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SoM-150ES

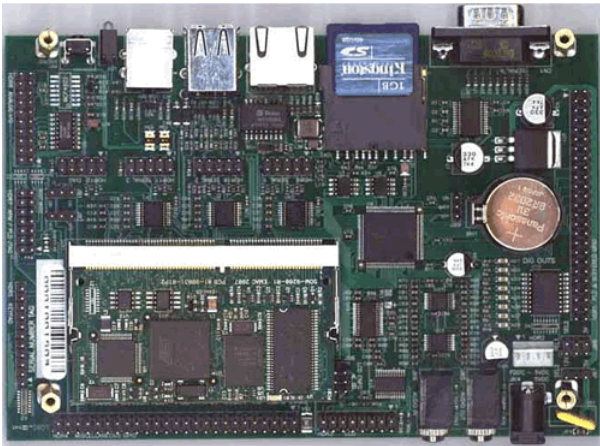
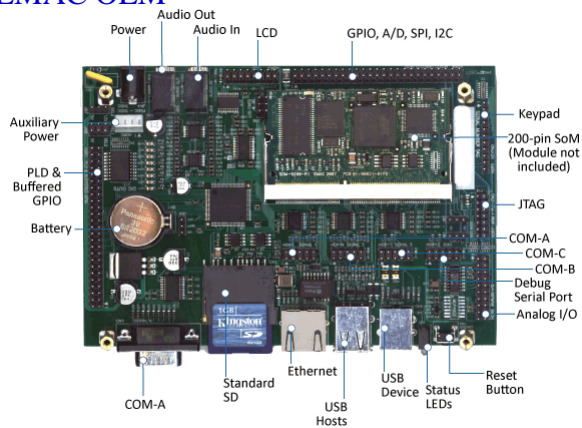


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*System on Module (SoM) Module not included

- Small, Half-EBX mounting hole form factor (4.37" x 6.00")
- 10/100 BaseT Ethernet with onboard Magnetics and RJ45
- 4 serial RS232 ports and 1 RS232/485 port
- 24, General Purpose digital (PLD) I/O lines
 - 8 Digital Input lines
 - 8 Digital Output lines with 20 ma. drive
 - 8 High Drive Digital Output lines with status LEDs (500 ma. sink)
- 24 Digital general purpose SoM I/O lines
- 24 key, keypad interface
- Character LCD interface
- Battery for nonvolatile RAM and Real Time Clock
- MMC/SD Flash Card Socket
- Dual USB Host Jack

- USB Device Jack
- System Reset button
- Power and Flash Drive Status LEDs
- CAN 2.0B Port

ON-BOARD OPTIONS FOR DELUXE CARRIER

- 8 channel 12-bit A/D single ended / 4 channel pseudo-differential (0 - 2.5V input)
- 2 channel 12-bit D/A (0 - 2.5V output)
- I2S Audio Stereo CODEC with line-in & line-out

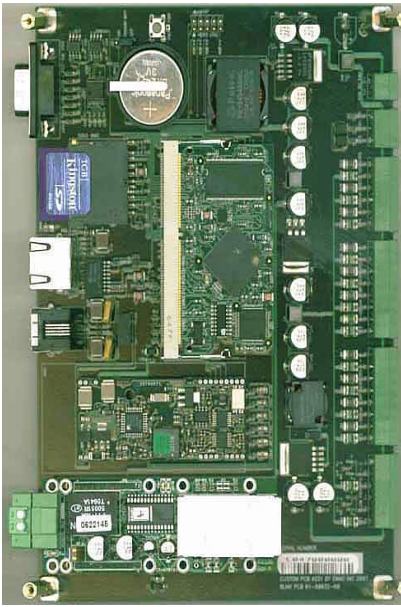
BARE-BONES FEATURES

- Small, Half-EBX mounting hole form factor (4.37" x 6.00")
- 10/100 BaseT Ethernet with onboard Magnetics and RJ45 Jack
- Battery for nonvolatile RAM and Real Time Clock
- Dual USB Host Jack
- USB Device Jack
- MMC/SD Flash Card Socket
- 4 serial RS232 ports
- CAN 2.0B Port
- System Reset button

The SoM-150ES is versatile SoM Carrier/Socket board ideal for evaluation and early development work. This Carrier is designed to work with all EMAC 144-pin SODIMM type SoMs. Note: The SoM-150 is specifically designed for SoMs with USB capability. While other modules will work in the SoM-150 carrier, using the SoM-100ES would be a better fit.

The SoM-150ES provides access to all the SoM's I/O through on-board connectors as well as a number of additional I/O expansion blocks such as A/D, D/A, Digital I/O, Audio CODEC, and MMC/SD flash disk. Full schematics of the SoM-150ES are provided giving the user a solid base with which to design their own SoM Carrier. Schematics of the SoM-150ES 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-150ES when coupled with a SoM-9260 SODIMM SoM makes for a powerful Remote Data Acquisition and Control system with USB and Ethernet capabilities. This allows the user to gather data and respond with Control commands via the Internet. An Enclosure and Power Supply will be available options for the SoM-150ES.



When a unique custom board is required for an application, 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 (see Custom Carrier example on right). 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:

8x Digital Input lines

8x Digital Output lines with 20 ma. drive

8x High Drive Digital Output lines with status LEDs (500 ma. sink)

Ethernet:

10/100 BaseT Ethernet with onboard Magnetics and RJ45 Jack

USB:

Dual USB Host Jack USB Device Jack

Serial Ports:

4x RS232

1x RS-232/485

Watchdog:

Secondary I/O

CAN:

1x CAN 2.0B Port

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

Analog on

A/D:**D/A:****Analog Misc.:**

- **A/D:** 8 channel 12-bit A/D single ended / 4 channel psuedo-differential (0 - 2.5V input)
- **D/A:** 2 channel 12-bit D/A (0 - 2.5V output)

Dimensions

Dimensions:

4.37 × 6 in

Form Factor:

Half-EBX

Power Requirements

Voltage:

5 V

Typical Current:

1.5 A

Typical Voltage:

5 V

Power Misc.:

Power Requirements: Typical 5 Volts @ 1.5A including SoM & USB

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

Environmental

Low Operating Temperature:

0 C

High Operating Temperature:

70 C

Upper Operating Humidity:

90%

Environmental Misc.:

Optional: -40° ~ +85° Industrial temperature Operating Humidity: 10% ~ 90% Relative non-condensing

Pricing

SoM-150ES-007

Bare-Bones Carrier Board

\$100.00

Base Product:

SoM-150ES

SoM-150ES-000

Standard Carrier Board

\$150.00

Base Product:

SoM-150ES

SoM-150ES-001

Standard Carrier Board with Audio

\$180.00

Build to Order

Base Product:

SoM-150ES

SoM-150ES-030

Standard Carrier Board with A/D, D/A

\$190.00

Build to Order

Base Product:

SoM-150ES

SoM-150ES-031

Deluxe Carrier Board with A/D, D/A, Audio

\$220.00

Base Product:

SoM-150ES

Non-Stock NCNR:

0

Keypads:**Title: E020-25**

12 KEY MEM TELEPHONE STYLE KEYPAD

\$25.00

Title: E020-21

16 KEY MEMBRANE HEX STYLE KEYPAD

\$30.00

Carrier Boards:**Title: SoM-9260M-120**

w/ CPU, 32 MB FLASH 32 MB RAM

\$170.00

Base Product:

SoM-9260M

Title: SoM-9G20M-110

w/ CPU, 512 MB FLASH 16 MB RAM

\$155.00

Base Product:

SoM-9G20M

Title: SoM-9G25M-111

ARM9 / 64MB RAM / 8MB SERIAL DATA / 256MB NAND FLASH / -40 TO +85C

\$99.00

Base Product:

SoM-9G25M

Title: SoM-9x25-120

W/ CPU, 4GB eMMC Flash, 128MB DDR2 RAM, 8MB Serial Data Flash

\$130.00

Base Product:

SoM-9X25M

Title: SoM-A5D35-140

A5D35 536Mhz, 4GB eMMC, 16MB Serial Data Flash, 512MB RAM, (-40 to +85)

\$150.00

Base Product:

SoM-A5D35

Title: SOM-IMX6U-140

SOM-IMX6U, MCIMX6G1, 512MB RAM, 4GB eMMC, 16MB Serial Data Flash, 2x USB, 10/100 LAN, (-40° to 85°C)

\$115.00

Base Product:

SoM-IMX6U

Displays:**Title: E020-30**

20 CHAR. X 2 Line LCD Display

\$49.00

Title: E020-31

20 CHAR. X 2 Line LCD backlit display

\$65.00

Title: E020-34

20 CHAR. X 2 line VF display

\$125.00

Title: E020-32

20 char. X 4 line LCD

\$74.00

Title: E020-33

20 Char. X 4 line backlit LCD (EOL, LIMITED AVAILABILITY)

\$0.00

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