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Milestones of ampbuilding by Audionet:

Stern & Heisenberg

The Three Towers



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Amplifiers: Audionet Stern + Heisenberg

With the Stern preamplifier and the Heisenberg mono blocks Audionet has created two milestones of ampbuilding.

Hartmut Esslinger is feeling at ease. Well, with more than 70 years of life experience and Frog Design's – the company founded by himself – list of customers, which includes Apple, Sony and Lufthansa, he has achieved just about everything. Casually the product designer crosses his denim-clothed legs, his keen eyes spotting every motion in the room. We're in May 2016, and Audionet has invited to the premiere press conference for the Stern preamp and the Heisenberg mono power amps, both designed by Hartmut Esslinger. But how did these creations come about?

In numerous conversations which I've had with Audionet CEO Thomas Gessler in the past ten years, he concretised the idea of a preamp which should know no limits whatsoever any more. Already back then his team had some precise ideas in the drawer which, however, had always fallen victim to budget restrictions. Some Audionet distributors had also repeatedly voiced the desire for components which should be ranking way above the existing ones. But this is precisely where things start getting tricky, for the Audionet PRE G2 preamp and the MAX mono blocks already bore witness of finest ampbuilding. Eventually a meeting between Hartmut Esslinger and Thomas Gessler was the decisive factor for the dream to substantiate little by little. In the sequel the creative mind Esslinger conceived a form, which drove the enclosure makers to desperation and sometimes even beyond to the verge of lunacy.

Esslinger's intelligent design vocabulary can't be grasped necessarily with a fleeting glimpse; it rather discloses itself bit by bit while you're listening to music over the trio. Heisenberg and Stern are a composition of triangles and squares and also of round elements, which can even be found at places which are not so easily accessible. For instance, the enclosures rest on triangular profiles with their tips pointing to the floor; likewise the lid is made from triangular

elements with drilled holes to let the heat escape from inside. Depending on the viewing angle, new visual stimuli keep emerging. »Floating Pane Design« describes the way how the front, rear and side walls are mounted without touching each other at the edges, which gives the mighty enclosures an apparent weightlessness. Moreover, the upper gap resulting hereof designs a view onto the electronics. Esslinger has never used a brash hallmark in his styling; it's those subtle elements which evolve over time that characterise his creations. There's a definition of art, coined by Christoph Schlingensief, which says that it only becomes interesting »when we're standing in front of something we can't fully explain right away«. To me that's the case with this trio.

But to the high art of form belongs that of content, too, and this was provided by the team around Audionet engi-

neers Thomas Pohl and Volker Wischniowski. They were not granted a budget by Gessler for this project, not even an upper limit was fixed. Which was an extra stimulus for creativity and made sure that long cherished considerations could be realised for the first time in almost all areas of ampbuilding. Thus they also chose parts which until then had simply been out of the question because of too high costs. Wischniowski states that »we have learned a lot and are very happy about the fact that innovative circuit considerations have now found their way out of the drawer and into the two new devices«.

Apart from the silver or black finish option, the Stern also lets you select the shape: horizontal or vertical. Its front is dominated by the large display and the double ball-bearing mounted volume potentiometer which controls a network

of precision resistors. The Stern's entire menu is controlled through four circular buttons and the triangle standing upside down, their functions are shown in the display with its adjustable brightness. Three groups of connections can be seen on the rear: of the six line level inputs two are balanced and four equipped as phono sockets with Furutech Rhodium connectors. The preamp signal is output flexibly once via RCA and twice via XLR. For recording equipment or headphone amplifiers there's another pair of RCA outputs. The third connection group comprises an IRC mains socket, a ground terminal, the Audionet-Link communication interface, an RS232 socket and finally the connector for a WLAN antenna. After logging in on the network, software updates, for example, may be loaded.





Rhodium is Audionet's material of choice for the connections. The speaker terminals and the phono sockets including those on the Stern are supplied by Furutech.

What a view of the rear panel suggests is confirmed by the interior: the Stern features a strictly dual-mono design.

Here we find no less than four 50 VA transformers, and with an overall capacity of 176,000 microfarads, which is tremendously high for a preamp, the power supply caps make sufficient energy reserves available to reliably supply any dynamic transient sequence. Technically the developers adopted Esslinger's design of separate enclosure elements insofar as it thereby produces less microphony effects, while the thermal conditions are also more stable. All components are firmly mounted and, depending on the module, separated from each other mechanically by damping rings and electrically by optocouplers. Those measures taken by Pohl and Wischniowski aim to keep away interference effects and influences one-hundred per cent from the signal and to safeguard its purity by superior devices which, among others, include the costly pc board material and a rhodium mains fuse.

Each of the Heisenberg mono blocks weighs in at 70 kilogrammes [154.5 lbs.]. Except for the controls and the display its clearly structured appearance corre-

sponds to that of the preamp. Via its power switch Heisenberg communicates its various operating conditions and if it's generally feeling alright. Because if this isn't the case, the bright white LED ring will turn into a red one which transmits its message through a morse character code. Decoupled, encapsulated and as a twin pack come the 1,200 VA transformers, whose energy is stored temporarily in a 200,000 microfarad storage bank. Audionet's »Ultra Linear« circuitry is working in realtime to eliminate distortions already in their development phase. A microprocessor control ensures that everything runs smoothly in this powerhouse. The input sockets and also the solid connection terminals for the speaker clamps are rhodium versions made by Furutech.

Right there I connect the HMS Armonia speaker cable now, the other end of which is plugged into the terminals of the KEF Reference 5. Between Stern and Heisenberg the unbalanced connection is established using a Gran Finale Jubilee and, alternatively, with the new Suprema XLR. As signal sources I have chosen the Clearaudio Anniversary through the Audionet PAM G2 and EPC for the analogue domain and the Marantz SA-KI Pearl for the digital world. As contenders the Audionet DNP

plus EPX and the AMP monos are standing by, yet at that time I couldn't foresee that this duel wouldn't take place in such a way.

Already at the start of our musical journey we kick into high gear; out of respect I don't want to bother the trio with trivia. And so the new album by Roger Waters »Is This The Life We Really Want« where he's grappling, among others, with Donald Trump, is coming along just at the right time. Like in slow-motion the arm seems to come down on the rotating vinyl – I'm totally excited to find out what's going to happen now. In the typical Waters style the album opens with a mixture of text fragments and a clock that's ticking too fast, to finally lead us to the second track »Déjà Vu«, where a perfectly recorded guitar suddenly appears in a frighteningly realistic way before my listening spot. Complemented by Waters' vocals, carried in epic broadness by strings and piano. Already at this early stage I have a sense of foreboding that I might have committed a »fault«, for the Stern and the Heisenbergs are playing the music of the former Pink Floyd boss with focused power, clear-cut holography and immense dynamics which, to cap it all, sound even self-evident and not strained. A quick, short switching to the familiar Audionet amps confirms my suspicion: there will



be no family dispute between these amplifiers. Soundwise, musically and aesthetically the three towers are performing in a different league, a new class that needs no other superlative. The cognition that they rank above what I've known so far is sufficient for me.

Often the phrase of »listening through each track of the collection afresh« occurs when changing source devices, with amplifiers it happens rather rarely. But with the new Audionets already the intro of »Private Investigations« by the Dire Straits has quite a different impact. The two-dimensional, gloomy and mostly innocent sounding intro sequence turns into a threatening, pitch-black thundercloud, in front of which Mark Knopfler is suddenly picking the strings in total contrast and with much clearer contours. On the basis of this sound-energy quality, the track unfolds its effect way more intensely, any form of harmlessness has vanished gone.

This calls for a causal study, because there's still one more thing that strikes me: every now and then I have a feeling

that the music is »slower«, so I'm aware of many more tonal details. What's happening here? Sade gives me the answer with her »Soldier Of Love«. It's the total control of the diaphragms by the Heisenbergs: as fast as the transient has come – hey presto! – it's also gone again. The drivers show absolutely no overshoot, and that's why the heard transient, on the one hand, turns out to be more precise, yet on the other hand shorter, too. Quite clear, despite all sonic ambitions I wouldn't have expected this from any amplifier, and I'm surprised that this is now happening in my listening room with this continuity.

The longer my listening session takes, the more I get used to this unheard-of supremacy of the Audionet trio, and I'm stating that it's not restricted to the musical genre I'm playing. It's simply there, whether on old recordings like e.g. by Johnny Hartman, whose marvellous voice I've never known yet in this resolution, or on lavishly produced works such as Yello's latest album »Toy«, where each of the clear notes now sounds as

if they were cleaned from patina. This impression is substantiated by the 1:1 scale delivered by Stern and Heisenberg. For the other Audionets are also good amplifiers, of course, but only with that habitual miniature scale. These days are over now. Natural realism, the closest possible proximity to the original has become reality with Stern and Heisenberg. In view of this experience the way back into the »normal« high-end spheres is going to be tough, I know. But I have gained the insight that Audionet must be congratulated for creating a new benchmark in ampbuilding.

Result

With the Stern preamp and the Heisenberg mono power amps, which are the result of a fruitful cooperation between Hartmut Esslinger and the Audionet team, Audionet turns over a new leaf in the book of ampbuilding. Because in these high-end icons form and content are congruent to the highest degree, or briefly speaking: art with an intense effect. What this trio has to offer soundwise, is beyond what even the highest demands could possibly request. *Olaf Sturm* ■

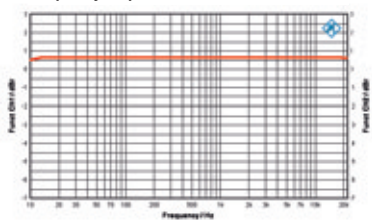


Audionet Stern / Heisenberg

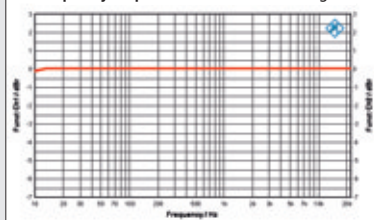
WxHxD	27 x 50 x 51 cm
Warranty	5 years
Manufacturer	Idektron GmbH & Co KG
	Alboinstraße 36-42
	12103 Berlin
Web	www.audionet.de

Lab Report

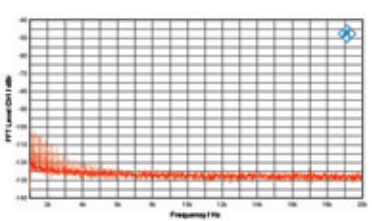
Frequency response: Audionet Stern



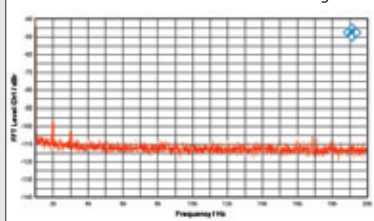
Frequency response: Audionet Heisenberg



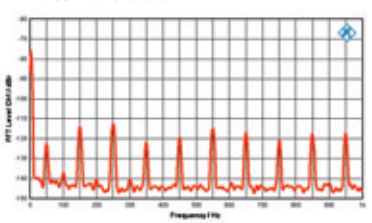
Harmonic distortion: Audionet Stern



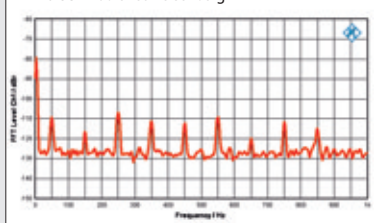
Harmonic distortion: Audionet Heisenberg



Noise: Audionet Stern



Noise: Audionet Heisenberg



Audionet Stern

(unbal.)

Gain factor	2,4-fold / 7,8 dB
Output voltage	max. 6,2 V
Distortion (THD+N)	0,0040 %
IM distortion (SMPTE)	0,0005 %
IM distortion (CCIF)	0,0004 %
S/N ratio (unweighted)	-90,7 dB
S/N ratio (A-weighted)	-93,1 dB
Upper cut-off frequency (-3dB)	> 185 kHz
Channel deviation	0,05 dB
Input impedance (1kHz)	48 k Ω
Output impedance (1kHz)	48 Ω
Idle power consumption	70 W

Audionet Heisenberg

(unbal.)

Nominal output power 8 Ω (1% THD)	474 W
Nominal output power 4 Ω (1% THD)	897 W
Gain factor	30,8-fold / 29,8 dB
Distortion (THD+N, 10W/4 Ω)	0,0006 %
IM distortion (SMPTE, 5W/4 Ω)	0,0024 %
IM distortion (CCIF, 5W/4 Ω)	0,0005 %
S/N ratio (unweighted)	-107,2 dB
S/N ratio (A-weighted)	-110,1 dB
Upper cut-off frequency (-3dB/10W)	> 185 kHz
Sensitivity (for full drive 4 Ω)	1,95 V
Input impedance	40 k Ω
Idle power consumption	ca. 107 W

The present Stern preamp is a pre-series unit which came to us directly from the Munich tradeshow. Here the display shielding and the ground routing are not yet on standard level, hence we can detect some interference here (noticeable in the distortion spectrum), which, among other things, affect the signal-to-noise ratios (they're still good for quite a few dBs). The actual signal processing is already absolutely first-class, but even in the future the Heisenbergs will probably remain the stars of the trio. For despite their sheer

power these mono amps have so low distortion and noise figures as is technically possible. Their distortion spectrum reveals only two tiny harmonic peaks which barely stand out from the low-lying noise background (even some preamps can take a page out of their book in this respect). In the interference spectrum all mains components are below the -100 dB mark, most of them even below -110 dB. What's more, each Heisenberg mono block can deliver a whopping 900 watts of output power into four ohms – simply world class. ■

AUDIONET