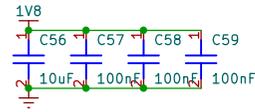
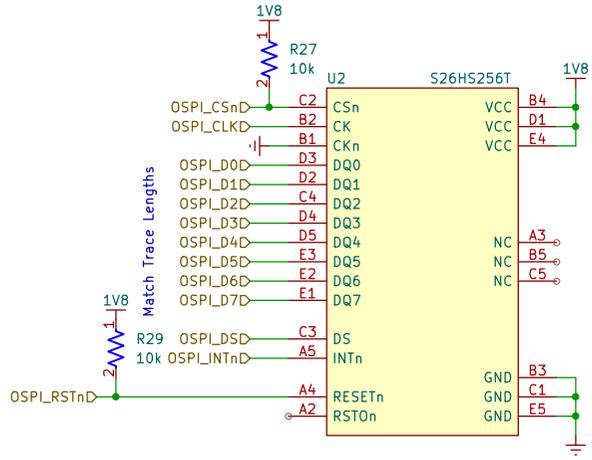


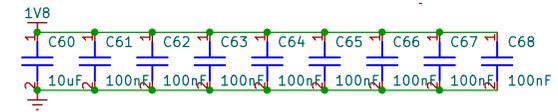
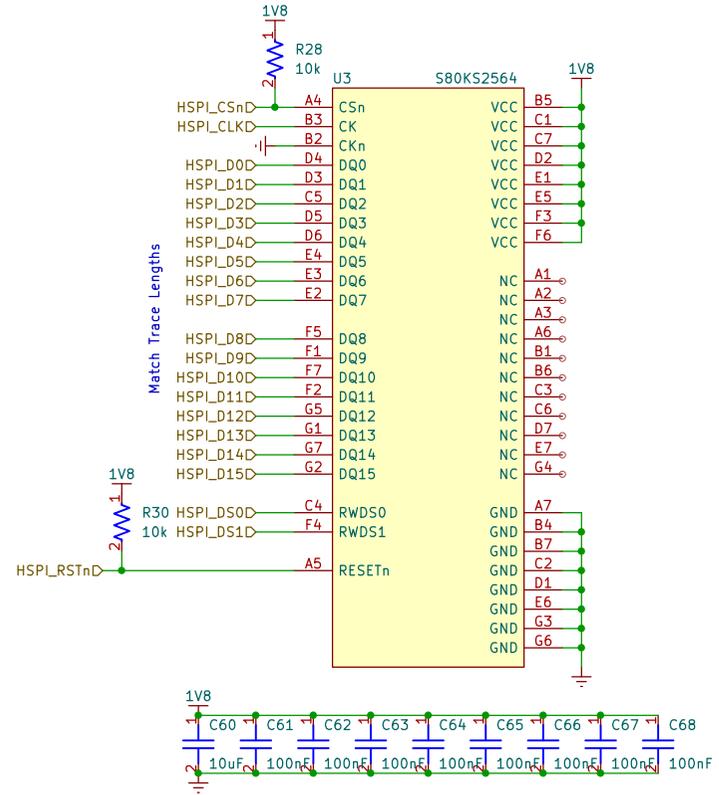
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Rev: A	Sheet: A4	Sheet: 3/13
Date: 2025-08-06	File: MCUPower.kicad_sch	



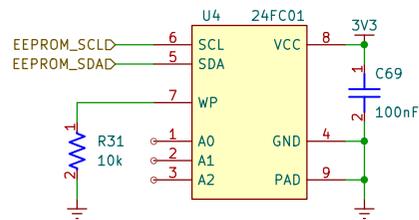
NOR xSPI Flash



PSRAM HSPI RAM



EEPROM I2C



Title: PlumaN6

Rev: A

Sheet: A4

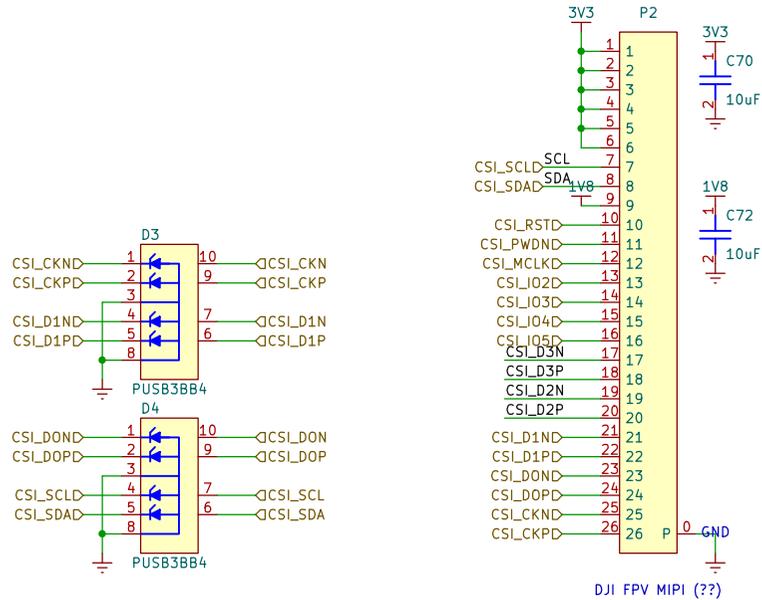
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Date: 2025-08-06

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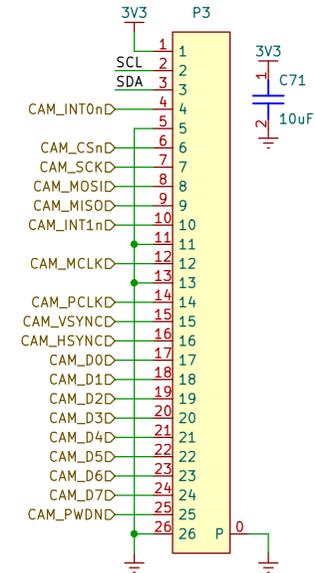


CSI Camera (Main Camera)



Pin #	RPI 15-Pin	RPI 22-Pin	NavQPlus
1	GND	GND	GND
2	D0N	D0N	D0N
3	D0P	D0P	D0P
4	GND	GND	GND
5	D1N	D1N	CKN
6	D1P	D1P	CKP
7	GND	GND	GND
8	CKN	CKN	D1N
9	CKP	CKP	D1P
10	GND	GND	GND
11	PWfEN	D2N	D2N
12	LED	D2P	D2P
13	SCL	GND	GND
14	SDA	D3N	D3N
15	3V3	D3P	D3P
16		GND	GND
17		PWfEN	PWfDNn
18		LEDfEN/XCLK	CLK
19		GND	GND
20		SCL	SCL
21		SDA	SDA
22		3V3	5V
			RSTn
			3V3

DCMI Camera (Downfacing)

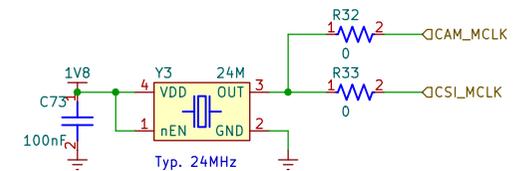


For ToF (VL53L9CX):
I3C, AP_CLK, XSHUT, SYNC_IN, INTR
(AFBR-S50LX85D):
SPI, INTn

For Ultrasonic ToF (ICU-20201):
SPI, INT, opt. LFCLK

For PAC7640 (Optical Flow):
SPI, RSTn, INTn

Camera MCLK



Title: PlumaN6

Rev: A

Date: 2025-08-06

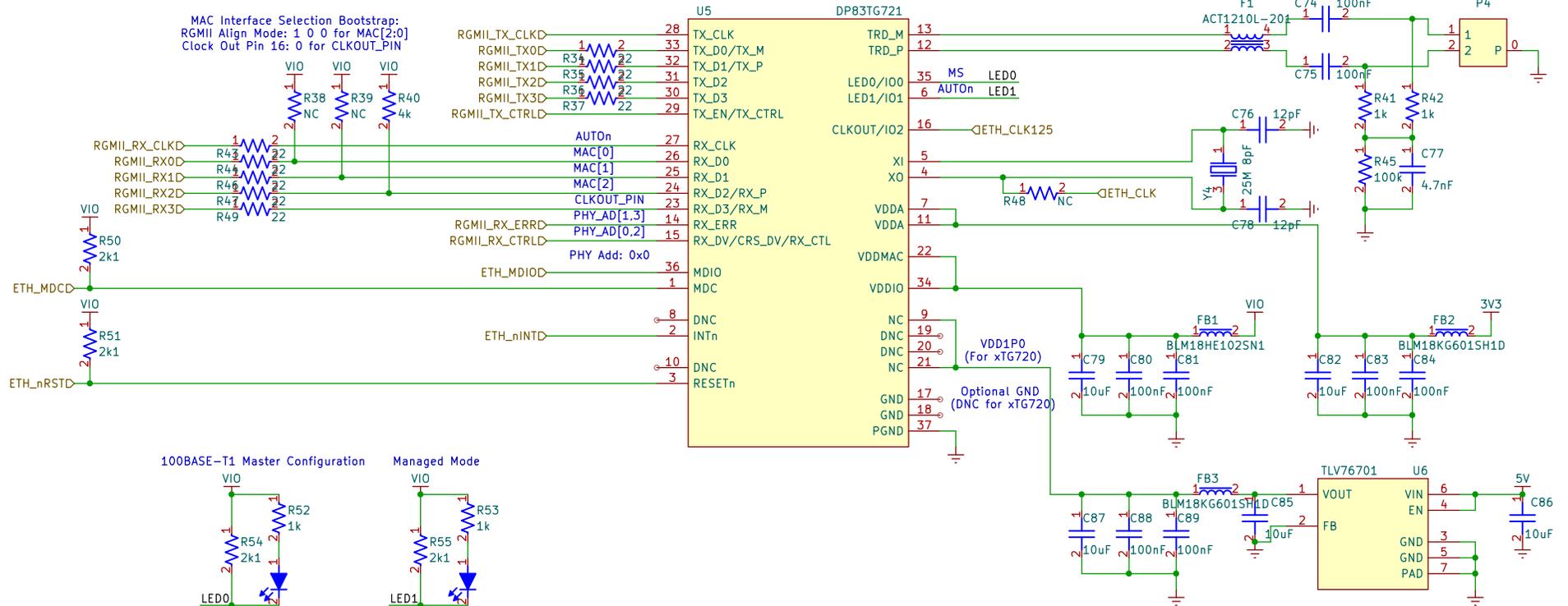
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File: Camera.kicad_sch

Sheet: 5/13



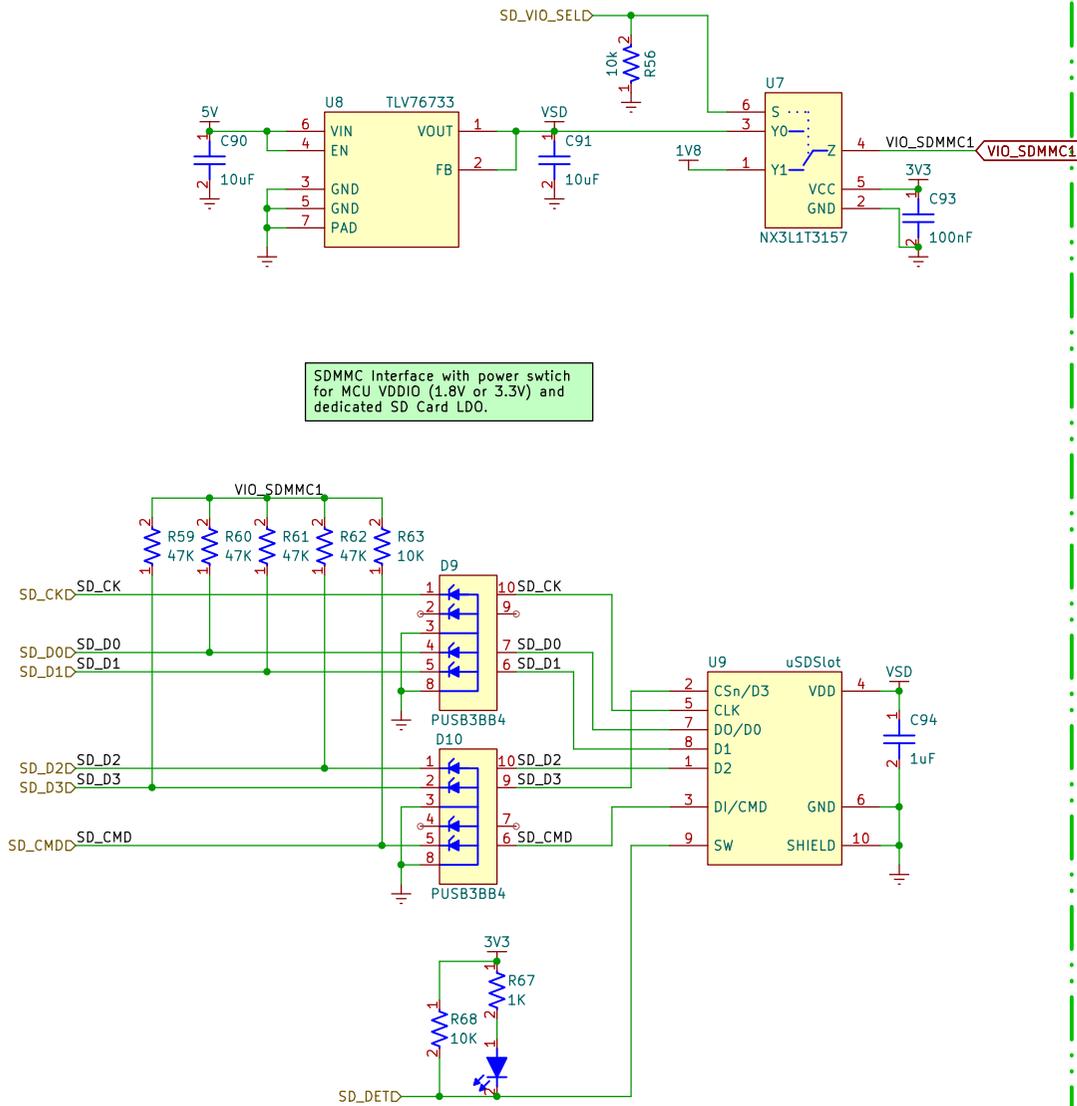
100BASE-T1 Ethernet Transceiver



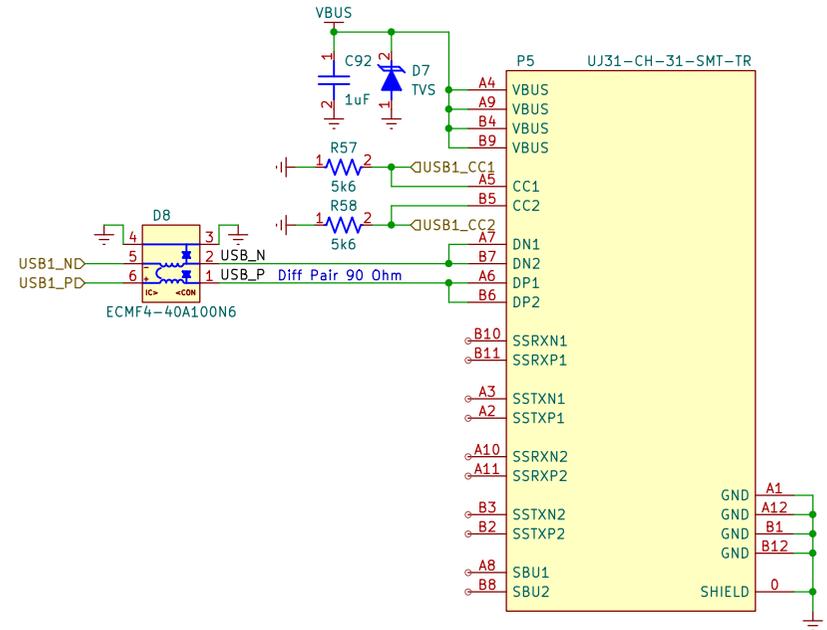
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Rev: A	Sheet: A4	Sheet: 6/13
Date: 2025-08-06	File: EthCAN.kicad_sch	



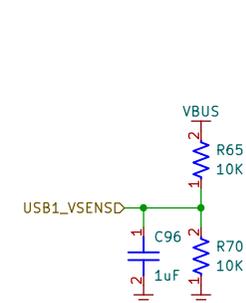
uSD Card Slot



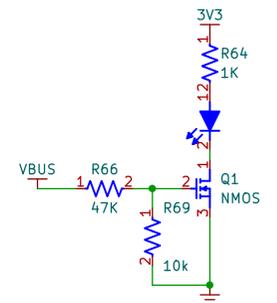
USB 2.0 (HS) Connection (MCU)



VBUS Voltage Sens



USB LED



Title: **PlumaN6**

Rev: **A**

Sheet: **A4**

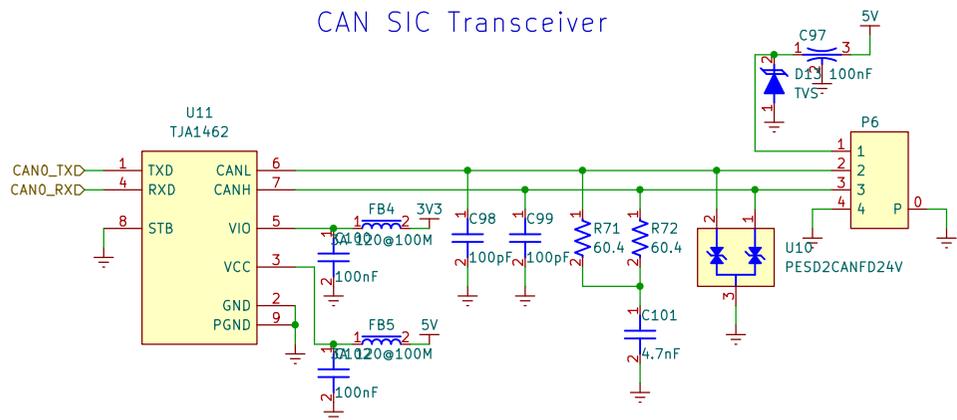
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Date: **2025-08-06**

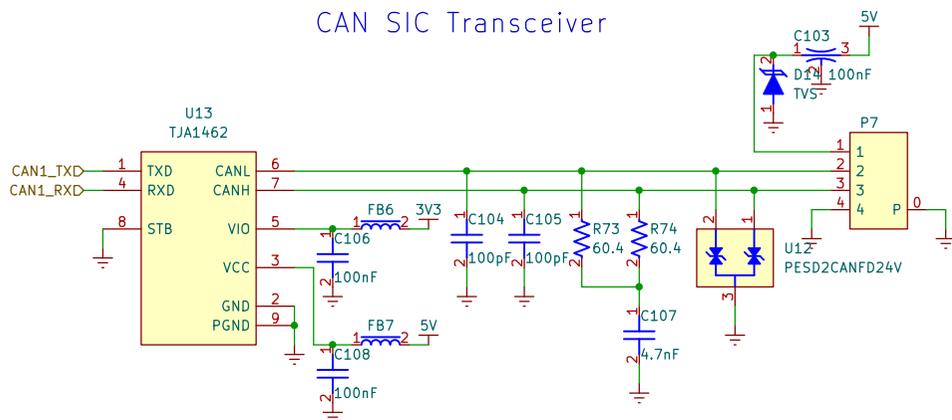
File: **USBuSD.kicad_sch**



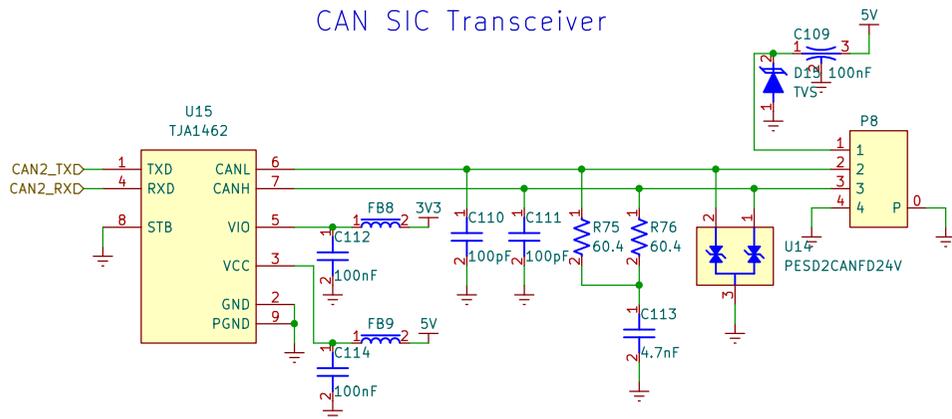
CAN SIC Transceiver



CAN SIC Transceiver



CAN SIC Transceiver



Title: **PlumaN6**

Rev: **A**

Sheet: **A4**

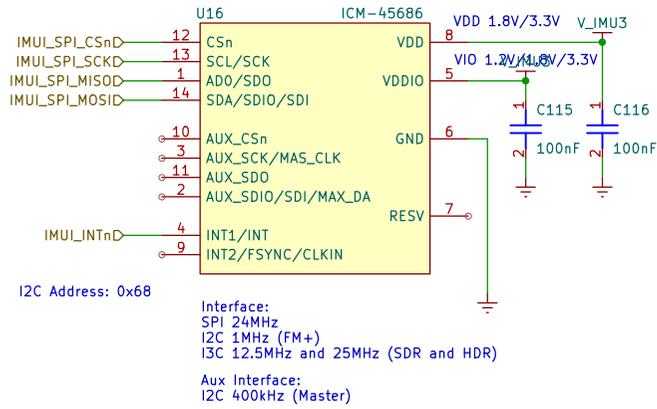
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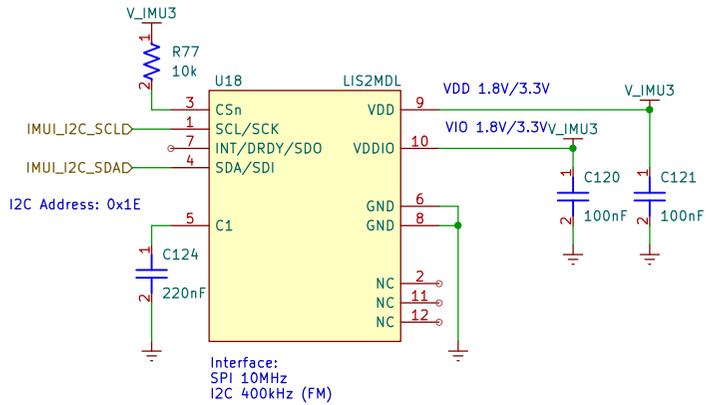
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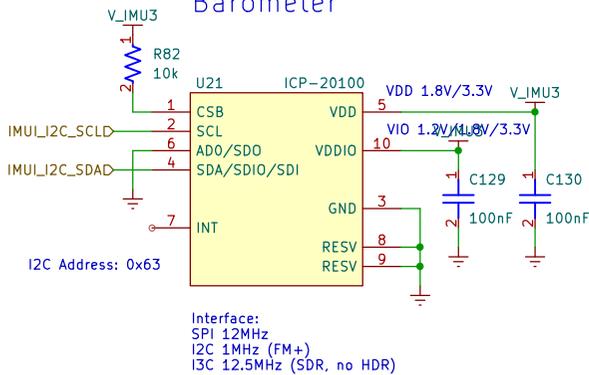
6-Axis IMU (Accel + Gyro)



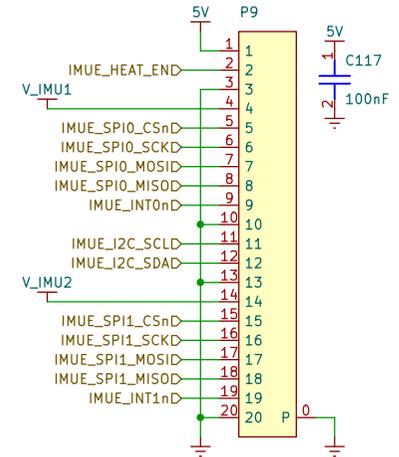
3-Axis Magnetometer/Compass



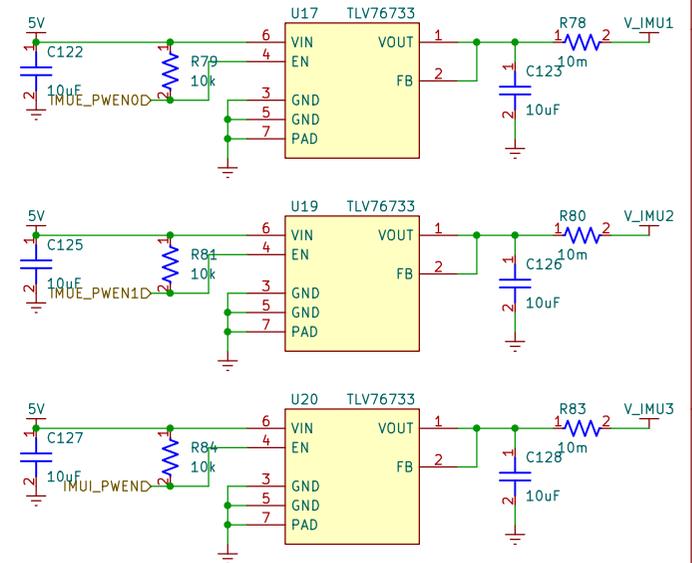
Barometer



External IMU Board



Independent IMU Supplies

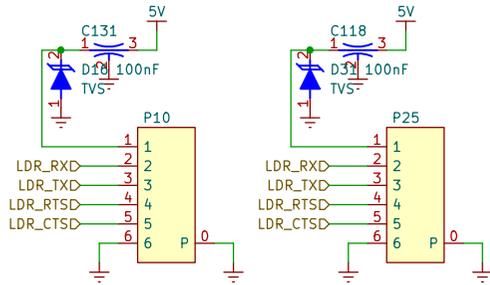


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Rev: A	Sheet: A4	Sheet: 9/13
Date: 2025-08-06	File: Sensors.kicad_sch	



AAAA

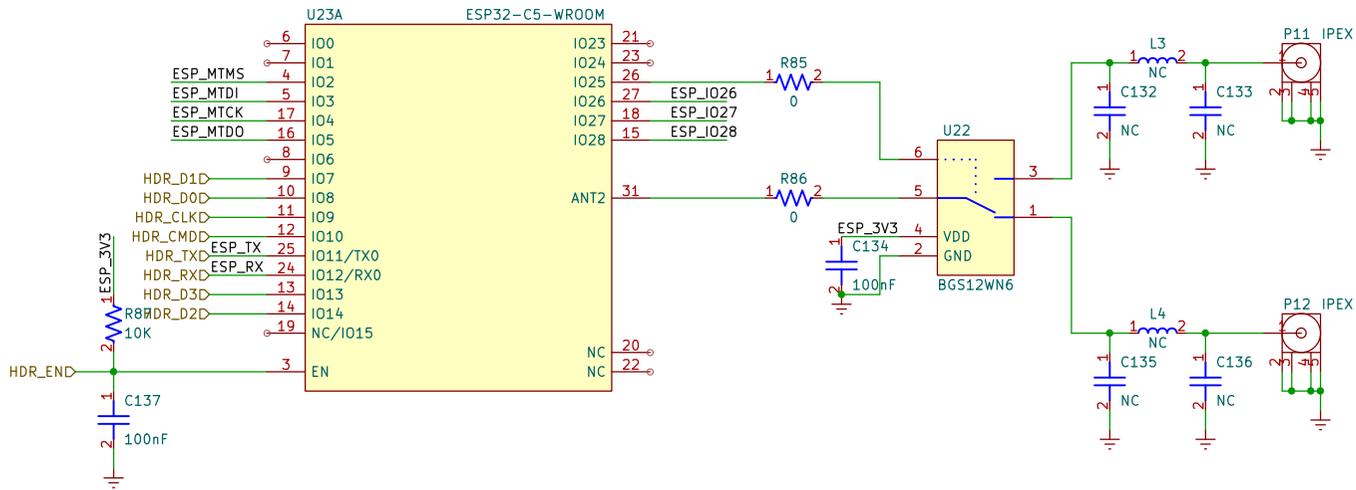
Telemetry 1 (On-Board)



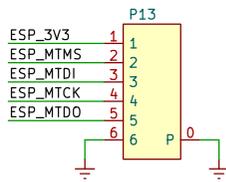
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Rev: A	Sheet: A4	Sheet: 10/13
Date: 2025-08-06	File: ldrRadio.kicad_sch	



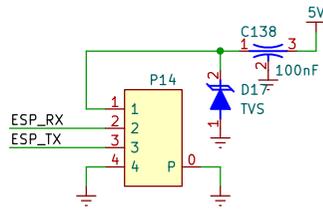
ESP32-C5 Dual Band WiFi 6



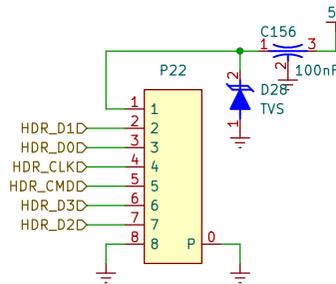
JTAG Interface



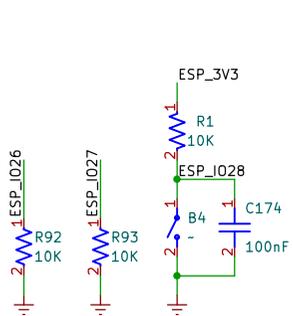
UART Interface



SDMMC Interface



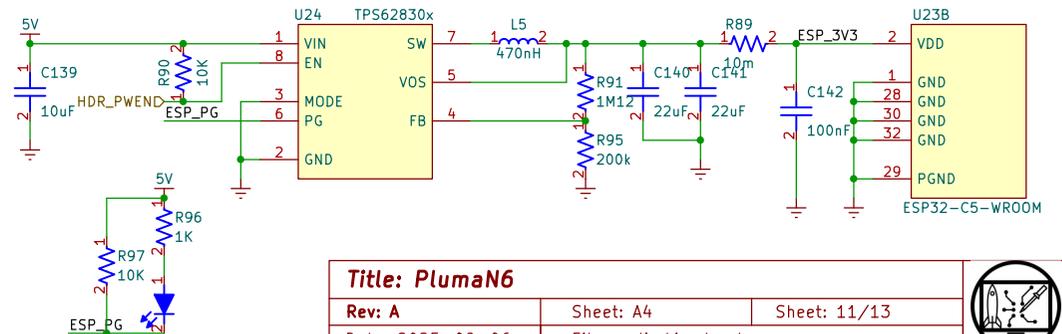
BOOT Selection



IO LED



Dedicated Power (High Power)



Boot Mode	GPIO26	GPIO27	GPIO28
SPI Boot	Any	Any	1
Boot_0 (USB, UART, SPI)	Any	1	0
Boot_1 (UART, SDIO)	0	0	0

Title: PlumaN6

Rev: A

Sheet: A4

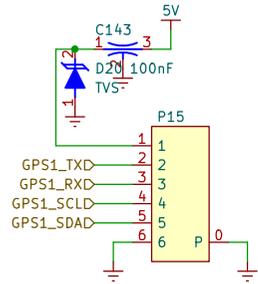
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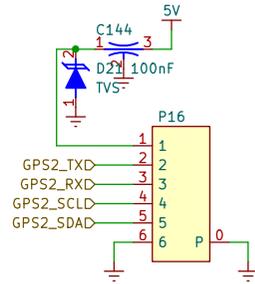
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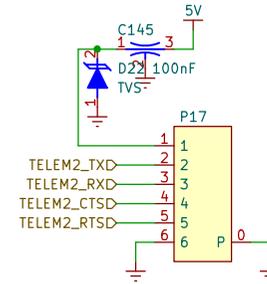
GPS 1 (Off-Board)



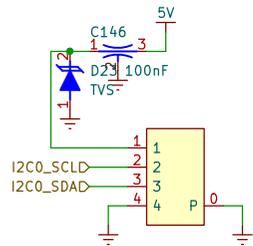
GPS 2 (Off-Board)



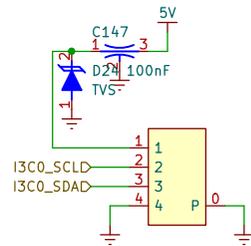
Telemetry 2 (Off-Board)



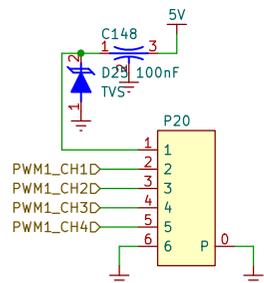
I2C Interface



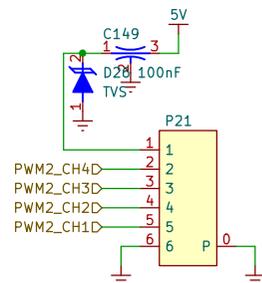
I3C Interface



RC/PWM Signals



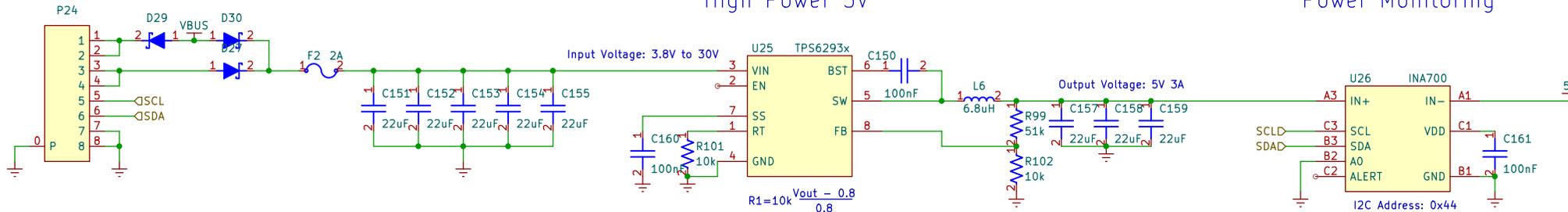
RC/PWM Signals



Title: PlumaN6		
Rev: A	Sheet: A4	Sheet: 12/13
Date: 2025-08-06	File: Connectors.kicad_sch	



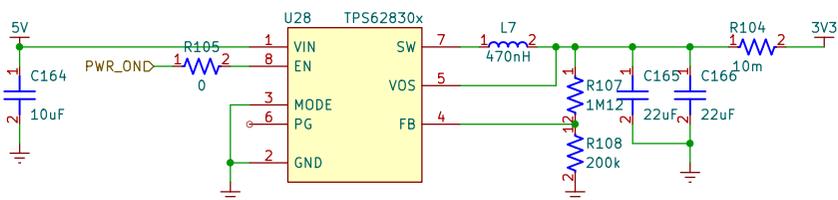
PW Input and USB PW Output
(To/from battery charger)



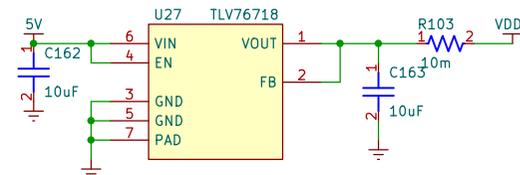
High Power 5V

Power Monitoring

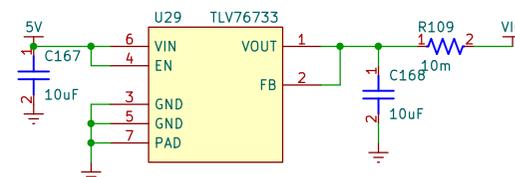
High Power 3V3



Low Power 1V8



First Supply to power up
(VDD and VDDA1V8A0N)



High Power 1V8

