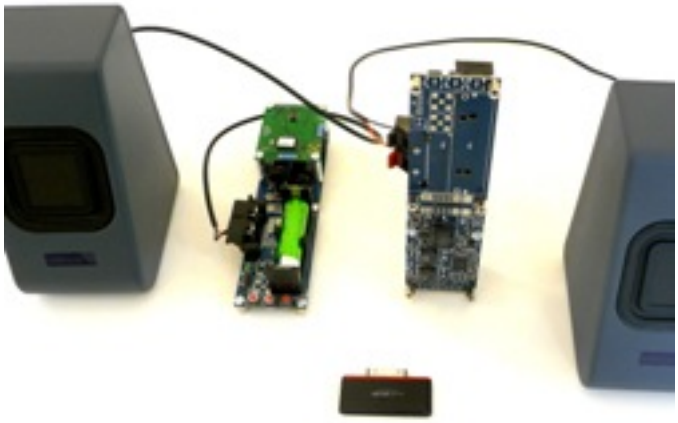
Wireless Audio Reference Design Operates 40+ hours on one 1.2V AA NiMH Battery



HiWave Technologies, a provider of electronic and transducer solutions for audio and haptic touch, announces a wireless audio reference design and demonstration platform based on its ultra-efficient amplifier capable of delivering 13W burst power into 8 Ohms. At normal listening volume, 73dB sound press level at 1 metre, a single 1.2V AA (NiMH) battery can power the amplifier and its wireless receiver for over 40 hours (the equivalent of over 600 music tracks), with the capability of delivering loud volume levels when required.

Based on a higher power mono version of the company's Audium amplifier chip, the Monad A1 reference design permits designers to rapidly integrate HiWave's suite of technologies into wireless loudspeaker products, creating new market opportunities for long-lasting, battery-powered, cost effective Hi-Fi quality speakers. The reference design gives designers simple 'hooks' allowing wireless technologies including Bluetooth, 802.11 WiFi or proprietary formats to be easily connected. Although optimised for use with HiWave's BMR speaker drivers, the Monad A1 reference design can also drive traditional speakers.

The main circuit board comprises the Audium mono amplifier chip together with its passive components, together with a battery and connectors to speakers. The circuit board has a connector that allows a wireless audio daughter board to be connected, and HiWave's initial demonstrator features a module with SMSC's Kleer wireless audio processor, chosen for it's low power consumption.

The demonstration kit comprises a pair of HiWave's Monad A1 boards, each with a

Kleer wireless daughter board, a pair of speakers featuring the company's HIBM36S12 BMR drivers, and a transmitter module that plugs into the 30-pin connector on an iPad, iPod or iPhone. It enables a design engineer to evaluate the point-to-multipoint system by playing media directly from any of these devices. Volume levels are synchronised between the two amplifiers and can be controlled from the host, or from either amplifier board. A USB transmitter is also available.

Schematics and design notes for the Monad A1 reference design are available under NDA via HiWave or one of its local sales representatives.

For further information please visit http://www.hi-wave.com [1].

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[1] http://www.hi-wave.com