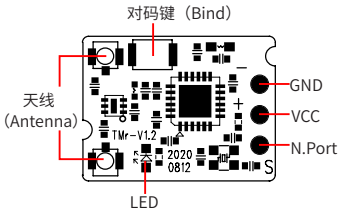
产品介绍 Introduction

TMr 是一款适合穿越机使用的接收机，采用 AFHDS 3（第三代自动跳频数字系统），外置双天线双向传输，体积小巧，可输出 PWM/PPM/I-BUS/S.BUS/I-BUS 2。

TMr is a receiver suitable for FPV, using AFHDS 3 (third-generation automatic frequency hopping digital system),external dual antenna bidirectional transmission, micro in size and can output PWM/PPM/I-BUS/S.BUS//I-BUS 2 signal.

接收机概览 Receiver overview



用于连接接收机与模型的各个部件。

GND：连接地线；
VCC：电源电压为 3.5~9V；
N.Port：在【接收机设置】菜单下，选择自定义接口协议，可设置信号输出为 PWM/PPM/I-BUS/S.BUS/I-BUS 2。

- RSSI 信号强度输出默认为关闭，可在发射机【接收机设置】下的【信号强度输出设置】菜单中进行相关设置。

These ports connect the receiver to various models, component's and flight controllers.
GND: Connect to ground wire.
VCC: Power supply voltage from 3.5 – 9V.
N.Port: In the [RX Settings] menu, select the RX port protocol, and the signal output can be set to PWM/PPM/I-BUS/S.BUS/I-BUS 2.

- The RSSI signal strength output is turned off by default, and the relevant settings can be made in the [Signal Output] menu under the transmitter [RX Setting].

产品规格 Product specification

- 产品型号：TMr
- 无线频率：2.4GHz ISM
- 无线协议：AFHDS 3
- 天线类型：双天线
- 输入电源：3.5-9V
- RSSI：支持
- 数据输出：PWM/PPM/I-BUS/S.BUS/I-BUS 2
- 温度范围：-10°C～ +60°C
- 湿度范围：20 ～ 95%
- 在线更新：是
- 外形尺寸：16*12*2mm
- 机身重量：0.9g
- 安规认证：CE，FCC ID：N4ZTMR000

- Product Model: TMr
- RF: 2.4GHz ISM
- 2.4G Protocol: AFHDS 3
- Antenna: Dual Antenna
- Input Power: 3.5-9V
- RSSI: Yes
- Data Output: PWM/PPM/I-BUS/S.BUS/I-BUS 2
- Temperature Range: -10°C～ +60°C
- Humidity Limit: 20% ～ 95%
- Online Update: Yes
- Dimensions: 16*12*2mm
- Weight:0.9g
- Certification: CE，FCC ID: N4ZTMR000

对码 Binding

1. 按住接收机对码按键同时上电后松开对码键或者先给接收机上电后，长按对码键 3 秒，接收机指示灯快闪进入对码状态；
2. 将发射机进入对码状态；（发射机进入对码状态的方式可能不同，请根据发射机的使用说明书进行操作）
3. 接收机指示灯常亮表示对码成功。

- 若发射机是单向，则当接收机指示灯慢闪时手动退出发射机，指示灯常亮，表示对码成功。

4. 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。

1. Press and hold the receiver BIND button while powering on the receiver ,release the BIND button after receiver is powered on or powering on the receiver first, press and hold the BIND button 3 seconds , the LED on the receiver will flash rapidly;
2. Put the transmitter into bind mode.(See the transmitter's instruction manual for more information)
3. Binding is successful when the receiver's LED stop flashing.

- If the transmitter is one-way transmission, manually exit the transmitter when the receiver status indicator flashes slowly, Binding is successful when the receiver's LED stop flashing.

4. Check to make sure that the transmitter and receiver are working as expected, if there are any issues or unexpected operation follow the steps above to bind again.

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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. 按下接收机对码按键，上电十秒钟后指示灯三闪一灭，或者先给接收机上电，长按对码键 10 秒后指示灯三闪一灭，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，更新过程中 LED 灯三闪一灭；
3. 更新完成指示灯慢闪。

If after an update the transmitter is unable to connect or bind to the receiver, it is necessary to put the receiver into forced update mode.

1. Press the bind button of the receiver, and the indicator light flashes three times after power-on, or power on the receiver first, press and hold the bind button for 10 seconds and then the indicator light flashes three times and then off, release the bind button;
2. On the transmitter side, select the receiver to update and enter the update state. During the update process, the LED light flashes three times and one off;
3. updating is successful when the receiver status indicator flashes slowly.

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信号输出。

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。(注: 目前适用于 PL18 1.0.55、NB4 2.0.93 和 NB4 lite 1.0.10 及之后的版本固件使用的高频库为 3.0 版本的发射机。)

The TMr receiver is compatible with all AFHDS 3 transmitters (Note: It is currently applicable to PL18 1.0.55, NB4 2.0.93 and NB4 lite 1.0.10 and later versions. The high-frequency library used by the firmware is version 3.0.)

► 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。
- 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 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.

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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.

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 [TMr] 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： N4ZTMR000

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