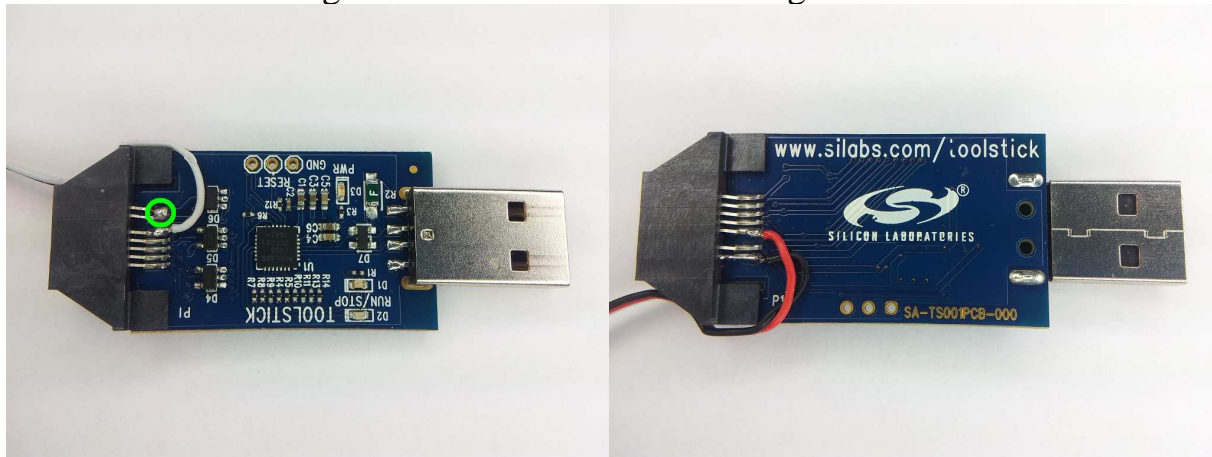


# ESCs supported by BLHeli SiLabs

## Toolstick connection:

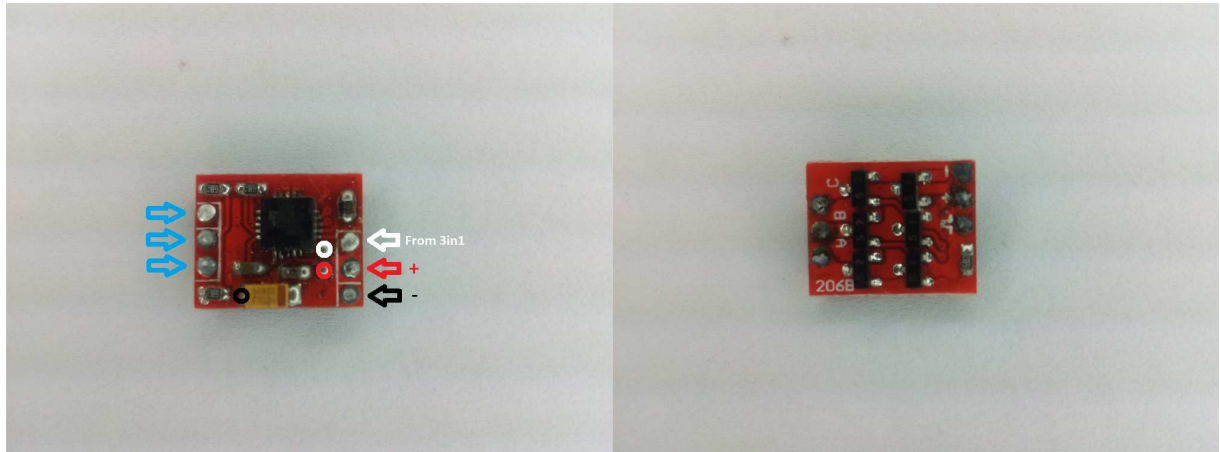
The ESCs shown in this document can be flashed with BLHeli firmware.

The black, red and white circles in the ESC images are the Toolstick programmer connections according to the wire colours in the images below:



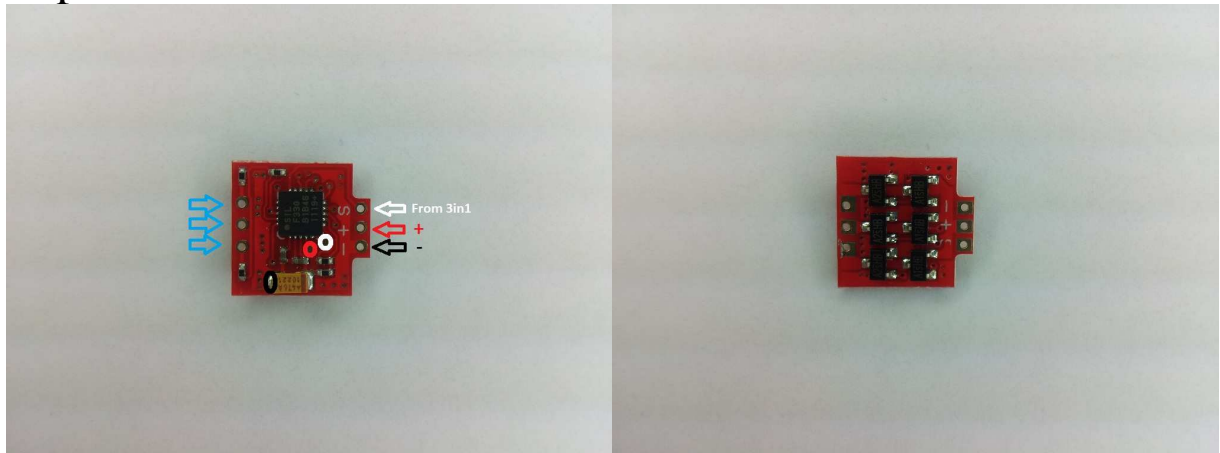
The green circle in the above image indicates where two pins on the connector shall be shorted.

## DP 3A:



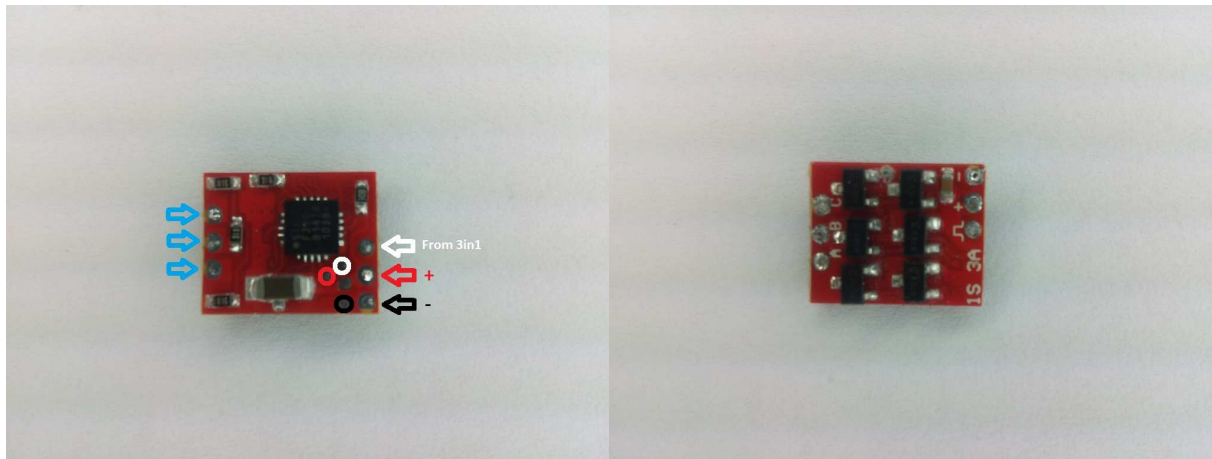
The ESC supports 1S operation only. It supports fully damped mode. Switching speed is fast,  $<0.5\mu\text{s}$ . Fet resistances are approximately 40mohm for N and 90mohm for P.

## Supermicro 3.5A:



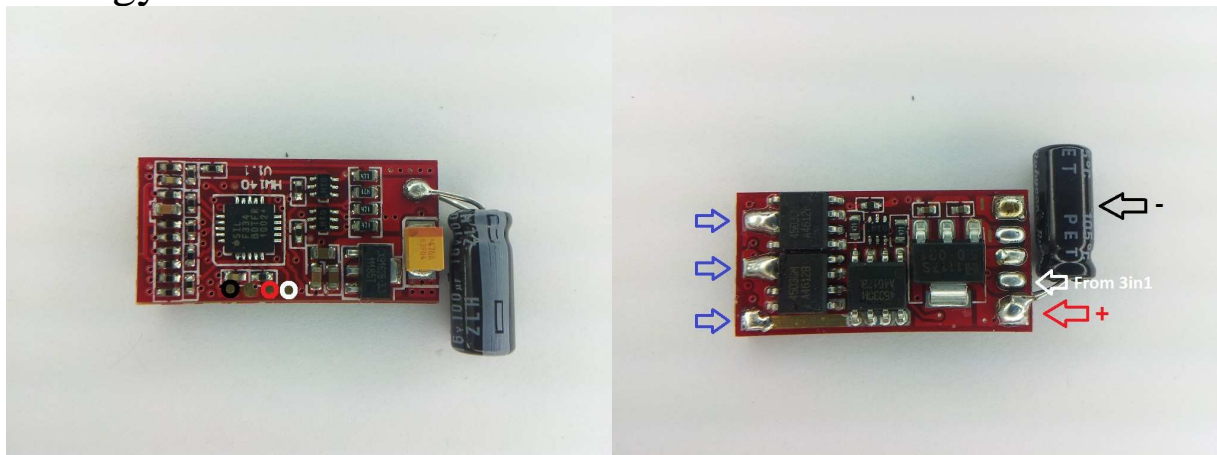
The ESC supports 1S operation only. It supports fully damped mode. Switching speed is fast,  $<0.5\mu\text{s}$ .

## XP 3A:



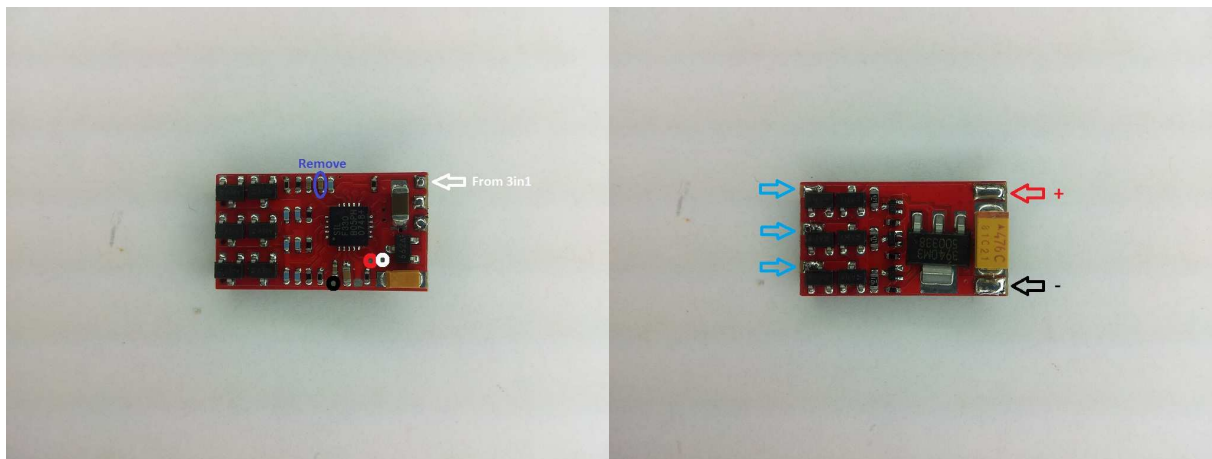
The ESC supports 1S operation only. It supports fully damped mode. Switching speed is fast,  $<0.5\mu\text{s}$ . Fet resistances are approximately 30mohm for N and 60mohm for P.

## Turnigy Plush 6A:



The ESC supports 2S (to 3S) operation. Switching speed is not fast,  $\sim 2.5\mu\text{s}$  (on 2S) for pfet to go off. Also, there is a  $2.5\mu\text{s}$  delay in the fet driver that shifts throttle range up. Fet resistances are around 40mohm for N and 60mohm for P.

## XP 7A:



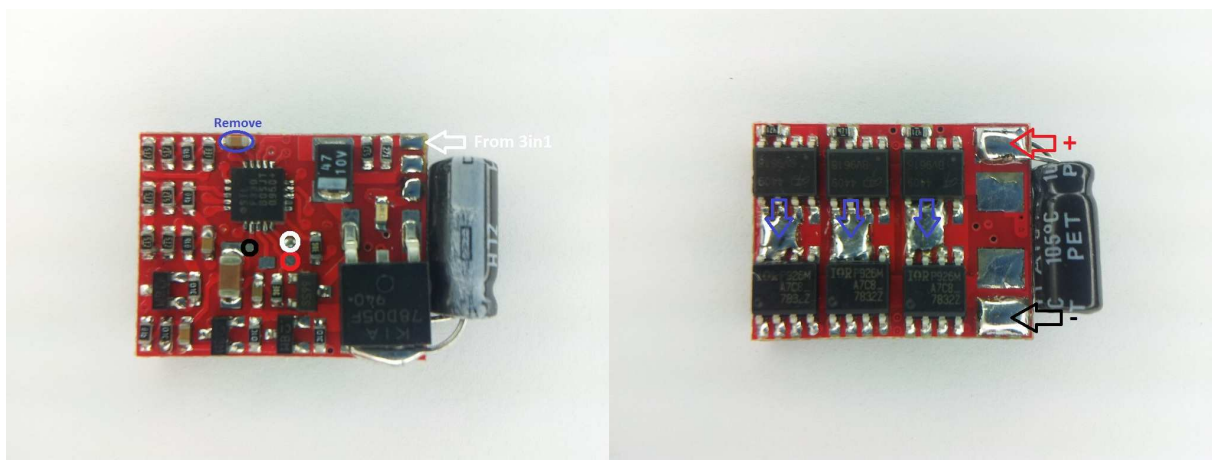
The ESC supports 1S to 2S operation.

Switching speed is not fast,  $\sim 5\mu\text{s}$  (on 2S) for pfet to go off.

Fet resistances are around 12mohm for N and 30mohm for P.

The circled capacitor in the image above should be removed for high frequency input signals (pwm  $> 1\text{kHz}$ , e.g. mCPX v1).

## XP 12A:



The ESC supports 1S to 3S operation.

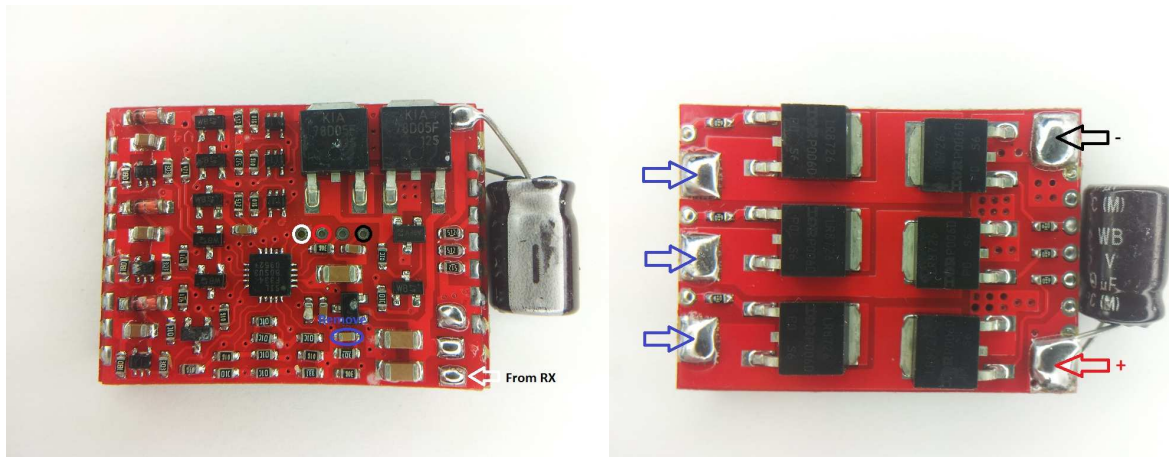
Switching speed is not fast, up to  $\sim 9\mu\text{s}$  (on 3S) for pfet to go off.

Fet resistances are around 4mohm for N and 10mohm for P (specified at 4.5V, fets are not specified for operation below 4.5V).

The circled capacitor in the image above should be removed for high frequency input signals (pwm  $> 1\text{kHz}$ , e.g. mCPX v1).



## XP 18A:



The ESC supports 2S to 4S operation.

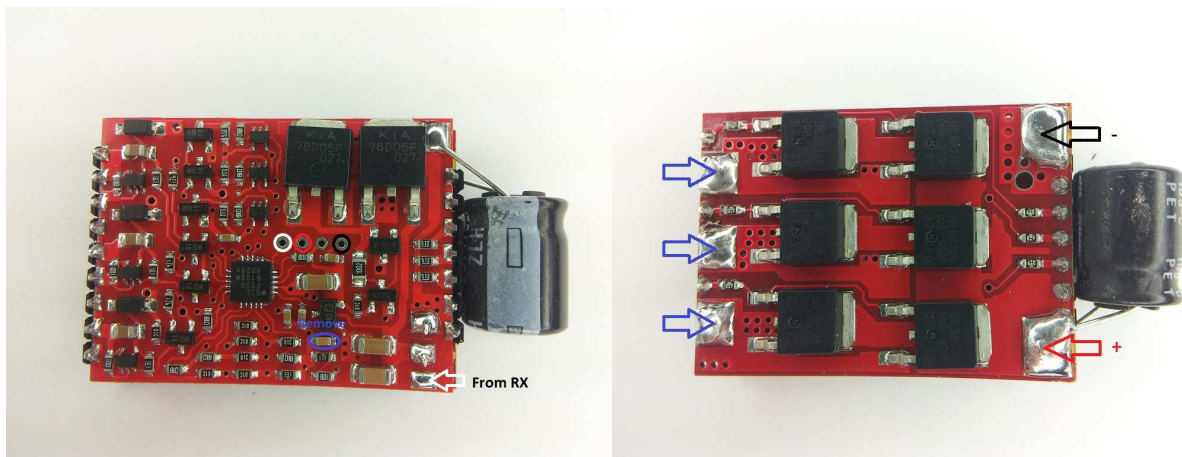
Switching speed is quite fast,  $<0.5\mu\text{s}$ , except  $\sim 2\mu\text{s}$  for high side to go on.

Pwm is applied to the high side.

Fet resistances are around  $6\text{m}\Omega$  for low side and high side.

The circled capacitor in the image above should be removed for high frequency input signals (pwm  $> 1\text{kHz}$ ).

## XP 25A:



The ESC supports 2S to 4S operation.

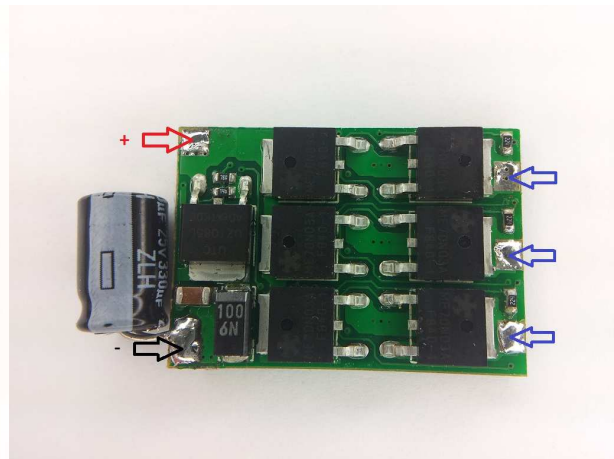
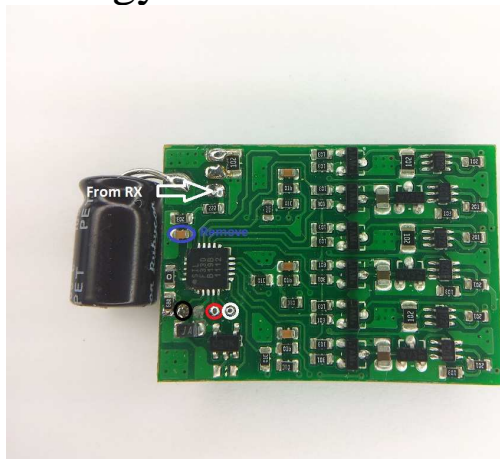
Switching speed is quite fast,  $<0.5\mu\text{s}$ , except  $\sim 2\mu\text{s}$  for high side to go on.

Pwm is applied to the high side.

Fet resistances are around  $3\text{m}\Omega$  for low side and high side.

The circled capacitor in the image above should be removed for high frequency input signals (pwm  $> 1\text{kHz}$ ).

## Turnigy AE 25A:



The ESC supports 2S to 4S operation.

Switching speed is quite fast,  $< 1\mu\text{s}$ .

Fet resistances are around 8mohm for low side and high side.

The circled capacitor in the image above should be removed for high frequency input signals (pwm  $> 1\text{kHz}$ ).