

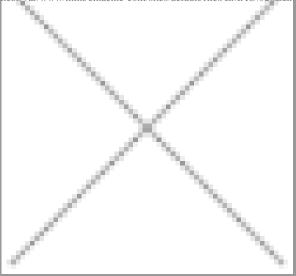
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SoM-9307M ARM System on Module



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Small, 200 pin SODIMM form factor (2.66" x 2.375")

Cirrus ARM9 EP9307 200Mhz Processor

MaverickCrunch Hardware Floating Point Math Coprocessor

10/100BaseT Ethernet with on-board PHY

3 Serial ports with handshake

3 USB 2.0 (Full Speed) Host ports

Up to 128 MB of SDRAM

Up to 64 MB of Flash

128K Bytes of Serial Flash

Battery backed Real Time Clock
SD/MMC Flash Card Interface
1 SPI port
1 I2S Audio port
Timer/Counters and Pulse Width Modulation (PWM) ports
8 Channel 12-bit Analog-to-Digital converter
Graphic LCD Interface with 2D acceleration up to 1024 x 768 Resolution
Touchscreen Interface
Typical power requirement less than 1 Watt
JTAG for debug, including real-time trace
FREE Eclipse IDE with GCC & GDB development tools
Linux
RoHS 2 (2011) compliance
Designed and manufactured in the USA the SoM-9307M is an ARM System-on-Module (SOM) type Single Board Computer (SBC) based on the Cirrus ARM9 EP9307 processor. This ARM9 core processor has an Ethernet MAC built-in along with 3 serial ports. It utilizes external SDRAM and includes MMU which allows it to run Linux Operating Systems. A SoM (System on Module) is a small embedded module that contains the core of a microprocessor system.
Using the same small 200 pin SODIMM form-factor utilized by other EMAC SoM modules, the SoM-9307 is the ideal processor engine for your next design. All of the ARM processor core is included on this tiny board including: Flash, Memory, Serial Ports, Ethernet, I2S Audio, PWMs, Timer/Counters, A/D, digital I/O lines, Clock/Calendar, and more.
The SoM-9307M is designed to plug into a carrier board that contains all the connectors and any custom I/O required for the application.
This approach allows the customer or EMAC to design a Custom Carrier Board, that meets the customer's I/O, dimensional, and connector
requirements without having to worry about the processor, memory, and standard I/O functionality. With this System on Module approach, a semi-custom hardware platform can be developed in as little as a month.
In addition to the option of the developing a Carrier board, one can be purchased off-the-shelf from EMAC. EMAC provides off-the-shelf Carrier boards that feature A/D, D/A, MMC/SD card, keypad, LCD, Touchscreen, and Audio interfaces. The recommended off-the-shelf

Linux System and Tools. The System On Module approach provides the flexibility of a fully customized product at a greatly reduced cost. **Specifications** SOM Type: Microcontroller SODIMM Modules Processor Embedded Cirrus ARM9 EP9307 Clock Speed: 200 MHz Real Time Clock: Processor Misc.: System Reset: Supervisor with external Reset Button provision. Memory Primary rrash: Up to 64 MB External NOR Intel P30 Flash Secondary Flash: 128K utility serial Flash Memory Misc.: Flash Disk: SPI serial HCSD/MMC interface. Primary I/O 32x GPIO with 8 ma. drive when used as an output Video Out: 2D Accelerated Video Interface with up 1024 x 768 resolution SPI: High-Speed SPI port with Chip Selects Audio: I2S Synchronous Serial Controller with analog interface support USB: 3x Full Speed USB 2.0 ports Serial Ports: 3x Serial Ports (RS485 & some with handshaking) UART requires external RS level shifting Watchdog:

Primary I/O Misc.:

MAC: Ethernet on chip MAC

PHY: Intel/Cortina LXT927ALC with software PHY shutdown control

Interface: IEEE 802.3u 10/100 BaseT Fast Ethernet (requires external magnetics & Jack)

Timers/ Counters/ PWM:

2x general purpose 16-bit

1x 32-bit timer

2x 16-bit PWMs

LPT Port:

Keypad:

PS/2:
Touch:
12-Bit 4-5-7 or 8-wire Analog Resistive Touch Screen Interface
Secondary I/O Misc.:
Keypad: 64-key (8x8) with auto debounce, scanning & decoding.
Analog on A. D.
A/D Channels:
8
A/D Resolution:
12-bit
D/A:
Dimensions Dimensions.
2.66×2.375 in
Form Factor:
200-pin SODIMM
Power Requirements Typical Current.
300 mA
Typical Voltage:
3.3 V
Power Misc.:
Power: Power Management Controller allows selectively shutting down on processor I/O functionality and running from a slow clock.
Tower. Tower Management Controller allows selectively shatting down on processor 100 functionality and rulning from a slow clock.
Environmental Low Operating Temperature:
0 C
High Operating Temperature:
70 C
Upper Operating Humidity:
90%
Pricing Solvi-200, M-130
w/ CPU, 64 MB FLASH 64 MB RAM
\$190.00
Stock
Base Product:
SoM-9307M
SoM-9307M-120
w/ CPU, 32 MB FLASH 32 MB RAM
\$170.00
Non-Stock
Base Product:
SoM-9307M
Non-Stock Minimum Order:
50
Non-Stock NCNR:
1
Carrier Boards:
SoM-200ES-000

Standard Carrier Board with CAN, PLD & 4.3" LCD
\$245.00
Base Product:
SoM-200ES
SoM-200ES-001
Deluxe Carrier Board with Audio, CAN, PLD & 4.3" LCD
\$295.00
Base Product:
SoM-200ES
SoM-200ES-007
Bare-Bones Carrier Board, with CAN, without PLD & LCD
\$145.00
Base Product:
SoM-200ES
SoM-200GS-000
Standard 200-pin Carrier with SD Card, Audio, CAN, PLD & 4.3" LCD
\$245.00
Base Product:
SoM-200GS
SoM-200GS-001
Deluxe 200-pin Carrier with WiFi, Audio, CAN, PLD & 4.3" LCD, without SD Card Socket
\$295.00
Base Product:
SoM-200GS
SoM-200GS-007
Bare Bones 200-pin Carrier w/SD Card & CAN, without Audio, PLD & LCD
\$145.00
Base Product:
SoM-200GS
SoM-212ES-000
Standard Carrier Board with Touch Screen
\$175.00
Base Product:
SoM-212ES
SoM-212ES-003
Deluxe Carrier Board with Touch Screen, POE, and Stereo Audio
\$225.00
Base Product:
SoM-212ES
SoM-212ES-007
Bare Bones Carrier Board
\$110.00
Base Product:
SoM-212ES
SoM-250ES-000
Standard Carrier Board with CAN, Audio, 7" LCD & Touch Screen
\$399.00
Base Product:
SoM-250ES
SoM-250ES SoM-250ES-001
Deluxe Carrier Board with CAN, Audio, 10" LVDS LCD & Touch Screen
\$445.00
Base Product:
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SoM-250ES SoM-250ES-007 Bare-Bones Carrier Board, no LCD \$199.00 Base Product:

SoM-250ES

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