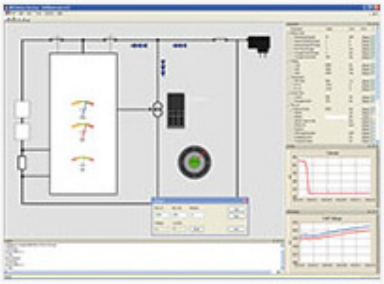
AVR® 8-Bit RISC - Applications - Battery Management - Development Tools

Development Tools

Atmel's battery management reference designs show how to get the most out of the AVR battery management devices. The firmware provides all needed safety measures for a Lithium-ion battery design. This includes over- and undervoltage protection and protection against excessive charge and discharge currents.
The reference designs also features:
- High accuracy voltage and current measurements
- Gas gauging
- Temperature checks
- AES based authentication
- SHA2 based authentication
- Command set based on SMBus specification

SB200 evaluation kit

The ATAVRSB200 evaluation kit includes Lithium-ion batteries, a programmable charger and load, and a USB communication gateway. The SB200 connects to AVR Studio® by starting the AVR battery management services plug-in. Through this interface all battery parameters can be observed and modified, and the ATAVRSB200 functions are also controlled through this interface.



Reference Designs

Products	Battery cells	Reference Design
ATmega8HVA - ATmega16HVA	1-2	ATAVRSB201
ATmega16HVB - ATmega32HVB	2-4	ATAVRSB202
ATmega4HVD - ATmega8HVD	1	ATAVRSB204
ATmega406	2-4	ATAVRSB206

The reference design source code is available by registering on Atmel's web-site. The source code can be debugged using Atmel's lineup of On-chip debug interfaces including the JTAG ICE, AVR Dragon and AVR ONE! The source code can be modified using a standard AVR C-compiler.