



# Crazyradio 2.0

SKU: 114993067

Crazyradio 2.0 is a long range open USB radio dongle based on the nRF52840 from Nordic Semiconductor, featuring a 20dBm power amplifier and LNA.



## 1. Introduction

The Crazyradio 2.0 is not only for usage together with the Crazyflie family of devices, since it's an open project with open firmware and a Python API, it's a great building block for systems that require more predictable latency compared to WiFi and doesn't have the same requirements for bandwidth. The hardware comes with a bootloader that enables firmware upgrades via USB without any additional hardware needed.

The Crazyradio 2.0 is compatible with the Crazyflie eco system.

## 2. Features

- Radio power amplifier giving 20dBm output power
- Open source firmware
- Firmware upgrade via USB
- Low latency

## 3. Electrical specification

- Based on the nRF52840 chip from Nordic Semiconductor
  - Cortex-M4F processor at 64MHz with 1MB of flash and 256Kb of RAM
  - 2.4GHz ISM band radio
  - USB device peripheral
  - 100 radio channels
  - 1 Mbps, 2Mbps and long range (125kbps and 500kbps mode) Bluetooth® low energy modes
  - 250kbps IEEE 802.15.4 mode
  - 1Mbps and 2Mbps Nordic proprietary modes
- Extra signals available via soldering pads enabling custom expansions
  - 3 I/Os
  - GND
  - 3.15V out
  - 5V in
- Standard USB-A connector
- Programming connector

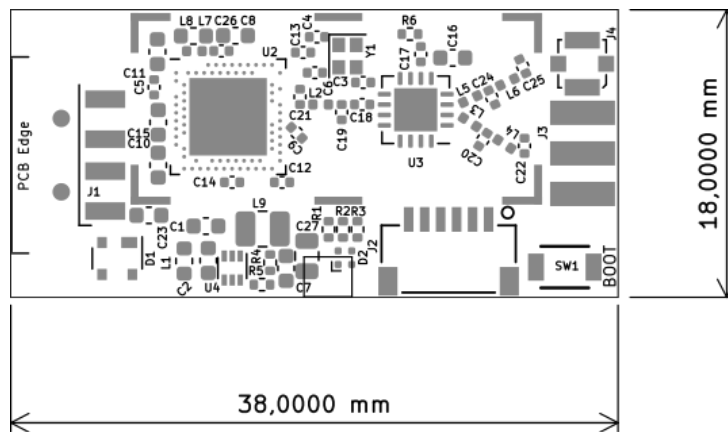
## 4. Radio specification

- 20dBm output power (100mW)
- Low Noise Amplifier (LNA)
- RP-SMA connector

## 5. Mechanical specifications

- Weight: 7g
- Size (WxHxD): 63x18x8mm (including connectors)

## 6. Mechanical drawing



## 7. Package contents

- 1 x Crazyradio 2.0
- 1 x Duck antenna 2dBi

## 8. Errata

## 9. Hardware revisions

Revision	Comment
E	Initial release

## 10. History

Version	Comment	Date
1	Initial release	2023-01-31