

## **PRESS RELEASE**

### **To DAC or not to DAC, that is the question**

*Marc Feiertag from audio specialists, HFX Systems, tells us everything you need to know about DACs, and why anybody who is crazy about their music should have one.*

*05 December 2014, Johannesburg: "DACs, or Digital to Analogue Converters, translate audio information stored in digital format, for example on a laptop, MP3 player or smart phone, into analogue sounds so that they can be played through a speaker or a pair of headphones," explains Marc Feiertag from leading audio specialists, HFX Systems.*

Although most digital appliances with speakers contain built-in DACs, these are usually of the lowest quality, so the audio quality is not the best. Fear not however, because there is currently a large range of external DACs available that can be quickly and easily connected through your audio jack to seriously up the quality of your digital audio collection for the ultimate listening experience.

If you're looking for an audio experience that is far above the ordinary, then owning a DAC is most certainly a must. An external DAC basically provides a listening experience that is on steroids – not only improving the overall clarity and purity of any digital audio collection, but also often resolving various audio problems, such as a background hissing, a slight warble on your audio, or any other problems that can arise from using low quality DACs.

Marc explains that with no interference from the surroundings, headphone listening is increasingly becoming the preferred way for serious audiophiles to enjoy music, and this has led to an increased demand for external DACs: "With headphones, music is more personal. More intense. More consuming. Users become part of the music – absorbed by it. What's more, they can listen to it as loud as they like. However, the outputs on some devices – especially on computers and portable players – are simply not capable of driving quality headphones to their optimum, since they have only a low-grade, built-in Digital-Analog-Converter (DAC). With a high-end external DAC however, such as the Marantz HD-DAC1 or the McIntosh MHA 100 for example, you can enjoy an incredibly moving, high-energy headphone experience that delivers crashing crescendo with complete self-possession and subtle detail with pinpoint precision. It really make personalised listening a whole lot more personal!"

So if you are in the market for a DAC, what should you look for? Marc offer the following pointers:

#### **Power:**

It is important to consider how powerful the DAC is, says Marc: "The Marantz HD-DAC1 for example, is so powerful, it can even drive audiophile high-impedance headphones of up to 600 ohm – with complete MODE ease. All thanks to its three-level gain control, Marantz HDAM-SA2 modules, a high current audiophile DAC (CS4398), and its Premium Quality fixed and variable RCA outputs. It is so powerful, it not only drives headphones, but users can also directly connect it to their Hi-Fi integrated amplifier or to a pair of active speakers or power amps."

**Versatility:**

Make sure you work out how versatile the DAC is, and how well it plays with other hardware. The McIntosh MHA100 for example, which is the first dedicated headphone amplifier from world renowned brand, McIntosh, and it takes advantage of the brand's unique array of technologies to yield the best possible personal listening experience regardless of the headphones you use. Says Marc: "It employs a new adaptation of McIntosh's unique Autoformer technology to produce three headphone impedance ranges of 8-40, 40-150 and 150-600 ohms, so that every headphone – from ear buds to studio quality phones – will receive the optimal McIntosh sound."

**Connectability:**

Marc notes that any good quality DAC must be highly connectable: "The McIntosh MHA100 boasts 50 watt stereo speaker outputs for when you want to enjoy your favorite speakers instead of your headphones. While the Marantz HD-DAC1 boasts optical and coaxial digital inputs, as well as a USB-B port, which enables it to stream music directly from a PC or MAC. iDevices can also be connected via the USB port on the front. For even more connectivity they have also included an analog input. The USB-B works in asynchronous mode to support not only 192 kHz/24bits high-resolution audio but also the DSD 2.8MHz and 5.6MHz for maximised performance and the most direct way to enjoy excellent quality. To safeguard quality when connected to a computer, Marantz has built extended isolation around the USB-B input to eliminate the chance of high frequency noise generated by the computer entering the HD-DAC1. It even includes a jitter remover and Dual Clock for extreme accuracy."

**Bits:**

One of the most important of these specs to look out for includes the bit depth and the sampling frequency limits, as if these are incorrect, they can inhibit the use of an external DAC, says Marc: "A bit depth of 24 bits, and a sampling frequency limit of 96kHz, are ideal for most DACs, as this should cover all the bases a first-time external DAC user will need," suggests Marc. The McIntosh MHA100 for example, boasts four digital inputs allow the McIntosh Digital Engine to decode your digital music at up to 32 bits and 192kHz for maximum analog fidelity and enjoyment; two analog inputs are also available."

Although DACs can fix many audio problems, if the DAC audio output is sent through a cheap pair of headphones or low-grade speakers, the amazing effects of the external DAC will often become negligible. "When using external DACs, it's also important to ensure you have decent quality speakers to play the music through," explains Marc. Although having an external DAC, as well as good speakers is a good choice, purchasing speakers that already have a built-in, high quality DAC, like the MM1 computer speakers from Bowers & Wilkins for example, will ensure that they provide high-end sound in a compact format.

Usually, after realising the improvement a DAC can bring to your audio experience, you'll want to find a way to bring DACs to all your entertainment purposes. "It's good to remember that most good quality pre-amp/processors for home entertainment systems, have high-grade built-in DACs that serve to enhance the entertainment experience," says Marc. For example, the AV8801 processor from Marantz boasts built-

in high quality DACs. High-end audio equipment such as this will guarantee that all aspects of your audio and home entertainment systems are improved – so the only thing left for you to do will be to sit back, relax and enjoy the superior quality that DACs bring to your audio experience.

“DACs are a necessity for anyone interested in quality sound and a pleasant audio experience, and with the large variety of external DACs on the market today, there’s a DAC to suit everyone’s audio needs,” concludes Marc.

The Marantz HD-DAC1 Headphone Amplifier with DAC-mode retails for R15 999,00 – visit [www.marantz.co.za](http://www.marantz.co.za) to find a retailer closest to you.

The McIntosh MHA100 DAC retails for R34 000,00 – visit [www.hfxsystems.co.za](http://www.hfxsystems.co.za) to find a retailer closest to you.

The Marantz AV8801 processor retails for R54 999,00 – visit [www.marantz.co.za](http://www.marantz.co.za) to find a retailer closest to you.

The Bowers & Wilkins MM1 speakers retail for R7 990,00 – visit [www.bwcloudspeakers.co.za](http://www.bwcloudspeakers.co.za) to find a retailer closest to you.

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