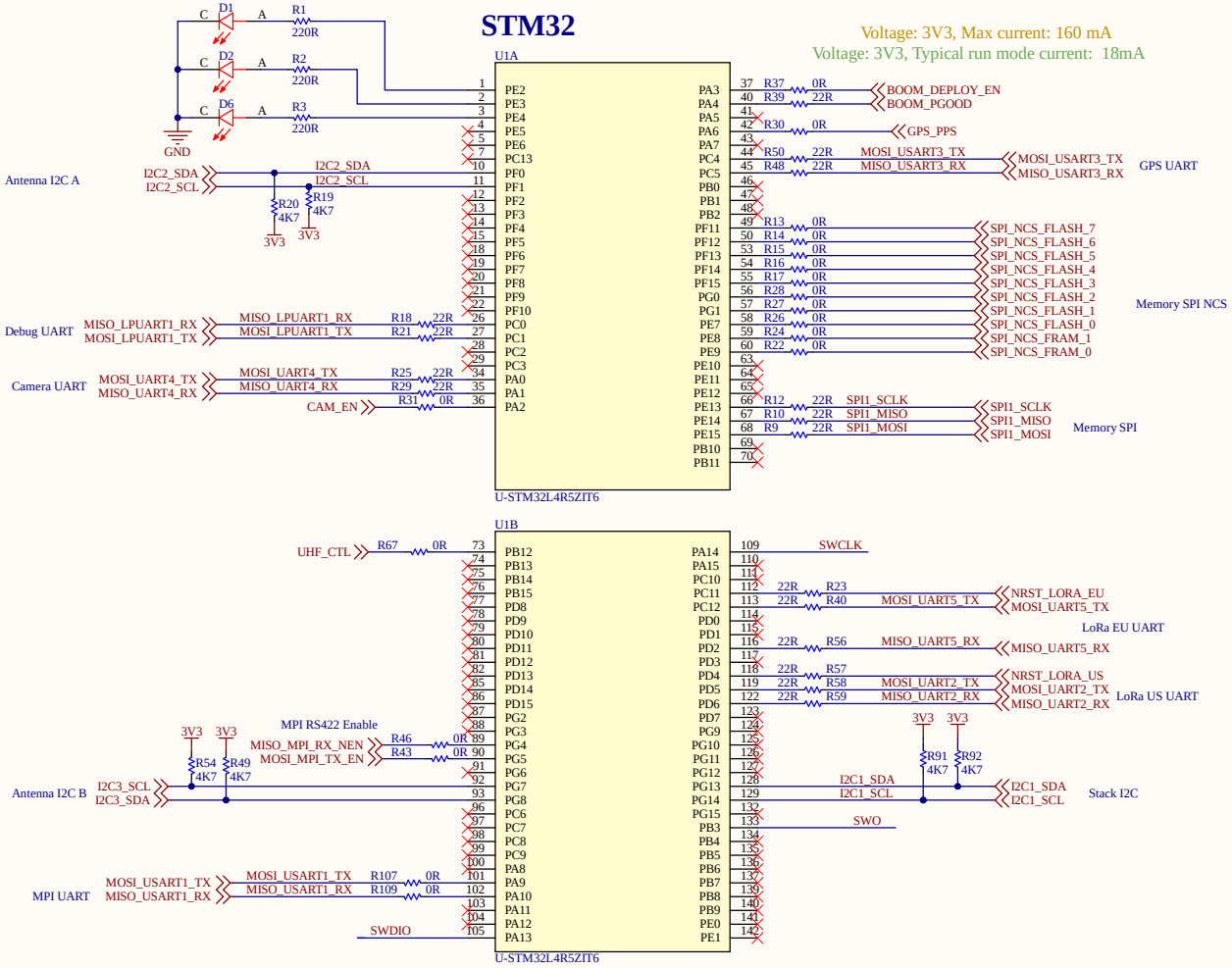
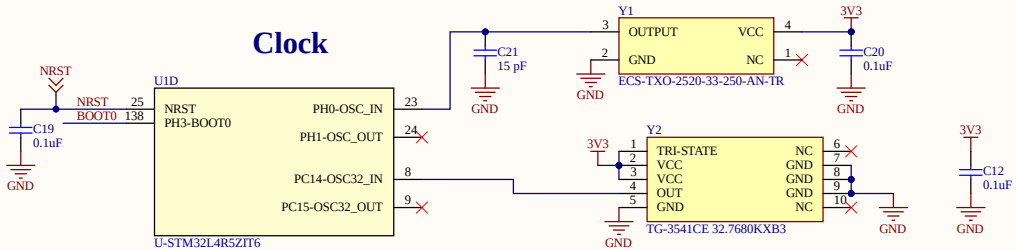
STM32

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



Voltage: 3V3, Max current: 15 mA

Clock

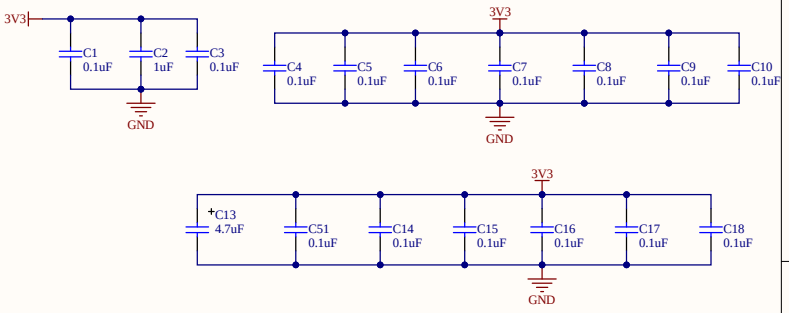


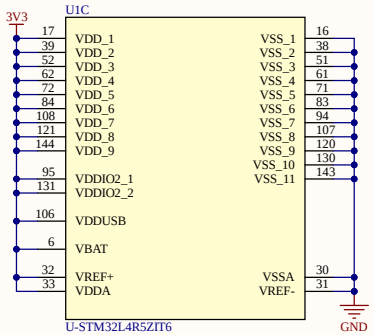
25 MHz TCXO: XTAL OSC TCXO 25.0000MHZ HCMOS
32.768 KHz Oscillator: SER4422CT-ND

Decoupling Capacitors

VDDA Capacitors

Place as close to pins as possible

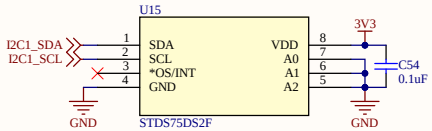




SWD Interface

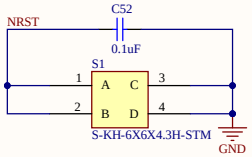
2.54mm Header

Temperature Sensor

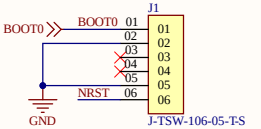


Address: 0b1001_0001 = 0x91

Reset Switch



NRST + BOOT



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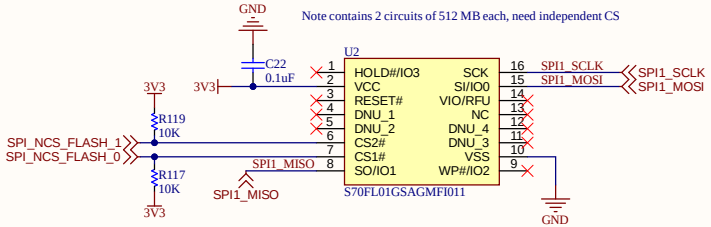
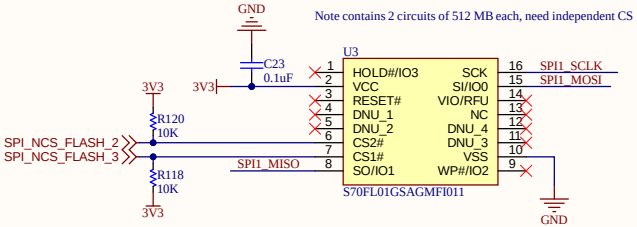
Size A3	Number	Revision
Date: 1-13-2024		Sheet of
File: C:\Users\..\STM32.SchDoc		Drawn By:

Flash Memory

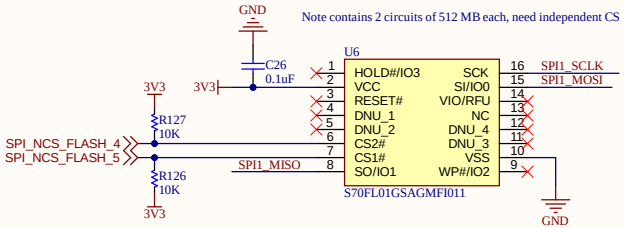


Voltage: 3V3, Max current: 90 mA
Voltage: 3V3, Typical Standby current: 140 uA

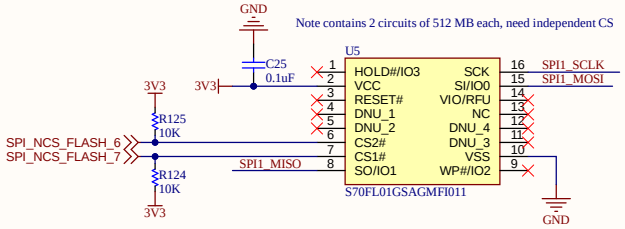
Can use as alternative (stock) S70FL01GSDPMFV010, halfs the frequency (133 to 66 MHz)



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

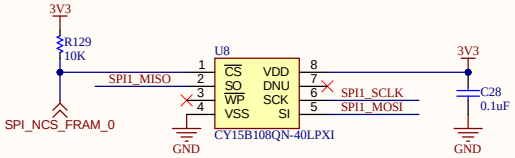


Voltage: 3V3, Max current: 90 mA
Voltage: 3V3, Typical Standby current: 140 uA

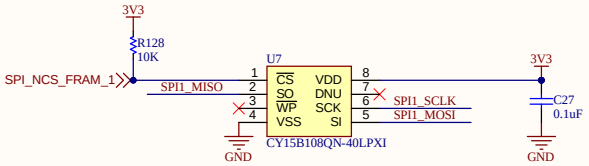


Voltage: 3V3, Max current: 90 mA
Voltage: 3V3, Typical Standby current: 140 uA

FRAM Memory



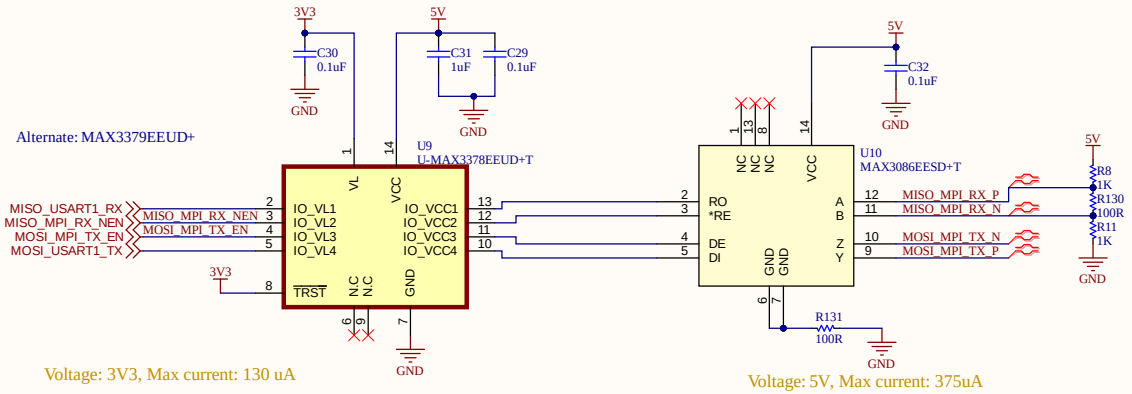
Voltage: 3V3, Typical current: 2.6 mA
Voltage: 3V3, Typical Standby current: 3.5 uA



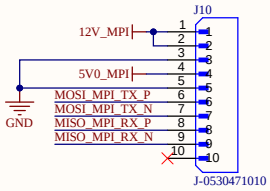
Voltage: 3V3, Typical current: 2.6 mA
Voltage: 3V3, Typical Standby current: 3.5 uA

Title: **Memory**		
Size: A3	Number:	Revision:
Date: 1-13-2024		Sheet of
File: C:\Users\..\Memory.SchDoc		Drawn By: James Chen

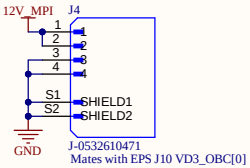
MPI RS422 Transceiver + Connector



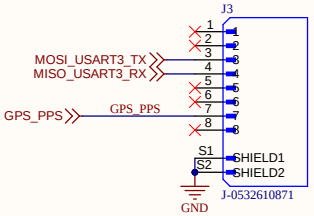
MPI Connector



Power Connector

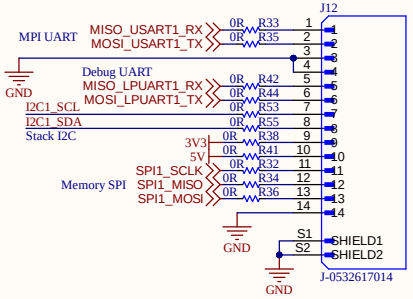


GPS connector

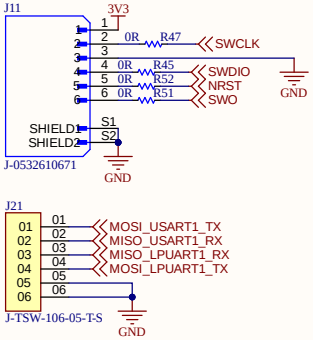


goes to GPS Picoblade connector

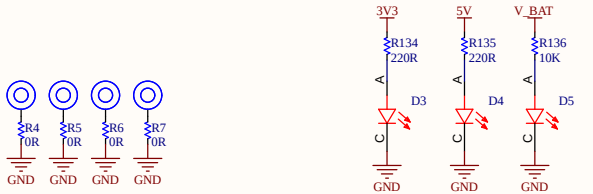
Umblilical connector



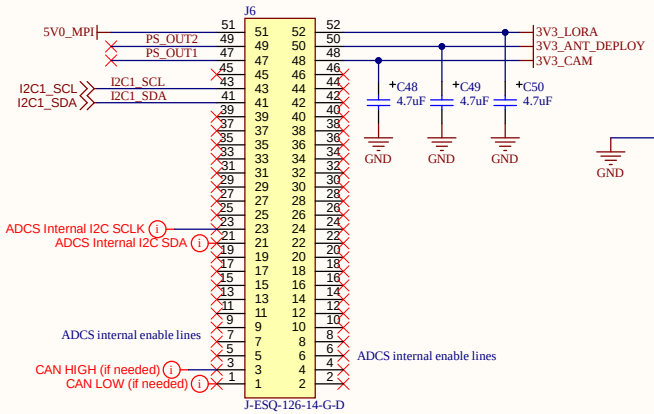
Programming Connector



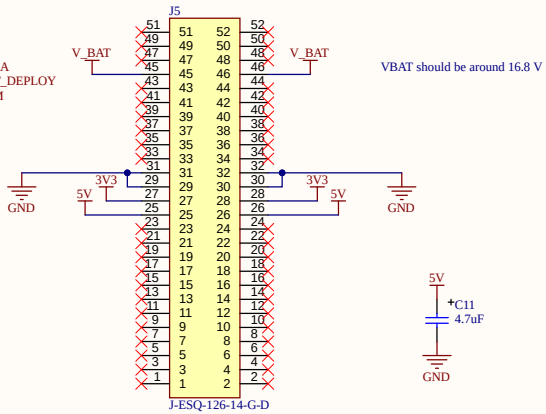
Voltage Indicator LEDs



H1 PC104 Connector

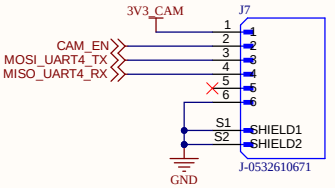


H2 PC104 Connector



VBAT should be around 16.8 V

Camera Connector



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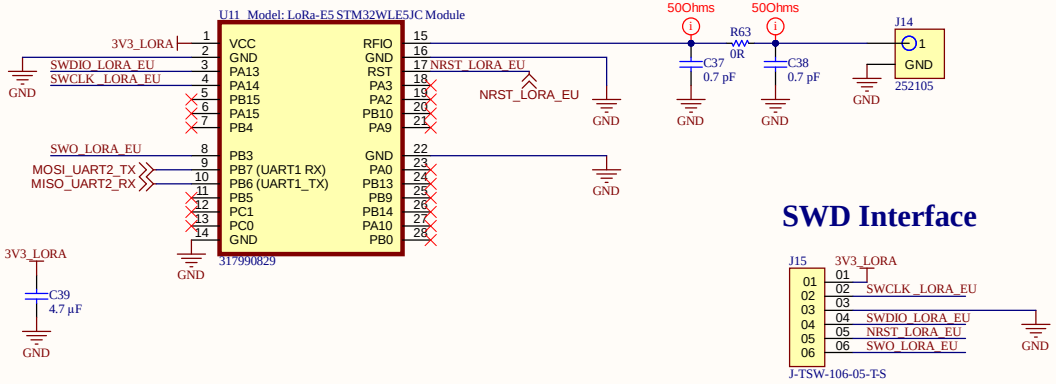
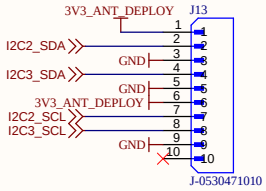
Date: 1-13-2024	Sheet of	
File: C:\Users\..\External Connectors.SchDoc	Drawn By: James Chen	

LoRa WAN US915 + Antenna



SWD Interface

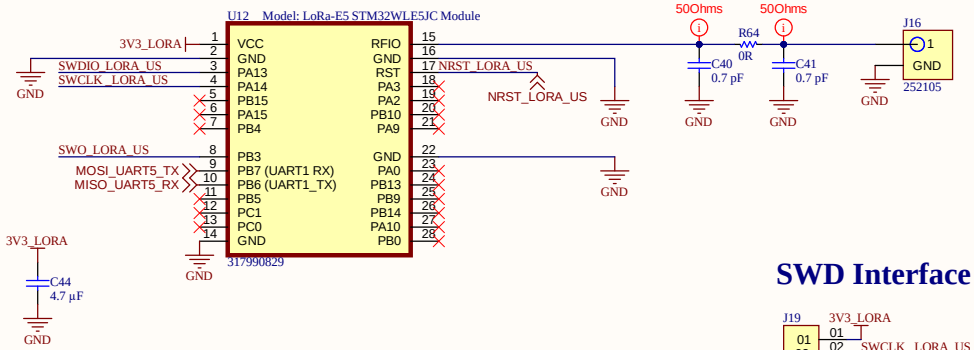
Antenna Connector (9 pin)



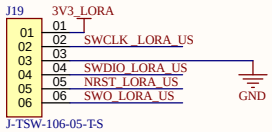
Voltage: 3V3, Typical Standby current: 13 mA

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

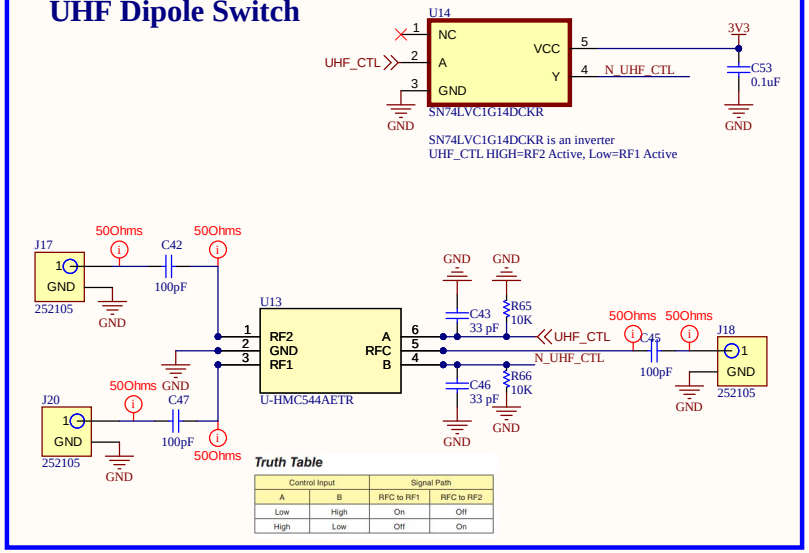
LoRa WAN EU868 + Antenna



SWD Interface



UHF Dipole Switch



Title	Antenna Deployment		
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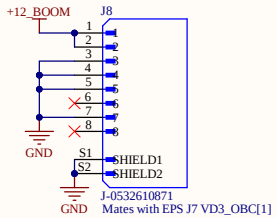
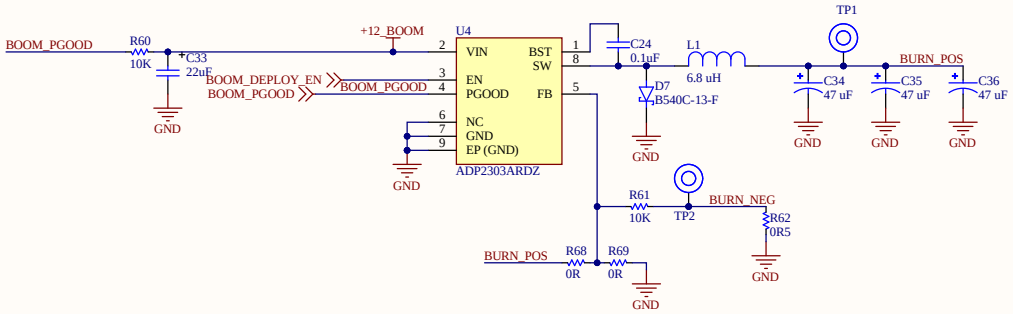
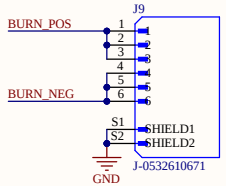
Power In



Boom Deployment Circuit



Output Connector



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