



MULTI-FUNCTIONAL DEVICE WITH SIGFOX CONNECTIVITY

The LOKA solution is composed by a multi-purpose board, 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, the LOKA can act as Geolocation device, Temperature sensor, Motion Sensor, or a Magnetic sensor.

TECHNICAL SPECIFICATIONS

Daughterboards

The LOKA Mini-Boards have access to all of the LOKA 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 firmware.

Module

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

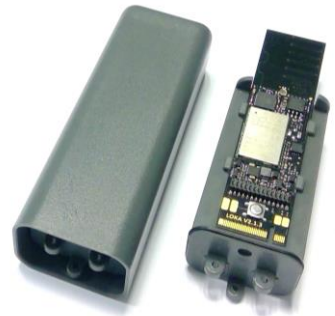
Device Management

LOKA devices are managed in a cloud platform where firmware, configuration and parameters are kept for each and every device.

Wi-Fi & Geolocation

With 802.11 b/g/n support, the LOKA 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.



DIMENSIONS

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

WEIGHT

25,4 g (without batteries)

OPERATING TEMPERATURE

-30°C to +85°C

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

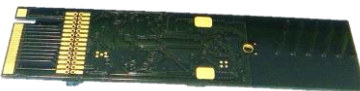
All product features are made available through the API, enabling the fast development of applications. The Development Kit and SDK provide the tools to extend and customize the functionalities of the device.

APPROVALS AND CERTIFICATIONS

Sigfox RCZ1 (ETSI) RCZ2 and RCZ4 (FCC)

CE mark (ongoing)

WEEE, RoHS compliant



LOKA V2