



LOW COST NB-IOT SENSOR REFERENCE DESIGNS



The NB-IoT sensor reference design has been designed to provide low cost production ready product.

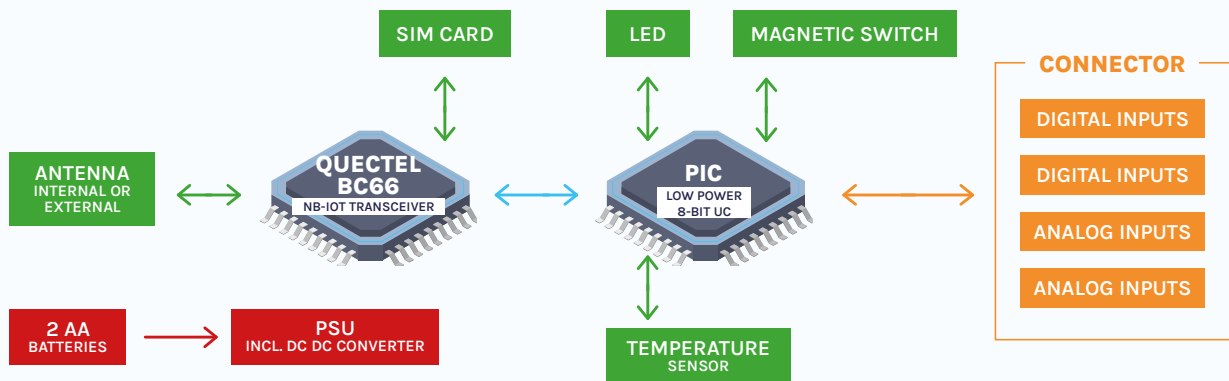
The multiple analog and digital interfaces allow versatile device use cases :
Temperature, Humidity, leak, pulse counter metering, luminosity, 4-20mA sensors and more...

FEATURES

- Can run 1 year on 2 AA batteries
- Internal or external 4G antennas
- Integrated Temperature sensor
- Integrated accelerometer and magnetic switch
- 8uA Standby power consumption
- BOM Highly Optimized
 - └ 1 side PCB
 - └ LTE Cat NB (NB-IoT) solution (BC66)
 - └ RBOM Optimisations

- Compatible with MQTT v3.1.1 protocol
- Product Size in mm (without external antennas) :
35 x 90 x 35
- Operating temperature : -20 to +55 DEGC
- RF Sensitivity : -129 DBm
- RF Power : +23 dBm
- Temperature accuracy : +/- 0,2 DEGC
- Radio bands : B1/B2/B3/B4/B5/B8/B12/B13/B17/B18/
B19/B20/ B25/B26/B28/B66

BLOCK DIAGRAM



DELIVERY

- Schematics
- Layout
- eBOM
 - └ Production files (PCB Structure, Component placements for SMT production machines...)
 - └ Test program with test bench for manufacturing

Very low power PIC uC to improve the system power consumption

Quectel BC66 NB-IoT communication frontend

ASSOCIATED SERVICES

We can provide customization services either on the hardware or on the embedded software or on the mechanical design.

We can manage for you the EMS in charge of the production of the device.