



## AMBIENT SENSOR NODE

Powerful, Easily Customizable and Withstand Conditions

The Ambient Sensor Node is packed with sensors to measure data from environmental quality to machine vibrations. It is powered with 1000mAh battery or optionally via USB-cable.

The Ambient Sensor Node has been designed to be powerful, easily customizable, beautiful and is able to withstand conditions. It runs Wirepas Mesh connectivity software making it the perfect choice for large-scale mesh networks for sensor data collection and asset management in smart buildings, cities and factories.



### PRODUCT FEATURES

#### Hardware

- 2.4GHz / Wirepas Mesh
- Dual-MCU
- NRF52 (connectivity)
- STM32 (application)
- Battery CR2477, 1000 mAh
- Operating temp -20 to +70c
- Size: ø41,5mm x 14,9mm

#### Super-set of sensors

- 3-axis accelerometer
- Air Quality (VOC)
- Temperature and Humidity
- Barometric pressure and altitude
- Ambient noise and light
- HAL-sensor

#### Customization options

- BT LE or BT mesh
- IP67 protection
- Branding and color

#### Fixing methods

- Integrated magnets
- Attachment plates
- Adhesive

### SPECIFICATIONS OF SENSORS IN NODE

#### Accelerometer

- High-performance 3-axis linear accelerometer
- ±2g/±4g/±8g/±16g dynamically selectable full scales
- Measuring accelerations with data rates of 1 Hz to 5 kHz
- 6D/4D orientation detection, Free-fall detection, Motion detection
- “Sleep-to-wake” and “Return-to-sleep”

#### Barometer

- Pressure range 300 - 1100 hPa, -40 - 85°C (battery range limiting)
- Typical error +/- 1hPa

#### Humidity

- 0 to 100% RH operating range, +/- 4% typical accuracy error

#### Temperature

- High-precision temperature sensor with operational range -55°C up to +150 °C (battery range limiting)
- Sensor accuracy, max +/- 0.2°C

#### Ambient light

- Approximate the human-eye response
- High accuracy requires a direct line of sight to the sensor (on the right side of the node button)

#### HAL

- Magnet proximity binary detection.

#### Air quality (voc)

- Detects a broad range of gases to measure air quality, including Volatile Organic Compounds

#### Ambient noise (beta)

- Approximate to human-ear noise range, output in dB
- Acoustic sensor, a low noise input buffer and an output amplifier
- Omnidirectional with RF immunity
- -40 to +100°C operating range (battery range limiting)

The information provided herein is to the best of our knowledge true and accurate, it is provided for guidance only. All specifications are subject to change without prior notification.

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