CloudGate

BLE EXPANSION CARD

Connect your BLE beacons to the Cloud

- Enables CloudGate BLE 4.2 connectivity
- ANT+ protocol & Wirepas Mesh protocol ready
- Beacon message management via LuvitRed

OPTION

Connect your BLE beacons to the Cloud

The BLE expansion card enables Option's CloudGate gateway to receive message from BLE beacons using the iBeacon protocol. It's firmware can be managed through LuvitRed, Option's 'drag & drop configuration tool, supporting other types of communication in any RF frequency from 2400MHz to 2524MHz.

ANT & ANT+

ANT™ is a proprietary multicast wireless sensor network technology which works in the same 2.4GHZ band as Bluetooth, WiFi and Zigbee.
Orignally for sensors deployed in the sports and fitness sector, with millions of deployed nodes, ANT™ is perfectly suited for any kind of low data rate sensor network topologies. It's big advantage is that sensor nodes can transmit, receive and transceive to route traffic to other sensor nodes.

ANT+ is an interoperability function that can be added to the base ANT protocol for ANT+ Alliance members. This facilitates the open collection and interpretation of sensor data.
Custom firmware for Option's BLE expansion card, enables communication with ANT and ANT+ sensors.

Wirepas Mesh

With LuvitRed advanced* and with Wirepas supported BLE beacons, Option's CloudGate IoT gateway is ready to be deployed as a sink in any Wirepas Mesh network where the BLE beacons all run the Wirepas stack in parallel with the BLE beacon functionality. The Wirepas stack allows the BLE beacons to communicate to each other in a mesh configuration with Option's CloudGate gateway as the access point for all the meshed beacons to the cloud platform.
A typical use case is indoor localization, where the location of the BLE beacons (or tags) are determined using the signal strength of the BLE beacons (or anchors) that have a fixed position in the building.

Biketracer

Option's biketracer is a tubular-shaped BLE beacon that allows tracing and/or identification of bicylcles or motorcycles. It's built-in replaceable AAA battery lasts min. 2 years (when beaconing every second). The biketracer can be activated with a Reed switch. Biketracer communicates the identifier, temperature, accelerometer status and battery level. With Wirepas software it can communicate with other biketracers.

*optional

Feature	Description
BLE module	• Rigado BMD-301
BLE version	• 4.2 standard (Bluetooth 5 compliant)
Chipset on BLE module	• Nordic nRF52832
Frequency band	• 2.4 GHz ISM band (2.36 to 2.5 GHz)
Tx power	• 0dBm @5.3mA
Rx sensitivity	• -96dBM @5.4mA
RSSI resolution	• 1dB
Operating temperature	• -30°C to 70°C
External antenna connector on expansion card	• RP-SMA female
BLE module firmware reprogramming	• Supported in LuvitRed advanced*
ANT / ANT+ support	• YES - with special BLE module firmware version
BlooLoc yooBee support	• YES - with special BLE module firmware version
Wirepas support	• YES - with special BLE module firmware version

BlooLoc indoor positioning

With custom-built firmware on the BLE card, it is possible to use the Option's CloudGate as the gateway in yooBee, the BlooLoc indoor positioning solution.
See www.blooloc.com for more information