

GENESYS



EMBEDDED PROCESSOR PRO

PROCESSOR BOARD with INCREASED
PROCESSING and IO CAPABILITY.

Product Code: GBE-BY-200P

GENESYS
ELECTRONICS DESIGN

CALL US ON +61 2 9496 8900

Unit 5, 33 Ryde Road
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EMBEDDED PROCESSOR PRO

The Genesys Embedded Processor Pro is designed for applications where the processing power offered by GMS processor boards (such as the 6LoWPAN module Pro GBI-ML-200P) needs to be complemented or enhanced RTOS (Real Time Operating System) functionality is needed.

MORE PROCESSING POWER

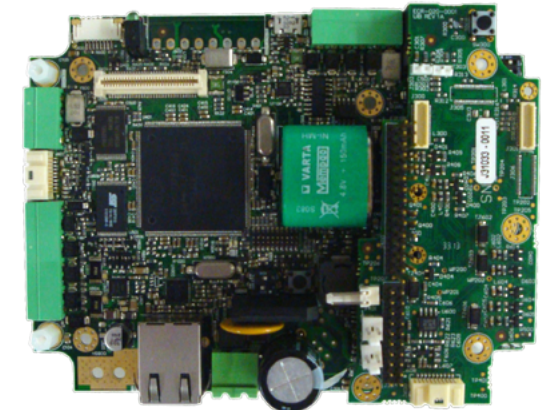
The board boasts a 120MHz Cortex M3 microcontroller with 512kB internal flash memory and 96kB of RAM allowing more complex and I/O intensive software to run with ease. This is complimented with an external 4Mbit of SRAM.

MORE IO

The Embedded Processor Pro is fully GMS compatible and also offers increased I/O capability - RS-485, USB, DAC, ADC, SPI, I2C, CAN and broken out GPIO connectivity which is readily available on the board. The board also features a complete Ethernet implementation which provides a high-speed connection for internet-enabling your M2M/IoT system.

NEVER LOSE ANY DATA

The board contains a built-in rechargeable battery capable of powering the system for a safe shutdown in the case of a power outage. This is complimented with 1Mb flash memory and an SD card which provides a non-volatile source of storage.



CHARACTERISTICS OVERVIEW

DIMENSIONS

134.5 x 102.5mm



PROCESSOR

120MHz ARM-7 Microcontroller with 512kB internal flash memory and 96kB RAM.
Compatible with FreeRTOS, SAFERTOS and uCLinux.

MEMORY

External 4Mbit SRAM
External 1Mb Flash Memory
Micro-SD Card

I/O

RS-485, USB-OTG, DAC, ADC, SPI, I2C, CAN and Ethernet



Genesys Modular Stack is a technology allowing for the easy interconnection of expansion modules. Genesys Modular Stack compliant modules feature a characteristic pair of board-to-board feedthrough connectors, so that they are infinitely stackable with each module adding new functionality. The Embedded Processor Pro is fully compatible with Genesys Modular Stack.



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CHARACTERISTICS

PROCESSOR

- 120MHz ARM Cortex-M3 Based Microcontroller
- 512kB Internal Flash Memory (External 1Mb Flash Memory)
- 96kB Internal RAM (External 4Mbit SRAM)
- Peripherals Including: LCD Controller, Ethernet, USB Controller, UARTs, SD/MMC Controller, Realtime Clock, 12-bit ADC and 10-bit DAC.

USER INTERFACE

- Power Status Indicator LEDs
- I/O Activity LEDs
- System Status LEDs
- System Reset Pushbutton
- Configuration DIP Switches

I/O INTERFACES

- RS-485
- Genesys Modular Stack dual 40-pin connector providing: 3V3 Power, 1 UART and I2C.
- Three Expansion Headers which provide:
 - GPIO
 - DAC and ADC channels
 - CAN
 - SPI
 - I2C

USB

- Fully compatible USB-OTG implementation
- Micro-USB port

INTERNET CONNECTIVITY

- 10/100Mbit Ethernet Interface

POWER

- 19-36VDC or 24VAC Power Input
- 150mAh 4.8V Rechargeable NiMH Backup Battery

STORAGE

- Dual On-Board Data Backup EEPROMs
- EUI-48 48-bit Extended Unique Identifier
- 1Mb Flash Memory
- Expandable Micro-SD Card Storage

ENVIRONMENTAL

- Temperature (Operating): -15°C to +55°C
- Temperature (Survival): -55°C to +85°C
- Humidity (Operating): 95% RH at 50°C

PHYSICAL

- Dimensions: 134.5 x 102.5mm (Alternative with 118mm x 75mm is also available)

MOUNTING DIMENSION DRAWING

