

Cover Page

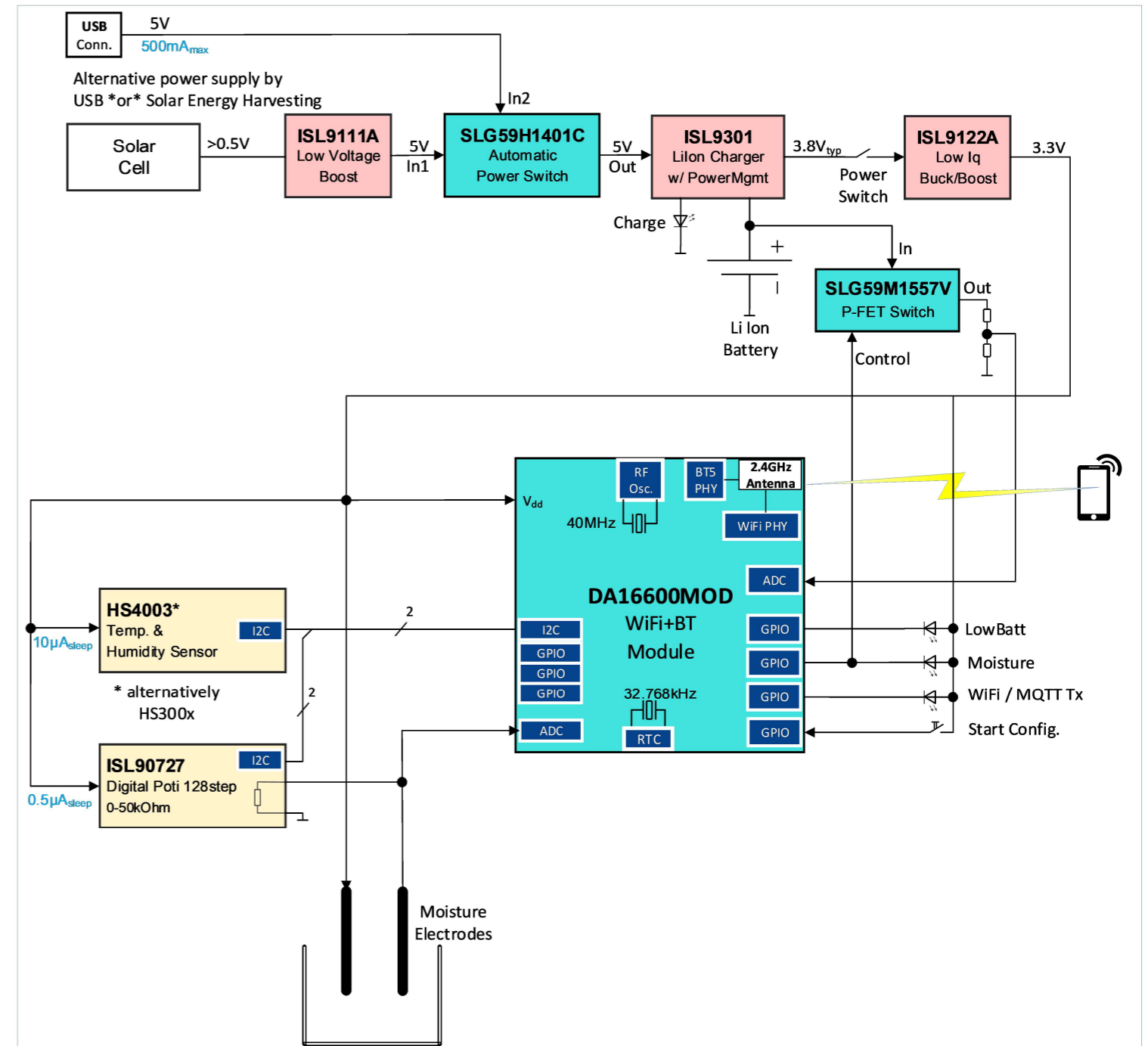
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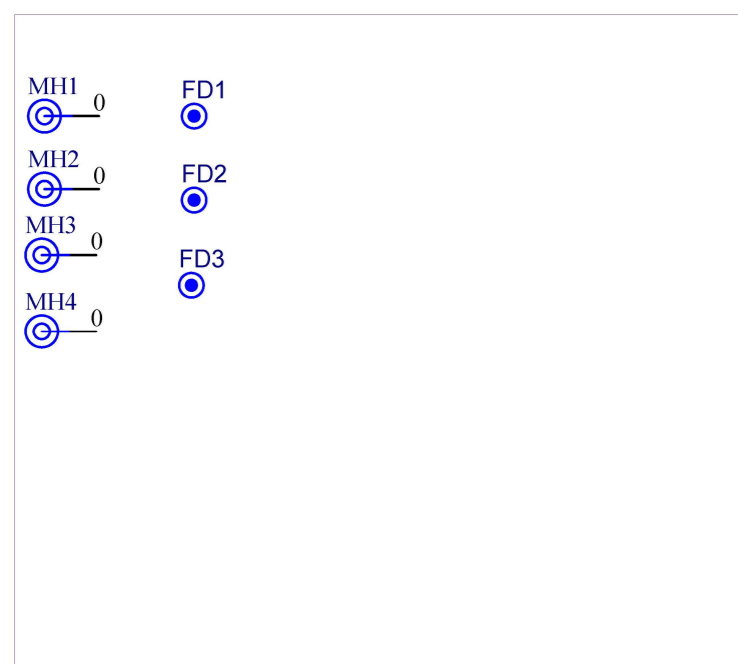
Revision History

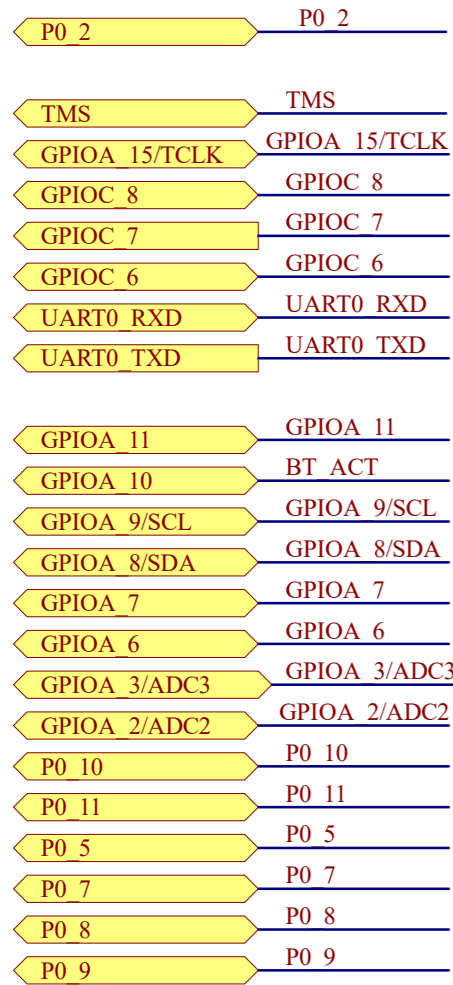
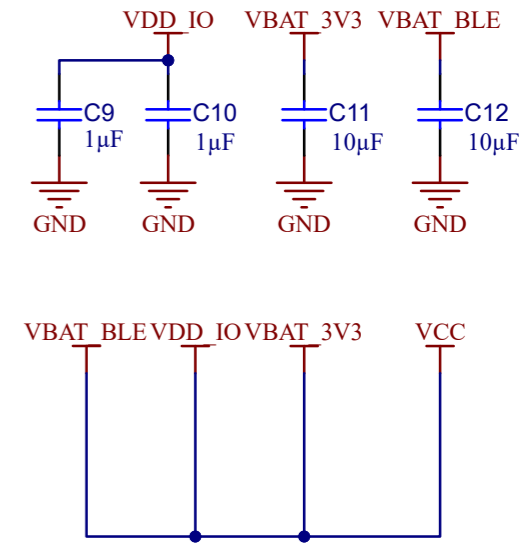
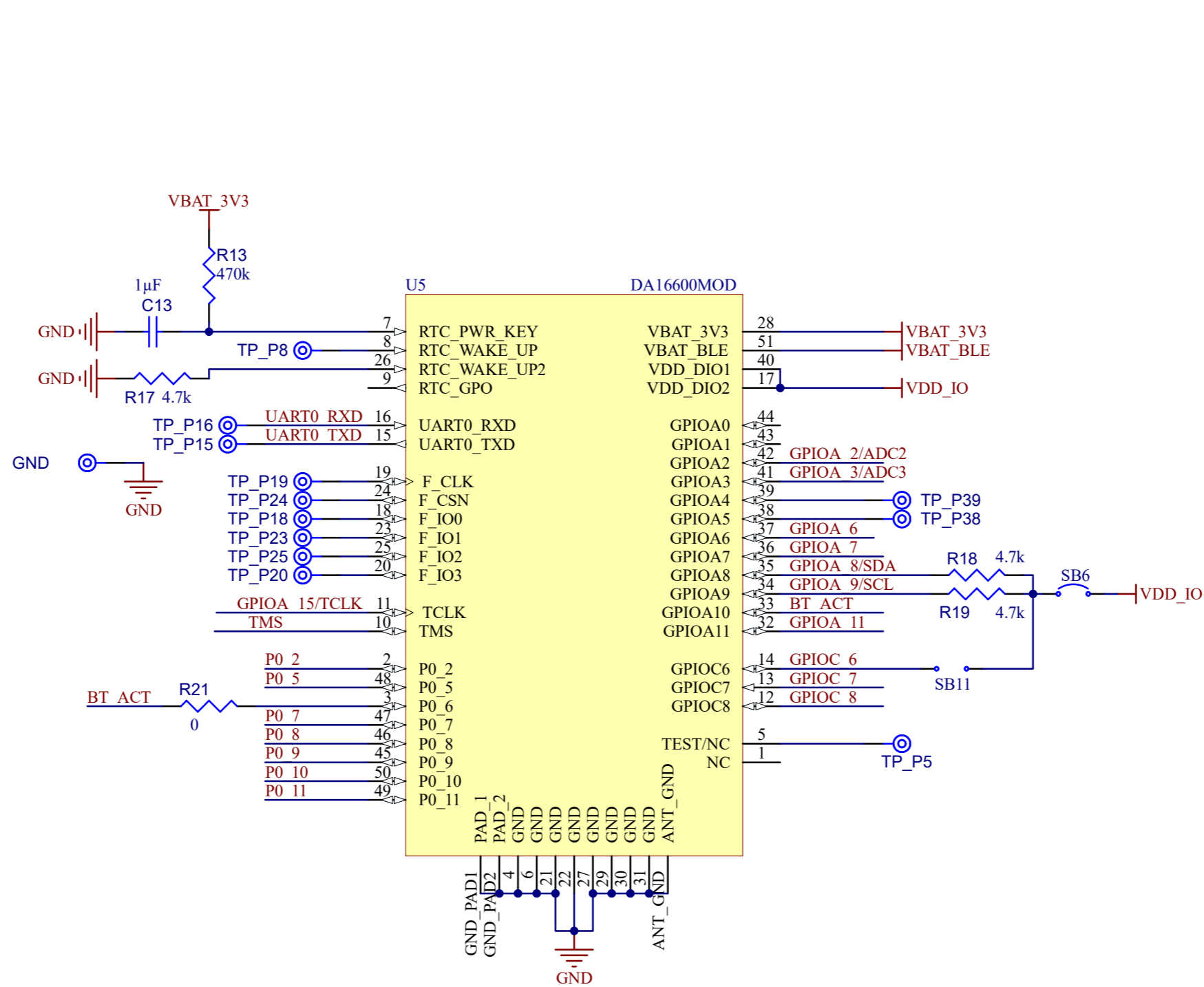
0v1	9/28/2022	
0v2	9/30/2022	Added buttons and status LEDs; SWD only J-Link interface; Protection on ADC for moisture sensor; Schottky on J6
0v3	2/9/2023	Added Block Diagram, LED2 connected to P0_8;

Block Diagram



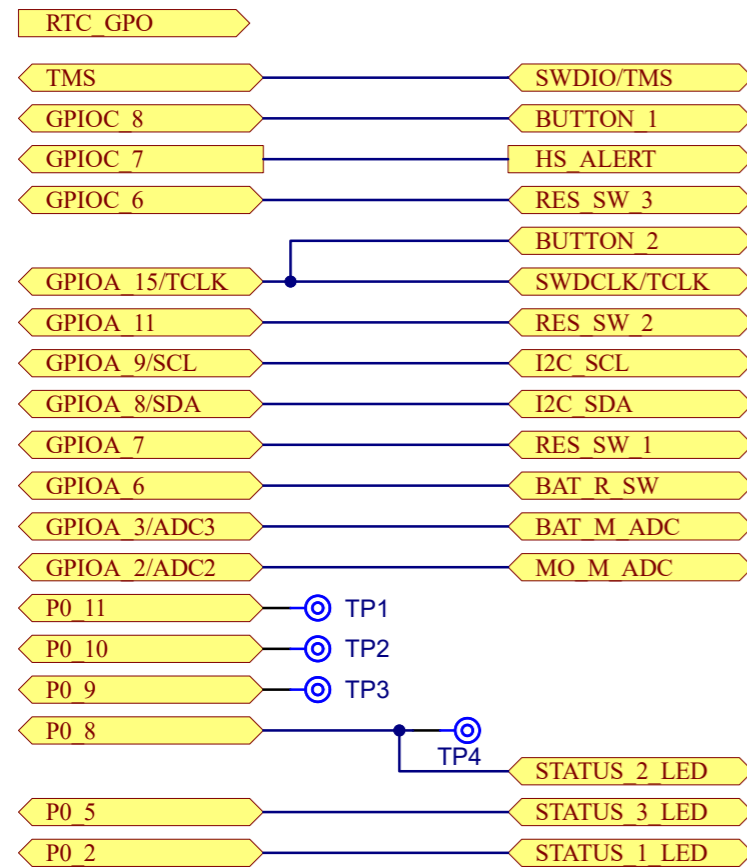
Mechanical



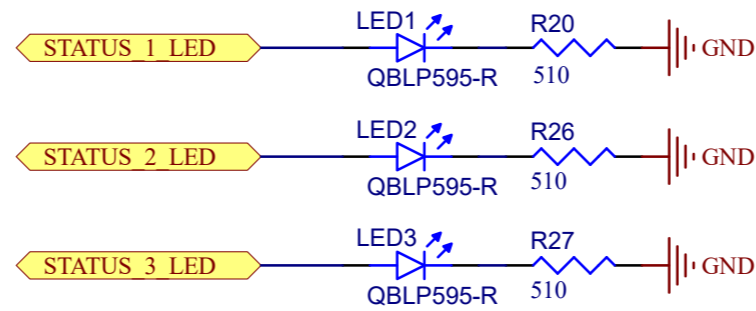


Title DA16600 Module			Renesas Electronics Europe System Solutions Team EMEA Arcadiastraße 10 40472 Düsseldorf Germany	
Size: A4	Number: EU153-1	Revision: 0v1		
Date: 3/7/2023	Time: 12:23:57	Sheet: 2 of 5		
File: eu153 DA16600 module.SchDoc				

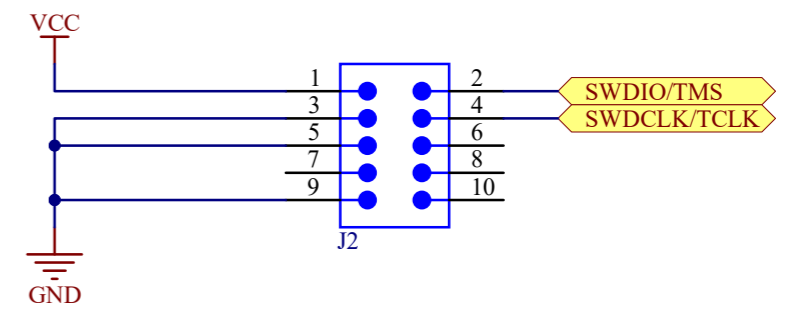
GPIO pin map



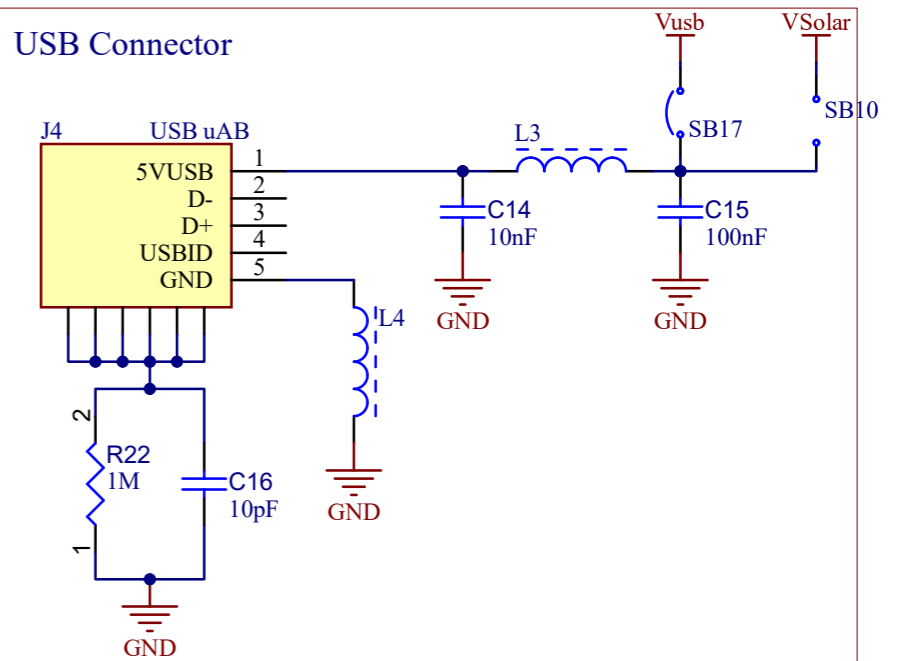
Status LED



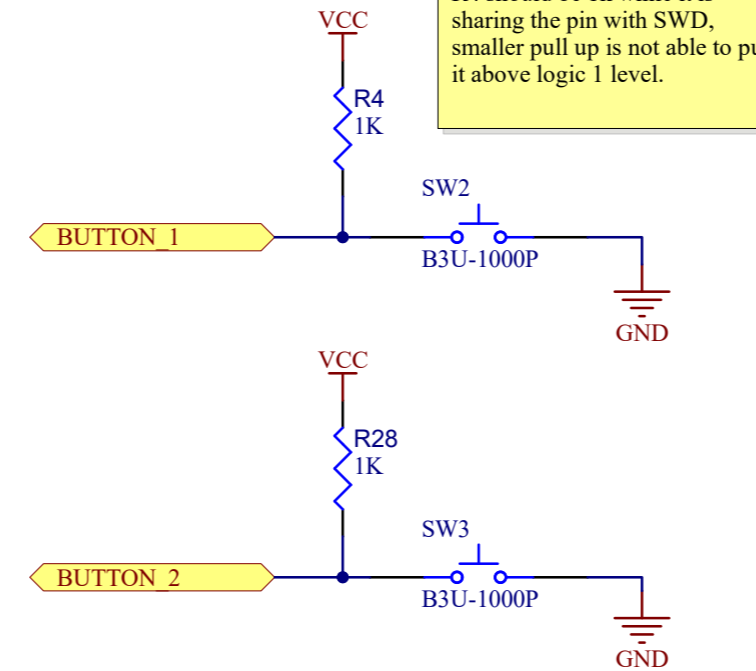
SWD Debug Connector



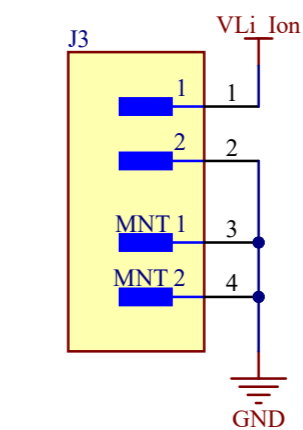
USB Connector



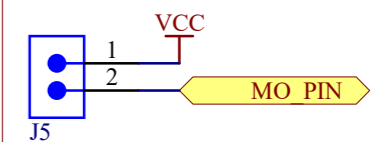
Buttons



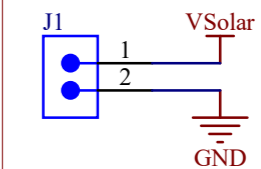
Battery connector



Moisture electrodes connector



Solar panel connector



Title **Connectors and Interfaces**

Size: A4

Number: EU153-1

Revision: 0v2

Date: 3/7/2023

Time: 12:23:58

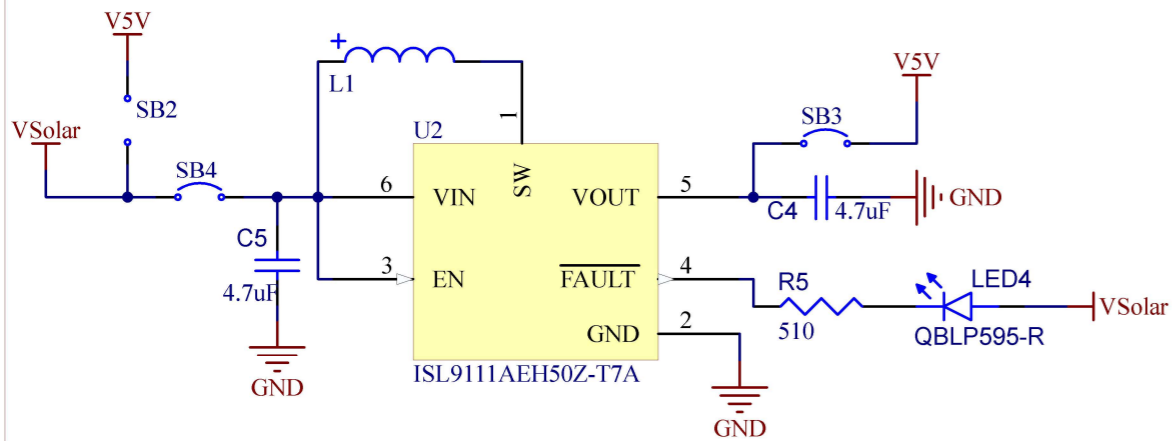
Sheet: 3 of 5

File: eu153 connectors interfaces.SchDoc

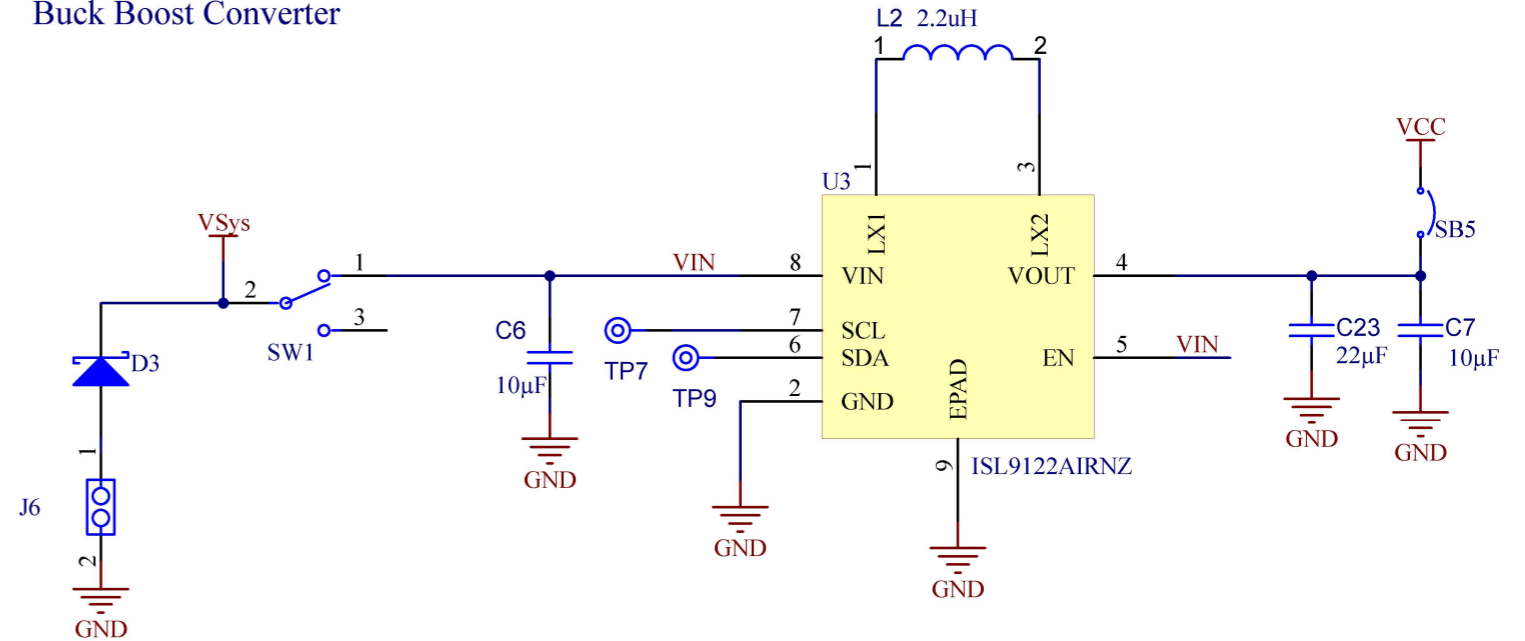
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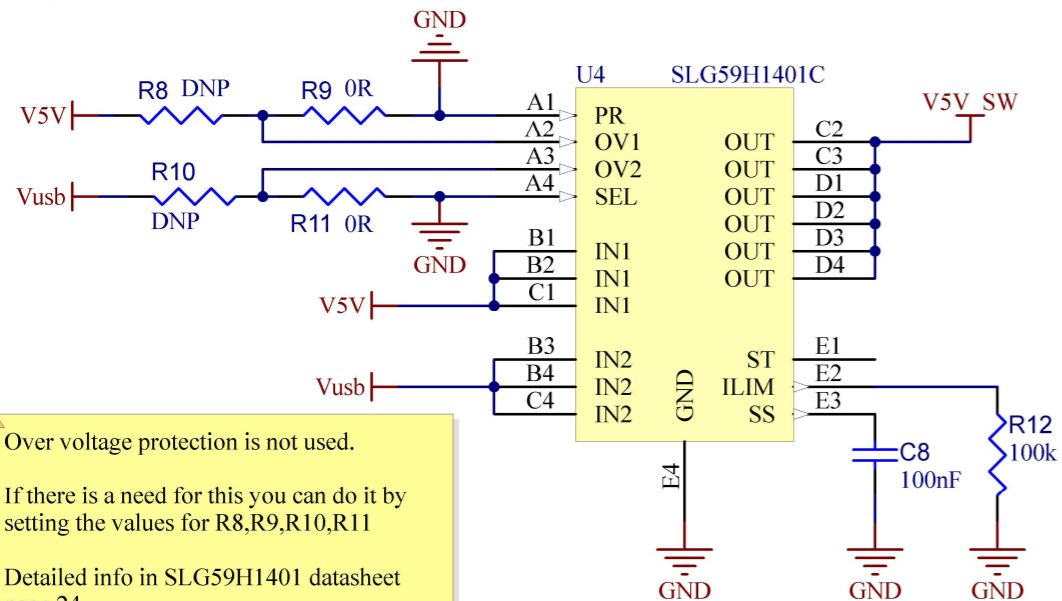
Solar Panel Boost Converter



Buck Boost Converter

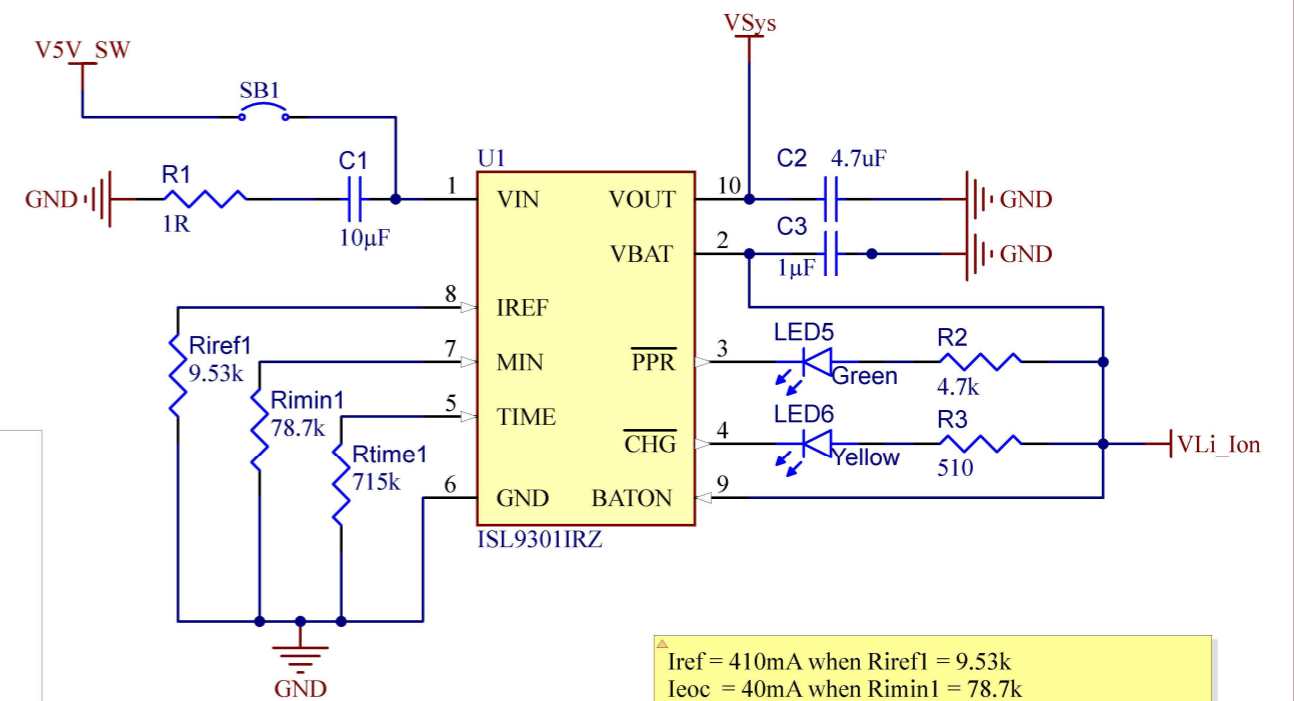


Power Switch



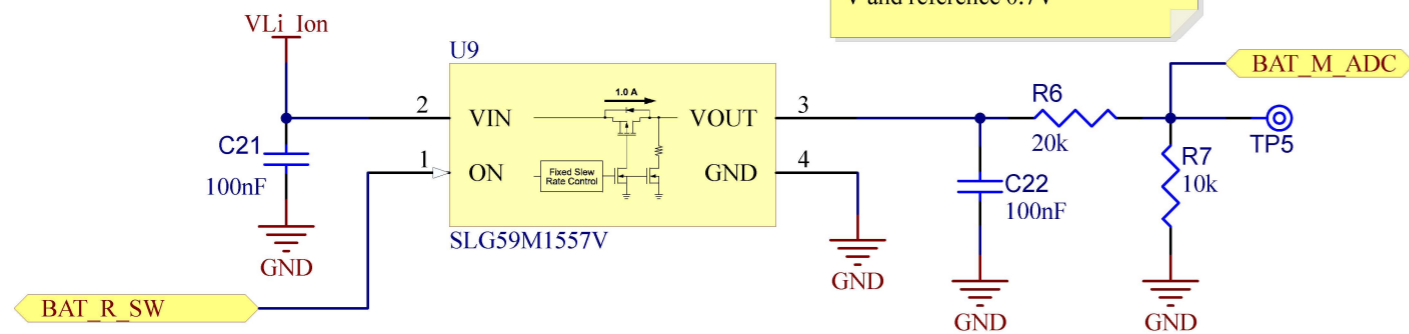
Over voltage protection is not used.
If there is a need for this you can do it by setting the values for R8,R9,R10,R11
Detailed info in SLG59H1401 datasheet page 24

Battery Charger



Iref = 410mA when Riref1 = 9.53k
Ieoc = 40mA when Rimin1 = 78.7k
Max charge time 4h when Rtime1 = 715k

Battery Voltage Measurement



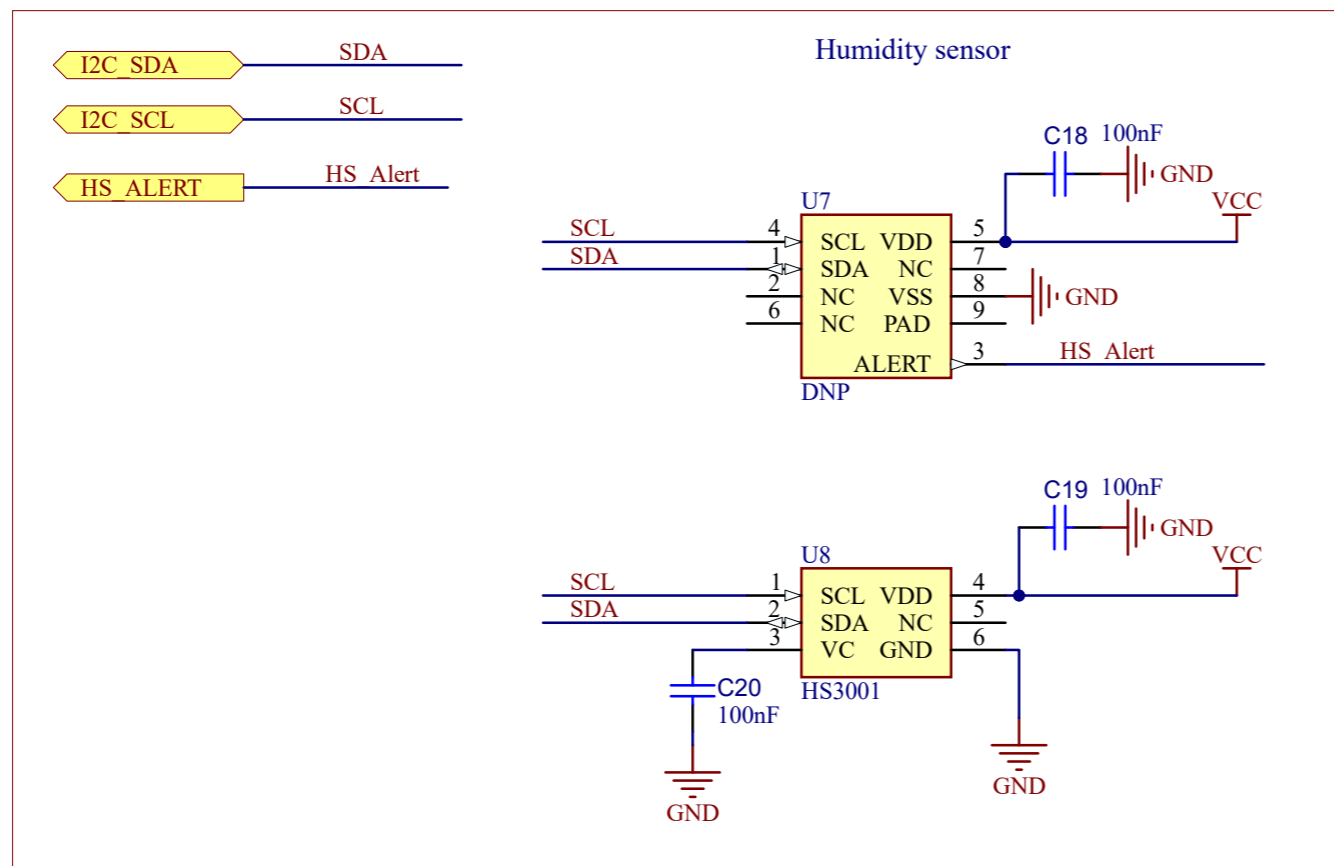
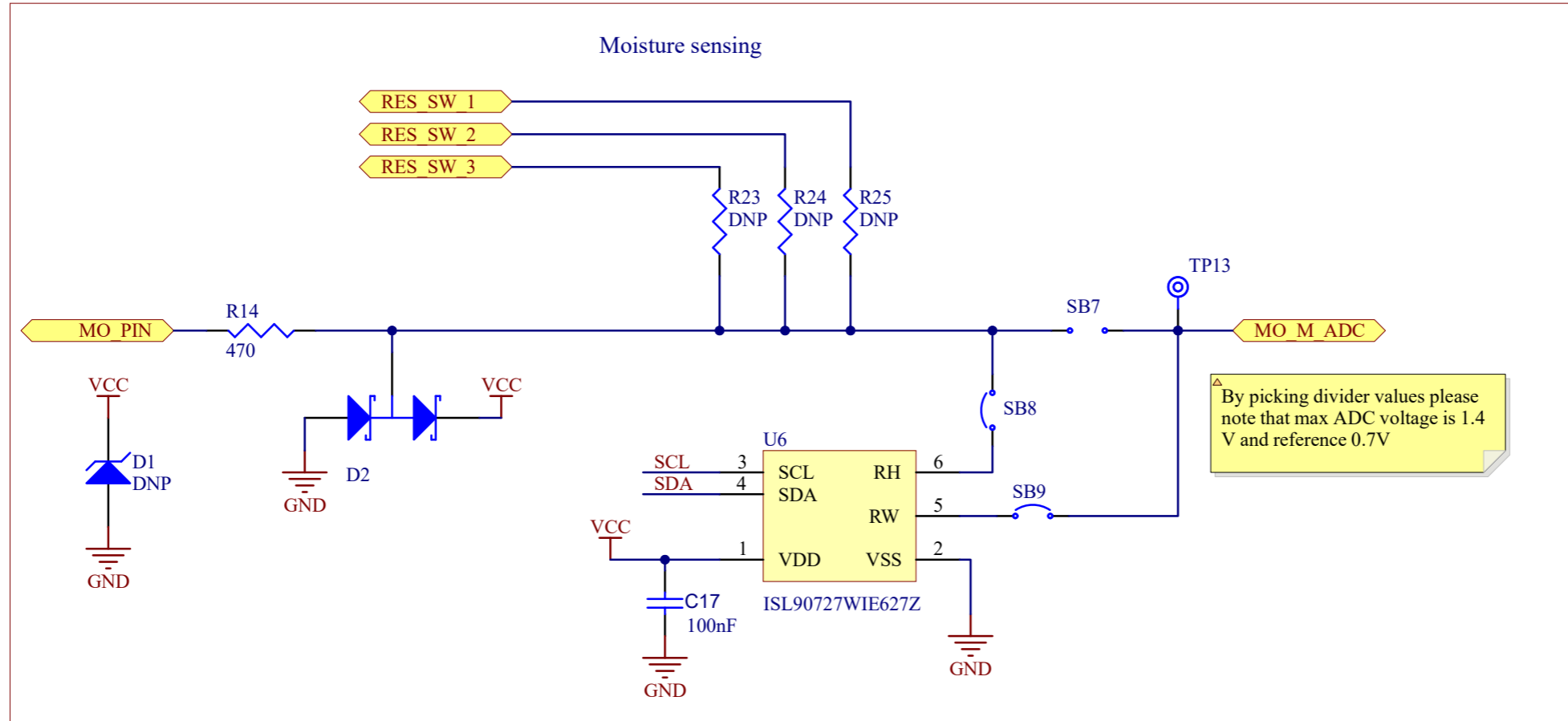
By picking divider values please note that max ADC voltage is 1.4 V and reference 0.7V

Title **EU153 Power Supply**

Size: A4 Number: EU153-1 Revision: 0v1
Date: 3/7/2023 Time: 12:23:58 Sheet: 4 of 5
File: eu153 power supply.SchDoc

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Title Sensors			Renesas Electronics Europe System Solutions Team EMEA Arcadiastraße 10 40472 Düsseldorf Germany	
Size: A4	Number: EU153-1	Revision: 0v1		
Date: 3/7/2023	Time: 12:23:58	Sheet: 5 of 5		
File: eu153 sensors.SchDoc				