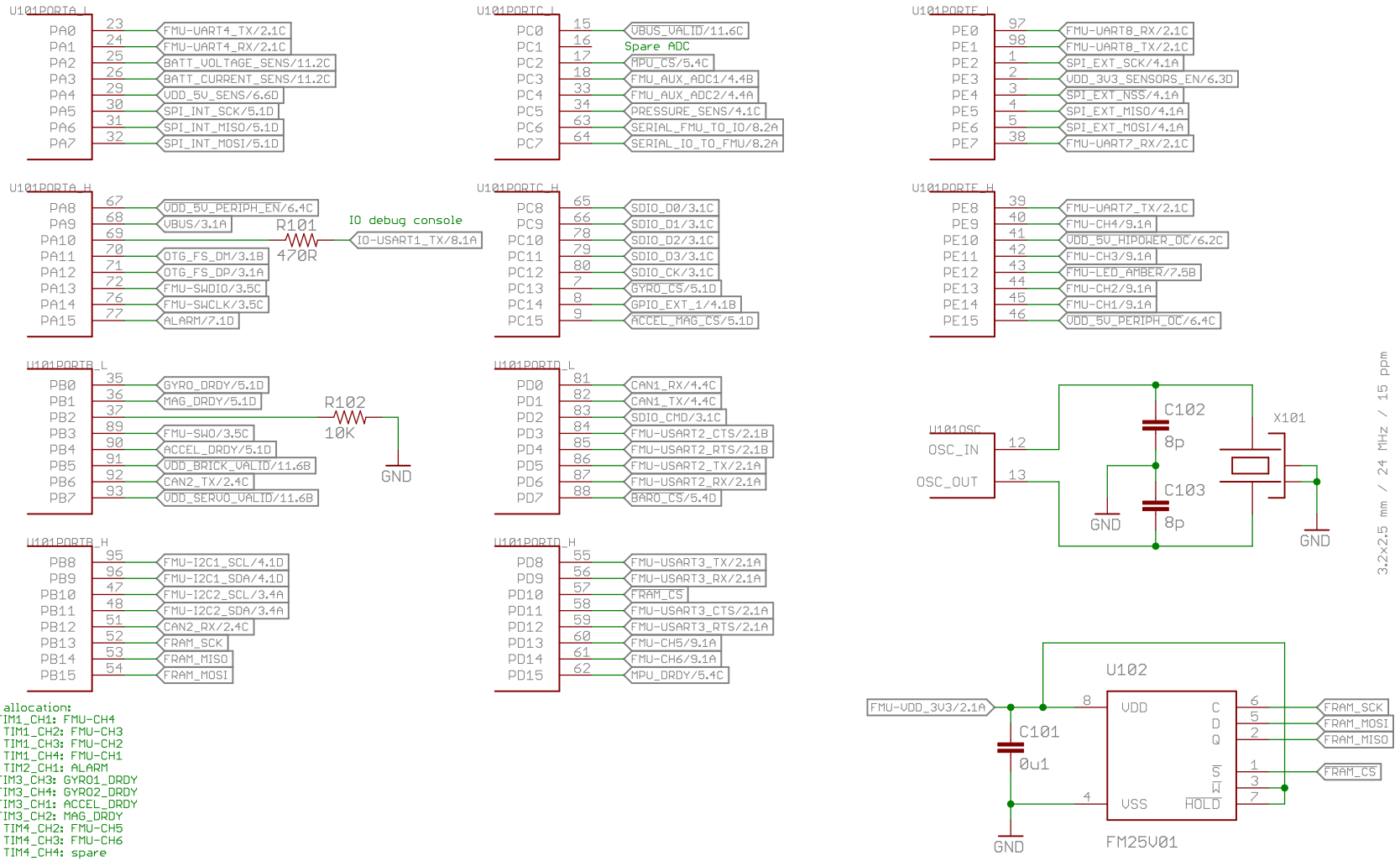

Timer allocation:
PE9: TIM1_CH1: FMU-CH4
PE11: TIM1_CH2: FMU-CH3
PE13: TIM1_CH3: FMU-CH2
PE14: TIM1_CH4: FMU-CH1
PA15: TIM2_CH1: ALARM
PB0: TIM3_CH3: GYRO1_DRDY
PB1: TIM3_CH4: GYRO2_DRDY
PB4: TIM3_CH1: ACCEL_DRDY
PB5: TIM3_CH2: MAG_DRDY
PD13: TIM4_CH2: FMU-CH5
PD14: TIM4_CH3: FMU-CH6
PD15: TIM4_CH4: spare

Note: MAG/ACCEL/GYRO_DRDY pins chosen
for both timer capture and separate
EXTI operaton.

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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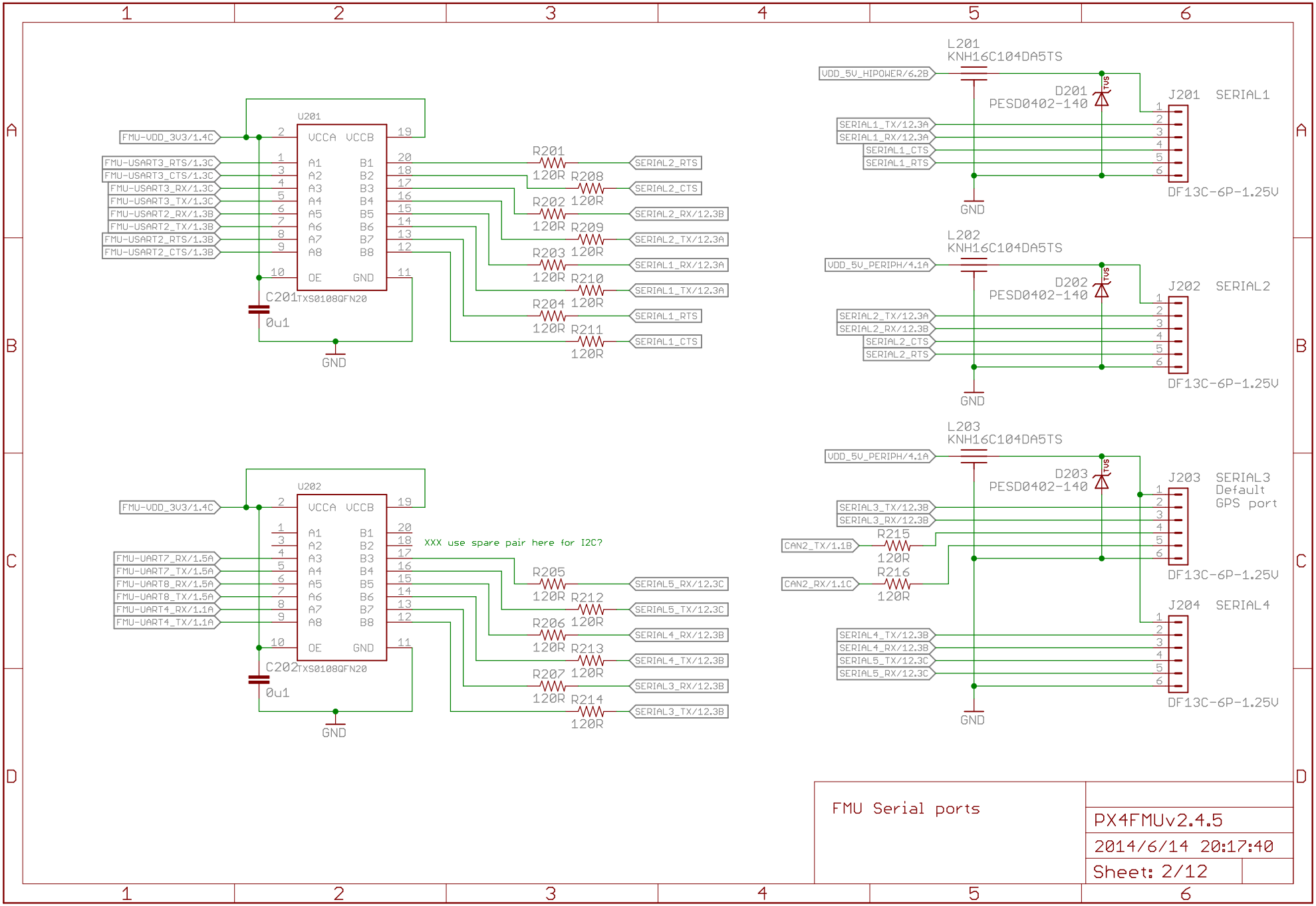
U201
VCCA VCCB
OE GND
A1 A2 A3 A4 A5 A6 A7 A8
B1 B2 B3 B4 B5 B6 B7 B8
FMU-VDD_3V3/1.4C
FMU-USART3_RTS/1.3C
FMU-USART3_CTS/1.3C
FMU-USART3_RX/1.3C
FMU-USART3_TX/1.3C
FMU-USART2_RX/1.3B
FMU-USART2_TX/1.3B
FMU-USART2_RTS/1.3B
FMU-USART2_CTS/1.3B
C201TXS0108QFN20
0u1
GND
R201 120R
R208 120R
R202 120R
R209 120R
R203 120R
R210 120R
R204 120R
R211 120R
SERIAL2_RTS
SERIAL2_CTS
SERIAL2_RX/12.3B
SERIAL2_TX/12.3A
SERIAL1_RX/12.3A
SERIAL1_TX/12.3A
SERIAL1_RTS
SERIAL1_CTS
U202
VCCA VCCB
OE GND
A1 A2 A3 A4 A5 A6 A7 A8
B1 B2 B3 B4 B5 B6 B7 B8
FMU-VDD_3V3/1.4C
FMU-UART7_RX/1.5A
FMU-UART7_TX/1.5A
FMU-UART8_RX/1.5A
FMU-UART8_TX/1.5A
FMU-UART4_RX/1.1A
FMU-UART4_TX/1.1A
C202TXS0108QFN20
0u1
GND
XXX use spare pair here for I2C?
R205 120R
R212 120R
R206 120R
R213 120R
R207 120R
R214 120R
SERIAL5_RX/12.3C
SERIAL5_TX/12.3C
SERIAL4_RX/12.3B
SERIAL4_TX/12.3B
SERIAL3_RX/12.3B
SERIAL3_TX/12.3B
L201
KNH16C104DA5TS
VDD_5V_HIPOWER/6.2B
D201
PESD0402-140
TVS
J201 SERIAL1
SERIAL1_TX/12.3A
SERIAL1_RX/12.3A
SERIAL1_CTS
SERIAL1_RTS
GND
DF13C-6P-1.25V
L202
KNH16C104DA5TS
VDD_5V_PERIPH/4.1A
D202
PESD0402-140
TVS
J202 SERIAL2
SERIAL2_TX/12.3A
SERIAL2_RX/12.3B
SERIAL2_CTS
SERIAL2_RTS
GND
DF13C-6P-1.25V
L203
KNH16C104DA5TS
VDD_5V_PERIPH/4.1A
D203
PESD0402-140
TVS
J203 SERIAL3
Default
GPS port
SERIAL3_TX/12.3B
SERIAL3_RX/12.3B
R215 120R
R216 120R
CAN2_TX/1.1B
CAN2_RX/1.1C
J204 SERIAL4
SERIAL4_TX/12.3B
SERIAL4_RX/12.3B
SERIAL5_TX/12.3C
SERIAL5_RX/12.3C
GND
DF13C-6P-1.25V
FMU Serial ports
PX4FMUv2.4.5
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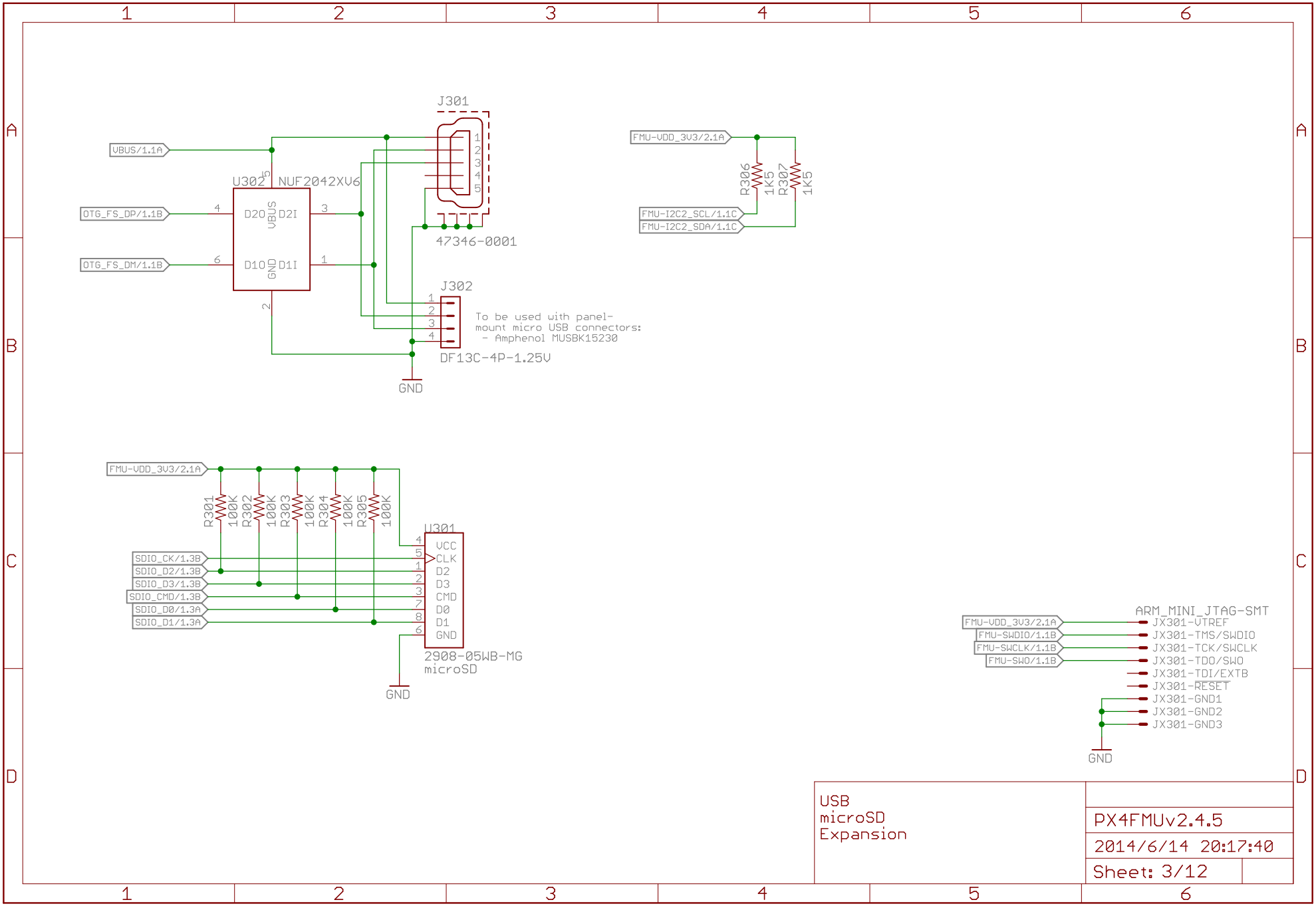
J301
VBUS/1.1A
U302
NUF2042XV6
OTG_FS_DP/1.1B
OTG_FS_DM/1.1B
D2O
D2I
D1O
D1I
VBUS
GND
47346-0001
J302
To be used with panel-
mount micro USB connectors:
- Amphenol MUSBK15230
DF13C-4P-1.25V
GND
FMU-VDD_3V3/2.1A
R306
1K5
R307
1K5
FMU-I2C2_SCL/1.1C
FMU-I2C2_SDA/1.1C
FMU-VDD_3V3/2.1A
R301
100K
R302
100K
R303
100K
R304
100K
R305
100K
SDIO_CK/1.3B
SDIO_D2/1.3B
SDIO_D3/1.3B
SDIO_CMD/1.3B
SDIO_D0/1.3A
SDIO_D1/1.3A
U301
VCC
CLK
D2
D3
CMD
D0
D1
GND
2908-05WB-MG
microSD
GND
ARM_MINI_JTAG-SMT
FMU-VDD_3V3/2.1A
FMU-SWDIO/1.1B
FMU-SWCLK/1.1B
FMU-SWO/1.1B
JX301-VTREF
JX301-TMS/SWDIO
JX301-TCK/SWCLK
JX301-TDO/SWO
JX301-TDI/EXTB
JX301-RESET
JX301-GND1
JX301-GND2
JX301-GND3
GND
USB
microSD
Expansion
PX4FMUv2.4.5
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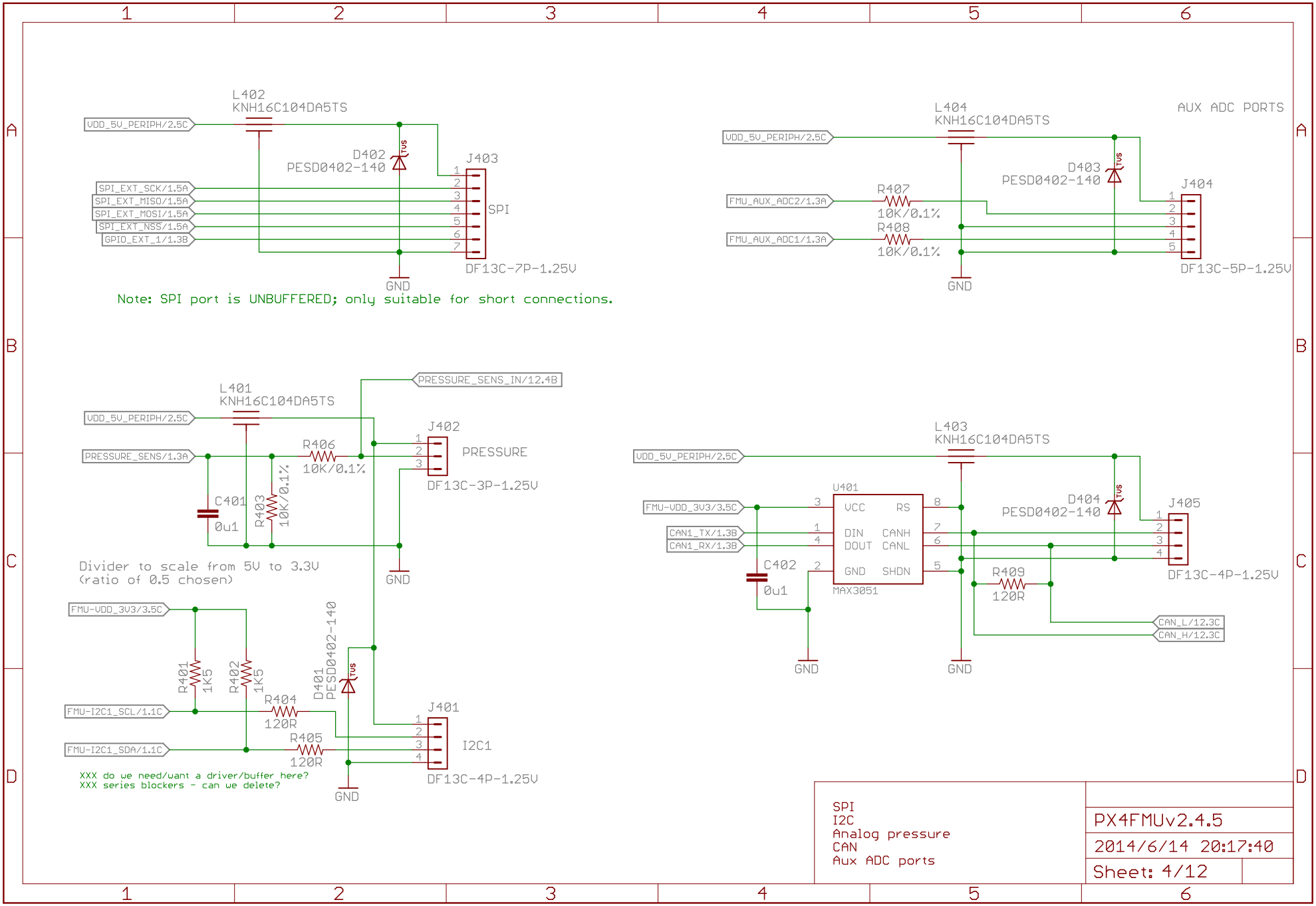
L402
KNH16C104DA5TS
VDD_5V_PERIPH/2.5C
D402
PESD0402-140
TVS
J403
SPI_EXT_SCK/1.5A
SPI_EXT_MISO/1.5A
SPI_EXT_MOSI/1.5A
SPI_EXT_NSS/1.5A
GPIO_EXT_1/1.3B
SPI
DF13C-7P-1.25V
GND
Note: SPI port is UNBUFFERED; only suitable for short connections.
AUX ADC PORTS
L404
KNH16C104DA5TS
VDD_5V_PERIPH/2.5C
D403
PESD0402-140
J404
FMU_AUX_ADC2/1.3A
R407
10K/0.1%
R408
10K/0.1%
FMU_AUX_ADC1/1.3A
DF13C-5P-1.25V
GND
L401
KNH16C104DA5TS
PRESSURE_SENS_IN/12.4B
VDD_5V_PERIPH/2.5C
J402
PRESSURE_SENS/1.3A
R406
10K/0.1%
PRESSURE
C401
0u1
R403
10K/0.1%
DF13C-3P-1.25V
GND
Divider to scale from 5V to 3.3V
(ratio of 0.5 chosen)
L403
KNH16C104DA5TS
VDD_5V_PERIPH/2.5C
U401
FMU-VDD_3V3/3.5C
VCC
RS
DIN
CANH
DOUT
CANL
GND
SHDN
MAX3051
CAN1_TX/1.3B
CAN1_RX/1.3B
C402
0u1
D404
PESD0402-140
J405
R409
120R
CAN_L/12.3C
CAN_H/12.3C
DF13C-4P-1.25V
GND
GND
FMU-VDD_3V3/3.5C
R401
1K5
R402
1K5
D401
PESD0402-140
R404
120R
FMU-I2C1_SCL/1.1C
R405
120R
FMU-I2C1_SDA/1.1C
J401
I2C1
DF13C-4P-1.25V
XXX do we need/want a driver/buffer here?
XXX series blockers - can we delete?
GND
SPI
I2C
Analog pressure
CAN
Aux ADC ports
PX4FMUv2.4.5
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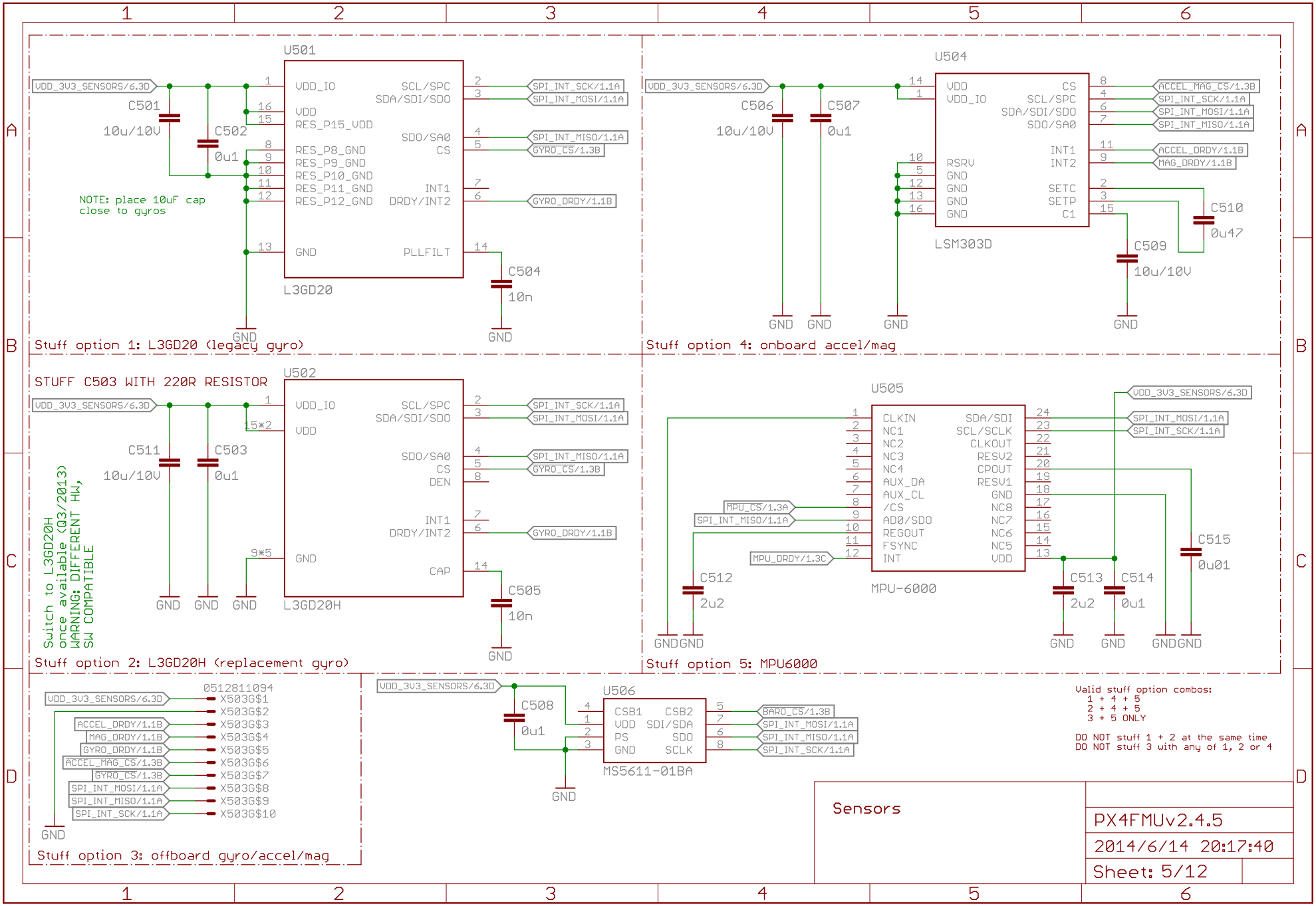
U501
VDD_3V3_SENSORS/6.3D
C501
10u/10V
C502
0u1
NOTE: place 10uF cap close to gyros
VDD_IO
VDD
RES_P15_VDD
RES_P8_GND
RES_P9_GND
RES_P10_GND
RES_P11_GND
RES_P12_GND
GND
SCL/SPC
SDA/SDI/SDO
SDO/SA0
CS
INT1
DRDY/INT2
PLLFILT
SPI_INT_SCK/1.1A
SPI_INT_MOSI/1.1A
SPI_INT_MISO/1.1A
GYRO_CS/1.3B
GYRO_DRDY/1.1B
C504
10n
L3GD20
Stuff option 1: L3GD20 (legacy gyro)
U504
C506
10u/10V
C507
0u1
VDD
VDD_IO
RSRV
GND
SCL/SPC
SDA/SDI/SDO
SDO/SA0
CS
INT1
INT2
SETC
SETP
C1
ACCEL_MAG_CS/1.3B
SPI_INT_SCK/1.1A
SPI_INT_MOSI/1.1A
SPI_INT_MISO/1.1A
ACCEL_DRDY/1.1B
MAG_DRDY/1.1B
C510
0u47
C509
10u/10V
LSM303D
Stuff option 4: onboard accel/mag
STUFF C503 WITH 220R RESISTOR
U502
C511
10u/10V
C503
0u1
15*2
9*5
Switch to L3GD20H once available (Q3/2013)
WARNING: DIFFERENT HW, SW COMPATIBLE
VDD_IO
VDD
SDO/SA0
CS
DEN
INT1
DRDY/INT2
CAP
C505
10n
L3GD20H
Stuff option 2: L3GD20H (replacement gyro)
U505
CLKIN
NC1
NC2
NC3
NC4
AUX_DA
AUX_CL
/CS
AD0/SDO
REGOUT
FSYNC
INT
SDA/SDI
SCL/SCLK
CLKOUT
RESV2
CPOUT
RESV1
NC8
NC7
NC6
NC5
MPU_CS/1.3A
MPU_DRDY/1.3C
C512
2u2
C513
2u2
C514
0u1
C515
0u01
MPU-6000
Stuff option 5: MPU6000
0512811094
X503G$1
X503G$2
X503G$3
X503G$4
X503G$5
X503G$6
X503G$7
X503G$8
X503G$9
X503G$10
Stuff option 3: offboard gyro/accel/mag
U506
C508
0u1
CSB1
CSB2
VDD
SDI/SDA
PS
SDO
SCLK
BARO_CS/1.3B
MS5611-01BA
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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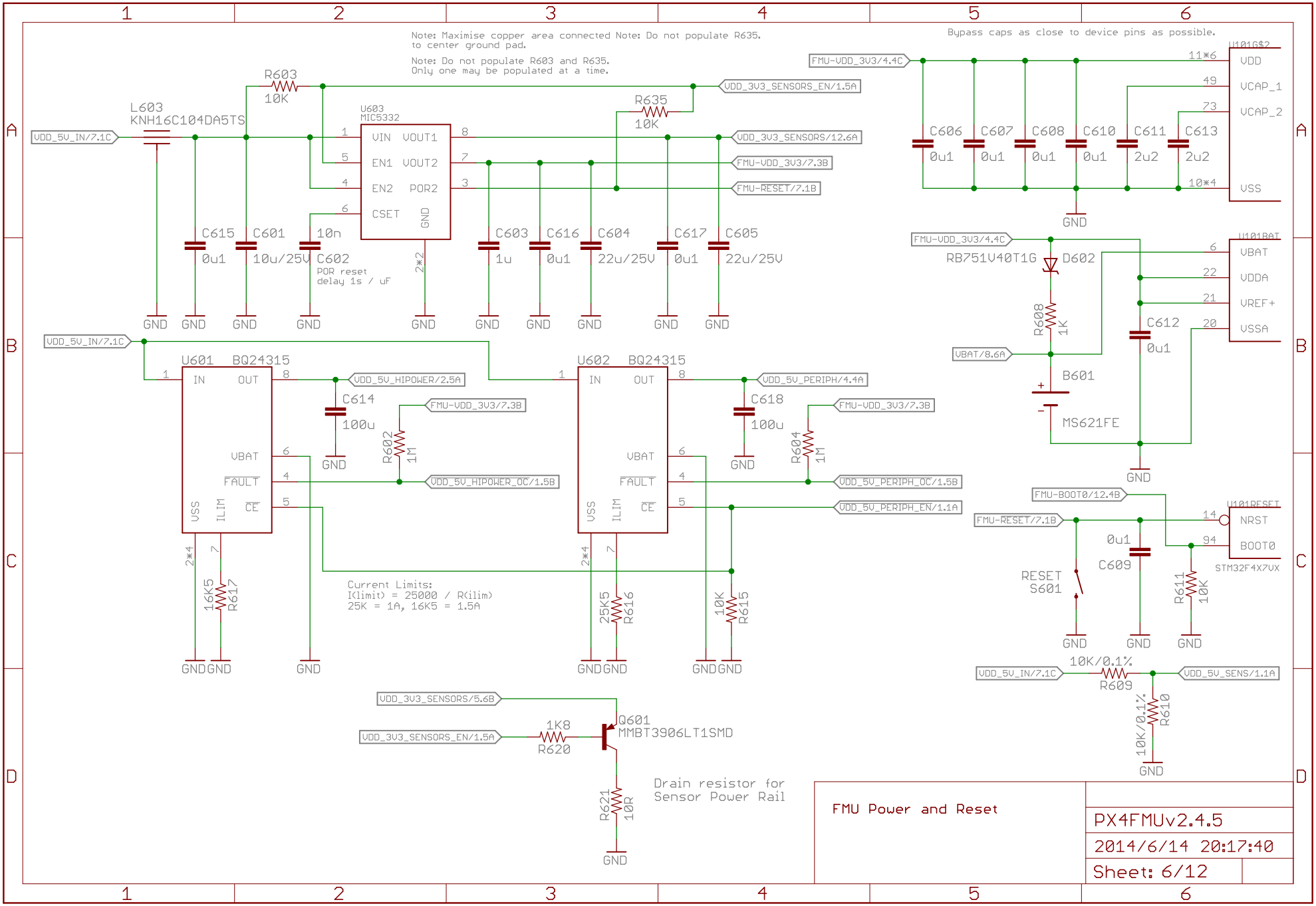
Note: Maximise copper area connected to center ground pad.
Note: Do not populate R603 and R635. Only one may be populated at a time.
Bypass caps as close to device pins as possible.
L603
KNH16C104DA5TS
R603
10K
U603
MIC5332
VIN
VOUT1
EN1
VOUT2
EN2
POR2
CSET
GND
R635
10K
C615
0u1
C601
10u/25V
10n
C602
POR reset
delay 1s / uF
2*2
C603
1u
C616
0u1
C604
22u/25V
C617
0u1
C605
22u/25V
VDD_5V_IN/7.1C
VDD_3V3_SENSORS_EN/1.5A
VDD_3V3_SENSORS/12.6A
FMU-VDD_3V3/7.3B
FMU-RESET/7.1B
FMU-VDD_3V3/4.4C
U101G$2
VDD
VCAP_1
VCAP_2
VSS
11*6
49
73
10*4
C606
C607
C608
C610
C611
C613
0u1
0u1
0u1
0u1
2u2
2u2
U601 BQ24315
U602 BQ24315
IN
OUT
VBAT
FAULT
VSS
ILIM
CE
VDD_5V_HIPOWER/2.5A
VDD_5V_PERIPH/4.4A
C614
100u
C618
100u
R602
1M
R604
1M
FMU-VDD_3V3/7.3B
VDD_5V_HIPOWER_OC/1.5B
VDD_5V_PERIPH_OC/1.5B
VDD_5V_PERIPH_EN/1.1A
2*4
16K5
R617
25K5
R616
10K
R615
Current Limits:
I(limit) = 25000 / R(ilim)
25K = 1A, 16K5 = 1.5A
GND
RB751V40T1G
D602
R608
1K
C612
0u1
VBAT/8.6A
B601
MS621FE
U101BAT
VBAT
VDDA
VREF+
VSSA
6
22
21
20
FMU-BOOT0/12.4B
FMU-RESET/7.1B
U101RESET
NRST
BOOT0
14
94
STM32F4X7UX
RESET
S601
C609
0u1
R611
10K
10K/0.1%
R609
VDD_5V_IN/7.1C
VDD_5V_SENS/1.1A
10K/0.1%
R610
VDD_3V3_SENSORS/5.6B
VDD_3V3_SENSORS_EN/1.5A
1K8
R620
Q601
MMBT3906LT1SMD
R621
10R
Drain resistor for
Sensor Power Rail
FMU Power and Reset
PX4FMUv2.4.5
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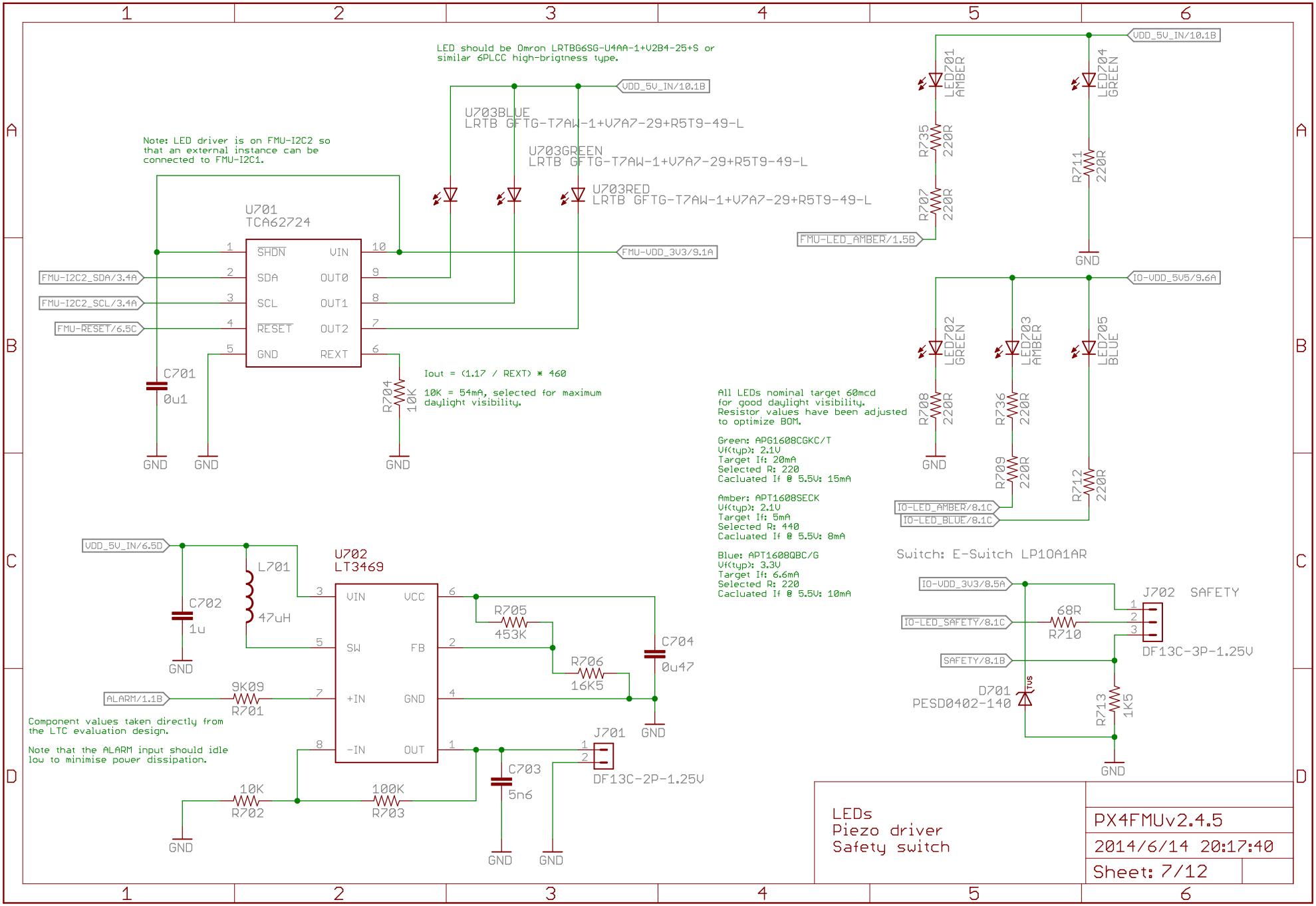
LED should be Omron LRTBG6SG-U4AA-1+V2B4-25+S or similar 6PLCC high-brigtness type.
VDD_5V_IN/10.1B
U703BLUE
LRTB GFTG-T7AW-1+V7A7-29+R5T9-49-L
U703GREEN
LRTB GFTG-T7AW-1+V7A7-29+R5T9-49-L
U703RED
LRTB GFTG-T7AW-1+V7A7-29+R5T9-49-L
Note: LED driver is on FMU-I2C2 so that an external instance can be connected to FMU-I2C1.
U701
TCA62724
SHDN
SDA
SCL
RESET
GND
VIN
OUT0
OUT1
OUT2
REXT
FMU-I2C2_SDA/3.4A
FMU-I2C2_SCL/3.4A
FMU-RESET/6.5C
FMU-VDD_3V3/9.1A
C701
0u1
R704
10K
Iout = (1.17 / REXT) * 460
10K = 54mA, selected for maximum daylight visibility.
GND
LED701
AMBER
LED704
GREEN
R735
220R
R707
220R
R711
220R
FMU-LED_AMBER/1.5B
LED702
GREEN
LED703
AMBER
LED705
BLUE
R708
220R
R736
220R
R709
220R
R712
220R
IO-VDD_5V5/9.6A
IO-LED_AMBER/8.1C
IO-LED_BLUE/8.1C
All LEDs nominal target 60mcd for good daylight visibility. Resistor values have been adjusted to optimize BOM.
Green: APG1608CGKC/T
Vf(typ): 2.1V
Target If: 20mA
Selected R: 220
Cacluated If @ 5.5V: 15mA
Amber: APT1608SECK
Vf(typ): 2.1V
Target If: 5mA
Selected R: 440
Cacluated If @ 5.5V: 8mA
Blue: APT1608QBC/G
Vf(typ): 3.3V
Target If: 6.6mA
Selected R: 220
Cacluated If @ 5.5V: 10mA
Switch: E-Switch LP10A1AR
VDD_5V_IN/6.5D
U702
LT3469
VIN
SW
+IN
-IN
VCC
FB
GND
OUT
L701
47uH
C702
1u
R705
453K
R706
16K5
C704
0u47
ALARM/1.1B
9K09
R701
10K
R702
100K
R703
C703
5n6
J701
DF13C-2P-1.25V
Component values taken directly from the LTC evaluation design.
Note that the ALARM input should idle low to minimise power dissipation.
IO-VDD_3V3/8.5A
IO-LED_SAFETY/8.1C
SAFETY/8.1B
J702 SAFETY
DF13C-3P-1.25V
68R
R710
D701
PESD0402-140
tvs
R713
1K5
LEDs
Piezo driver
Safety switch
PX4FMUv2.4.5
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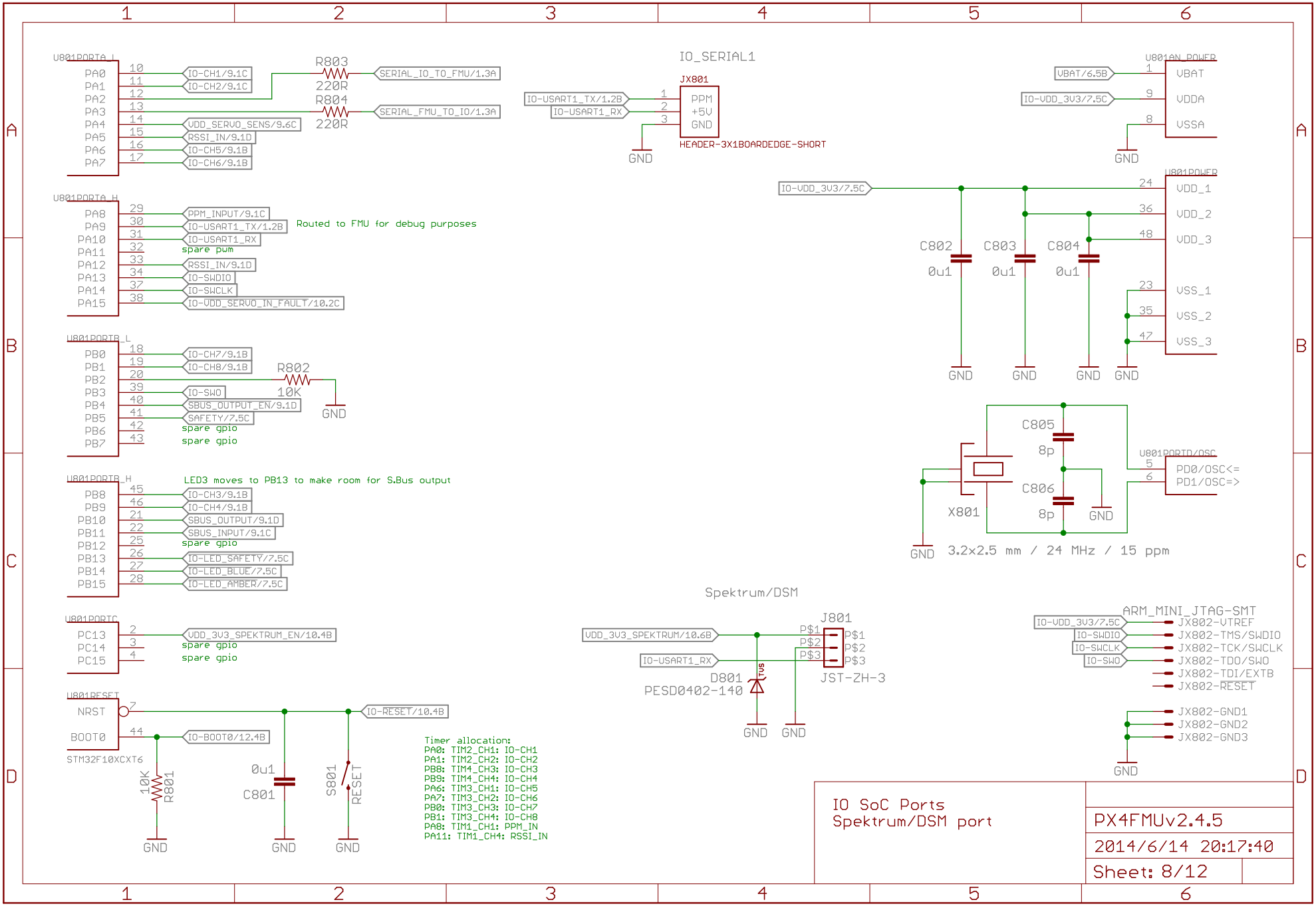
U801PORTA_L
PA0 10 IO-CH1/9.1C
PA1 11 IO-CH2/9.1C
PA2 12
PA3 13
PA4 14 VDD_SERVO_SENS/9.6C
PA5 15 RSSI_IN/9.1D
PA6 16 IO-CH5/9.1B
PA7 17 IO-CH6/9.1B
R803 220R SERIAL_IO_TO_FMU/1.3A
R804 220R SERIAL_FMU_TO_IO/1.3A
U801PORTA_H
PA8 29 PPM_INPUT/9.1C
PA9 30 IO-USART1_TX/1.2B
PA10 31 IO-USART1_RX
PA11 32 spare pwm
PA12 33 RSSI_IN/9.1D
PA13 34 IO-SWDIO
PA14 37 IO-SWCLK
PA15 38 IO-VDD_SERVO_IN_FAULT/10.2C
Routed to FMU for debug purposes
U801PORTB_L
PB0 18 IO-CH7/9.1B
PB1 19 IO-CH8/9.1B
PB2 20
PB3 39 IO-SWO
PB4 40 SBUS_OUTPUT_EN/9.1D
PB5 41 SAFETY/7.5C
PB6 42 spare gpio
PB7 43 spare gpio
R802 10K GND
U801PORTB_H
PB8 45 IO-CH3/9.1B
PB9 46 IO-CH4/9.1B
PB10 21 SBUS_OUTPUT/9.1D
PB11 22 SBUS_INPUT/9.1C
PB12 25 spare gpio
PB13 26 IO-LED_SAFETY/7.5C
PB14 27 IO-LED_BLUE/7.5C
PB15 28 IO-LED_AMBER/7.5C
LED3 moves to PB13 to make room for S.Bus output
U801PORTC
PC13 2 VDD_3V3_SPEKTRUM_EN/10.4B
PC14 3 spare gpio
PC15 4 spare gpio
U801RESET
NRST 7 IO-RESET/10.4B
BOOT0 44 IO-BOOT0/12.4B
STM32F10XCXT6
10K R801
0u1 C801
S801 RESET
GND
Timer allocation:
PA0: TIM2_CH1: IO-CH1
PA1: TIM2_CH2: IO-CH2
PB8: TIM4_CH3: IO-CH3
PB9: TIM4_CH4: IO-CH4
PA6: TIM3_CH1: IO-CH5
PA7: TIM3_CH2: IO-CH6
PB0: TIM3_CH3: IO-CH7
PB1: TIM3_CH4: IO-CH8
PA8: TIM1_CH1: PPM_IN
PA11: TIM1_CH4: RSSI_IN
IO_SERIAL1
JX801
IO-USART1_TX/1.2B 1
IO-USART1_RX 2
3 PPM +5V GND
HEADER-3X1BOARDEDGE-SHORT
GND
U801AN_POWER
VBAT/6.5B 1 VBAT
IO-VDD_3V3/7.5C 9 VDDA
8 VSSA
GND
U801POWER
IO-VDD_3V3/7.5C
C802 0u1
C803 0u1
C804 0u1
24 VDD_1
36 VDD_2
48 VDD_3
23 VSS_1
35 VSS_2
47 VSS_3
GND
C805 8p
C806 8p
X801
U801PORTD/OSC
5 PD0/OSC<=
6 PD1/OSC=>
3.2x2.5 mm / 24 MHz / 15 ppm
Spektrum/DSM
VDD_3V3_SPEKTRUM/10.6B
IO-USART1_RX
J801
P$1 P$2 P$3
JST-ZH-3
D801 PESD0402-140
TVS
ARM_MINI_JTAG-SMT
IO-VDD_3V3/7.5C JX802-VTREF
IO-SWDIO JX802-TMS/SWDIO
IO-SWCLK JX802-TCK/SWCLK
IO-SWO JX802-TDO/SWO
JX802-TDI/EXTB
JX802-RESET
JX802-GND1
JX802-GND2
JX802-GND3
IO SoC Ports
Spektrum/DSM port
PX4FMUv2.4.5
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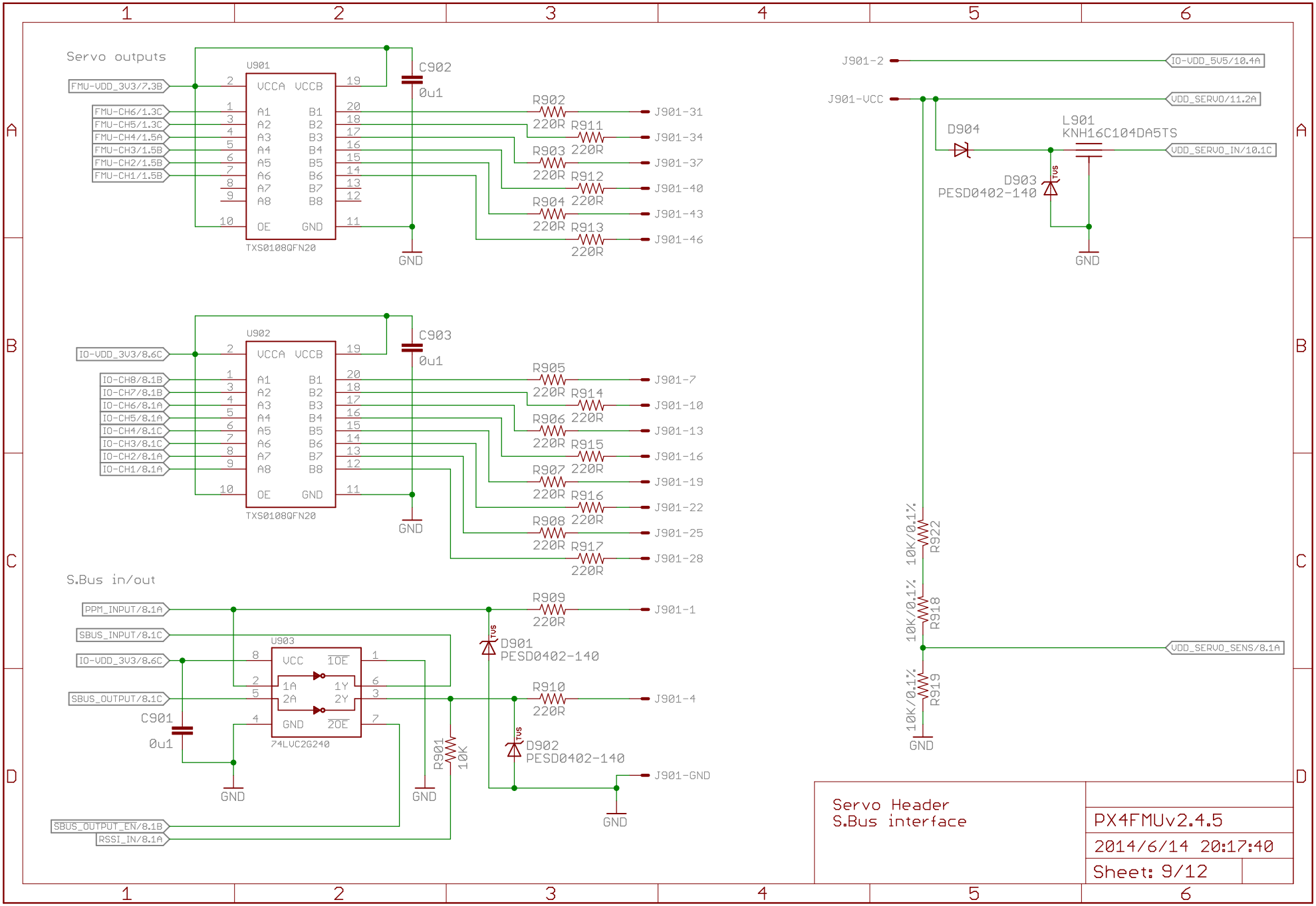
Servo outputs
U901
TXS0108QFN20
C902
0u1
FMU-VDD_3V3/7.3B
FMU-CH6/1.3C
FMU-CH5/1.3C
FMU-CH4/1.5A
FMU-CH3/1.5B
FMU-CH2/1.5B
FMU-CH1/1.5B
R902 220R
R911 220R
R903 220R
R912 220R
R904 220R
R913 220R
J901-31
J901-34
J901-37
J901-40
J901-43
J901-46
GND
U902
TXS0108QFN20
C903
0u1
IO-VDD_3V3/8.6C
IO-CH8/8.1B
IO-CH7/8.1B
IO-CH6/8.1A
IO-CH5/8.1A
IO-CH4/8.1C
IO-CH3/8.1C
IO-CH2/8.1A
IO-CH1/8.1A
R905 220R
R914 220R
R906 220R
R915 220R
R907 220R
R916 220R
R908 220R
R917 220R
J901-7
J901-10
J901-13
J901-16
J901-19
J901-22
J901-25
J901-28
S.Bus in/out
PPM_INPUT/8.1A
SBUS_INPUT/8.1C
IO-VDD_3V3/8.6C
SBUS_OUTPUT/8.1C
U903
74LVC2G240
C901
0u1
R909 220R
R910 220R
R901 10K
D901 PESD0402-140
D902 PESD0402-140
J901-1
J901-4
J901-GND
SBUS_OUTPUT_EN/8.1B
RSSI_IN/8.1A
J901-2
J901-VCC
IO-VDD_5V5/10.4A
VDD_SERVO/11.2A
D904
L901 KNH16C104DA5TS
VDD_SERVO_IN/10.1C
D903 PESD0402-140
R922 10K/0.1%
R918 10K/0.1%
R919 10K/0.1%
VDD_SERVO_SENS/8.1A
Servo Header
S.Bus interface
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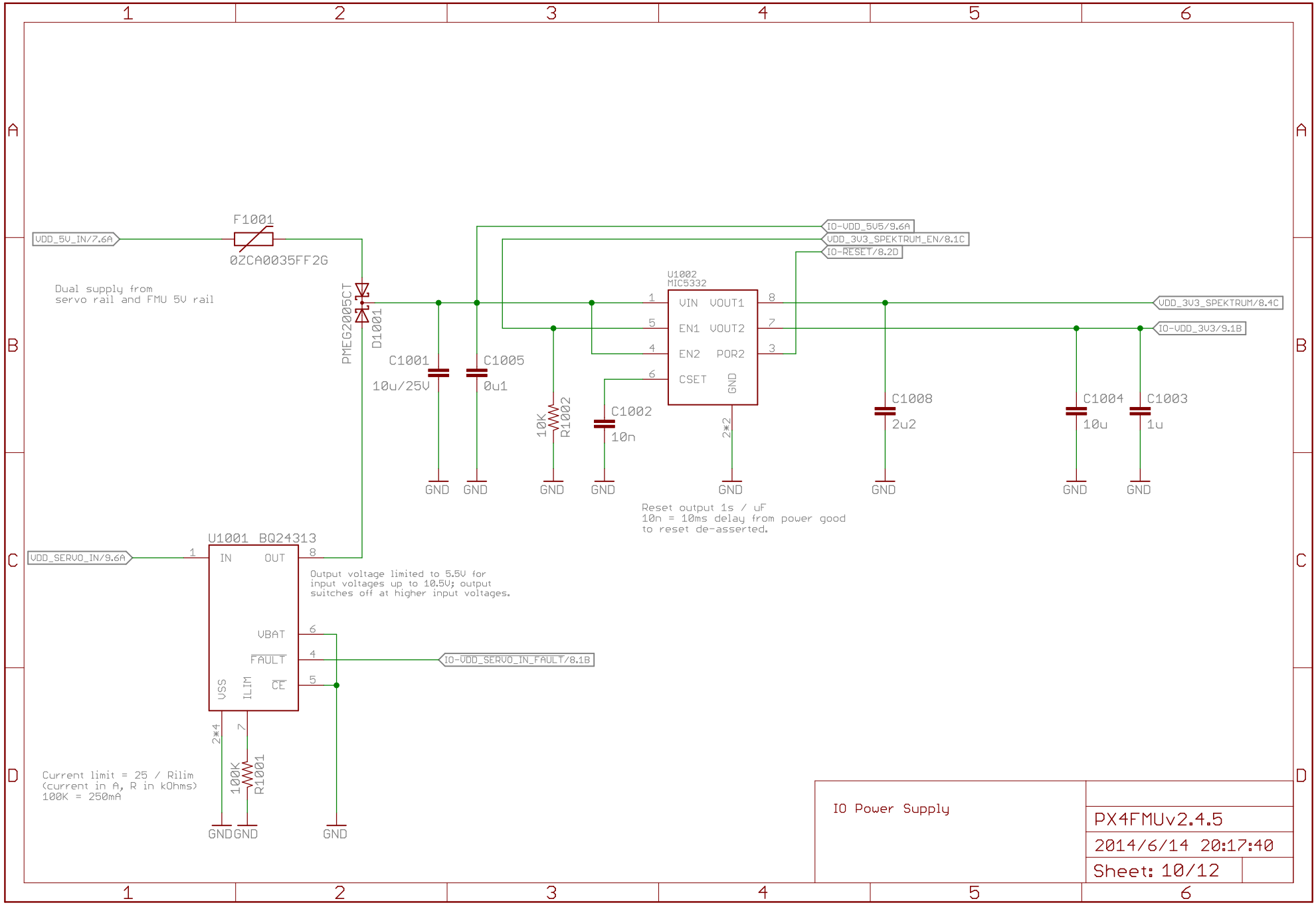
VDD_5V_IN/7.6A
F1001
0ZCA0035FF2G
Dual supply from
servo rail and FMU 5V rail
PMEG2005CT
D1001
C1001
10u/25V
C1005
0u1
GND
GND
IO-VDD_5V5/9.6A
VDD_3V3_SPEKTRUM_EN/8.1C
IO-RESET/8.2D
U1002
MIC5332
VIN
VOUT1
EN1
VOUT2
EN2
POR2
CSET
GND
VDD_3V3_SPEKTRUM/8.4C
IO-VDD_3V3/9.1B
10K
R1002
C1002
10n
2*2
C1008
2u2
C1004
10u
C1003
1u
Reset output 1s / uF
10n = 10ms delay from power good
to reset de-asserted.
U1001 BQ24313
VDD_SERVO_IN/9.6A
IN
OUT
Output voltage limited to 5.5V for
input voltages up to 10.5V; output
switches off at higher input voltages.
VBAT
FAULT
IO-VDD_SERVO_IN_FAULT/8.1B
VSS
ILIM
CE
2*4
100K
R1001
Current limit = 25 / Rilim
(current in A, R in kOhms)
100K = 250mA
IO Power Supply
PX4FMUv2.4.5
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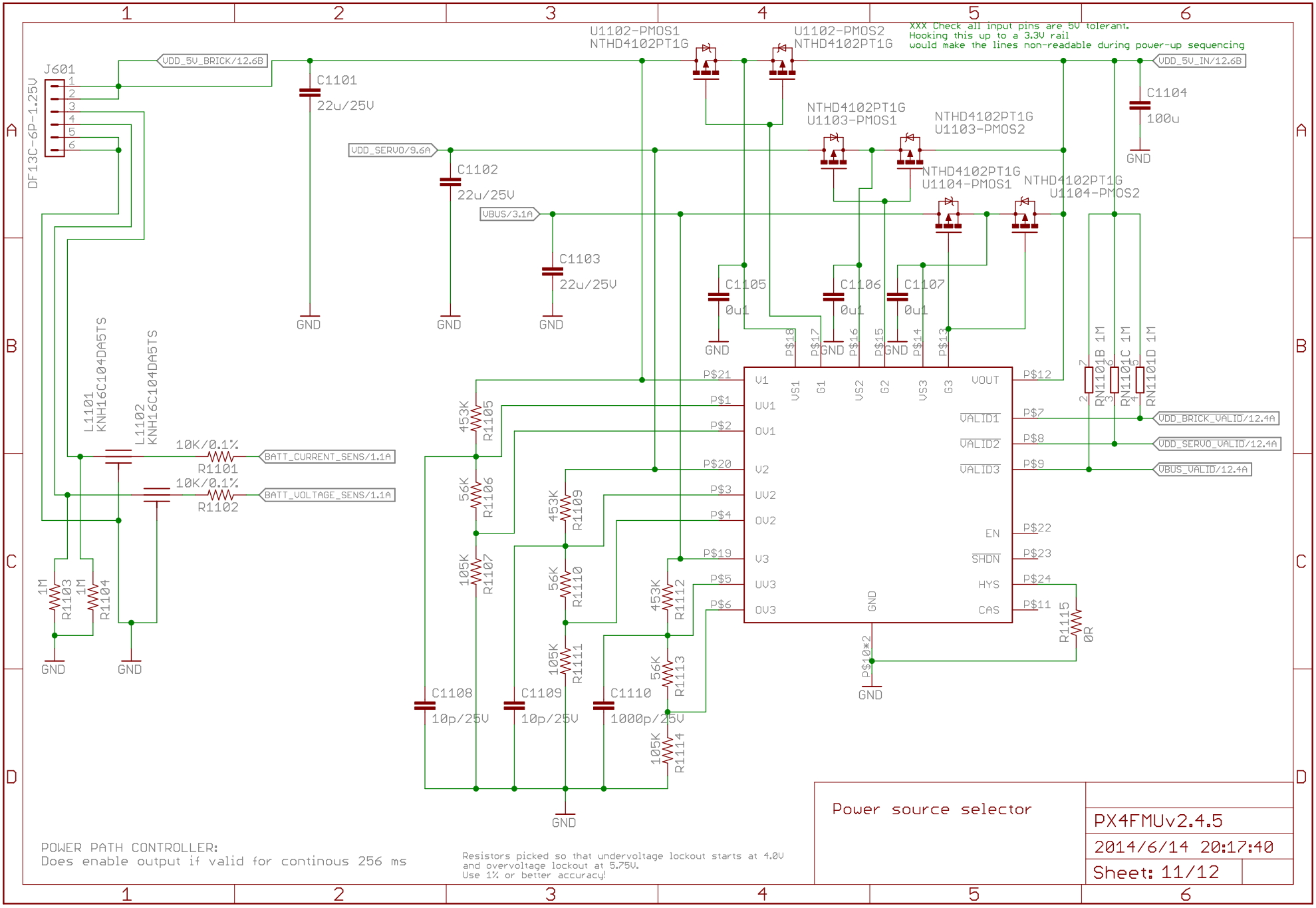
XXX Check all input pins are 5V tolerant.
Hooking this up to a 3.3V rail
would make the lines non-readable during power-up sequencing
J601
DF13C-6P-1.25V
VDD_5V_BRICK/12.6B
VDD_SERVO/9.6A
VBUS/3.1A
VDD_5V_IN/12.6B
C1101
22u/25V
C1102
22u/25V
C1103
22u/25V
C1104
100u
C1105
0u1
C1106
0u1
C1107
0u1
U1102-PMOS1
NTHD4102PT1G
U1102-PMOS2
NTHD4102PT1G
NTHD4102PT1G
U1103-PMOS1
NTHD4102PT1G
U1103-PMOS2
NTHD4102PT1G
U1104-PMOS1
NTHD4102PT1G
U1104-PMOS2
L1101
KNH16C104DA5TS
L1102
KNH16C104DA5TS
10K/0.1%
R1101
10K/0.1%
R1102
BATT_CURRENT_SENS/1.1A
BATT_VOLTAGE_SENS/1.1A
1M
R1103
1M
R1104
453K
R1105
56K
R1106
453K
R1109
105K
R1107
56K
R1110
453K
R1112
105K
R1111
56K
R1113
105K
R1114
C1108
10p/25V
C1109
10p/25V
C1110
1000p/25V
V1
UV1
OV1
V2
UV2
OV2
V3
UV3
OV3
VS1
G1
VS2
G2
VS3
G3
VOUT
VALID1
VALID2
VALID3
EN
SHDN
HYS
CAS
GND
P$21
P$1
P$2
P$20
P$3
P$4
P$19
P$5
P$6
P$18
P$17
P$16
P$15
P$14
P$13
P$12
P$7
P$8
P$9
P$22
P$23
P$24
P$11
P$10*2
RN1101B 1M
RN1101C 1M
RN1101D 1M
R1115
0R
VDD_BRICK_VALID/12.4A
VDD_SERVO_VALID/12.4A
VBUS_VALID/12.4A
POWER PATH CONTROLLER:
Does enable output if valid for continous 256 ms
Resistors picked so that undervoltage lockout starts at 4.0V
and overvoltage lockout at 5.75V.
Use 1% or better accuracy!
Power source selector
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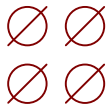
Production Testing Pads

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).

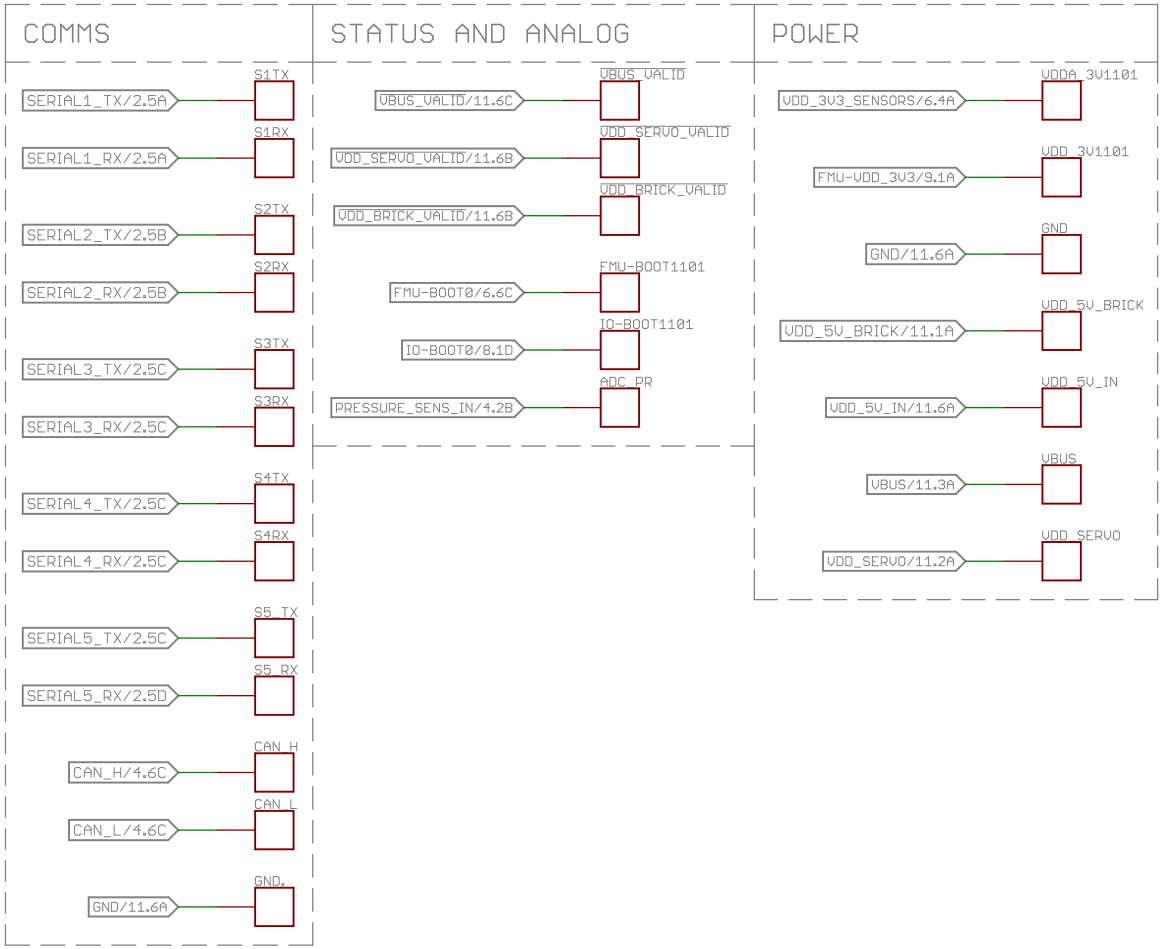


Minimum drill: 0.3 mm
Minimum trace width (use mm for traces): 0.15 mm
Minimum copper distance (all signals): 0.15 mm
Dimension / hole minimum distance: 0.2 mm
Layout grid: 4 mil, part grid: 4 mil. Dimensions / hole positions: 0.5 mm

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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