## OTESTHEADPHONE AMPLIFIER



lready in the moment of acquiring the brand new "Drachenfels" headphone amplifier, one has actually made a terrific bargain. Because apart from its central function, which it can meet handsdown with two gold-plated Neutrik headphone outputs and sound properties well above its price point, you also shop for a minimalist preamp whose outputs can drive a power amp or active speakers. The analogue phono input accepts any line-level source, for instance a CD player or a streamer. Thus the midget becomes the core component of a small, fine playback chain, not only for headphones.

But there's more, for the newbie in the product line of graduate engineer and tonmeister Norbert Lehmann from Bergisch-Gladbach allows an upgrade with optional digital boards. According to one's preference, customers may soon select between Streaming (WLAN/LAN), USB, Bluetooth or an SPDIF/Toslink DAC; the matching back panel will be

> ▼ Elaborate topology, high-quality parts and the modular design guarantee years of joy.

swapped ex works or later at a specialised retailer. Under the top lid we find technology which has been uncompromisingly tuned for top sound and studio reliability. The signal gain is precisely twelve dBs, the extremely low-noise circuit topology doesn't require an impedance switching.

A power supply using a DC-DC converter by TDK delivers a constant twelve volts. The input section fitted with mica and MKP capacitors cleans the signal from HF and DC, moreover the voltage gain stage is bandwidth-limited at 100 kilohertz to minimise potential interferences. The output stage, which uses three ultra fast transistor pairs per channel, has virtually no negative feedback, and with a limit frequency of 35 MHz it is also rather "swift" which has a positive effect on the sound quality. Of course, the built-in ALPS potentiometer has outstanding synchronism values.

During extensive listening checks, in particular with a Beyerdynamic DT880, the Lehmannaudio turned out to be an outstanding headphone amplifier, but could also stand its ground as a mini preamp when compared to proven competitors from Cyrus to Meridian from the

author's stock. Its rhythmically agile, yet at the same time cultivated verve rouses spontaneous enthusiasm. Even the bass of this midget is unexpectedly powerful and deep, so the helicopter on "The Wall" sounds accordingly impressive. Mister Lehmann, the bill, please! *Tom Frantzen* 

## LEHMANN DRACHENFELS



from € 500 Dimensions: 16 x 5 x 23 cm [6.3 x 1.9 x 9.0 in.] (WxHxD) Warranty: 2 years Contact: Lehmannaudio Phone: +49 (0)2202/2806240 www.lehmannaudio.de

Superb headphone amp and minimalist preamp in one, custom-expandable via digital module and soundwise excellent. A universal gem and a bullseye – chapeau!

MEASUREMENT RESULTS	
0.00	
FFT spectru	um without
distortion d	content
100100	
80.00	
-120.00	white the same and the same
20 Hz	10 kHz 20 kHz
Maximum output voltage	7.2 V
THD   at 30 mV   300 mV   1 V 0.01   0.002   0.001 %	
Intermodulation	
at 30 mV   300 mV   1 V	0.002   0.0005   0.0006 %
S/N ratio at 30 mV   300 mV	79   91 dB
Upper limit frequency	62 kHz
Output impedance	6 ohms
Input sensitivity f	or 1 V at output 245 mV
Channel deviation volume control down to -60 dB 0.3 dB	
Power consumption	
Off   Standby   Idle	0   4.7 watts
LAB COMMENT: Outstanding. Extremely low noise and distortion figures. With 110 ohms and 7.2 volts of output voltage the preamp output is also uncritical to cables and impedance. The stereo channel separation is 74 dB, the gain factor is 12.3 dB.	
FEATURES	
Line-level phono input 47 kohms, phono output (pre out) with volume control, two all-impedance headphone outputs (1/4" jack), Alps volume potentiometer, external power supply	
STERECD-TEST	
SOUND QUALITY	85%
PRICE/PERFORMANCE	

 $\mathbf{x} \mathbf{x} \mathbf{x} \mathbf{x} \mathbf{x}$ 

**EXCELLENT** 

