### AVR Butterfly Quick Start User Guide

# Congratulations with your very own AVR Butterfly!

The AVR® Butterfly uses the ATmega169 which combines Atmel's state of the art Flash Technology with the most advanced and versatile 8-bit microcontroller available. Together with a comprehensive feature set and low power consumption, the ATmega169 takes on many of a butterfly's qualities, such as Beauty and High Efficiency at a very low energy consumption. The Butterfly flies on a light draught!

#### The AVR Butterfly Includes

- ATmega169 AVR microcontroller
- 100 segment LCD Display
- 4Mbit Dataflash
- 32kHz oscillator for RTC
- 4-way directional button
- Light sensor (LDR)
- Temperature Sensor (NTC)
- Speaker for Sound Generation
- Access to pheripherals through header connectors
- RS-232 Level Converter

## Voltage Reading 0-5V The AVR Butterfly Kit Con

The AVR Butterfly Kit Contains

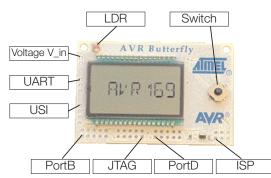
- AVR Butterfly Board
- Quick Start User Guide

#### **Getting Started**

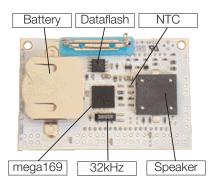
The AVR Butterfly is in power save mode, by pressing the joystick UP you will wake it up and it is immediately ready for use.

The AVR Butterfly contains a number of applications available from a menu system. Start these applications by using the 4-way joystick to navigate to the correct application, and pressing the joystick down. (click) to select.

#### Board Description, Front side:



#### Back side:



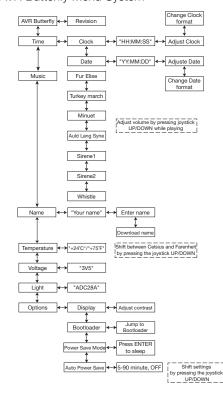
#### **Developing Your Own Applications**

The AVR Butterfly is also an ideal development board for the ATmega169. All resources are available, and it supports all programming modes (ISP, High Voltage and JTAG). It is shipped with a preloaded bootcode that can be used with AVR Studio® to download code.

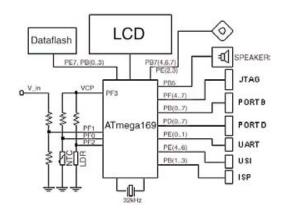
To find out how to modify or change the code in the AVR Butterfly, please refer to Atmel web site at:

http://www.atmel.com/products/AVR/butterfly

#### AVR Butterfly Menu System



#### Simplified Block Diagram



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#### Web Site

http://www.atmel.com/products/AVR/butterfly



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