

LED & POWER HUB

5 in 1 V3

SKU: 5in1V3

The 5in1V3 has been engineered to provide the highest possible performance and reliability in a 46*36mm & 4 layers PCB. It is a 5in1 HUB with Power Distribution Board, BEC 5V/3A & 12V/500mA, LED Light Controller, Lost Plane Finder & Low Voltage Alarm functions. It is specially made for the Multi-Rotors, mini FPV Quad. Built-in 5V BEC can be connected to receiver or flight controller with Aux pins directly, simplify wiring. The BEC 12V can be used to power the Camera, Video Transmitters, ect. Inbuilt 5V LED light controller, three flash modes can be choosed with the toggle switch of transmitter. And the buzzer can also be triggered with the toggle switch, which can help you find the models in tall grass or trees. the 5in1 also acts as a battery voltage monitor. Once voltage gets below the threshold you set, the buzzer & LED light will remind you.

Functions

General

- Input voltage range (3S-6S operation): 9 - 26VDC
- 1 Battery input & 4 ESC outputs
- Regulated 5V and 12V outputs
- LED power indicators (5V & 12V outputs)
- 4 pairs 5V LED light pads
- Low voltage setting value indicators
- Physical:
 - Dimensions: 46x36x6mm, Weight: 9g
 - Mounting holes 30.5mm square spacing

F1. PDB (ESC outputs)

- Continuous current: 20A per output
- Peak current (10 seconds/minute): 25A per output

F2. BEC 5V output

- Designed for RC Receivers, Flight controllers, OSD, and Servos.
- DC/DC synchronous buck regulator, Efficiency is up to 95%.
- Voltage: 5.0 +/- 0.1VDC
- Continuous current: 3 Amps
- Short-circuit tolerant (10 seconds/minute)
- 5V is also on the Aux pins + & -
- If other 5V BEC in use, Pls remove the red wire on Aux pins.

F2. BEC 12V output

- Linear regulator, very low noise.
- Standard output designed to power cameras and video transmitters, etc.
- Voltage: 12.0 +/- 0.3VDC (4~6S operation)
- Continuous current: 500mA@16V IN (Max. 1A 10s/minute), 250mA@24V IN
- If the battery is 3S LiPo, Output voltage=3S LiPo voltage - 1V
- Don't use the BEC 12V to power VTX or Gimbals when 6S battery is in use.

F3. LED Light Controller

- Total 4 pairs LED light pads, All the LED lights have the same status.
- LED light voltage should be 5V.
- Pls use the Aux channel with toggle switch of three positions. Middle position is OFF (Value=1400~1600). Side position is LED ON (Value=1700~2000)
- Three LED modes: Constant light, Slow flash(1Hz), Fast flash(3Hz)
- Choose the modes: Tune on the LED first(move the switch to value 1700~2000), then move the switch to middle position & side position within 0.5s. Beep once. If no cable is connected to RX Aux channel, the button can be used to change the modes.

F4. Lost Plane Finder

- Use the same Aux channel with F3 function. Middle position is OFF (Value=1400~1600).
- Move the switch to value=1000~1300, the buzzer & LED light can be triggered. Beep & Flash(2Hz), which can help you search the models in tall grass or trees.
- Set the "SERVO REVERSE" in transmitter to change the switch position of F3 & F4.

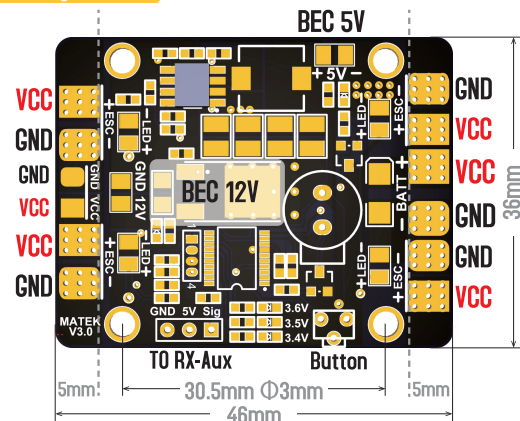
F5. Low Voltage Alarm

- The 5in1 can monitor 3~6S LiPo voltage status & notify you once the cells reach the defined voltage.
- If the Input voltage is in the range of following, The 5in1 will detect the cell numbers automatically when the LiPo is connected. Beep once & show the the voltage threshold.
- If the input voltage is out of the range. The 5in1 will alarm 1 short beep + 1 long beep & 3 red LEDs light. Pls check if the battery total voltage is below 3.7V*cells
 - 11.1~12.9V: 3cells LiPo
 - 14.8~17.2V: 4cells LiPo
 - 18.5~21.5V: 5cells LiPo
 - 22.2~25.8V: 6cells LiPo
- Hold the button 3 seconds to enter the setting. Press the button to set the alarm threshold within 3.4V, 3.5V, 3.6V & OFF. The value will be saved if no action within 5 seconds.
- During the using of LiPo, 5in1 will detect the voltage always. If the input voltage is below "threshold * cells", the Beep & Flash will be triggered(1Hz)
- Input voltage rise again, the alarm will be suspended.
- The Buzzer & LED light status of F5 has priority over F3 & F4.

Features

- Built-in 5 functions, small size & light weight
- 2oz copper & 4-layers PCB.
- ESC & Battery solder tabs in pairs
- BEC 5V & 12V Output LED indicators
- TVS input protection

Layout



Connections

