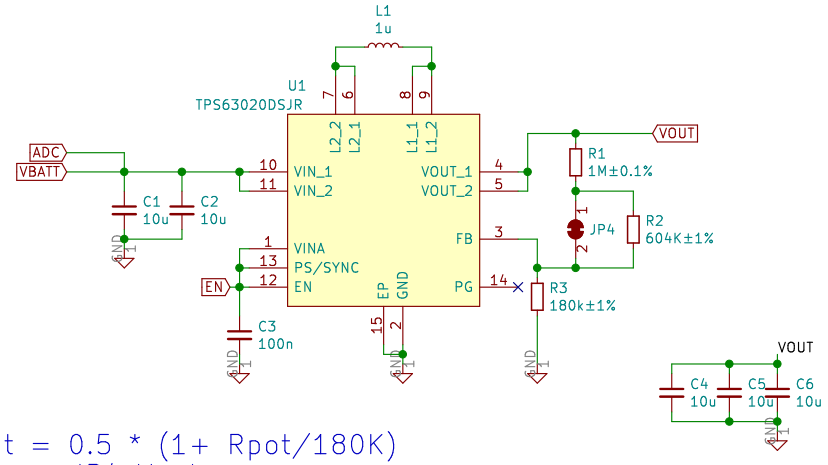
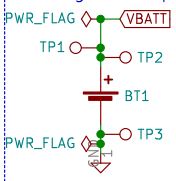
TPS63020 BUCK-COOST CONVERTER



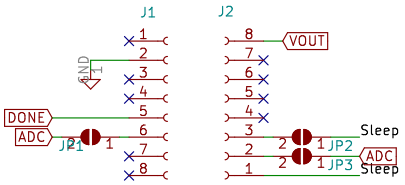
Vout = 0.5 * (1+ Rpot/180K)
Jumper JP4 Vout:
Closed = 3.3V
Open = 5.0V

BOARD PINOUT

!!!!! If using 10440 Lithium-Ion AAA 3.7V
Change it to parallel or use only ONE Cell!!!!!



2x AAA in Series



Old WEMOS ESP8266 did not have
RST Jumper to GPIO16 enabling Sleep
Use JP1 to enable deep sleep

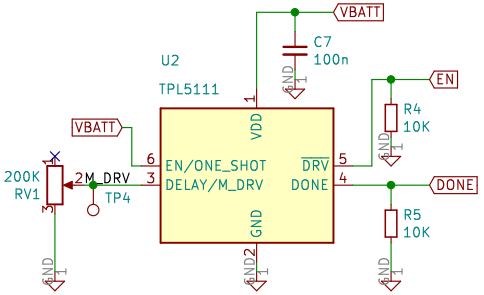
DONE configuration:
For WEMOS ESP8266 use GPIO4
For ESP32-CAM use GPIO15
For ESP32-DOIT use GPIO14
For ESP32-DEVKIT V1 use GPIO9

One can find few variations of ESP32 boards around, the following configuration covers few:
ADC configuration:
For WEMOS ESP8266 use JP1, it has built-in voltage divider
For ESP32-CAM use JP3 and ADC2_6
For ESP32-DOIT use JP3 and ADC2_7
For ESP32-DEVKIT V1 use JP3 and ADC2_4

**ADC2 is used by the Wi-Fi driver. Therefore the application can only use ADC2 when the Wi-Fi driver has not started.

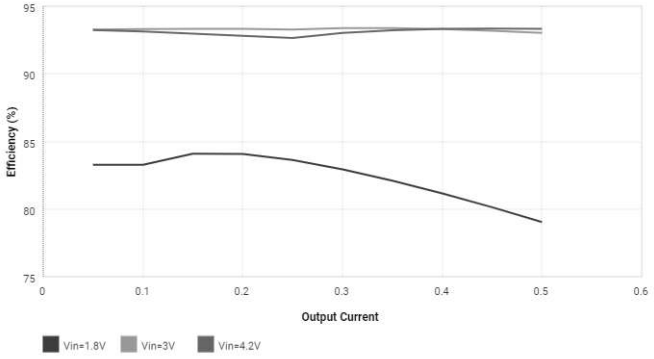
https://docs.espressif.com/projects/esp-idf/en/latest/api-reference/peripherals/adc.html

NANO-TIMER



Potentiometer vs Sleep Time
1s----------5.2K
30s----------16.78K
1m----------22.02K
10m----------57.44K
1h----------124.91K

EFFICIENCY CHART



Leonardo Bispo		
Sheet: /		
File: esp_pmc.sch		
Title: ESP AAA Battery pack, buck-boost timer		
Size: A4	Date: 2019-08-14	**Rev: 0.0.1**
KiCad E.D.A. eeschema (5.1.2)-2		Id: 1/1