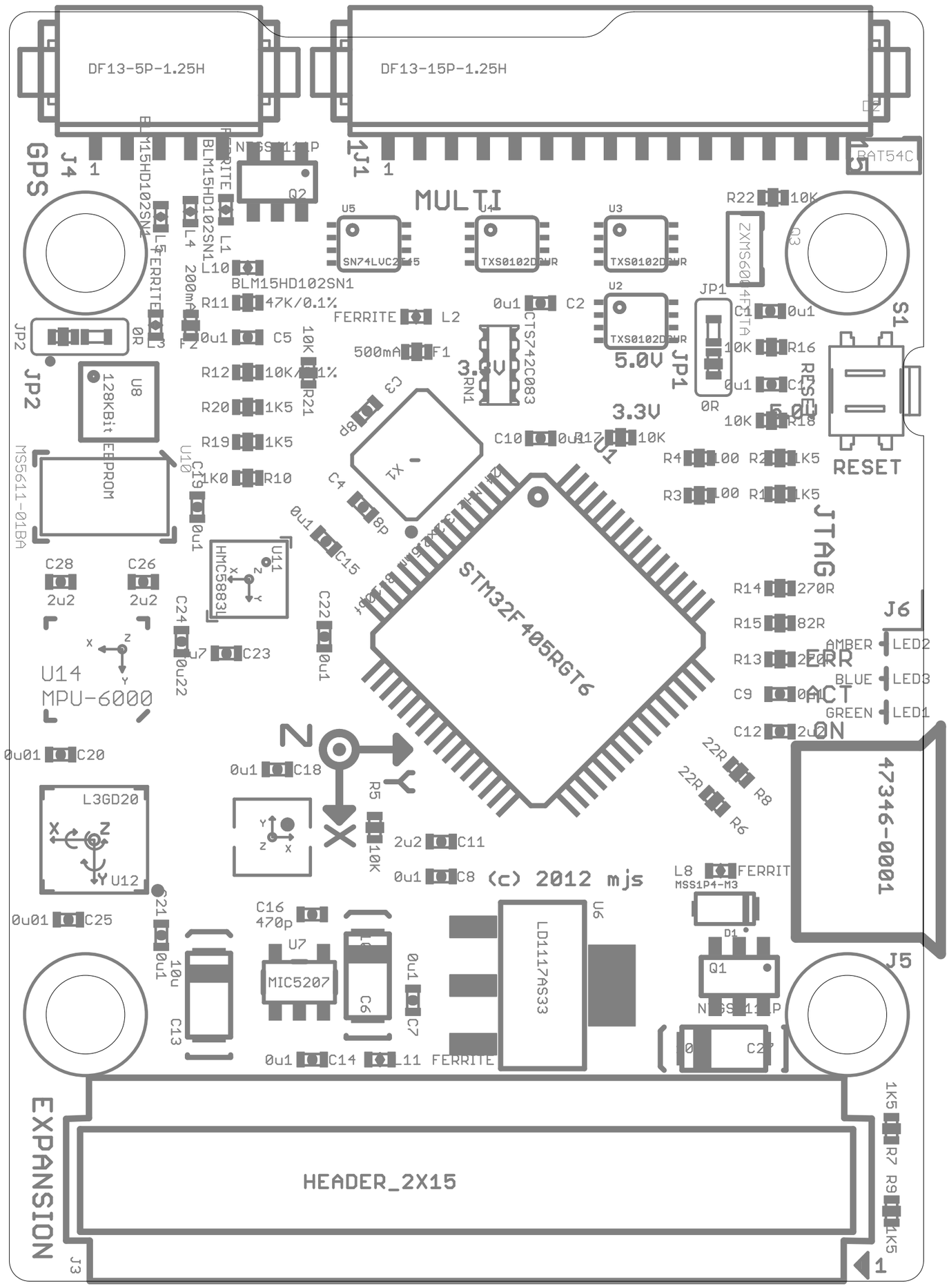
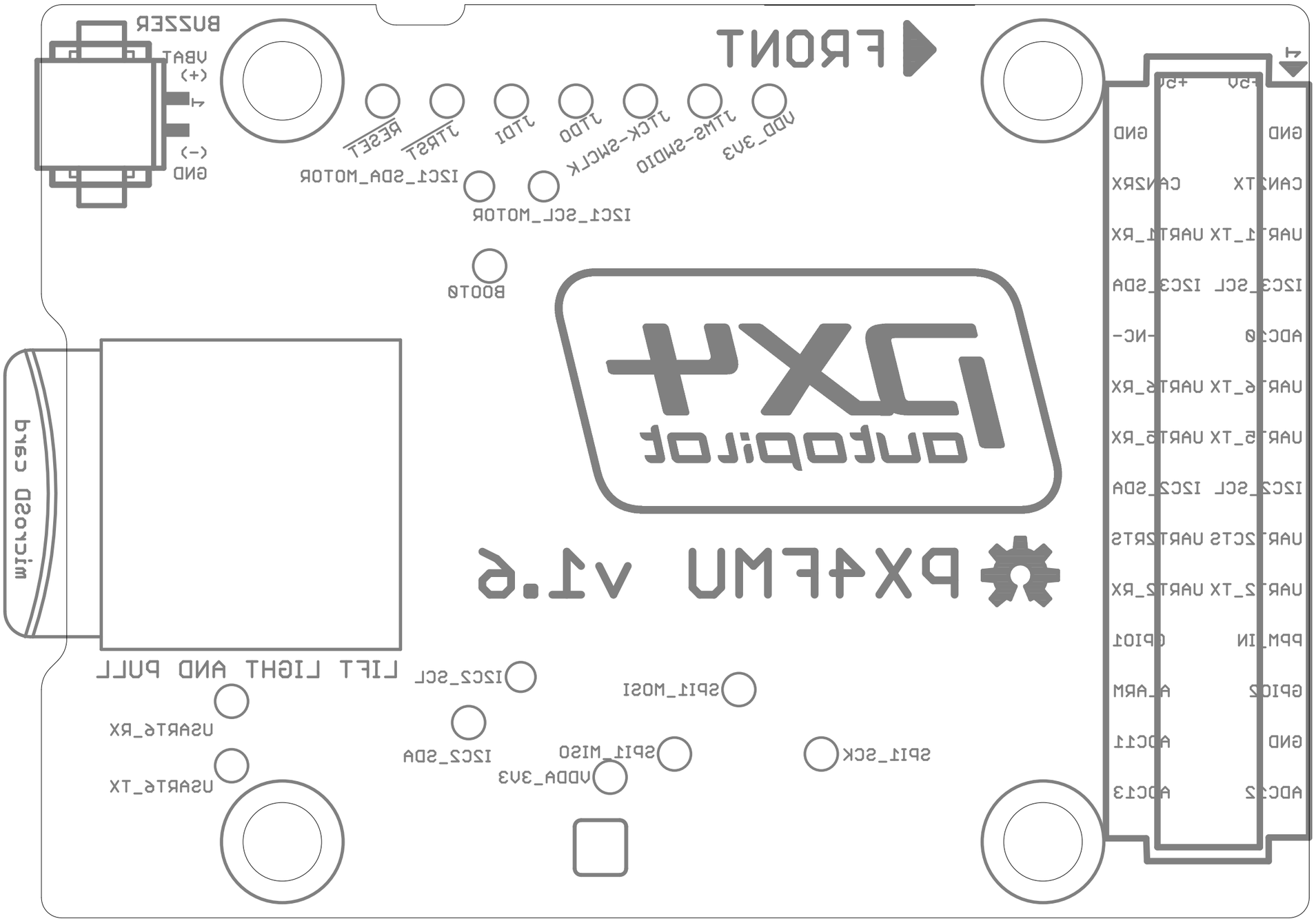
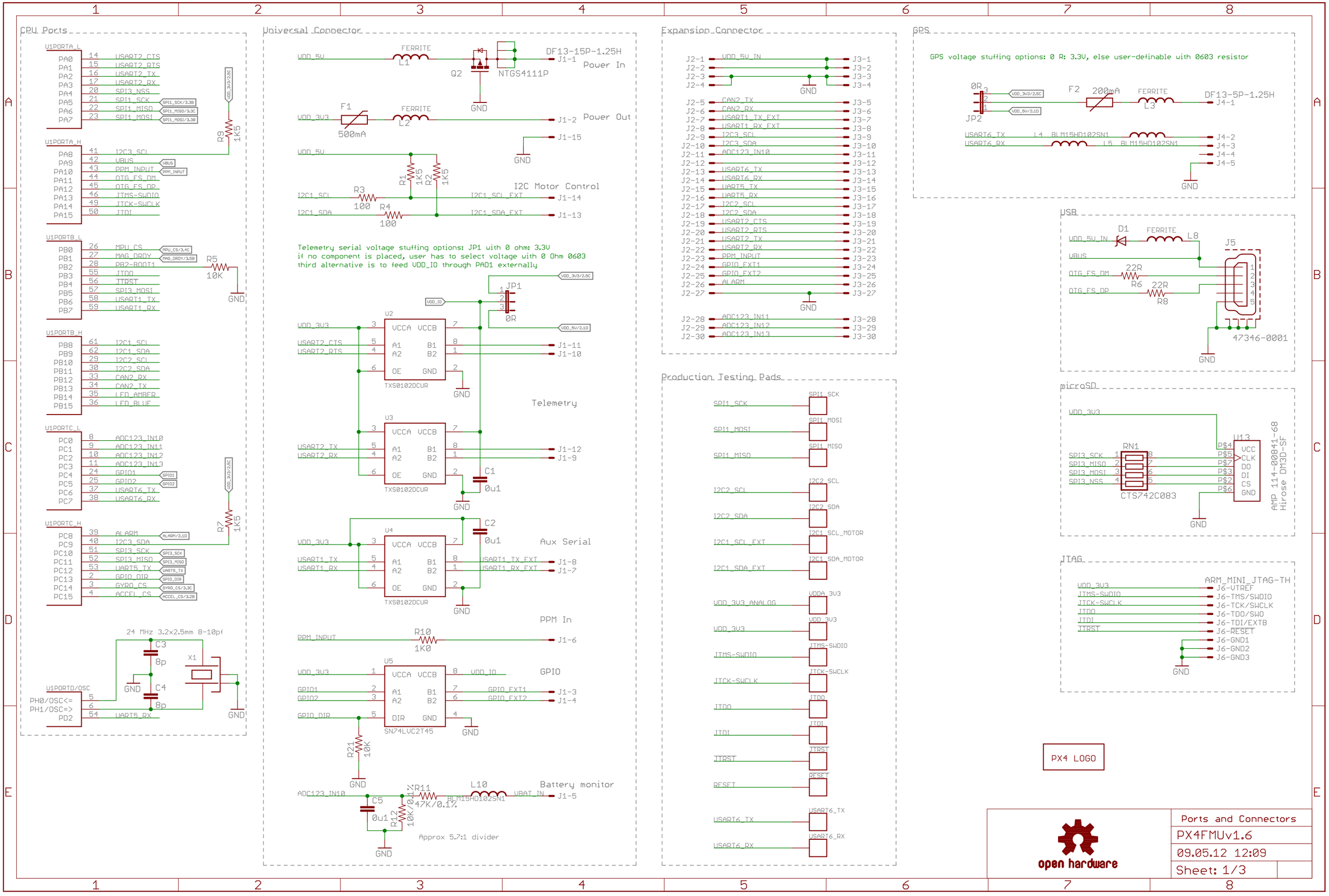
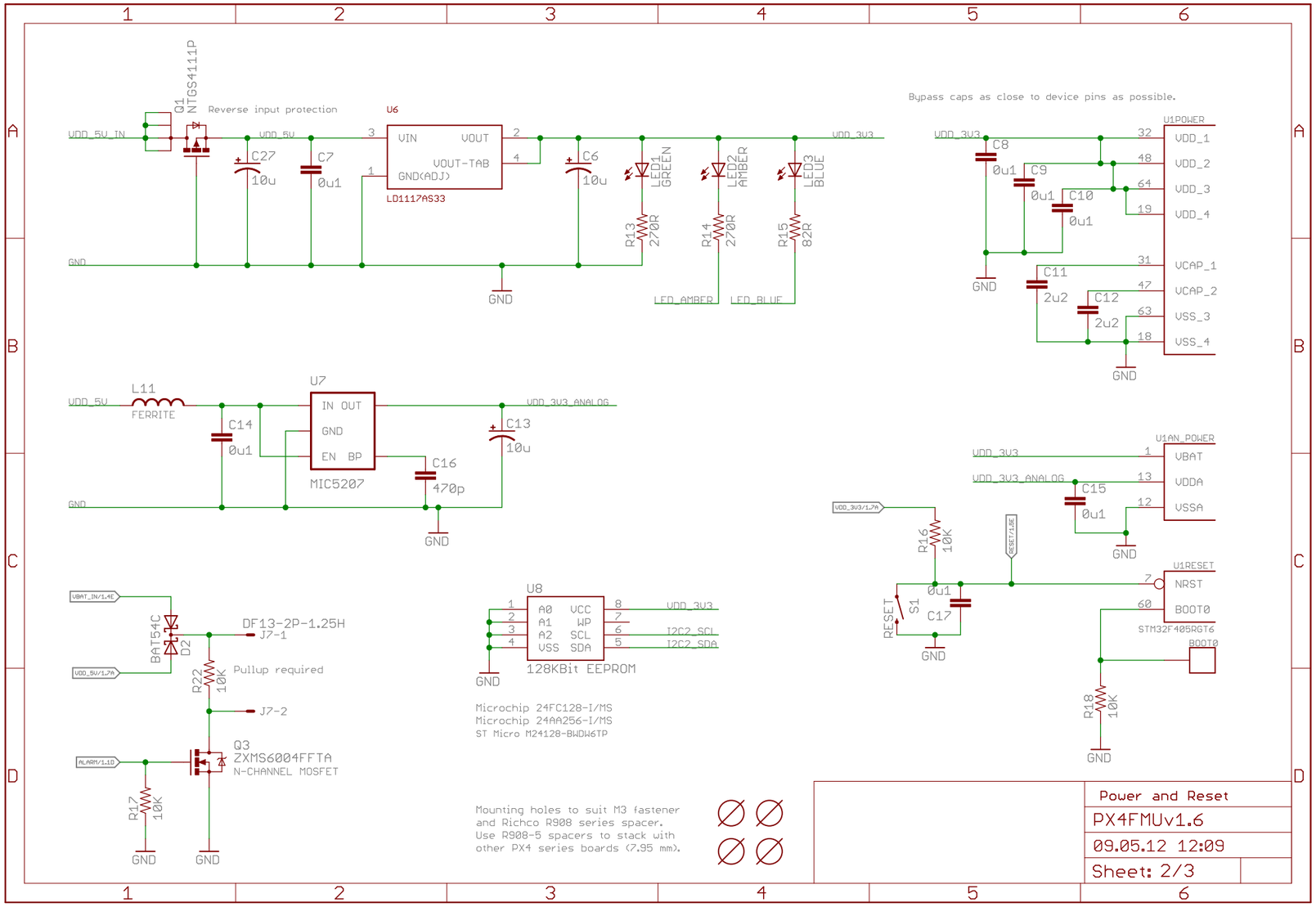

DF13-5P-1.25H
DF13-15P-1.25H
J4
GPS
J1
MULTI
BAT54C
Q2
Q3
S1
RESET
JP1
5.0V
3.3V
JP2
U8
128KBit EEPROM
MS5611-01BA
U10
U11
HMC5883L
U14
MPU-6000
STM32F405RGT6
U1
JTAG
J6
ERR
ACT
ON
AMBER
BLUE
GREEN
LED1
LED2
LED3
47346-0001
L3GD20
U12
(c) 2012 mjs
U6
LD1117AS33
U7
MIC5207
EXPANSION
HEADER_2X15
J3
J5


FRONT
BUZZER
VBAT
(+)
(-)
GND
RESET
JTRST
JTDI
JTDO
JTCK-SWCLK
JTMS-SWDIO
VDD_3V3
I2C1_SDA_MOTOR
I2C1_SCL_MOTOR
BOOT0
px4fmu v1.6
micro SD card
LIFT LIGHT AND PULL
USART6_RX
USART6_TX
I2C2_SCL
I2C2_SDA
VDDA_3V3
SPI1_MISO
SPI1_MOSI
SPI1_SCK
GND
CAN2RX
CAN2TX
UART1_RX
UART1_TX
I2C3_SDA
I2C3_SCL
-NC-
ADC10
UART6_RX
UART6_TX
UART5_RX
UART5_TX
I2C2_SDA
I2C2_SCL
UART2RTS
UART2CTS
UART2_RX
UART2_TX
GPIO1
PPM_IN
GPIO2
A_ARM
ADC11
GND
ADC12
ADC13
+5V
+5V
GND


CPU Ports
U1PORTA_L
PA0 USART2_CTS
PA1 USART2_RTS
PA2 USART2_TX
PA3 USART2_RX
PA4 SPI3_NSS
PA5 SPI1_SCK
PA6 SPI1_MISO
PA7 SPI1_MOSI
U1PORTA_H
PA8 I2C3_SCL
PA9 VBUS
PA10 PPM_INPUT
PA11 OTG_FS_DM
PA12 OTG_FS_DP
PA13 JTMS-SWDIO
PA14 JTCK-SWCLK
PA15 JTDI
U1PORTB_L
PB0 MPU_CS
PB1 MAG_DRDY
PB2 PB2-BOOT1
PB3 JTDO
PB4 JTDST
PB5 SPI3_MOSI
PB6 USART1_TX
PB7 USART1_RX
U1PORTB_H
PB8 I2C1_SCL
PB9 I2C1_SDA
PB10 I2C2_SCL
PB11 I2C2_SDA
PB12 CAN2_RX
PB13 CAN2_TX
PB14 LED_AMBER
PB15 LED_BLUE
U1PORTC_L
PC0 ADC123_IN10
PC1 ADC123_IN11
PC2 ADC123_IN12
PC3 ADC123_IN13
PC4 GPIO1
PC5 GPIO2
PC6 USART6_TX
PC7 USART6_RX
U1PORTC_H
PC8 ALARM
PC9 I2C3_SDA
PC10 SPI3_SCK
PC11 SPI3_MISO
PC12 UART5_TX
PC13 GPIO_DIR
PC14 GYRO_CS
PC15 ACCEL_CS
R9 1K5
R7 1K5
24 MHz 3.2x2.5mm 8-10pf
C3 8p
C4 8p
X1
U1PORTD/OSC
PH0/OSC<=
PH1/OSC=>
PD2 UART5_RX
GND
Universal Connector
VDD_5V
FERRITE L1
Q2
NTGS4111P
DF13-15P-1.25H J1-1
Power In
VDD_3V3
F1 500mA
FERRITE L2
J1-2
Power Out
J1-15
R1 1K5
R2 1K5
I2C Motor Control
I2C1_SCL
R3 100
I2C1_SCL_EXT J1-14
I2C1_SDA
R4 100
I2C1_SDA_EXT J1-13
Telemetry serial voltage stuffing options: JP1 with 0 ohm: 3.3V
if no component is placed, user has to select voltage with 0 Ohm 0603
third alternative is to feed VDD_IO through PAD1 externally
JP1 0R
VDD_IO
U2 TXS0102DCUR
USART2_CTS J1-11
USART2_RTS J1-10
Telemetry
U3 TXS0102DCUR
USART2_TX J1-12
USART2_RX J1-9
C1 0u1
Aux Serial
U4 TXS0102DCUR
USART1_TX J1-8
USART1_RX J1-7
C2 0u1
PPM In
PPM_INPUT
R10 1K0
J1-6
GPIO
U5 SN74LVC2T45
GPIO1 J1-3
GPIO2 J1-4
GPIO_DIR
R21 10K
Battery monitor
ADC123_IN10
C5 0u1
R11 47K/0.1%
R12 10K/0.1%
L10 BLM15HD102SN1
VBAT_IN J1-5
Approx 5.7:1 divider
Expansion Connector
J2-1 VDD_5V_IN J3-1
J2-2 J3-2
J2-3 J3-3
J2-4 J3-4
J2-5 CAN2_TX J3-5
J2-6 CAN2_RX J3-6
J2-7 USART1_TX_EXT J3-7
J2-8 USART1_RX_EXT J3-8
J2-9 I2C3_SCL J3-9
J2-10 I2C3_SDA J3-10
J2-11 ADC123_IN10 J3-11
J2-12 J3-12
J2-13 USART6_TX J3-13
J2-14 USART6_RX J3-14
J2-15 UART5_TX J3-15
J2-16 UART5_RX J3-16
J2-17 I2C2_SCL J3-17
J2-18 I2C2_SDA J3-18
J2-19 USART2_CTS J3-19
J2-20 USART2_RTS J3-20
J2-21 USART2_TX J3-21
J2-22 USART2_RX J3-22
J2-23 PPM_INPUT J3-23
J2-24 GPIO_EXT1 J3-24
J2-25 GPIO_EXT2 J3-25
J2-26 ALARM J3-26
J2-27 J3-27
J2-28 ADC123_IN11 J3-28
J2-29 ADC123_IN12 J3-29
J2-30 ADC123_IN13 J3-30
Production Testing Pads
SPI1_SCK
SPI1_MOSI
SPI1_MISO
I2C2_SCL
I2C2_SDA
I2C1_SCL_EXT
I2C1_SCL_MOTOR
I2C1_SDA_EXT
I2C1_SDA_MOTOR
VDD_3V3_ANALOG
VDDA_3V3
VDD_3V3
JTMS-SWDIO
JTCK-SWCLK
JTDO
JTDI
JTRST
RESET
USART6_TX
USART6_RX
GPS
GPS voltage stuffing options: 0 R: 3.3V, else user-definable with 0603 resistor
JP2 0R
F2 200mA
FERRITE L3
DF13-5P-1.25H J4-1
USART6_TX L4 BLM15HD102SN1 J4-2
USART6_RX L5 BLM15HD102SN1 J4-3
J4-4
J4-5
USB
D1
FERRITE L8
VDD_5V_IN
VBUS
OTG_FS_DM 22R R6
OTG_FS_DP 22R R8
J5 47346-0001
microSD
VDD_3V3
RN1 CTS742C083
SPI3_SCK
SPI3_MISO
SPI3_MOSI
SPI3_NSS
U13 AMP 114-00841-68 Hirose DM3D-SF
VCC CLK DO DI CS GND
JTAG
ARM_MINI_JTAG-TH
VDD_3V3 J6-VTREF
JTMS-SWDIO J6-TMS/SWDIO
JTCK-SWCLK J6-TCK/SWCLK
JTDO J6-TDO/SWO
JTDI J6-TDI/EXTB
JTRST J6-RESET
J6-GND1
J6-GND2
J6-GND3
PX4 LOGO
open hardware
Ports and Connectors
PX4FMUv1.6
09.05.12 12:09
Sheet: 1/3



Power and Reset	
PX4FMUv1.6	
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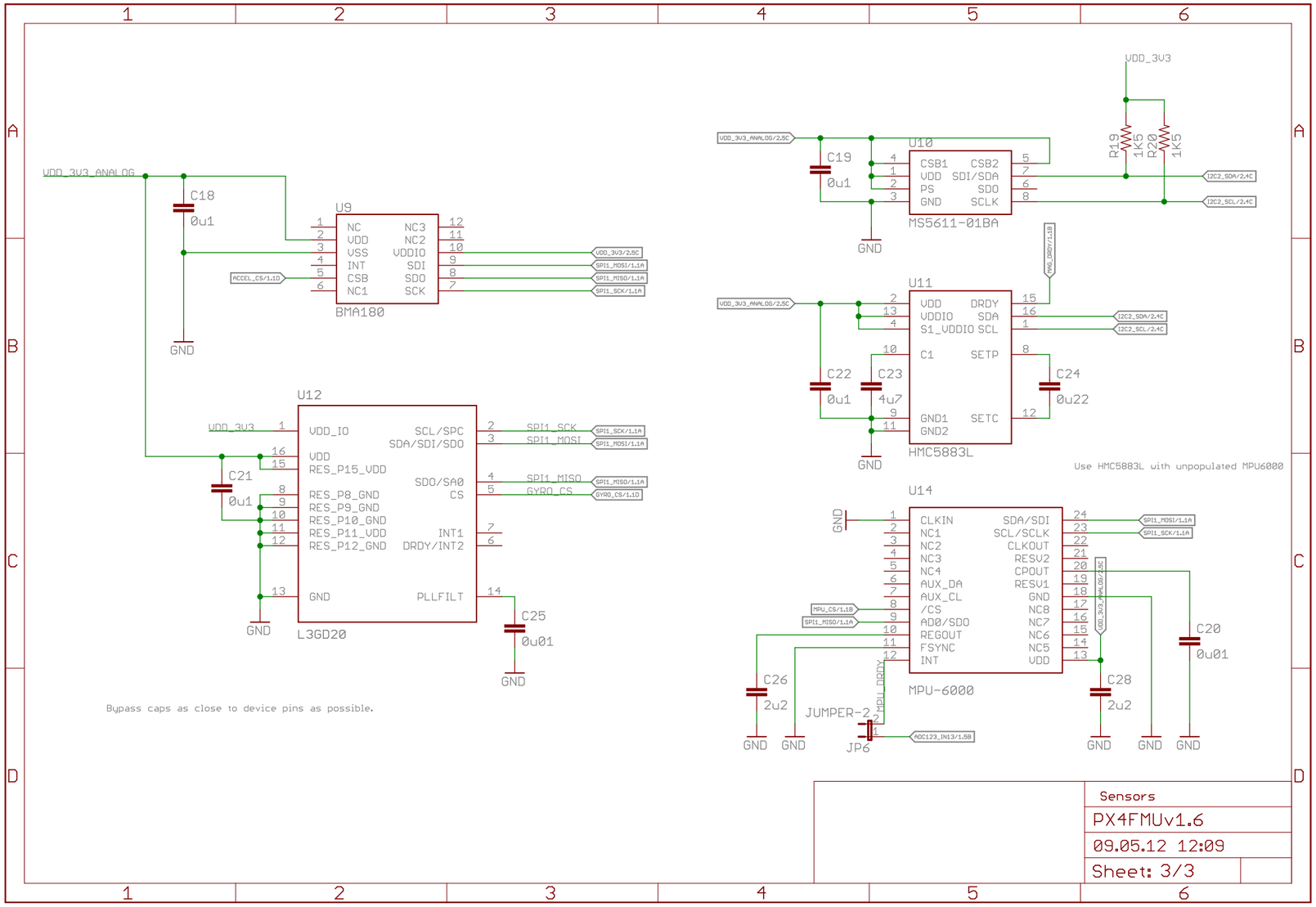
Sheet: 2/3	



Sensors

PX4FMUv1.6

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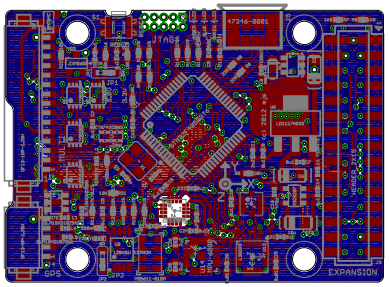
JTAG
EXPANSION
GPS