SnipeBLE

Ground unit for RC electronics RF telemetry system.

Manual version: 1.0

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Contents

Introduction

The "SnipeBLE" is ground unit for RC Electronics telemetry system. The unit is compatible with all RC Electronics plane units (Raven, Sparrow, Swift, Eagle 2 PRO, Raven 2, Raven 2 PRO) using 433MHz RF link. It is a bridge between RF link and Android Albatross app which shows all flight parameters in real time. Communication between SnipeBLE and Android app is via Bluetooth link. By this way we allowed Android device (tablet or phone) to have a power connected to USB port ~~or~~ while in use ~~->~~ which saves the device battery.

SnipeBLE works only with Albatross v4xx or later! Users must set "BLE receiver serial nr" in Albatross settings to the serial nr of Snipe BLE. This will pair Albatross app to communicate only with a specific SnipeBLE unit! Serial number is shown on right side of SnipeBLE unit.

Key features of the SnipeBLE

- BLE communication
- Snipe High Gain RF antenna included
- Additional JR connector to connect external 2S lipo battery ~~to~~ for power ~~it~~
- Low power consumption
- **FHSS - F**requency **H**opping **S**pread **S**ystem on 433MHz telemetry spectrum

Specifications

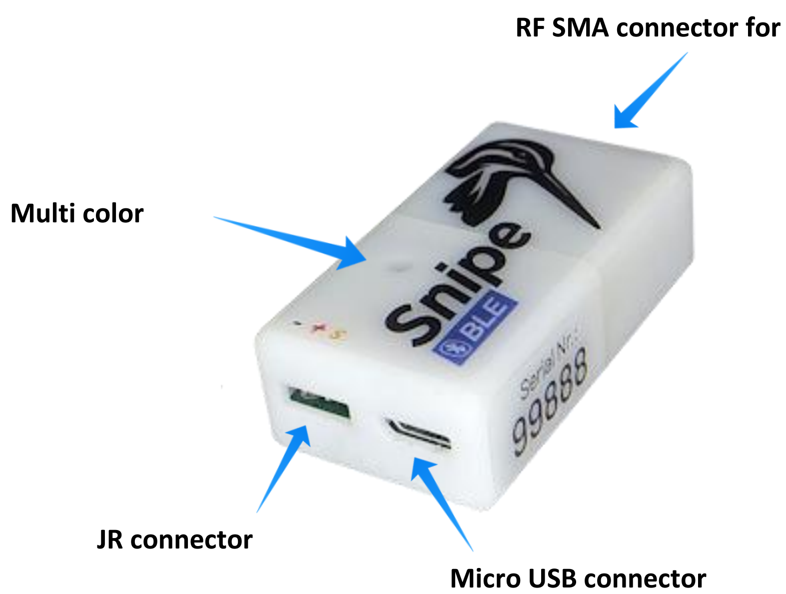
Unit Dimensions	46 mm x 25 mm x 14 mm
Weight	20 grams (antenna not included)
Temperature Range[1]	-10°C ~ +60°C
Input Voltage Range	5.0 – 12.0 volts DC
Input Current	40 milliamps @ 5V DC

[1] Specifications are taken from component ratings and system limits and may not have been tested to the full extent of the specified ranges.

Physical overview

Pictures below show the SnipeBLE unit. It has an SMA connector for RF antenna, an onboard multi-colour LED shows different status of operation (RED – no RF link, GREEN – RF link is established), micro-USB to get power from USB power bank or from android device via OTG USB cable and a JR connector where user can connect 2S Lipo battery to power the unit.

Important: Be careful on JR connector polarity when connecting power to the unit. Improper connection can damage unit! Correct polarization is marked on the sticker!



Using the SnipeBLE module

Powering the module

To power the module, you can connect 2S Lipo battery via the JR connector - **be sure to observe proper polarity when plugging the connector into the module and receiver** or you can connect the unit to a USB power bank (USB cable is not included in the set!). Snipe BLE can also get power from the Android device. In this case the Android device needs to support OTG mode and an OTG cable (USB-C to micro-USB) is needed. Such a cable can be purchased from specialized computer shops or from our web shop (Snipe USB-C cable)

During operation LED will show different statuses:

Red – module is waiting for RF signal

Green – module is ready for flight, RF reception is good

Mounting the module

The module can be mounted using double-sided tape, cable ties or Velcro. Velcro is recommended, so that the Snipe BLE can be easily removed.

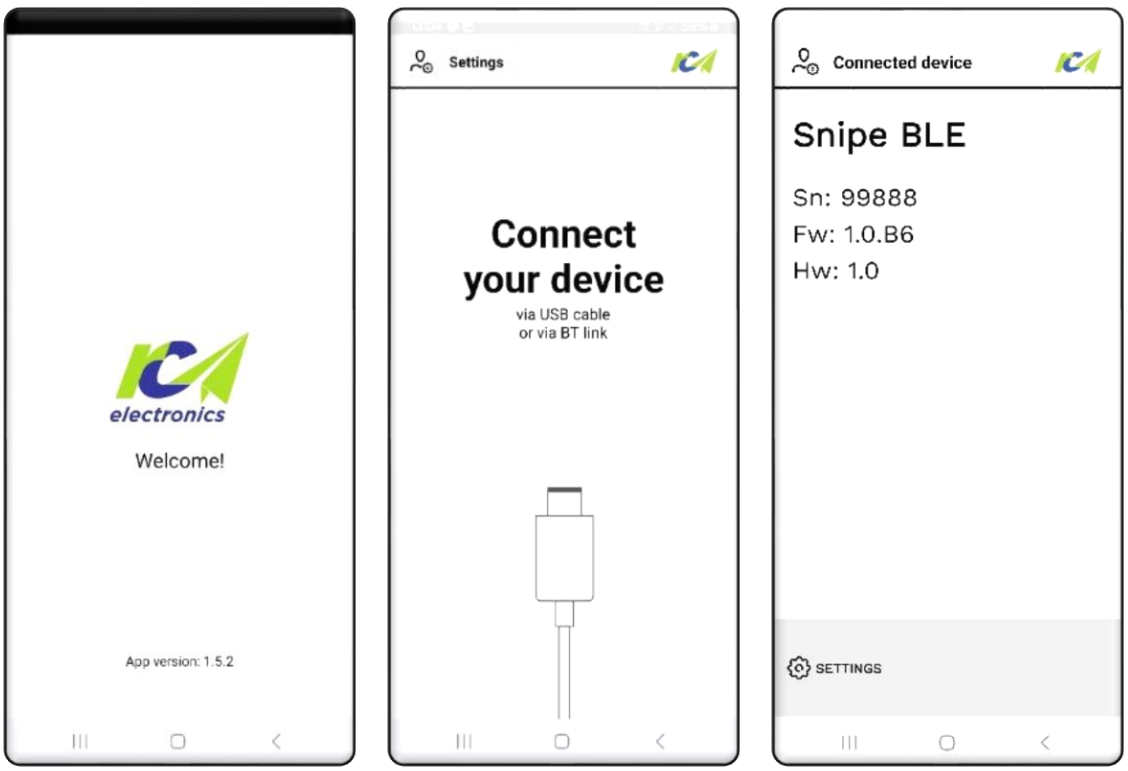
Please ensure that RF antenna is not covered by any metal or carbon parts, else RF reception will be compromised!

Connecting module to Android RC electronics app

Please note! At the moment there is no iOS application yet. We are working on it and will publish its release on our Facebook page and website once ready.

Connect the module to any Android / iOS mobile device where the RC electronics app was installed from Google Play / Apple store. The unit connects automatically when powered on and the app is running! **There is no BT pairing needed!**

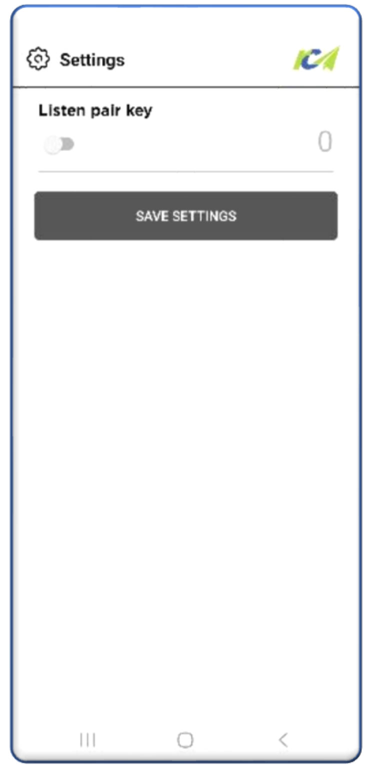
Run RC electronics App and power on SnipeBLE unit. The manual for the App is in the RC Electronics website, under downloads section.



You will be able to see basic info and set the settings on device when connected.

Unit settings:

Listen pair key:
When listen pair key is different than 0, SnipeBLE will be in listen mode -> shadowing a different ground unit (serial nr) and will not transfer any data via RF link to plane unit.



The listen pair key needs to be the serial number of the Snipe, Finch or Snipe BLE that you want to shadow.

Settings are set only after "SAVE SETTINGS" button is pressed. If user uses back function, new settings are ignored!

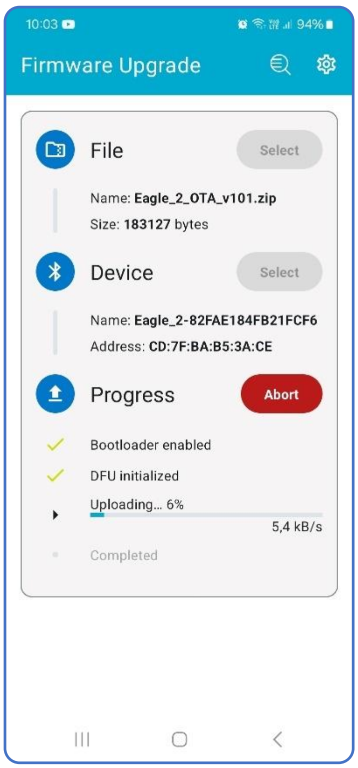
Firmware update

For updating the unit, we are using the DFU (Nordic Semiconductor) app, which can be installed from Google Paly or Apple store

Please install the app, then download new update file from our website. It will be zip file which you store to downloads folder of your mobile device.

Then run the DFU app, select zip file, turn on SnipeBLE and select it under devices and press update.

After update unit will reset itself and new version will be in use. Where the user tries to upload wrong zip file to the SnipeBLE, the unit will reject it!



Revision history

24.09.2025	v1.0	- initial version