

# ARDUINO PRIMO

DESCRIPTION

PCB Rev	Date	Description
0.1	2015/12/15	Initial version.
0.2	2016/04/18	<ul style="list-style-type: none"> <li>-Connected IR_TX and RX to PA2 and PA3 of U4</li> <li>-Changed C10 and C11 to 12pF</li> <li>-Changed R44 to 100 ohm</li> </ul> <p>Below related to antenna matching</p> <ul style="list-style-type: none"> <li>-Changed C14 and C15 to 430pF</li> <li>-Changed C13 ,C24 to 4.3pF</li> <li>-Changed C9 to 8.2pF</li> <li>-Changed L9 to 3.3pF</li> <li>-Changed C23 to 0R</li> <li>-Changed L5 to 3.3pF</li> <li>-Changed C12,C25,ANT3,R61,R62,R63 and R64 to N.C.</li> </ul> <p>-Added U9 (DC/DC) for 5V</p>
0.21	2016/08/08	<ul style="list-style-type: none"> <li>- Added cut-off circuit for low voltage battery</li> <li>- Changed S3 to nRF52 ,ESP8266 and STM32 RESET</li> <li>- Connected input of charger to 5V</li> <li>- Added SWD_PROG to disable/enable SWD clock connection of nRF52 .</li> <li>- Added R201 and R202 which in order to select the power of ICSP</li> <li>- Added TP53 and TP54</li> <li>-Added GND_DETECT for programming external board</li> <li>- disconnect connection of ESP8266 from ST chip</li> <li>- connect I2C signals to nRF52_SCL, nRF52_SDA using R0</li> <li>- connect SPI signals to ESP_GPIO14 (CLK) --&gt; 13, ESP_GPIO12(MISO) --&gt; 12, ESP_GPIO13(MOSI) --&gt; 11, ESP_GPIO15(CS) --&gt; P0.06 using R0</li> <li>-Removed LED7 , 8 ,R147,R148</li> <li>-Changed Q18 from MMBT2907A to 2SC4081</li> </ul>
0.22		<ul style="list-style-type: none"> <li>- Connected input of charger to USB and VIN and added selector circuit (Q19 and Q20) for it</li> <li>- Changed Q12 from NMOS to PMOS and using Q10 NMOS to control it</li> <li>- Connected output of U9 to 5V</li> <li>- Changed R61 from 100k to 1k ohm and added C20 1uF ,exchanged pin 2 and 3 of Q13</li> <li>- Added voltage divider for BAT_DET</li> <li>- Changed R69 connection from 13 to 9</li> <li>- Changed R14 connection from ESP_GPIO14 to ESP_GPIO2</li> <li>-Changed R79 to NC , R80 to 47k ohm , R81 to 390k ohm and R82 to 1M ohm</li> <li>- Connected WiFi LED to ESP_GPIO2 and ESP_GPIO5 to P0.05 of nRF52 using an 0 ohm</li> </ul>


ARDUINO PRIMO-V022

DATE : 2016/12/20

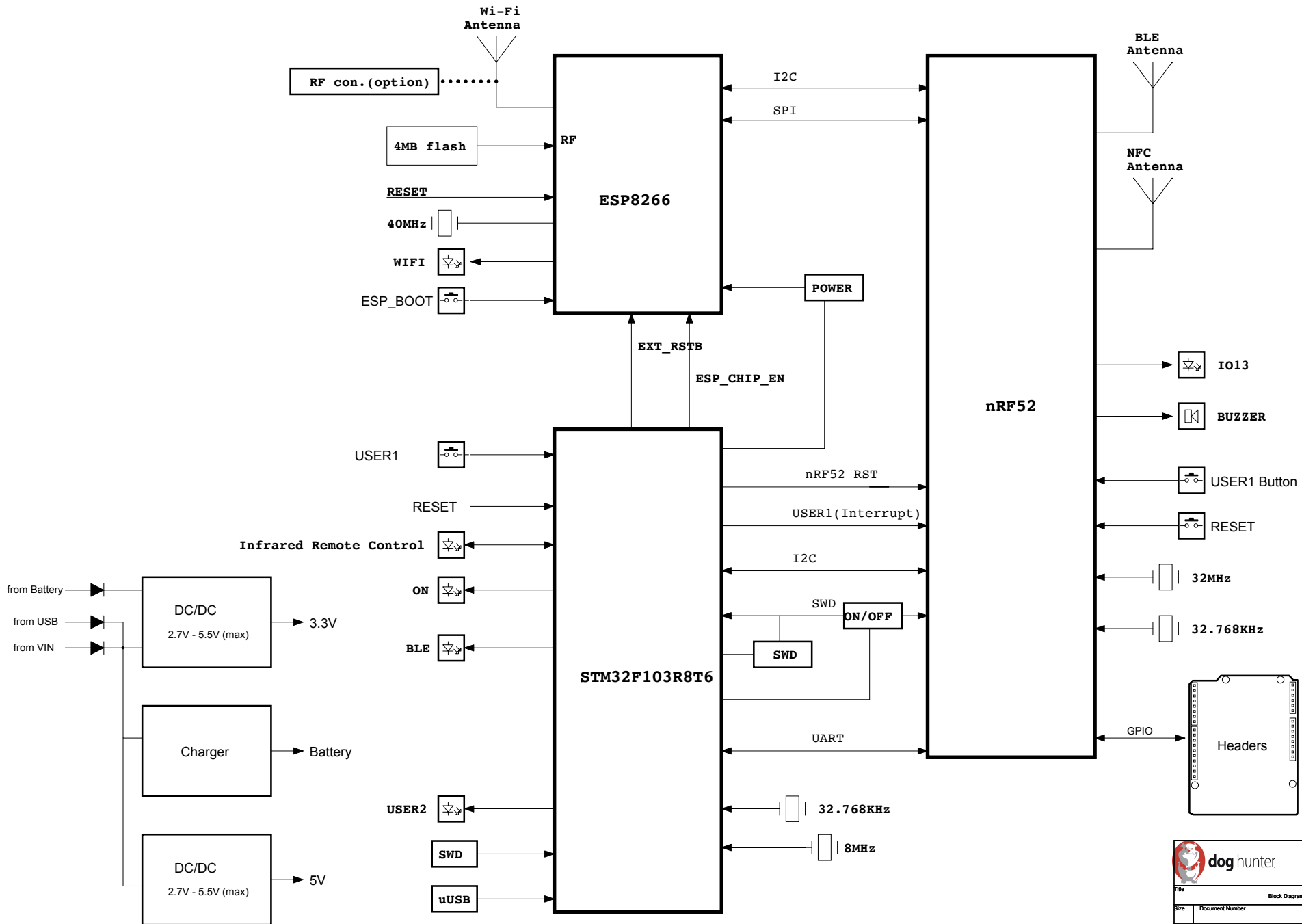
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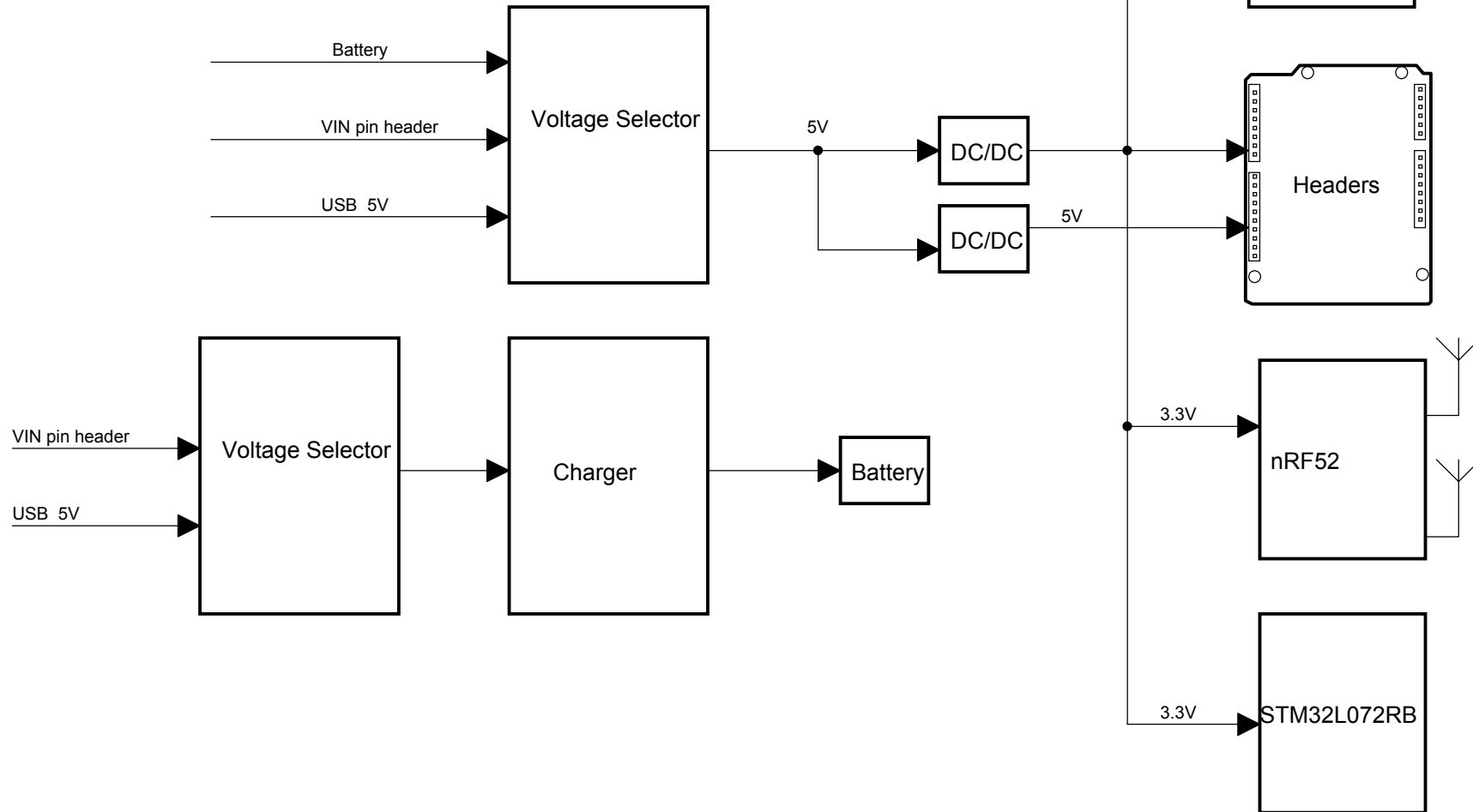
DRAWN BY: Tony

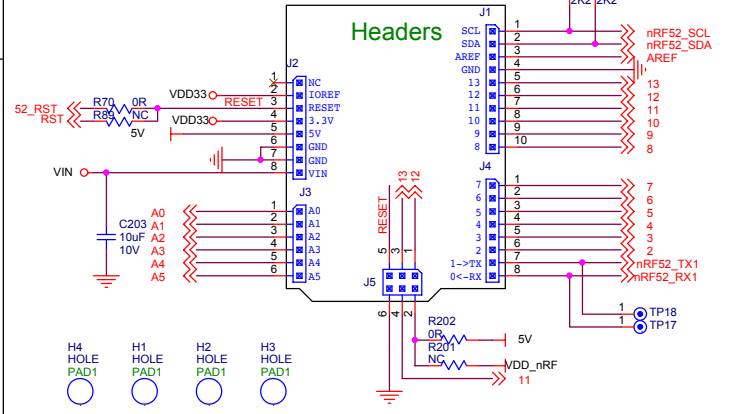
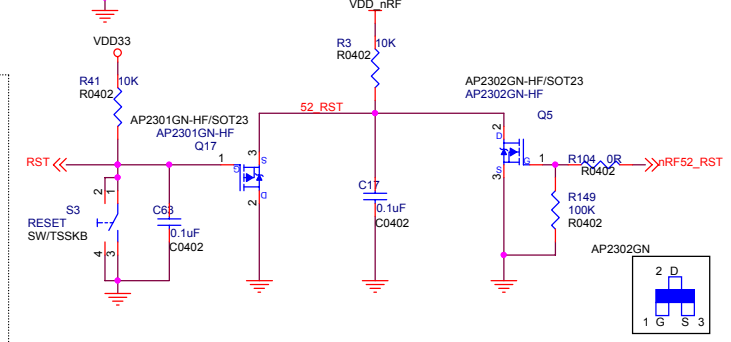
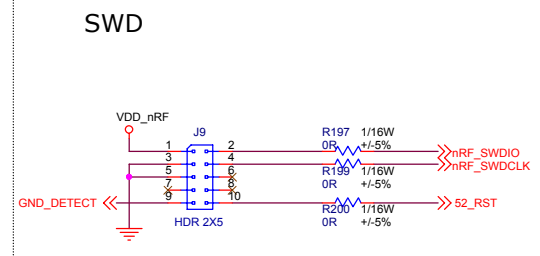
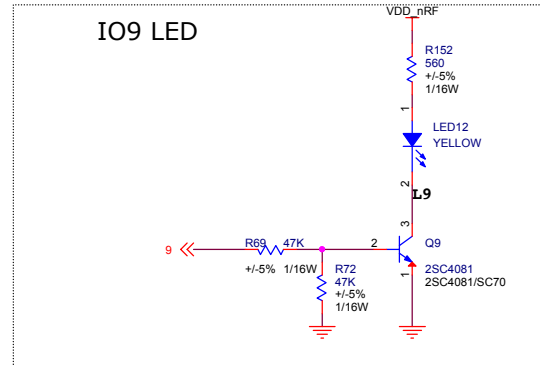
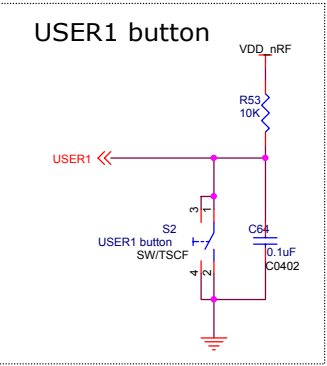
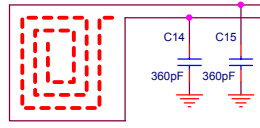
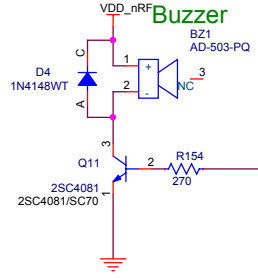
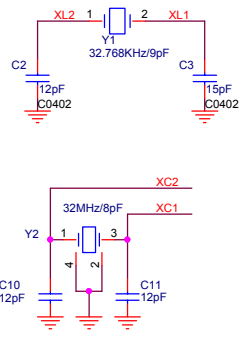
 <b>dog hunter.</b> <small>Author = Peter dog hunter Inc.                  8F-4, No.17, Ln. 01, Sec. 1,                  Neihu Rd., Neihu Dist., Taipei City                  Taiwan (R.O.C.)</small>		Title Revision History
		Date: Thursday, January 12, 2017 Sheet 1 of 7
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# Aduino Primo Block Diagram



# Power Block Diagram



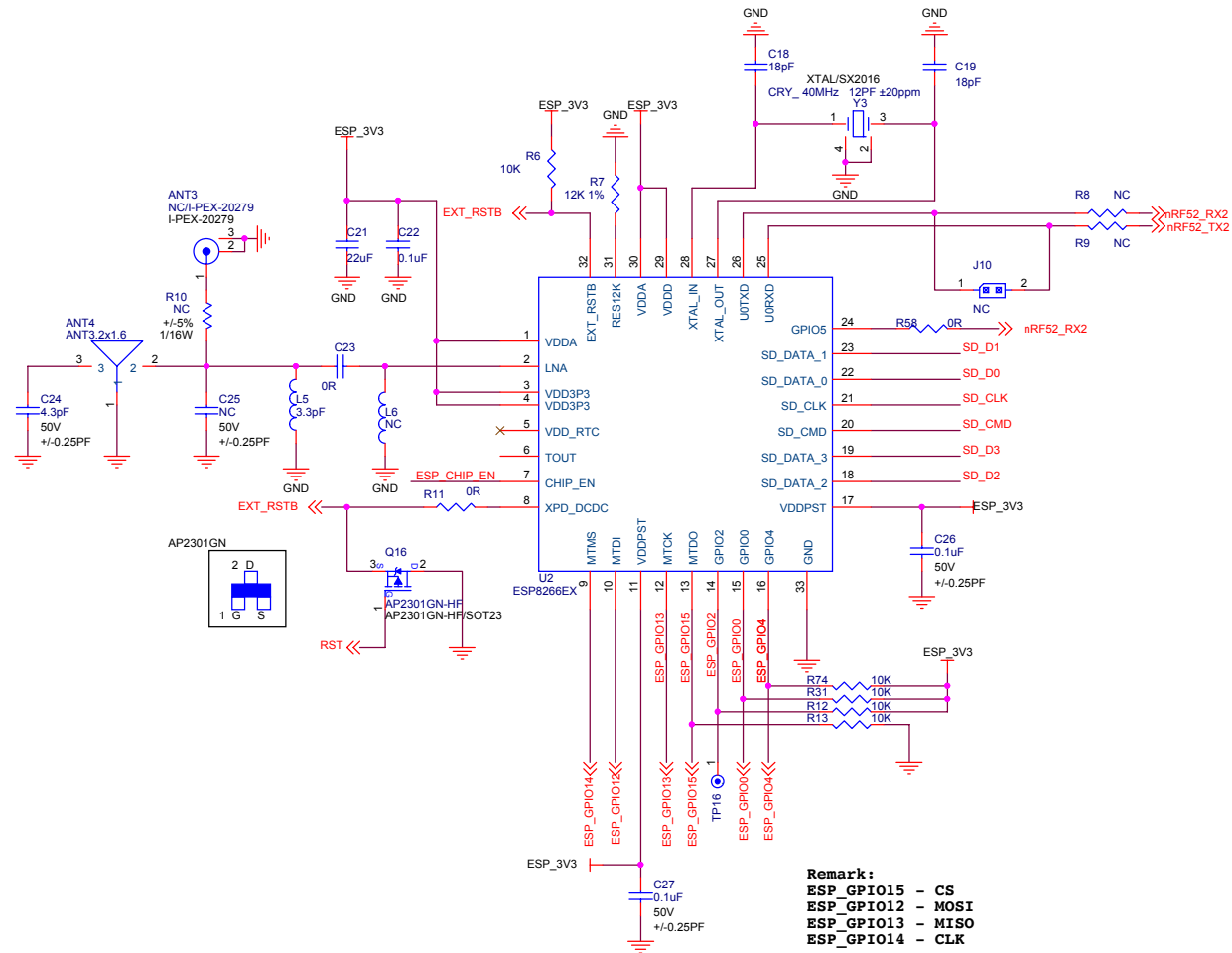




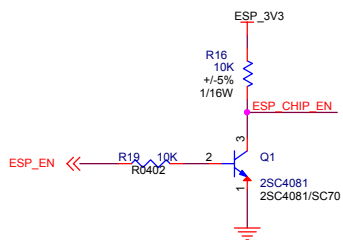
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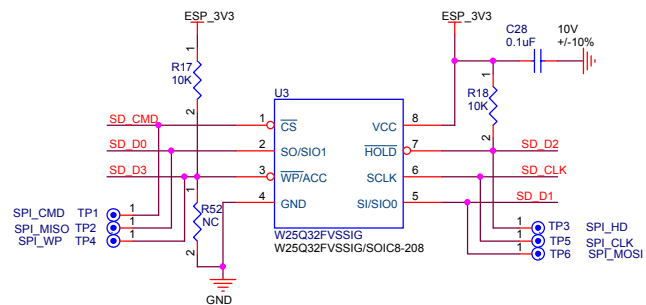
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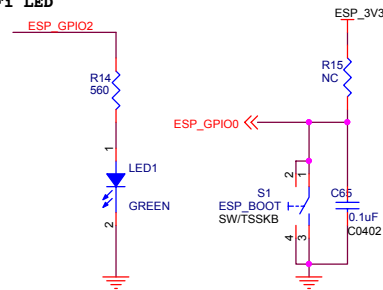
**Chip Enable Control**



**SPI Flash**



**WiFi LED**

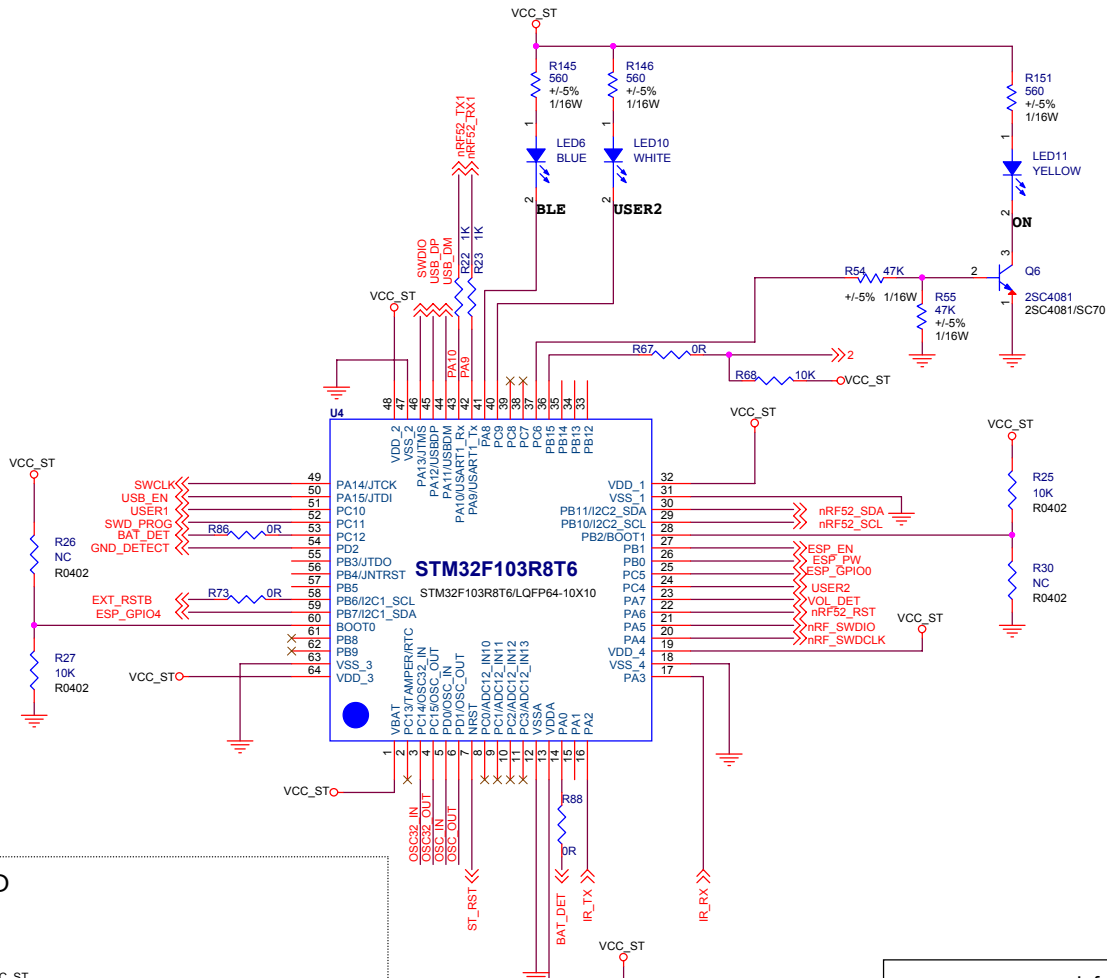


**Remark:**  
**ESP\_GPIO15 - CS**  
**ESP\_GPIO12 - MOSI**  
**ESP\_GPIO13 - MISO**  
**ESP\_GPIO14 - CLK**

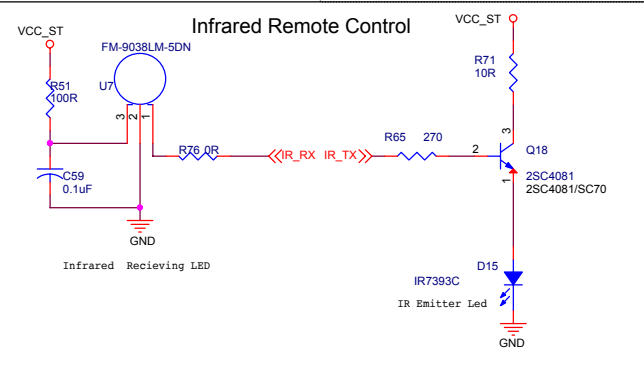
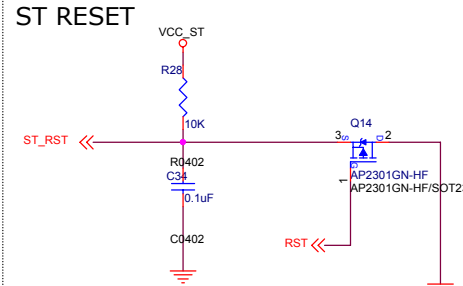
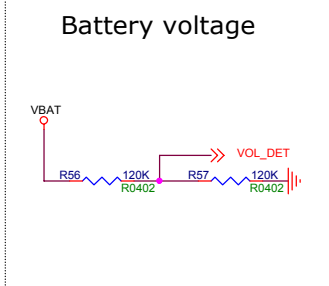
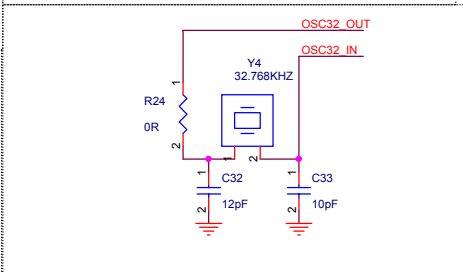
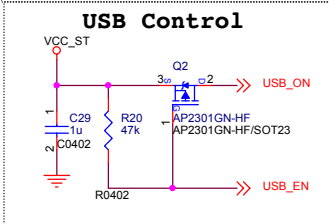
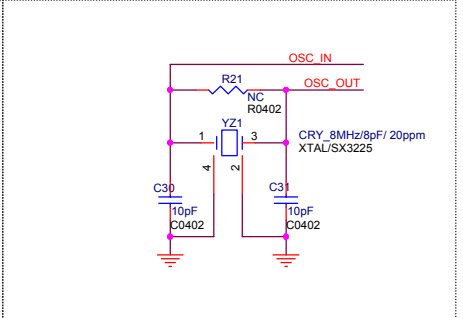
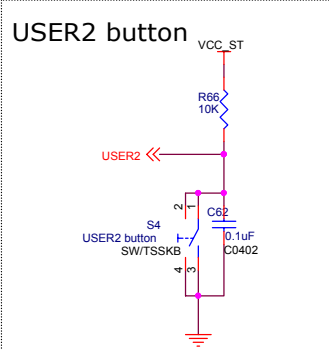
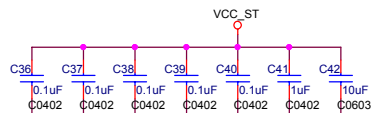
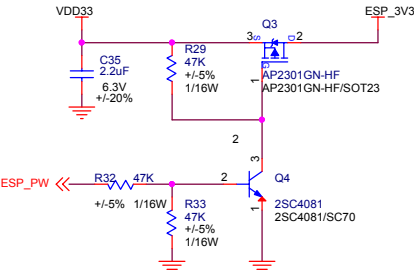
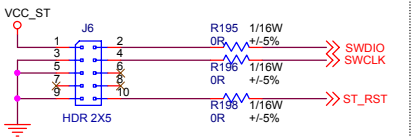
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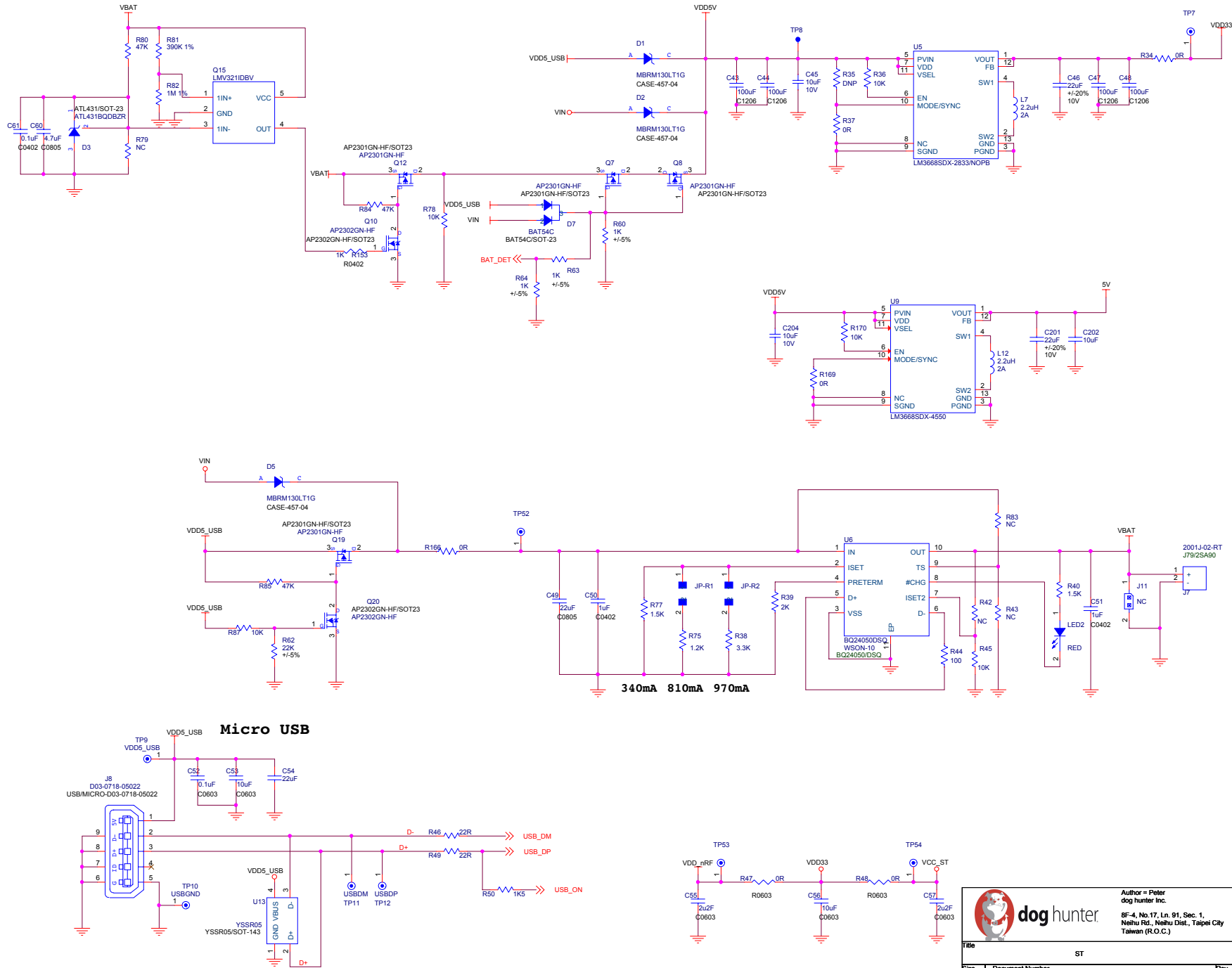
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**SWD**



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