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SoM-212ES

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[SoM-212ES Frontside with QWVGA LCD](#) [EMAC Inc. 54% 20Panel% 20Front_circlelogo_webopt.png](#)

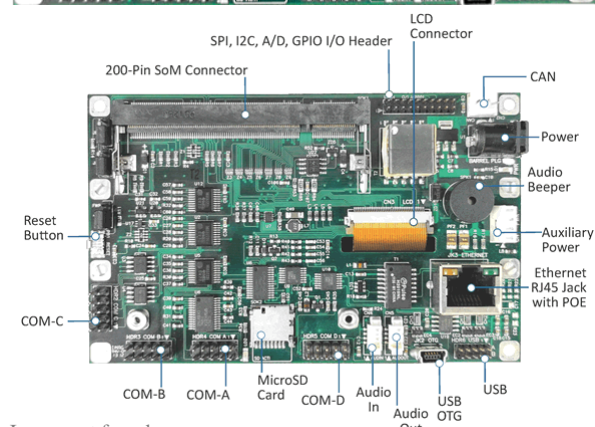
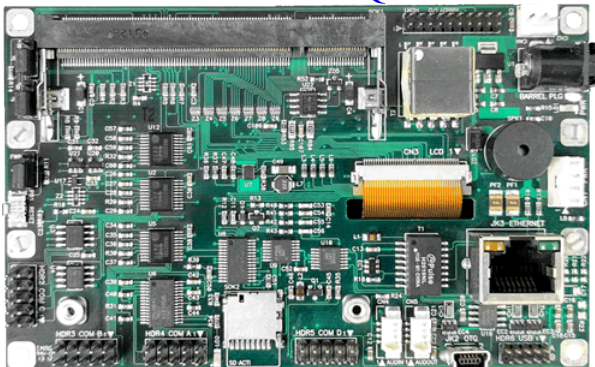


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[EMAC OEM](#) [EMAC Inc. 54% 20Panel% 20Front_circlelogo_webopt.png](#)

- Ultra Small form factor (4.8" x 3.0")
- 10/100 BaseT Ethernet with onboard Magnetics and RJ45
- 3 serial RS232 ports and 1 RS232/485 port
- 32 SoM Specific lines with JTAG
- Resistive Touchscreen interface
- Graphic LCD interface with WQVGA TFT LCD with Touch
- Battery for nonvolatile RAM and Real Time Clock
- Micro SD Flash Card Socket
- Dual USB Host Jack
- USB OTG Host/Device Port
- CAN 2.0B Port
- Audio Beeper
- System Reset button
- Power and Flash Drive Status LED

ON BOARD OPTIONS FOR STANDARD CARRIER

- Optional Stereo Audio Line In / Out
- Optional Power Over Ethernet (POE)

BARE-BONES FEATURES

- Ultra Small form factor (4.8" x 3.0")
- 10/100 BaseT Ethernet with onboard Magnetics and RJ45 Jack
- Battery for nonvolatile RAM and Real Time Clock
- Dual USB Host USB (10 pin header connector, Cable extra)
- Micro SD Flash Card Socket
- 3 serial RS232 ports and 1 RS232/485 port, (Only 1 Serial cable included)
- CAN 2.0B Port
- Audio Beeper
- System Reset button
- Power and Flash Drive Status LED

The SoM-212ES is an ultra compact SoM Carrier/Socket board with an optional 4.3 inch WQVGA (480 x 272) TFT color LCD and a resistive touch screen. The dimensions of the SoM-212 are 4.8" by 3.0", about the same dimensions as that of popular touch cell phones. The SoM-212ES is small enough to fit in a 2U rack enclosure. This versatile SoM Carrier/Socket board is ideal for evaluation and early development work. This Carrier is designed to work with all EMAC 200-pin SODIMM type SoMs. Note: The SoM-212ES is specifically designed for SoMs with Video & USB capability.

The SoM-212ES provides access to much of the SoM's I/O through on-board connectors as well as a number of additional I/O expansion blocks such as Video, Touchscreen, Ethernet and micro SD flash disk. Full schematics of the SoM-212ES are provided giving the user a solid base with which to design their own SoM Carrier. Schematics of the SoM-212ES are included on the CD provided with the Carrier board.

Although a good deal of customers will want a Carrier that is unique and is designed specifically for their application, the SoM-212ES when coupled with a SoM-9G45 SODIMM SoM makes for a powerful User Interface Control System with USB and Ethernet capabilities. This allows the user to gather data and respond with Control commands via the Internet.

When a unique custom board is required, the amount of design work required is greatly minimized by the SoM approach. The custom Carrier designer does not have to worry about the processor, memory, and standard I/O functions and can concentrate on the I/O, connectors and dimensional aspects required for the application.

In situations where a custom Carrier is required but the customer does not have the capability to design such a board in-house, EMAC's Custom to Order Services (COS) can be utilized. Using COS the customer can select from a library of standard I/O blocks. These blocks can be put together quickly into a form-factor of the customer's choosing, providing prototypes in as little as 30 days.

Specifications

SOM Type:
SODIMM Carrier Boards

Processor

Real Time Clock:

Primary I/O

GPIO:

16x GPIO

(5x dedicated GPIO

11x Configurable I/O)

Video Out:

Graphic LCD interface with WQVGA TFT LCD with Touch

Audio:

Audio Beeper

Ethernet:

10/100 BaseT Ethernet with onboard Magnetics and RJ45

USB:

Dual USB Host Jack & USB OTG Host/Device Port

Serial Ports:

3x RS232

1x RS232/485

Watchdog:**Primary I/O Misc.:**

- Power Over Ethernet POE (Optional)
- Stereo Audio Line In & Line Out (Optional)

Secondary I/O**CAN:**

CAN 2.0B Port

LPT Port:**Keypad:****PS/2:****Touch:**

Resistive Touchscreen interface

Analog on**A/D:****D/A:****Dimensions****Dimensions:**

4.8 × 3 in

Power Requirements**Voltage:**

5 V

Typical Current:

1 A

Power Misc.:

Power Requirements: Typical <~1.0A. @ 5 Vdc. including SoM, USB & LCD

(Note: up to 1.0A additional is required if USB Host is providing power to USB devices)

Alternate Wide voltage Input: 8-36 Vdc (Typical: 5 watts of power, Max 15 Watts)

Environmental

Low Operating Temperature:

0 C

High Operating Temperature:

60 C

Upper Operating Humidity:

90%

Pricing

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

Non-Stock NCNR:

0

Carrier Boards:

Title: SoM-9G45M-110

w/ AT91SAM9G45 CPU, 512 MB FLASH 128 MB RAM

\$190.00

Base Product:

SoM-9G45M

Title: SoM-9M10M-130

w/ AT91SAM9M10 CPU, 1 GB FLASH 256 MB RAM

\$250.00

Base Product:

SoM-9M10M

Title: SoM-3517M-130

TI ARM Cortex-A8 CPU, 2GB eMMC FLASH, 256MB RAM (0 ~ +70C)

\$198.00

Base Product:

SoM-3517M

Title: SoM-3517M-141

TI ARM Cortex-A8 CPU, 4GB eMMC FLASH, 512MB RAM

\$0.00

Base Product:

SoM-3517M

Title: SoM-3517M-339

TI ARM A8 CPU, 512MB NAND FLASH, 256MB RAM, INDUSTRIAL TEMP (-40C ~ +85C)

\$0.00

Base Product:

SoM-3517M

Title: SoM-3354M-140

SOM-3354, TI AM3354 ARM-A8, 512MB RAM, 4GB eMMC Flash, 16MB Serial Data flash, 4x COM, 3x USB2, 10/100 ETH, Video (-40 to +85)

\$160.00

Base Product:

SoM-3354M

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