

Telemetry Radio V3

Quick Start Guide



Overview

A Holybro Telemetry Radio is a small, light and inexpensive open source radio platform that typically allows ranges of better than 300m “out of the box” (the range can be extended to several kilometres with the use of a patch antenna on the ground). The radio uses open source firmware which has been specially designed to work well with MAVLink packets and to be integrated with the Mission Planner, Copter, Rover and Plane.

The radios can be either 915Mhz or 433Mhz and you should purchase the model which is appropriate for your country/region.

SPECIFICATIONS

Processing

100 mW maximum output power (adjustable) -117 dBm receive sensitivity

Open-source SIK firmware

RP-SMA connector

2-way full-duplex communication through adaptive TDM UART interface

Transparent serial link

MAVLink protocol framing

Frequency Hopping Spread Spectrum (FHSS) Configurable duty cycle

Error correction corrects up to 25% of bit errors Open-source SIK firmware

Configurable through Mission Planner & APM Planner

FT230X is a USB to BASIC UART IC

Features

Interchangeable air and ground modules 915 or 433 MHz

Micro-USB port

6-position JST-GH connector

Dimensions

28 x 53 x 10.7mm (without antenna)

Power

Supply voltage: 5V DC (from USB or JST-GH)

Transmit current: 100 mA at 20dBm

Receive current: 25 mA

Serial interface: 3.3 V UART

Port Description



Status LEDs

The radios have 2 status LEDs, one red and one green. The meaning of the different LED states is:

Green LED blinking - searching for another radio

Green LED solid - link is established with another radio

Red LED flashing - transmitting data

Red LED solid - in firmware update mode

Connecting to Pixhawk

Use the 6 pin JST-GH connector that should have come with the radio to connect the radio to your Pixhawk's "Telem 1" ("Telem 2" can also be used but the default recommendation is "Telem1").

Connecting to a PC

Connecting the radio to your Windows PC is as simple as connecting the micro USB cable (which should have been included with the radio) to your PC. The necessary drivers should be installed automatically and the radio will appear as a new "USB Serial Port" in the Windows Device Manager under Ports (COM & LPT). The Mission Planner's COM Port selection drop-down should also contain the same new COM port.