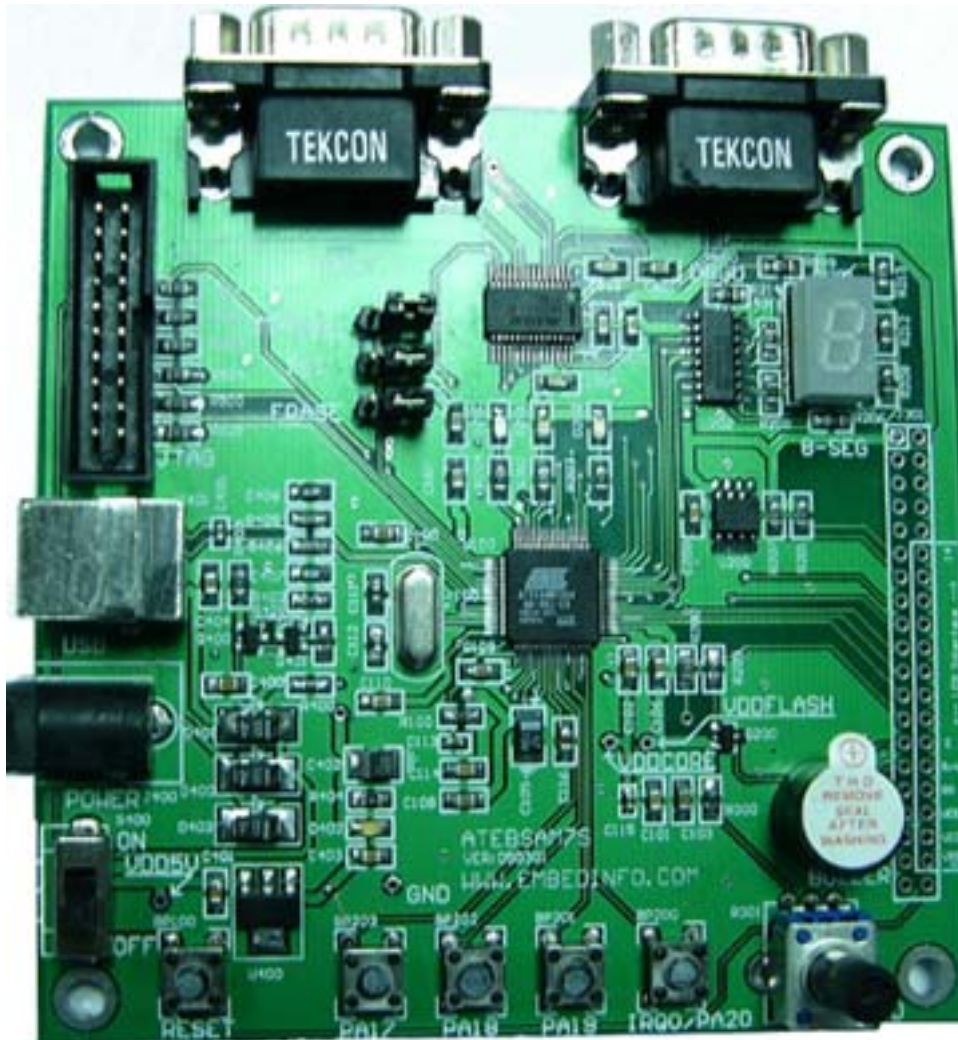


Embest ATEBSAM7S Evaluation Board

- A Complete Evaluation Kits for Atmel AT91SAM7S64 ARM7TDMI Core Microcontrollers
- Expands all HW interfaces associated with the AT91SAM7S64
- Plenty of software examples, all in source code



Embest ATEBSAM7S Evaluation Board

The 32-bit AT91SAM7S64 is based on a 1.8V ARM7TDMI core operating at up to 55 MHz. It features an integrated 64K byte flash and a 16K byte high-speed on-chip SRAM and is an ideal migration path for 8-bit microcontroller users looking for additional performance and extended memory. Support flash Encryption techniques and could protect the firmware from accidental overwrite and preserves its confidentiality. Together with a wide range of peripherals including ADC, USART, USB, SPI, TWI, PWM and 32 GPIO adapting for various controls is designed for users to apply in various aspects including industrial automotion, medical and any other general purpose embedded application requiring high lever of integration and a aggressive price point.

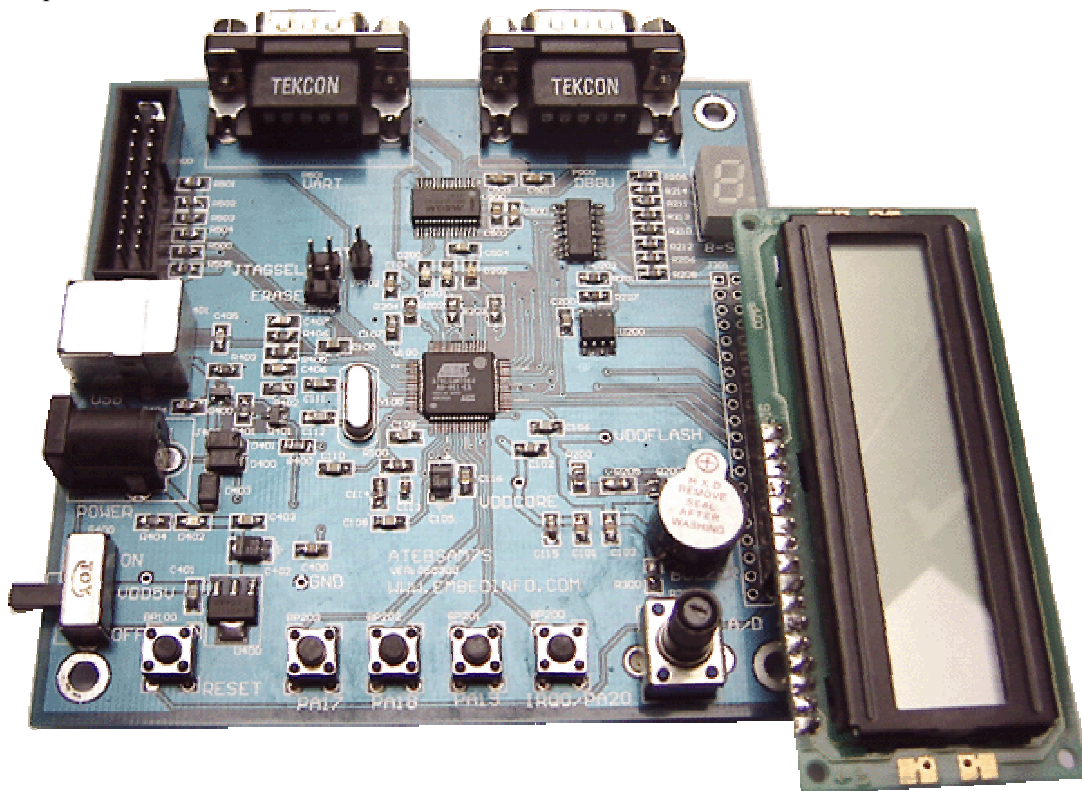
Embest ATEBSAM7S™ Evaluation Board is an evaluation board expands all function circuits of AT91SAM7S64 microcontroller, and supports additional peripheral hardware which includes an 8-segment LED, push-button interface, buzzer and ADC. With ATEBSAM7S board, users can easily evaluate the

AT91SAM7S64 microcontroller, begin code development on the target hardware using the board as a solid reference design. The Embest ATEBSAM7S Evaluation Board kits is a complete evaluation environment. It contains a development board, a JTAG debugger interface, and a suite of software tools for embedded development.

Hardware Specification

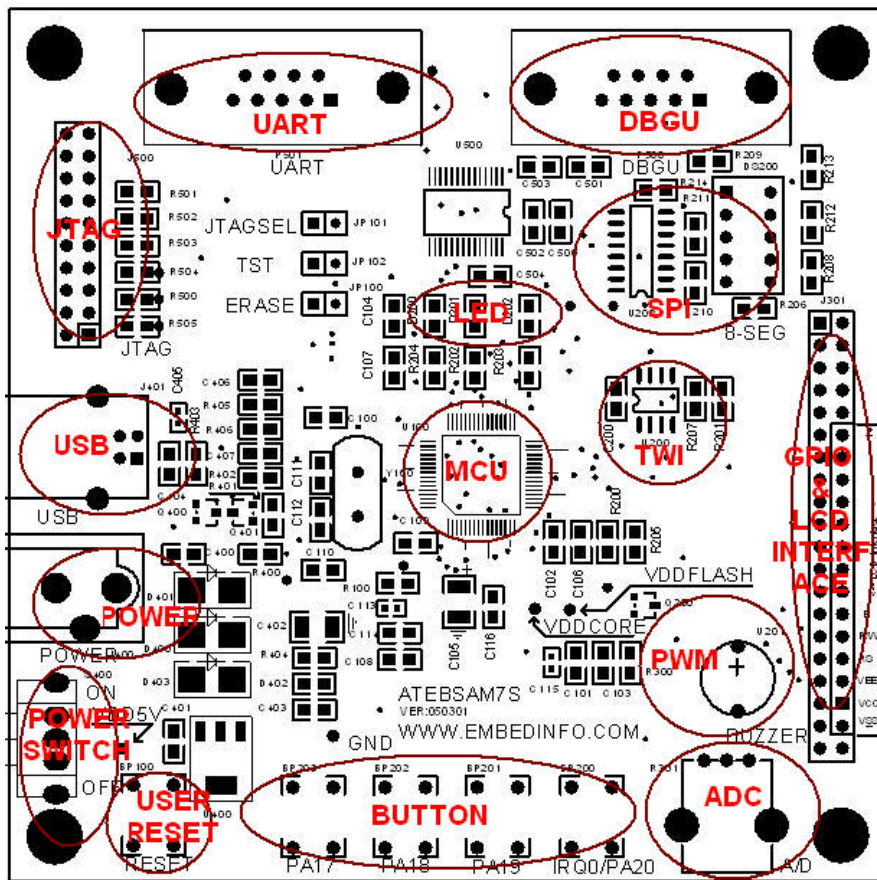
The hardware specification of Embest ATEBSAM7S is listed below:

- Dimensions: 100x100mm
- Working temperature: -45~85 Celsius
- Processor: AT91SAM7S64 with integrated 64Kbyte FLASH and a 16Kbyte high-speed on-chip SRAM
- Power input: +5.0V
- 1 USB Device Port
- 1 RS232 serial port
- 1 serial-port debugging interface(DBGU)
- 1 SPI interface with a circumscribed 8-seg nixie tube
- TWI bus (Two-wire interface bus which is connected to an EEPROM chip AT24C02)
- 1 PWM interface with a circumscribed buzzer
- 1 ADC controller (the input analog signals gained through a voltage regulator)
- I/O ports all extended
- 1 reset button and 4 user's input buttons
- LCD interface (be able to connect character LCD)
- 20pin standard JTAG interface

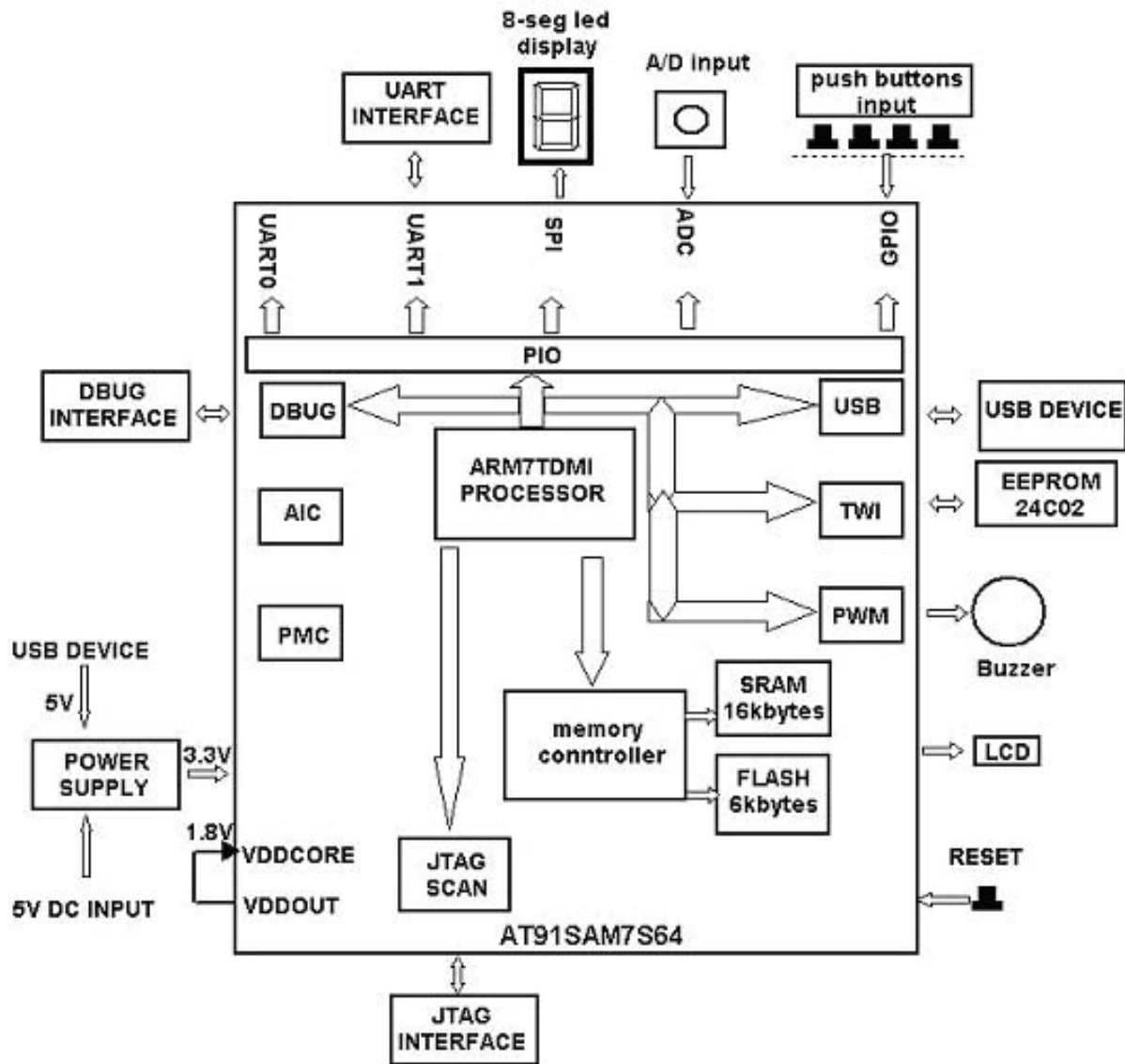


Embest ATEBSAM7S Evaluation Board installed an 16x2 LCD

The layout and function block diagram of Embest ATEBSAM7S Evaluation Board are as following:



Embest ATEBSAM7S Evaluation Board Layout



Embest ATEBSAM7S Evaluation Board Function Block Diagram

Software Examples

Embest Provides plenty of software examples for this ATEBSAM7S evaluation board, all in source code:

- Common (including startup code, initialization code, etc.)
- Interrupt_test (external interrupt, timer interrupt, software interrupts, fast interrupt)
- USART_test (Serial communication)
- SPI_test (control 8 segment LED display)
- TWI_test (two-wire interface test)
- USB_test (USB2.0)
- ADC_test (the input analog signals of ADC gained through voltage regulator)
- PWM_test (buzzer test application via PA0)
- 3LED_test (light the 3 indicator LED)
- Button_test (I/O test, PA19 can also used as input signal of FIQ while PA20 also as external interrupt port IRQ0)
- DBGU_test (hyperterminal display)

Order Information

Embest ATEBSAM7S Evaluation Board Kit is a low cost evaluation board kit with complete tools:

Order No.	J1
Item	Embest ATEBSAM7S Evaluation Board Kit
CD-ROM	<ul style="list-style-type: none"> ● software examples ● user manual ● circuit schematic drawing
Development Tools	<ul style="list-style-type: none"> ● Embest IDE for ARM (IDE, editor, GNU ARM Compiler and Linker, debugger), unregistered evaluation version ● EasyICE (a Jtag cable connect evaluation board to host PC via parallel port) ● SAM BOOT ASSISTANT (SAM_BA) (the Atmel's SAM_BA tool for Flash Programming via RS232 or USB link)
Others	<ul style="list-style-type: none"> ● RS232 Serial cable ● USB cable
Option hardware	16 x 2 character LCD
Option Tools	<p>Embest IDE for ARM Development Tools Suite I or II, III, include:</p> <ul style="list-style-type: none"> ● IDE, editor, GNU ARM Compiler and Linker, debugger, full registered version ● Embest PowerICE or Embest Emulator, Embest UnetICE ● Embest Flash Programmer(Programs AT91SAM7S64 on-chip Flash code memory using JTAG port)



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