



# Under the Lindens

For their 25th company jubilee Lindemann is presenting an all-new series. Its name is Limetree, essential hi-fi en miniature its motto. But how much sound is hidden in those small devices?

**L**indemann Audiotechnik is one of the reliable constants in the high-end scene and, since the company's foundation in 1993, has regularly aroused attention with pioneering developments in the digital sector. Currently the manufacturer from Woerthsee west of Munich also convinces with his music-books.

This series of high-class digital sources, which can also handle DSD upsampling in their latest version, displays not only excellent technology, but also a lot of musical sense. However, the high quality of the devices has its price: already for the

musicbook:10 DSD, the simplest variant without streaming client and CD drive, one needs to shell out more than 3,000 euros, not to mention the fully equipped top models.

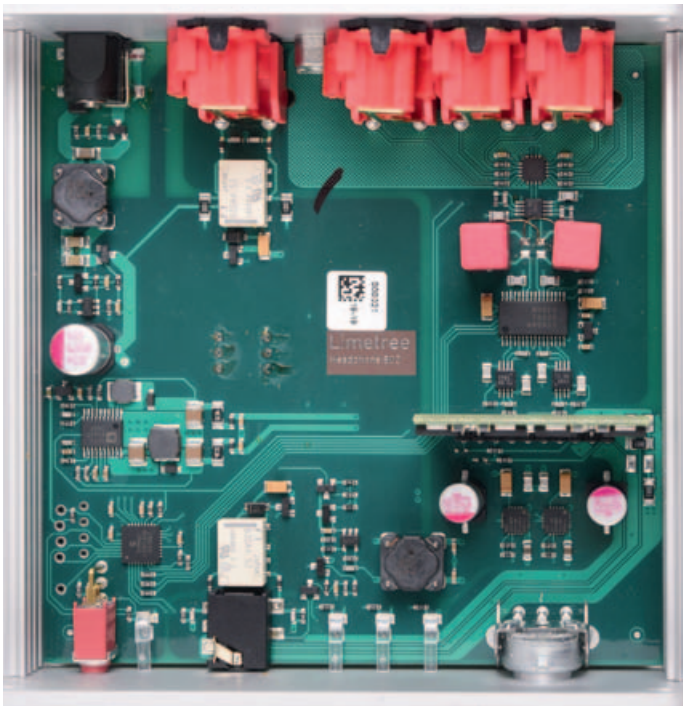
#### For once: cheaper

But on the occasion of the 25th company anniversary, here's good news in this regard from Lindemann. The product range is expanded by a whole series of attractively priced miniature hi-fi devices. Inspired by the company name, the limetree was eponymous for the series which is named after the English translation of "Linde".

Despite the low prices the high ambitions persist: within the limits of their possibilities, the devices shall combine top technology and top sound quality. As the first test device of the series, the Limetree Headphone headphone amplifier found its way to stereoplay, and already the aluminium enclosure of barely 4 by 4 inches suggests that the folks at Lindemann were unwilling to compromise. Fine details such as the laser engraved linden leaf on the top lid or the volume knob of walnut make the device already an eye-catcher. The unit is mainly controlled via a small

toggle: a brief push either turns the device on or off, pressing and holding it activates the next input. The output is selected automatically, though: as long as no headphone is plugged in, the signal is output over the rear line output. Like many other headphone amps, the Limetree Headphone can therefore be used also as a preamp.

Another setting option is located on the bottom side. By means of three little slide switches the device can be adjusted to different headphone impedances, whereby essentially the volume control range is optimised.



The majority of the circuitry sits on the right side of the pc board. Among the core components of the device we have the MUSES 72320, a super precise integrated circuit for the analog volume control.

cause of its high symmetry, it doesn't need any feedback which Lindemann mostly prefers for sound reasons. For a zero-feedback circuitry, the Limetree Headphone also produced outstanding measuring results. The low currents, as they usually flow with headphones, do not require elaborated cooling measures either, despite the class-A mode. But to be on the safe side, the device has an integrated current limit which turns the headphone amp off in case of too great a load.

In the test the Limetree Headphone then gave a sonic top performance. It was definitely playing analytical, but never too cool, and impressed above all with its responsiveness. As to timing and precision it is therefore the undisputed leader not only in its class, but can even keep up with the biggies. Ultimately, it only lacks a little assertiveness with certain headphones. Otherwise it would have scored even better.

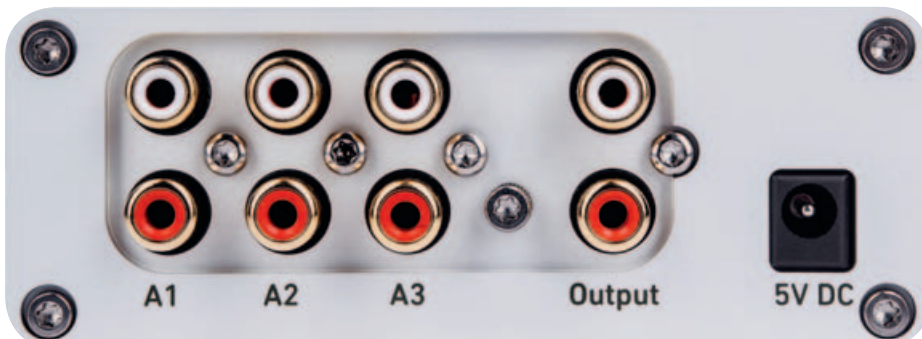
**Klaus Laumann** ■

Everything appears to be very upscale and well thought out. So far only the technical configuration deserves a minor point of criticism, which was also noticed during the practical test: for plausible reasons Lindemann does without a large 1/4" headphone socket. Amongst other things because of the space it would need and also to ensure a uniform appearance of the entire Limetree series. But according to the manual the device is designed for headphones with a higher impedance, which are more common in the hi-fi scene and where the 1/4" jack plug is still the

standard. So it can easily happen that you will need to fumble around with an adapter which can be a bit annoying. That's a pity, for otherwise the Limetree Headphone is a top device with a really great potential.

**As usual: extravagant**

Its sophisticated circuitry is built around the Muses 72320, an ultra precise element for controlling the volume level. Under normal conditions the cross-symmetrical output stage with its four transistors, a so-called diamond buffer, remains in class-A operation mode and be-



Despite its compact size, the little headphone amplifier offers three analog inputs and one analog output.

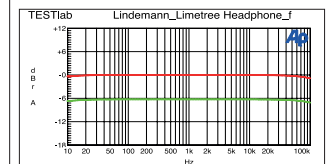
**Lindemann  
Limetree Headphone**

**595 Euros**

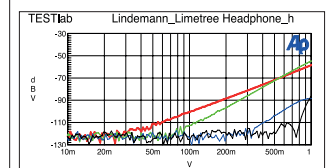
**Distributor:** Lindemann Audiotechnik GmbH  
**Phone:** +49 (0)8153 9533390  
**www.lindemann-audio.com**

Dimensions (W×H×D): 10,7 × 4,0 × 13,0 cm  
Gewicht: 0.295 kg (0.65 lbs.)

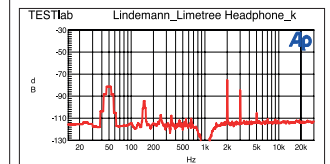
**Measurement diagrams**



**Frequency response curves**  
Frequency response with minimal bandwidth limiting



**THD analysis** (k2 to k5 vs. output power) k2 (red) and k3 (green) are dominant and rise evenly in proportion to the output voltage



**THD spectrum** (at 1mW into 32 ohms)  
Very clean, few disturbing elements, faint mains hum

**Measured values**

**Max. output voltage**  
at 2 V/300 Ω and 0.15 V/32 Ω 5.5/0.5 V  
**S/N ratio** (1 mW/32 Ω) 83 dB  
**Power consumption standby/o** 0,2/3 W

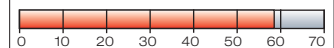
**Evaluation**

**Bottom line:** With the headphone amplifier of the Limetree series Lindemann offers sophisticated hi-fi technology at a fair price. The device shows high-quality craftsmanship and stands out with well-made details like a volume control knob made of walnut. Its sonic strengths are above all timing and precision, but it plays nonetheless in a thrilling and emotional way. It's truly amazing how much sound quality can be packed into such a compact unit.

| Measured values | Field tes | Value |
|-----------------|-----------|-------|
| 8               | 6         | 8     |

**stereoplay test verdict**

Sound analog/digital 59/-



**Overall score** 81 points

**Price/performance** very good