

GENESYS



SENSOR BASE BOARD

BATTERY POWERED SENSOR and I/O
BASEBOARD with BASIC SENSING

Product Code: GBI-BS-200

GENESYS
ELECTRONICS DESIGN

CALL US ON +61 2 9496 8900

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SENSOR BASE BOARD

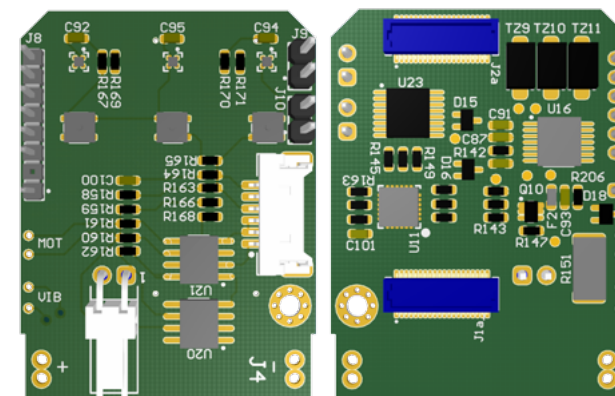
The Genesys Sensor Base Board is designed to be compact and low-cost. It is specifically intended to be retro-fitted into “dumb” sensors and actuators to allow them to become part of the Internet of Things (IoT) enabling disparate control points work together in a common system.

BATTERY POWERING AN OPTION

The Sensor Base Board is designed for ultra-low power consumption when it is inactive. It can be retro-fitted to battery-powered equipment or installed with its own battery when the equipment being interfaced to it is non-powered or inappropriate for supplying power to the base board.

HARDENED INTERFACE OPTIONS

The Base Board was intended for applications in harsher environments. The broken out I/O connections are robust and well-protected, allowing the base board to comfortably exist in any electronics environment. The base board also includes a real-time clock and basic sensors on board, and some analog inputs and as a result it can provide more than just digital sensing capability.



CHARACTERISTICS SUMMARY

1°C Accuracy Temperature Sensor
0.4% RH Accuracy Humidity Sensor

ON-BOARD

Real-time clock
Buzzer and vibration motor
Dual serial EEPROMs, with unique ID

DIMENSIONS

42mm x 32mm



CONNECTIVITY

Genesys Modular Stack dual 40-pin connector



Genesys Modular Stack allows for easy interconnection of expansion modules. Genesys Modular Stack compliant modules feature a characteristic pair of board-to-board feedthrough connectors ensuring that they are infinitely stackable with each module adding new functionality. The Sensor Base Board is fully compatible with Genesys Modular Stack.



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CHARACTERISTICS

PERIPHERAL SPECIFICATIONS

- Battery-backed realtime clock
- Dual on-board data backup EEPROMs
- EUI-48 48-bit Extended Unique Identifier

CLIMATE SENSORS SPECIFICATIONS

- Temperature:
 - $\pm 1^{\circ}\text{C}$ Accuracy Temperature Sensor
- Humidity:
 - 0.4% RH Accuracy Humidity Sensor

I/O

- Internal I/O breakout header options:
 - 4 GPIO
 - 2 open-drain outputs
 - 4 un-buffered ADC inputs with protection

USER INTERFACE

- 1 Reset button
- 1 System pushbutton with RGB LED
- 3 optional pushbuttons with RGB LEDs
- Buzzer and vibration motor

BATTERY POWERING

- Type & chemistry: A23 Alkaline
- Current consumption:
 - 30mA (Typical)
 - <14.6 μA (Sleep Mode)
 - <1 μA (Hibernate)
- With typical use as a remote control device, the battery will typically last at least one year, and likely two years depending on usage patterns

OPTIONAL WIRED POWERING

- 5V to 12V input voltage

ENVIRONMENTAL

- Temperature (operating): -15°C to $+55^{\circ}\text{C}$
- Temperature (survival): -55°C to $+85^{\circ}\text{C}$
- Humidity (operating): 95% RH at 50°C

MOUNTING DIMENSION DRAWING

