

Lanza Meteorológica – PCB Main

a

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STM32WB55RG

Power Management

File: STM32WB55RG.kicad_sch

File: Power Management.kicad_sch

RF

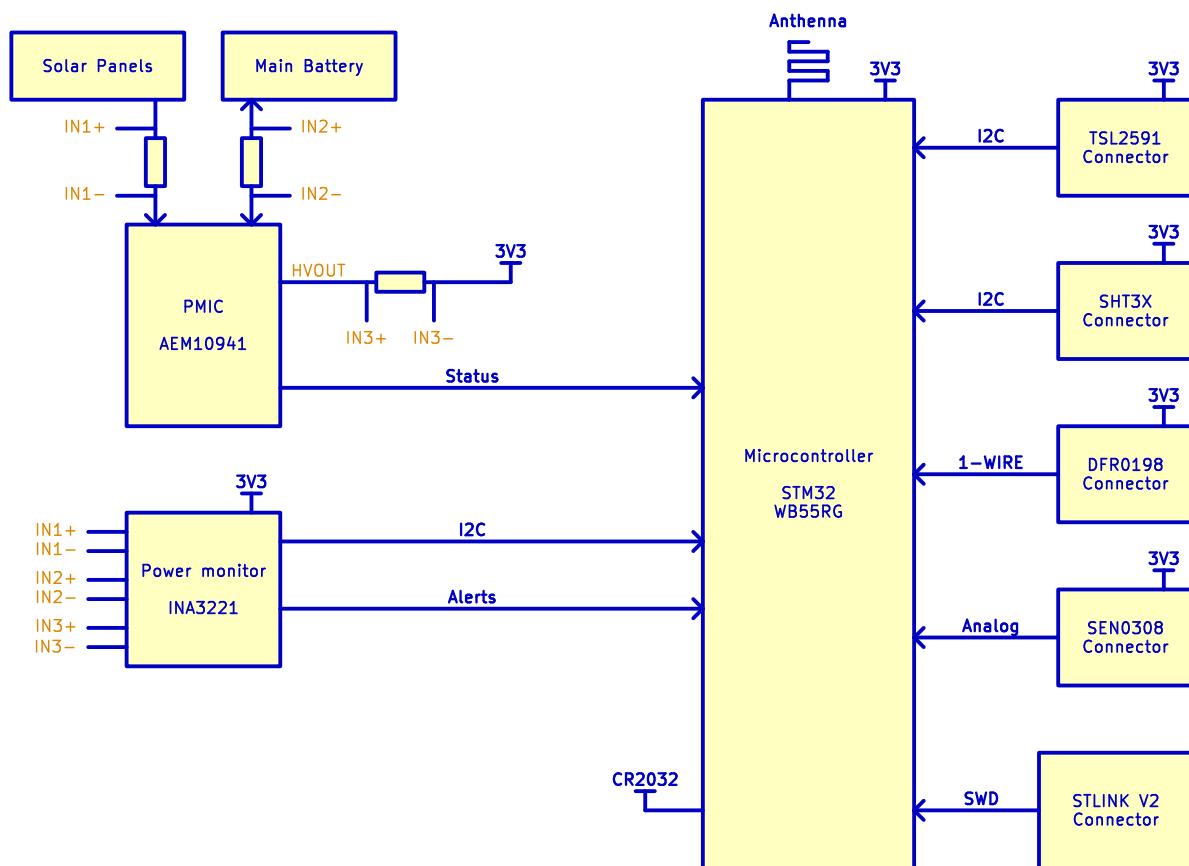
External Connections

File: RF.kicad_sch

File: External Connections.kicad_sch

- H1 MountingHole
- H2 MountingHole
- H3 MountingHole
- H4 MountingHole

Block Diagram



Sheet: /
File: PCB Main.kicad_sch

Title: Lanza Meteorológica – PCB Main

Size: A4

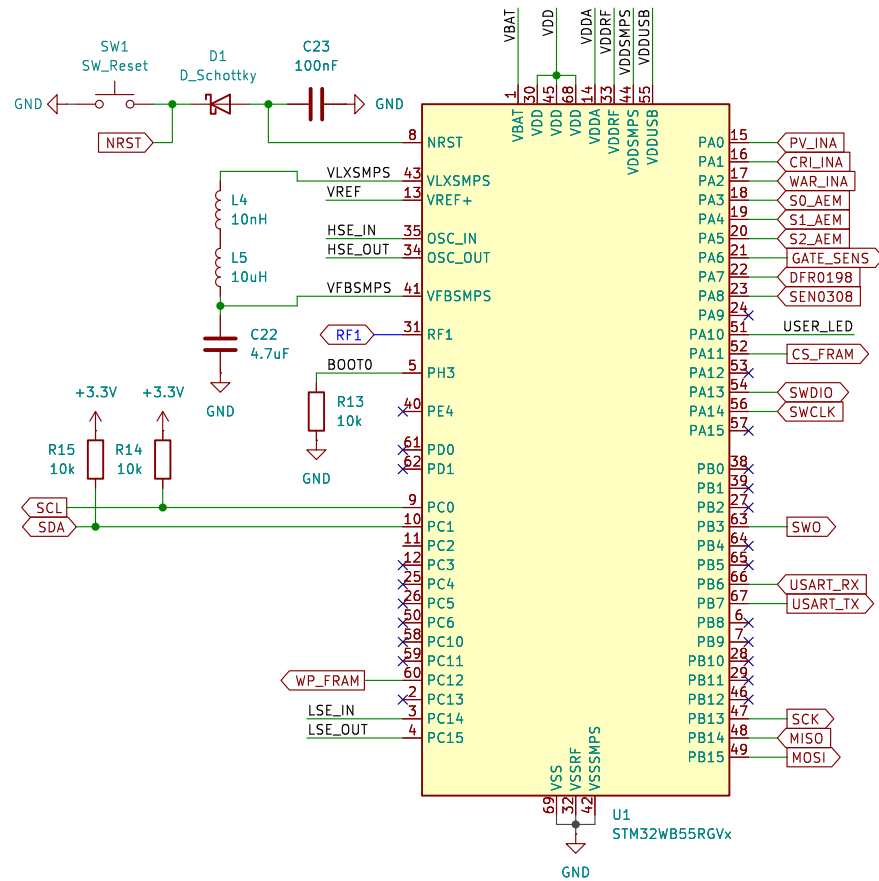
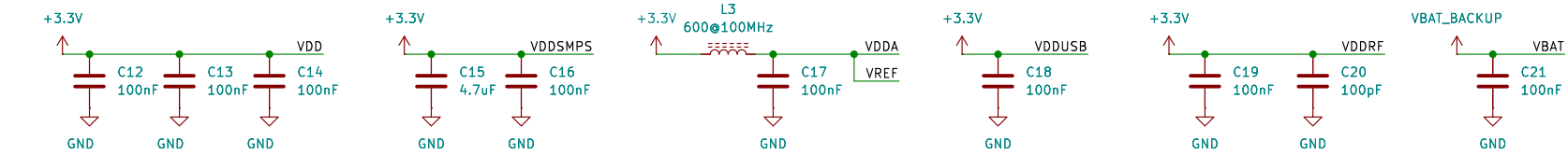
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KiCad E.D.A. 9.0.5

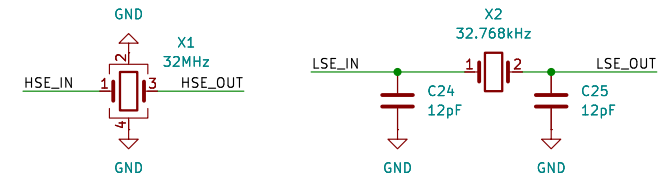
Rev:

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MCU POWER SUPPLY



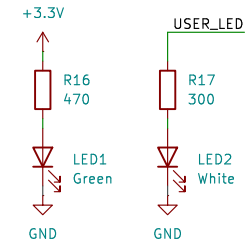
CRYSTAL OSCILLATORS



Check AN5042 for HSE config
Check AN2867 for LSE config formula (p 12)

$$9 - 3 = \frac{C24 \cdot C25}{C24 + C25}; C24 = C25 = 12pF$$

POWER & USER LEDs



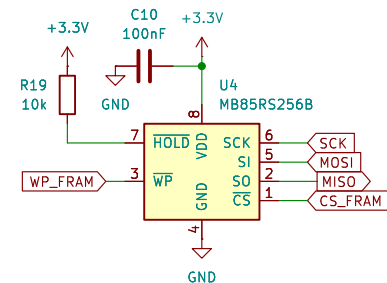
POWER LED

$$I = \frac{3.3 - 2.8}{470} = 1.1mA$$

USER LED

$$I = \frac{3.3 - 3.0}{300} = 1.0mA$$

FRAM



Inspired by:

https://www.st.com/resource/en/schematic_pack/mb1355-wb55rg-c02_schematic.pdf

Sheet: /STM32WB55RG/
File: STM32WB55RG.kicad_sch

Title:

Size: A4

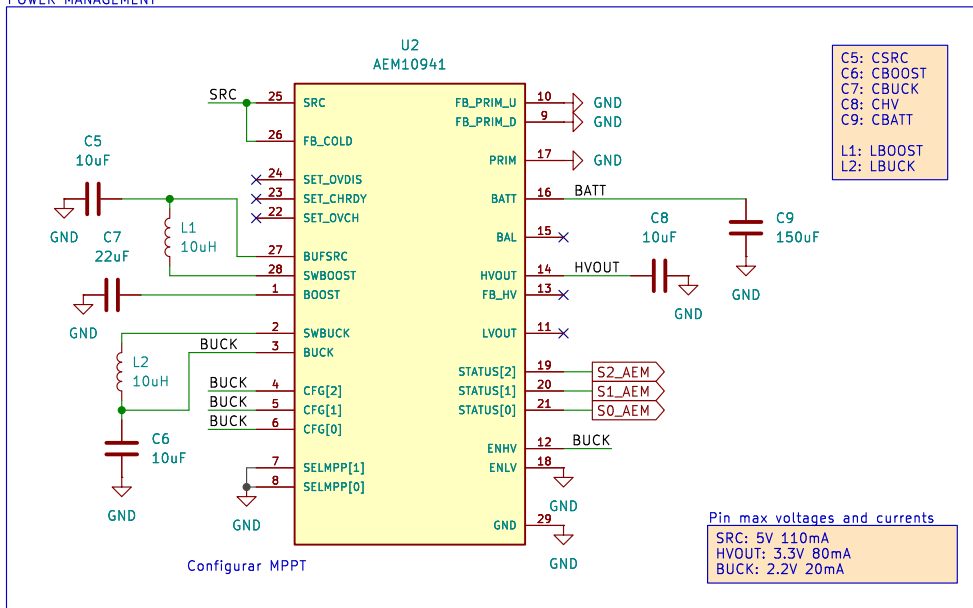
Date:

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Rev:

Id: 2/5

POWER MANAGEMENT



J2
Conn_01x02



JP2
Jumper_01x02_P2.54mm

J3
Conn_01x02

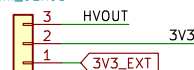


JP3
Jumper_01x02_P2.54mm

3.3V BUS SWITCHING

JP1
Jumper_01x02_P2.54mm

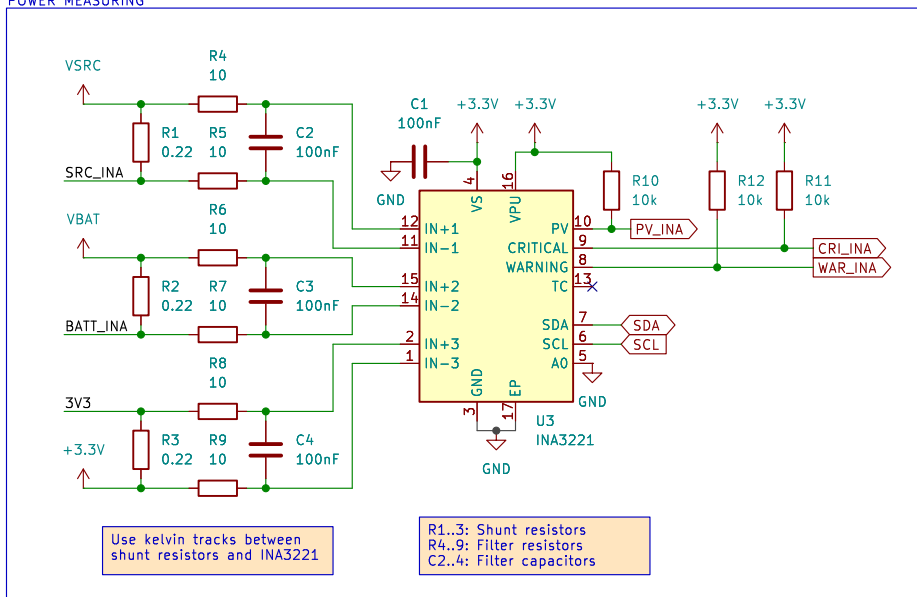
J1
Conn_01x03



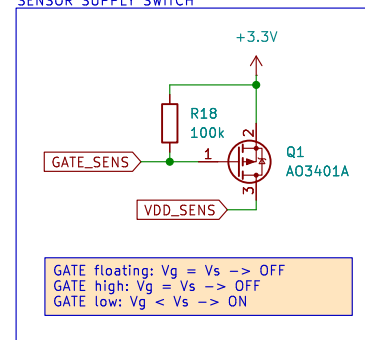
CN10
Conn_01x03



POWER MEASURING



SENSOR SUPPLY SWITCH



Sheet: /Power Management/
File: Power Management.kicad_sch

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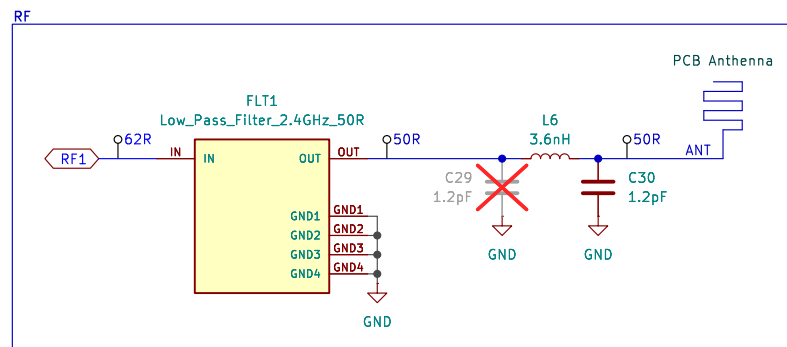
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Rev:

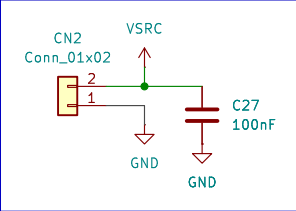
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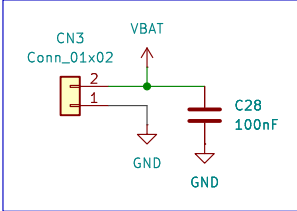
AN5165:
https://www.st.com/resource/en/application_note/an5165-how-to-develop-rf-hardware-using-stm32wb-microcontrollers-stmicroelectronics.pdf

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Size: A4	Date:	Rev:
KiCad E.D.A. 9.0.5	Id: 4/5	

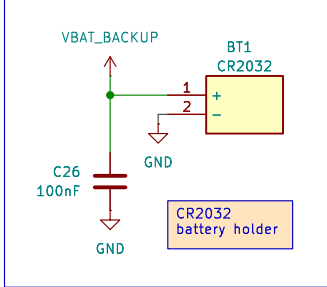
SOLAR PANELS



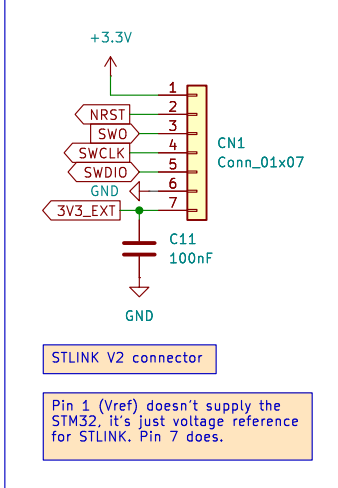
MAIN BATTERY



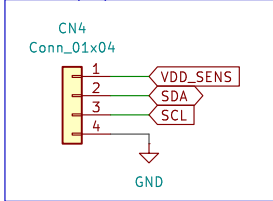
BACKUP BATTERY



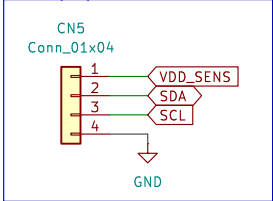
SWD



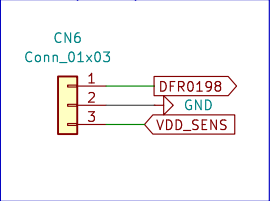
TSL2591 (I2C)



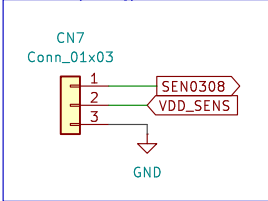
SHT3X (I2C)



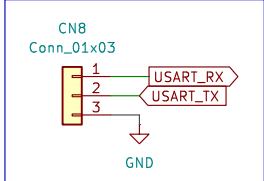
DFR0198 (1-WIRE)



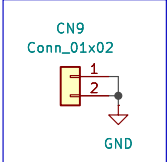
SEN0308 (Analog)



USART



GND



Sheet: /External Connections/
File: External Connections.kicad_sch

Title:

Size: A4

Date:

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