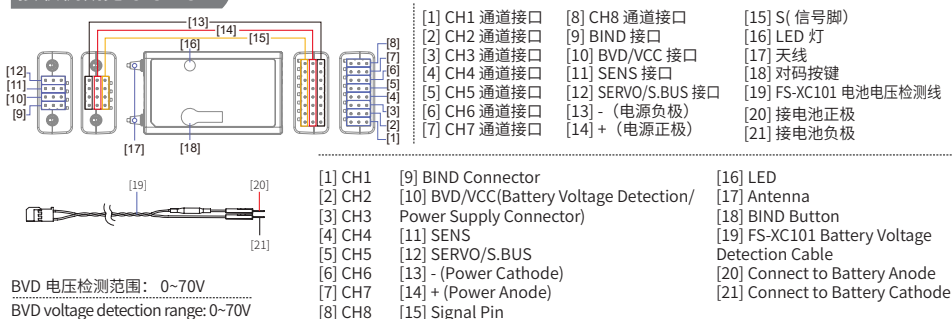


产品介绍 Introduction

FS-SR8 是一款采用 ANT 协议的 8 通道接收机，支持双向、可设置为 PWM 转换器以扩展通道、外置双天线、设计小巧、易于安装、适配多种模型使用。

FS-SR8 is an 8-channel receiver using ANT protocol that can set as PWM converter to expand channels, featuring 1 Way and 2 Way transmission, two external antennas, compact design, easily to install, and compatible with a variety of RC models.

接收机概览 Overview



产品规格 Product Specifications

- 产品型号: FS-SR8
- 适配发射机: FS-ST8 (支持 ANT 协议发射机)
- 适配模型: 固定翼、直升机、滑翔机、三角翼、多轴、穿越机、工程车、打窝船、机器人、车模
- PWM 通道数: 8
- 无线频率: 2.4GHz ISM
- 发射功率: 小于 20dBm
- 无线协议: ANT
- 通道分辨率: 4096 级
- 天线类型: 双天线
- 遥控距离: > 1000 米 (空旷无干扰空中距离)
- 工作电压: 3.5~9V/DC
- 输出数据: PWM/PPM/i-BUS/S.BUS
- 在线更新: 支持
- 温度范围: -10°C ~ +60°C
- 湿度范围: 20% ~ 95%
- 外形尺寸: 44.8"26.6"11.3mm
- 机身重量: 10g
- 认证: CE, FCC ID: 2A2UNSR800

- Product Model: FS-SR8
- Compatible Transmitters: FS-ST8 (transmitters with ANT protocol)
- Compatible Models: Fixed-wing aircraft, helicopters, gliders, delta-wing airplanes, multicopters, racing drones, engineering vehicles, bait boats, robots or cars
- Number of PWM Channels: 8
- RF: 2.4GHz ISM
- Maximum Power: < 20dBm (e.i.r.p.) (EU)
- RF Protocol: ANT
- Resolution: 4096
- Antenna: Two antennas
- Distance: More than 1000m (Air distance without interference)
- Operating Voltage: 3.5~9V/DC
- Data Output: PWM/PPM/i-BUS/S.BUS
- Online Update: Yes
- Temperature Range: -10°C ~ +60°C
- Humidity Range: 20% ~ 95%
- Dimensions: 44.8"26.6"11.3mm
- Weight: 10g
- Certifications: CE, FCC ID: 2A2UNSR800

PWM 转换器 PWM Converter

FS-SR8 接收机可设置为 PWM 转换器，用于扩展通道，注意仅接收机固件版本 V1.0.5 及以上版本支持此功能，可通过富斯遥控管家查看接收机版本固件（旧版本固件须进行固件更新，具体操作查看固件更新部分）。

PWM 转换器的 PWM 频率同作为接收机时的 PWM 频率，可先将 FS-SR8 接收机设置合适的 PWM 频率后（发射机端设置），再将其设置为 PWM 转换器；可与其他接收机能输出 i-BUS/S.BUS 的接口相连；设置成功后，接收机的 PWM 接口（通道 1~ 通道 8）固定输出发射机的通道 9~ 通道 16。

PWM 转换器可通过与发射机重新对码的方式转换为接收机，在与发射机成功对码后就可作为接收机正常使用。

设置 PWM 转换器

设置步骤:

按住接收机对码按键并接通接收机电源，持续按住对码按键时间须大于 5 秒小于 10 秒，接

The FS-SR8 receiver can be set as a PWM converter to expand channels. Note that only receiver that firmware version is V1.0.5 and later supports this function. The receiver firmware version can be viewed through FlySkyAssistant (Older version of the firmware must be updated, see the Firmware Update section for specific operations).

The PWM frequency of the PWM converter is the same as the PWM frequency when used as a receiver. You can first set the FS-SR8 receiver to an appropriate PWM frequency (set on the transmitter side), and then set it as a PWM converter; it can be connected to the connector of other receivers that can output i-BUS/S.BUS; after successful setting, the PWM connector of the receiver (channel 1-channel 8) will output the transmitter's channel 9-channel 16.

The PWM converter can be changed back into a receiver by rebinding with the transmitter, and can be used normally as a receiver after successful binding with the transmitter.

PWM Converter Setting

Setting steps:

Press and hold the BIND button of the receiver and turn on the receiver at the same time, and keep pressing the BIND button for more than 5 seconds

PWM 转换器 PWM Converter

收机 LED 灯状态变为 1 闪 1 长亮 1 长灭时，松开对码按键，即将接收机设置为 PWM 转换器。与接收机输出 i-BUS 或 S.BUS 的接口连接后即可扩展输出通道。

注：PWM 转换器识别到输入信号，LED 状态为 1 闪 1 长亮。

PWM 转换器连接

连接方式：

- 与 ANT 协议的接收机连接：将 PWM 转换器的 SENSE 接口与接收机的 SERVO 接口连接。
- 与 AFHDS 3 协议的接收机连接：将 PWM 转换器的 SENSE 接口与接收机输出 i-BUS-OUT 或 S.BUS 接口连接。
- 其他非富斯接收机：将 PWM 转换器的 SENSE 接口与接收机输出 S.BUS 接口连接。

注：PWM 转换器接口不支持连接 PWM 转换器实现通道扩展。

PWM 转换器 PWM 接口输出信息

- PWM 转换器连接的接收机通道数不大于 8 个通道：PWM 转换器标识为通道 1 的接口输出发射机的通道 9，通道 2 输出发射机的通道 10，以此类推，通道 8 输出发射机的通道 16。即 PWM 转换器固定输出发射机通道 9- 通道 16。
- PWM 转换器连接的接收机通道数大于 8 个通道：接收机 9 通道及之后的通道与 PWM 转换器的通道相关联，即重叠的通道输出相同。

and less than 10 seconds, until the receiver LED status changes to Flash-once, ON-once, and OFF-once state, release the BIND button, and the receiver has been set to a PWM converter. After connecting to the connector of the receiver that outputs i-BUS or S.BUS for channel expansion.

Note: When the PWM converter recognizes the input signal, the LED operates in Flash-once and ON-once state.

PWM Converter Connection

Connection Method:

- Connection with receiver of ANT protocol: Connect the SENSE connector of PWM converter to the SERVO connector of receiver.
- Connection with receiver of AFHDS 3 protocol: Connect the SENSE connector of PWM converter to the connector of receiver that can output i-BUS-OUT or S.BUS.
- Other non-FlySky receivers: Connect the SENSE connector of PWM converter to the connector of receiver that can output S.BUS.

Note: PWM converter does not support channel expansion by connecting PWM converter.

Output Information of Connectors for PWM Converter

- The number of receiver channels connected by the PWM converter is not more than 8 channels: The connector marked as channel 1 of PWM converter outputs channel 9 of transmitter, channel 2 outputs channel 10 of transmitter, and so on, channel 8 outputs channel 16 of transmitter. That is, PWM converter outputs transmitter channel 9-channel 16 and cannot be set.
- The number of receiver channels connected by PWM converter is more than 8 channels: receiver channel 9 and subsequent channels are associated with the channels of PWM converter, the overlapping channels have the same output. Namely, the channel 9 of the PWM converter and the receiver channel 9 have the same output.

对码 Binding

本款接收机支持双向对码和单向对码，双向对码完成后发射机将显示接收机回传的信息。

双向对码步骤：

- 发射机选择双向通信，然后进入对码状态；
- 本接收机支持三种方式进入对码状态：
 - 按键对码：按键对码和通电后按键对码
 - 按键对码：按住接收机对码按键同时上电，接收机 LED 灯快闪表示进入对码状态，松开对码键；
 - 对码线对码：BIND 接口连接对码线后上电，接收机 LED 灯快闪，进入对码状态。注意对码成功后需取下对码线；
 - 通电后按键对码：接收机上电后未与发射机通信过，长按对码键 3 秒，接收机指示灯快闪表示进入对码状态，松开对码键。
- 接收机 LED 灯常亮，即对码成功（发射机对码成功后自动退出对码状态）；
- 检查发射机、接收机是否正常工作。如需重新对码，请重复以上步骤。

单向对码步骤：

- 发射机选择单向通信，然后进入对码状态；
- 本接收机进入对码状态（进入对码状态的方式请参考双向对码时描述）；

The receiver supports two-way binding and one-way binding. The transmitter will display the information returned from the receiver after the two-way binding is completed.

Follow the steps below to bind in two-way binding:

- Set 2WAY for RF standard of the transmitter, then put the transmitter into bind mode.
- The receiver supports three ways to enter bind mode: BIND button binding, bind cable binding and BIND button binding after power-on.
 - BIND button binding: Press and hold the BIND button of the receiver while powering on the receiver, the LED of the receiver should be flashing, indicating that the receiver is in bind mode. Then release the BIND button.
 - Bind cable binding: Insert the bind cable to the BIND connector of the receiver, then power on the receiver. The LED of the receiver should be flashing, indicating that the receiver is in bind mode. Note that you need to remove the bind cable from the receiver after the binding process is completed.
 - BIND button binding after power-on: The receiver has not been connected to the transmitter when it is powered on. Press and hold the BIND button for 3 seconds, the LED of the receiver should be flashing, indicating that the receiver is in bind mode. Then release the BIND button.
- When the LED of the receiver is solid on, the binding process should be completed. The transmitter exits the bind mode automatically.
- Check to make sure the transmitter and receiver functions are working correctly, repeat steps 1 to 3 (binding process) if any problems arise.

Follow the steps below to bind in one-way binding:

- Set 1WAY for RF standard of the transmitter, then put the transmitter into binding mode.
- Put the receiver into binding mode (Refer to the description above for entering bind mode).
- After the receiver LED becomes slow flashing, then put the transmitter to exit

对码 Binding

- 接收机 LED 灯变为慢闪后将发射机退出对码状态，此时接收机 LED 灯常亮，表示对码成功；
- 检查发射机、接收机是否正常工作。如需重新对码，请重复以上步骤。

注：对码时先将发射机进入对码状态，再将接收机进入对码状态，若 10 秒内对码没有完成，接收机 LED 进入慢闪状态。

the binding state. At this time, the receiver LED is solid on, indicating the binding is successful.

- Check to make sure the transmitter and receiver functions are working correctly, repeat steps 1 to 3 (binding process) if any problems arise.

Note: Put the transmitter into binding mode first, then put the receiver into binding mode. If the binding is not completed within ten seconds, the LED of the receiver will enter its slow flashing state.

固件更新 Firmware Update

本接收机固件更新需通过富斯遥控管家 (FlySkyAssistant) 完成 (仅 3.0 及以上版本支持，富斯遥控管家固件可从官网 www.flyskytech.com 获取)。

本接收机可以通过以下两种方式进入更新：

方式一：先将发射机与接收机对码后 (接收机 LED 灯常亮)，再将发射机与电脑连接，然后在电脑端打开富斯遥控管家，通过富斯遥控管家进行固件更新；

方式二：将发射机与电脑连接，参考如下方式使接收机进入强制更新状态 (接收机 LED 灯状态 3 闪 1 灭)，然后在电脑端打开富斯遥控管家，通过富斯遥控管家进行固件更新。

进入强制更新状态的操作方式有如下三种方式：

- 按下对码按键，上电十秒钟后接收机 LED 灯状态 3 闪 1 灭，松开对码按键。
- 先给接收机上电，长按对码键十秒后接收机 LED 灯状态 3 闪 1 灭，松开对码按键。
- 先将接收机 BIND 接口信号端和 SENS 接口信号端相连接，然后接通接收机电源。

- 若 SR8 接收机固件版本为 V1.0.4，则更新须按照遥控管家提示先更新 FS-SR8 1.0.5-step1 版本，再更新 FS-SR8 1.0.5-step2 版本方可正常使用。

The receiver firmware update should be done through FlySkyAssistant (only supported by version 3.0 and above, FlySkyAssistant firmware can be got from the official website www.flysky-cn.com).

This receiver can be updated via the following two ways:

Mode I : After the binding between the transmitter and the receiver (the LED of the receiver is solid on), connect the transmitter to the computer, then open the FlyskyAssistant on the computer to update the firmware.

Mode II : Connect the transmitter to the computer. Then put the receiver to enter the forced update mode by referring to the following three ways (The LED of the receiver operates in three-flash-one-off manner repeatedly). Afterwards, open the FlyskyAssistant on the computer to update the firmware.

There are three ways to enter the forced update state:

- Power on the receiver while pressing and holding the BIND button for more than ten seconds, until the LED of the receiver operates in three-flash-one-off manner repeatedly, then release the BIND button.
- Power on the receiver first, then press and hold the BIND button for more than ten seconds, when the LED of the receiver operates in three-flash-one-off manner repeatedly, then release the BIND button.
- Connect the signal pin of the BIND connector to the signal pin of the SENS connector, then power on the receiver.

- If the firmware version of SR8 receiver is V1.0.4, you must first update the FS-SR8 1.0.5-step1 version according to the FlySkyAssistant prompt, and then update the FS-SR8 1.0.5-step2 version for normal use.

失控保护 Failsafe

失控保护功能用于在接收机失去信号不受控制后，接收机按设置好的失控保护值进行通道输出以保护模型及人员安全。

本款接收机共支持两种失控保护模式：[无输出] 和 [有输出]

[无输出] i-BUS/PPM/PWM 通道接口为无输出状态；

[有输出] i-BUS/PPM/PWM 通道接口输出设置的固定值。

注：

- 因为 S.BUS 信号包含失控标志位，所以接收机可通过失控标志位将“失控状态”信息传递到后续设备，而无需通过 [无输出] 状态传递 (后续设备通过解析失控标志位信息做出相应地应对即可)；
- 对于无失控标志位的信号 PWM/PPM/i-BUS，支持设置失控时信号 [无输出]，通过 [无输出] 状态将“失控状态”信息传递给后续设备。

The failsafe function is used to output the channel value according to the out-of-control protection value set by the user after the receiver loses its signal and is out of control to protect the model and personnel.

This receiver supports two failsafe modes: ON and OFF

OFF It is no output for i-BUS/PPM/PWM channel.

ON Outputs the failsafe values set for the i-BUS/PPM/PWM channel.

Notes:

- Because the S.BUS signal information contains failsafe flag bits, the failsafe information can be transmitted to the subsequent devices by the failsafe flag bits rather than by OFF state. The subsequent devices give response according to the analysed information for the failsafe flag bits.
- For the signal PWM/PPM/i-BUS without failsafe flag bits, it supports the setting of the output signal to OFF in case of failsafe, transmitting the failsafe information to the subsequent devices by OFF state.

⚠ 注意事项：

- 使用前必须确保本产品与模型安装正确，否则可能导致模型发生严重损坏。
- 关闭时，请务必先关闭接收机电源，然后关闭发射机。如果关闭发射机时接收机仍然在工作，将会导致遥控设备失控。失控保护设置不合理可能引起事故。
- 确保接收机安装在远离电机，电子调速器或电子噪声过多的区域。

- 接收机天线需远离导电材料，例如金属棒和碳物质。为了避免影响正常工作，请确保接收机天线和导电材料之间至少有 1 厘米以上的距离。
- 准备过程中，请勿连接接收机电源，避免造成不必要的损失。

! Attention:

- Make sure the product is installed and calibrated correctly, failure to do so may result in serious injury.
- Make sure the receiver's battery is disconnected before turning off the transmitter, failure to do so can result out of control. Unreasonable setting of the Failsafe may cause accidents.
- Make sure the receiver is mounted away from motors, electronic speed controllers or any device that emits excessive electrical noise.
- Keep the receiver's antenna at least 1cm away from conductive materials such as carbon or metal.
- Do not power on the receiver during the setup process to prevent loss of control.

认证相关 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, [ShenZhen FLYSKY Technology Co., Ltd.] declares that the Radio Equipment [FS-SR8] is in compliance with RED 2014/53/EU. The full text of the EU DoC is available at the following internet address: www.flyskytech.com/info_detail/10.html

RF Exposure Compliance

This equipment complies with FCC/ISED RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

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.



FCC ID: 2A2UNSR800



微信公众号



Bilibili



Website



Facebook

本说明书中的图片和插图仅供参考，可能与实际产品外观有所不同。产品设计和规格可能会有所更改，恕不另行通知。
Figures and illustrations in this manual are provided for reference only and may differ from actual product appearance. Product design and specifications may be changed without notice.

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