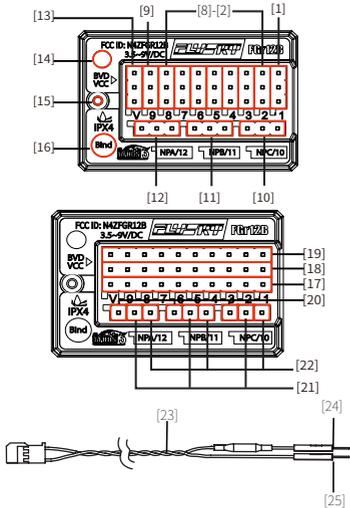


产品介绍 Introduction

FGr12B 采用 AFHDS3（第三代自动跳频数字系统），外置单天线带回传功能，可输出 PWM/PPM/i-bus in 信号，支持所有 AFHDS3 发射机和高频头。

The FGr12B receiver adopts Flysky's third-generation automatic frequency hopping digital system (AFHDS 3). It uses a single-antenna bidirectional transmission system and output PWM/PPM/i-bus in signals. It supports all AFHDS3 transmitter and RF modules.

接收机概览 Receiver overview



- | | | |
|--------------------------|------------------------------|---------------|
| [1] CH1(PPM) | [13] VCC/BVD (电池电压检测 / 供电接口) | [19] - (电源地) |
| [2]-[8] CH2-CH8 | [14] LED 灯 | [20] 同 [17] |
| [9] CH9(NPD) | [15] 天线 | [21] 同 [18] |
| [10] CH10(NPC) | [16] 对码按键 | [22] 同 [19] |
| [11] CH11(NPB) | [17] S (信号脚) | [23] BVD 功能配件 |
| [12] i-bus in (CH12/NPA) | [18] + (电源正极) | [24] 接电池正极 |
| | | [25] 接电池负极 |

注:

- (1) NPA/B/C/D 及 BVD 的新功能待 2020 年 11 月新程序开放后具备，其中产品内的 BVD 功能配件请妥善保管，功能升级后将借助该接线实现 BVD 功能；
 (2) 1.0 版本的 [12] i-bus in 功能在 2.0 版本后将由 CH12(NPA) 功能取代。

- | | |
|--|---------------------------------------|
| [13] VCC/BVD(Battery voltage detection / power supply interface) | [19] - (Power ground) |
| [14] LED | [20] Same as [17] |
| [15] Antenna | [21] Same as [18] |
| [16] BIND | [22] Same as [19] |
| [17] S (Signal Pin) | [23] BVD harness |
| [18] + (Positive power terminal) | [24] Connect to battery positive pole |
| | [25] Connect to battery negative pole |

Tips:

- The added new NPA/B/C/D and BVD functions will be available with the release of a new firmware update in November 2020. The BVD harness [17] will not function until the new firmware has been installed.
- The [8] i-bus/s.bus terminal will be replaced with the CH8 (NPA) function after the firmware upgrade.

产品规格 Product specification

- | | |
|--|--|
| <ul style="list-style-type: none"> 产品型号: FGr12B 适配发射机: 所有支持 AFHDS3 的发射机 (PL18、NB4、NB4 Lite 等) 适合机种: 车、船等 PWM 通道: 11(2.0 版本将升级为 12 通道) 无线频率: 2.4G 无线协议: AFHDS 3 天线类型: 单天线 输入电源: 3.5 ~ 9V 数据输出: PWM\PPM\i-bus in 温度范围: -10°C~+60°C 湿度范围: 20~95% 在线更新: 无线更新 外形尺寸: 37*25*17.5mm 机身重量: 11.2g 认证: CE, FCC ID:N4ZFG12B | <ul style="list-style-type: none"> Product Model: FGr12B Adaptive transmitter: all transmitter supporting AFHDS3 (PL18, NB4, NB4 Lite, etc.) Model Type: Car/Boat ect. PWM Channels: 11 (Version 2.0 will be upgraded to 12 channels) RF: 2.4GHz 2.4G Protocol: AFHDS 3 Antenna: Single Antenna Input Power: 3.5-9V Data Output: PWM\PPM\i-bus in Temperature Range: -10°C~+60°C Humidity Limit: 20%-95% Online Update: Yes Dimensions: 37*25*17.5mm Weight: 11.2g Certification: CE, FCC ID:N4ZFG12B |
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对码 Binding

- 按住接收机对码按键同时上电，松开对码键，接收机指示灯快闪；
- 打开发射机，进入对码状态；
- 当接收机指示灯变为常亮时，对码成功；
 - 当对码的发射机是单向模式进入对码状态时，接收机收到对码信息后指示灯慢闪；然后手动将发射机退出对码状态，接收机指示灯变为常亮表示对码成功；
- 检查发射机、接收机、模型是否正常工作。如需重新对码，请重复以上步骤。

对码 Binding

1. Press and hold the receiver BIND button [16] while powering on the receiver, release the BIND button after receiver is powered on, the LED [14] on the receiver will flash rapidly;
2. Put the transmitter into bind mode;
3. The binding process is complete when the LED on the receiver stops flashing and is on continuously.
 - If a transmitter that has had its radio frequency (RF Standard) set to "AFHDS3 1 way" (please refer to your transmitter user manual) enters bind mode, the receiver LED will instead flash slowly. Exit bind mode on the transmitter and if the receiver LED stops flashing and is on continuously, the binding process is complete
4. Check to make sure the transmitter and receiver functions are working correctly, repeat steps 1 to 3 (binding process) if any problems arise.

强制更新 Forced update

发射机在更新完后，如无法与接收机对码，需强制更新接收机。

1. 接收机按下对码按键，上电十秒钟后指示灯三闪一灭，松开对码按键；
2. 在发射机端选择接收机更新并进入更新状态；
3. 更新完成指示灯慢闪。

If after a firmware update is performed and the transmitter is unable to bind to the receiver, the receiver may need to be put into forced update times.

1. Power on the receiver while pressing the BIND button [16] for then approximately ten seconds until the LED [14] flashes three times, release the BIND button.
2. Go to the RX Setup menu on your transmitter and select "RX Update" .
3. When the receiver LED flashes slowly, the update is successful.

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时，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。

- 本款接收机共支持三种失控保护模式：“无输出”、“保持”、“固定值”；“无输出”模式指在进入失控保护状态后 PWM、PPM、i-Bus out、i-Bus 2 转换器保持无输出信号通道值，S.BUS、i-Bus2、i-bus 转换器输出最后收到发射机的信号通道值，“保持”模式指在进入失控保护状态后，保持输出最后收到发射机的信号通道值；“固定值”模式指在进入失控保护状态后，保持设置的信号通道值进行输出信号。

The failsafe function is used to output the channel 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 three failsafe modes: "Free", "Hold", and "Fixed value"; "Free" mode refers to PWM, PPM, i-Bus out, i-Bus 2 converter entering the failsafe state keep the channel value of no output signal. The S.BUS, i-Bus2, and i-bus converters output the last received signal channel value of the transmitter. "Hold" mode means that after entering the failsafe state, keep the output of the last transmitter signal; the "Fixed value" mode means that after entering the out-of-control protection state, the set signal channel value is maintained to output the signal.

兼容性 Compatibility

该接收机兼容所有 AFHDS3 的发射机和高频头。（主要包括 PL18、NB4、NB4 Lite、FRM302 等）

The FGr12B receiver is compatible with all AFHDS 3 transmitters and RF modules (including PL18, NB4, NB4 Lite, FRM302 etc.)

► 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。如果关闭发射机电源时接收机仍然在工作，将有可能导致遥控设备失控或者引擎继续工作而引发事故。
- 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。

► 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 may lead to unintended operation or loss of control.
- 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, [Flysky Technology co., Ltd] declares that the Radio Equipment [FGr12B] 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

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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:N4ZFGR12B