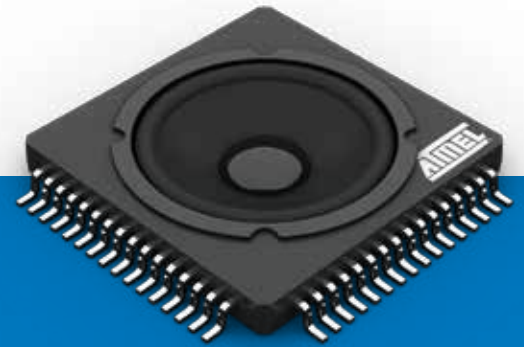




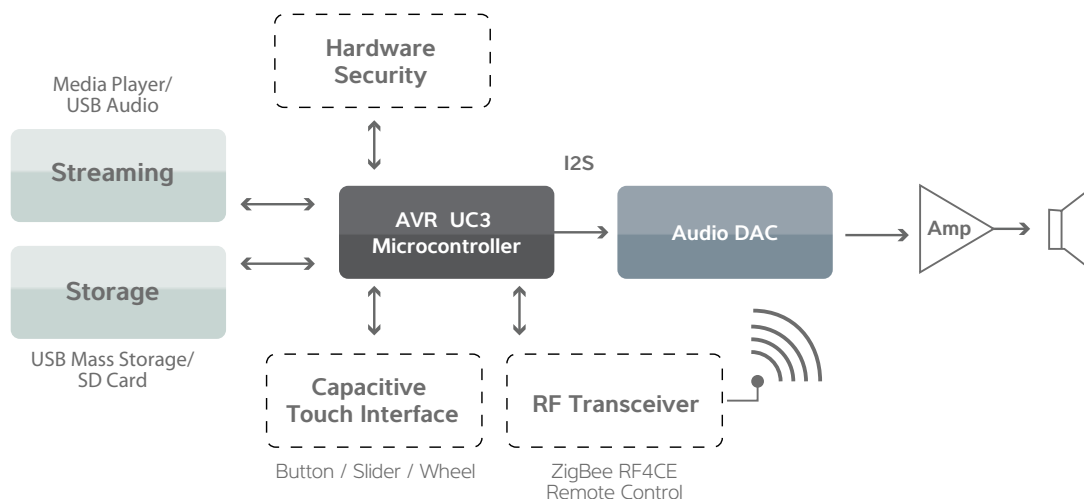
## Atmel AVR Digital Audio Platform

Today's consumers are rapidly adopting digital audio as a key component of their home entertainment systems. Consequently, systems developers must contend with a confusing array of formats and communication interfaces. Atmel® offers a complete audio platform that kick-starts high-quality audio development in this fast-paced market.

### Speed Products to Market with Faster Development

The complexity of digital audio systems can put a severe strain on engineering resources. Simply establishing basic functionality can present a major challenge. By offering a turnkey application platform, Atmel enables developers to leapfrog the design of basic functions, and instead focus on product differentiation and value-added features. The fully functional audio player reference design supports the following:

- MFi, MP3, WMA and AAC audio and metadata decoding
- Ready-to-use USB protocol stack, classes and file systems
- Sample rate conversion
- Audio player API
- Application notes on USB, I2S, audio decoding and more
- Development and evaluation board





### Stream Audio from Any Source to Any Output

Atmel® provides wide support of storage media and interfaces which lets you enable almost any audio path between source and playback.

#### Outputs:

- External I<sup>2</sup>S DAC
- Internal DAC

#### Sources:

- Digital audio output from iPod, iPhone & iPad
- USB hosts using USB Audio Class such as personal computers
- USB Mass Storage Class devices with file system support
- SD card and MMC
- NAND Flash
- Wi-Fi

### Design Unique Products

Innovative Atmel audio technologies give you the flexibility to develop and differentiate a variety of products. Atmel AVR® UC3 audio microcontrollers deliver unsurpassed performance/power ratios and a variety of memory sizes and peripheral selections.

The Atmel QTouch® Library lets you implement robust, reliable capacitive touch buttons, sliders, and wheels using standard microcontrollers.

The Atmel Software Framework supports audio functions and enables easy access to differentiating technology in our microcontrollers.

The Atmel RF4CE enables next-generation, RF-based remote controls, supported by ZigBee® hardware transceivers and software protocol stacks.

Accessory authentication provided by Atmel CryptoAuthentication™ makes it easy to control the accessory market by limiting access to approved vendors only.

For more information, visit <http://www.atmel.com/audio>



**Atmel Corporation** 1600 Technology Drive, San Jose, CA 95110 USA **T:** (+1)(408) 441-0311 **F:** (+1)(408) 487-2600 | **www.atmel.com**

© 2012 Atmel Corporation. All rights reserved. Rev.: 8433C-MCUAVR-E-US-09/12

Atmel®, Atmel logo and combinations thereof, and others are registered trademarks or trademarks of Atmel Corporation or its subsidiaries. Other terms and product names may be trademarks of others.

Disclaimer: The information in this document is provided in connection with Atmel products. No license, express or implied, by estoppel or otherwise, to any intellectual property right is granted by this document or in connection with the sale of Atmel products. EXCEPT AS SET FORTH IN THE ATMEL TERMS AND CONDITIONS OF SALES LOCATED ON THE ATMEL WEBSITE, ATMEL ASSUMES NO LIABILITY WHATSOEVER AND DISCLAIMS ANY EXPRESS, IMPLIED OR STATUTORY WARRANTY RELATING TO ITS PRODUCTS INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. IN NO EVENT SHALL ATMEL BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE, SPECIAL OR INCIDENTAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS AND PROFITS, BUSINESS INTERRUPTION, OR LOSS OF INFORMATION) ARISING OUT OF THE USE OR INABILITY TO USE THIS DOCUMENT, EVEN IF ATMEL HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Atmel makes no representations or warranties with respect to the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and products descriptions at any time without notice. Atmel does not make any commitment to update the information contained herein. Unless specifically provided otherwise, Atmel products are not suitable for, and shall not be used in, automotive applications. Atmel products are not intended, authorized, or warranted for use as components in applications intended to support or sustain life.