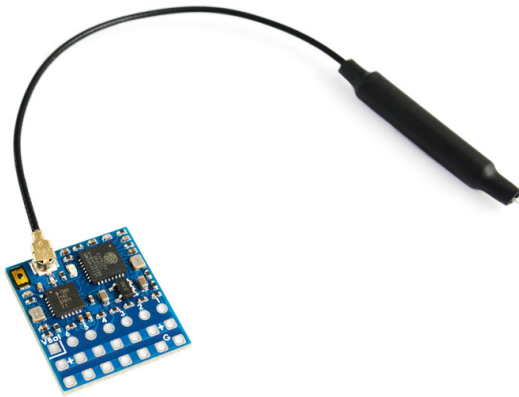




# EXPRESSLRS 2.4GHZ PWM RECEIVER, R24-P6



## MATEKSYS ELRS 2.4GHz PWM Receiver ELRS-R24-P6

ESP8285, SX1281  
Antenna connector: IPEX MHF-1  
6x PWM outputs  
Support Max.34V VBat sense

RF Frequency: 2.4GHz ISM  
Telemetry power: 12dbm  
Input voltage: 4-9V DC

PCB: 20x18mm  
2g w/ antenna

Firmware: Generic ESP8285 6xPWM 2.4Ghz RX

## TARGET

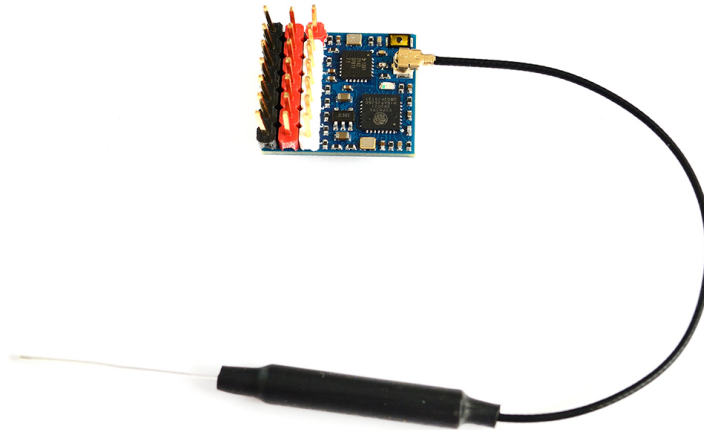
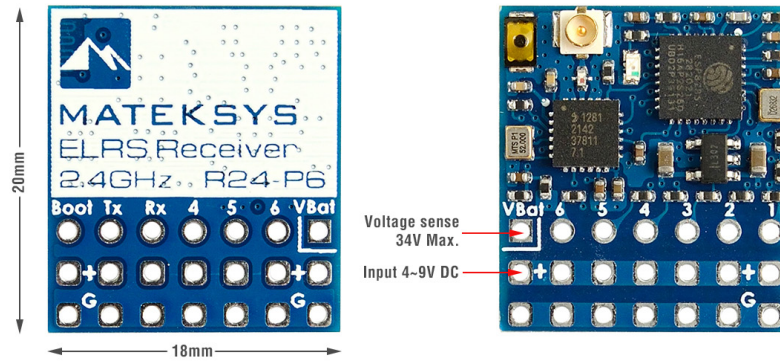
### Configurator

- configurator 1.5.x or older, DIY 2.4 GHz -> DIY 2400 RX PWMP EX
- configurator 1.6.x or newer, Generic targets used as a base 2.4 GHz -> Generic ESP8285 6xPWM 2.4Ghz RX

web-flasher <https://pkendall64.github.io/elrs-web-flasher>

- Generic targets used as a base -> 2.4GHz Receiver -> Generic ESP8285 6xPWM 2.4GHz RX

ELRS-R24-P6



Specifications, Tips

## Specifications

- ESP8285, SX1281
- Antenna connector: IPEX MHF 1
- 6x PWM outputs
- Support 2~8S VBat voltage sense
- RF Frequency: 2.4GHz (2400~2480MHz)
- Telemetry power: 12dbm
- Receiver output protocol: PWM
- **Input voltage: 4~9V DC @ "+" pad**
- **Voltage sense: 34V Max. @ "VBat" pad**
- Power dissipation: 45mA(binding), 85mA(wifi mode)
- PCB size: 20mm x 18mm
- Weight: 2g w/ antenna
- Packing:
  - 1x ELRS-R24-P6
  - 1x IPEX MHF1 Antennas. 15cm
  - Dupont 2.54 pins **(Board is shipped unsoldered)**

## Firmwares



- Make sure Receiver and TX module both are running ExpressLRS 3.0 or newer

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- **Receiver has ExpressLRS 3.0 preloaded with binding phrase "123456", the Receiver will never enter binding mode if using the traditional binding procedure.**
  - **You need to reflash it with your binding phrase OR go into WebUI to set your binding phrase.**

## Flashing via Wifi

- Disconnect ESC and servos from receiver first.
- Power on receiver by 5V source. Receiver's LED(Red) will blink slow at first, and after 20s, it should blink fast indicating it's on Wifi Hotspot Mode.
- More detailed steps, pls refer [this page](#).
- Target:
  - configurator 1.5.x or older, DIY 2.4 GHz -> DIY 2400 RX PWMP EX
  - configurator 1.6.x or newer, Generic targets used as a base 2.4 GHz -> Generic ESP8285 6xPWM 2.4Ghz RX

## Flashing via UART

1. Disconnect ESC and servos from receiver first.
2. Wire the receiver into the USB-TTL adapter, with TX on receiver connected to the Rx on the USB-TTL, and RX on receiver connected to the Tx of the USB-TTL. Wire 5V and GND of the USB-TTL to 5V and GND of the Receiver.
3. Press the boot button while powering on the receiver, then release - the Red LED on receiver should now be solid.
4. configurator 1.5.x or older, Select the target **DIY 2.4 GHz / DIY 2400 RX PWMP EX** and **"UART"** for Flashing Method, set your bind phrase and [Firmware Options](#) and once done, click on **Build and Flash**.
5. configurator 1.6.x or newer, Select the target **Generic targets used as a base 2.4 GHz -> Generic ESP8285 6xPWM 2.4Ghz RX** and **"UART"** for Flashing Method, set your bind phrase and [Firmware Options](#), Check **"erase before flash"** and **"Force FLash"**.
6. If you use web-flasher <https://pkendall64.github.io/elrs-web-flasher/>, select **Generic targets used as a base -> 2.4GHz Receiver -> Generic ESP8285 6xPWM 2.4GHz RX**, and enable **"Erase flash first"**.