

# *Solar Tracker*

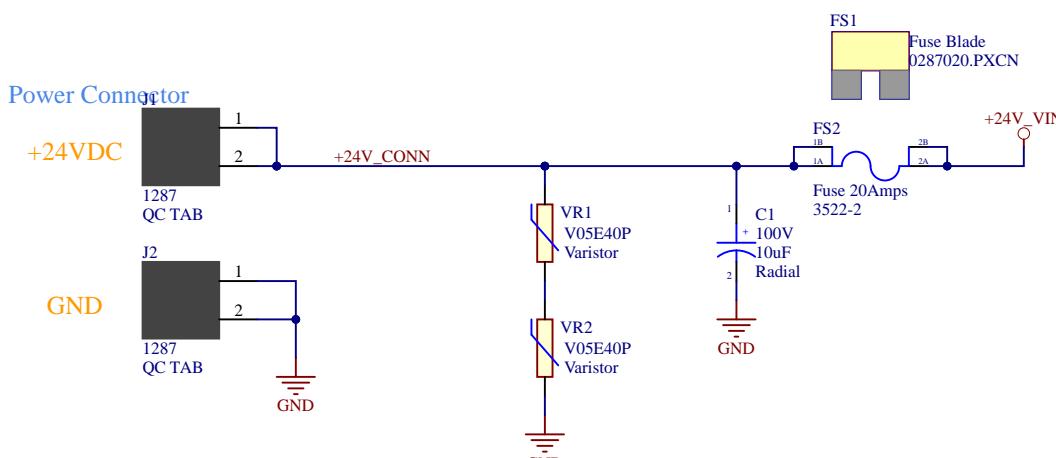
## *Main\_Powered Variant*

### *Revision History*

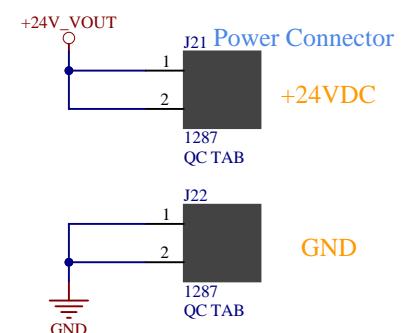
Revision	Date	Changes
1.0	July 2023	Initial Draft Version.

Drawn By: VM	 smarttrak POSITIONED TO POWER YOUR FUTURE	
Engineer: VM		
PartNumber: -	Project Title	Variant: Main_Powered
Sheet Title <b>01_REVISION_HISTORY.SchDoc</b>		
Size A3	Rev: 1.0	Date: 19-07-2023
File: 01_REVISION_HISTORY.SchDoc		Sheet 1 of 8

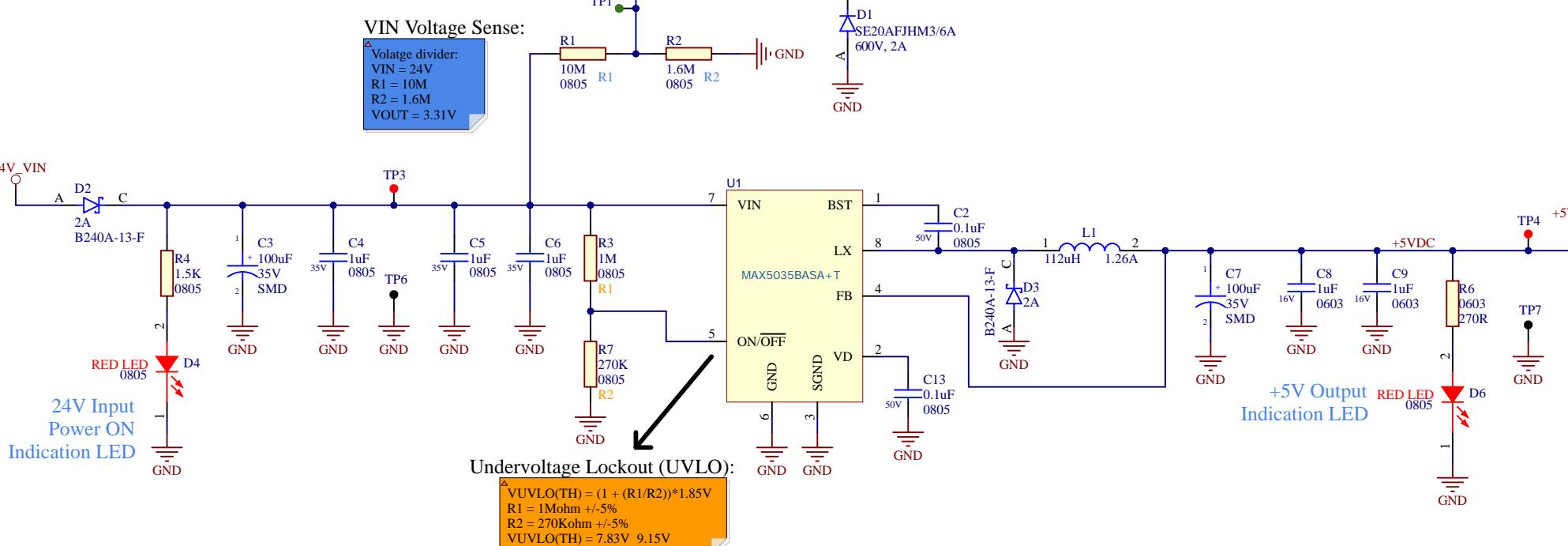
## INPUT POWER SUPPLY



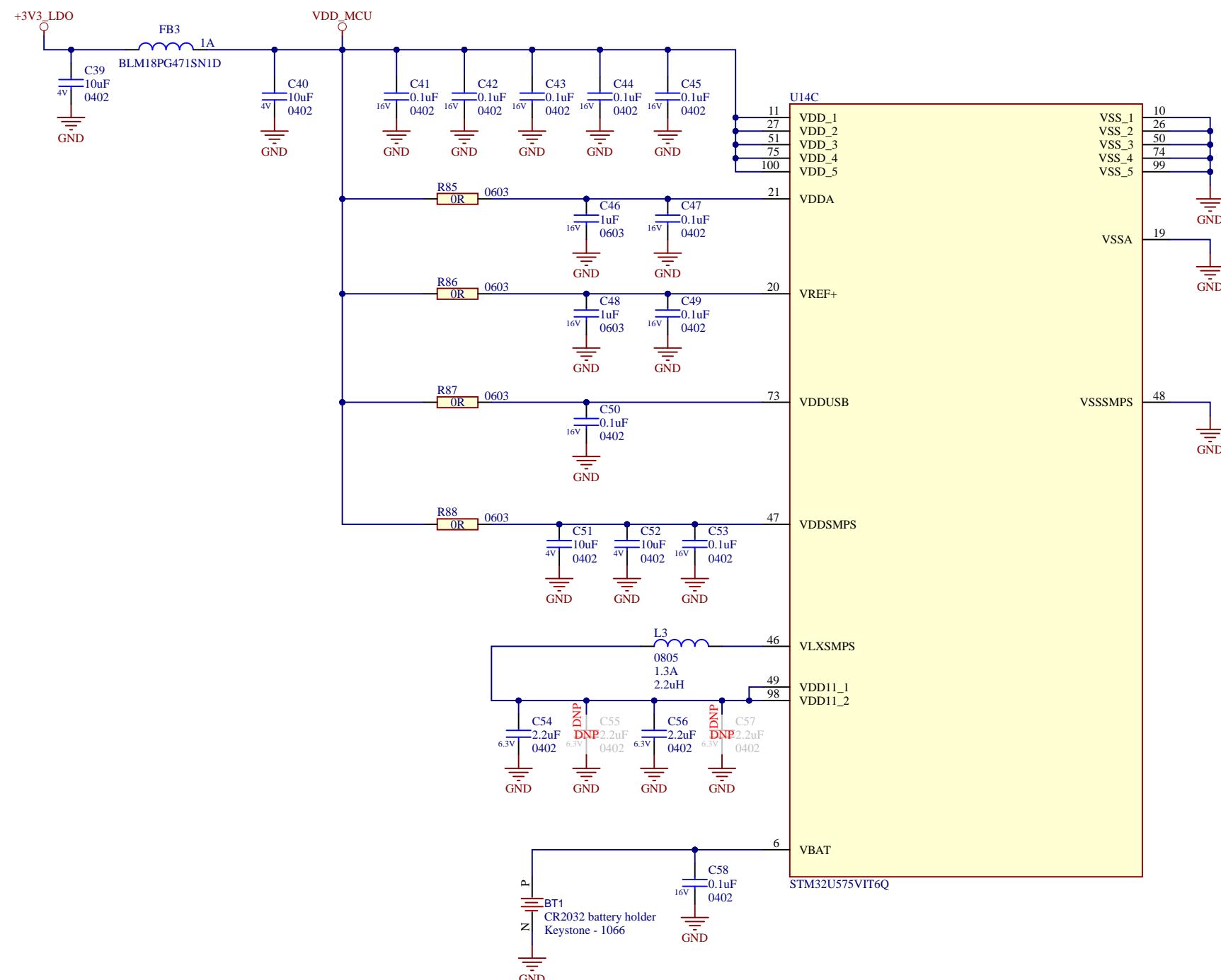
## 24V OUTPUT



## DC-DC CONVERTOR(+24V TO +5V)

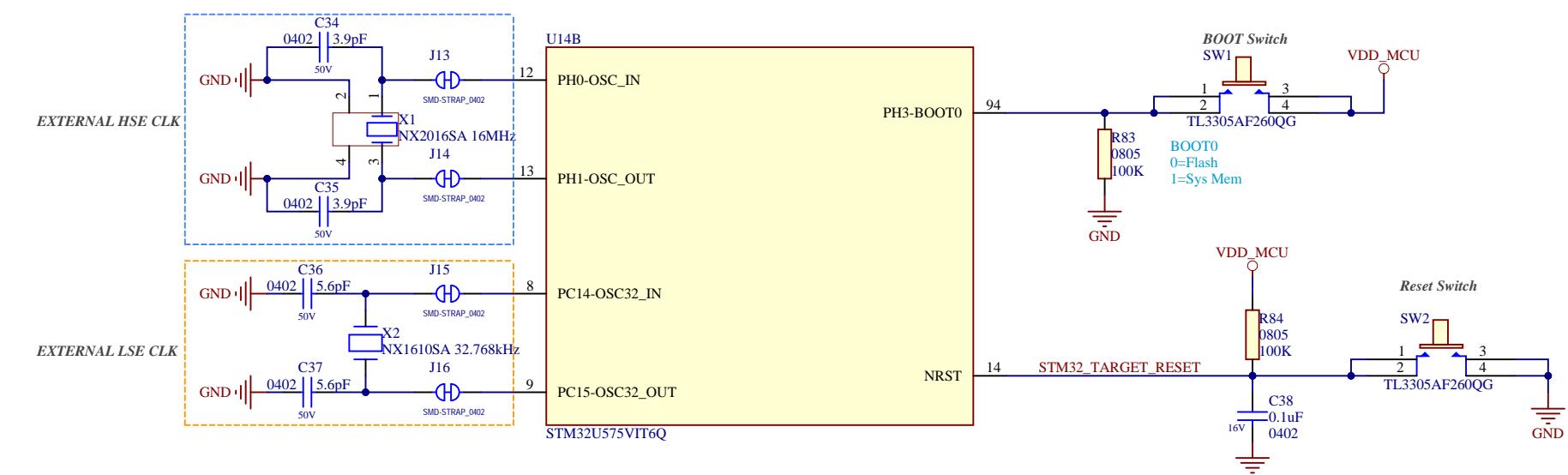


## STM32 MCU POWER



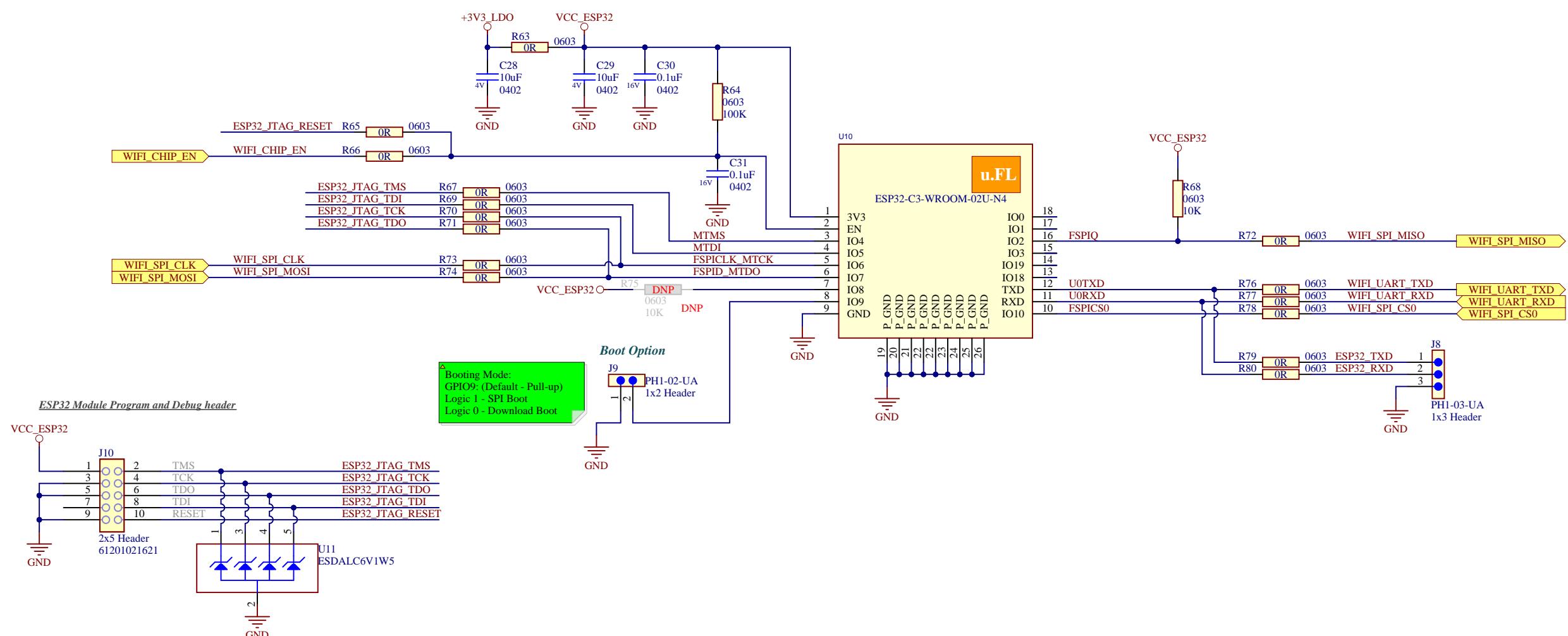
Drawn By: VM		
Engineer: VM		
PartNumber: -	Project Title	Variant: Main_Powered
Sheet Title <a href="#">03_STM32 MCU_POWER.SchDoc</a>		
Size A3	Rev: 1.0	Date: 19-07-2023 Sheet 3 of 8
File: <a href="#">03_STM32 MCU_POWER.SchDoc</a>		

STM32 MCU Section

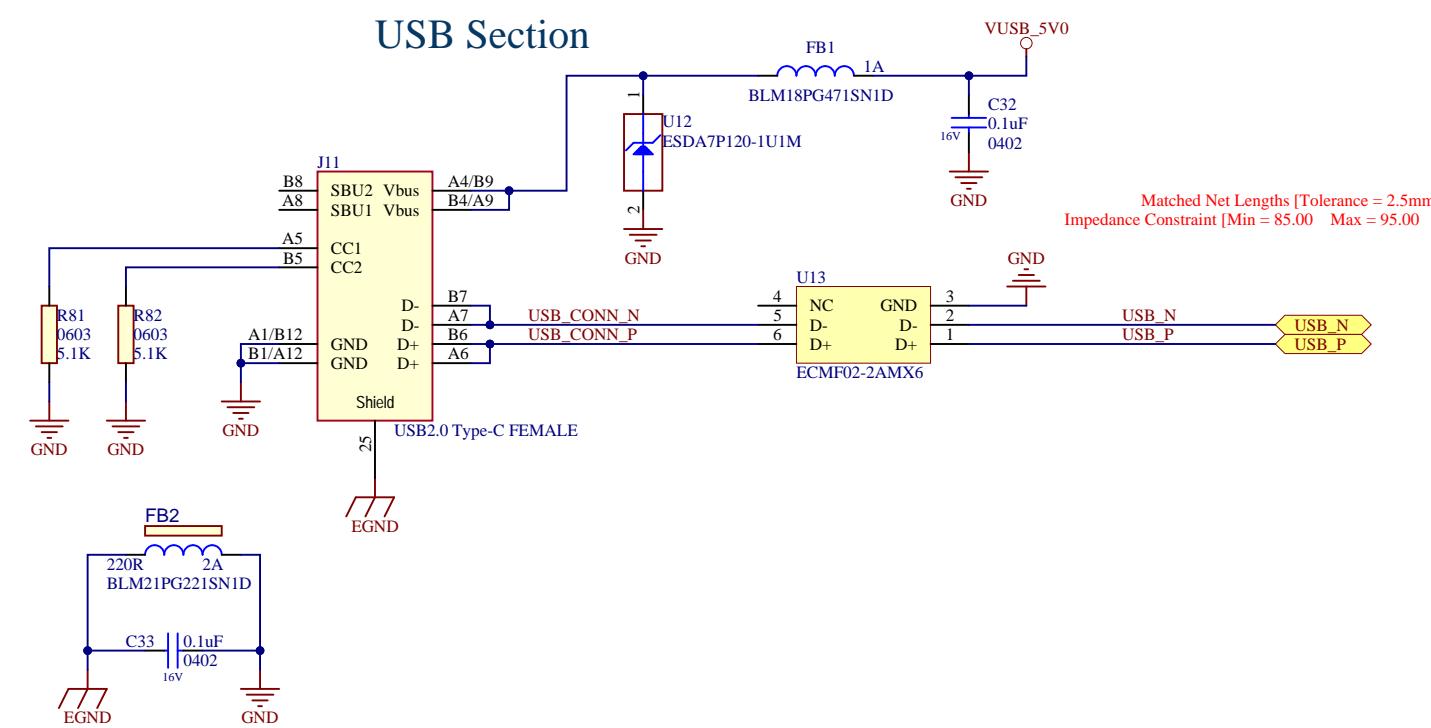


Drawn By: VM	 <b>POSITIONED TO POWER YOUR FUTURE</b>	
Engineer: VM		
PartNumber: -	Project Title <i>Solar Tracker</i>	Variant: <a href="#">Main_Powered</a>
Sheet Title <b>04_STM32 MCU.SchDoc</b>		
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E1		

ESP32 C3 Wi-Fi Module

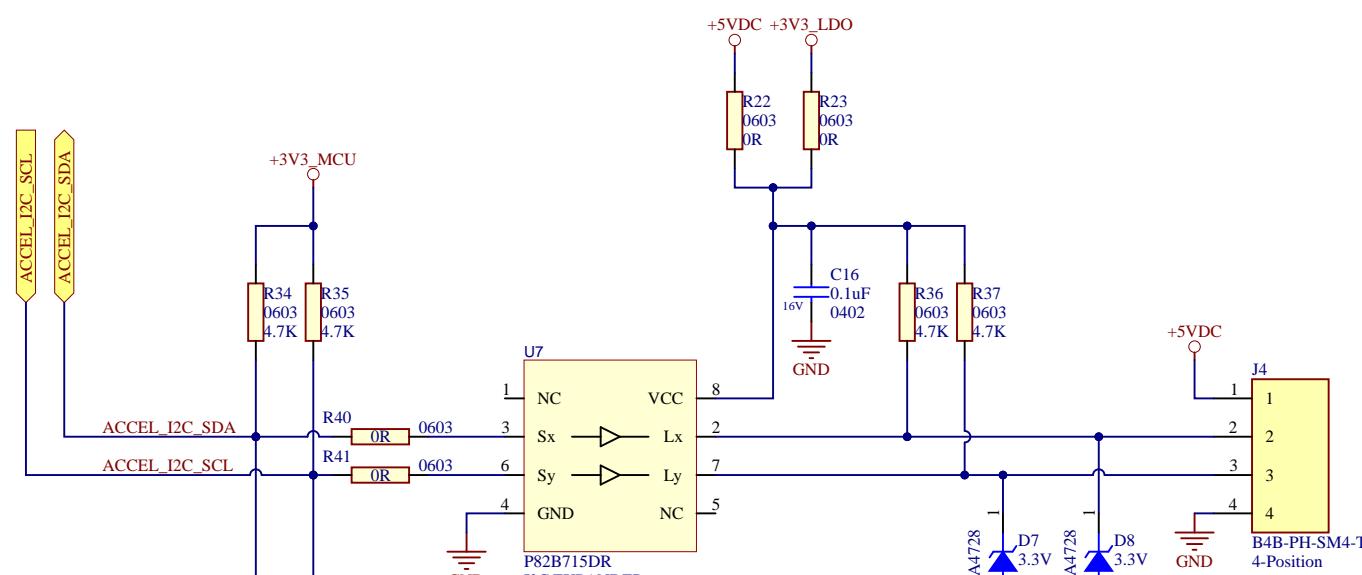


USB Section

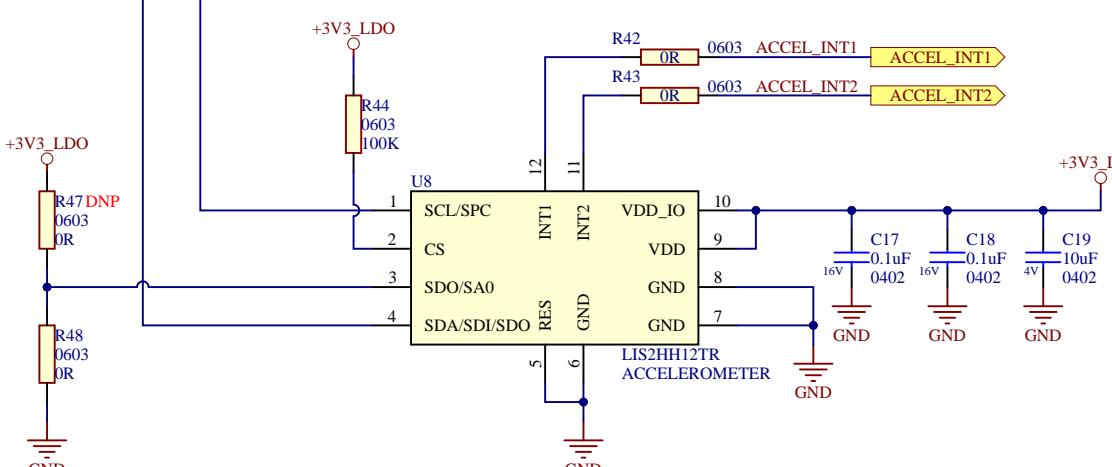


Drawn By: <b>VM</b>	 POSITIONED TO POWER YOUR FUTURE	
Engineer: <b>VM</b>		
PartNumber: -	Project Title <b>Solar Tracker</b>	Variant: <a href="#">Main_Powered</a>
Sheet Title <b>05_WIFI_USB.SchDoc</b>		
Size <b>A3</b>	Rev: <b>1.0</b>	Date: <b>19-07-2023</b> Sheet <b>5 of 8</b>
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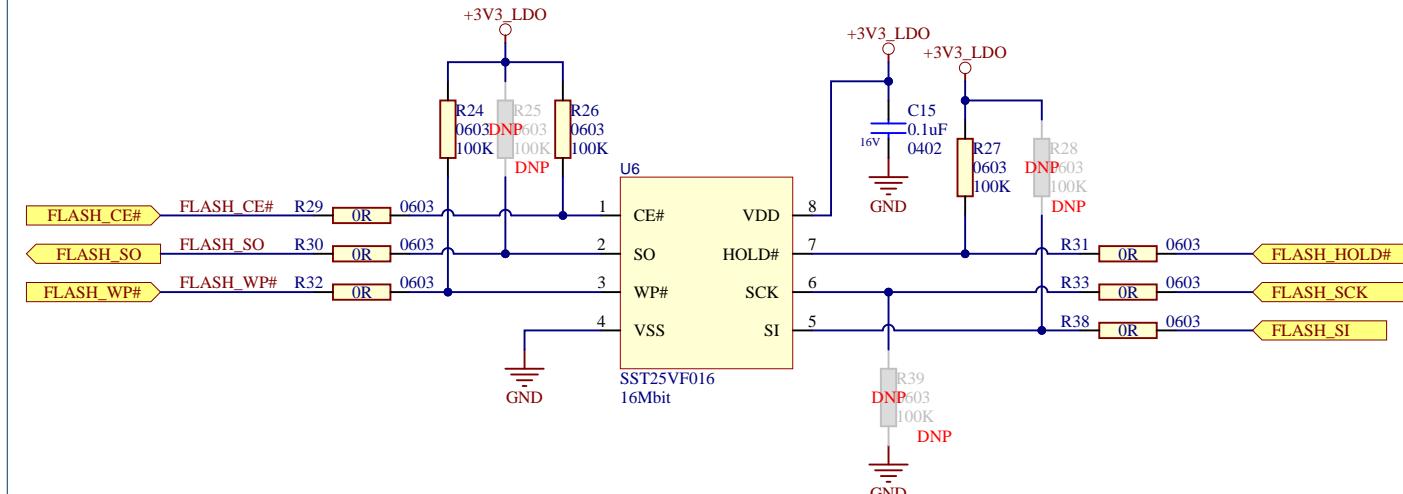
## I2C BUS EXPENDER FOR EXTERNAL ACCELEROMETER CONNECTION



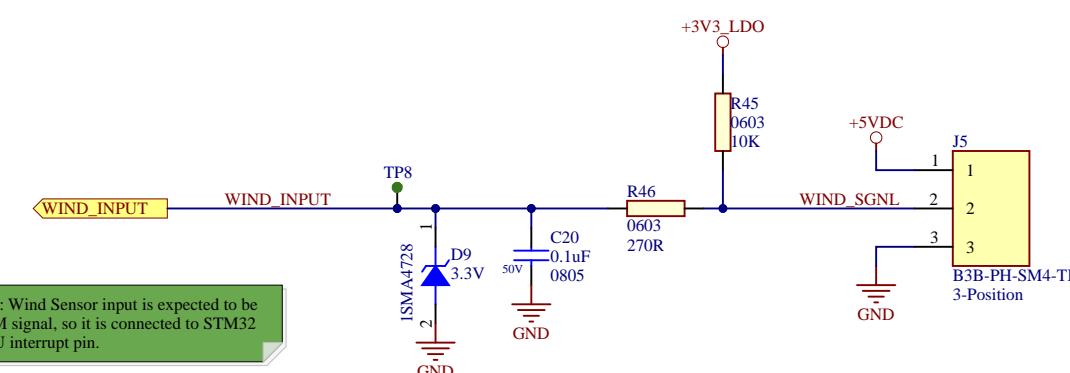
## ON-BOARD ACCELEROMETER



SPI Flash 16Mbit

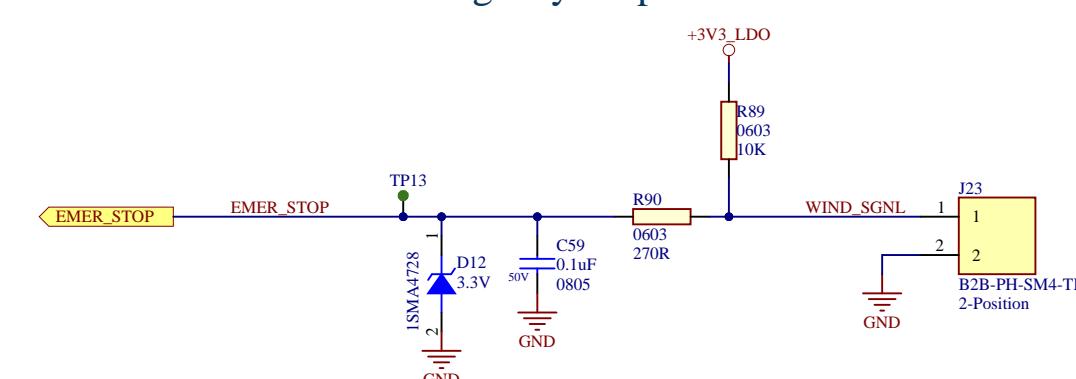


## Wind Sensor Input

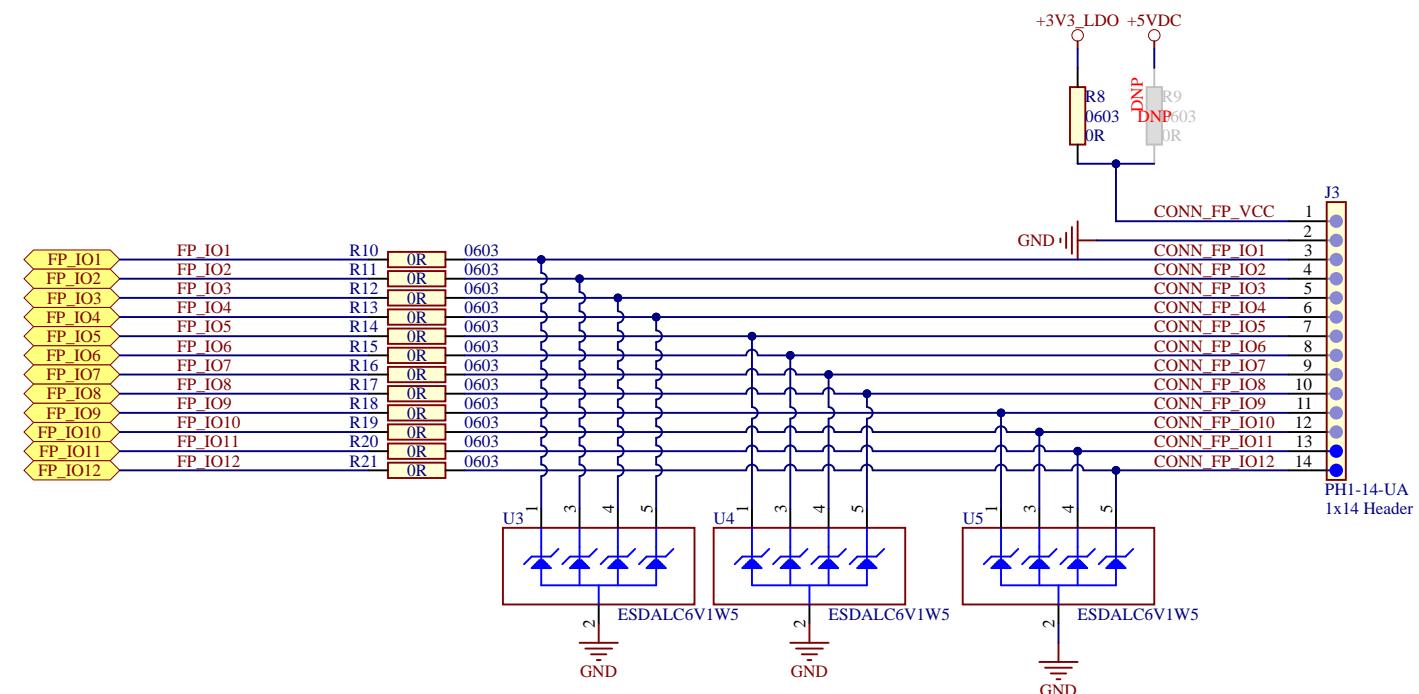


**⚠ Note:** Wind Sensor input is expected to be a PWM signal, so it is connected to STM32 MCU interrupt pin.

## Emergency Stop Button Connection

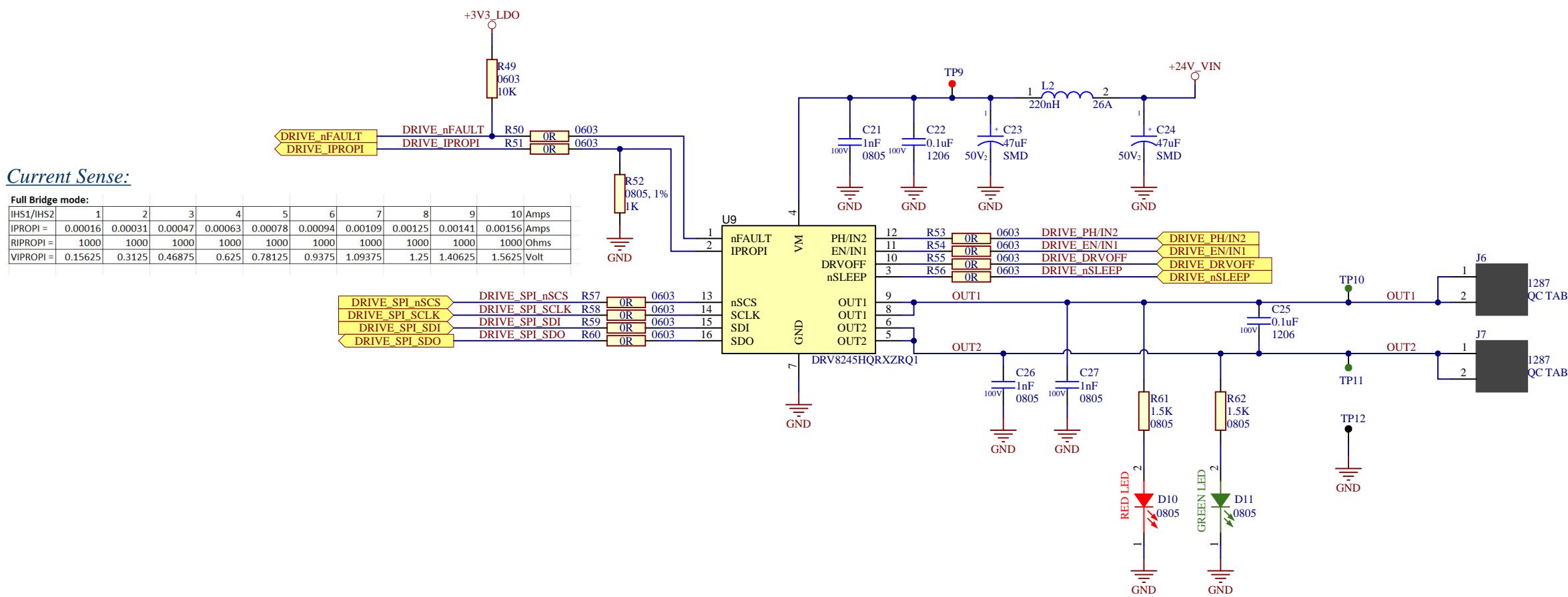


## Front Panel Control Membrane



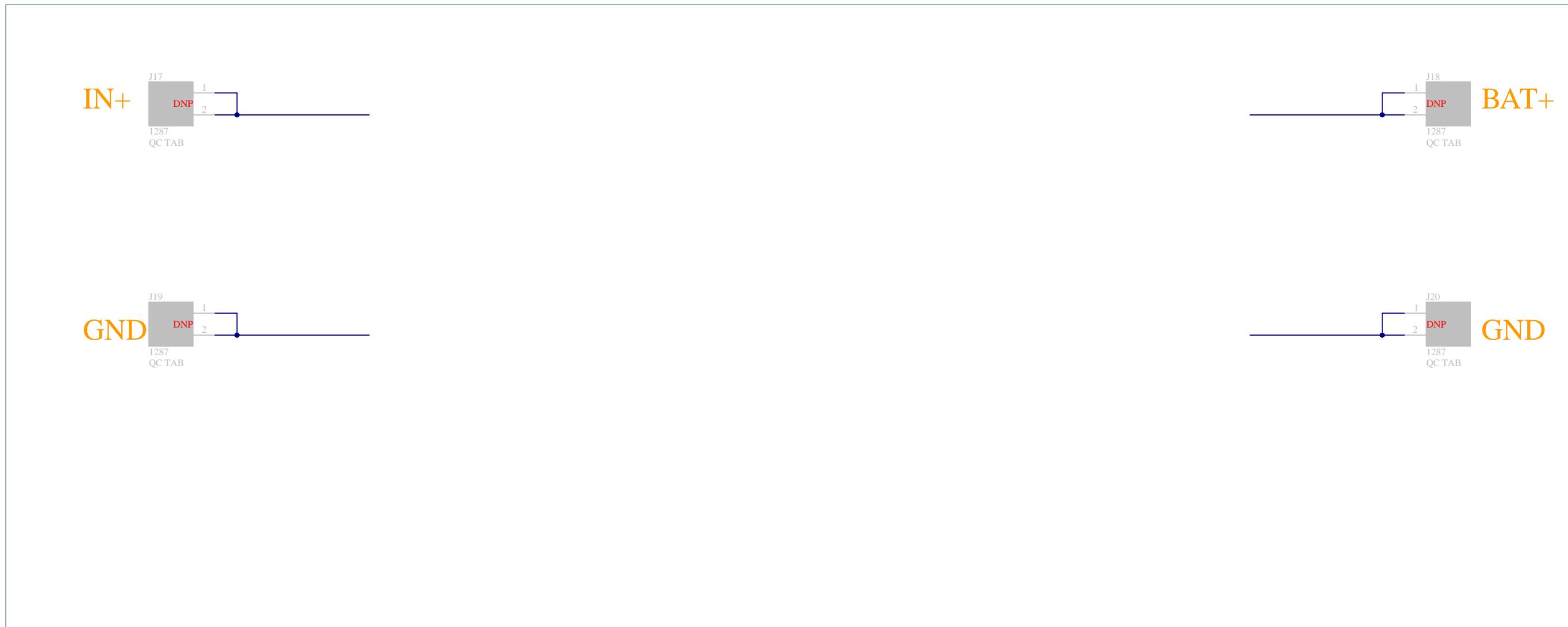
Drawn By: VM	 POSITIONED TO POWER YOUR FUTURE	
Engineer: VM		
PartNumber: -	Project Title	Variant: Main_Powered
Sheet Title <b>07_FRONT_PANEL_CONTROL.SchDoc</b>		
Size A3	Rev: 1.0	Date: 19-07-2023 Sheet 7 of 8
File: 07_FRONT_PANEL_CONTROL.SchDoc		

## 2 x HALF BRIDGE DRIVER



Drawn By: VM	 POSITIONED TO POWER YOUR FUTURE	
Engineer: VM		
PartNumber: -	Project Title	Variant: Main_Powered
Sheet Title <b>08_HALF_BRIDGE.SchDoc</b>		
Size A3	Rev: 1.0	Date: 19-07-2023
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File: 08_HALF_BRIDGE.SchDoc		

# SOLAR CHARGER



Drawn By: VM	 POSITIONED TO POWER YOUR FUTURE	
Engineer: VM		
PartNumber: -	Project Title Solar Tracker	Variant: Main_Powered
Sheet Title 09_SOLAR_CHARGER.SchDoc		
Size A3	Rev: 1.0	Date: 19-07-2023 Sheet 9 of 8
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