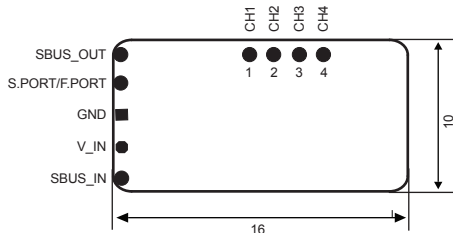


Introduction

Thank you for purchasing FrSky R9 Mini full range telemetry receiver. Its compact size and light weight make it more suitable for race drones. The telemetry feedback coupled with redundancy function improves the security of your model. In order to fully enjoy the benefits of this system, please read the instruction manual carefully and set up the device as described below.

Overview



Green LED	Red LED	Status
ON	ON	Waiting To Bind
ON	Flashing	Binding Successfully
Flashing	OFF	Normal
OFF	Flashing	Signal Lost

Specifications

- Dimension: 16*10*2.8mm (L × W ×H)
- Weight: 1.1g (including antenna)
- Numbers of channel:

R9 Mini	EU Version		Non-EU Version
R9M Mode	Telemetry	No telemetry	Telemetry
Numbers of channel	4/8CH	*4/16CH	4/16CH

***Note: OpenTX 2.2.2, FrOS 1.2.05 for Horus X10 / X10S (1.5.05 for Horus X12S) and their improved versions support 4/16CH with telemetry under EU Version.**

- CH16 outputs RSSI
- Operating Voltage Range: DC 3.5V~10V
- Operating Current: 100mA@5V
- Operating Range: Up to 10km or above
- Operating Frequency: 915MHz (Non-EU Version) / 868MHz (EU Version)
- Compatibility: R9M / R9M Lite



Smart Port (S. Port) is a signal wire full duplex digital transmission interface developed by FrSky Electronic Co., Ltd. All products enabled with Smart Port (including XJT module, XSR,X6R and X8R receiver, new hub-less sensors, new Smart Dashboard, etc), serial port user data and other user input/output devices can be connected without limitations for numbers or sequences at a high transmission speed.

Features

- S.Port enabled and supported telemetry data transmission (Support F.Port, download firmware to support functions)
- Redundancy function supported
- Battery Voltage detection supported
- Detachable Ipex connector antenna
- Low latency and high precision

Binding Procedure

Binding is the process of uniquely associating a receiver to a transmitter RF module. A transmitter external RF module can be bound to multiple receivers (not to be used simultaneously). A receiver can only be bound to one RF module.

When you use R9M / R9M Lite,

A: In R9M mode

1. Put the transmitter RF module into binding mode

1.1 For Taranis Series transmitters, turn on the transmitter, go to MENU - MODEL SETUP - PAGE 2, choose External RF Mode R9M LBT (EU) or FCC, and select BIND (OpenTX 2.2.2 and its improved versions are strongly recommended).

1.2 For Horus Series transmitters, turn on the transmitter, go to the RF SYSTEM, choose External RF (ON), and select BIND under STATE.

2. Connect the battery to the receiver while holding the Bind button on the receiver. The RED LED on the receiver will flash, indicating the binding process is completed.

3. Reboot the receiver and switch the RF module back to the normal mode. The flashing of the GREEN LED on the receiver indicates the receiver is receiving commands from the transmitter. The binding of the receiver/transmitter module will not have to be repeated, unless one of the two is replaced.

B:In PPM mode (**R9M Only**)

1. Choose the needed working mode by Switch 1 and Switch 2 on R9M, then power on R9M while holding its F/S button, Green LED will be on and Red LED will be flashing.

2. Connect the battery to the receiver while holding its Bind button. The Red LED on it will flash, indicating the binding process is completed.

3. Reboot the R9M and the receiver. The flashing of the GREEN LED on the receiver indicates it is receiving commands from the transmitter. The binding of the receiver/R9M will not have to be repeated unless one of the two is replaced.

Note: After binding procedure is completed, resupply the power and check if the receiver is truly communicating with the transmitter.

R9M Lite has no PPM mode.

More information please check R9M / R9M Lite manuals.

How to enable/disable the receiver telemetry

-- For Taranis Series transmitters, go to the MENU-MODEL SETUP-PAGE2, choose External RF MODE- R9M LBT (EU) or FCC, then select Bind, choose the telemetry or not.

-- For Horus Series transmitters, turn on the transmitter, go to the RF SYSTEM, choose the External RF and select the R9M, then select Bind under the STATE, choose the telemetry or not.

How to Set Failsafe mode (on the transmitter)

There are 3 failsafe modes: No Pulse, Hold, Custom

- No Pulse: on loss of signal the receiver produces no pulses on any channel. To use this type, select it in the menu and wait 9 seconds for the failsafe to take effect.
- Hold: the model will maintain the last position after the signal is lost. To use this type, select it in the menu and wait 9 seconds for the failsafe to take effect.
- Custom: the customized position of each individual channel. The model will move to the pre-set position after the signal is lost. Move the cursor to "Set" and press ENTER, you will see FAILSAFE SETTING screen below. Move the cursor to the channel you want to set failsafe on, and press ENTER. When moving the corresponding sticks or switches, you will see the channel bar moving. Move the channel bar to the place you want for failsafe and long press ENTER to finish the setting. Wait 9 seconds before the failsafe takes effect.

Note: If failsafe is not set, the model will hold the last position after signal is lost, thus it may fly away or cause injury.

FCC STATEMENT

1. 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.
- 2) This device must accept any interference received, including interference that may cause undesired operation.

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

NOTE: 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.

FrSky is continuously adding features and improvements to our products. To get the most from your product, please check the download section of the FrSky website www.frsky-rc.com for the latest update firmware and manuals