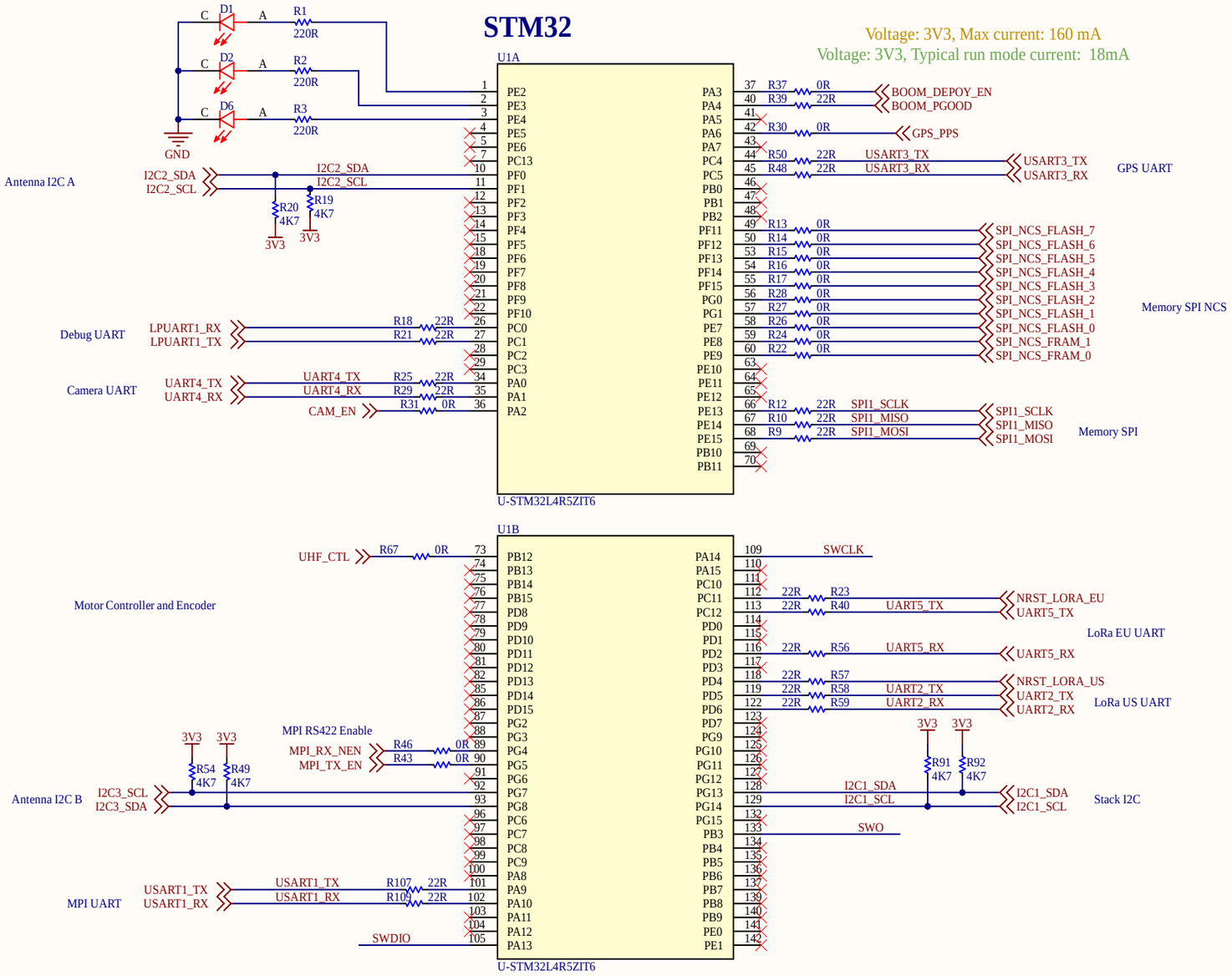
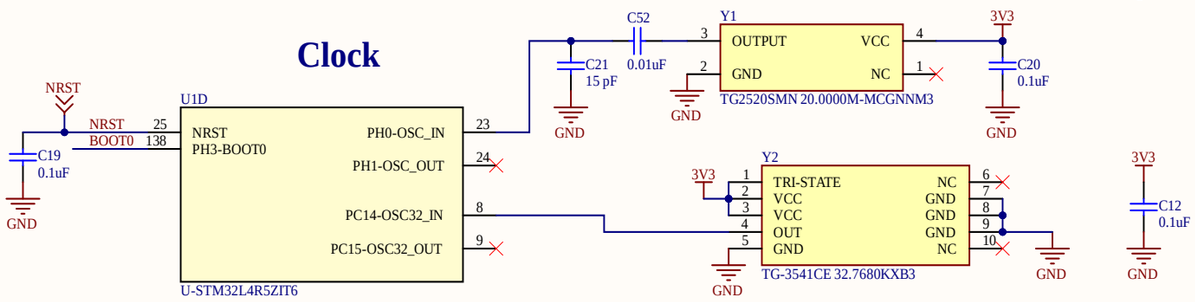
STM32

Voltage: 3V3, Max current: 160 mA
Voltage: 3V3, Typical run mode current: 18mA



Voltage: 3V3, Max current: 15 mA

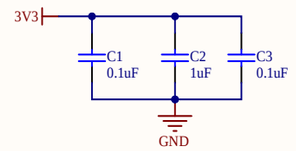
Clock



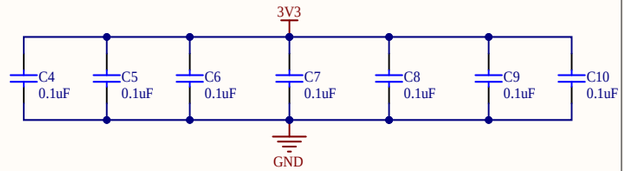
20 MHz TCXO: 114-TG2520SMN20.0000M-MCGNNM3CT-ND
32.768 KHz Oscillator: SER4422CT-ND

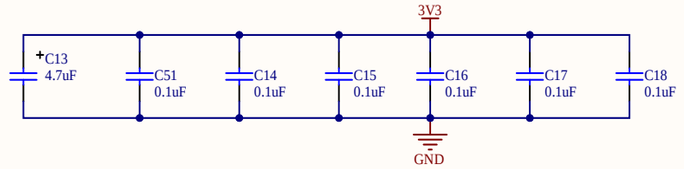
Decoupling Capacitors

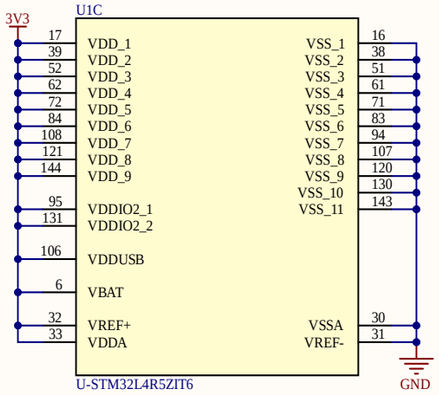
VDDA Capacitors



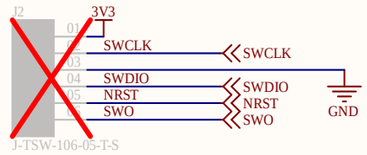
Place as close to pins as possible



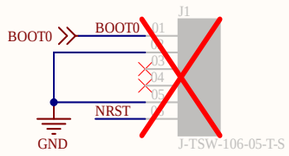




SWD Interface

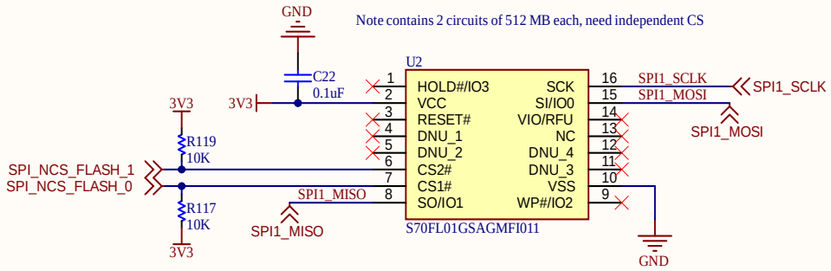


NRST + BOOT



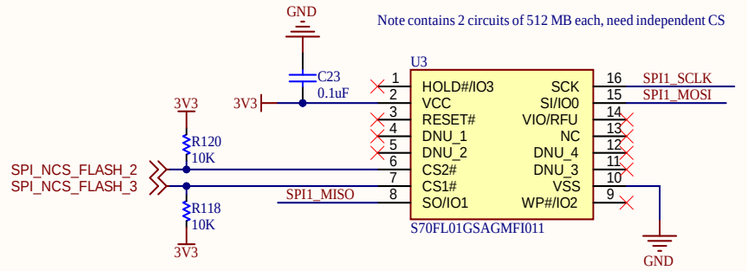
Title: STM32		
Size: A3	Number	Revision
Date: 5-10-2023		Sheet of
File: C:\Users\..\STM32.SchDoc		Drawn By:

Flash Memory

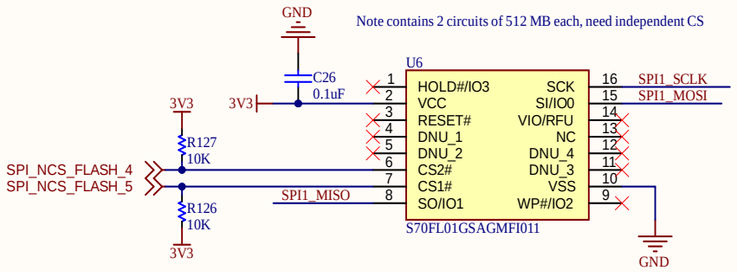


Voltage: 3V3, Max current: 90 mA
Voltage: 3V3, Typical Standby current: 140 uA

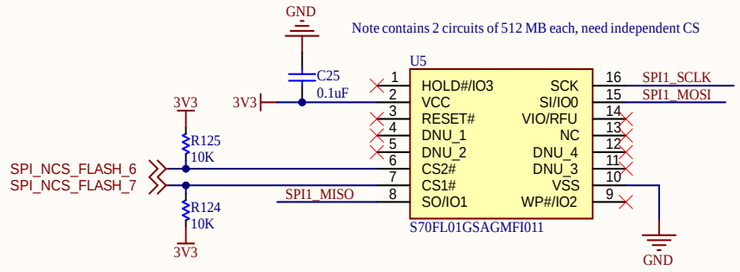
Can use as alternative (stock) S70FL01GSDPMFV010, halfs the freqyency (133 to 66 MHz)



Voltage: 3V3, Max current: 90 mA
Voltage: 3V3, Typical Standby current: 140 uA

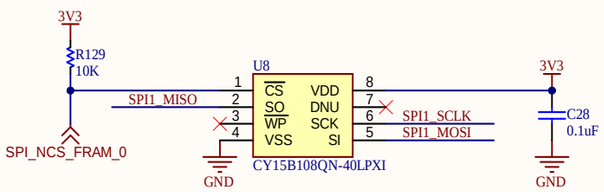


Voltage: 3V3, Max current: 90 mA
Voltage: 3V3, Typical Standby current: 140 uA

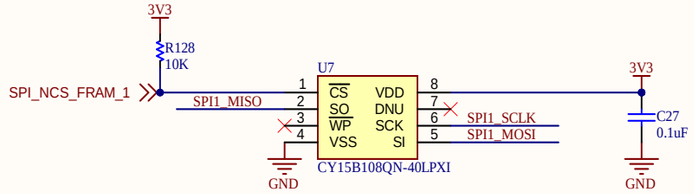


Voltage: 3V3, Max current: 90 mA
Voltage: 3V3, Typical Standby current: 140 uA

FRAM Memory



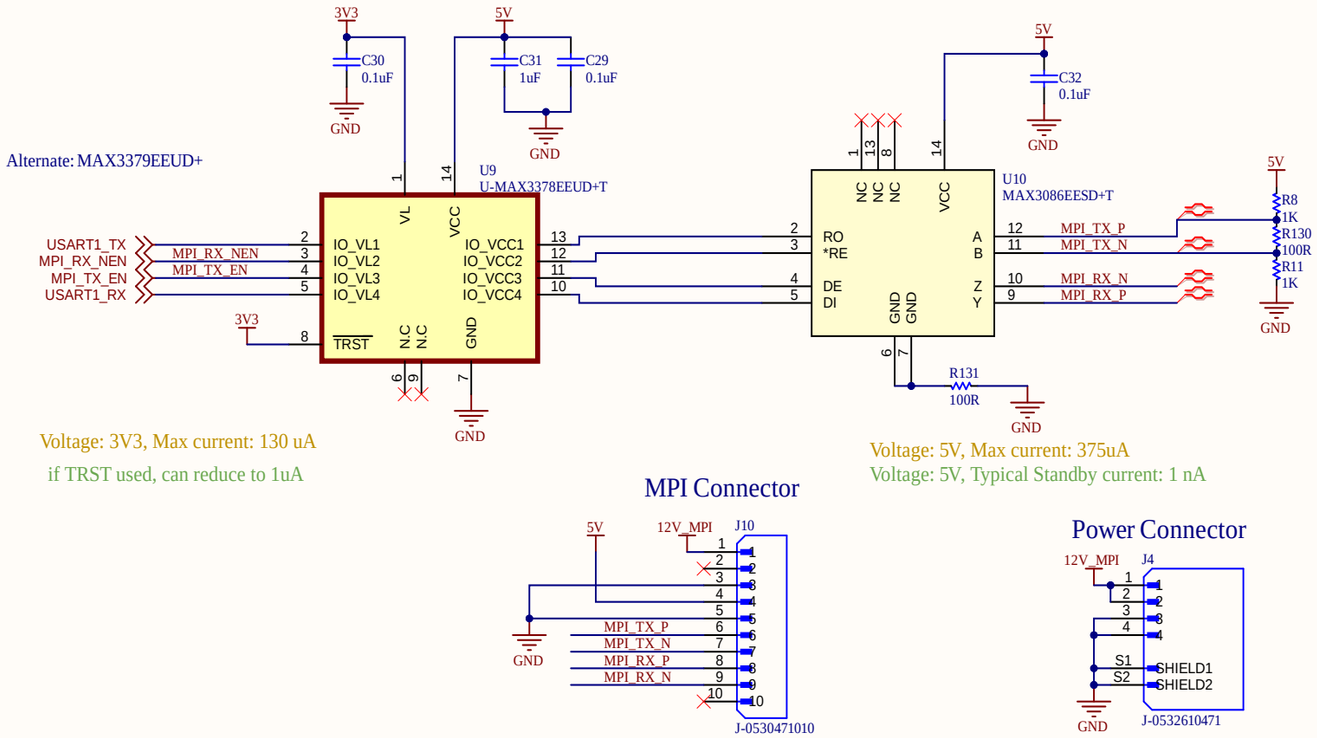
Voltage: 3V3, Typical current: 2.6 mA
Voltage: 3V3, Typical Standby current: 3.5 uA



Voltage: 3V3, Typical current: 2.6 mA
Voltage: 3V3, Typical Standby current: 3.5 uA

Title	**Memory**	
Size: A3	Number	Revision
Date: 5-10-2023		Sheet of
File: C:\Users\..\Memory.SchDoc		Drawn By: James Chen

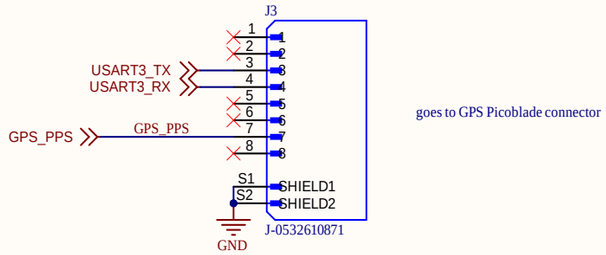
MPI RS422 Transceiver + Connector



MPI Connector

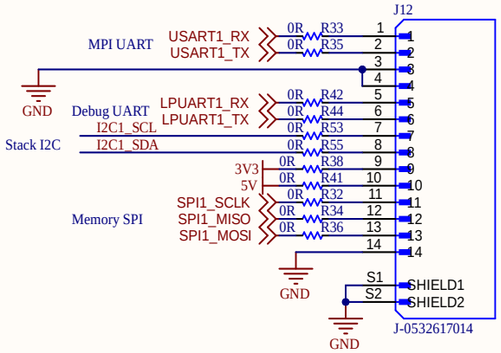
Power Connector

GPS connector

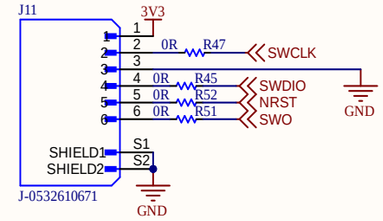


goes to GPS Picoblade connector

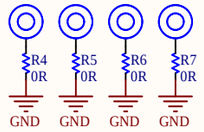
Umblilical connector

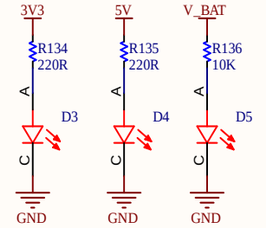


Programming Connector

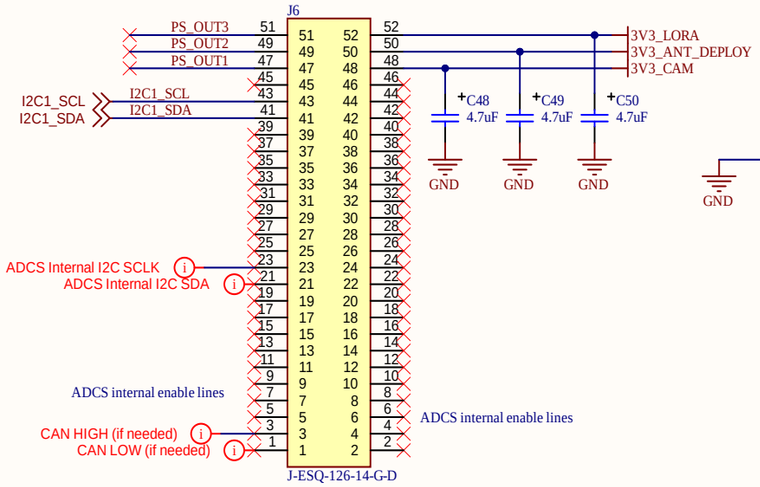


Voltage indicator LED's

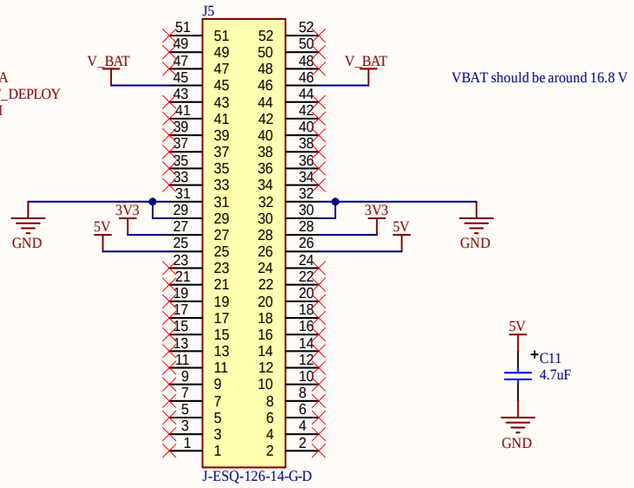




H1 PC104 Connector

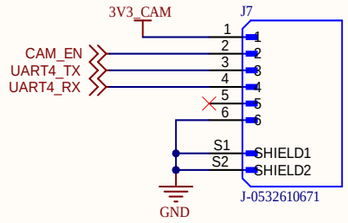


H2 PC104 Connector



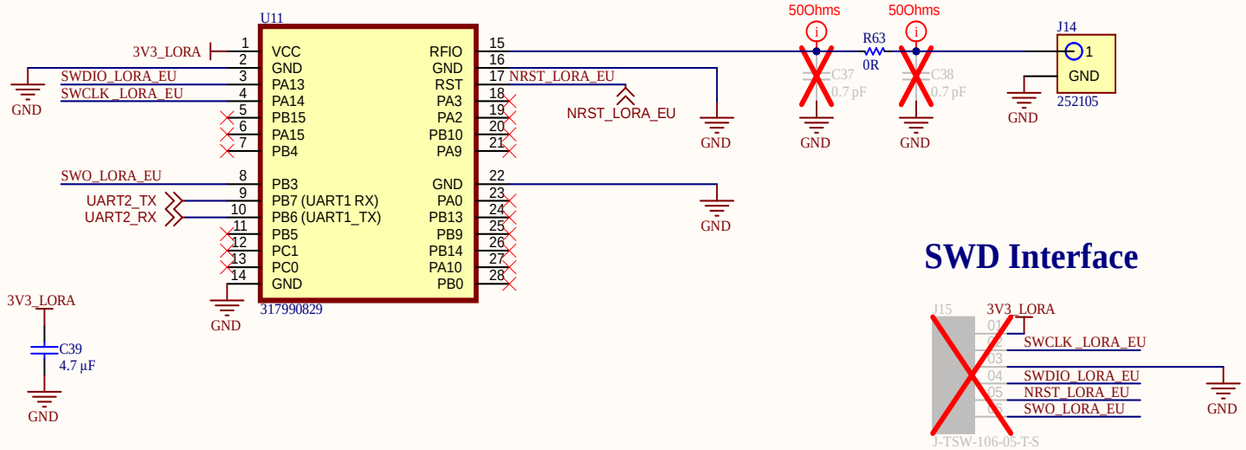
VBAT should be around 16.8 V

Camera Connector



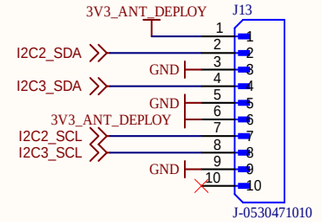
Title: **External Connectors**		
Size: A3	Number:	Revision:
Date: 5-10-2023	Sheet of	
File: C:\Users\..\External Connectors.SchDoc	Drawn By: James Chen	

LoRa WAN US915 + Antenna



SWD Interface

Antenna Connector (9 pin)

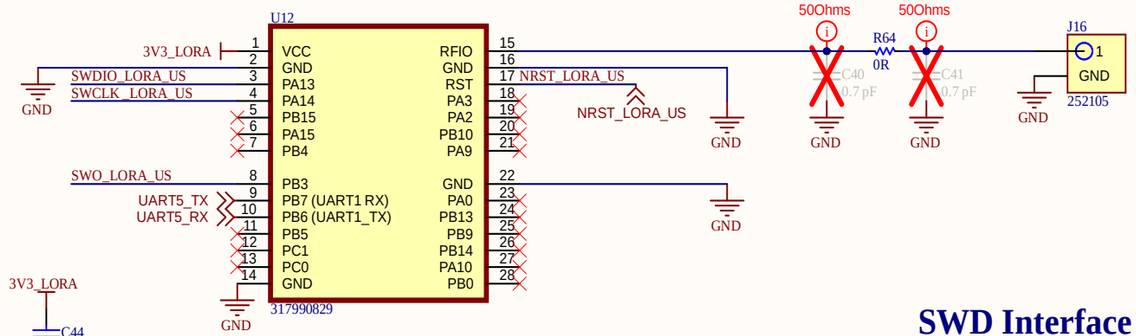


Two I2C? Diplicate and connect it?

Voltage: 3V3, Typical Standby current: 13 mA

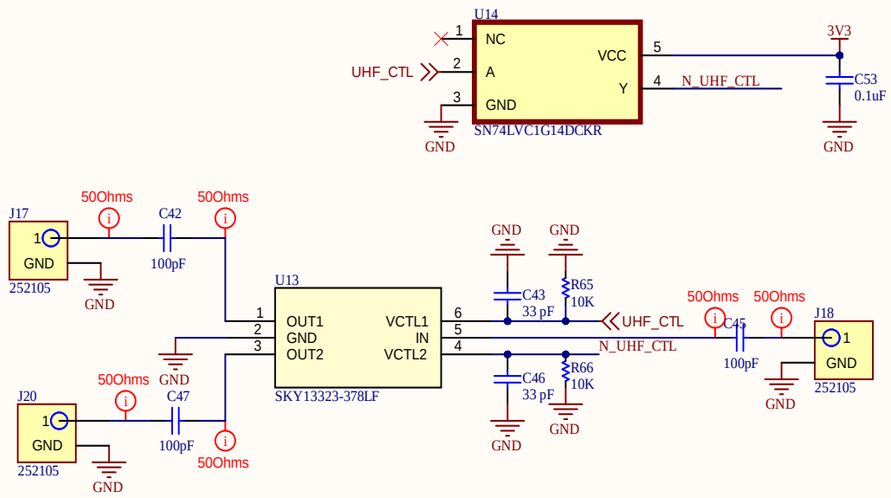
2W system, 3V3, ~600mA Activated in deployment

LoRa WAN EU868 + Antenna



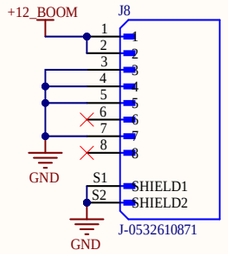
SWD Interface

UHF Dipole Switch

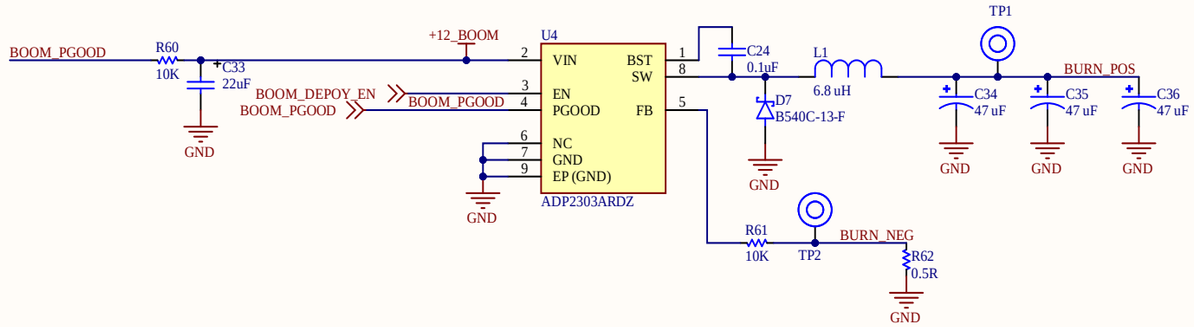


Title	**Antenna Deployment**	
Size: A3	Number	Revision
Date: 5-10-2023	Sheet of	
File: C:\Users\..\Antenna and LoRa.SchDoc	Drawn By: James Chen	

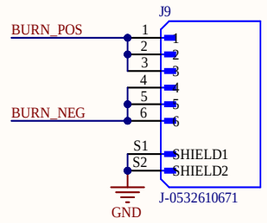
Power In



Boom Deployment Circuit



Output Connector



Title: **Motor Control**		
Size: A3	Number:	Revision:
Date: 5-10-2023		Sheet of
File: C:\Users\..\Boom Deployment.SchDoc		Drawn By: James Chen