

# LoRa32u4II

Low power Atmega® 32u4 LoRa 868Mhz 915Mhz  
compact board with 3.7V LiPo cell management

## Applications

- LoRa communication in EU and US bands
- Ultra low power applications
- LiPo cell powered applications
- Remote sensing & monitoring
- MCU and wireless development

## Features

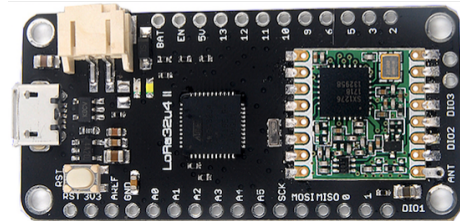
- Long range communication with LoRa protocol
- Ultra low consumption
- Onboard LiPo cell charging and management
- Arduino IDE compatibility

## General specifications

- MCU : Atmega® 32u4 3.3V @ 8MHz
- ROM : 32K
- RAM : 2K
- Logic level : 3.3V

## Power specifications

- Operating voltage : 3.3V – 5.0V
- JST PHR 2.0mm pitch battery connector
- Ultra low dropout 600mA 3.3V regulator
- Dedicated LiPo charge & control IC
- Transmit current : 128mA for 70mS
- Receive current without sleep : 14mA
- Current idle + listen : 11mA
- Current receive + sleep : 1mA
- Current super sleep : 300uA
- LiPo charge current :
  - 100mA (default setting)
  - 1000mA (max)
- Battery voltage monitoring channel

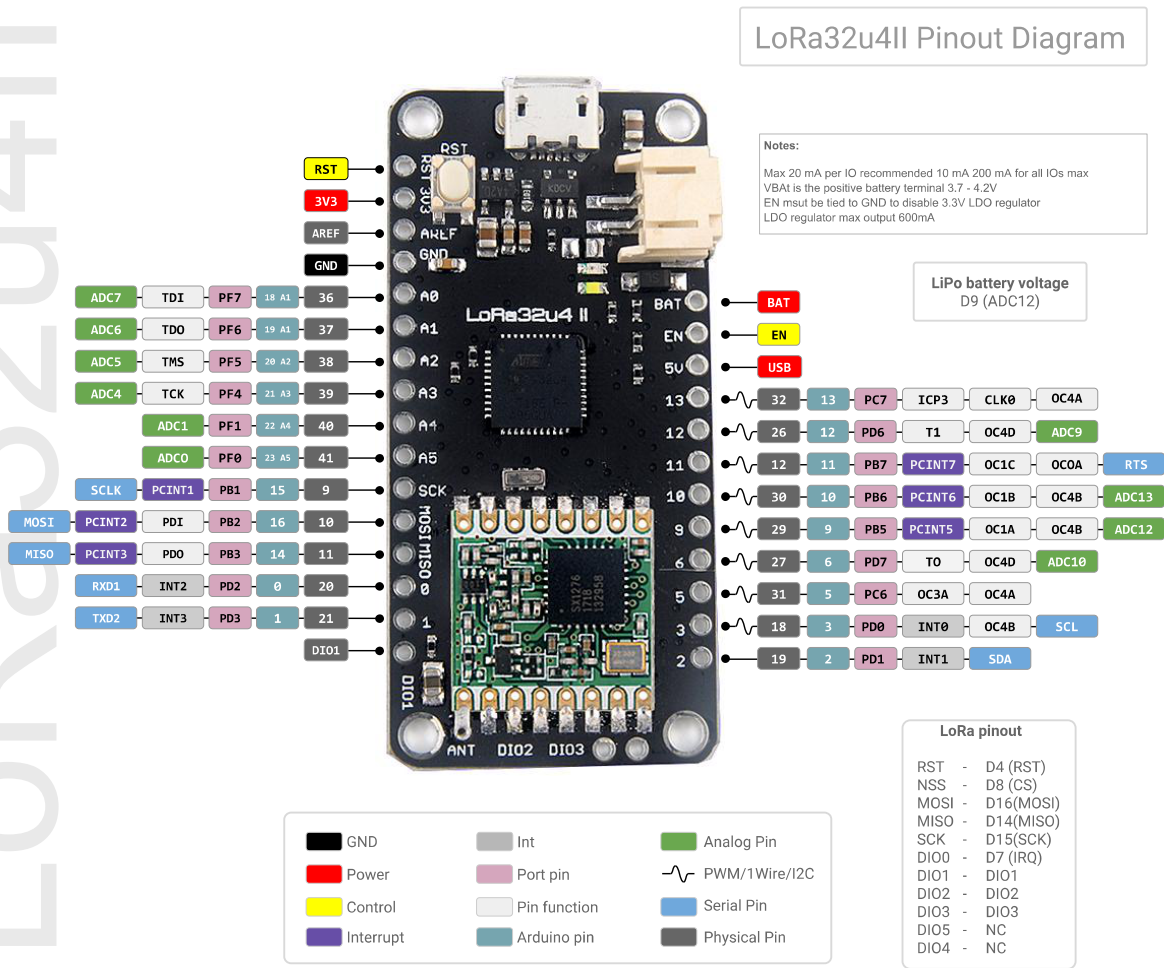


## LoRa Specifications

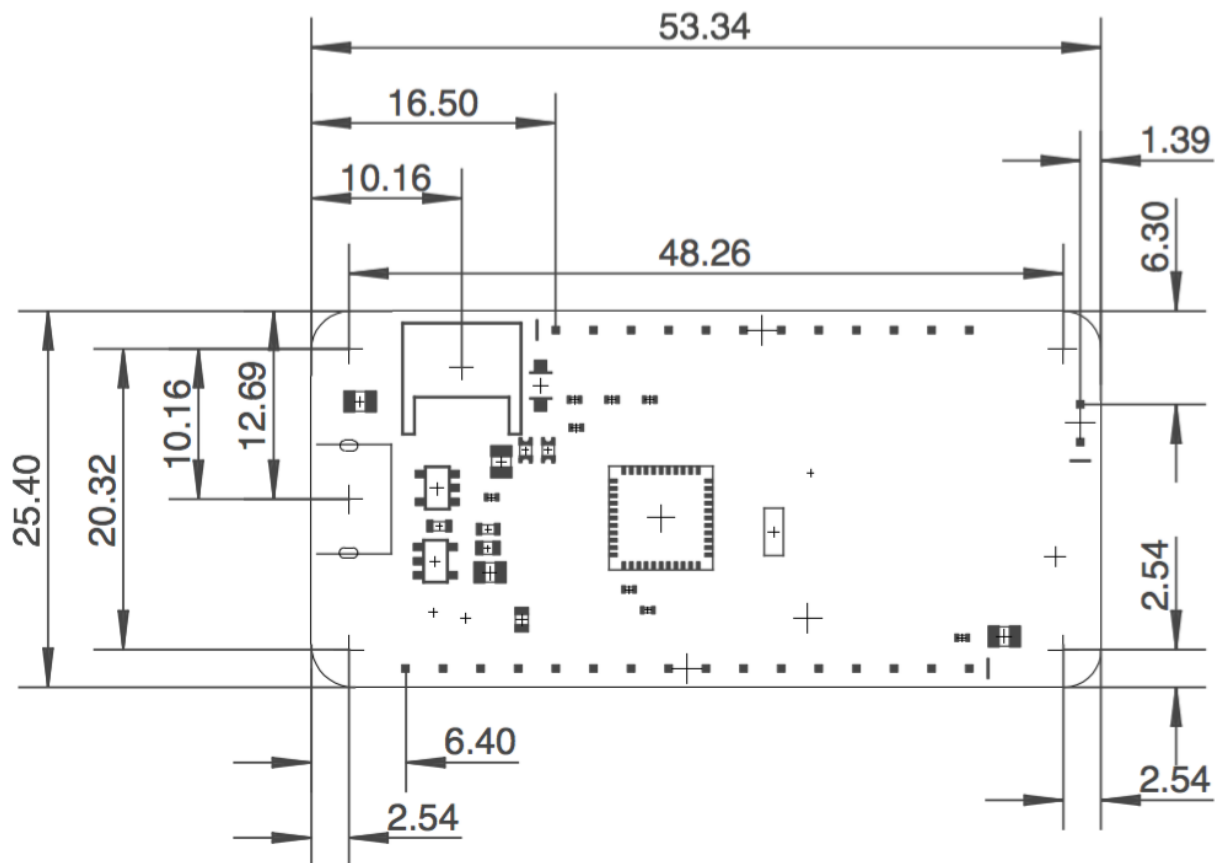
- Chipset : Semtech® SX1276
- Antenna socket : uFL (IPEX)
- Pin hole allowing wire antenna usage
- Hardware SPI communication with MCU
- Transmitting power : +20dBm
- Receive sensitivity :
  - 139dBm LoRa 62.5Khz SF12 146bps
  - 136dBm LoRa 125Khz SF12 293bps
  - 118dBm LoRa 125Khz SF6 9380bps
  - 123dBm FSK 5Khz 1.2Kbps
  - 117dBm FSK 5Khz 4.8Kbps
  - 110dBm FSK 20Khz 38.4Kbps
- FIFO : 64 Bytes
- Data rate :
  - FSK 1.2K~300Kbps
  - LoRa 0.018K~37.5Kbps
- Modulations :
  - FSK,MSK,GFSK,GMSK,LoRa,OOK
- Operating frequency : 868MHz - 915MHz
- Digital RSSI function
- Automatic frequency correction
- Automatic gain control
- RF wake-up function
- Low voltage detection and temperature sensor
- Fast wakeup and frequency hopping
- Highly configurable data packet processing
- Antenna diversity and TX/RX switching control

Pinout diagram

LoRa32u4II



## Dimensions



## Support, wholesale, customisation

Reach us by email [contact@bsfrance.fr](mailto:contact@bsfrance.fr) or phone +33 430 346 930 for questions, remarques, support, ,wholesale inquiry, custom version / variation or specific requests.