

## **Wolfson introduces new AudioPlus™ product line to deliver no compromise audio with integrated power management**

**Edinburgh, UK, 15 October 2007** - Wolfson Microelectronics (LSE: WLF.L) today announces the launch of the first product in its AudioPlus™ Power Management product line. Wolfson's WM8350 features an integrated high fidelity audio CODEC and power management subsystem which delivers high performance audio, extended battery life and reduced system cost for portable audio and navigation applications.

The WM8350 is compatible with leading multimedia application processors, and provides a highly integrated solution without compromising audio performance. Compared to using separate CODEC and power management chips, which typically require two or more additional components, the WM8350 can save up to 25 percent on the device bill of materials (BOM) cost and 50 percent on the board footprint.

WM8350 functions include a high performance low power audio CODEC, on-chip clock generation, six DC-DC converters, four LDO regulators, a battery charger, two white LED drivers and an auxiliary analogue to digital converter (ADC), all inside a compact 7x7mm BGA package. As a result of this high-level of integration, the requirements for external components, and the overall bill of materials (BOM), are reduced.

Dave Shrigley, CEO of Wolfson Microelectronics commented, "The Wolfson brand is known for high fidelity audio performance. Building upon this foundation, Wolfson is pursuing its AudioPlus™ growth strategy. Our strategy of integrating incremental mixed-signal technology and key elements of the audio signal chain enables new or improved end user experiences and more highly optimized - lower cost solutions. The AudioPlus™ Power Management product line is the first phase of the Wolfson AudioPlus™ growth strategy."

Feature	Benefit
High-performance audio CODEC	Enhanced user experience in portable multimedia devices
Pop and click suppression	Improved audio quality and reduced external component count
Low DAC playback power consumption	Longer battery life in portable audio applications
>90% power efficiency on DC-DC converters extends battery life	Longer battery life in portable devices
2MHz switching frequency on DC-DC converters	Reduced external component size. Supports smaller form factor builds in portable devices
Integration of Power Management features including 6xDCDC, 4xLDOs and battery charger	Reduced external component count saves up to 25% on bill of materials (BOM) cost
Compact 7x7mm BGA package	Saves up to 50% on physical board area. Supports smaller form factor builds in portable devices

The WM8350 is the first in a series of integrated sound and power solutions being developed by Wolfson as part of its AudioPlus™ strategy, which builds on Wolfson's high performance audio signal processing excellence by integrating additional mixed-signal functionality.

Paul Wilson, Wolfson's Power Management Product Line Manager comments, "The pressure is on for system designers to deliver high performance multimedia experiences and extended battery life into ever smaller devices, and get them to market fast. It's a complex and highly competitive market and the WM8350 provides an integrated approach that enables system architects and designers to meet these often conflicting demands."

The WM8350 features a high performance, high fidelity stereo CODEC with advanced mixing capability, delivering an excellent 98dB SNR performance. It supports six analogue inputs, two stereo analogue outputs and two mono line outputs, and can drive headphones directly.

The WM8350's integrated power management functionality and power efficiency is on a par with competitive discrete solutions. A built-in power management controller is responsible for the output voltage settings, start-up sequence and low-power modes for all internal DC-DC converters and LDO regulators.

Four 2MHz DC-DC step-down (buck) converters, can be used to generate the supplies for CPU core, I/O, memory devices and other system peripherals. Each of these converters provides a programmable output voltage between 0.85V – 3.4V in 25mV steps with peak efficiencies of more than 90 percent using a small external inductor and capacitor. Two 1MHz DC-DC step-up (boost) converters with greater than 90 percent peak efficiencies can be used for backlight displays and generation of +5V supply for USB OTG.

Four 150mA low noise LDO voltage regulators can be used to generate the supplies for the audio CODEC, external PLL and other system functions. Each of these regulators provides a programmable output voltage between 0.9V – 3.3V in 50mV and 100mV steps.

A single-cell lithium battery charger is included which supports programmable target voltage, trickle and fast charge modes and various safety features for the end application. Autonomous power supply selection from USB and or a wall-adaptor enables "instant on" in any portable application even when the battery is dead.

The WM8350 incorporates thirteen GPIO pins which can be programmed for alternate system functions including system wakeups and enabling low-power operation.

The WM8350 is highly flexible and can be optimised to control power-up, power-down and low power sequences for different system requirements. For faster time-to-market Wolfson is working with the leading multimedia application processor vendors to develop WM8350 enabled reference platforms and software drivers.

**Availability:**

The WM8350 is available for sampling now in a 129-pin 7x7mm BGA package.

WM8350 customer evaluation boards with the Wolfson Interactive Setup and Configuration Environment (WISCE) are available to aid device evaluation and development. WISCE provides a unique interactive register map interface allowing unprecedented control and overview of the device settings.

**About Wolfson Microelectronics**

Wolfson Microelectronics plc is a leading global provider of high performance, mixed signal semiconductors to the consumer electronics market.

Renowned worldwide for its high performance audio and ultra low power consumption, Wolfson devices are at the heart of many of the world's highest profile consumer electronics products, including mobile phones, mp3 players, flat panel TVs and in-car infotainment systems. Wolfson technology enables exciting new end-user experiences by connecting the digital world to the human senses.

Headquartered in Edinburgh, UK, Wolfson has sales and engineering offices in the USA, Japan, China, Taiwan, Korea, Singapore and India.

Wolfson Microelectronics plc is listed on the London stock exchange. (LSE: WLF.L)

For more information about Wolfson Microelectronics, please visit:

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## Wolfson Microelectronics WM8350 System Overview

