## Introduction

Thank you for purchasing FrSky RX4R 4/24CH telemetry receiver. The RX4R features 4 PWM outputs with extremely high precision and low latency. The latency of PWM output is 9ms less than that of X series receivers in high speed mode. RX4R features redundancy function as well, so another receiver can be added as a back-up in case the first one fails. Last but not least, the RX4R and the whole RX-line has a 40% increase in range compared to the previous X series receivers. 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
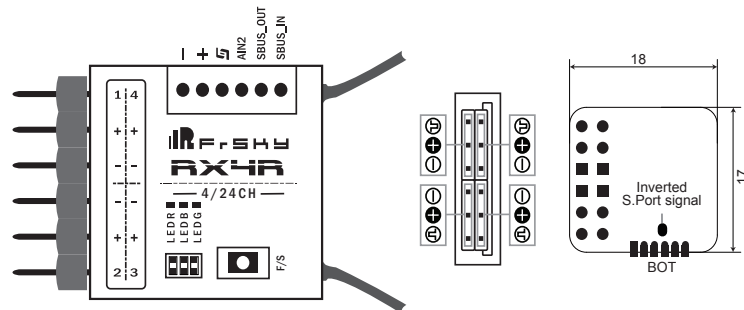
What's New

- CH1~CH4 outputs high precision PWM signal (Precision: less than 0.5μs)
- Under the same conditions, the effective communication distance of RX6R is about 1.4 times than that of X series receivers.
- Installed with ACCESS protocol

Specifications

- Dimension: 18*17*7mm (L × W × H)
- Weight: 2.0g / 2.4g (with two antennas)
- Number of Channels: 24CH
- Operating Voltage Range: 3.5V~10V
- Operating Current: 100mA@5V
- Operating Range: >2km
- Compatibility: ACCESS/*ACCST firmware
  * Need to upgrade to the corresponding ACCST firmware
- Servo frame rate: 7ms (HS-- High Speed Mode) / 18ms (FS--Normal Speed Mode)

SMART PORT 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.

Feature

- Small and High sensitivity (40% increase of the range compared to previous X series receivers)
- Higher precision PWM
- Low latency PWM output
- Lower power consumption
- Redundancy function supported
- Smart Port enabled and telemetry data transmission supported
- Battery voltage detection supported
- 2 detachable IPEX 4 connector antennas
- PCB protection with the comformal coating craftwork

LED state

Blue LED	Green LED	Red LED	Status
Off	On	On	Register
Off	Flash	Flash	Register successfully
X	Flash	Off	Bind
X	On	Off	Binding successfully
On	On	Off	Working under HS Mode
Off	On	Off	Working under FS Mode
X	Off	Flash	Failsafe

Note:
1. X meanings neglect.
2. The default output of RX4R is standard SBUS signal (1-16CH). Hold F/S button for about 5 seconds, CH16 will output RSSI. Repeat the steps above, the value of Channel 16 will output CH16.

Registration & Automatic binding (Smart Match™)

With the FrSky ACCESS protocol, the transmitter/transmitter module can bind receiver without using the "F/S" button.
Follow the step below to finish the Registration & binding procedure:
1. Put the transmitter/transmitter module into [Reg] status.
1.1 For Taranis X-Lite Pro as an example, turn on the transmitter, go to the MENU-MODEL SETUP-PAGE 2, choose Internal or External RF, and select [Reg].
2. Connect the battery to the receiver while holding the F/S button on the receiver. The RED LED and GREEN LED on the receiver will be on, indicating into the [Reg] status. Select [ENTER] on the transmitter, The RED LED and GREEN LED will flash, and the transmitter displays [Registration ok].
3. Turn off the receiver.
4. Move the cursor to select the receiver 1 [Bind].
5. Connect the battery to the receiver, the GREEN LED will flash, indicating into the [Bind] status. Select the RX, the GREEN will keep lit, and the transmitter displays [Bind successful].
6. The transmitter exit [Bind], GREEN LED will keep lit, RED LED will be off, indicating Working normally.

How to Switch FS mode/HS mode

a) The factory default setting is FS mode.
b) To go to the receiver [Options], select the 7ms PWM or not.

Note: The SBUS output is 7ms, no matter HS/FS mode.

Range Check

A pre-flight range check should be done before each flying session. Reflections from nearby metal fences, concrete buildings or trees can cause loss of signal both during range check and during the flight. Under Range Check Mode, the RF power would be decreased and Range distance to 1/30 --1/10 that of Normal Model, about 30 meters.
1. Place the model at least 60cm (two feet) above non-metal contaminated ground (e.g. on a wooden bench). The receiver antenna should be in vertical position.
2. For Taranis X-Lite Pro as an example, turn on the transmitter and power on the receiver, go to: MODEL SETUP/Internal RF/Range.
3. For transmitter RF module, please refer to its manual.
Much more operation and instruction please refer to radio manual.

Failsafe

Failsafe is a useful feature which is for a preset channel output position whenever control signal is lost for a period. Follow the steps to set Failsafe for channels necessary:

Failsafe for receiver supporting ACCESS can be set via radio interface, which support no pulse, hold and custom three modes for each channel.

1. For Taranis X-Lite Pro as an example, turn on the transmitter, go to: MODEL SETUP/Internal RF/Failsafe.

2. Failsafe can be set on receiver via short pressing F/S button while moving a certain channel position to a preset value after binding.

01140137