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REVISION	DESCRIPTION	DATE	APPROVED
v1.0		2023-12-18	

CHECKED

_HW_EPaper

SCHEMATIC STATUS: **CHECKED**

v1.0
2023-12-18
VARIANT:

TEMPLATE NOTES

Set Project Parameters

- 1- Go to View -> Pge Preview Setting
- 2- Set Parameters based on the following Info
- COMMENT 1: Project Version
- COMMENT 2: Document Status
- COMMENT 3: Doc. Approval Eng.
- COMMENT 4: BOM Ref. DOC.
- COMMENT 5: PCB Ref. DOC.
- COMMENT 6: GBR Ref. DOC.
- COMMENT 7: ASM Ref. DOC.
- COMMENT 8: Variant Name
- COMMENT 9: Revision Description

Symbols and Lables

Mark Not Fitted Components as --> **DNF**
Differential Signal Example
Net Class Example

SCHEMATIC STATUS:

- DRAFT
- PRELIMINARY
- CHECKED
- RELEASED
- Very Early Stage of Schematic
- Close to Final Schematic
- There Should Not Be Any Mistakes
- A Board with This Schematic Has Been Produced

DESIGN CONSIDERATION

INFO:

Example text for informational design notes.

CAUTIONARY:

Example text for cautionary design notes.

DESIGN NOTE:

Example text for critical design notes.


LAYOUT NOTE:

Example text for critical layout guidelines.

3D Preview TOP

3D Preview BOTTOM

Board Statistics & Stackup Info

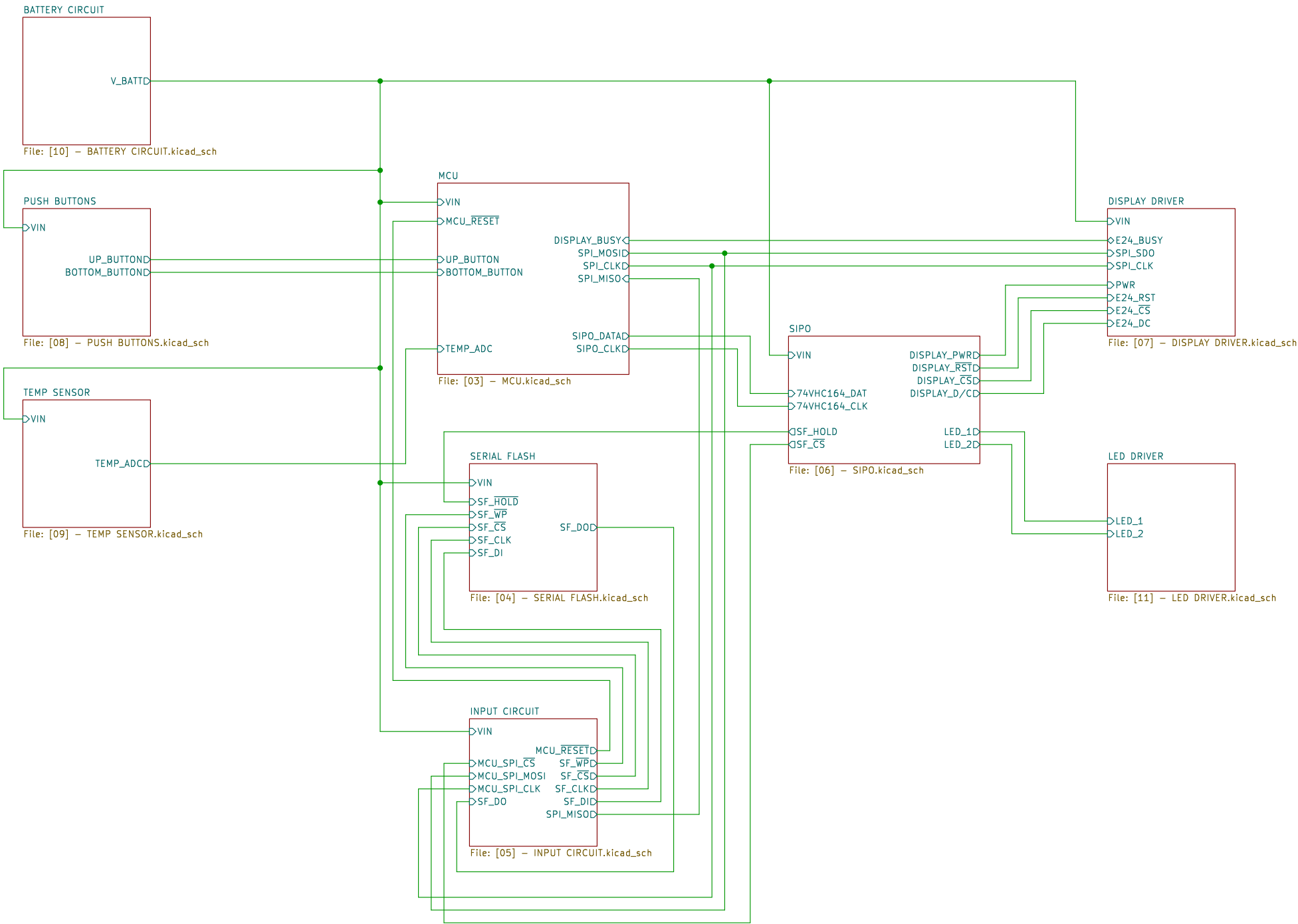
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ENG: Siavash Taher Parvar		2023-12-18	<div>_HW_EPaper</div>			
DSN: Siavash Taher Parvar		2023-12-18				
CHK: Siavash Taher Parvar		2023-12-18				
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SCH Ref. DOC.: _HW_EPaper.kicad.sch			TITLE:			
BOM Ref. DOC.:						
PCB Ref. DOC.:						
GBR Ref. DOC.:						
ASM Ref. DOC.:			FILE NAME: _HW_EPaper.kicad_sch			
SHEET 1 OF 12		SIZE: C	SCALE: 1:1	VARIANT NAME:		


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BLOCK DIAGRAM

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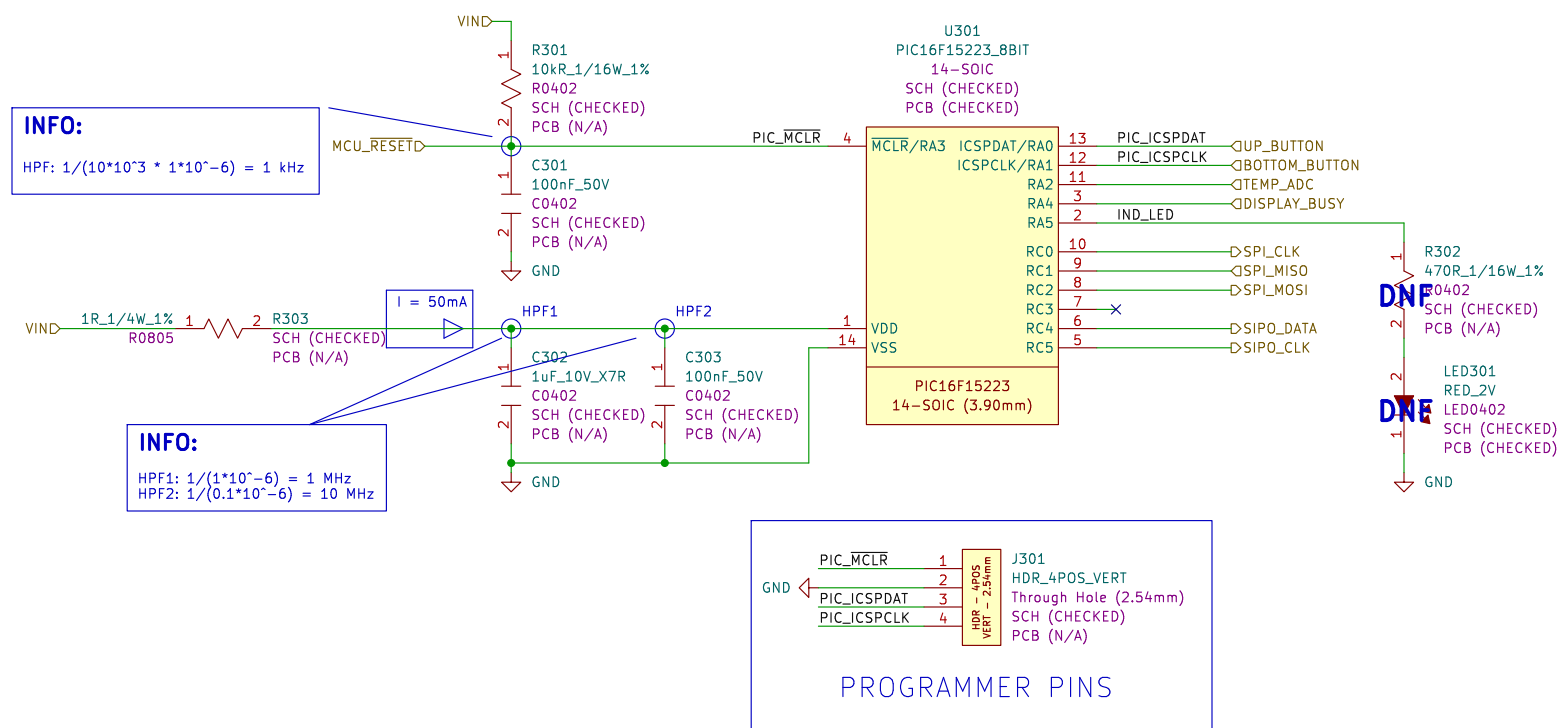
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SHEET 2 OF 12		SIZE: C	SCALE: 1:1	VARIANT NAME:		



MCU

	6	7	8
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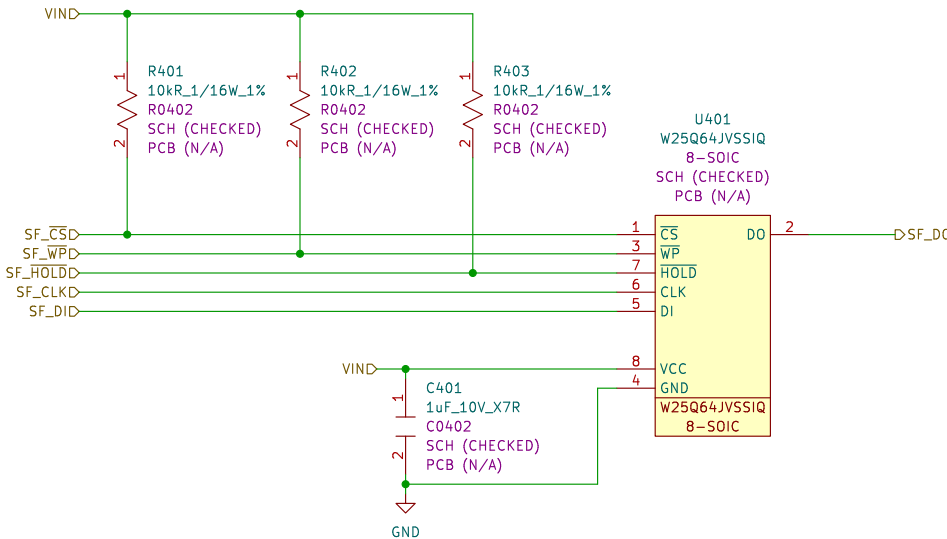



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SERIAL FLASH

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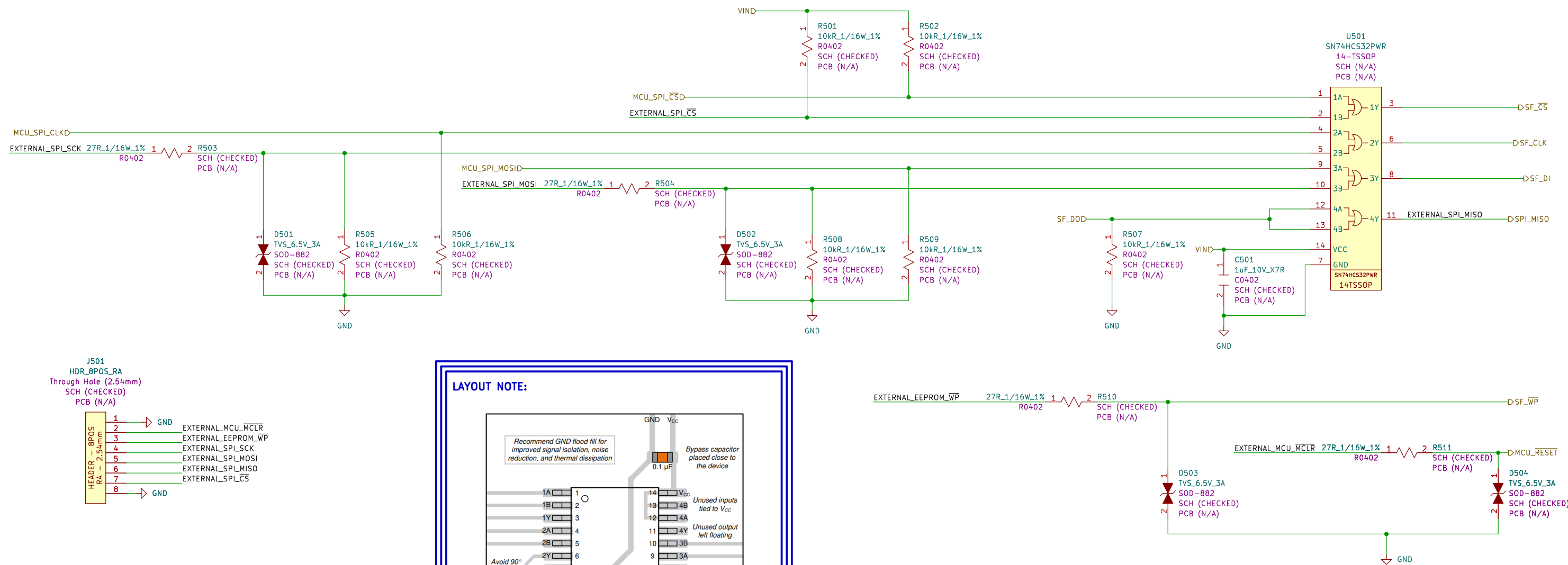
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CHK: Siavash Taher Parvar		2023-12-18	PRJ VER: v1.0	DOC VER: v1.0	DOC REV: v1.0	
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INPUT CIRCUIT

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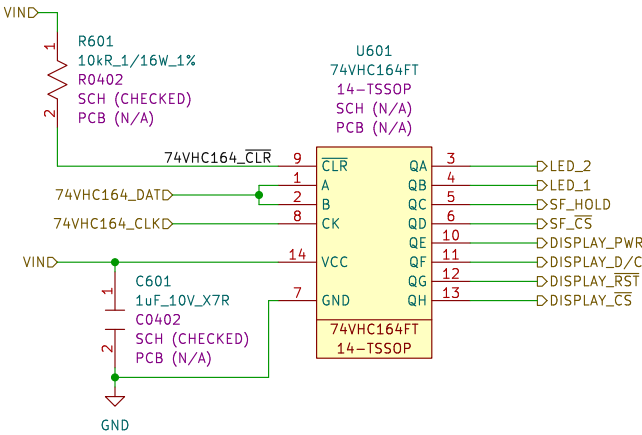



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SIPO

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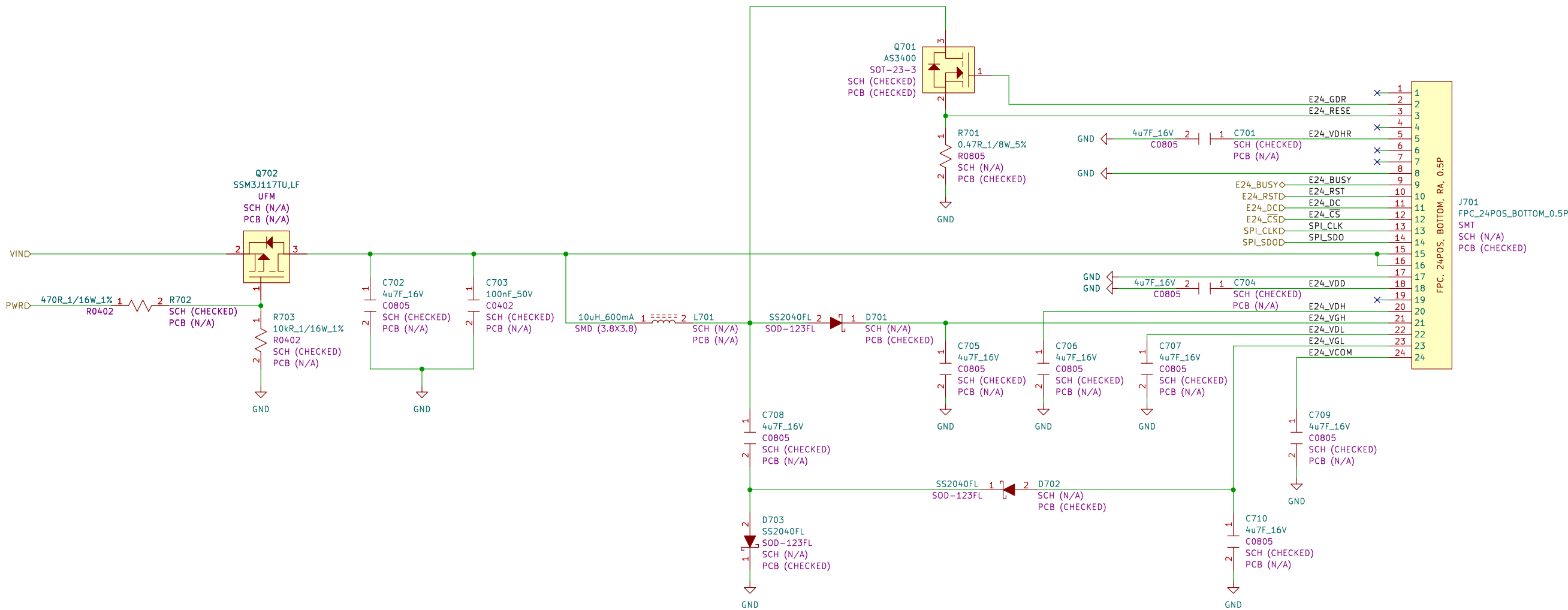
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DISPLAY DRIVER

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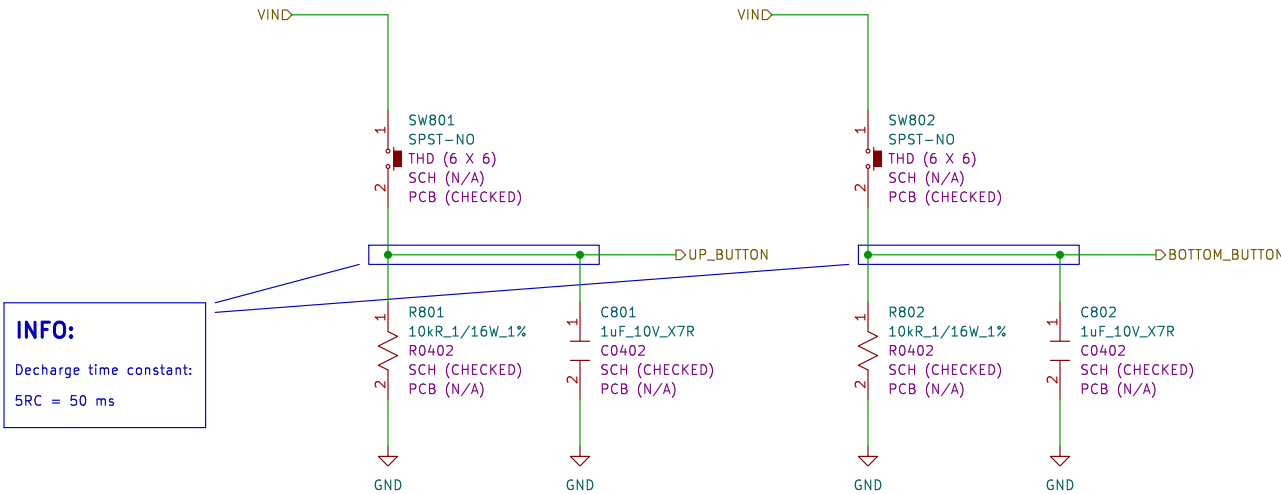
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PUSH BUTTONS

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INFO:
Decharge time constant:
SRC = 50 ms

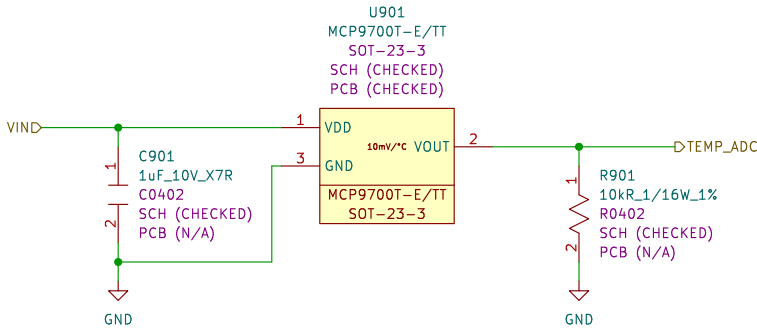
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TEMP SENSOR

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GBR Ref. DOC.:						
ASM Ref. DOC.:			FILE NAME: [09] – TEMP SENSOR.kicad_sch			
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BATTERY CIRCUIT

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[illegible]

Battery Fast-Charge Current

$$ICHG_FAST = KSET \times VSET / RISET$$
$$KSET = 9959R; VSET = 1.22V$$
$$ICHG_FAST = (9959 \times 1.22) / 30000 = 404 \text{ mA}$$

End-Of-Charge Current (EOC)


$$I_{MIN} = 10935/R_{MIN} = 10935/10000 = 1.0935 \text{ mA}$$

C_{99} should be placed near the IC to improve performance.

The copper area connecting the resistors of ISET and IMIN should be minimized and kept far away from noise sources.

The GND plane should be connected to a strong ground plane for heat sinking and noise protection.

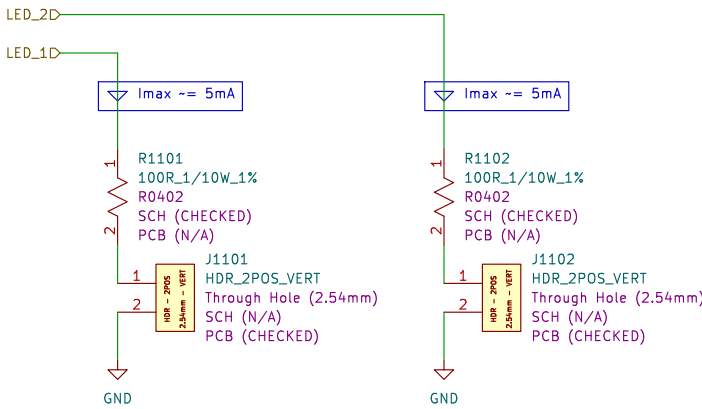
Figure 4. PCB Layout Guide

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LED DRIVER

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DESIGN NOTE:
You can connect
any LED but the
max current that
can be sourced
is 5mA

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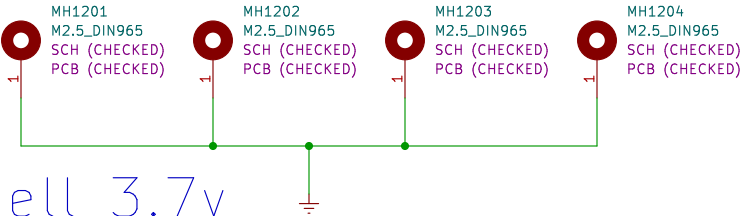
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MECHANICAL PARTS

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LOGO

GR1201
MendOz0 Logo
SCH (CHECKED)
PCB (CHECKED)



FD1201
1.5mmX3mm
SCH (CHECKED)
PCB (CHECKED)


FD1202
1.5mmX3mm
SCH (CHECKED)
PCB (CHECKED)

LI-ION BATTERY 1cell 3.7v

ADD A DISPLAY PERVASIV

add two leds THD

ADD a BOX and screws

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