

# GENESYS



## BLUETOOTH LOW ENERGY MODULE

BLUETOOTH LE MODULE

Product Code: GBI-MC-203

**GENESYS**  
ELECTRONICS DESIGN

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

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## BLUETOOTH LE MODULE

The Genesys Bluetooth Low Energy Module is a modular integrated wireless communications solution for creating low power Personal Area Networks.

### AN INTEGRATED SOLUTION

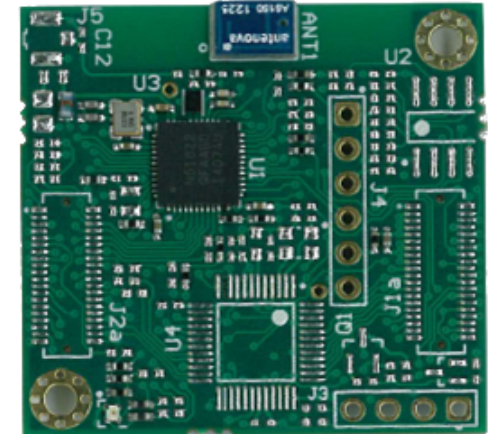
The Bluetooth LE Module is a one-board solution for Bluetooth communication and control. It houses a capable 32-bit Arm Cortex-M0 microcontroller featuring 256KB of flash memory, 16 KB of RAM and an integrated 2.4GHz software defined radio. The module's capabilities can be expanded with an STM8 8-bit microcontroller to act as a co-processor or GPIO expander.

### POWERFUL IO CAPABILITIES

The Bluetooth LE Module features up to 31 user-configurable GPIO bringing you an unprecedented level of user-configurable M2M Wireless control.

### FULL GENESYS M2M IoT CAPABILITIES

The Bluetooth LE Module provides qualified Bluetooth communications in Genesys M2M equipment. This provides a low-cost, low-power bridge between Smartphones and Tablets and Genesys M2M equipment.



### CHARACTERISTICS OVERVIEW

#### DIMENSIONS

32mm x 34mm

#### CPU & Memory

32MHz 32-bit ARM Cortex-M0 with 16KB RAM

#### Connectivity

Genesys Modular Stack dual 40-pin connector UFL and SMA radio Antenna connector



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 Bluetooth LE Module is fully Genesys Modular Stack Compatible.



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## CHARACTERISTICS

### BLUETOOTH NETWORK

- Bluetooth Smart PAN
- Maximum Data Transfer Rate 2Mbps
- Master and/or Slave roles available

### PROCESSOR SPECIFICATIONS

- CPU: 32MHz 32-Bit ARM Cortex-M0
- Memory: 16KB RAM, 256KB FLASH

### RADIO SPECIFICATIONS

- Bluetooth 4.1 compliant stack
- Transmit Power: +4dBm
- Receiver Sensitivity: -93dBm
- On-board chip antenna with external antenna attachment via an optional UFL connection

### I/O INTERFACES

- Genesys Modular Stack Dual 40-pin connector
- 3V3 Power
- 2 UARTs
- Serial Peripheral Interface (SPI)
- 8 Analogue/Digital Converters
- Timer/Counter IO
- General Purpose Inputs/Outputs
- SWDIO Programmer

### MEMORY

- 2kb Serial EEPROM with Factory-Programmed EUI-48™ Address and Embedded Unique 128-bit Serial Number

### ENVIRONMENTAL

- Temperature (operating): -25 to 70C
- Temperature (survival): -25 to +70C
- Humidity (operating): 95% at 50C

### POWER

- Genesys Modular Stack 3V3 Power Incremental Loads:
  - 29mA (Radio TX Active)
  - 26mA (Radio RX Active)
  - 5mA (Idle)
  - <1mA (Dozing)
  - 157uA (Hibernating)

### PHYSICAL

- Dimensions: 32mm x 34mm

### MOUNTING DIMENSION DRAWING

