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**

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

**AN INTELLIGENT RADIO**

The 6LoWPAN Transceiver Module houses a powerful 32-bit ARM7-based microprocessor featuring 128KB of serial flash memory, 96KB of RAM and an integrated 1mW IEEE 802.15.4 compatible radio with a 1mW transmitter.

**POWERFUL I/O CAPABILITIES**

The 6LoWPAN Transceiver Module contains up to 64 programmable GPIOs bringing you an unprecedented level of user-configurable M2M wireless control.

**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

WIRELESS NETWORK
- IEEE 802.15.4 full mesh network
- Maximum Data Transfer Rate: 250kbps
- 6LoWPAN IPv6 enabled stack
- Supports drop-in, drop-out PnP

PROCESSOR SPECIFICATIONS
- CPU: 26MHz 32-bit ARM7
- Memory: 96 KB RAM, 128 KB Flash

RADIO SPECIFICATIONS
- IEEE 802.15.4 compliant MAC
- Transmit Power: +4dBm
- Receiver Sensitivity: -96dBm
- Antenna attachment via UFL connection, with on-board chip antenna and SMA connector options

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 IO
  - General Purpose Input/Outputs
  - JTAG Programmer

PHYSICAL
- Dimensions: 32mm x 34mm

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:
  - 31mA (Radio TX Active)
  - 27mA (Radio RX Active)
  - <1mA (Idle)
  - ~70μA (Dozing)
  - 4.9μA (Hibernating)

MOUNTING DIMENSION DRAWING

Revision 2A