**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.

### 6LoWPAN TRANSCEIVER MODULE PRO

The Genesys 6LoWPAN Transceiver Module Pro is an advanced, modular and integrated wireless communications solution for creating productive Personal Area Networks.

#### AN INTELLIGENT RADIO

The 6LoWPAN Transceiver Module Pro houses a powerful 32-bit ARM7-based microprocessor featuring 128KB of serial flash memory, 96KB of RAM, an integrated IEEE 802.15.4 compatible radio and a powerful 100mW transmitter. The module is shielded to maximise radio performance.

#### MORE POWER FOR DEMANDING USERS

The Pro edition expands on the 6LoWPAN Transceiver Module’s (GBI-ML-200) transmission capabilities by including an upgraded 100 mW transmitter and RF shielding to reduce interference and maximise performance.

#### FULL GENESYS M2M IoT COMPATIBILITY

The 6LoWPAN Transceiver Module serves as the professional level transceiver module in Genesys M2M equipment. M2M integration is seamless - all similarly configured 6LoWPAN transceivers within meshing nodes, M2M network servers and Gateway/Routers will instantly see another as a new addition to the network. 6LoWPAN sub-network separation can be achieved via the designation of a unique network ID.

**CHARACTERISTICS OVERVIEW**

- **CPU & MEMORY**
  - 26MHz 32-bit ARM7 CPU with 96KB RAM
- **DIMENSIONS**
  - 34mm x 40mm
- **CONNECTIVITY**
  - Genesys Modular Stack dual 40-pin connector
  - MMCX radio antenna connector

**Product Code:** GBI-ML-200P
CHARACTERISTICS

WIRELESS NETWORK
- IEEE 802.15.4 full mesh network
- 6LoWPAN IPv6 enabled stack
- Supports drop-in, drop-out PnP

PROCESSOR SPECIFICATIONS
- CPU: 26MHz 32-bit ARM7
- Memory: 96 KB RAM, 128 KB Flash
- 2kb Serial EEPROM Factory-Programmed EUI-48™ Address
- Embedded Unique 128-bit Serial Number

RADIO SPECIFICATIONS
- IEEE 802.15.4 compliant MAC
- Transmit Power +17dBm
- Receiver Sensitivity -96dBm
- Antenna attachment via MMCX radio antenna connector

I/O INTERFACES
- Genesys Modular Stack Dual 40-pin Connector:
  - 3V3 Power
  - 2 UARTs
  - Serial Peripheral Interface (SPI)
  - Inter-Integrated Circuit (I2C)
  - 6 Analogue/Digital Converters
  - Keyboard Interface
  - Timer/Counter 10
  - General Purpose Input/Outputs
  - JTAG Programmer

PHYSICAL
- Dimensions: 34mm x 40mm

ENVIRONMENTAL
- Temperature (operating): -15°C to +55°C
- Temperature (survival): -55°C to +85°C
- Humidity (operating): 95% RH at 50°C

POWER CONSUMPTION
- Genesys Modular Stack 3V3 Power Load:
  - 124mA (Radio TX Active)
  - 27mA (Radio RX Active)
  - <1mA (Idle)
  - ~70μA (Dozing)
  - 4.9μA (Hibernate)

MOUNTING DIMENSION DRAWING