



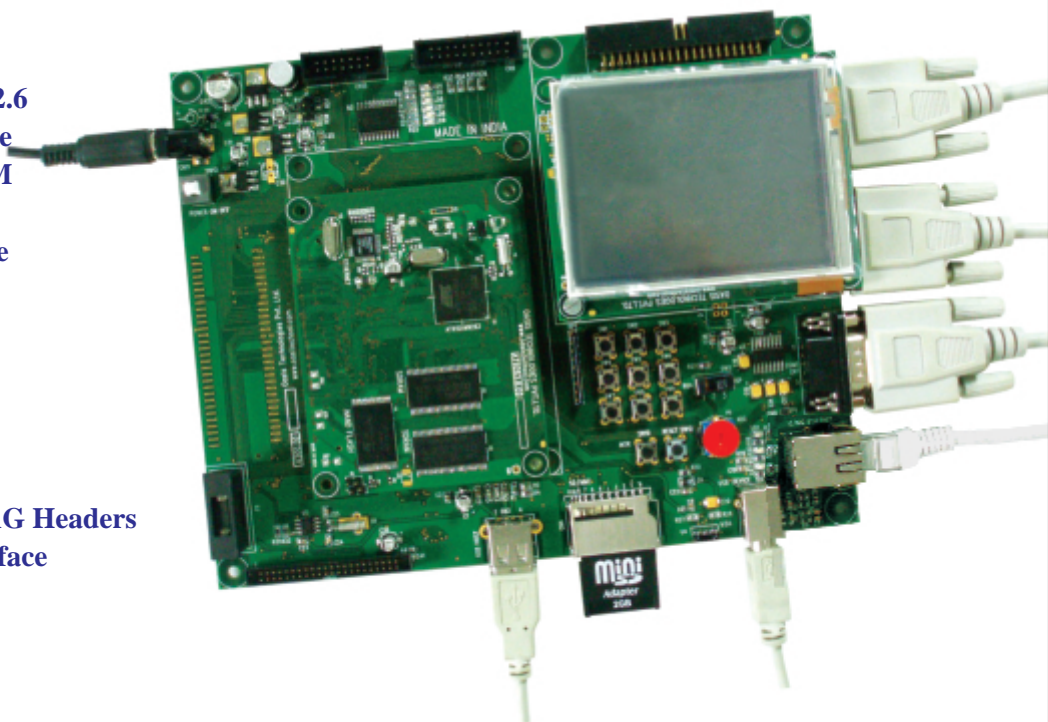
Taurus

Base Board with AT91SAM9263 SOM

AT91SAM9263 SOM Board (mounted on Taurus Base Board) is an embedded development platform which is based on the ARM926EJ-S. It is specifically designed for advanced embedded development, wherein the requirements are for low-power and high computing power. The processing power of ARM9, when combined with the on-board memory and integrated peripherals make it an ideal choice for mission critical embedded application development.

Taurus with AT91SAM9263 SOM board highlights

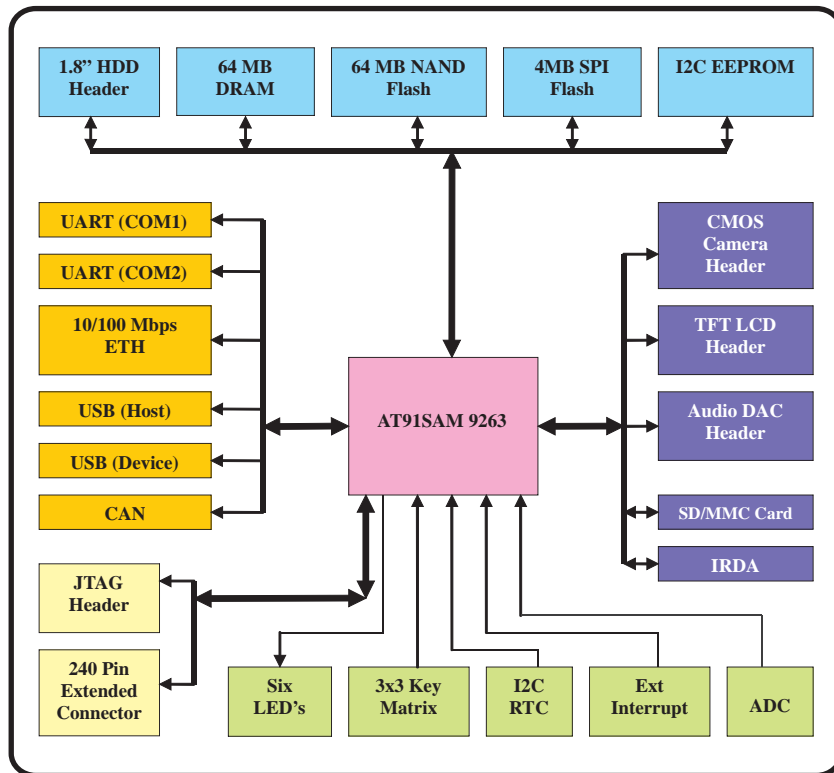
- Atmel AT91SAM9263 controller based on ARM926EJ-S core
- 64 MB, 32 bit wide SDRAM
- 4 MB/64 MB Flash
- Preloaded with Linux kernel-2.6
- 10/100Mbps Ethernet interface
- I2C devices- RTC & EEPROM
- CAN Interface
- USB Host and Device interface
- SD/MMC card interface
- CMOS camera interface
- IrDA interface (optional)
- Audio DAC Interface Header
- 3.5" TFT LCD interface
- 1.8" HDD interface
- GPIO Expansion Header, JTAG Headers
- Touch Screen Controller interface
- Buffered 16 bit Databus
- 240 Pin SAMTEC Connector



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Architecture Diagram



Taurus with AT91SAM9263 SOM board application domains

The power of ARM9 processor combined with its supporting peripherals makes this board suitable for various application domains, some of which are as per the following:

- Audio/Video based consumer application
- Military and aerospace
- Industrial and control systems
- Automotive
- Storage and networking
- Medical electronics
- Point of sale terminals





Why Taurus Board

• Powered with Linux for mission critical application

The power of ARM9 Processor, combined with the necessary Flash and RAM requirements and Pre loaded Linux 2.6 kernel, ensures a high degree of power and flexibility when it is used in mission-critical embedded Linux based application development. Using this solution, you can create a miniature, yet very powerful computing environment and the developed solution can be easily embedded in any critical system, that requires a better real-time capabilities and a greater stability.

• Extensive support for Real Time Operating Systems

The board offers high computing power and this feature ensures a greater comfort, when used in industry standard Real Time Operating Systems (RTOS). Some of the successfully verified RTOS's on this board includes the following:

- Embedded Linux
- uCOS
- eCOS
- FreeRTOS

• Applications

The board hosts an ARM9 family of processor whose comprehensive feature set enables developers to implement leading-edge systems, while at the same time they offer the benefits of flexibility, time-to-market, lower development costs and power consumption. The wide range of applications of this board makes it an ideal platform for extensive development in the following areas :

- Next-generation hand-held products (*Video phones, portable communicators, PDAs*)
- Digital consumer products (*Set-top boxes, home gateways, games consoles, MP3 audio, MPEG4 video*)
- Imaging (*Desktop printers, still picture cameras, digital video cameras*)
- Automotive (*Telematic and infotainment systems*)

• Intuitive development environment

The board is supplemented with Triton IDE Starter Edition from Oasis Technologies which combines the features of project management, code compilation, source code editing, program debugging, program downloading to target and so on.

The Triton development platform is easy-to-use and it helps you to expedite your embedded software development process.

• Comprehensive user documentation

The user guide offers clarification where and when you need it, right from the point of where you get started, up to the installations that are required for you to develop embedded applications.

The documentation includes various sample programs that bring out the capabilities of the AT91SAM9263 SOM board.

Taurus with AT91SAM9263 SOM board kit contents

1. Hardware:

- Oasis Taurus base board.
- Oasis AT91SAM9263 SOM board.
- Power supply adaptor (SMPS)
- 9-pin D-shell serial cable
- RJ45 Cross Cable
- USB Cable

2. Software & documentation(CD-ROM contents)

- Triton IDE (Integrated Development Environment) Starter Edition
- Triton IDE Installation guide
- Sample codes for ARM & RTOS programming
- Device driver for Linux 2.6 kernel
- Documentation including data sheets and the ARM user manual.
- Taurus with AT91SAM9263 SOM board User Manual

Taurus with AT91SAM9263 SOM board specifications

Processor	ARM926EJ-S
Flash	4 MB/64 MB, Serial/NAND
SDRAM	64 MB, 32 bit wide
Ethernet	10/100Mbps
USB	Host and device
Expansion	1 X 240 Pin
Serial	2 X RS232 based serial interfaces
Dimension	203 mm X 162 mm (Taurus Board) 92 mm X 72 mm (AT91SAM9263 SOM)
Temperature	0°C/70°C

AT91SAM9263 SOM board features

Following are the features of AT91SAM9263 SOM board :

- Atmel AT91SAM9263 ARM9 32-bit micro-controller
- On board external clock frequency 16 Mhz
- 4 MB/64 MB Flash and up to 64MB SDRAM
- On Board Ethernet Controller
- 512K I²C EEPROM
- Touch Screen Controller interface
- Buffered 16 bit Databus
- 240 Pin SAMTEC Connector

Taurus base board features

Following are the features of Taurus board

- USB Host and Device interface
- 3X3 Keypad • IrDA interface (optional)
- CMOS Camera interface
- SD/MMC card interface
- Ethernet Connector (RJ45)
- CAN Interface
- Audio DAC Connector
- Expansion header for GPIO to interface external circuits
- Debugging header with JTAG interface(20 Pin)
- 6 User programmable LED's
- Push button switch, which can be used for simulating an external interrupt
- Push button switch, which can be used for Reset
- Slide switch to select Boot mode (Internal/External)
- RTC with Battery Back-up and crystal 32.768 Khz
- 3.5" TFT LCD display(optional)
- 1.8" HDD Interface
- 2 UART for programming and debugging
- Push to ON switch for Board Power ON/OFF

Taurus with AT91SAM9263 SOM board variants

To ascertain certain degree of flexibility in the process of embedded development, while keeping in mind the cost effectiveness of the solution, the Taurus with AT91SAM9263 SOM board comes in various flavors.

The supported variants and its unique features are listed below.

Variants	Unique Features
Taurus with AT91SAM9263 SOM -AX	4 MB Flash
Taurus with AT91SAM9263 SOM -BX	64MB Flash, SD-MMC card connector



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Oasis Technologies Pvt. Ltd. is a leading provider of embedded technology solutions. Our mission is to provide quality and cost effective embedded systems solutions which helps our customers to expedite their design and development process and reduces time to market.