

# GENESYS



## KEYFOB BASE BOARD

BATTERY POWERED ACTUATOR and  
I/O BASEBOARD with BASIC SENSING

Product Code: GBI-BA-200

**GENESYS**  
ELECTRONICS DESIGN

**CALL US ON +61 2 9496 8900**

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## KEYFOB BASE BOARD

The Genesys Keyfob Base Board is a general purpose M2M/IoT actuator that offers a variety of I/O interfaces. The Base Board comes with a set of three pushbuttons paired with RGB LEDs, and can be configured to transmit various commands and receive and display acknowledgement signals from a remote receiver using the 6LoWPAN protocol. This provides the designer maximum flexibility of options to configure their commands and designs while also having access to the benefits of IoT technology.

### EASY BATTERY REPLACEMENT

To ensure its low cost, the device does not come with battery charging capabilities but utilises a standard A23 non-rechargeable alkaline battery; a common battery that is widely available, compact and long-lasting.

### HARDENED INTERFACE OPTIONS

The baseboard was designed for harsher environment applications and breaks out a set of I/O terminals to allow for interfacing with various “dumb” actuators and sensors. This allow for quick and easy wired integration with M2M/IoT technology if the user so desires. In addition wiring points are present at the pushbuttons allows for designers to add their own choice of interfaces, maximising flexibility.



### 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 Keyfob 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 IO 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  $\mu\text{A}$  (Sleep Mode)
  - < 1 $\mu\text{A}$  (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

### ENVIRONMENTAL

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

### MOUNTING DIMENSION DRAWING

