

# ABC Controller – Maxi Board

The ABC Maxi Kit is a more powerful solution for users experienced with microcontrollers. Included in the kit are -

- Microcontroller Board
- Programming Cable
- Serial Cable
- ABCedit Software
- Power Supply
- Widget Support CD

The ABC Maxi Kit is ideal for professionals as it provides a low-cost solution for many engineering tasks. The Maxi Board features an Atmel advanced RISC AVR 8535 processor. Most instructions on the board are single cycle giving up to 8 million instructions per second.

The MaxiBoard can also be supplied by itself for user who already have all the support items required.

The ABC boards can be run as a standalone microcontroller.

## What makes ABC different from existing microcontrollers?

- You are given all the information, nothing in the software remains hidden to you, and you are given full schematic diagrams and the source code for all examples and tutorials.
- The programme is stored in and run from internal flash memory which makes it FAST. This makes all programming done in-circuit using the cables and software supplied with the kit.
- You are given preloaded software so that you can easily power-up the board, which is already functioning with a small programme (known as 'hello').

## Technical Specifications:

### Connectors and Functions

- Two Power Connectors to supply power to ABC
- Serial (RS232) Connector to PC. Standard 9 way straight through cable is used. On board TTL/RS232 level converter.
- Programming Connector for in-system programming.
- 2-pin screw terminal for connecting ABC to the RS485 network. On board RS485 circuit.
- 8 pins I/O connector.
- Analog input range 0-5V
- 12 pins I/O connector.
- 4 x MOSFET outputs active low, to GND capable of driving 8A current.
- LCD Connector. 14 pin DIL connector for 2-16 LCD display. If not used for LCD can be used as I/O.
- 3.5mm Phone Jack for connection to an external speaker for tone generation and speech synthesis through the onboard amplifier.
- Atmel 1/2Mb to 2Mb Data Flash onboard option.
- 4 x opto-isolated inputs.
- 8 x 10-bit analog to digital converter (ADC)

### Microcontroller and Memory

- Atmel AVR AT90S8535
- Clock Speed - 8 MHz
- 8 Kb of In-System Programmable Flash (1000 write/erase cycles)
- 512 bytes internal SRAM
- 512 bytes EEPROM

### Peripherals

- Two 8-bit Timer/Counters with 32768kHz Crystal for Real Time Clock
- One 16-bit Timer/Counter
- Programmable serial UART
- 8 x 10-bit Analog to Digital Converter (ADC)
- 32 programmable I/O lines

### Special Features

- External and internal interrupt modes
- Real Time Clock
- Power saving modes
- Operating System - No built-in operating system or monitor.
- All resources available to the user.
- Supply Voltage - 9-12V @ 100 m A DC.