

1

2

3

4

A

A

B

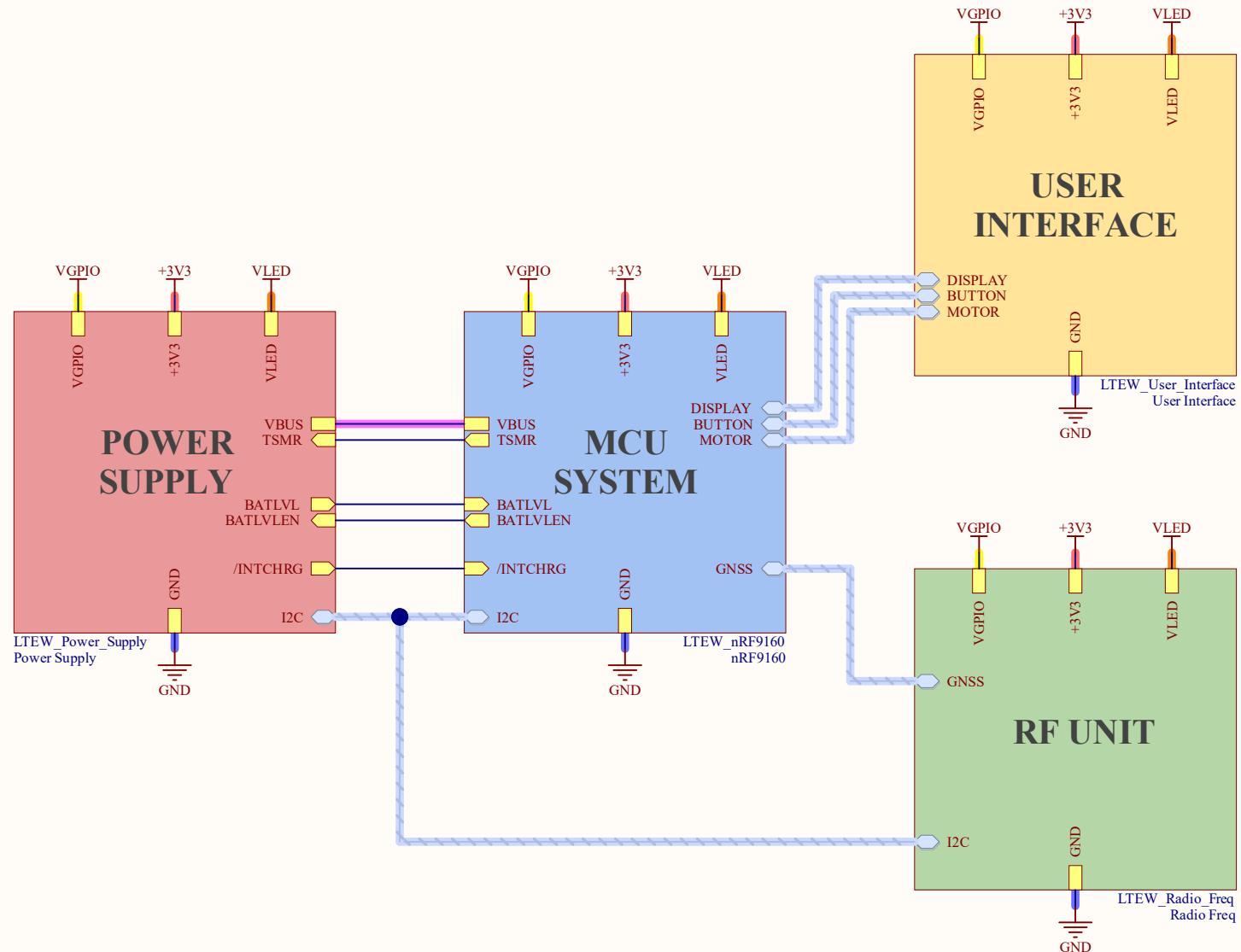
B

C

C

D

D



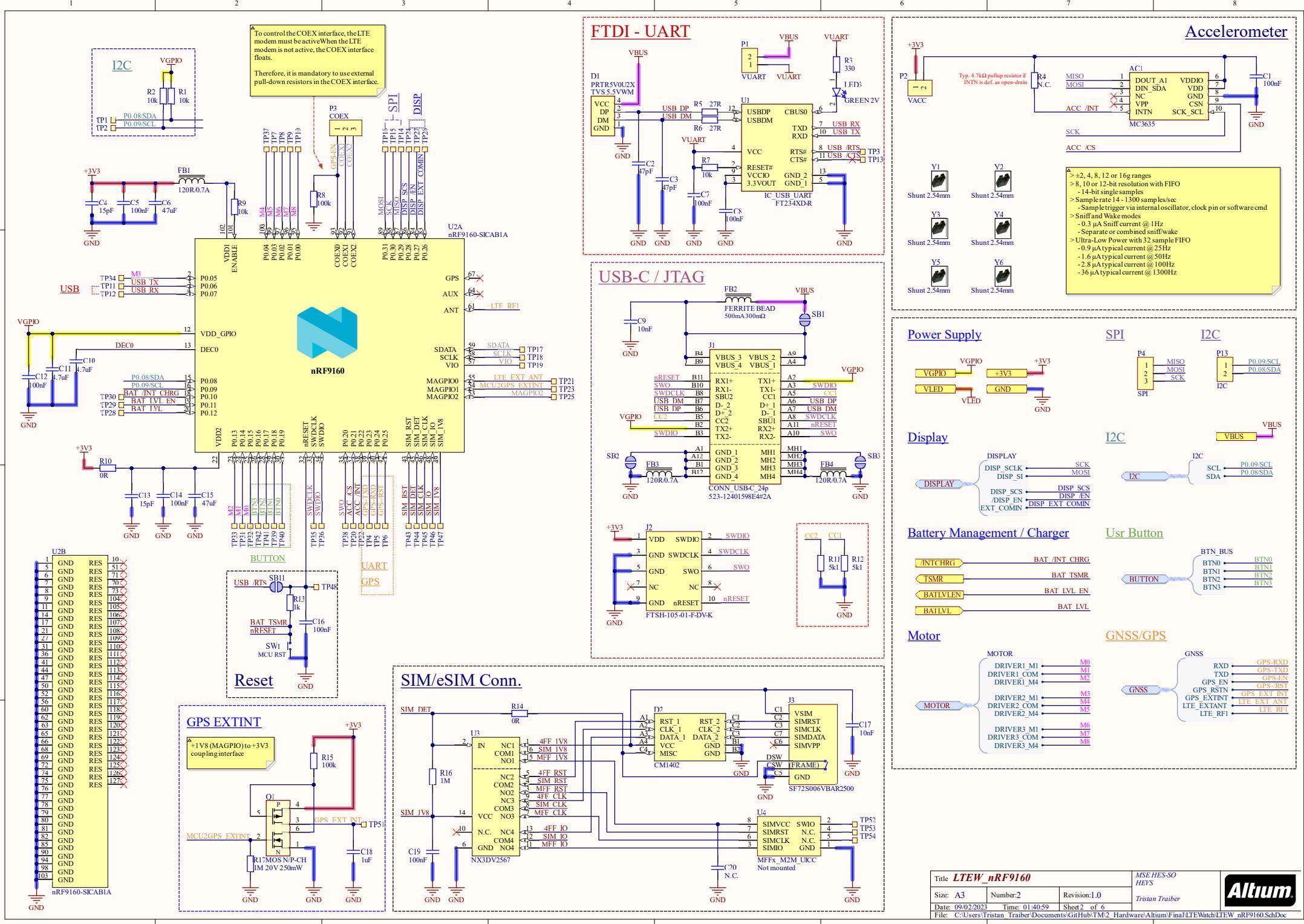
Title LTEWatch			MSE HES-SO HEVS
Size: A4	Number: 1	Revision: 1.0	Tristan Traiber
Date: 09/02/2023	Time: 01:40:59	Sheet 1 of 6	
File: C:\Users\Tristan_Traiber\Documents\GitHub\TM2_Hardware\Altium\Final\LTEWatch\LTEWatch.SchDoc			Altium

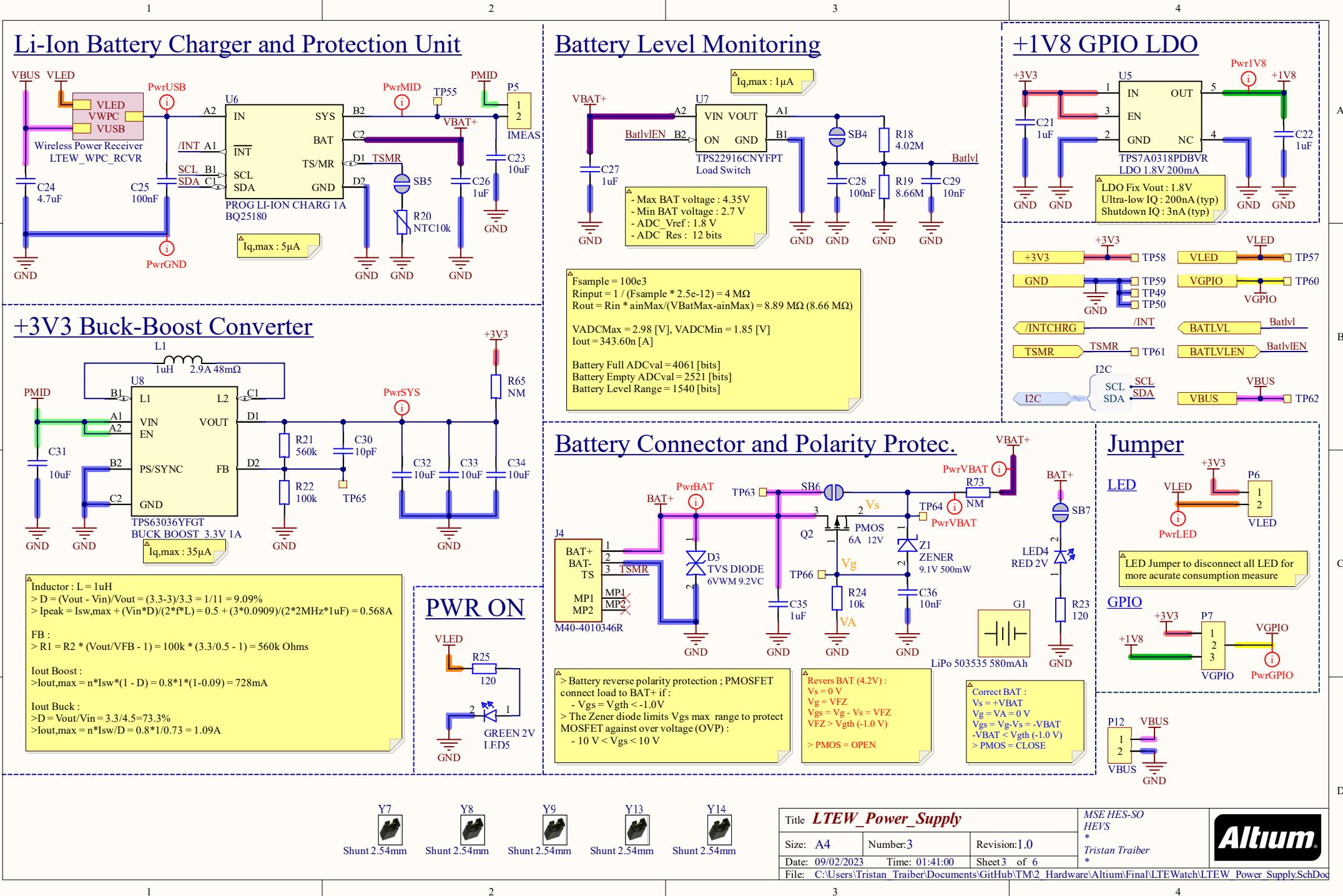
1

2

3

4





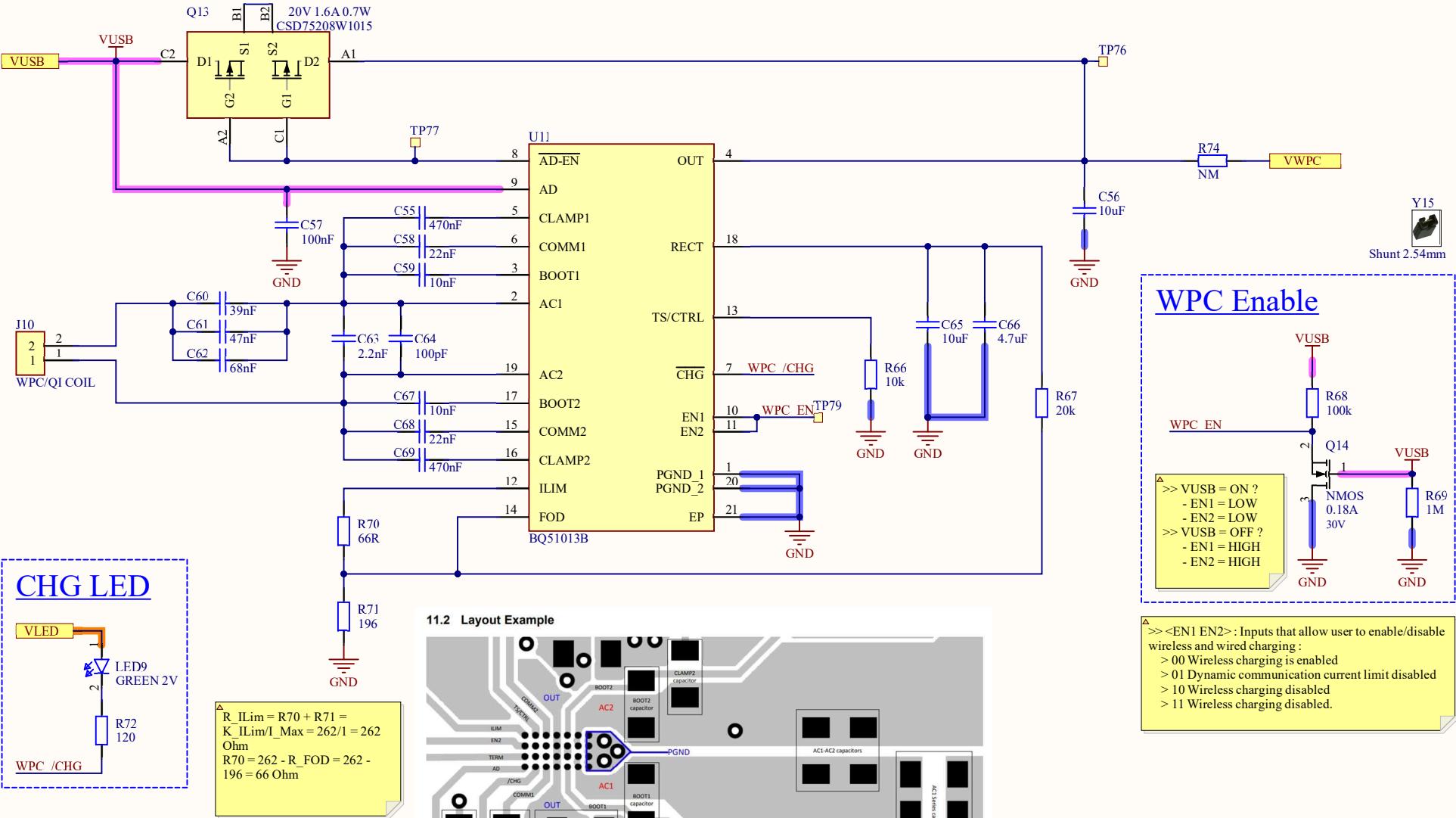
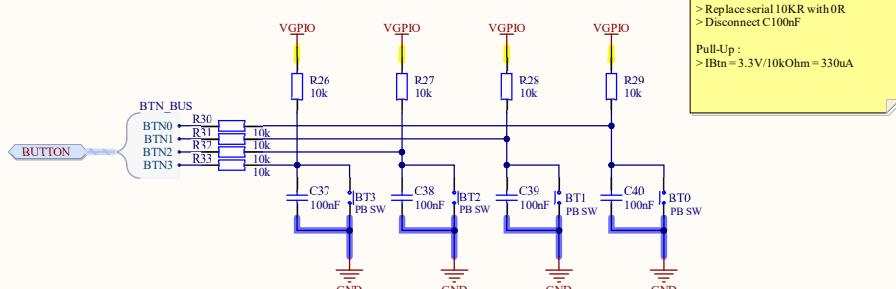


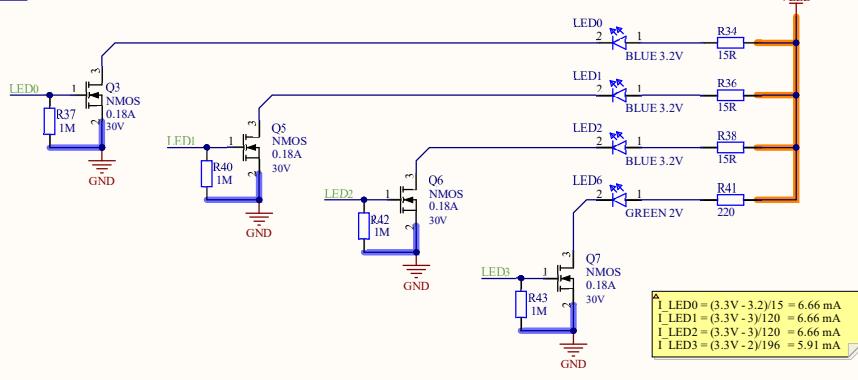
Figure 41. bq51003 Layout Schematic

Title LTEW_WPC_RCVR			MSE HES-SO HEVS * Tristan Traiber
Size: A4	Number: 4	Revision: 1.0	*
Date: 09/02/2023	Time: 01:41:00	Sheet 4 of 6	*
File: C:\Users\Tristan_Traiber\Documents\GitHub\TM2_Hardware\Altium\Final\LTEWatch\LTEW_WPC_RCVR.SchDoc			Altium

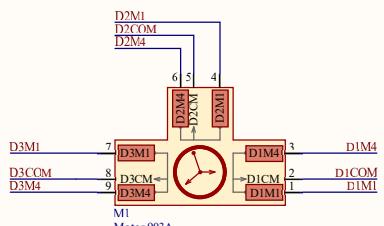
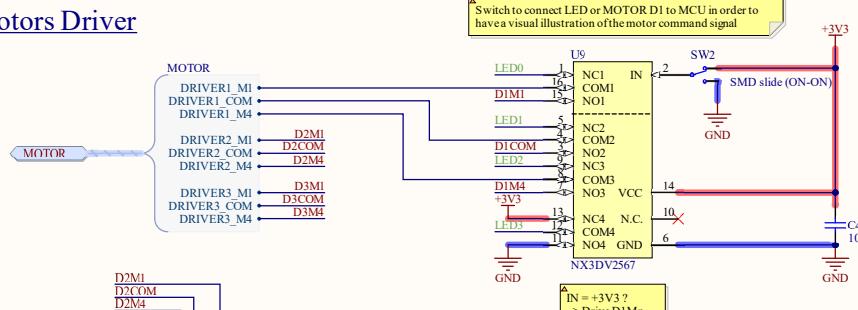
Buttons & Switches



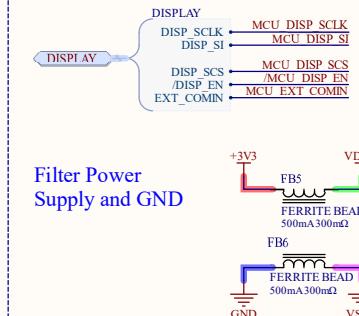
Leds



Motors Driver



Display Interface



4. Input Terminal names and function

4-1) Input Terminal

No.	Code	I/O	Voltage	Signal name	Remark
1	SCLK	I	0/3.0 (V)	Serial clock signal	
2	SI	I	0/3.0 (V)	Serial input signal	
3	SCS	I	0/3.0 (V)	Chip select signal	
4	EXTCOMIN	I	0/3.0 (V)	COM inversion polarity input pin	
5	DISP	I	0/3.0 (V)	Display ON/OFF switching signal	4-2
6	VDDA	I	3.0(V)	Power source for Analog	
7	VDD	I	3.0(V)	Power source for Logic	
8	EXTMODE	I	0/3.0 (V)	COM inversion mode switch terminal	4-1
9	VSS	I	0(V)	Logic ground	
10	VSSA	I	0(V)	Analogical ground	

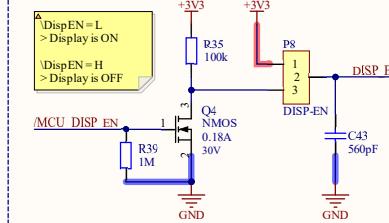
[Remark 4-1] "H"=EXTCOMIN singal enabled, "L"=Serial input flag enabled.

When "H", connect EXTMODE to VDD and when "L" to VSS.

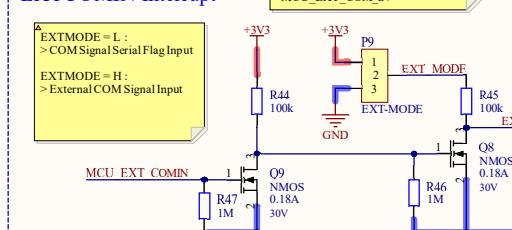
[Remark 4-2] ON/OFF for LCD display only. Memory data is maintained.

When "H", displays with memory data, and when "L", displays all white with memory data maintained.

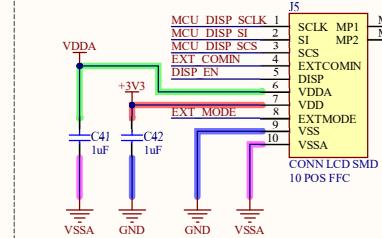
Display Enable Ctrl



EXTMODE Option Ctrl & EXTCOMIN Interrupt



On Board Display Interface



Nice!View Connector

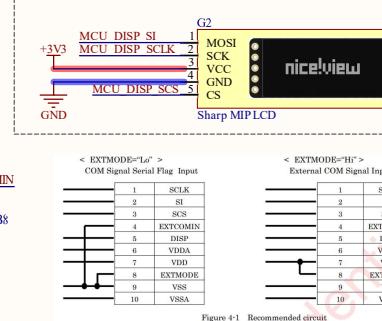
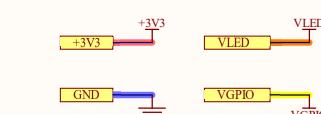


Figure 4-1 Recommended circuit

Power Supply



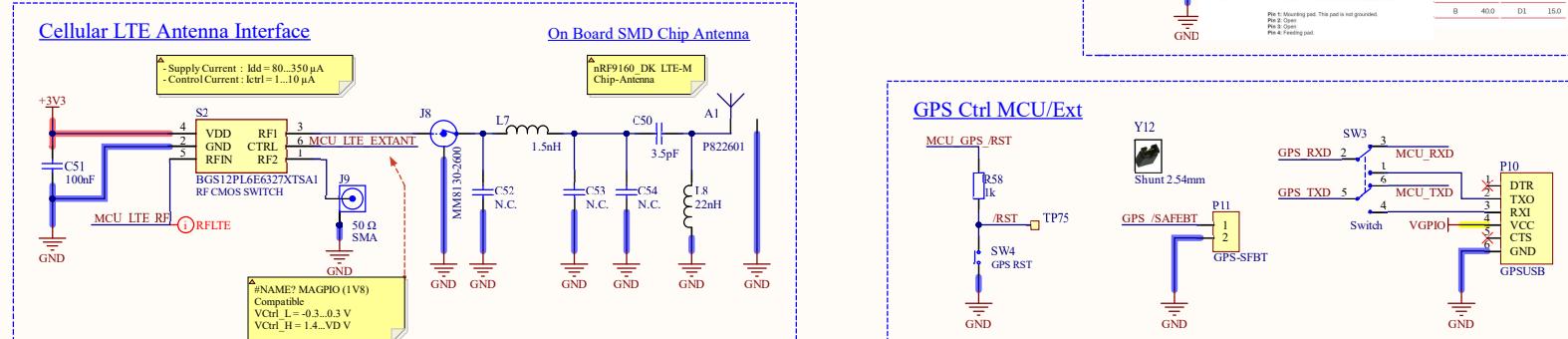
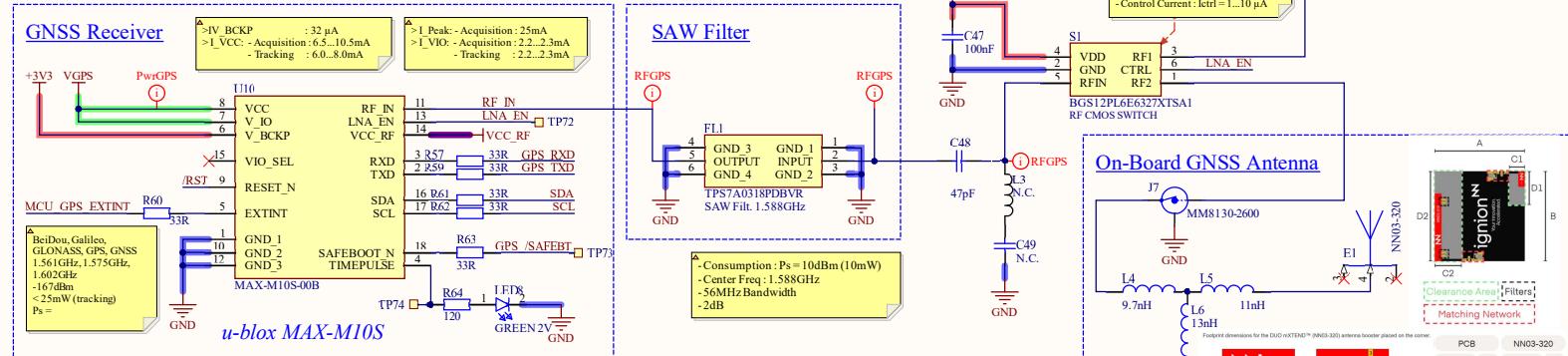
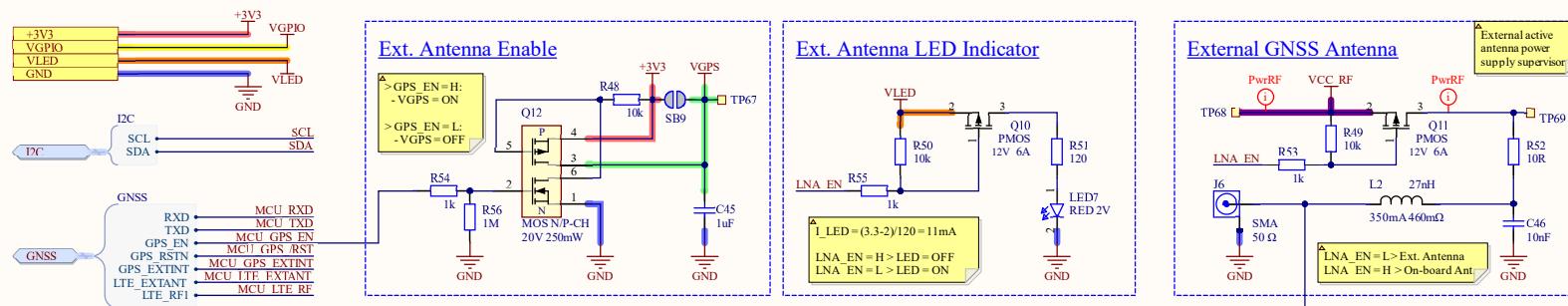
Title **LTEW_User_Interface**

Size: A3 Number:5 Revision:1.0

Date: 09/02/2023 Time: 01:41:00 Sheet: 5 of 6

File: C:\Users\Tristan.Traiber\Documents\GitHub\TM2_Hardware\Altium\Final\LTEWatch\User_Interface.SchDoc







LTEwatch_PcbDoc
Ver 1.0 19.10.2021

