

GENESYS



KEYFOB BASE BOARD ULTRA

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

Product Code: GBI-BA-200U

GENESYS
ELECTRONICS DESIGN

CALL US ON +61 2 9496 8900

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KEYFOB BASE BOARD ULTRA

Similar to the Pro-Keyfob, the Ultra-Keyfob Base Board comes fully equipped with humidity, temperature and accelerometer sensors making it perfectly suited for a variety of remote data-logging and environmental sensing applications. In addition to this, location data-logging and tracking needs can be met with an on-board GNSS receiver and real time clock. Not to mention it contains an additional audio codec package and speakers, giving the designer the options for multimedia applications.

GETTING IN TOUCH

The Ultra-Keyfob features a resistive touch-based 1.8 inch TFT LCD screen and multiple LED/pushbutton shortcut keys as the primary user interface. With flexibility and greater interface options created by touch technology, the designer is provided with a range of sophisticated GUI design possibilities.

QI CHARGING BATTERY CAPABILITIES

In addition the device comes well equipped with various 3V LiPo battery charging capabilities, with option to charge via USB or using wireless Qi charging technology. Taking advantage of the latest and maximising the benefit of 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

- 1.8" Touch-screen TFT LCD
- Audio codec, Real-time clock
- Contact-less Battery Charging

DIMENSIONS

68mm x 52mm

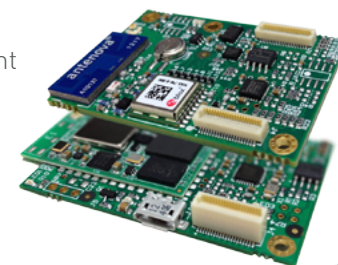


CONNECTIVITY

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 Ultra 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

- 1.8" 128 x 160 pixel touch-screen TFT LCD
- Audio codec with speaker and microphone I/O
- 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

