

## Features

- Power Supply Control
  - Power Supply Control: Power-on Factor (2 External Signals and 2 Internal Signals)
  - Battery Voltage Detection
  - Reset Detection
  - Thermal Protection
  - SMPL (Sudden Momentary Power Loss) Function
- Power Supply Function
  - Step-down DC/DC Converter × 1 (One-shot PWM)
  - LDO × 9 (ECO-mode for LDO1 and 3)
  - Over-current Protection (All Linear Regulators)
- Li-ion Battery Charger
  - CC/CV Charge
  - Internal P-MOS, Current Sense Resistor and Schottky Diode
  - Charge Current Control by Chip Temperature
- White LED Driver and Charge Pump
  - White LED Driver for Backlight: Up to 25 mA/LED × 4
  - White LED Driver Charge Pump: Up to 100 mA
- RTC
  - Built-In Coin Charge Regulator
  - 32 kHz Crystal Oscillator (with Time Adjustment Function)
  - 32 kHz Output
- Audio CODEC
  - Voice CODEC: 16-bit Linear CODEC
  - Audio DAC: 16-bit Linear Stereo DAC
  - Tone Generator: Supports 16 DTMF Tones
  - Mono MIC Amplifier: Differential Amplifier
  - Stereo Headphone Amplifier: 22 mW (32 Ohm Load)
  - Mono Receiver Amplifier: 60 mW (32 Ohm BTL Load)
  - Mono Speaker Amplifier: 300 mW (8 Ohm BTL Load)
  - Microphone Bias Supply: Output Voltage = 2.2V
- PLL
  - Jack Detect Input 200 kOhm Pull-up
- CPU Interface
  - SPI (Max 10 MHz)
- Others
  - GPIO 4ch2ch: Common Use with ADC Input
  - 8-bit ADC (Battery Monitor, Charge Current Monitor, 2 Channels of External Input)
- Package
  - 96-pin CSP Package (Body size: 9 x 9 x 1mm, Pin pitch 0.8mm)
- Process
  - CMOS Process

## 1. Description

The AT73C206 is the integrated analog device for VoIP and Cellular phones. It integrates a power management IC, which includes LDO, DC/DC converter, Li-ion battery charger, White LED driver, Charge Pump, RTC and GPIO, as well as Audio CODEC in one chip.



## Power Management And Analog Companions (PMAAC)

## AT73C206 Power Management IC and Audio Codec

## Summary

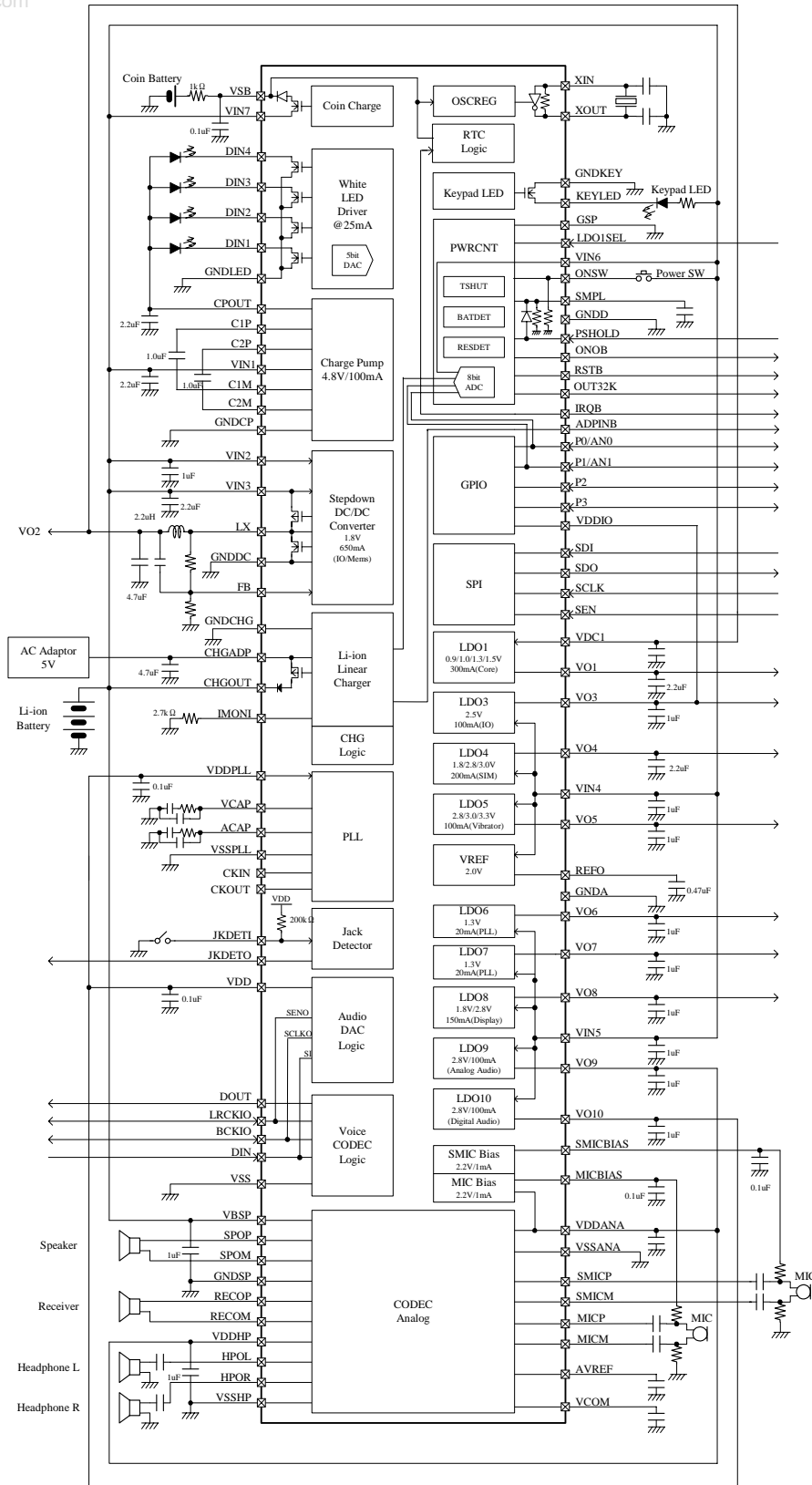
**NOTE:** This is a summary document. The complete document is available on the Atmel website at [www.atmel.com](http://www.atmel.com).

6329AS-PMAAC-14-Aug-07



## 2. Typical Application Circuit

www.DataSheet4U.com



### 3. Revision History

[www.DataSheet4U.com](http://www.DataSheet4U.com)

Table 3-1.

Document Ref.	Comments	Change Request Ref.
6329AS	First issue	



www.DataSheet4U.com

## Headquarters

---

**Atmel Corporation**  
2325 Orchard Parkway  
San Jose, CA 95131  
USA  
Tel: 1(408) 441-0311  
Fax: 1(408) 487-2600

## International

---

**Atmel Asia**  
Room 1219  
Chinachem Golden Plaza  
77 Mody Road Tsimshatsui  
East Kowloon  
Hong Kong  
Tel: (852) 2721-9778  
Fax: (852) 2722-1369

**Atmel Europe**  
Le Krebs  
8, Rue Jean-Pierre Timbaud  
BP 309  
78054 Saint-Quentin-en-  
Yvelines Cedex  
France  
Tel: (33) 1-30-60-70-00  
Fax: (33) 1-30-60-71-11

**Atmel Japan**  
9F, Tonetsu Shinkawa Bldg.  
1-24-8 Shinkawa  
Chuo-ku, Tokyo 104-0033  
Japan  
Tel: (81) 3-3523-3551  
Fax: (81) 3-3523-7581

## Product Contact

---

**Web Site**  
[www.atmel.com](http://www.atmel.com)  
[www.atmel.com/PowerMgmt](http://www.atmel.com/PowerMgmt)

**Technical Support**  
[pmaac@atmel.com](mailto:pmaac@atmel.com)

**Sales Contacts**  
[www.atmel.com/contacts/](http://www.atmel.com/contacts/)

**Literature Requests**  
[www.atmel.com/literature](http://www.atmel.com/literature)

---

**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 ATMEL'S TERMS AND CONDITIONS OF SALE LOCATED ON ATMEL'S WEB SITE, 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 OF 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 product 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's products are not intended, authorized, or warranted for use as components in applications intended to support or sustain life.

© 2007 Atmel Corporation. All rights reserved. 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.