does an excellent job up to listening distances of 3 to 4 meters. Thanks to its bass reflex design, the bass range goes stunningly low and with a peak power of 100 watts the RL 906 generates a lot of punch. Extremely smooth tone!



MEASUREMENTS*

lower cutoff frequency (-3 dB) 58 Hz

LAB COMMENTS

Considering its size, Geithain's RL 906 goes pretty low. The frequency response is extremely flat and has no dips, even at 30 degrees off-axis. Its maximum filter settings (red and green) are well-tuned. The step response exhibits an offset of less than one millisecond as well as an extremely fast and cleanly decaying bass chassis.

FEATURES

Balanced input (XLR), power switch, four continuously variable potentiometers for level trimming (almost down to mute), bass tuning, treble trim and a 300 Hz peak filter for presence boost.

STEREO -TEST

SOUND QUALITY 60%

PRICE/PERFORMANCE

★★★★☆
EXCELLENT

Model	Test in STEREO	Price ca. EUR	Price/Performance	Sound Quality
ACTIVE SPEAKERS (prices per pair)				
Top Reference				
ADAM Tensor Alpha	5/08	34 600	★★★	100%
Tested Devices in absolute Order				
Backes & Müller BM 15	3/10	20 000	★★★★	98%
Manger MSM c1	11/10	fr. 8640	★★★★	94%
Newtronic Temperance III	1/10	4800	★★★★	75%
Backes & Müller BM 2	1/07	4950	★★★	68%
Geithain RL 906	11/10	fr. 2520	★★★★	60%
Quad 12 L Pro Aktiv	10/05	1500	★★★	50%
Elac AM 150	10/10	500	★★★★	48%
ADAM A5X	10/10	700	★★★★	47%
Scansonic S 5	10/10	460	★★★	42%

Excerpt from STEREO Service Testspiegel 11/2010

* for subscribers additional measurements and diagrams are provided in the STEREO Club under www.stereo.de

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