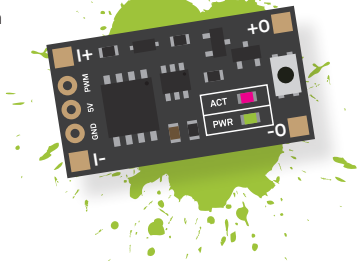# RC LIGHTS CTRL RGB

FEATURES

- PWM controlled power switch
- WS2812B LED driver
- 3A switchable load
- 5-20V input
- Three powering options (selectable via jumper)
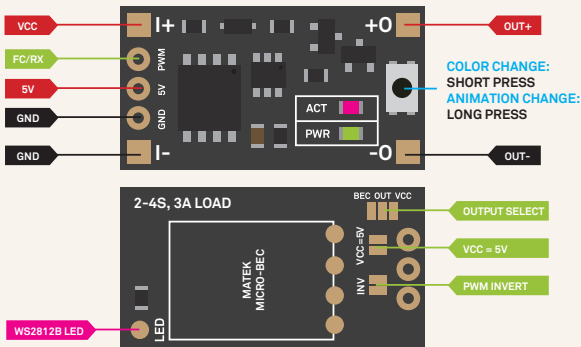- Matek 5V 1.5A BEC
- WS2812B strip with 16 LEDs
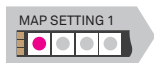
DIY RC HANDMADE RC ELECTRONICS

open source hardware

MADE IN GERMANY

DIMENSIONS: 26x14mm

VCC — I+ +O — OUT+

FC/RX — PWM

5V — 5V

GND — GND

COLOR CHANGE: SHORT PRESS
ANIMATION CHANGE: LONG PRESS

ACT

PWR

GND — I- -O — OUT-

2-4S, 3A LOAD

BEC OUT VCC

MATEK MICRO-BEC

VCC=5V

INV VCC=5V

LED

WS2812B LED

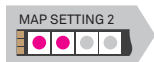**OUTPUT SELECT**

VCC = 5V

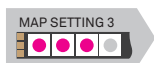**PWM INVERT**

WS2812B MAPPING CHANGE

Press button for 3 sec. on power up, chage the mapping mode with a short press and **wait until the LEDs light up green**, then powercycle normally.

MAP SETTING 1

COLORS: red, green, blue, cyan, yellow, pink
ANIMATION MODES: static, wipe, larson scanner

MAP SETTING 2

COLORS (LED 1-8): red, green, blue, cyan, yellow, pink
ANIMATION MODES: static, wipe, larson scanner
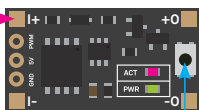**POSITION LIGHTS:** 2x white strobe, green+strobe, red+strobe

MAP SETTING 3

COLORS: red/green, yellow/cyan, orange/purple, red/blue, pink/green, white/white
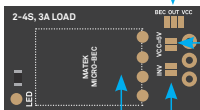**ANIMATION MODES:** static, inner-wipe, siren

RC LIGHTS CTRL RGB
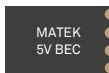
Powering options

⚠ Never connect the lipo to **I+** pad if the „*VCC=5V*" jumper is closed!!!

WS2812B MODE/COLOR BUTTON

SOLDER IT IN PLACE IF NEEDED

MATEK 5V BEC

2. OUTPUT CONFIG JUMPER
• *VCC+OUT* = VCC on the output pad > lipo voltage *(will be 5V if you bridged the VCC=5V jumper!!!)*
• *BEC+OUT* = Internal BEC output (5V @ 1.5A). Lipo must be connected to I+/I- pads
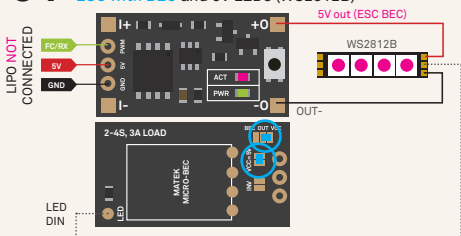
1. VCC = 5V JUMPER
If you want to power the LEDs with the servo cable from the receiver, FC or ESC (*do the output jumper next*)

3. PWM INVERSION JUMPER
• *if not connected*:
1000-1600us > LIGHTS OFF,
1600-2000us > LIGHTS ON
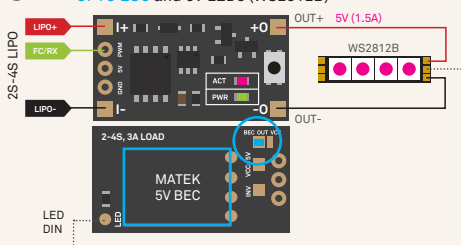• *if connected*:
1000-1600us > LIGHTS ON,
1600-2000us > LIGHTS OFF

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01 ESC with BEC and 5V LEDs (WS2812B)

LIPO NOT CONNECTED

FC/RX
5V
GND

5V out (ESC BEC)
WS2812B
OUT-

2-4S, 3A LOAD
MATEK MICRO-BEC
LED DIN

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02 OPTO ESC and 5V LEDs (WS2812B)

2S-4S LIPO

LIPO+
FC/RX
LIPO-

OUT+ 5V (1.5A)
WS2812B
OUT-

2-4S, 3A LOAD
MATEK 5V BEC
LED DIN

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03 Mixed voltage LEDs

3S/4S LIPO

LIPO+
FC/RX
LIPO-

OUT > LIPO+ 3A MAX LOAD
MATEK 5V BEC
5V LEDs
OUT-
12V/16V LEDs

2-4S, 3A LOAD
MATEK MICRO-BEC

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github.com/ skaman82