

# NB868 module

RF module Narrow band - 500mW - 868MHz



**ARF NB868**, the Very Long Range RF module, part of the new **Narrow Bands** range of ADEUNIS RF's Wireless modules.

## NB868

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 **license-free frequencies** and enables a two-way digital link over a range **up to 18 km** (line of sight).

Thanks to the embedded **STM32 ARM Cortex-M3** micro-controller, the **NB868 module** provides a large set of radio transmission modes and functions, allowing a wide number of services and features for customer applications.

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** have been certified by a notified organization as being compliant with the 2010 version of the RTTE European Directive EN300-220 radio standard.

## Part numbers

ARF7763AA Module NB868-RTU – 500mW – 868MHz

OTHER MODULES OF THE NARROW BAND RANGE

ARF7761AA Module NB169-RTU – 500mW – 169Mhz

ARF7762AA Module NB458-RTU – 500mW – 458MHz

## Technical specifications

### Hardware Information

Interfaces: UART (x3), I<sup>2</sup>C (x2), SPI (x2)

A/D & D/A converters

PWM timers

Dimension: 32 x 16mm

Operating voltage: 3-3.6V

Operating temperature: -40°C to +85°C

Consumption (Sleep): 25µA

Consumption (RX): 40mA

Consumption (TX): 700mA (27dBm)

Micro-controller: STM32 ARM Cortex-M3

RF chip: TI CC1120

Mounting: SMD

### Software

Asynchronous

Transparent mode

Low Power mode

Secure mode

RSSI mode

Serial bootloader

Adjustable packet size

### Wireless Interface

RF pin

Frequency: 868.12 to 869.98MHz

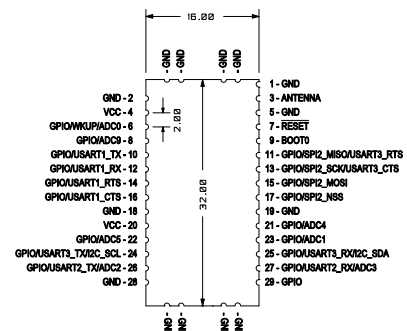
Modulation: 4GFSK

RF data rate: from 1.2 to 57.6 kbps

RF output power: up to 27dBm

RF sensitivity: -120dBm

## Pin configuration & Dimensions



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