

Mono audio amp IC offers 13W burst output with 10x efficiency gains

ECN Europe

Cambridge, UK-based [HiWave Technologies](#) [1] has launched a single channel audio power amplifier for the consumer and Hi-Fi market. The HiAS2001-QNC-010 delivers 13W burst and 3W continuous power output and the company claims it is over 10 times more efficient at typical listening levels than comparable Class D amplifiers. The device has been designed to deliver greater efficiency in both mains and battery powered speakers and remove the need for heat sinks.



[2]

The HiAS2001 uses HiWave's proprietary Audium technology to create the highly power efficient switching audio power amplifier, optimised to operate directly from a low voltage (0.8 - 1.8V) battery source. For example, its efficient design uses just 25mW to deliver the industry standard typical listening level (68dBC at 1m); a typical Class D amplifier could consume as much as 1000mW.

The IC comes with an auto power save mode that automatically activates when no audio input is received. It delivers 16-bit per channel audio from configurable (left and right) I2S digital inputs and supports a 44.1 to 48kHz range with automatic sample rate adaption. It further integrates an audio signal processing stage for EQ and effects; a 44-step volume control (1.5dB per step); push button, control pin and rotary (volume) inputs; a tuneable bass boost; and click / pop suppression.

Chris Travis, CTO at HiWave said: "Existing switching audio amplifiers, such as Class D topologies, only achieve their claimed efficiencies will full scale sine waves. Conversely, HiWave's Audium technology is designed to be efficient at normal listening levels; it has a tiny baseline power consumption and exploits the peak-to-average-power-ratio of audio signals to minimise the variable, output-dependent losses too."

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“The HIAS2001 delivers significant power savings for virtually all applications, and is most valuable in those that require a relatively high output power capability but the energy source is limited,” said James Lewis, CEO of HiWave. “Naturally, we see a large market opportunity for this technology in wireless speakers systems that connect to the PC, home surround sound system or smartphone, as well as greener audio equipment, docking stations and DAB or internet radios.”

Sample quantities of the HiAS2001-QNC-010 are available immediately in a 64-pin QFN package. Volume shipments will begin from March 2012.

[SOURCE](#) [3]

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[1] <http://www.hiwave.com>

[2] <http://ecneurope.files.wordpress.com/2012/03/190312-hiwave.jpg>

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