Sheetname: SPI

SPI

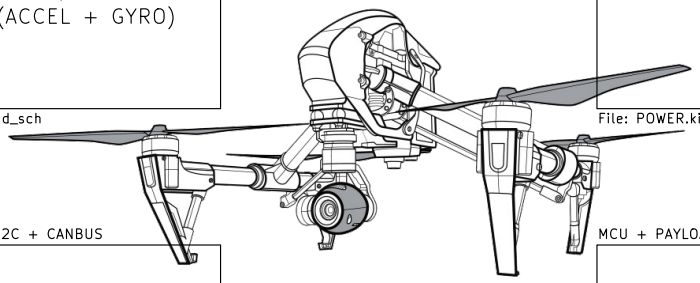
RF COMMUNICATION
+
IMU (ACCEL + GYRO)

File: SPI.kicad_sch

Sheetname: POWER + USB

POWER
+
USB 2.0

File: POWER.kicad_sch



Sheetname: I2C + CANBUS

I2C

BAROMETER
+
MAGNETOMETER

File: I2C.kicad_sch

MCU + PAYLOAD

MCU
+
PAYLOAD

File: MCU.kicad_sch

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GITHUB: /nikphillydev

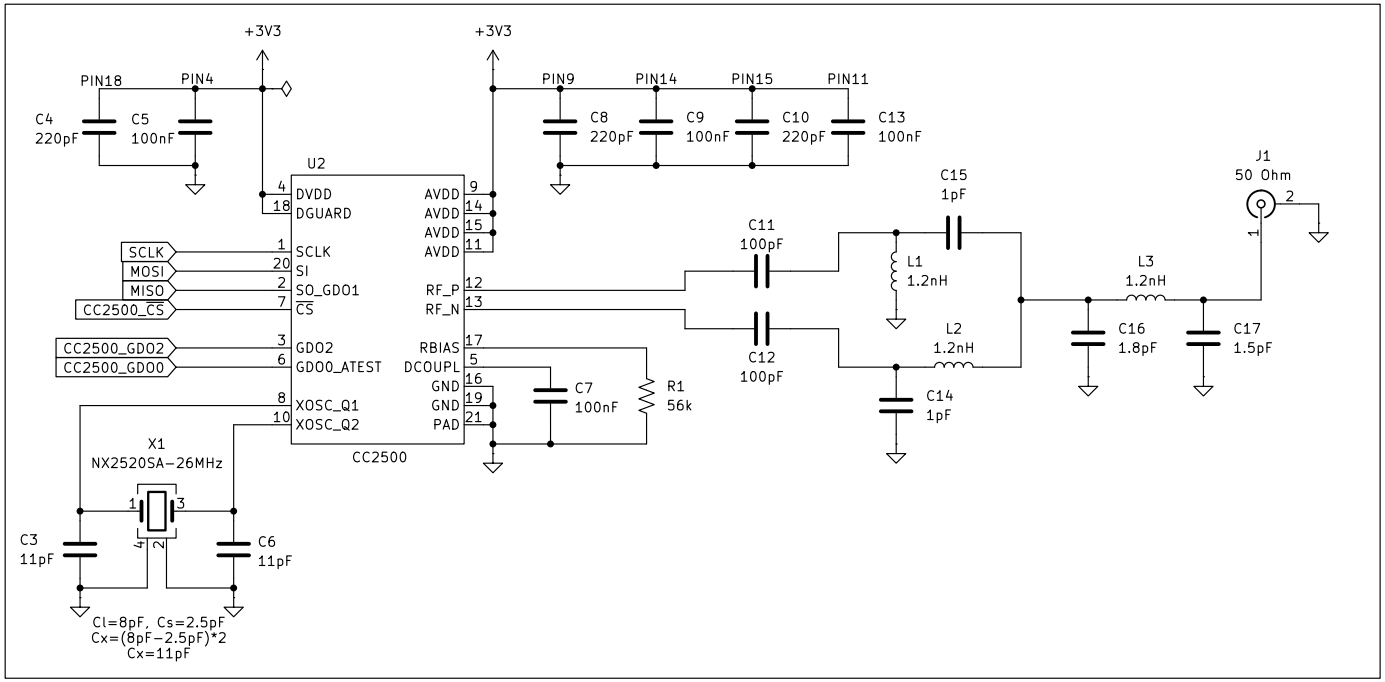
REVIEWED BY:

Sheet: /
File: FCC_KiCAD.kicad_sch

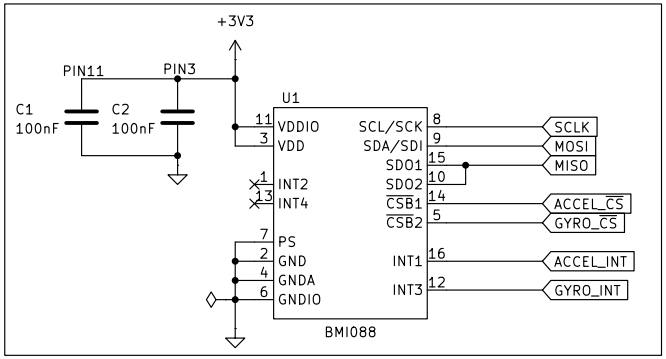
Title: NP1 FLIGHT CONTROL COMPUTER

Size: A4	Date: 2024-06-15	**Rev:**
KiCad E.D.A. 8.0.3		Id: 1/5

2.4GHz RF TRANSCEIVER



6-AXIS IMU (ACCELEROMETER + GYROSCOPE)



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Sheet: /SPI/ File: SPI.kicad_sch		
Title: SPI		
Size: A4	Date: 2024-06-15	**Rev:**
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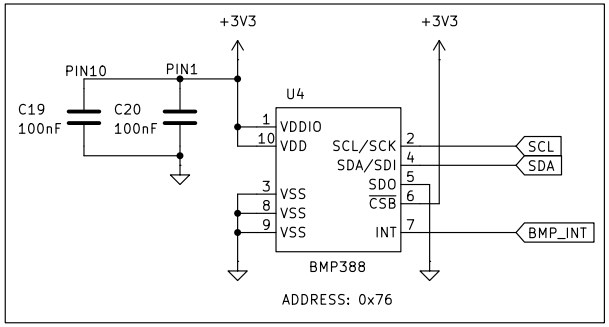
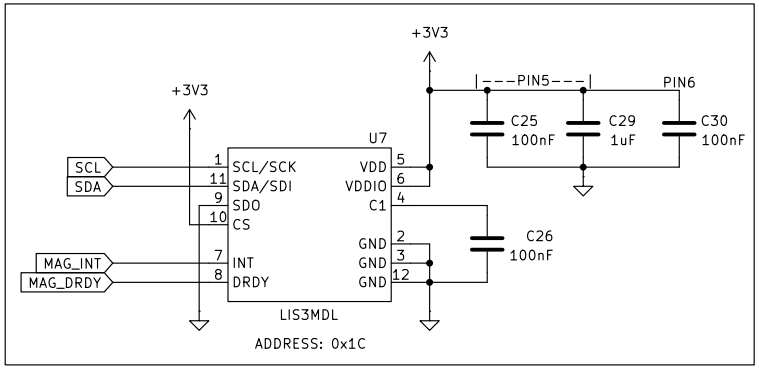
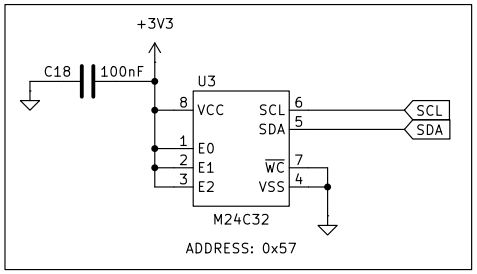
BAROMETRIC PRESSURE



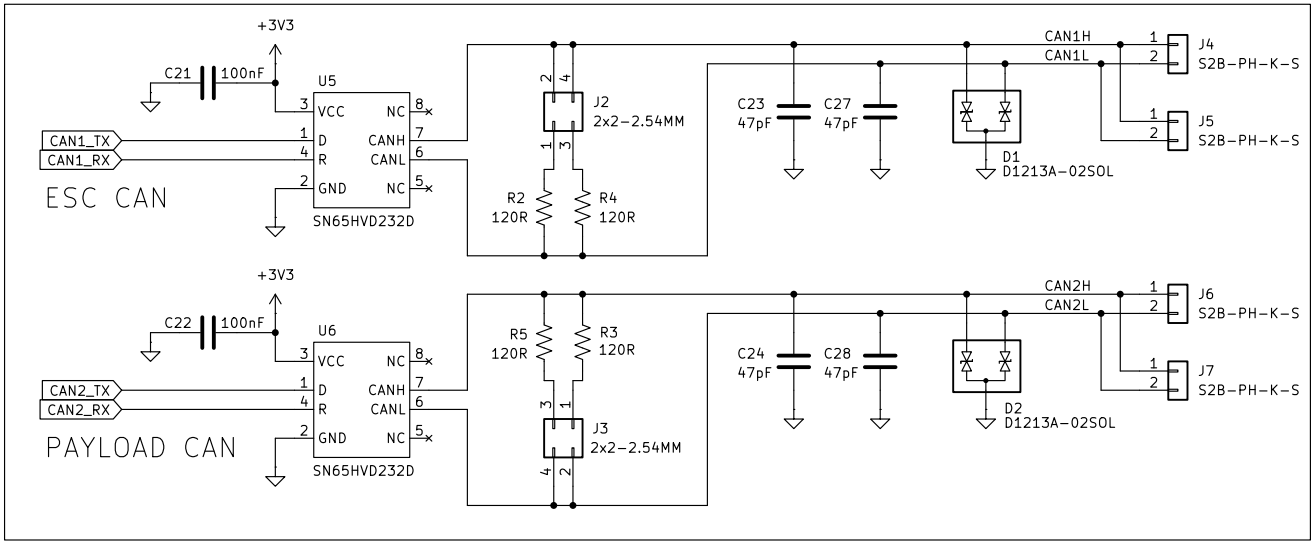
3-AXIS MAGNETOMETER



32Kbit (4Kbyte) EEPROM



CANBUS NETWORKS



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Sheet: /I2C + CANBUS/ File: I2C.kicad_sch	
Title: I2C AND CANBUS	
Size: A4 | Date: 2024-06-15	**Rev:**
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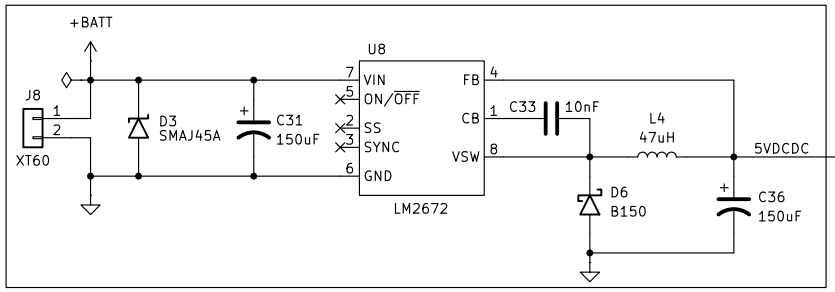
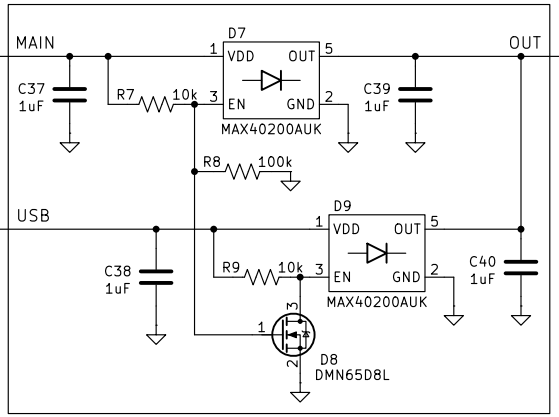
STEP–DOWN DC–DC REGULATOR



+BATT 6V5 TO 40V INPUT
1A MAX LOAD CURRENT

SEE LM2672 DATASHEET
FOR COMPONENT DERATING

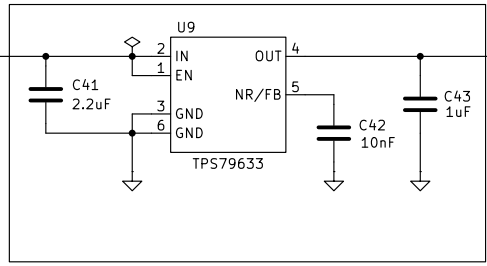
+5V POWER SWITCH



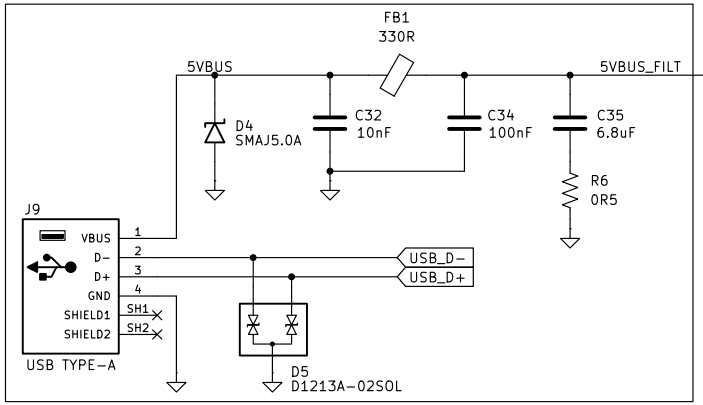
+5V POWER TRUTH TABLE

MAIN	USB	OUT
0V	0V	0V
5V	0V	MAIN 5V
0V	5V	USB 5V
5V	5V	MAIN 5V

HIGH PSRR RF LDO



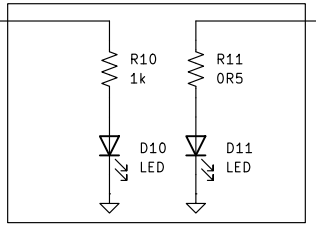
USB2.0 TYPE–A: POWER AND DATA



USB DEVICE, LEAVE SHIELD OPEN,
HOST RESPONSIBLE FOR GROUNDING

R6 ACTS AS A DAMPER FOR
LC RESONANT FREQUENCIES

POWER STATUS LEDS



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GITHUB: /nikphillydev

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File: POWER.kicad_sch

Title: POWER AND USB

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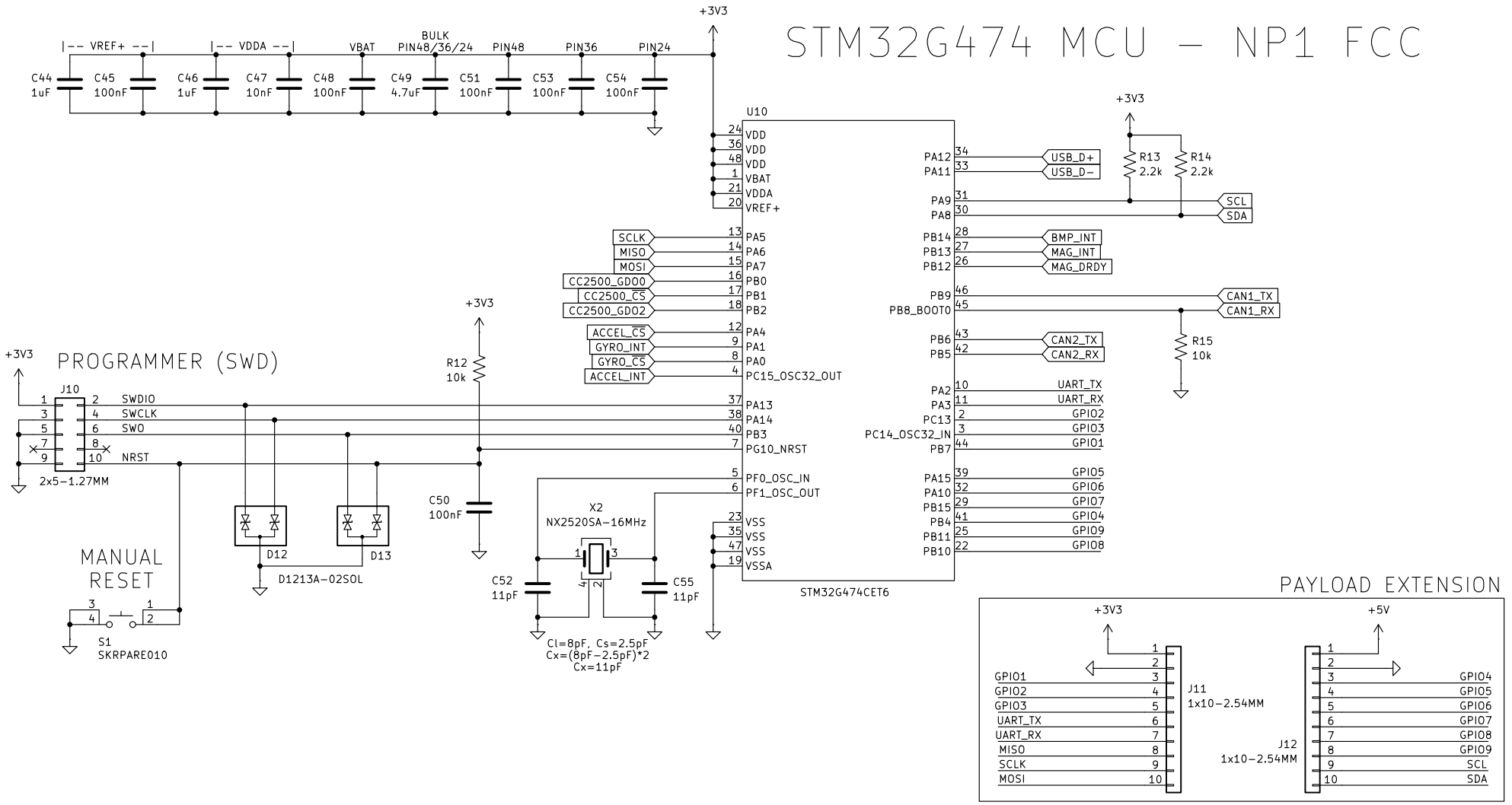
STM32G474 MCU – NP1 FCC



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GITHUB: /nikphillydev

REVIEWED BY:

Sheet: /MCU + PAYLOAD/
File: MCU.kicad_sch

Title: MCU AND PAYLOAD EXTENSION

Size: A4	Date: 2024-06-15	Rev:
KiCad E.D.A. 8.0.3		Id: 5/5