

SAM9260V1 Single Board Computer

- ARM926EJ-S Single-board Computer based upon Atmel AT91SAM9260
- CAN, USB, Ethernet, Serial Ports, SD, ADC, Jtag...
- Preloaded with Linux OS and already for use



Embest SAM9260V1 Single Board Computer

Description

The SAM9260V1 is a highly integrated single board computer supporting Atmel [AT91SAM9260](#), an ARM926EJ-S based high-performance 32-bit RISC Microcontroller with Thumb extensions, 32Kbytes ROM and 8Kbytes SRAM. It has additional 64Mbyte SDRAM, 2Mbyte Nor Flash, 64Mbyte Nand Flash, 2Mbyte Serial DataFlash, 32Kbyte EEPROM on board and extensive peripheral set including USB, Ethernet, CAN, SD, Serial ports, RTC, Watchdog, ADC, LED, GPIO and JTAG. The board takes full feature of the AT91SAM9260 and is specially targeted at highly connected image processing applications, such as point-of-sale terminals, Ethernet-based IP cameras, and bar code readers.

Embest provides Linux BSP with this board, along with tools, documents and it would be a solid reference board for you and you can also use it already if cater to your requirement.

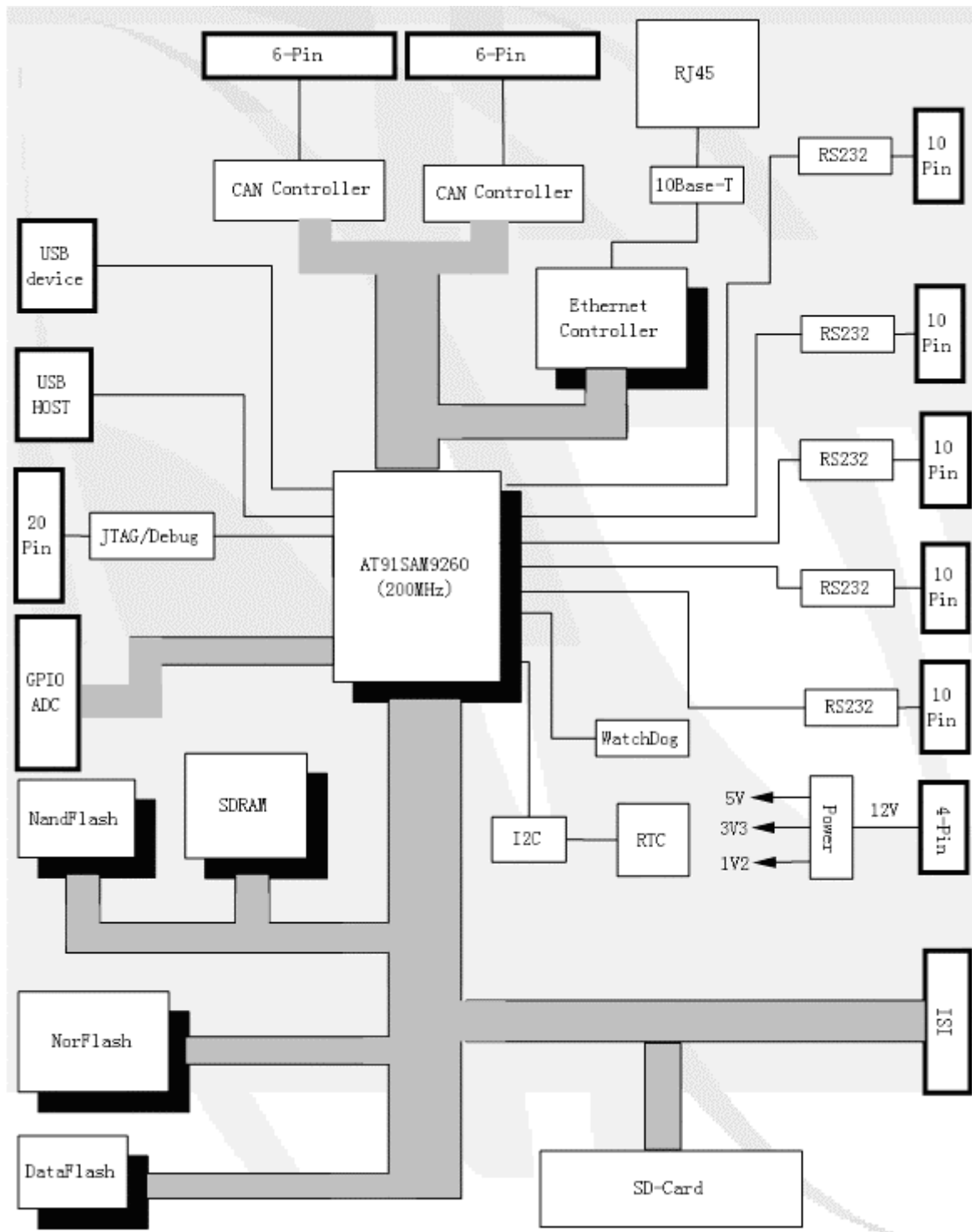
Hardware Features

The Atmel AT91SAM9260 is an ARM926EJ-S based High-performance 32-bit RISC Microcontroller with Thumb extensions, 8K byte instruction and 8K byte data cache memories. It operates at 210 MIPS with a 190 MHz clock. It features 8K bytes of SRAM and 32K bytes of ROM with single cycle access at maximum processor or bus speed, together with an external bus interface with controllers for SDRAM and static memories including NAND Flash and CompactFlash. Its extensive peripheral set includes USB 2.0 Device Port, USB 2.0 Host Single Port, Ethernet MAC 10/100 Base T, External Bus Interface, Bus Matrix, System Controller, Reset Controller, Shutdown Controller, Clock Generator, Power Management Controller, Advanced Interrupt Controller, Debug Unit, Periodic Interval Timer, Watchdog Timer, Real-Time Timer, One 4-channel 10-bit AD Converter, Three 32-bit PIO Controllers, Twenty-two Peripheral DMA Channels (PDC), Multimedia Card Interface (MCI), One Synchronous Serial Controllers (SSC), Four Universal Synchronous/Asynchronous Receiver Transmitters (USART), Two Master/Slave Serial Peripheral Interface (SPI), Two Three-channel 16-bit Timer/Counters (TC), Two-wire Interface (TWI), IEEE 1149.1 JTAG Boundary Scan.

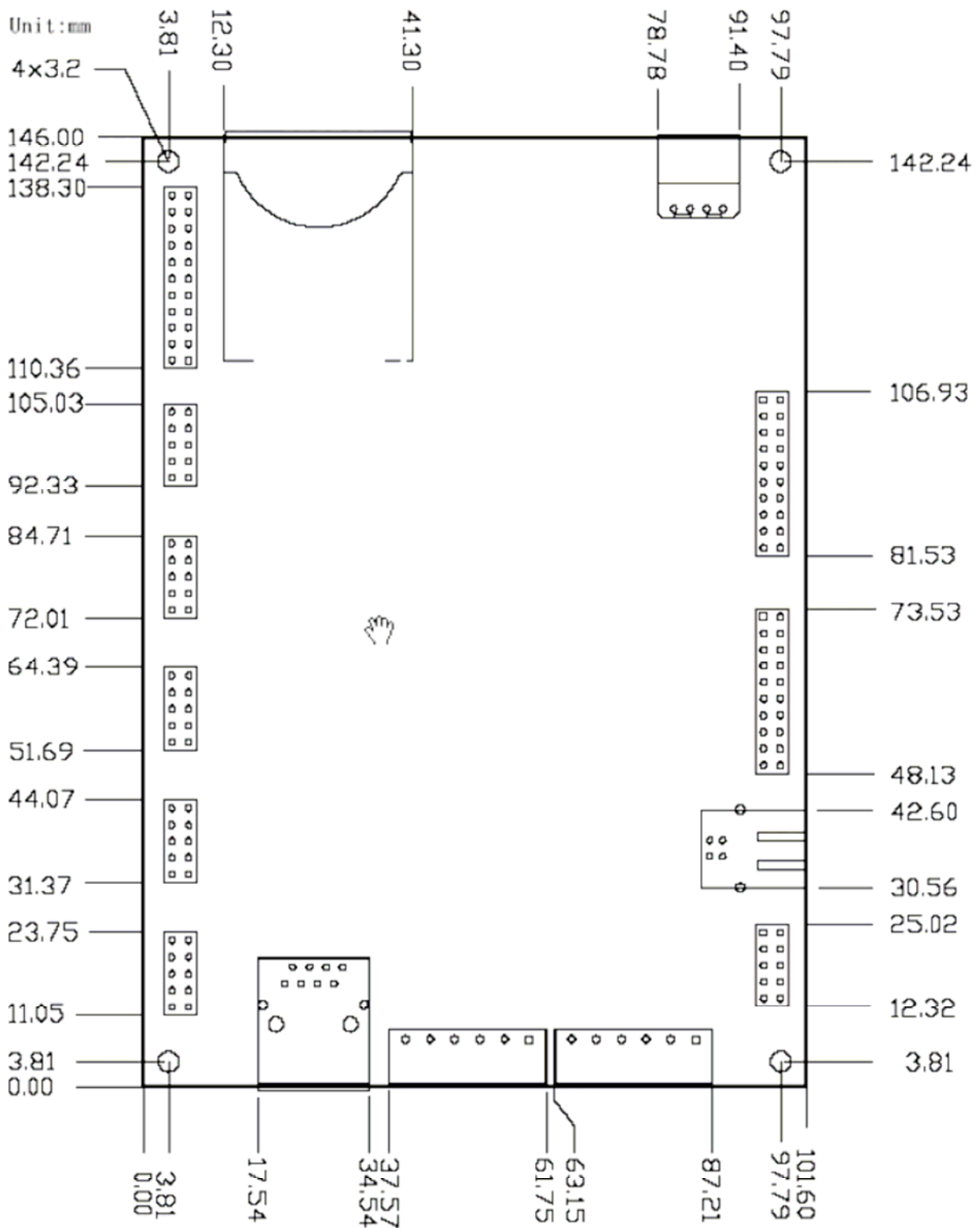
The SAM9260V1 supports multifold storage modes and communication interfaces to provide greater flexibility in industrial control applications. The board is characterized as follows:

- Dimensions: 146 x 101.6mm
- Working temperature: -20~70 Celsius
- Power supply: +12V
- Atmel AT91SAM9260 (ARM926EJ-S core with MMU, 8Kbytes of SRAM and 32Kbytes of ROM, capable of 180 MHz operation)
- 64Mbyte SDRAM
- 64Mbyte Nand Flash (128M/256M for options)
- 2Mbyte Nor Flash (support selectable external booting)
- 2Mbyte SPI DataFlash (support selectable internal booting)
- 32Kbit EEPROM
- 1 10M/100M Ethernet interface (RJ45)
- 5 RS232 serial ports (one 9-wire serial port, two 5-wire serial ports, two 3-wire serial ports, COM5 as debug port)
- 1 USB2.0 full-speed Host port and 1 USB2.0 full-speed Device port
- 2 CAN-bus interfaces (support CAN2.0B)
- 2-channel 10-bit ADC module
- RTC (battery backed)
- SD / MMC card socket
- 2 LEDs
- 3 GPIOs (can be configured as input, output or interrupt input)
- 1 20-pin standard JTAG interface

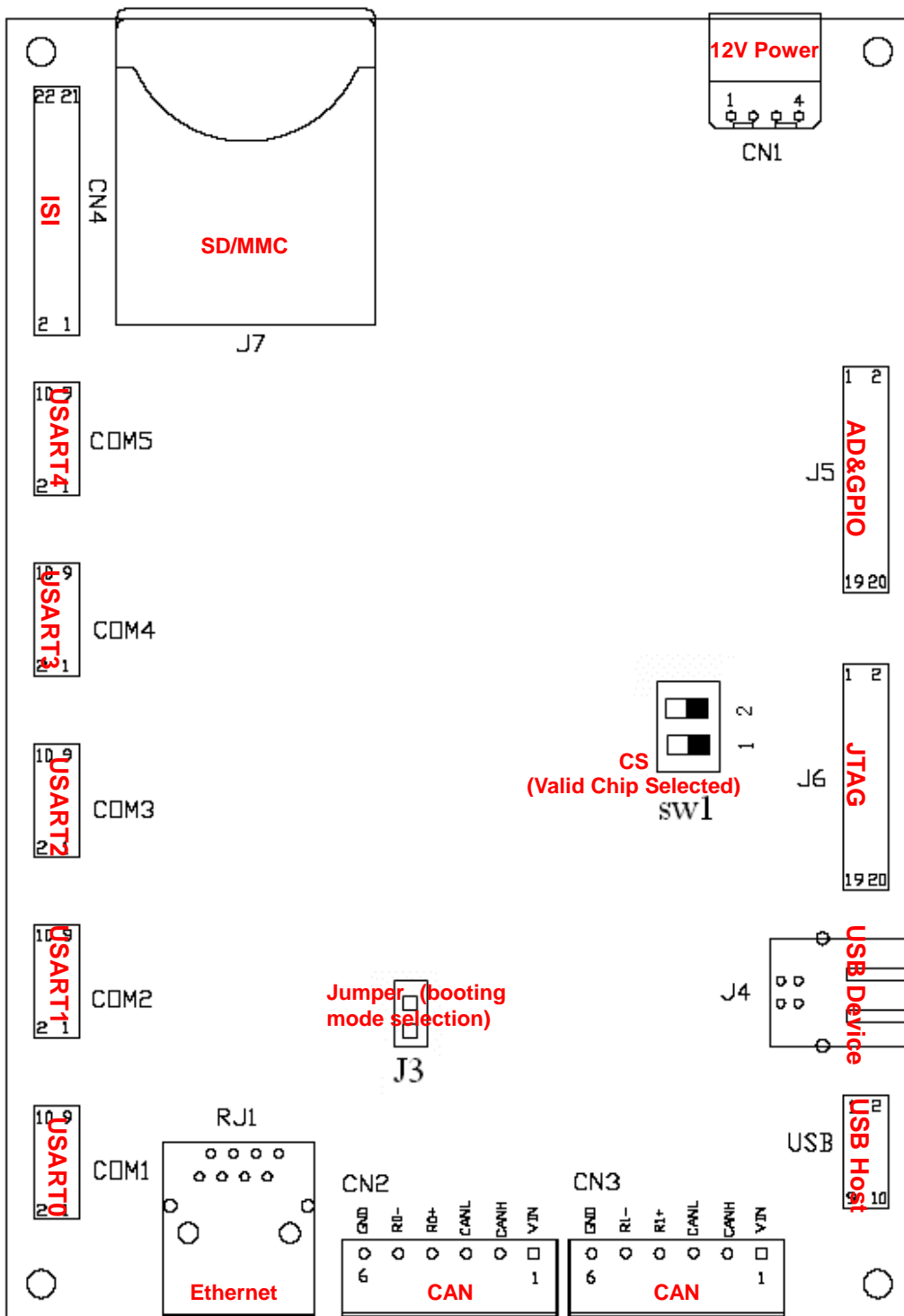
Function Diagram



Dimension



Interfaces Explanatory Drawing



Note: ISI (Image Sensor Interface) is not provided with driver and cannot work at present. USB Device can only be used to download startup image to DataFlash.

Software

Please make the following software modules we provided with the board for your references:

| OS | Item | Feature | Description | |
|----------|-----------------|------------------|---|----------------------|
| Linux2.6 | u-boot (bin) | Boot | Start up system | |
| | | tftp | Support tftp transmit protocol | |
| | | file system | Support writing yaffs file system image to Nand Flash | |
| | | Kernel | Support writing kernel image to Nand Flash | |
| | | Kernel Parameter | Support kernel parameter setting | |
| | | Etc. | Others | |
| | Kernel | Version | Linux kernel 2.6.19 | Source code provided |
| | | File system | yaffs | |
| | | Serial device | Five serial ports | |
| | | Ethernet | 10/100M Ethernet | |
| | | CAN | Two CAN2.0 | |
| | | ADC | Two ADC | |
| | | RTC | RTC | |
| | | USB Host | USB Host | |
| | | GPIO | Three GPIOs | |
| | | SD/MMC card | SD/MMC card | |

Order Information

| | |
|-----------|--|
| Order No. | SAM9260T1 |
| Item | Embest SAM9260V1 Single Board Computer |
| Price | Please contact us for detailed information. |
| Others | <ul style="list-style-type: none"> ● SAM9260V1 board ● One IDC10-to-DB9 serial cable ● One Embest EasyICE JTAG cable ● One IDC 10-to-USB cable ● One A/B type USB cable ● One RS232 serial cable ● One +12V/2A power adapter ● One power cable ● CD-ROM, including Linux2.6.19 BSP, tools, user manual) |



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