

# Watch-DevKit-HW

Variant: PRELIMINARY

2026-02-19

Rev 1.1.0+ (Unreleased)

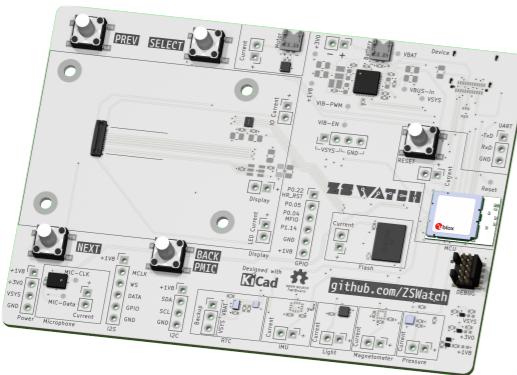
Page	Index
1	Cover Page
2	Block Diagram
3	Project Architecture
4	Power Management
5	Peripherals
6	MCU
7	Revision History
8	.....
9	.....
10	.....

Page	Index
11	.....
12	.....
13	.....
14	.....
15	.....
16	.....
17	.....
18	.....
19	.....
20	.....

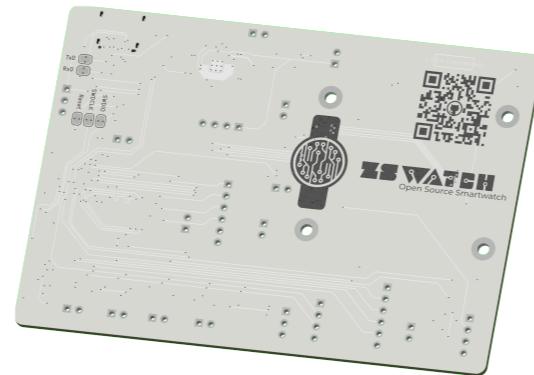
Page	Index
21	.....
22	.....
23	.....
24	.....
25	.....
26	.....
27	.....
28	.....
29	.....
30	.....

Page	Index
31	.....
32	.....
33	.....
34	.....
35	.....
36	.....
37	.....
38	.....
39	.....
40	.....

## TOP VIEW



## BOTTOM VIEW



## DESIGN CONSIDERATIONS

DESIGN NOTE:  
Example text for informational design notes.

DESIGN NOTE:  
Example text for debug notes.

DESIGN NOTE:  
Example text for cautionary design notes.

DESIGN NOTE:  
Example text for critical design notes.

LAYOUT NOTE:  
Example text for critical layout guidelines.

## NOTES

Comment

Not fitted components are marked as

DRAFT - Very early stage of schematic, ignore details.

PRELIMINARY - Close to final schematic.

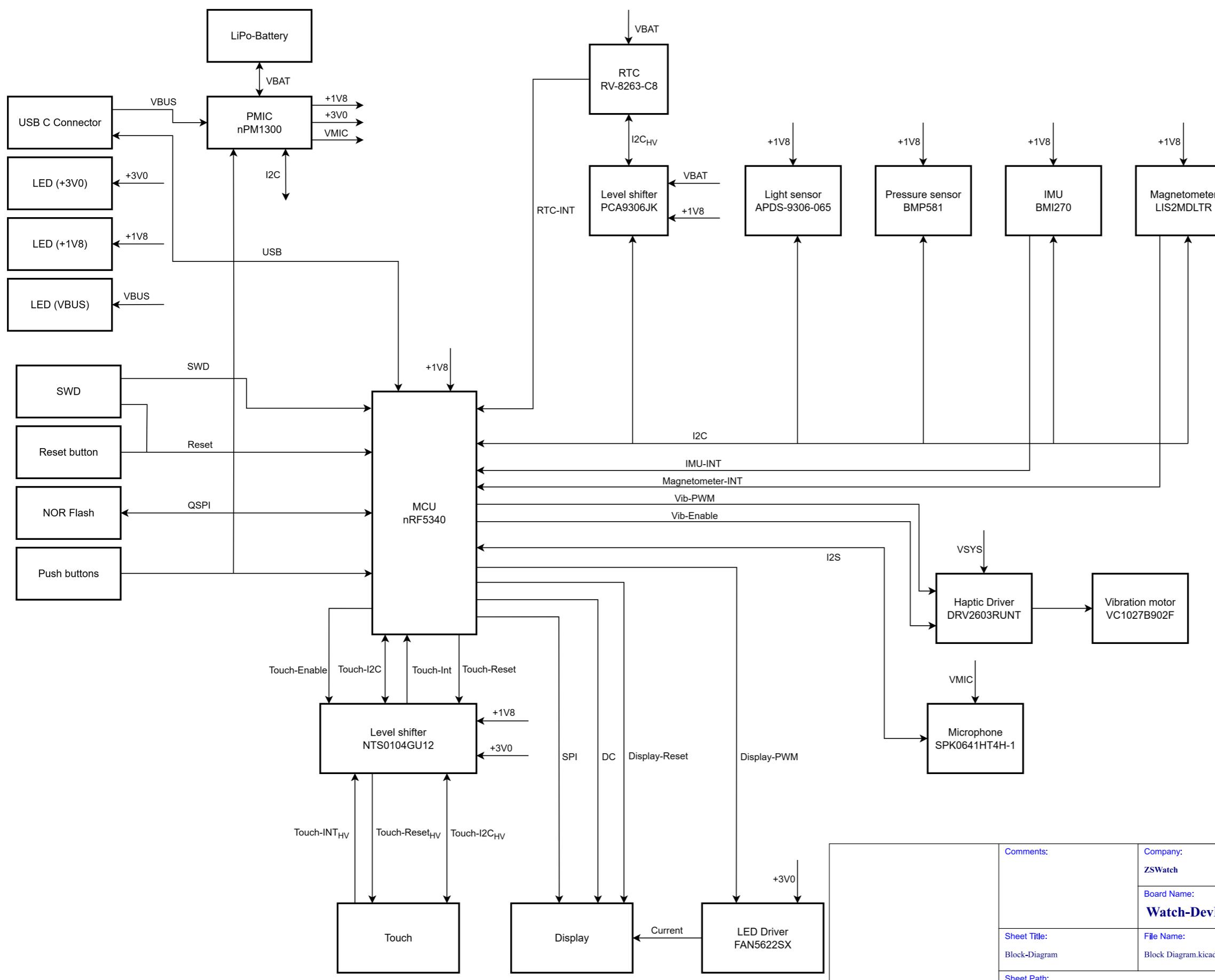
CHECKED - There shouldn't be any mistakes. Contact the engineer if you find any.

RELEASED - A board with this schematic has been sent to production.

Date: 19-Feb-2026

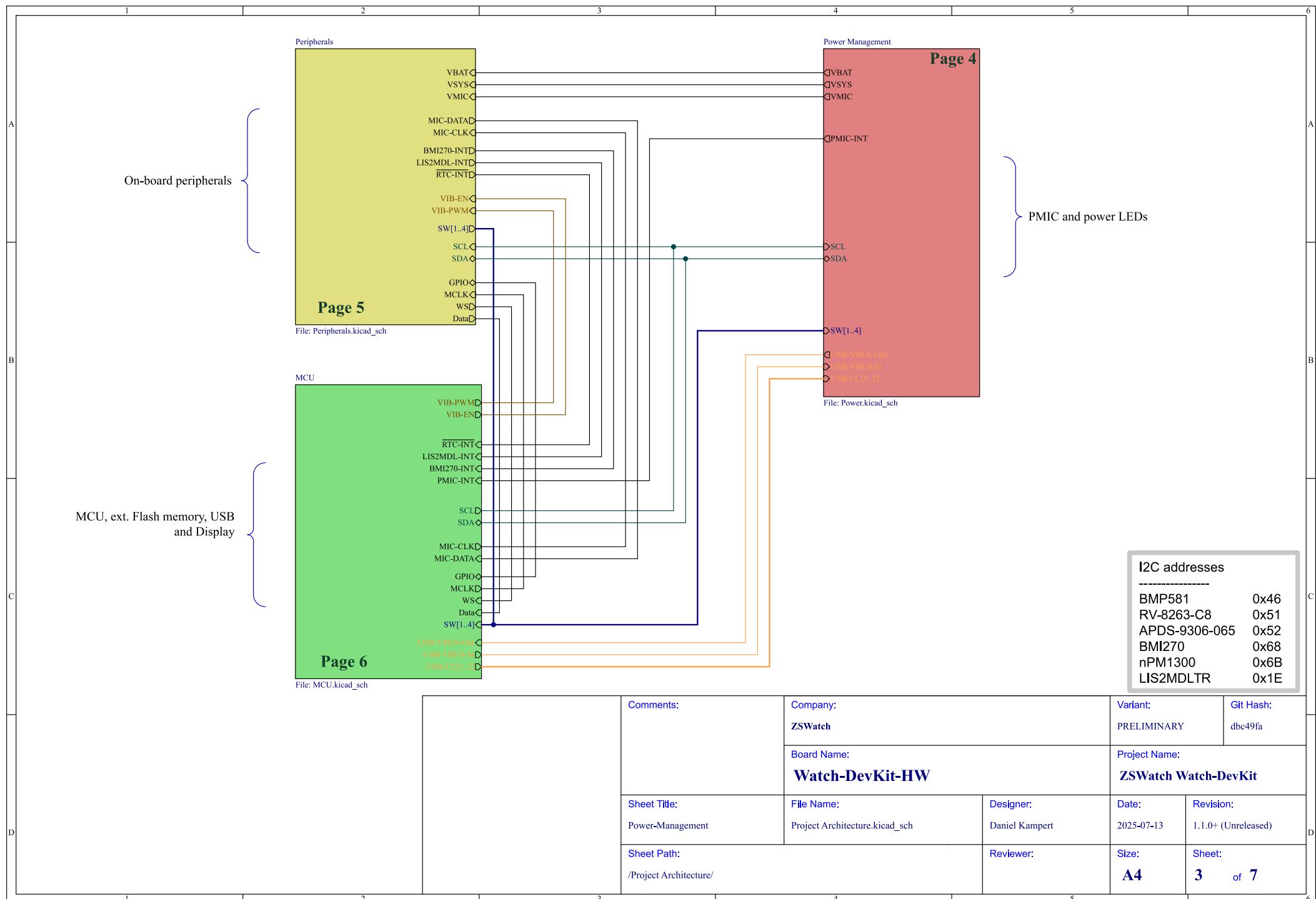
	Comments:	Company: <b>ZSWatch</b>	Variant: <b>PRELIMINARY</b>	Git Hash: <b>dbc49fa</b>
	Board Name: <b>Watch-DevKit-HW</b>	Project Name: <b>ZSWatch Watch-DevKit</b>		
	Sheet Title: <b>ZSWatch-Watch-DevKit.kicad_sch</b>	File Name: <b>ZSWatch-Watch-DevKit.kicad_sch</b>	Designer: <b>Daniel Kampert</b>	Date: <b>2025-07-13</b>
	Sheet Path: <b>/</b>	Reviewer:	Size: <b>A3</b>	Revision: <b>1.1.0+ (Unreleased)</b>

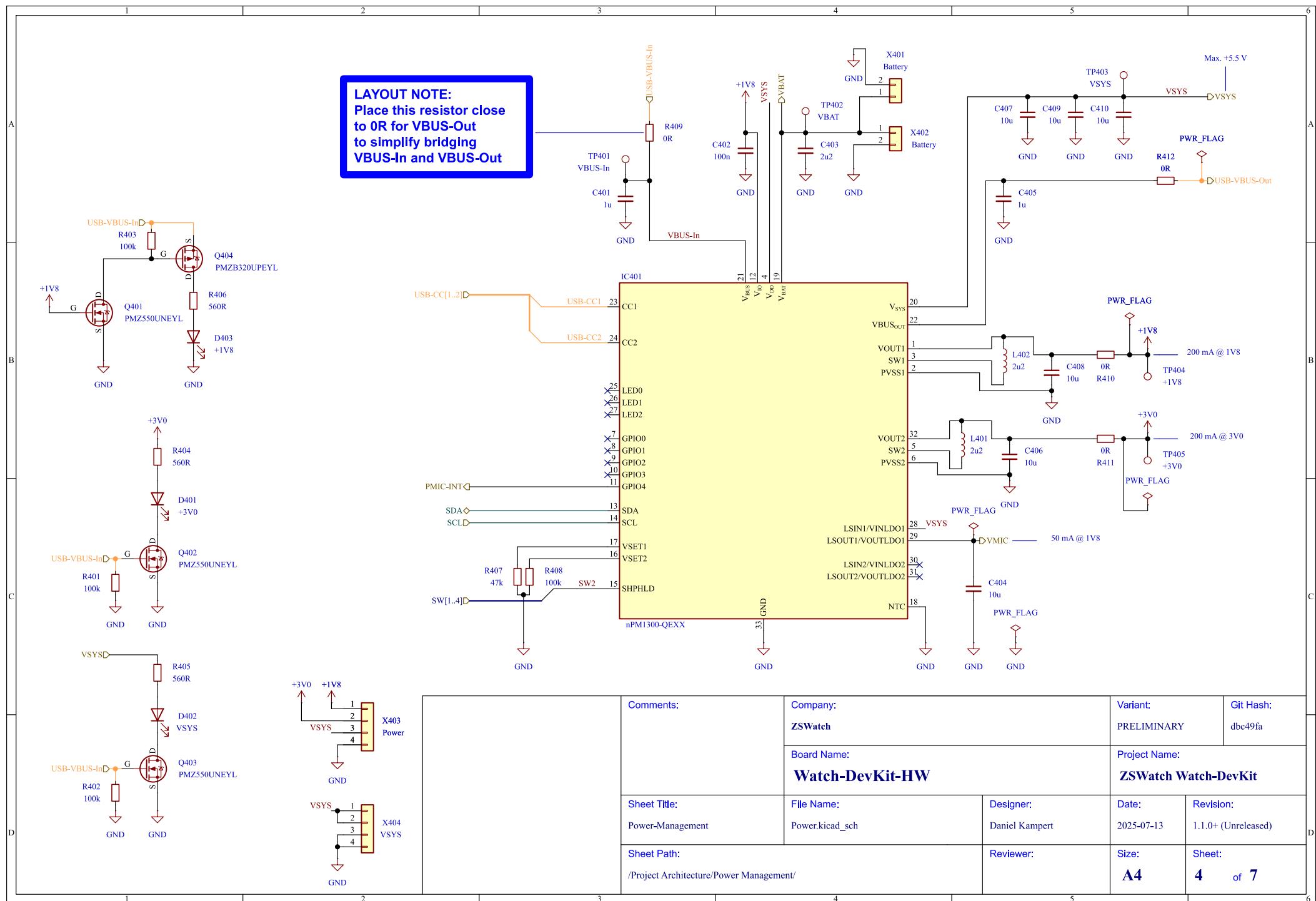
## [2] Block-Diagram

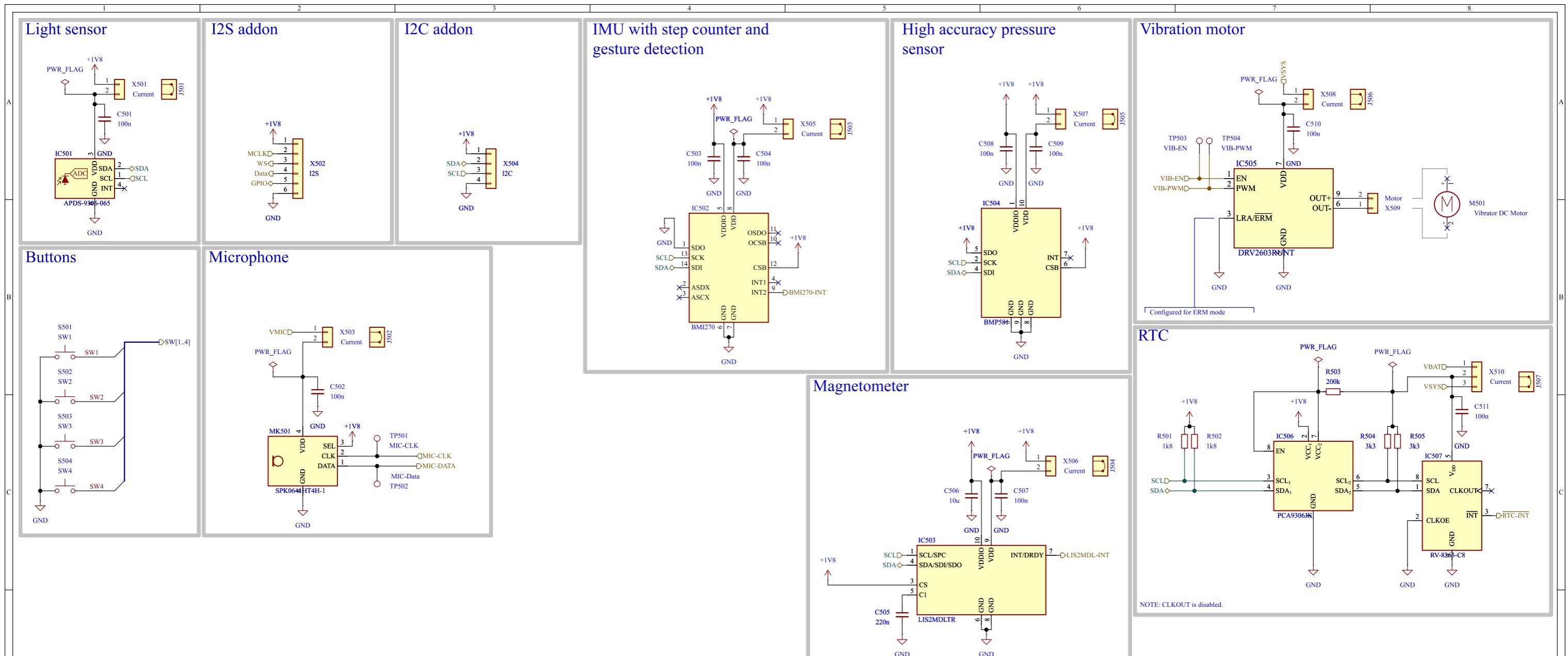


## **Target specifications:**

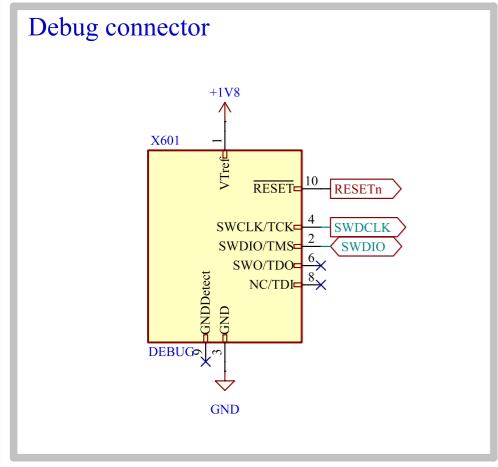
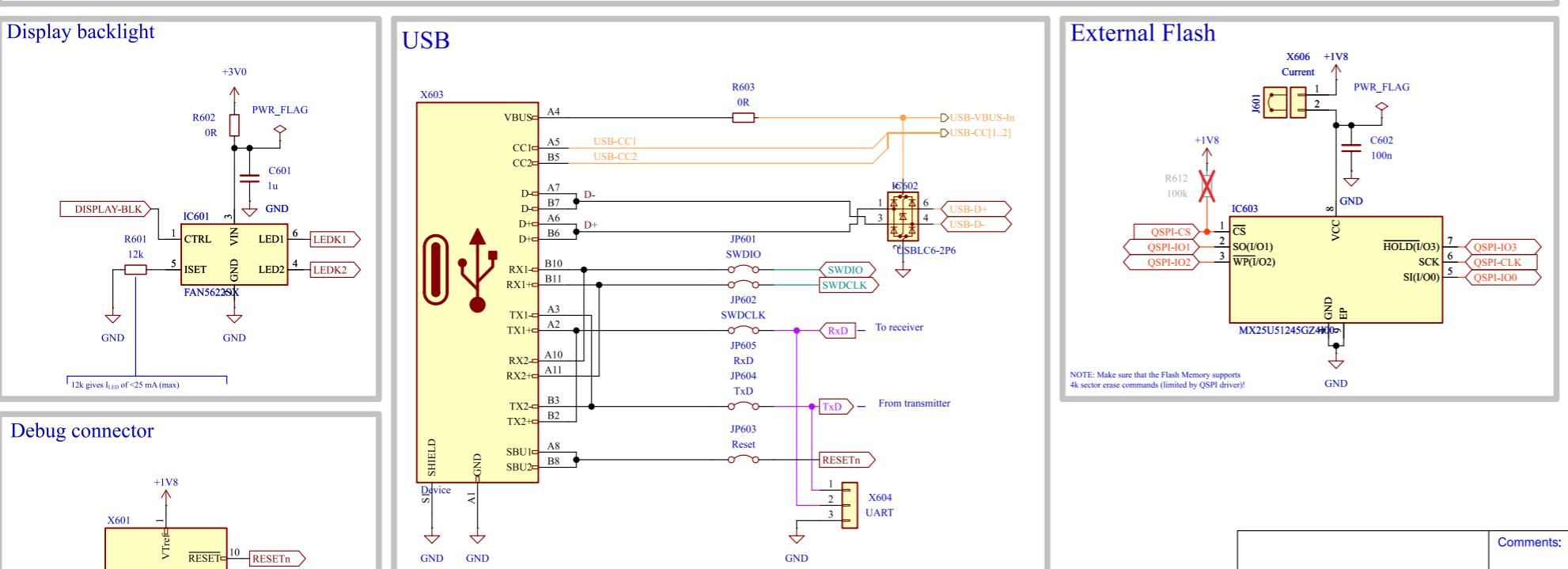
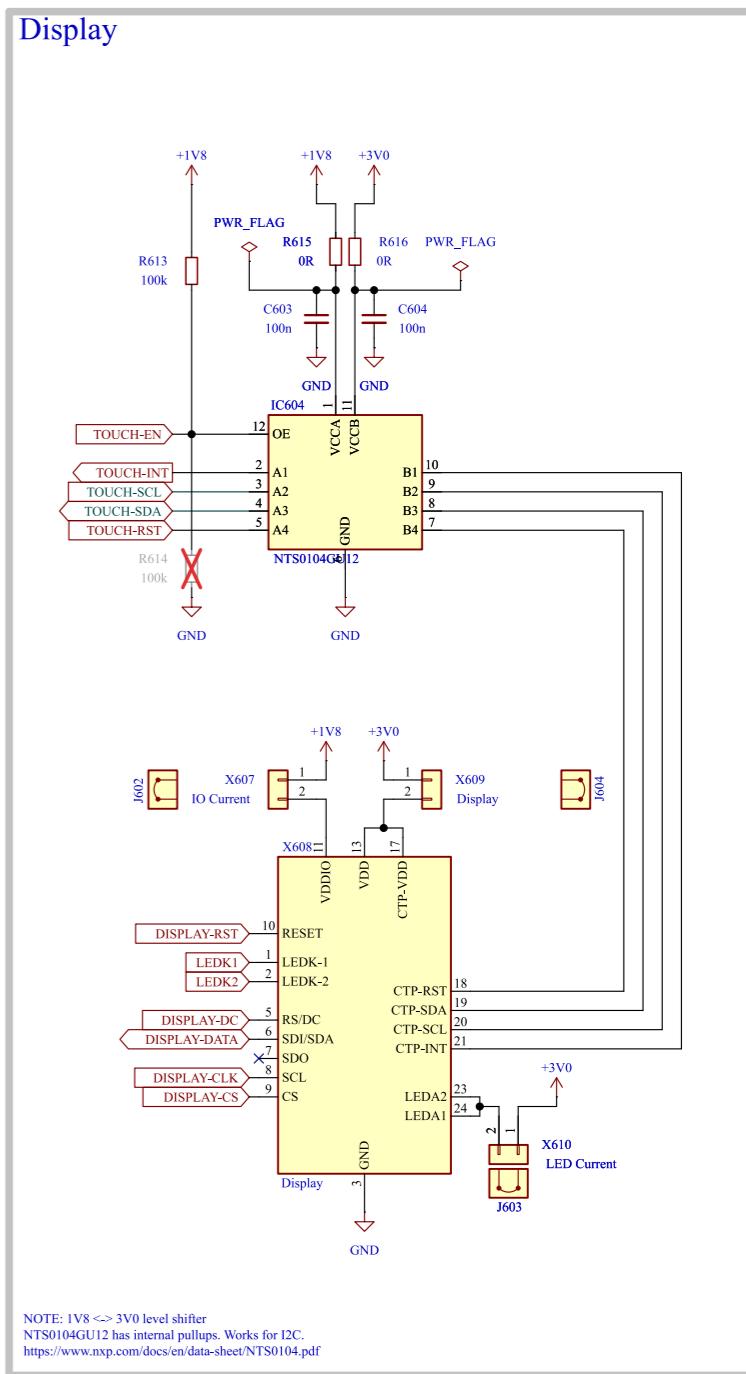
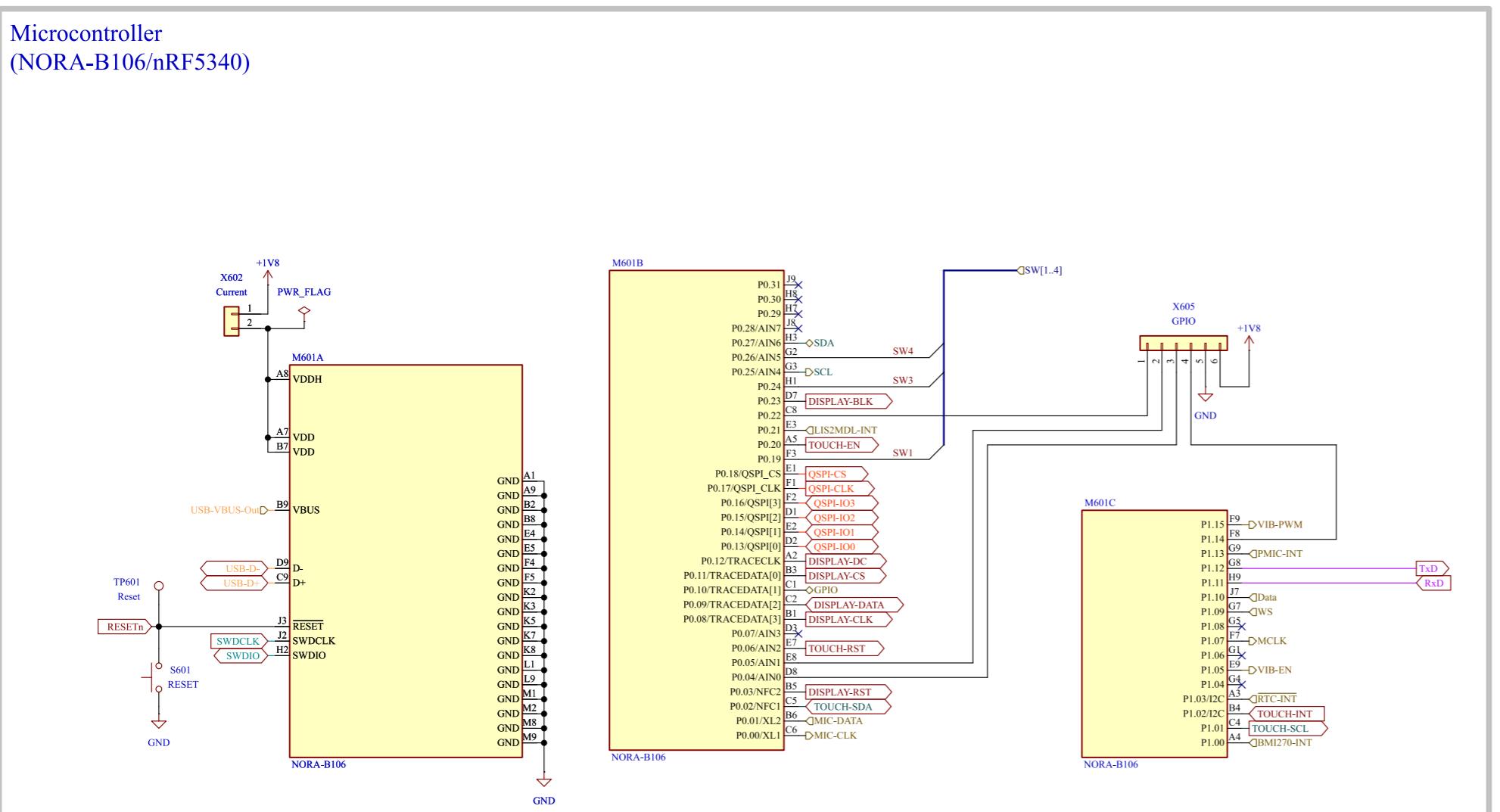
<b>Input voltage:</b>	5 V ± 5%		
<b>Battery voltage</b>	3.2 V to 4.2 V		
<b>Spec 3</b>	??		
<b>Spec 4</b>	??		
<b>HW</b>	Variant: PRELIMINARY	Git Hash: dbc49fa	Project Name: <b>ZSWatch Watch-DevKit</b>
	Designer: Daniel Kampert	Date: 2025-07-13	Revision: 1.1.0+ (Unreleased)
	Reviewer:	Size: <b>A3</b>	Sheet: <b>2</b> of <b>7</b>







	Comments: <b>ZSWatch</b>	Company: <b>ZSWatch</b>	Variant: <b>PRELIMINARY</b>	Git Hash: <b>dbc49fa</b>
	Board Name: <b>Watch-DevKit-HW</b>	Project Name: <b>ZSWatch Watch-DevKit</b>		
	Sheet Title: Peripherals	File Name: Peripherals.kicad_sch	Designer: Daniel Kampert	Date: 2025-07-13
	Sheet Path: /Project Architecture/Peripherals/		Reviewer:	Revision: 1.1.0+ (Unreleased)
			Size: <b>A3</b>	Sheet: <b>5 of 7</b>



Comments:	Company: <b>ZSWatch</b>	Variant: PRELIMINARY	Git Hash: dbc49fa
	Board Name: <b>Watch-DevKit-HW</b>	Project Name: <b>ZSWatch Watch-DevKit</b>	
Sheet Title: MCU	File Name: MCU.kicad_sch	Designer: Daniel Kampert	Date: 2025-07-13 Revision: 1.1.0+ (Unreleased)
Sheet Path: /Project Architecture/MCU/	Reviewer:	Size: <b>A3</b>	Sheet: <b>6</b> of <b>7</b>

# [7] Revision-History

A	<b>Version 1.2.0 - 2025-09-07</b>	<b>Version 1.2.1 - 2025-09-26</b>	<b> \${RELEASE_TITLE_...}</b> \${RELEASE_BODY_...}	<b> \${RELEASE_TITLE_...}</b> \${RELEASE_BODY_...}
B	<p>Fixed</p> <ul style="list-style-type: none"> <li>- Fix wrong orientation for SWD header (#117)</li> </ul> <hr/> <p>Added</p> <ul style="list-style-type: none"> <li>- Add pull-up resistor for display enable signal. Can be disabled via GPIO. (#123)</li> <li>- Add new KiBot template (#116)</li> <li>- Add orientation marker for IMU (#124)</li> <li>- Add power LEDs (#128)</li> <li>- Add reset button (#131)</li> <li>- Add testpoints for microphone I2S (#145)</li> </ul> <hr/> <p>Changed</p> <ul style="list-style-type: none"> <li>- Shrink down the PCB to save costs (#115)</li> <li>- Replace pin headers with THT to make them more robust (#121)</li> <li>- Rename "Power" jumpers to "Current" (#129)</li> <li>- Replace level shifter for RTC with PCA9306GF (#133)</li> <li>- Switch back to old LED driver (#134)</li> <li>- Power microphone from PMIC (#145)</li> </ul> <hr/> <p>Removed</p> <ul style="list-style-type: none"> <li>- Remove APDS-9306 interrupt (#122)</li> </ul>	<p>Added</p> <ul style="list-style-type: none"> <li>- Add missing pull-ups for I2C lines (#158)</li> </ul> <hr/> <p>Fixed</p> <ul style="list-style-type: none"> <li>- Fix wrong ship mode button (#155)</li> </ul> <hr/> <p>Changed</p> <ul style="list-style-type: none"> <li>- Change part number for SWD connector to 62201021121 (#157)</li> <li>- Set pull-up for Flash CS to NA (#158)</li> <li>- Center the mounting holes for the display (#159)</li> </ul>		
C				
D		<p>Comments:</p> <p>Company: <b>ZSWatch</b></p> <p>Board Name: <b>Watch-DevKit-HW</b></p> <p>Sheet Title: Revision-History</p> <p>File Name: Revision History.kicad_sch</p> <p>Designer: Daniel Kampert</p> <p>Date: 2025-07-13</p> <p>Revision: 1.1.0+ (Unreleased)</p> <p>Sheet Path: /Revision History/</p> <p>Reviewer:</p> <p>Size: <b>A4</b></p> <p>Sheet: <b>7</b> of <b>7</b></p>		