uAvionix

pingRX Pro

uAvionix ping ADS-B Receiver

QUICK START GUIDE

specifications

Input Voltage/Power	4-6V / 150mA
Size	32 x 31 x 9 mm
Weight	8 grams
MTL 1090MHz Dynamic Range	-84 dBm -81 to 0 dBm
MTL 978MHz Dynamic Range	-93 dBm -90 to -3 dBm
Supported Interfaces	MAVLink Serial 57600bps UCP 115200

safety

- The pingRX Pro adds an additional layer of situational awareness to drone operations in the airspace. Accordingly, pilots must remain vigilant of surrounding air traffic at all times during flight to ensure safe operation
- Range check wireless data link and GCS connection to verify proper operation before each flight.
- Never operate the software or vehicle in a way that could be dangerous to you, other people or property.
- It is your responsibility to ensure that you understand and comply with all local laws and regulations.

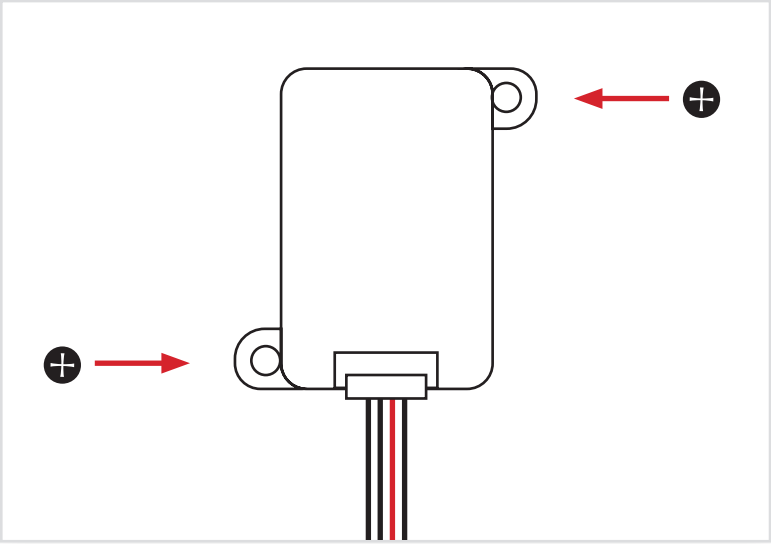
Quick Start Guide

The uAvionix pingRX Pro ADS-B receiver provides real-time situational awareness in the airspace to any Ardupilot, Pixhawk, or Skynode based drone. A complete ICD is available at uAvionix.com with details on integration with unsupported systems.

1. mount
2. connect
3. configure
4. launch

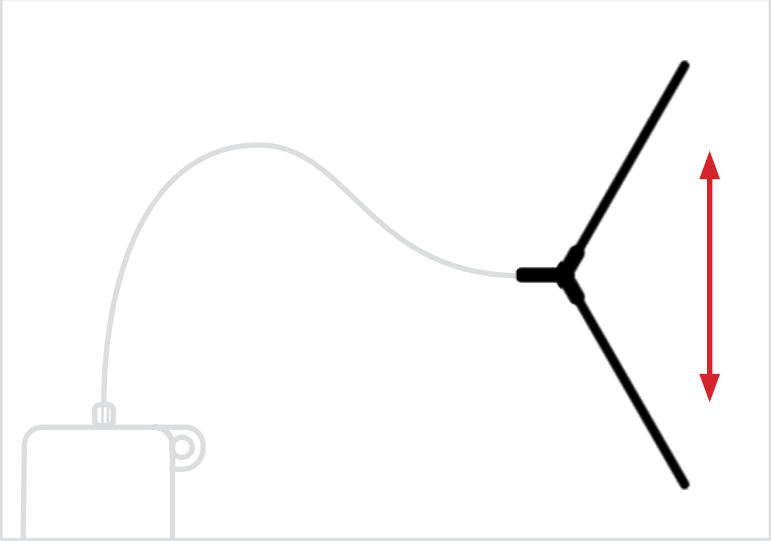
mount

1



Mount Base Unit

Using the provided screws (x2), mount the pingRX Pro inside or on the aircraft.



Mount External Antenna

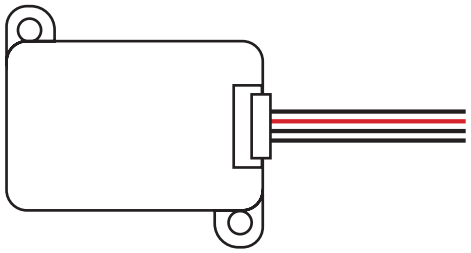
The external dipole antenna should be mounted so that the antenna is oriented vertically, with a clear view of the ground and sky.

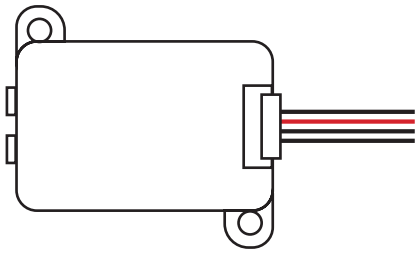
connect

2

pingRX Pro

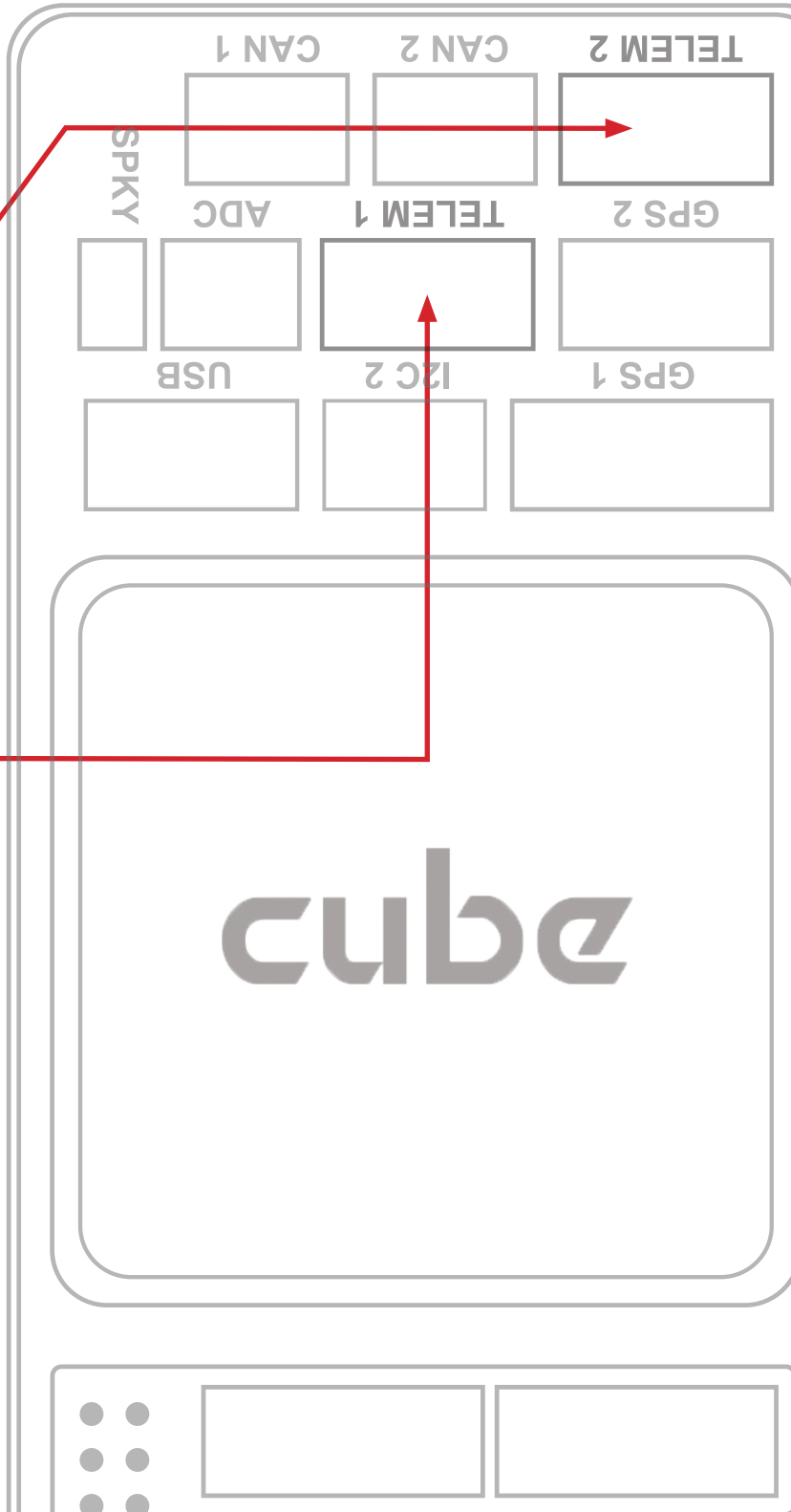
Plug provided serial cable into pingRX Pro and TELEM2 port of Pixhawk Cube





Telemetry Radio

Connect a compatible telemetry radio set, such as microLink, to TELEM1 to complete the assembly and provide data from pingRX Pro to your ground station computer (GSC)

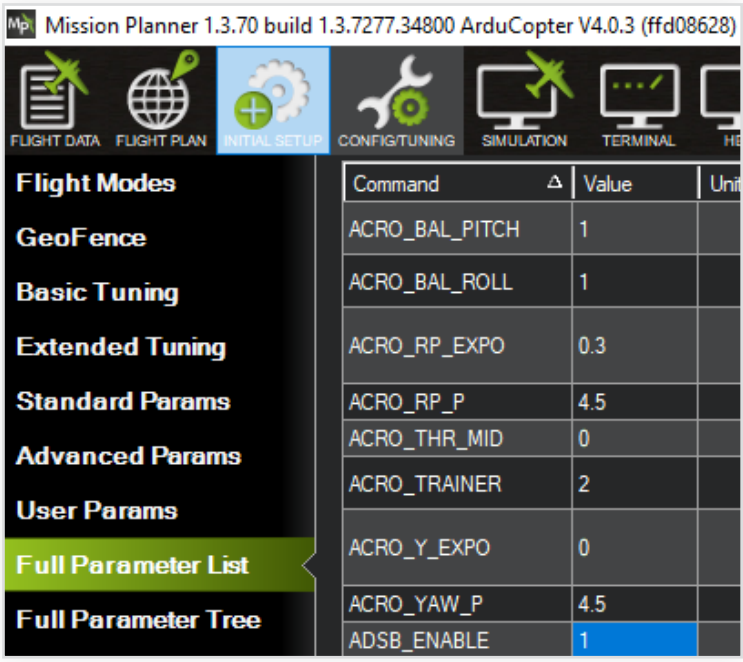


configure

3

The latest APM firmware must be installed onto the Pixhawk autopilot before using the pingRX Pro.

1. Open Mission Planner
2. Connect to autopilot
3. Navigate to:
   Config/Tuning > Full Parameter List



set parameters

Parameter	Description
ADSB_ENABLE	Enable ADS-B listening by changing the value from 0 to 1. Power cycle the Cube after updating the value to enable additional ADS-B parameters. Default: 0 Value Range: 0-1
ADSB_LIST_RADIUS	ADS-B List Radius Filter. Vehicles outside this radius will be completely ignored, they will not show up in the list or be used for avoidance calculations. Default: 2000 Value Range: 1-100000

For more information on ADS-B configuration and avoidance behavior: ardupilot.org/plane/docs/common-ads-b-receiver.html

launch

4

ADS-B is an air traffic surveillance technology that enables aircraft to be accurately tracked by air traffic controllers without the need for conventional radar.

- ADS-B data is received by pingRX Pro and forwarded on to all Pixhawk MAVLink serial ports.
- A connected GSC or companion computer will receive the data packets automatically.
- Once operational, ADS-B compliant aircraft within the previously defined ADSB_LIST_RADIUS will appear on the ground station map.

For more information on ADS-B configuration and avoidance behavior: ardupilot.org/plane/docs/common-ads-b-receiver.html