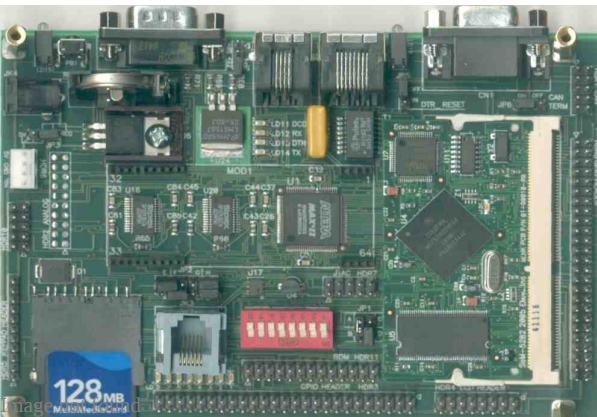


SoM-100ES



EMAC OEM https://www.emacinc.com/sites/default/files/EMAC%20OEM%20LOGO_sm_3.png

Small, Half-EBX form factor (4.0" x 5.75")

10/100 BaseT Ethernet with onboard Magnetics and RJ45

2 serial RS232 ports and 1 RS232/485 port

32, General Purpose digital (PLD) I/O lines in addition to SoMs I/O lines

- 8 digital input lines with dipswitch provision
- 8 digital output lines with status LEDs (20 ma. drive)
- 8 High Drive digital output lines (500 ma. sink)
- 8 digital general purpose inputs lines

25 SoM Specific lines

24 key, keypad interface

Character LCD interface

Battery for nonvolatile RAM and Real Time Clock

MMC/SD Flash Card Socket

CAN port (module must support CAN)

1-Wire® RJ11 Jack with onboard Temperature Sensor (module must support 1-Wire)

V90 Modem or Wireless Modem Socket

System Reset button

Power and Flash Drive Status LEDs

ON-BOARD OPTIONS FOR STANDARD CARRIER

8 channel 12-bit A/D single ended / 4 channel differential

4 channel 12-bit D/A

V90 Socket Modem or Wireless Socket Modem

BARE-BONES FEATURES

Small, Half-EBX form factor (4.0" x 5.75")

10/100 BaseT Ethernet with onboard Magnetics and RJ45

Battery for nonvolatile RAM and Real Time Clock

MMC/SD Flash Card Socket

3 serial RS232 ports

System Reset button

The SoM-100ES 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: While this Carrier will work with the SoM-9260, it is recommended to use the SoM-9260-150 in order to get full utilization of the SoM-9260 module.

The SoM-100ES 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, Modem, and MMC/SD flash disk. Full schematics of the SoM-100ES are provided giving the user a solid base with which to design their own SoM Carrier. Schematics of the SoM-100ES 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-100ES when coupled with a SODIMM SoM makes for a powerful Remote Data Acquisition and Control system with Modem and Ethernet capabilities. This allows the user to gather data and respond with Control commands via the Internet. An Enclosure and Power Supply are available options for the SoM-100ES.

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.

custom carrier

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:

Memory
Primary Flash:

MMC/SD Flash Slot

Primary I/O

GPIO:	
32x Digital I/O Lines	
Video Out:	
Character LCD interface	
Ethernet:	
10/100 BaseT Ethernet with onboard Magnetics and RJ45	
Serial Ports:	
2x Serial Ports (RS232 ports	
1x RS232/485 port)	
Watchdog:	
Secondary I/O	
4x I ² C	
Keypad:	
PS/2:	
Analog on	
A/D:	
D/A:	
Analog Misc.:	
A/D: 8 channel 12-bit A/D single ended / 4 channel differential	
D/A: 4 channel 12-bit D/A	
Dimensions	
Dimensions:	
4 × 5.75 in	
Form Factor:	
Half-EBX	
Power Requirements	
Typical Current:	
300 mA	
Power Misc.:	
Power Requirements: Typical 5 - 15 Volts @ 300 ma. including SoM	
Environmental	
Low Operating Temperature:	
0 C	
High Operating Temperature:	
70 C	
Upper Operating Humidity:	
90%	
Pricing	
Out-Of-Stock NCNR:	
0	
Keypads:	
E020-21	
16 KEY MEMBRANE HEX STYLE KEYPAD	
\$30.00	
E020-25	
12 KEY MEM TELEPHONE STYLE KEYPAD	
\$25.00	
Displays:	

E020-30

20 CHAR. X 2 Line LCD Display

\$49.00

E020-31

20 CHAR. X 2 Line LCD backlit display

\$65.00

E020-32

20 char. X 4 line LCD

\$74.00

E020-33

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

\$0.00

E020-34

20 CHAR. X 2 line VF display

\$125.00

Source URL: <https://www.emacinc.com/content/som-100es>