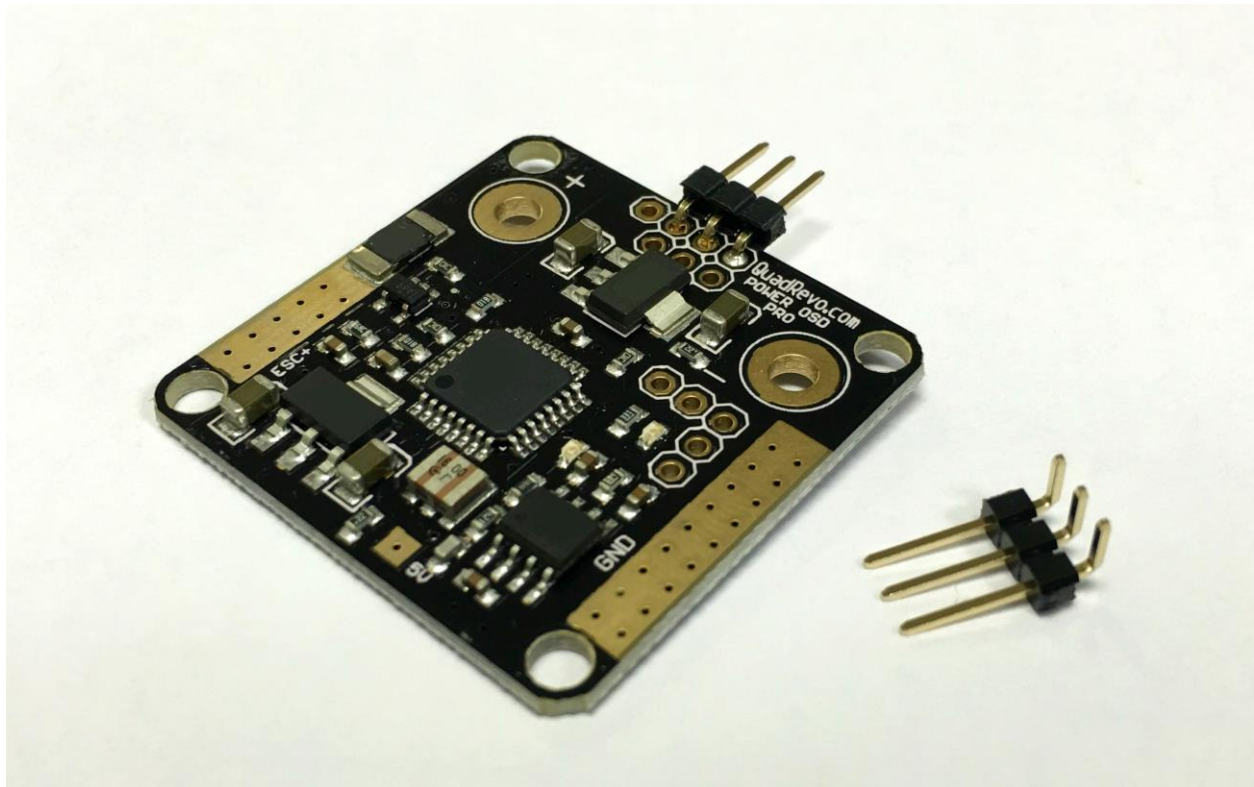


QuadRevo

Join The Multi Rotor Revolution

PowerOSD PRO

User Guide Rev 1.0



Introduction

The Mini Power Distribution Board with built-in SMART OSD functionality. Completely developed in the U.S and backed by QuadRevo support. Every unit gets tested in the U.S prior to packaging and shipment to you.

The PowerOSD is designed to be completely plug and play. No hooking up to the computer or downloading firmwares or learning yet another piece of software to use.

Simple installation steps:

1. Solder in your battery leads and ESC power / ground wires as you normally do on any install
2. Plug in the FPV camera and transmitter in the designated ports
3. Plug in the battery and turn on your goggles or screen. Done

Features:

- Power distribution board with built in OSD
- Onboard 5V regulator output to supply the flight controller
- Onboard 10V* regulator for the video transmitter and FPV camera
- Active on board power filtering
- Flight timer display
- Primary battery on screen voltage display (Volts)
- Two stage low battery on screen alarm alerting you to land
- System current draw on screen display (Amps)
- System battery consumption meter (mAH used)
- Radio reception meter (RSSI) on screen display
- Selectable PAL / NTSC modes

*10V can be used to power cameras labeled as 12V.

Technical specifications:

- 3S- 4S battery compatibility
- 100A max current
- 36mm x 36mm size with standard mount pattern
- 5g weight

Functionality

Auto battery detection

- The board will identify and display whether you are using a 3S or 4S battery and adjust all that it needs to automatically.

Real time flight timer

- Displays actual flight time. If the motors aren't spinning the timer will pause. This gives you accurate actual in-flight time.

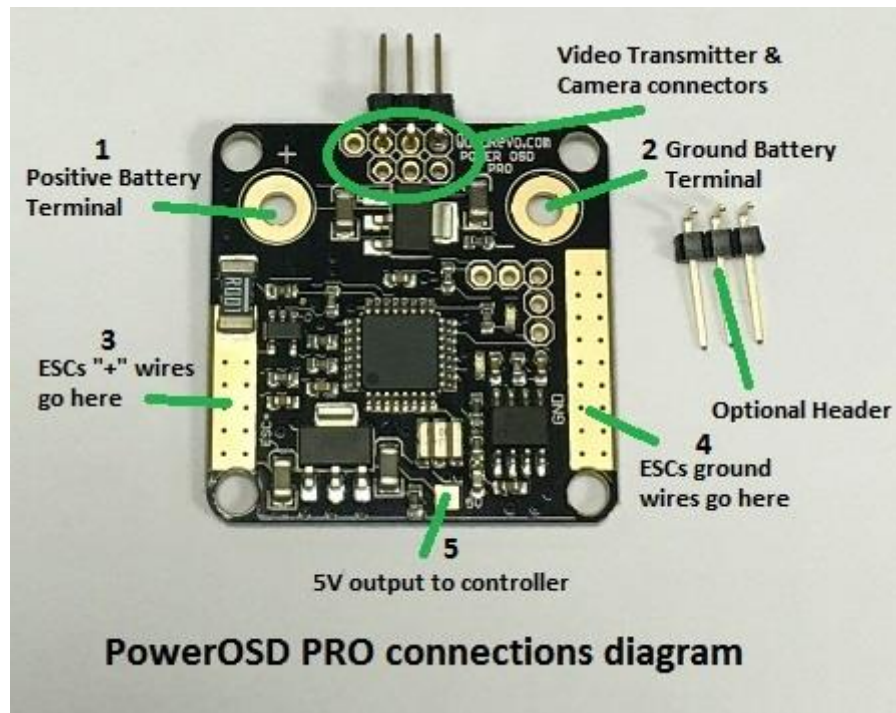
Low battery alarm

- As we know, when you punch the throttle the battery voltage will sag due to the high load without being low on battery. The low battery alarm will actually take your battery's internal resistance into account and decide whether you're just drag racing or if the battery is actually low. After the initial "low battery" alarm, if you continue flying and reach critical levels, a secondary warning appears telling you so.

RSSI auto detect

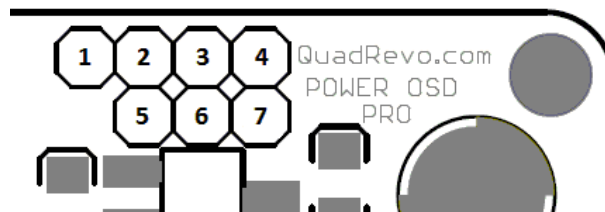
- PWM (FRSKY) or DC RSSI support. 100% auto detect and calibrate. Percentage value output display.
 - If you don't hook up the RSSI pin to your receiver the board will figure this out not display RSSI on the screen.
 - If you do use RSSI, the board will auto configure to the receiver type and display the signal strength in percentage value. This assumes you turn on the transmitter first.

Pinout



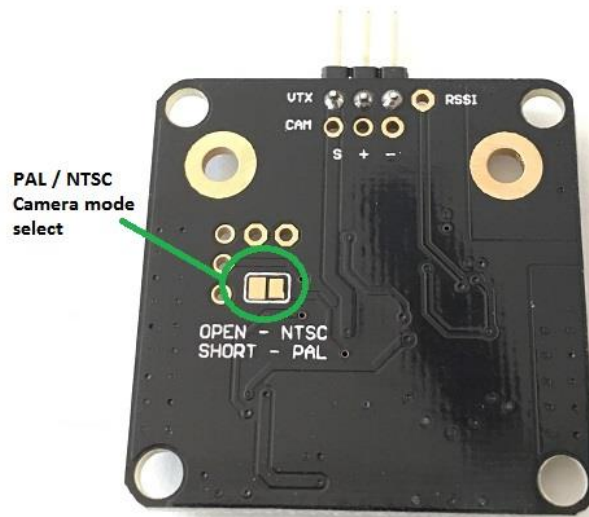
1. Terminal to solder the positive battery connector lead
2. Terminal to solder the ground battery connector lead
3. Solder the positive supply wires from the ESCs here
4. Solder ESC grounds and other grounds to this pad
5. Output of the onboard 5V BEC regulator

Video Transmitter / Camera header pinout



1. RSSI input
2. Video transmitter ground
3. Video transmitter filtered and regulated 10V supply voltage
4. Video Transmitter video signal
5. Camera ground
6. Camera filtered and regulated 10V supply voltage
7. Camera video signal

PAL / NTSC select



NTSC cameras (Default) – Leave the two pads circled open
 PAL cameras – Bridge the two circled pads with a solder joint

Appendix

The following table highlights the key differences between the PowerOSD PRO and the previous revisions.

	PowerOSD Comparison			
	V1	V2	V3	Pro
Availability	Legacy	Legacy	Legacy	Active
Input range	3-4S	3-4S	3-4S	3-4S
Size	36x36mm	36x36mm	36x42mm	36x36mm
PAL/NTSC configurable	No	No	Yes	Yes
Power Filtering	Yes	Yes	Yes	Yes
Large cap?	Yes	Yes	Yes	No
On board 5V BEC regulator	No	No	No	Yes
On board 10V BEC regulator	No	No	No	Yes
RSSI input	Yes	Yes	Yes	Yes