



MA:DE IN GERMANY

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Description

The aconno NFC Sensorbeacon is equipped with various sensors to measure environmental values as temperature, surrounding light intensity, magnetic field strength and orientation as well as accelerations. All sensors can be deactivated with a dedicated load switch in order to save power and maximize battery life. The brains of the NFC Sensorboard is a Nordic Semi nRF52832 SoC, which features a Cortex M4F processor as well as 2.4GHz BLE connectivity. The Sensorbeacon can also act as an NFC Tag emulator, making it able to be read out with NFC readers as smartphones or tablets.

On our gitlab you can find a demo-firmware to test out the NFC functionality as well as useful firmware examples to implement the other sensors.

Specifications

- Bluetooth 5 connectivity
- ARM Cortex M4F processor
- 512 kB Flash, 64 kB RAM
- Powered by a CR2450 battery
- Shipped with durable Rilsan® housing

- 0°C to 70 °C temperature measurement
- 0.1 to 10.000 lux light measurement
- ± 16 g acceleration measurement on 3-Axis
- ± 1300 µT H-field measurement on X,Y-Axis
- ± 2500 µT H-field measurement on Z-Axis
- Various trigger-points for H-field or acceleration events
- 13.56 MHz NFC Tag emulator

Use Cases

- Machine retrofit
- Asset tracking
- Temperature measurement
- NFC advertisement
- iBeacon

Implemented Sensors

- Bosch Sensortec BMC150 (3-axis magnetometer, 3-axis accelerometer)
- On Semiconductor KDT00030TR (Lightsensor with response close to the human eye)
- Microchip MCP9700T (Temperature Sensor)



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Schematic





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