

AT73C212 POWER MANAGEMENT UNIT FOR MID-LEVEL MULTIMEDIA MODULES

Integrates in a single IC the power management circuitry for camera and sound sections in feature phones



Image: Haz'art Studio

- 5 independent linear voltage regulators optimized for supplies to memory modules, camera modules and sound generators
- Step-down DC-DC converter for supplies to co-processor core
- Over- and under-voltage protection
- Over-temperature protection
- All voltage levels customized by mask option
- Ultra-thin 5mm x 5mm 32-ball FBGA package or 5mm x 5mm 32-ball QFN package

The AT73C212 illustrates Atmel's product synergy in multimedia phones: Atmel supplies a multimedia coprocessor (AT76C210), CMOS camera module (AT76C45x), and MP3 sound generator (AT8xC51SND1C). The AT73C212 powers all of them.



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Literature Requests

<http://www.atmel.com/literature>

Web Site

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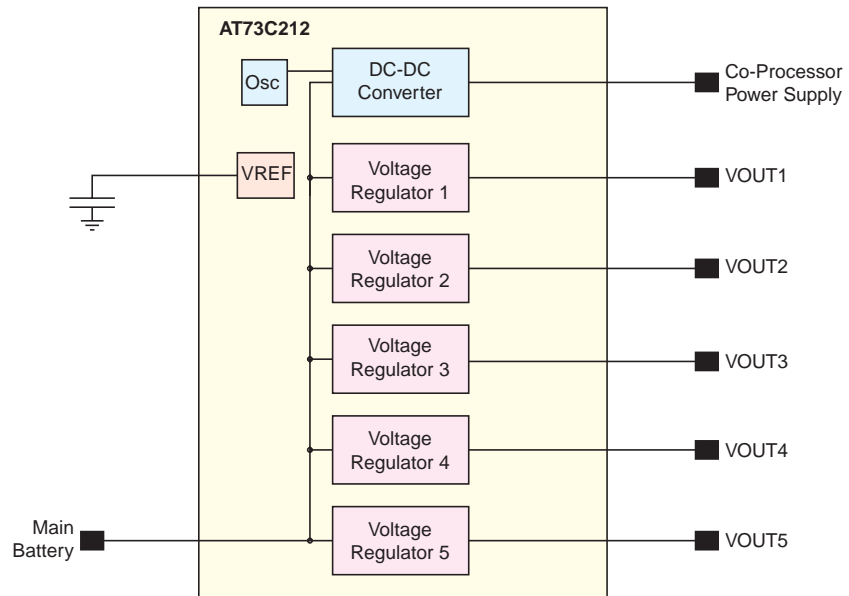
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The AT73C212 is the second member of Atmel's power management IC family specially designed for the add-on multimedia features in new-generation mobile phones and PDAs. These features include a camera module (CMOS or CCD), sound system for polyphonic ringing tones or MP3 playing, memory module for downloaded MP3 files, external MMC card, etc.



AT73C212 Block Diagram

The AT73C212 helps mobile phone manufacturers save space on their PCBs. The integration of multimedia features such as camera and sound requires an additional set of power supplies besides the traditional main power management unit.

The AT73C212 is able to supply a camera with 2.8V (LDO1) and sound decoder with 1.8V (DC/DC) for core and 2.8V (LDO2) for I/O. USB is supplied with 3.0V (LDO3) and external memory module can be connected to 2.8V (LDO4). Audio analog interface like stereo DAC can be directly supplied by separate 2.8V (LDO5) increasing analog performances. Finally a high-efficiency 300mA step down DC/DC

converter completes the system by supplying the imaging co-processor.

All voltages are metal programmable and allow a customer to find in the Atmel standard product portfolio their specific

requirement to supply the multimedia section of their feature phone in the most cost effective, space saving manner.

The AT73C212 is now available in a 5 x 5 mm, 32-ball ultra-thin

BGA package in order to satisfy portable device manufacturers' minimum space requirements. It is also available in a 5 x 5 mm, 32-pin QFN package for a reduced number of PCB layers.

