

Published on EMAC Inc. (https://www.emacinc.com)

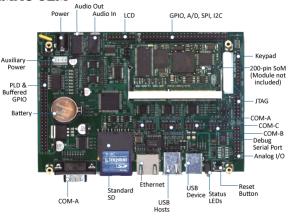
Source URL: https://www.emacinc.com/content/som-150es

SoM-150ES



Image not found

EM/A@/OEM/tml/emacinc-com/sites/default/files/EMAC%200EM%20LOGO_sm_web-opt_9.png



*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
 - o 8 Digital Input lines
 - o 8 Digital Output lines with 20 ma. drive
 - \circ 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 psuedo-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:

G. Primary I/O

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

1x CAN 2.0B Port

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 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: $-40^{\circ} \sim +85 \mathrm{C}^{\circ}$ Industrial temperature Operating Humidity: $10\% \sim 90\%$ Relative non-condensing
Pricing Solve-1-00LS-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

LPT Port: Keypad:

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:
E020-25
12 KEY MEM TELEPHONE STYLE KEYPAD
\$25.00
E020-21
16 KEY MEMBRANE HEX STYLE KEYPAD
\$30.00
Carrier Boards:
SoM-9260M-120
w/ CPU, 32 MB FLASH 32 MB RAM
\$170.00
Base Product:
SoM-9260M
SoM-9G20M-110
w/ CPU, 512 MB FLASH 16 MB RAM
\$155.00
Base Product:
SoM-9G20M
SoM-9G25M-111
ARM9 / 64MB RAM / 8MB SERIAL DATA / 256MB NAND FLASH / -40 TO +85C
\$99.00
Base Product:
SoM-9G25M
SoM-9x25-120
W/ CPU, 4GB eMMC Flash, 128MB DDR2 RAM, 8MB Serial Data Flash
\$130.00
Base Product:
SoM-9X25M
SoM-A5D35-140
A5D35 536Mhz, 4GB eMMC, 16MB Serial Data Flash, 512MB RAM, (-40 to +85)
\$150.00
Base Product:
SoM-A5D35
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

20 CHAR. X 2 Line LCD Display
\$49.00
E020-31
20 CHAR. X 2 Line LCD backlit display
\$65.00
E020-34
20 CHAR. X 2 line VF display
\$125.00
E020-32
20 char. X 4 line LCD
\$74.00
E020-33
20 Char. X 4 line backlit LCD (EOL, LIMITED AVAILABILITY)
\$0.00

Displays: E020-30

Source URL: https://www.emacinc.com/content/som-150es