

# Lanza Meteorológica – PCB Main

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STM32WB55RG

File: STM32WB55RG.kicad\_sch

RF

File: RF.kicad\_sch

Power Management

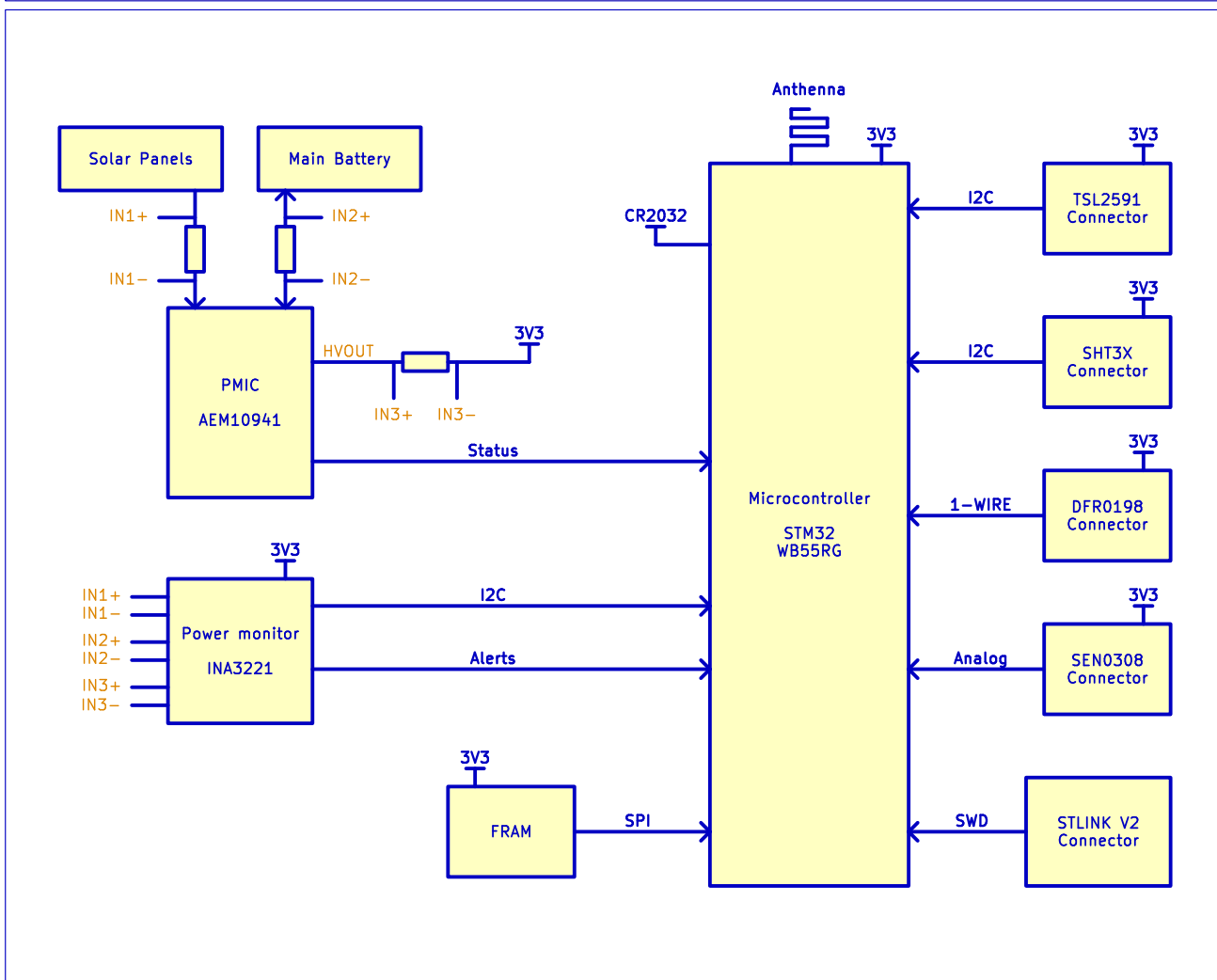
File: Power Management.kicad\_sch

External Connections

File: External Connections.kicad\_sch

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

Block Diagram



Sheet: /  
File: PCB Main.kicad\_sch

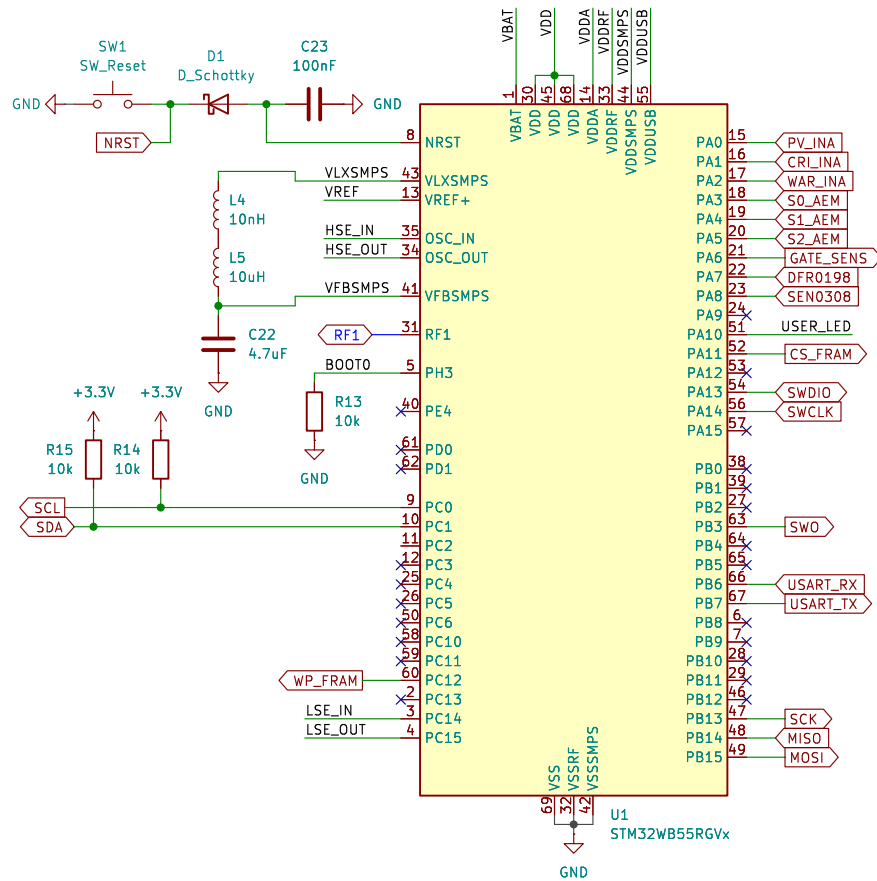
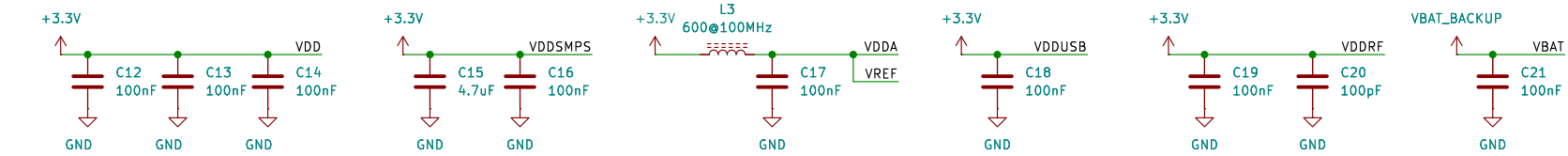
**Title: Lanza Meteorológica – PCB Main**

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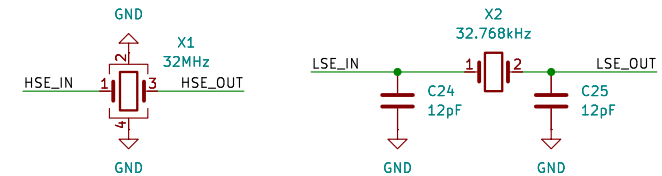
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## MCU POWER SUPPLY



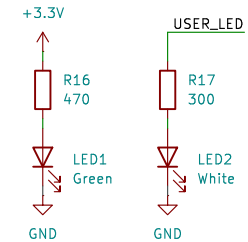
## CRYSTAL OSCILLATORS



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



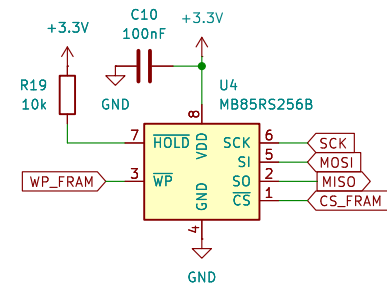
**POWER LED**

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

**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](https://www.st.com/resource/en/schematic_pack/mb1355-wb55rg-c02_schematic.pdf)

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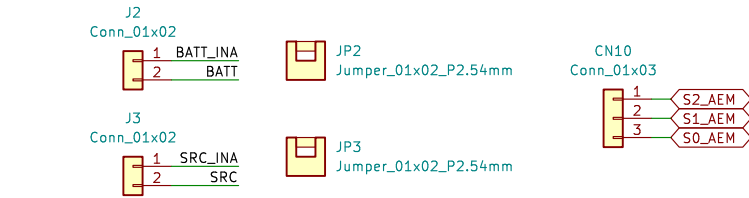
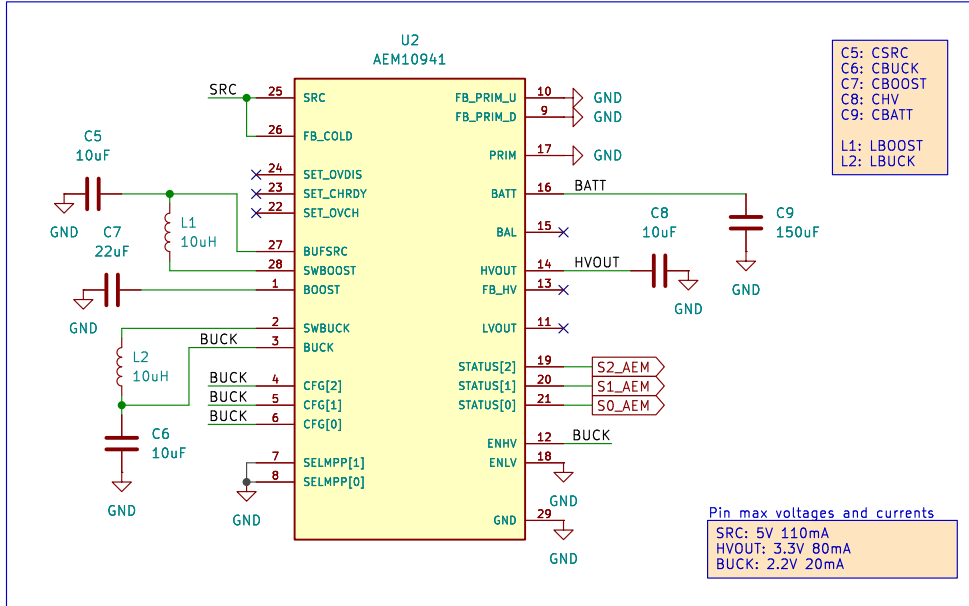
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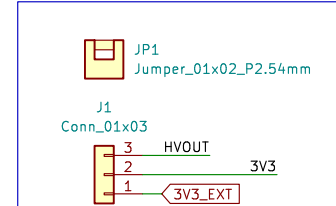
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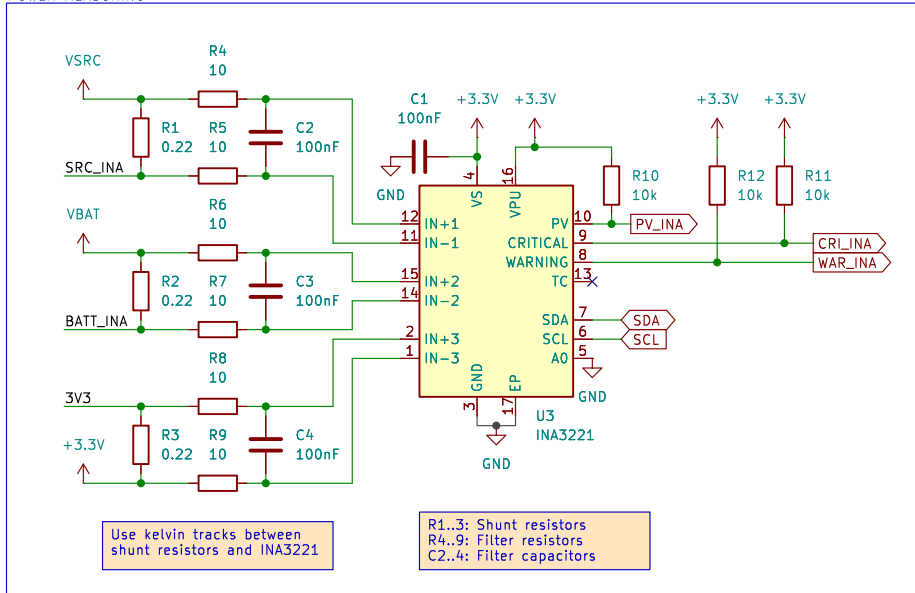
## POWER MANAGEMENT



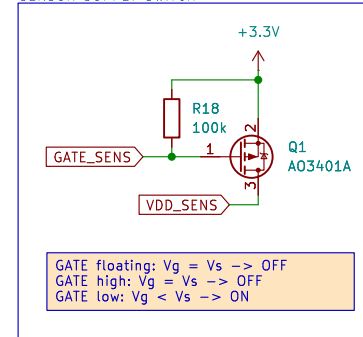
## 3.3V BUS SWITCHING



## POWER MEASURING



## SENSOR SUPPLY SWITCH



Sheet: /Power Management/  
File: Power Management.kicad\_sch

## Title:

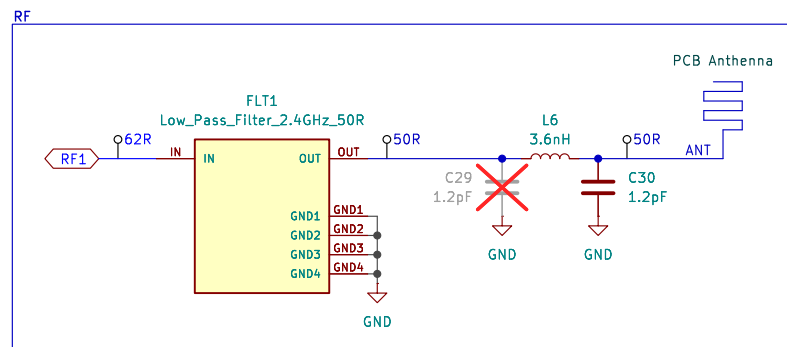
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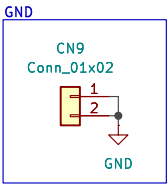
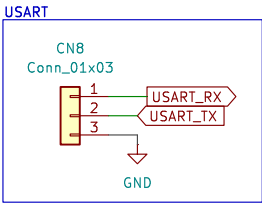
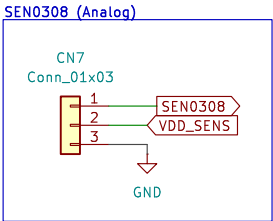
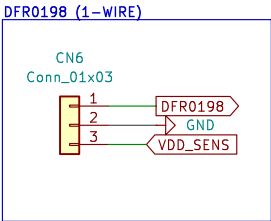
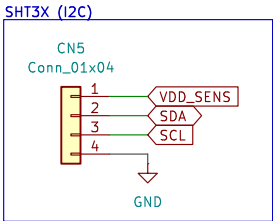
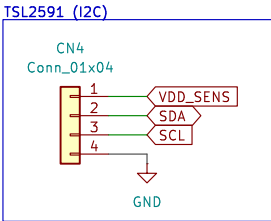
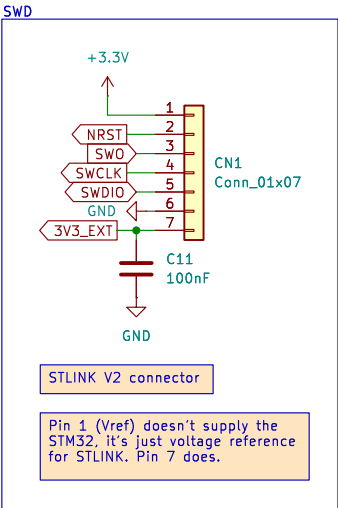
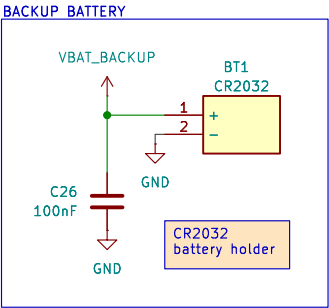
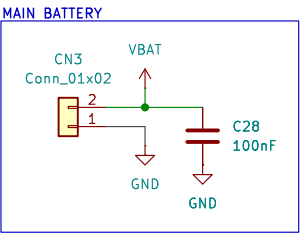
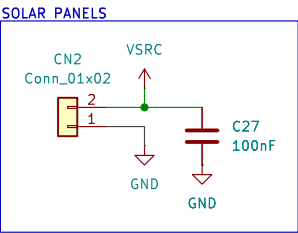
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AN5165:  
[https://www.st.com/resource/en/application\\_note/an5165-how-to-develop-rf-hardware-using-stm32wb-microcontrollers-stmicroelectronics.pdf](https://www.st.com/resource/en/application_note/an5165-how-to-develop-rf-hardware-using-stm32wb-microcontrollers-stmicroelectronics.pdf)

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