

GENESYS



KEYFOB BASE BOARD PRO

BATTERY POWERED ACTUATOR and I/O BASEBOARD with CONTACTLESS CHARGING, and VERSATILE SENSING

Product Code: GBI-BA-200P

GENESYS
ELECTRONICS DESIGN

CALL US ON +61 2 9496 8900

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KEYFOB BASE BOARD PRO

The Keyfob Pro remote device is designed with communication acknowledgement capabilities. It uses the 6LoWPAN protocol and acknowledgments can be seen with the indication of an LED to the user. The device comes with three configurable buttons and RGB LEDs offering designers greater flexibility in remote control and IoT applications.

HANDFUL OF SENSORS

The Pro-Keyfob Base Board comes fully equipped with humidity, temperature and three axis accelerometer sensors. It is perfectly suited to a variety of remote data-logging and environmental sensing applications. In addition to this, locational data-logging and tracking needs can be met with an on-board GLONASS GPS and real time clock.

QI CHARGING BATTERY CAPABILITIES

The device comes readily equipped with 3V LiPo battery charging capabilities using Qi charging technology. This allows for a complete wireless charge solution and takes advantage of the latest developments in portable technology.



CHARACTERISTICS SUMMARY

SENSORS

u.Blox MAX-7W GNSS module
9-axis Accelerometer, Gyrometer & Magnetometer
1°C Accuracy Temperature Sensor
0.4% RH Accuracy Humidity Sensor

ON-BOARD

Contact-less Battery Charging
GPS Antenna & Backup Battery
RTC, Dual serial EEPROMs, with unique ID

DIMENSIONS

68mm x 52mm

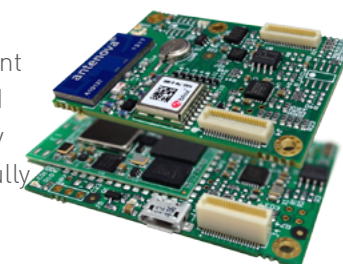


CONNECTIVITY

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 Pro is fully compatible with Genesys Modular Stack.



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CHARACTERISTICS

GNSS SPECIFICATIONS

- u.Blox MAX-7W GNSS module
- Backup battery 3V 3.4mAH
- LNA front-end amplifier & SAW filter
- On-board chip antenna with UFL connector options

PERIPHERAL SPECIFICATIONS

- 9-axis Accelerometer, Gyrometer & Magnetometer
- 3-axis Accelerometer options available
- Battery-backed realtime clock
- Dual on-board data backup EEPROMs
- EU1-48 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: LiPo 3.7V single cell
- Current consumption:
 - 52mA (GPS acquisition)
 - 15mA (Typical)
 - $<20\mu\text{A}$ (Static)
- Discharge time dependent on sensor configuration and duty cycling; typically ranges from 48 to 1500 hours
- 1 to 3 hour charge time (charger dependent)
- “Qi” contactless charging technology; utilises any standard Qi charger device (eg LG Electronics WCP-300)
- Optional auxiliary 5V to 12V external powering

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

