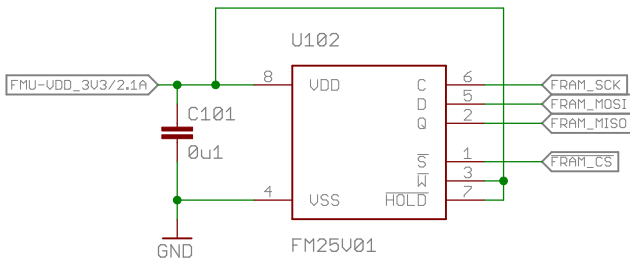


3.2x2.5 mm / 24 MHz / 15 ppm



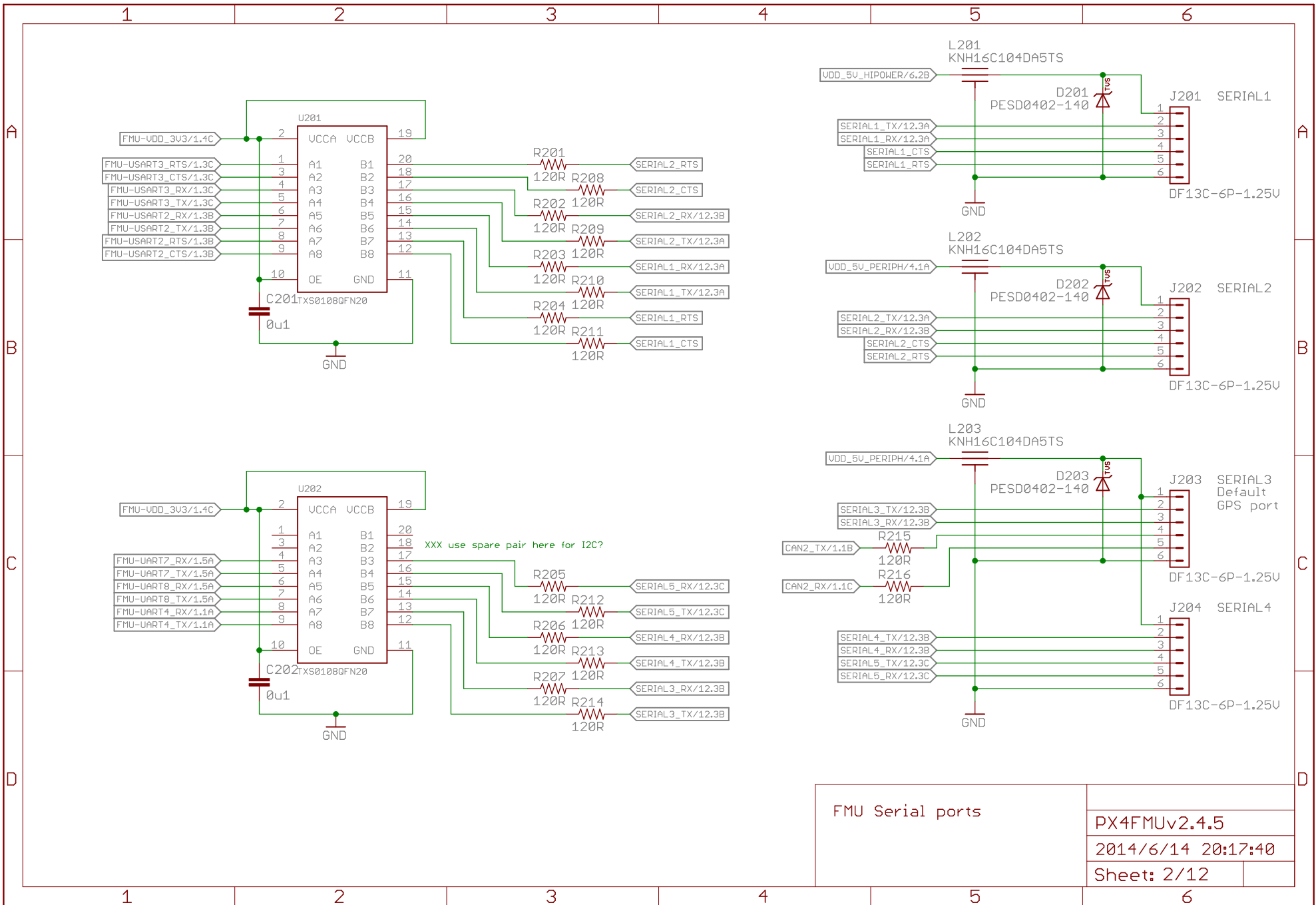
Timer allocation:  
 PE9: TIM1\_CH1: FMU-CH4  
 PE11: TIM1\_CH2: FMU-CH3  
 PE13: TIM1\_CH3: FMU-CH2  
 PE14: TIM1\_CH4: FMU-CH1  
 PA15: TIM2\_CH1: ALARM  
 PB0: TIM3\_CH3: GYRO1\_DRDY  
 PB1: TIM3\_CH4: GYRO2\_DRDY  
 PB4: TIM3\_CH1: ACCEL\_DRDY  
 PB5: TIM3\_CH2: MAG\_DRDY  
 PD13: TIM4\_CH2: FMU-CH5  
 PD14: TIM4\_CH3: FMU-CH6  
 PD15: TIM4\_CH4: spare

Note: MAG/ACCEL/GYRO\_DRDY pins chosen for both timer capture and separate EXTI operator.

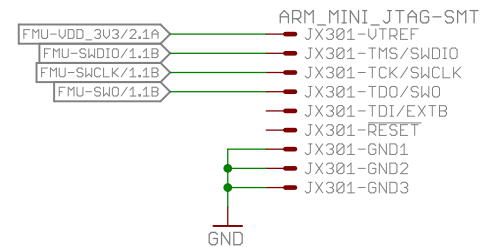
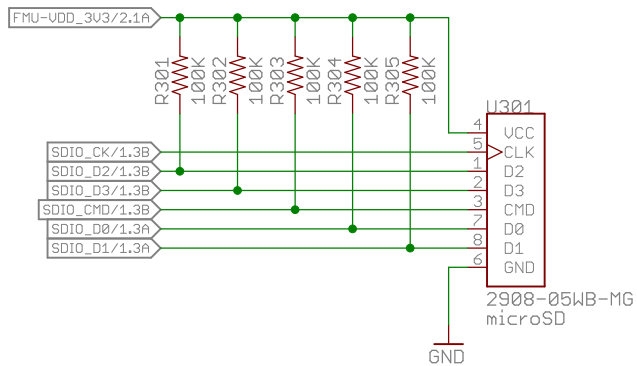
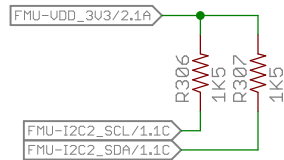
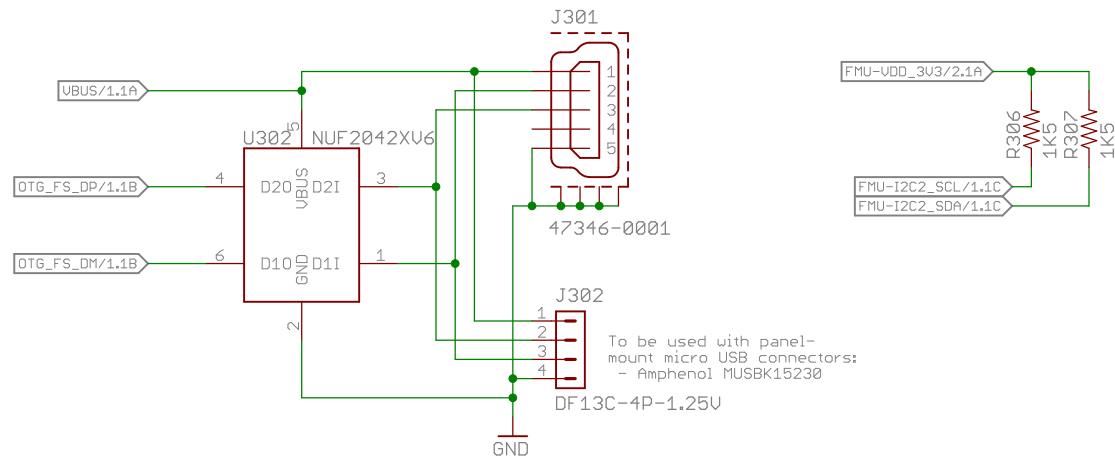
EXTI0 - TIM3\_CH3 - GYRO1  
 EXTI1 - <free>  
 EXTI2 - <free>  
 EXTI3 - <free>  
 EXTI4 - TIM3\_CH1 - ACCEL  
 EXTI5-9 - TIM3\_CH2 - MAG

ALL SHEETS SAME REVISION

FMU SoC Ports FRAM	PX4FMUv2.4.5
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FMU Serial ports	PX4FMUv2.4.5
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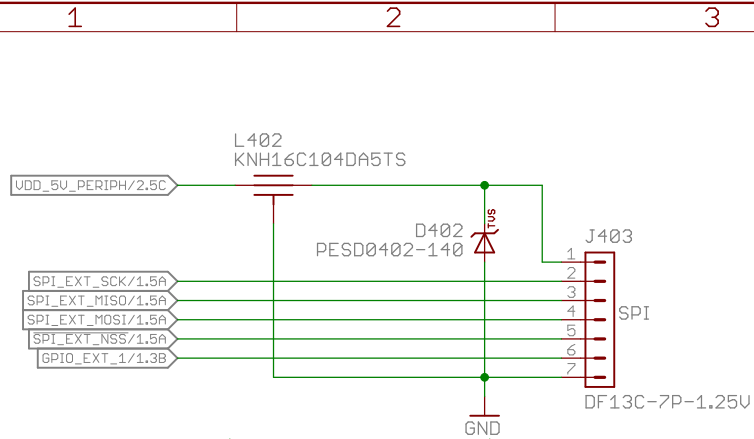


USB  
microSD  
Expansion

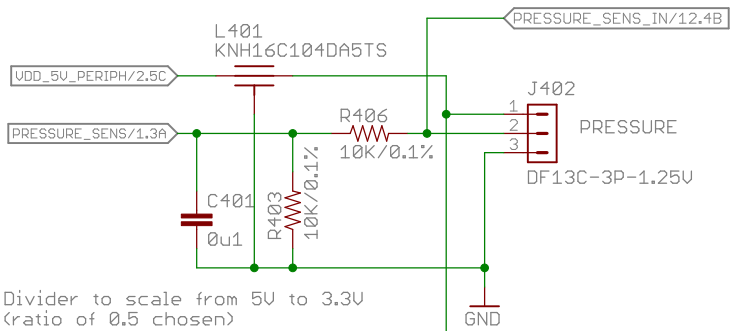
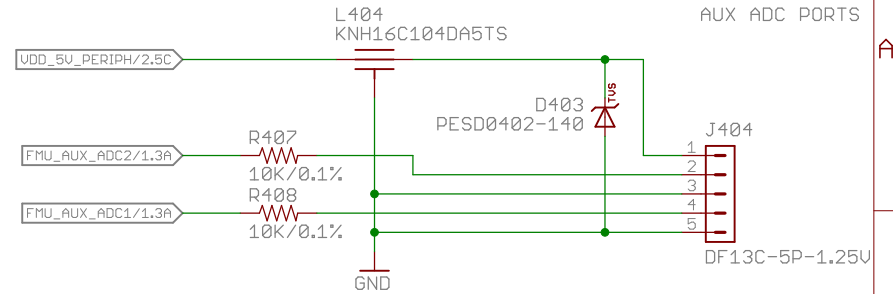
PX4FMUv2.4.5

2014/6/14 20:17:40

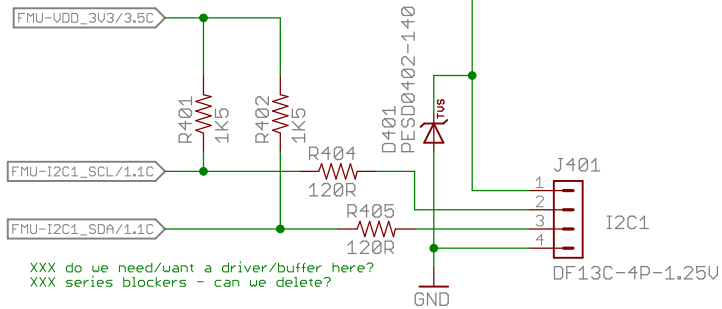
Sheet: 3/12



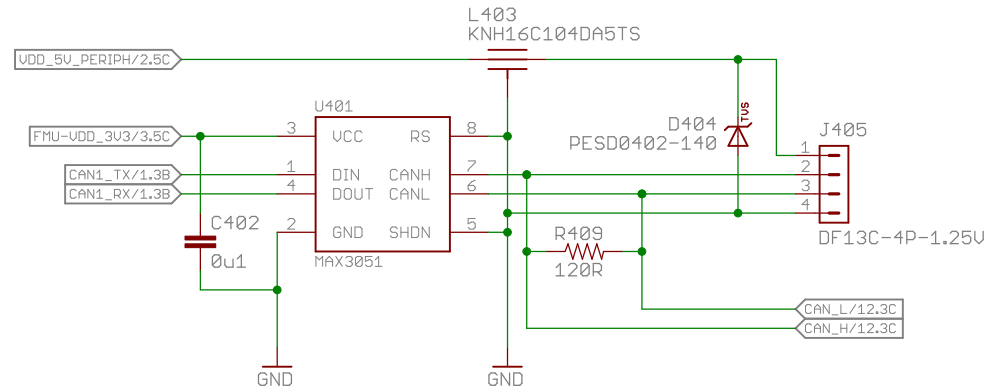
Note: SPI port is UNBUFFERED; only suitable for short connections.



Divider to scale from 5V to 3.3V (ratio of 0.5 chosen)

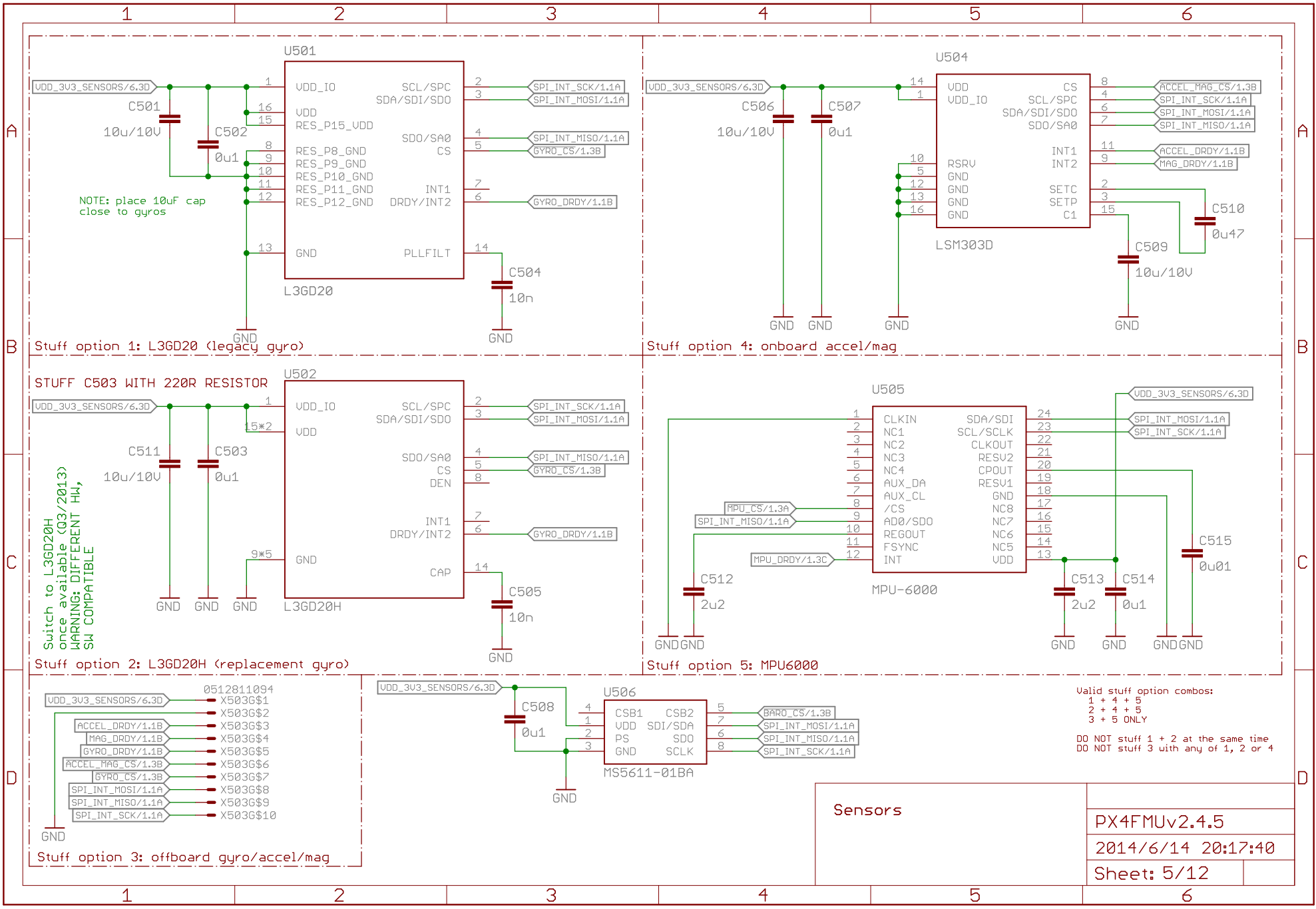


XXX do we need/want a driver/buffer here?  
XXX series blockers - can we delete?



SPI  
I2C  
Analog pressure  
CAN  
Aux ADC ports

PX4FMUv2.4.5  
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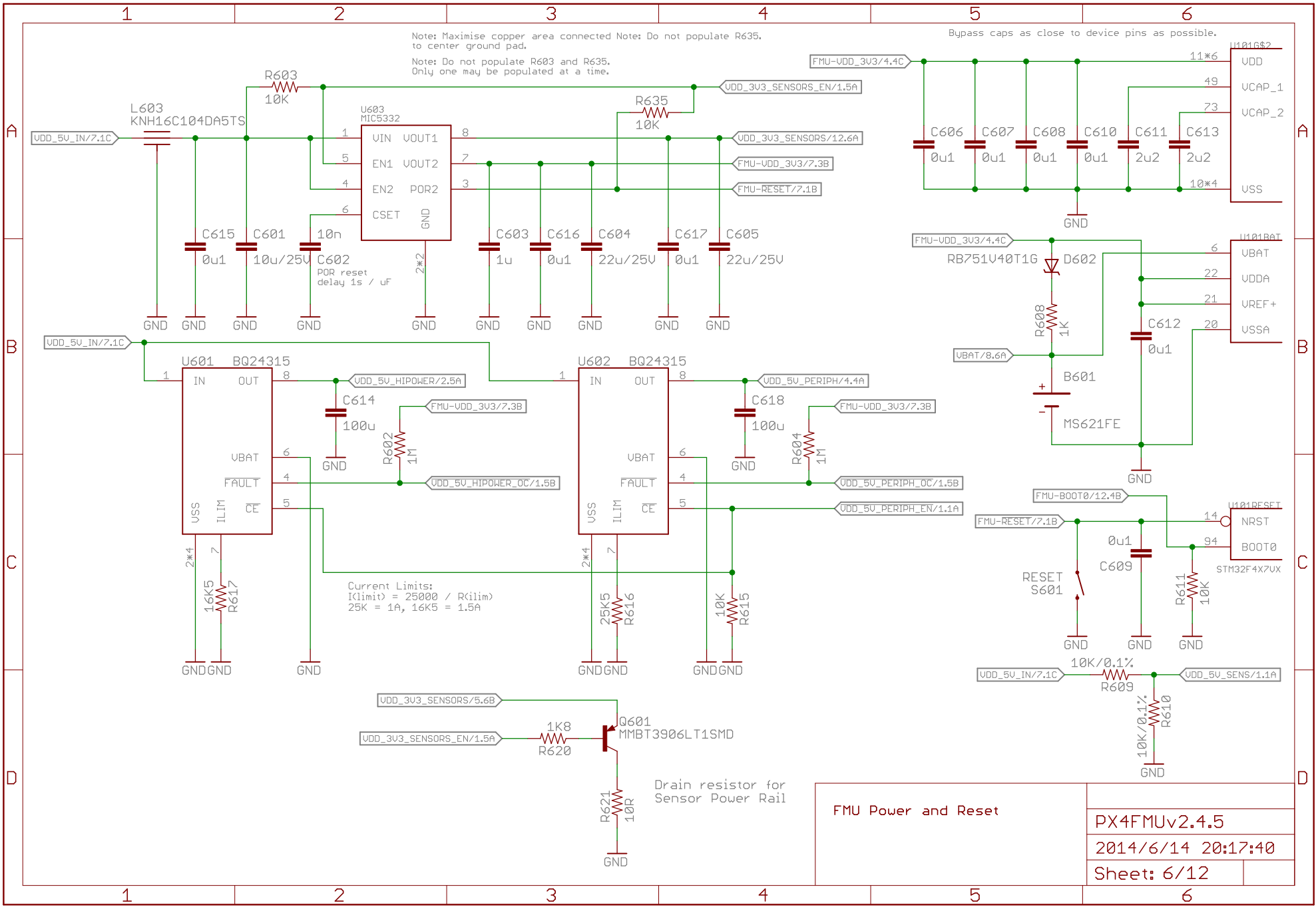
NOTE: place 10uF cap close to gyros

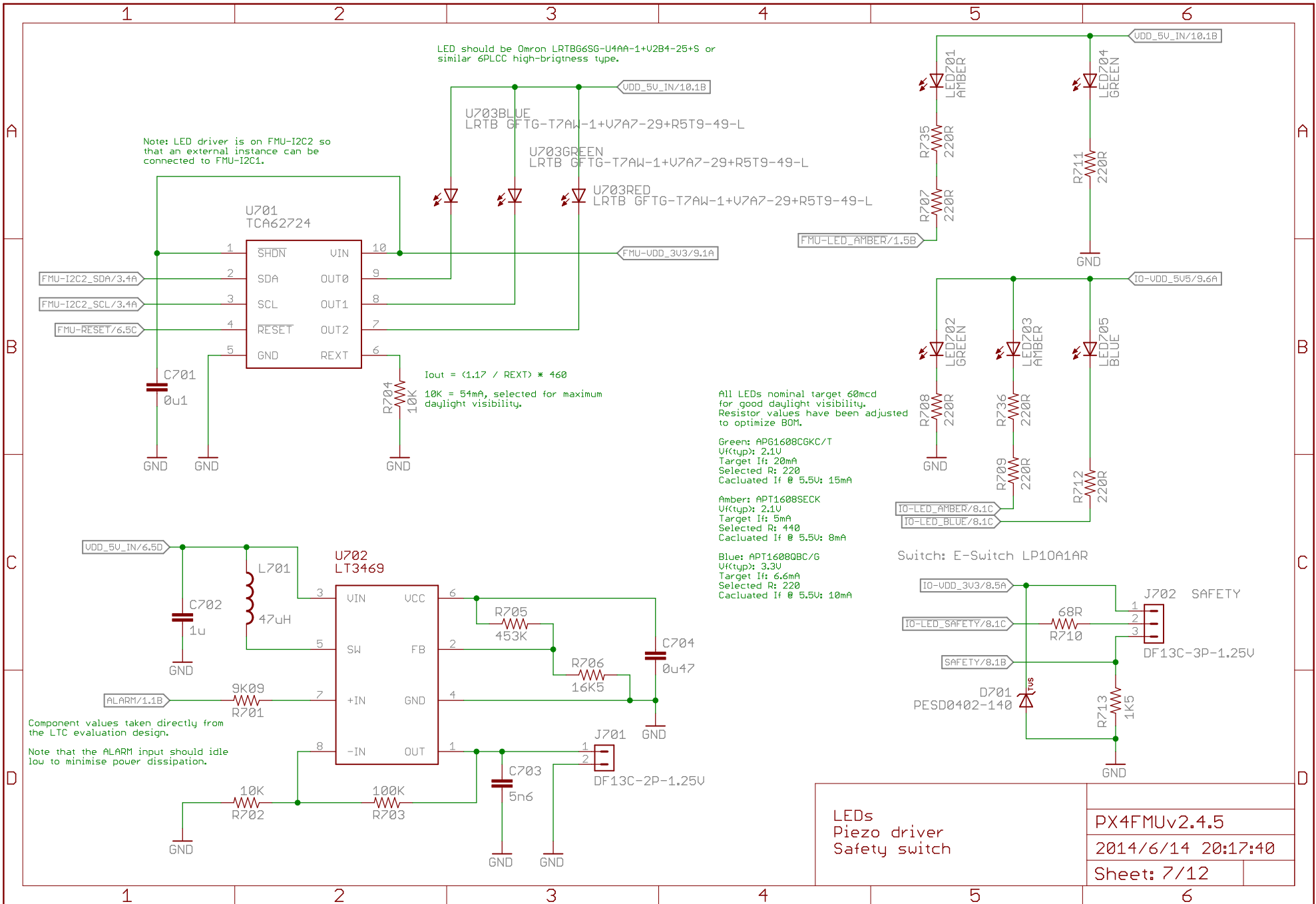
STUFF C503 WITH 220R RESISTOR

Switch to L3GD20H once available (Q3/2013)  
WARNING: DIFFERENT HW, SW COMPATIBLE

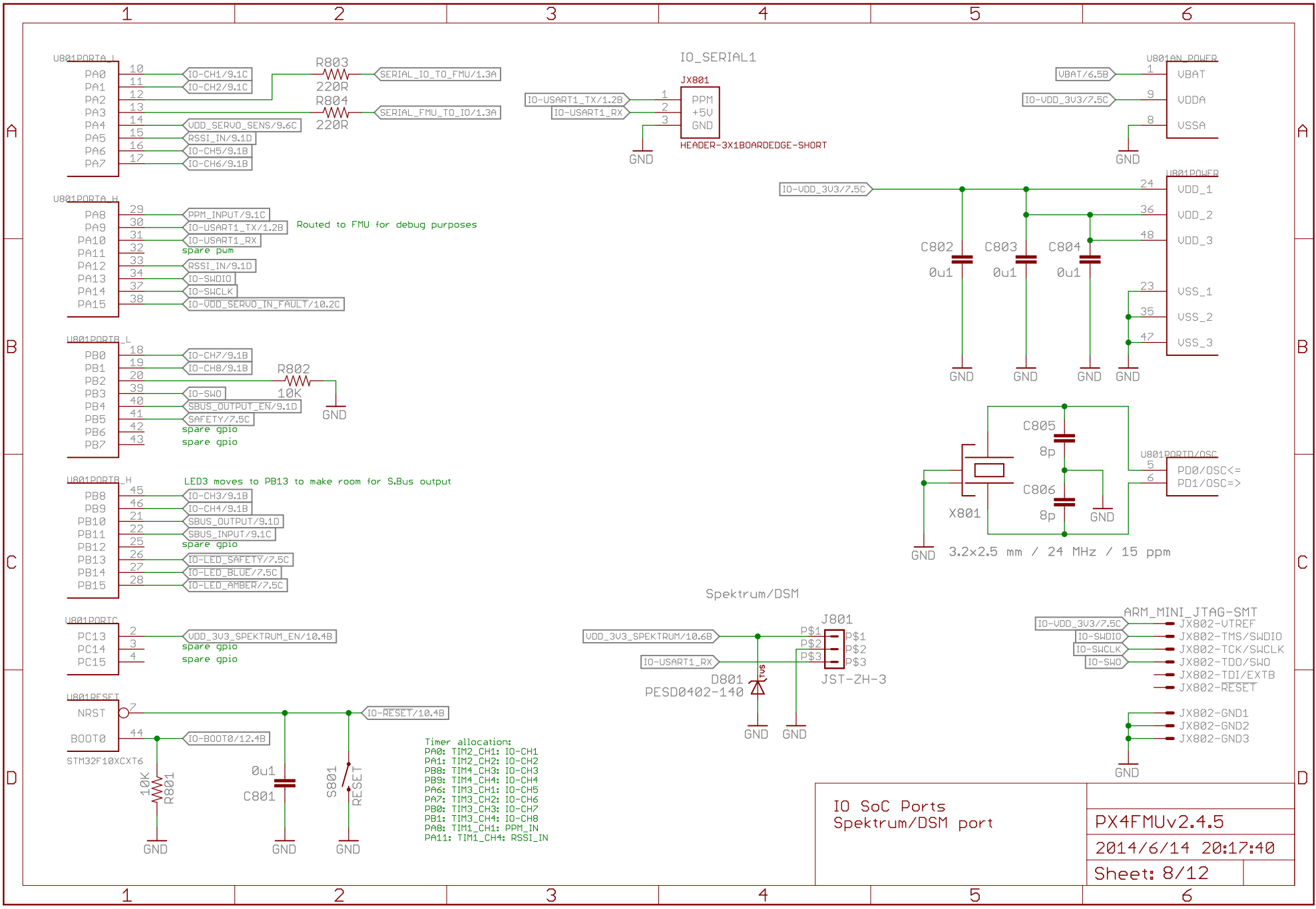
Valid stuff option combos:  
1 + 4 + 5  
2 + 4 + 5  
3 + 5 ONLY  
  
DO NOT stuff 1 + 2 at the same time  
DO NOT stuff 3 with any of 1, 2 or 4

Sensors	
PX4FMUv2.4.5	
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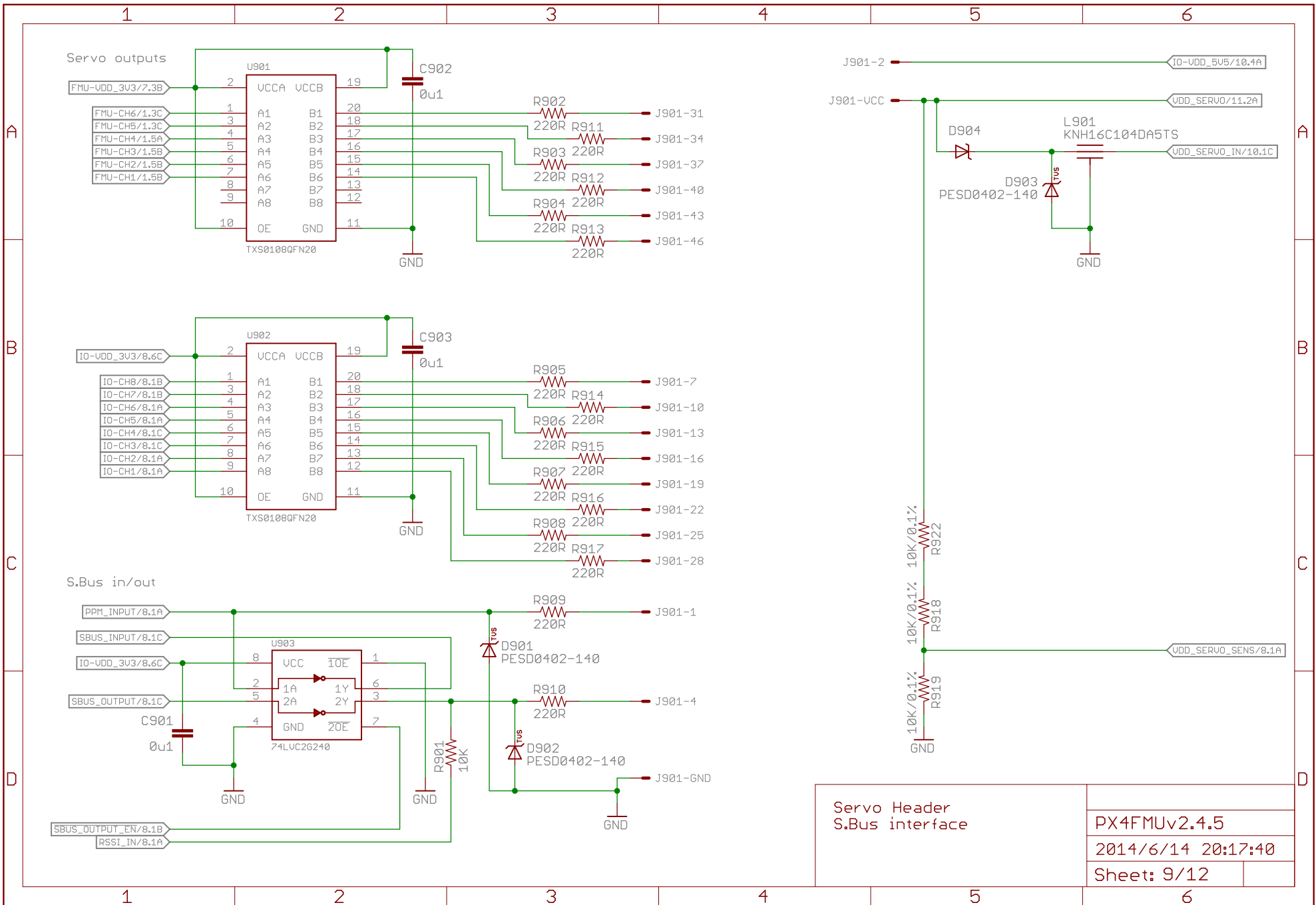


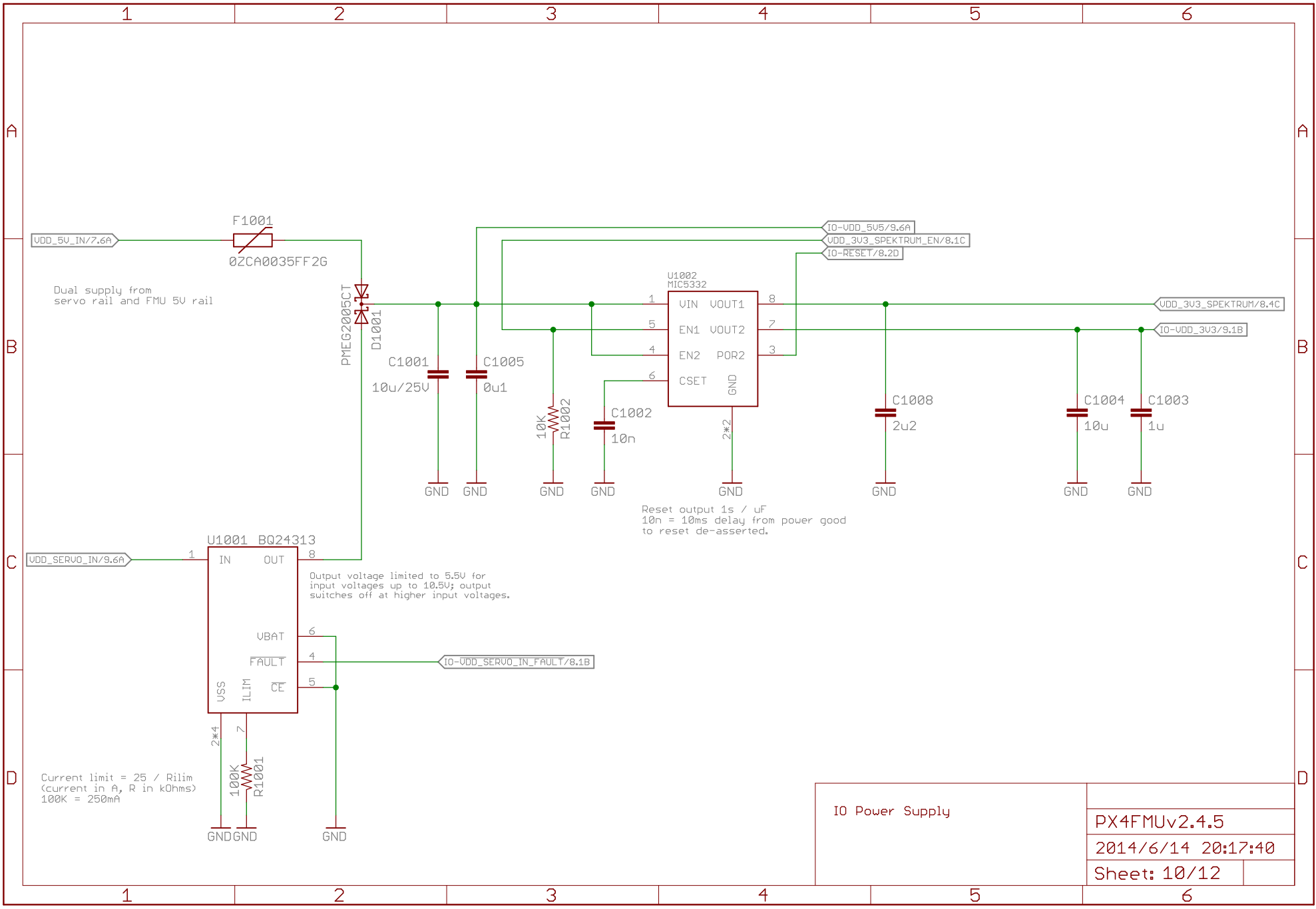


LEDs	PX4FMUv2.4.5
Piezo driver	2014/6/14 20:17:40
Safety switch	Sheet: 7/12











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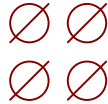
Production Testing Pads



open hardware

Parts:  
Resistors: 0402 / 1% unless specified otherwise  
Capacitors: 0402 to 1206, ceramic, voltage rating: 10V unless specified

Mounting holes to suit M3 fastener and Richco R908 series spacer. Use R908-5 spacers to stack with other PX4 series boards (7.95 mm).



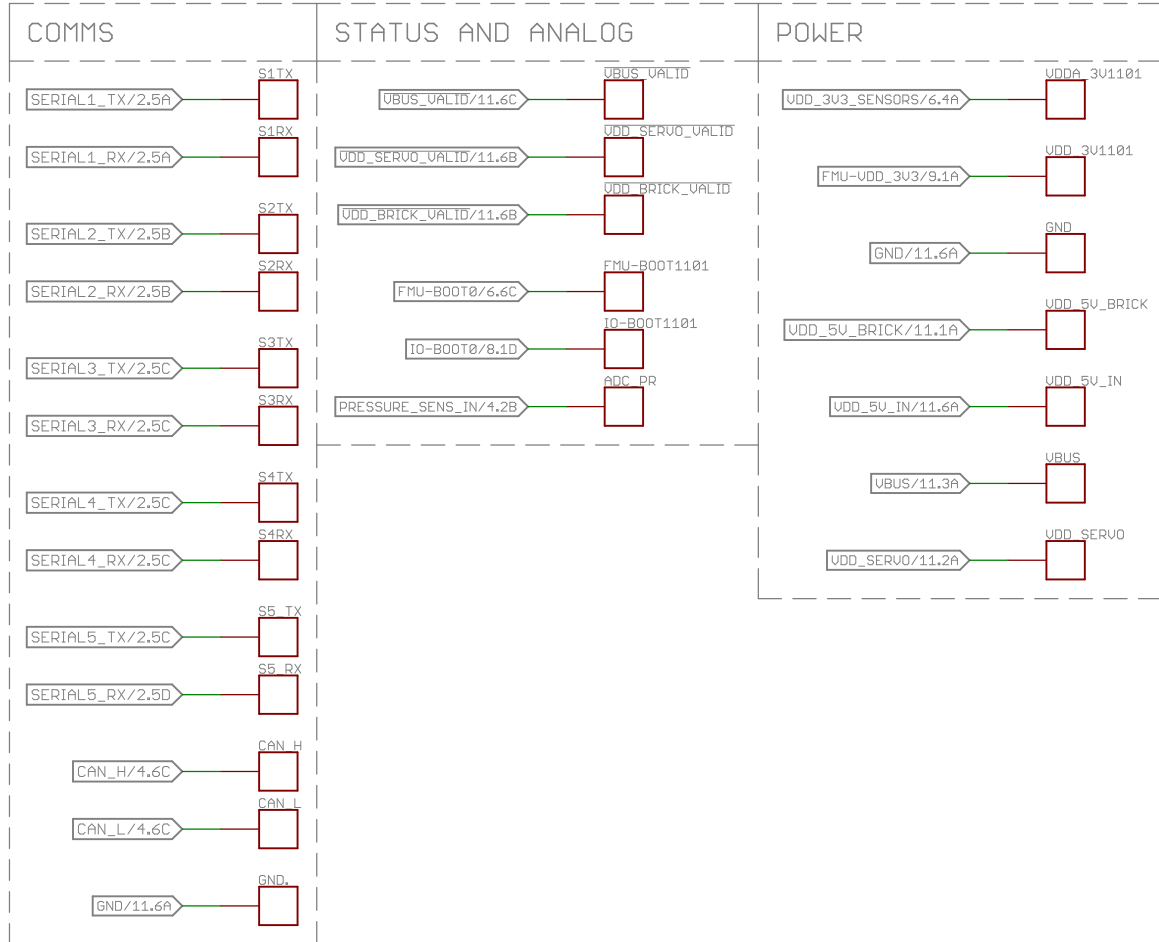
Minimum drill: 0.3 mm  
Minimum trace width (use mm for traces): 0.15 mm  
Minimum copper distance (all signals): 0.15 mm  
Dimension / hole minimum distance: 0.2 mm  
Layout grid: 4 mil, part grid: 4 mil. Dimensions / hole positions: 0.5 mm

Board: FR4 black, 1.0 mm. Solder stop on vias < 0.6 mm.

Signoff rules: Footprint checked, pinmap checked, schematic checked, cross-references to other pages checked.

Routing:  
1: general/escape  
2: ground  
3: horizontal  
4: vertical  
5: power  
6: general/escape

- ⊗ Fiducials for machine vision alignment.
- ⊗



Test and Fiducials		PX4FMUv2.4.5	
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