SENNHEISER Sound Perfected

Sennheiser presents its digital headphone amplifier

May 2012 Building a hi-fi devicethat sounds so brilliant, so crystal clear and so free of distortion as if onewere sitting right in front of the audio source. Creating a level of acousticsthat surpasses everything that has gone before. These are the visions thatdrive Sennheiser in the development of its high-end products. For the firsttime, Sennheiser is now launching an amplifier for dynamic headphones, thusmaking the Sennheiser sound experience perfect. The digital HDVD 800 has a fully symmetrical layout and samplingfrequencies of up to 24bit/192kHz to ensure an unequalledlistening experience. It also harmonises perfectly with Sennheiser's HD800, HD700, HD650 and HD600high-end headphones.

The outstandingfeatures of the HDVD800 include its balanced sound image, maximumprecision and impressive spatiality. The high-end headphone amplifier has afully symmetrical layout for operation with analogue audio sources, thus ensuringabsolutely symmetrical signal transmission from the source to the headphones.For use with digital sources, the amplifier is equipped with a high-qualityBurr-Brown digital/analogueconverter that converts digital audio data into analogue signals with aresolution of 24 bits and a sampling rate of up to 192kHz. This enables the HDVD800to transmit the entire frequency spectrum of high-end audio sources without anyloss of frequencies.

The search for perfect sound is a constantmotivation for us to develop new ideas, said Maurice Quarr, Director Product LifecycleManagement Sennheiser Consumer Electronics. The bestexample is the legendary Orpheus. These electrostatic headphones with a vacuumtube amplifier, which came onto the market around 20 years ago, have become anicon in the audio world. With the HDVD800, Sennheiser is now taking up the tradition of the Orpheus, providing music lovers withthe perfect combination of Sennheiser headphonesand a specially matched amplifier.

Top-quality technology, top-quality soundSignal processing in the HDVD800 is fullysymmetrical. That means that not only the signal input into the amplifier issymmetrical but also the signal output and therefore the connection to theheadphones. The fully symmetrical principle effectively compensates forinterference and distortion. The sound therefore becomes much clearer as totalharmonic distortion is minimised," explained Axel Grell, Sennheisers Senior AcousticalEngineer. Sennheiser supplies specially made cables for the symmetrical connectionto headphones. The headphones can, however, also be connected using a normal6.3 mm jack plug. In addition to the symmetrical inputs, the HDVD800 alsohas an asymmetrical input socket; incoming signals are symmetrised beforefurther processing takes place. Digital sources are connected to the rear ofthe unit as an AES/EBU input, S/PDIF(optical and coaxial) orUSB. The USB 2.0 audio standard offers 24 bit data transmission at 192 KHz.*

In order to fully exploit the sound potential of the HDVD800with any audio source, a rotary gain switch at the rear of the unit providessimple adaptation of the amplifier output to the audio input voltage. Thisensures that the dynamic range can be used to its full extent. High quality in every detail

A glass panel embedded in the aluminium housingof the amplifier gives a clear view of the top-quality interior of the HDVD800.Selected components and sophisticated circuitry promise the ultimate inlistening pleasure. The rotary potentiometer is mechanically connected to thevolume control by a 150mm long shaft. This unusually long potentiometer shaftallows the signal path between the audio source and the potentiometer to bekept 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 rotaryfeel. Also visible through the glass panel are the cooling element, the audiorelay and countless MELF resistors for the amplifier. Thematerial selection has been thought through down to the finest detail in orderto fully exploit the amplifiers sound potential. The audio aspects of each individualcomponent were evaluated in listening tests before the optimumcombination was finally chosen, said Maurice Quarr.

And suchmeticulous attention has also been applied to the exterior. Both the housingand the potentiometer control as well as the rotary switch forselecting the source are made of anodised aluminium, while the front panel ofthe housing and the controls are milled from solid material. The HDVD wasdeveloped and designed in Germany,and the latest member of Sennheisers high-end series is alsobeing manufactured there.

Thenew digital HDVD800 will be delivered to Sennheisers worldwide sales partners from September. Retailpricing will be confirmed in the coming months.

The Sennheiser Group, with its headquarters inWedemark near Hanover, Germany, is one of the worlds leading manufacturers ofmicrophones, headphones and wireless transmission systems. The family-ownedcompany, which was established in 1945, recorded sales of around 468 millionin 2010. Sennheiser employs more than 2,100 people worldwide, and hasmanufacturing plants in Germany,Ireland and the USA. Thecompany 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-termtrading partners in many other countries. Also part of the Sennheiser Group areGeorg Neumann GmbH, Berlin(studio microphones and monitor loudspeakers), and the joint venture SennheiserCommunications A/S (headsets for PCs, offices and call centres).

You canfind all the latest information on Sennheiser by visiting our website at www.sennheiser.com.au

Syntec International
Emma de Ferranti
Press and Public Relations

Unit 3, 31 Gibbes st Chatswood
NSW 2067 Australia
Phone: +61 2 9910 6700
E-mail: emmadeferranti@syntec.com.au

*Driverless operation on a Mac from operating system OS 10.5 onwards.A driver is included for Windows computers from XP operating system onwards for192 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)