



## KEY FEATURES

- Open source developer device designed for Internet of Things innovations
- Ready to be used out of the box, comes with a mobile application and connection to a Thingsee server for demonstration and development purposes
- Thingsee OS has a Smart purpose engine that makes it possible to create events of the sensor data on the device
- Ultra low power hardware design with adaptive power consumption
- Designed for mobility with cellular connectivity and long battery life
- Usable outdoors with shock and water resistant IP67 mechanics
- A-GPS/GNSS location
- Wide variety of power optimized MEMS sensors: 3D accelerometer, magnetometer, gyroscope, temperature, humidity, pressure and ambient light
- Wireless local connectivity with WLAN and future proof Bluetooth LE 4.1
- Extendable: more sensors can be connected via BT or using free serial interfaces on PWB

## MOBILE APPLICATION

- iOS and Android applications for easy configuration of the device with sensor settings, events and notifications
- Data visualization views for sensor data observation

## THINGSEE CREATOR

- Easy to use web tool for non-programmers to create customized functionality on the device
- Visual state machine to define how device monitors its sensors, creates events, reacts to events and communicates with backend servers

## OPEN SOURCE THINGSEE OS & SDK

- Thingsee OS, a RTOS enabling easy and fast configuration of device purpose
- Thingsee SDK for Thingsee One Device SW and reference Thingsee Backend SW for developers

## HARDWARE SPECIFICATION

### USER INTERFACE

- Display: Standard 1.54" Monochrome Graphic OLED (128x64), white color
- UI input device: CapSense® MBR3108

### MICROCONTROLLER UNIT

- Ultra-low-power 32-bit MCU, ARM® based Cortex®-M3 with 512KB Flash, 80KB SRAM, 16KB EEPROM, AES-128bit encryption hardware

### WIRELESS CONNECTIVITY

- 2.5G GSM/GPRS Modem
  - » GSM 850/900/1800/1900 MHz
  - » GPRS Class 10, CS1-CS4 - up to 85.6 kb/s
- WLAN IEEE 802.11 b/g
- Bluetooth LE 4.1

### LOCATION

- A-GPS and GNSS
- CellLocate®: location based on cellular network

### SENSORS

- Ultra low-power 3-Axis accelerometer
- Humidity and temperature sensor
- Pressure sensor
- iNEMO 9-axis inertial module Gyroscope, Magnetometer, Accelerometer
- Ultra low-power Ambient light sensor

## WIRED CONNECTIVITY

- Micro USB2.0 for charging and data transfer
- Free serial interfaces (SPI, I2C, UART) with supporting GPIO pins on PWB
- JTAG access on PWB for debugging

## MEMORY

- Micro SD memory card slot for data storage on device, support up to 128GB

## SIM CARD

- Micro-SIM card slot, unlocked to an operator

## BATTERY

- Rechargeable Li-Ion Battery 1900mAh, charging via Micro USB

## SIZE

- 110 x 67 x 19 mm