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Source URL: https://www.emacinc.com/content/ipac-9x25

iRAC₁9x25d

#SV Power Alt Power Connector COM 1 - 85232 Debug/Console 24 Lines of Processor GPIO COM 2 R5232/422/485

8 Status PWM, A/D, I2C, SPI, I2S Audio, GPIO Ethernet Bus Dual USB Host IED's Dual USB Host ID Usb Power CAN 2 0b Port

8 Status PWM, A/D, I2C, SPI, I2S Audio, GPIO Ethernet Bus Dual USB Host ID Usb Power CAN 2 0b Port

8 Status PWM, A/D, I2C, SPI, I2S Audio, GPIO Ethernet Bus Dual USB Host USB OTG

Reset Button USB OTG

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CPU: Atmel AT91SAM9x25

ARM926EJ-S 400 Mhz Processor with 133 Mhz System Bus and JTAG debugger capability.

MEMORY: 16MB serial Flash, 128MB DDR2 RAM and 4GB eMMC.

DIGITAL I/O: 20 x General Purpose SAM9x25 Digital I/O lines, 16x SPI I/O Expander Based Digital I/O lines, and 8x High Drive Digital Outputs.

PWM: Up to 4x 16-bit PWMs.

ANALOG INPUTS: Up to 7x channels of 10 bit A/D 0 - 2.5 volts.

COMMUNICATION: 4x Serial Ports (3x RS232, 1x RS232/422/485) and 1x CAN Bus.

ETHERNET: 2x 10/100 BaseT Ethernet with RJ45.

USB: 2x USB 2.0 High-Speed Host Port, 1x USB 2.0 Full-Speed Host Port and 1x USB 2.0 High-Speed Device Port.

TIME: Battery-Backed Real-Time Clock/Calendar.

FLASH DISK: MMC/uSD Flash Disk socket.

RESET: External Reset Button provision.

INTERFACES: SAM9x25 SPI, I2C and I2S.

FORM FACTOR: PC/104 Module with Dimensions of 96 mm x 90 mm (3.77" x 3.54")

RoHS 2 (2011) compliance

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EMAC, Inc.; a leader in compact low power single board computer design and manufacturing has created the iPAC-9X25. Made in the
USA this industrial strength embedded single board computer is based on Atmel AT91SAM9X25 Processor. It has an industrial
temperature range of -40C to 85C and utilizes 4GB of eMMC Flash, 16MB of Serial Data Flash (for boot), and 128 MB of DDR RAM. The
iPac-9X25 is a web-enabled microcontroller with the ability to run an embedded server and to display the current monitored or logged data.
The web connection is available via two 10/100 BaseT Ethernet ports or 802.11 wireless wifi networking when using the proper Linux
modules and adapters. This Microcontroller has all connectors brought out as headers on a board and has the same footprint of a standard
PC/104 module at 3.77" x 3.54". The iPAC-9X25 is perfectly suited for Industrial Temperature Embedded Data Acquisition and Control
applications. The iPAC 9X25 has one (1) RS232 serial port with full handshake (RTS/CTS/DTR/DSR/RI), two (2) RS232 serial ports (TX
and RX only), one (1) RS232/422/485 serial port with RTS/CTS handshake, two (2) 10/100 BaseT Ethernet ports, two (2) USB 2.0 Host
ports, and one (1) USB Device port. The board has 7 channels of 12 bit A/D (0 to 3.3 volt) and an internal real-time clock/calendar with
battery backup. It also includes 21 GPIO (3.3 V) lines on header, 8 high drive open collector dedicated digital output lines with configurable
voltage tolerance, 16 GPIO (3.3V) on header, 2 PWM I/O lines with additional 4 PWN lines shared with A/D. The iPAC-9x25 has 5
Synchronous Serial I/O lines (I2S), 5 SPI lines (2 SPI CS), I2C Bus, CAN Bus, a micro SD socket, an external Reset Button provisions and
red Power and Green status LEDs.
Sbe Type.
Single Poord Computer Microcontroller
Embedded Atmel AT91SAM9X25
Clock Speed:
400 MHz
Real Time Clock:
Processor Misc.:
133 Mhz System Bus and JTAG debugger capability.
Memory
Primary rash:
4GB of eMMC
Secondary Flash:
16MB of Serial Data Flash
G. Primary I/O
20x General Purpose SAM9X25 Digital I/O lines
16x SPI I/O Expander Based Digital I/O
and 8x High Drive Digital Outputs. ***Requires Qty 2 Terminal Boards to utilize all GPIO***
Disk Interface:
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Micro SD Ethernet:

Serial Ports: 3x RS232

Watchdog:

1x RS232/422/485

Primary I/O Misc.:

USB:

2x 10/100 Base-T with RJ45

2x USB 2.0 High-speed Host Ports

2x RS232 serial ports (TX and RX only)

1x USB Full-Speed Host and 1x USB 2.0 High-speed Device Port

1x RS232 serial port with full handshaking (RTS/CTS/DTR/DSR/RI)

External Reset Button provision Secondary I/O Timers/ Counters/ PWM: Battery-Backed Real-Time Clock/Calendar Up to 4 16-bit PWMs LPT Port: Keypad: PS/2: Analog on A/D Channels: A/D Channels: 7 channel, 10-bit A/D Resolution: 10 bit D/A: D/A Channels: none Dimensions Dimensions. $3.77 \times 3.54 \text{ in}$ Form Factor: PC/104 SBC sized module Power Requirements Voltage. 5 V Environmental
Low Operating remperature: -40 C High Operating Temperature: 85 C Pricing
IFAC-2A25-000 400 MHz, 128MB DDR2, 4GB of eMMC and 16MB Serial Data Flash Stock \$198.00 Order: Parent Product: Terminal Boards: PCD-39E00-000 Screw Terminal Board Kit containing 40 pin and 50 pin connection cables ***See Product GPIO*** \$50.00

1x RS232/422/485 serial port with RTS/CTS handshake

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