Embest - SBC6000X - SBC6000X Hardware - Eval/Demo Board

Product Overview:

The Atmel AT91SAM9261S processor is an ARM926EJ-S based high-performance 32-bit RISC Microcontroller with 16K byte instruction and 16K byte data cache memories; it is pin-to-pin compatible with the AT91SAM9261. It has additional 32K Bytes ROM, 16K Bytes SRAM embedded memories and can operate at 210 MIPS with a 190 MHz clock. Its extensive peripheral set includes USB 2.0, External Bus Interface, LCD Controller, 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, Three 32-bit PIO Controllers, Nineteen Peripheral DMA Channels (PDC), Multimedia Card Interface (MCI), Three Synchronous Serial Controllers (SSC), Three Universal Synchronous/Asynchronous Receiver Transmitters (USART), Two Master/Slave Serial Peripheral Interface (SPI), One Three-channel 16-bit Timer/Counters (TC), Two-wire Interface (TWI), IEEE 1149.1 JTAG Boundary Scan.
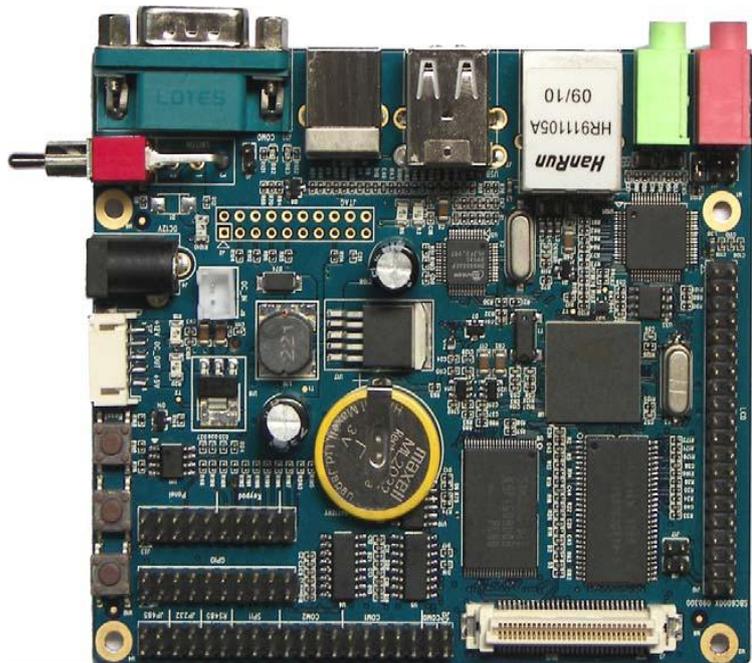
Kit Contents:

Take the SBC6000X out of its box. Included in the box are:

- SBC6000X board
- 1 serial cable
- 1 net cable
- 1 USB cable
- 12V power adapter
- 1 CD with product reference

Key Features:

- Dimensions: 106.4mm x 96mm
- Working temperature: -10~70 Celsius
- Power supply: +12V
- Power output interface: +5V and Vin (±5%)
- Atmel AT91SAM9261S (ARM926EJ-S core with MMU capable of 200MHz operation)
- 64Mbyte SDRAM (2*16-bit, support up to 128Mbyte)
- 128Mbyte Nand Flash (support up to 256Mbyte)
- 2Kbit EEPROM
- 4/8Mbyte DataFlash (bootable, Optional*)
- 1 2*20-pin LCD interface
- Touch panel (4-channel 12-bit ADC)
- 1 SPI interface
- 1 10M/100M Ethernet interface (RJ45)
- 3 serial ports (COM0: 3-wire RS232/TTL serial port, COM1: 5-wire RS232/TTL serial port, COM2: 5-wire RS232/TTL/RS422 serial port)
- 2 USB host and 1 USB device
- 4 x 4 keyboard interface
- Audio Input/Output Jacks
- RTC (battery backed)
- SD card socket
- 2 LEDs (power indicator and CPU working station indicator)
- 3 Buttons (two for user defined, one for Reset)
- 1 Power switch
- 16 GPIOs (10 from CPU, 6 from extension)
- BUS interface (with buffer)

Ordering Information:

Products:

Part Number	Manufacturer	Farnell P/N	Newark P/N
SBC6000X	Embest	NA	63R5732

Associated Products:

Part Number	Manufacturer	Description	Farnell P/N	Newark P/N
AT91SAM9261SB-CU	Atmel	32Bit ARM	1715467	15R0332
SPC19944	SPC Technology	Shielded Serial Cable Assembly	1702771	83K3689

SPC15457	SPC Technology	Standard 9 Pin D-Subminiature Connector	1653954	79K5032
SPC21961	SPC Technology	Category 5e Cable Assembly	1363809	21M5875
555052-1	Tyco Electronics	RJ45 JACK	1557068	66F3284
897-43-004-90-000000	Mill Max	USB Connector	1621546	84K7068

Similar Products:

Part Number	Manufacturer	Description	Support Device	Farnell P/N	Newark P/N
LPCEB2000-SP	Embest	Processor Card Based ARM	LPC2129	NA	64R5924
LPCEB2001-AP	Embest	Processor Card Based ARM	LPC2132	NA	64R5926
LPCEB2002-BP	Embest	Processor Card Based ARM	LPC2292	NA	64R5928
MINI9261-I	Embest	Processor Card Based ARM	AT91SAM9261S	NA	64R5937

Document List:

Datasheets:

Part Number	Description	Size
MAX3232	RS-232 Transceivers	752KB
LM1117DT-ADJ	800mA Low-Dropout Linear Regulator	647KB
AT91SAM9261S	AT91 ARM Thumb-based Microcontrollers	9.48MB

Application Notes:

File Name	Size
Using the Two-wire interface (TWI) in Master Mode on AT91SAM Microcontrollers	1.05MB
AT91SAM Internet Radio	425KB
AT91SAM7S64 USB Certification	1.39MB
AT91SAM9 LCD Controller	372KB
Using the Serial Peripheral Interface with AT91SAMxx Devices	149KB
AT91 USB CDC Driver Implementation	366KB