Manuals+ — User Manuals Simplified.

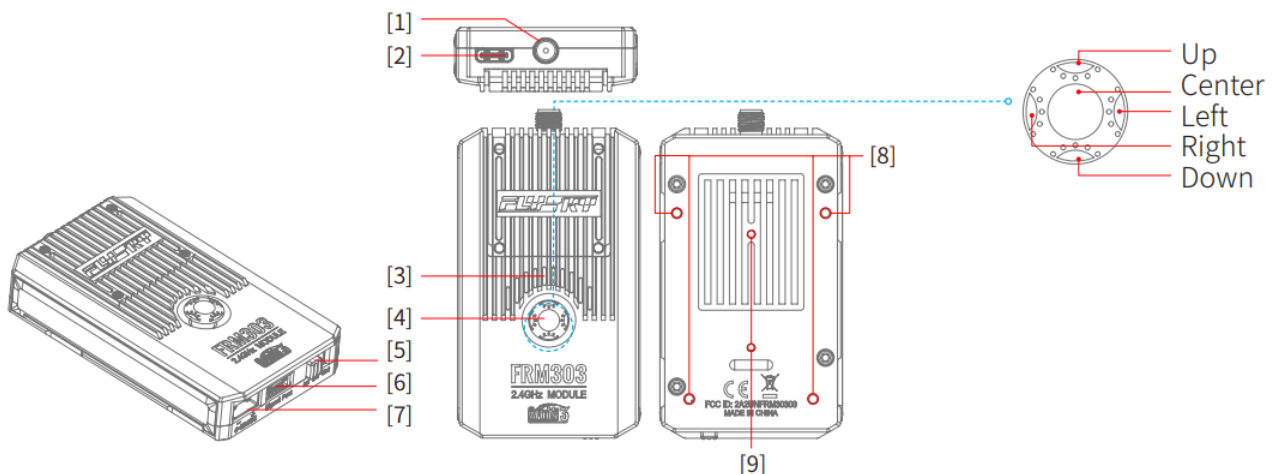# FLYSKY FRM303 RF Module User Manual

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FLYSKY FRM303 RF Module

Introduction

FRM303 adopts AFHDS 3, Flysky's third-generation automatic frequency hopping digital system, with external single antenna, two-way transmission, a compact design, and support for multiple signal inputs. It also supports three modes of power supply and PPM, S.BUS and UART input signals. In PPM or S.BUS signals, it supports setting binding, model select including RX searching, RX interface protocol setting and failsafe.

Overview

1. SMA antenna Interface
2. Type-C USB Port
3. LED
4. Five-way Button
5. Power Switch with Three-position(Int/Off/Ext)
6. Signal Interface
7. XT30 Power Supply Interfac (Ext)
8. Location Holes of the Adapter
9. Screw holes for Fixing the Adapter

Product specification

- **Product Type:** FRM303
- **Compatible devices :** Devices that can output standard PPM signal, such FS-TH9X, FS-ST8 or FTr8B(PPM); devices that can output standard S.BUS signal, such as FS-ST8 or FTr8B(S.BUS); PL18 (1.5M UART signal in Close-source); EL18 (1.5M UART signal in Open- source) and devices that can output 115200 UART signal in Open-source.
- **Compatible Models:** Racing drones, fixed-wingaircraft or Relays, etc.
- **PWM Channels:** 18
- **Resolution:** 4096
- **RF:** 2.4GHz ISM
- **Maximum Power:** < 20dBm(EU)
- **2.4GHz Protocol:** AFHDS 3
- **Distance :** >3500m(Open space with no other signal sources or ground interference)
- **Antenna:** External SMA antenna (SMA connector outer-screw-inner-pin)
- **Input Power:** 5 ~ 28V/DC for XT30 interface; DC 5 ~ 10V for signal interface; 4.5~5.5V/DC for Type-C USB port
- **Working Current:** 98mA/ 8.4V external power supply; 138mA/5.8V internal power supply; 135mA/5V by USB
- **Data ports:** PPM, UART and S.BUS
- **Temperature Range** :-10℃—+60℃
- **Humidity Range :** 20% – 95%
- **Online Update:** Yes
- **Dimensions:** 75*44*15.5mm((Excluding antenna)
- **Weight:** 65g(Excluding SMA antenna and RF adapter)
- **Certifications:** CE FCC ID: 2A2UNFRM30300

Attention:

- Make sure the product is installed and calibrated correctly, failure to do so may result in serious injury.
- Keep the RF's antenna at least 1cm away from conductive materials such as carbon or metal.
- In order to ensure good signal quality, do not hold the RF antenna during use.
- Do not power on the receiver during the setup process to prevent loss of control.
- Make sure to remain within range to prevent loss of control.
- It is recommended that an external power supply is used in order to make sure that the RF module is getting

enough power to function correctly.

Certification

FCC Compliance Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Warning: changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

EU DoC Declaration

Hereby, [Flysky Technology co., ltd] declares that the Radio Equipment [FRM303] is in compliance with RED 2014/53/EU.

The full text of the EU DoC is available at the following internet address: www.flysky-cn.com.

RF Exposure Compliance

The device has been evaluated to meet general RF exposure requirement.The device can be used in portable exposure condition without restriction.

Environmentally friendly disposal

Old electrical appliances must not be disposed of together with the residual waste, but have to be disposed of separately. The disposal at the communal collecting point via private persons is for free. The owner of old appliances is responsible to bring the appliances to these collecting points or to similar collection points. With this little personal effort, you contribute to recycle valuable raw materials and the treatment of toxic substances.
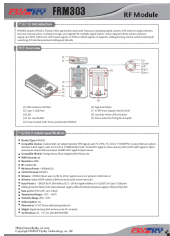
Disclaimer:

The factory preset transmission power of this product is ≤ 20dBm. Please adjust it in accordance your local laws. The consequences of damage caused by improper adjustments shall be borne by the user.

http://www.flysky-cn.com

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Documents / Resources

FLYSKY FRM303 RF Module [pdf] User Manual
FRM30300, 2A2UNFRM30300, FRM303 RF Module, FRM303, RF Module

References

- **FlyskyRC**