

Power Management (PWR) Block Data Sheet

PWR 080115

SPECIFICATIONS

- > **Voltage Input:** 3.7V LiPo
- > **Voltage Output:** 3.3V (2x) + 1.65V (1x)

FEATURES

- > Two regulated VCC=3.3V outputs
- > One regulated VCC/2=1.65V output
- > On-board LiPo charger
- > Standard micro USB charging plug
- > Battery charging status indicator
- > Battery voltage level monitoring pin
- > Plug & play operation

APPLICATIONS

- > Rapid prototyping of custom hardware
- > Biomedical engineering projects

GENERAL DESCRIPTION

Biosignal acquisition sensors often require a midpoint voltage (VCC/2) for bipolar differential measurement. Also, two common problems affecting measurements when working with biosignals are the voltage drop associated with the normal battery discharge, and power supply fluctuations introduced by peripherals with high peak currents (e.g. Bluetooth module). Our PWR block was especially designed to address these issues, having biomedical applications in mind. It has two regulated VCC=3.3V outputs, which can be used to independently power the analog and digital parts of an acquisition circuit, and also one regulated VCC/2=1.65V output that can be used to provide the midpoint voltage for bipolar biosignal sensors when required. Any 3.7V LiPo battery can be used with this block. For greater convenience it includes an on-board LiPo charger with a charging status indicator and a standard micro USB charging port (only used for charging). The charger is only active when the switch is in the OFF position.

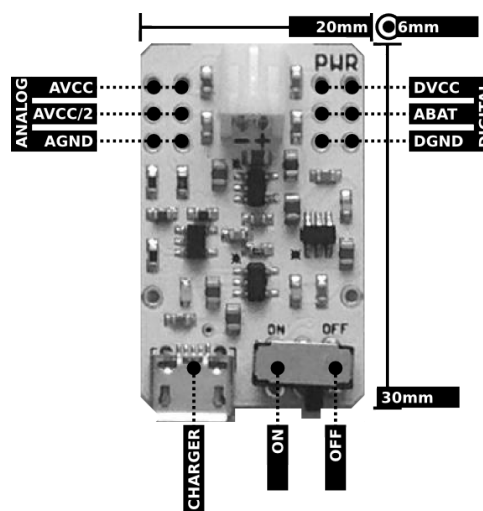


Fig. 1. Pin-out and physical dimensions.



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PLUX – Wireless Biosignals, S.A.
Av. 5 de Outubro, n. 70 – 8.
1050-059 Lisbon, Portugal
bitalino@plux.info
<http://bitalino.com/>

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BEWARE: DIRECT OR INDIRECT COUPLING TO THE MAINS MAY RESULT IN SHOCKING HAZARD

