

## **Sound perfected**

### **Sennheiser presents its analogue and digital headphone amplifiers**

**Berlin, 30 August 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. After recently having presented its first digital headphone amplifier, the audio specialist Sennheiser announces at IFA 2012 that it will also launch an analogue version of the device. Both the digital HDVD 800 and the analogue HDVA 600 have a fully symmetrical layout and promise a unique listening experience. They harmonize perfectly with the High-End headphone line HD 800, HD 700, HD 650 and HD 600.**



The outstanding features of the new headphone amplifiers include a balanced sound image, maximum precision and impressive spatiality. The high-end devices have a fully symmetrical layout for operation with analogue audio sources, thus ensuring absolutely symmetrical signal transmission from the source to the headphones. Especially designed for the use with digital sources, the HDVD 800 features an extra 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 new headphone amplifiers, 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."

### **Cutting-edge technology, top-quality sound**

Signal processing in the HiFi devices 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 High-End Product Manager at Sennheiser. However, the headphones can also be connected using a normal 6.3 mm jack plug. The amplifiers are also equipped with an asymmetrical input socket; when using this input, the incoming signals are symmetrised before further processing takes place. On the HDVD 800 digital sources are connected to the rear of the unit as an AES/EBU input or S/PDIF (optical and coaxial). The digital version is featured with an extra USB input, which 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.

### **Sophisticated materials for a premium touch**

A glass panel embedded in the aluminium housing of the amplifier gives a clear view of the top-quality interior of the devices. 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 800 and the HDVA 600 were developed and designed in Germany, and the latest member of Sennheiser's high-end series are also being manufactured there.

The new analogue HDVA 600 will be available at selected Sennheiser sales partners as of October, while the digital HDVD 800 starting from November.

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 €531 million in 2011. 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).

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\*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 for HDVD 800 and HDVA 600

### 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

### Audio data

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

## Digital features of HDVD 800

### 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