

# NB868 module

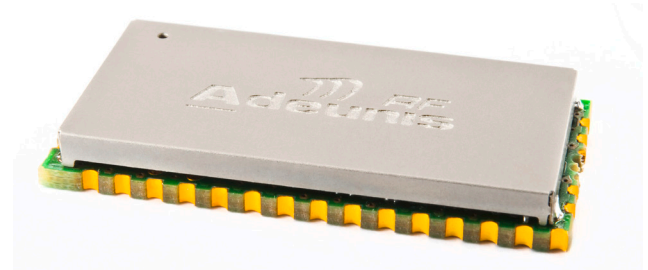
## Highlights

- Narrow Band RF module
- Up to 20km
- 500mW / 27dBm
- Licence-free frequencies 863-870MHz

With its unrivaled performance (RF sensitivity **-120dBm** / link budget **147dB**), our **NB868** module redefines the standards of very long distances data transmission.

This module uses **licence-free frequencies** and enables a two-way digital link over a range **up to 20 km** (line of sight).

The implementation of the Narrow Band technology allows a large number of available channels in the frequency band allowed : up to **19 channels @27dBm/2,4kbps and more than 500 channels @14dBm/2,4kbps**. You can therefore consider the use of many products on the same site without disturbances or blindness.



Available in «**Ready-to-use**» version, this module focuses on **ease of integration**, even for non RF specialists, thus **limits technological risks, development time and costs**.

The **Narrow Band modules from Adeunis RF** have been certified by a notified body and declared **compliant to the 2010 edition of European R&TTE directive EN300-220**.

## Performances

Range : up to 20km  
Power: 500mW  
Radiated RF power : 27dBm  
Sensitivity : -120dBm  
Frequencies : 863 to 870MHz  
RD data rate : 1.2 to 115.2 kbps  
Channels @27dBm/2.4kbps : 19  
Channels @14dBm/2.4kbps : +500  
Modulation : GFSK

## Hardware

Interfaces : UART (x3)  
Converters A/D & D/A  
Timers PWM  
Controller : STM32 ARM Cortex-M3  
RF chip : TI CC1120

## Firmware

Asynchronous continuous  
Transparent Mode  
Low Power Mode  
Secured Mode  
Adjustable packet size

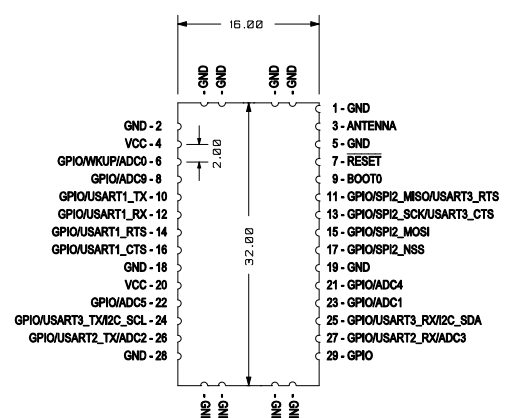
## Consumption & needs

Power supply : 3-3.6V  
Consumption (stby) : 1  $\mu$ A  
Consumption (RX) : 35mA  
Consumption (TX) : 700mA (27dBm)

## General information

Dimensions : 32 x 16 x 3mm  
Weight : 3 g  
Temperature : -40°C /+85°C  
Certified EN300-220 V2010  
SMD mounting

## PACKAGING DIMENSIONS AND PIN CONFIGURATIONS



## Reference

- **ARF7763BA** NB868-RTU-500mW module