MULTI-FUNCTIONAL DEVICE WITH SIGFOX CONNECTIVITY

The LOKA IoT Solution are composed by multi-purpose boards, a cloud-based device management platform and a geolocation tool. The multi-purpose module can be used as a motherboard or a daughterboard (allowing to connect a variety of sensors). The geolocation is done combining the signal strength and location of Wi-Fi and SIGFOX base stations to determine its position. As a standalone board it can act as Geolocation device, with Temperature sensor, Motion Sensor and Magnetic sensor.

TECHNICAL SPECIFICATIONS

Daughterboards
The mini-boards have access to all of the pins in a 25mmx24mm form factor.
The 3.3V power supply to the mini-board can handle up to 200mA.
The mini-board architecture is open spec, enabling anyone to develop mini-boards, so long as they remain compliant to the specifications.
The mini-boards may be handled by generic drivers, or with fully customizable routines as an extension to the LOKA's firmware.

Module
LOKA PRIMIS Board can work as a standalone Sigfox device or can be mounted on top of already existent systems in order to provide connectivity.

Device Management
LOKA's devices are managed in a cloud platform (LOKA MIND) where firmware, configuration and parameters are kept for each and every device.

Wi-Fi & Geolocation
With 802.11 b/g/n support, the LOKA PRIMIS board enables geolocation of objects with low power consumption. This feature enables it to perform firmware upgrades and a local Bluetooth interface, to configure and manage the device.

LOKA PRIMIS

DIMENSIONS
L: 92mm; W: 35mm; H: 26mm

WEIGHT
25,4 g (without batteries)

OPERATING TEMPERATURE
-30ºC to +85ºC

SIGFOX ETSI
Output power: Class 0 - 14 dBm
Rx Sensitivity: -126 dBm
Uplink Frequencies : 868.1 MHz to 869.5 MHz

SIGFOX FCC
Output power: Class 0 - 22 dBm
Rx Sensitivity: -126 dBm
Uplink Frequencies: 902.2 MHz to 920.8 MHz

SENSORS
WiFi 802.11b/g/n transceiver
Bluetooth
Acceleration sensor, Temperature Sensor, Button & LED indicator

INPUT VCC
From 2.2V to 5.5 V

POWER CONSUMPTION
Sleep: 18uA
Running: 15mA
Transmitting: 75 mA (~6 sec) ETSI, 180 mA (~2 sec) ETSI

EXTERNAL INTERFACES
11 Analog IO lines
13 Digital IO lines
UART / Serial Port (AT commands available)
SPI / I2C / 1-.Wire Support
3.3V input / output
Power control

SDK AND API
All product features are made available through the API, enabling the fast development of applications. The Development Kit and SDK provide the tools to extend and customize the functionalities of the device.

APPROVALS AND CERTIFICATIONS
Sigfox RCZ1 (ETSI) RCZ2 and RCZ4 (FCC)
CE mark (ongoing)
WEEE, RoHS compliant