# HGLRC  ELRS 915Mhz/2.4Ghz

GEMINI RX Dual Receiver Manual

## 915Mhz product parameters

Name:HGLRC ELRS 915Mhz GEMINI RX Dual Receiver

Frequency:915Mhz

Antenna type:T-type

Chip:2XSX1276+ESP32-PICO-D4

Color:Black

Return power:50mW

Input voltage:3.6V-5.5V

Dual Antenna Connector:IPEX Generation 1

Size:22mm*15.24mm

Weight:1.5g (excluding antenna)

## 2.4Ghz product parameters

Name:HGLRC ELRS 2.4Ghz GEMINI RX Dual Receiver

Frequency:2.4Ghz

Antenna type:T type

Chip:ESP32+2*SX1281+TCXO

Colour:Black

Return power:2*100mW

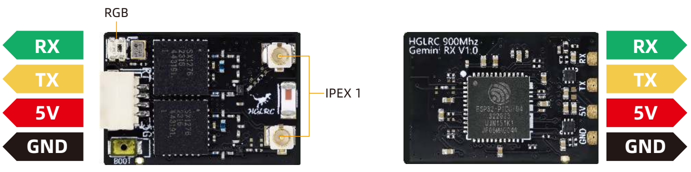
Input voltage:3.6V-5.5V

Dual Antenna Connector:IPEX Generation 1

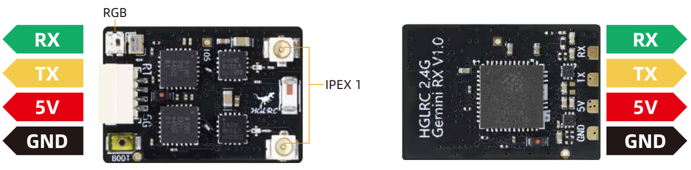
Size:22mmX 15.24mm

Weight:1.36g (excluding antenna)

## HGLRC  ELRS 915Mhz  GEMINI RX
## Dual receiving interface definition diagram

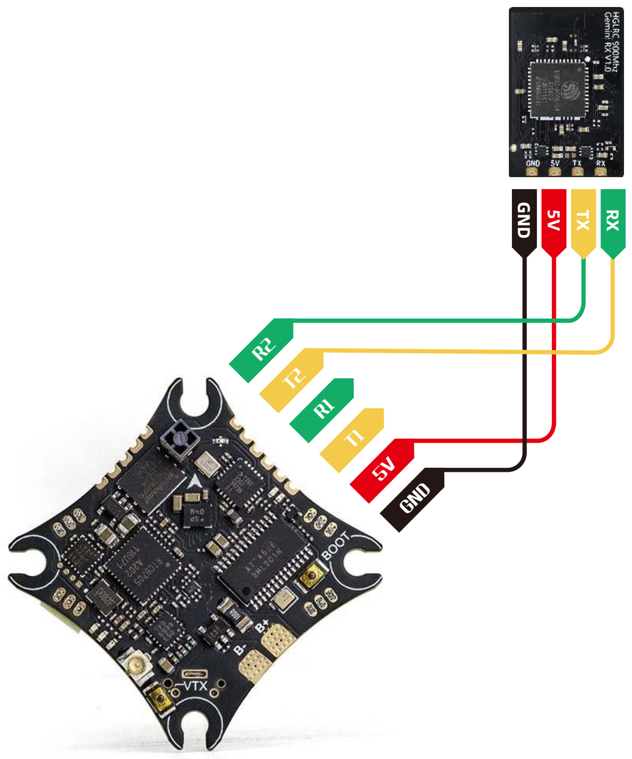


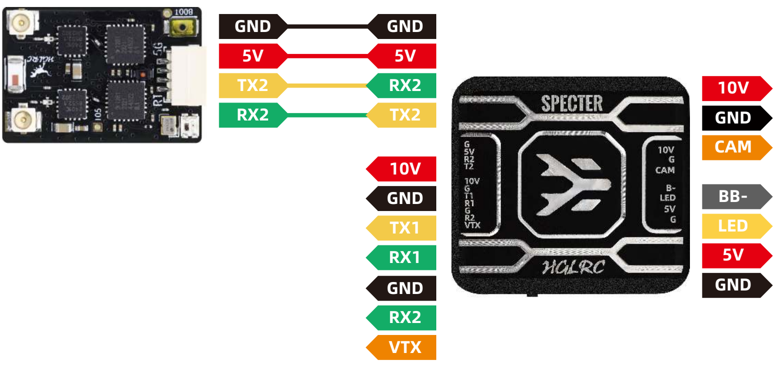
## HGLRC  ELRS 2.4Ghz  GEMINI RX
## Dual receiving interface definition diagram



*When the receiver is powered on normally and is not connected to the remote control or TX Module, short press/press the BOOT button for more than 6 seconds, the receiver will restore to factory settings.

# Receiver connected to flight control definition diagram



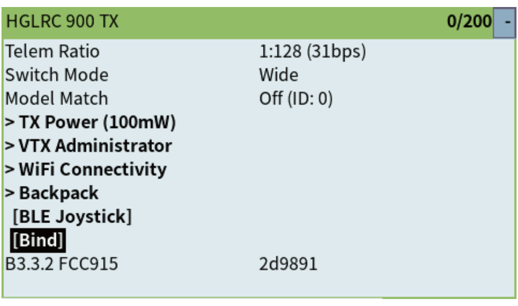


# Receiver binding steps

1.Make sure the firmware version numbers of the built-in or external ELRS TX Module are consistent. The factory version is ELRS 3.3 without password.

2.The receiver is quickly powered on and off three times (power off again after the light is on). The power does not stop for the third time, then waiting status light changes to double flashes, and the receiver enters binding mode.

Enter the TX Module parameter adjustment script and select the Bind option



```
HGLRC 900 TX                              0/200 -
Telem Ratio               1:128 (31bps)
Switch Mode               Wide
Model Match               Off (ID: 0)
> TX Power (100mW)
> VTX Administrator
> WiFi Connectivity
> Backpack
 [BLE Joystick]
 [Bind]
B3.3.2 FCC915             2d9891
```

3.After the frequency binding is successful, the receiver LED light is always on and the telemetry signal can also be received.

4.Receiver LED status meaning: Steady light means linking is successful, double flash means linking is in progress.

The LED flashing slowly means that the tuner signal cannot be received or the frequency is not paired

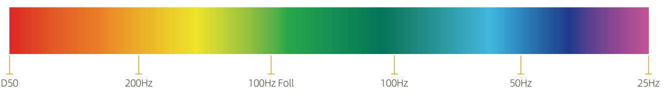
The LED gradually flashes into wifi communication mode, and the ELRS firmware can be updated by connecting to wifi via mobile phone and computer

# Indicator status

| RGB color | Status description |
|---|---|
| 🟥🟧🟨🟩🟦🟦🟪 | Rainbow color gradient, power-on self-test |
| 🟩🟧·🟩🟧··· | Green and orange lights flash, entering WiFi upgrade mode |
| 🟥·🟥··· | The red light flashes quickly and the radio frequency chip is not detected |
| 🟧🟧·🟧🟧··· | Orange double flash, binding mode |
| 🟧🟧🟧·🟧🟧🟧··· | Three orange flashes, connected, but does not match the settings in model matching* |
| 🟧··🟧 ··· | Flashing orange slowly, waiting for connection |
| Steady on, connected. The color indicates the refresh rate, as shown in the figure below | |

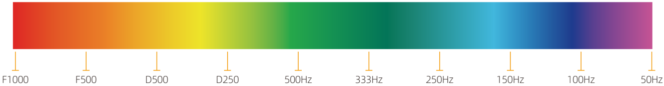
*** If RGB orange flashes three times, you can enter the remote control SYS → TOOS → ExpressLPS → Model MatchON (ID:X), or set it to Model Match OFF (ID:X).**

**RGB color corresponding to 915M refresh rate**



D50 is a unique mode of ELRS Team900. Under the 200Hz refresh rate of Lora mode, the same data packet is sent four times repeatedly. The receiving distance is equivalent to 200Hz. 100Hz Full achieves 16-channel full resolution output under the 200Hz refresh rate of Lora mode. mode, the receiving distance is equivalent to 200Hz.

## RGB color corresponding to 2.4G refresh rate



F1000 and F500 are refresh rates in FLRC mode, only ELRS 2.4G supports this mode, this mode provides faster modulation and lower latency, but the reception distance is shorter than the ordinary Lora mode, suitable for competition: D500 and D250 is the refresh rate in DVDA (Deja Vu Diversity Aid) mode, which works at the F1000 refresh rate in FLRC mode and provides a more reliable link connection in the presence of complex interference by sending the same data packet multiple times. D500 and D250 indicate that the same data packet is sent twice and four times respectively.

About refresh rate settings:https://www.expresslrs.org/quick-start/transmitters/luanowto/?h=vu#packet-rate-and-telemetry-ratio18924433075

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# Precautions for use

1. Pay attention to check whether the positive and negative poles are connected correctly before powering on, so as to avoid short circuit damage to internal components.
2. Make sure that the input voltage is within the specified range and correct to avoid damaging internal components.
3. The temperature of the FC is relatively high. It is strictly forbidden to touch it directly with your hands to avoid injury.

# Contact us

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