

## Sound Perfected

### Sennheiser presents its digital headphone amplifier

Dubrovnik, 12 April 2012 – Building a hi-fi device that sounds so brilliant, so crystal clear and so free of distortion as if one were sitting right in front of the audio source. Creating a level of acoustics that surpasses everything that has gone before. These are the visions that drive Sennheiser in the development of its high-end products. For the first time, Sennheiser is now launching an amplifier for dynamic headphones, thus making the Sennheiser sound experience perfect. The digital HDVD 800 has a fully symmetrical layout and sampling frequencies of up to 24bit/192kHz to ensure an unequalled listening experience. It also harmonises perfectly with Sennheiser's HD 800, HD 700, HD 650 and HD 600 high-end headphones.



The outstanding features of the HDVD 800 include its balanced sound image, maximum precision and impressive spatiality. The high-end headphone amplifier has a fully symmetrical layout for operation with analogue audio sources, thus ensuring absolutely symmetrical signal transmission from the source

to the headphones. For use with digital sources, the amplifier is equipped with a high-quality Burr-Brown digital/analogue converter that converts digital audio data into analogue signals with a resolution of 24 bits and a sampling rate of up to 192 kHz. This enables the HDVD 800 to transmit the entire frequency spectrum of high-end audio sources without any loss of frequencies.

"The search for perfect sound is a constant motivation for us to develop new ideas," said Maurice Quarré, Director Product Lifecycle Management Sennheiser Consumer Electronics. "The best example is the legendary Orpheus. These electrostatic headphones with a vacuum tube amplifier, which came onto the market around 20 years ago, have become an icon in the audio world. With the HDVD 800, Sennheiser is now taking up the tradition of the Orpheus, providing music lovers with the perfect combination of Sennheiser headphones and a specially matched amplifier."

**Top-quality technology, top-quality sound**

Signal processing in the HDVD 800 is fully symmetrical. That means that not only the signal input into the amplifier is symmetrical but also the signal output and therefore the connection to the headphones. "The fully symmetrical principle effectively compensates for interference and distortion. The sound therefore becomes much clearer as total harmonic distortion is minimised," explained Axel Grell, Sennheiser's Senior Acoustical Engineer. Sennheiser supplies specially made cables for the symmetrical connection to headphones. The headphones can, however, also be connected using a normal 6.3 mm jack plug. In addition to the symmetrical inputs, the HDVD 800 also has an asymmetrical input socket; incoming signals are symmetrised before further processing takes place. Digital sources are connected to the rear of the unit as an AES/EBU input, S/PDIF (optical and coaxial) or USB. The USB 2.0 audio standard offers 24 bit data transmission at 192 KHz.\*

In order to fully exploit the sound potential of the HDVD 800 with any audio source, a rotary gain switch at the rear of the unit provides simple adaptation of the amplifier output to the audio input voltage. This ensures that the dynamic range can be used to its full extent.

**High quality in every detail**

A glass panel embedded in the aluminium housing of the amplifier gives a clear view of the top-quality interior of the HDVD 800. Selected components and sophisticated circuitry promise the ultimate in listening pleasure. The rotary potentiometer is mechanically connected to the volume control by a 150mm long shaft. This unusually long potentiometer shaft allows the signal path between the audio source and the potentiometer to be kept very short, thus preventing possible interference of the signal. High-quality components (Alps RK 27 quad) ensure that the volume is controlled with maximum precision and a fine rotary 'feel'. Also visible through the glass panel are the cooling element, the audio relay and countless MELF resistors for the amplifier. "The material selection has been thought through down to the finest detail in order to fully exploit the amplifier's sound potential. The audio aspects of each individual component were evaluated in listening tests before the optimum combination was finally chosen," said Maurice Quarré.

And such meticulous attention has also been applied to the exterior. Both the housing and the potentiometer control as well as the rotary switch for selecting the source are made of anodised aluminium, while the front panel of the housing and the controls are milled from solid material. The HDVD was developed and designed in Germany, and the latest member of Sennheiser's high-end series is also being manufactured there.

The new digital HDVD 800 will be delivered to Sennheiser's worldwide sales partners from September.

The Sennheiser Group, with its headquarters in Wedemark near Hanover, Germany, is one of the world's leading manufacturers of microphones, headphones and wireless transmission systems. The family-owned company, which was established in 1945, recorded sales of around €468 million in 2010. Sennheiser employs more than 2,100 people worldwide, and has manufacturing plants in Germany, Ireland and the USA. The company is represented worldwide by subsidiaries in France, Great Britain, Belgium, the Netherlands, Germany, Denmark (Nordic), Russia, Hong Kong, India, Singapore, Japan, China, Canada, Mexico and the USA, as well as by long-term trading partners in many other countries. Also part of the Sennheiser Group are Georg Neumann GmbH, Berlin (studio microphones and monitor loudspeakers), and the joint venture Sennheiser Communications A/S (headsets for PCs, offices and call centres).

You can find all the latest information on Sennheiser by visiting our website at [www.sennheiser.com](http://www.sennheiser.com).

Sennheiser electronic GmbH & Co. KG  
**Mareike Oer**  
PR Manager  
Consumer Electronics

Tel: +49 5130 600 719  
Email: [mareike.oer@sennheiser.com](mailto:mareike.oer@sennheiser.com)

\*Driverless operation on a Mac from operating system OS 10.5 onwards. A driver is included for Windows computers from XP operating system onwards for 192 kHz operation.

**Technical Data****Dimensions and weight**

WxHxD (mm)	Approx. 216x55x324
Weight (kg)	2.2

**Power supply**

Input voltage	100..240 V AC / 50..60 Hz
Power consumption	< 30 VA

**Audio inputs****Analogue input (XLR-3)**

Max. input voltage (symmetrical, eff)	20 dBV
Input impedance	10 kOhm

**Analogue input (RCA)**

Max. input voltage (eff)	14 dBV
Input impedance	10 kOhm

**Digital SPDIF (RCA)**

Max. sampling frequency	192 kHz (AES3-compatible)
Max. resolution	24 bit

**Digital SPDIF (TosLink)**

Max. sampling frequency	192 kHz (AES3-compatible)
Max. resolution	24 bit

**Digital AES/EBU (XLR-3)**

Max. sampling frequency	192 kHz (AES3-compatible)
Max. resolution	24 bit

**USB (USB-B)**

USB standard	USB 2.0 / USB 3.0
USB audio class	USB Audio 2.0

**Audio data**

Frequency response	0.3 Hz to 100 kHz (-3 dB)
Total harmonic distortion	< -110 dB (1 kHz / maximum gain)