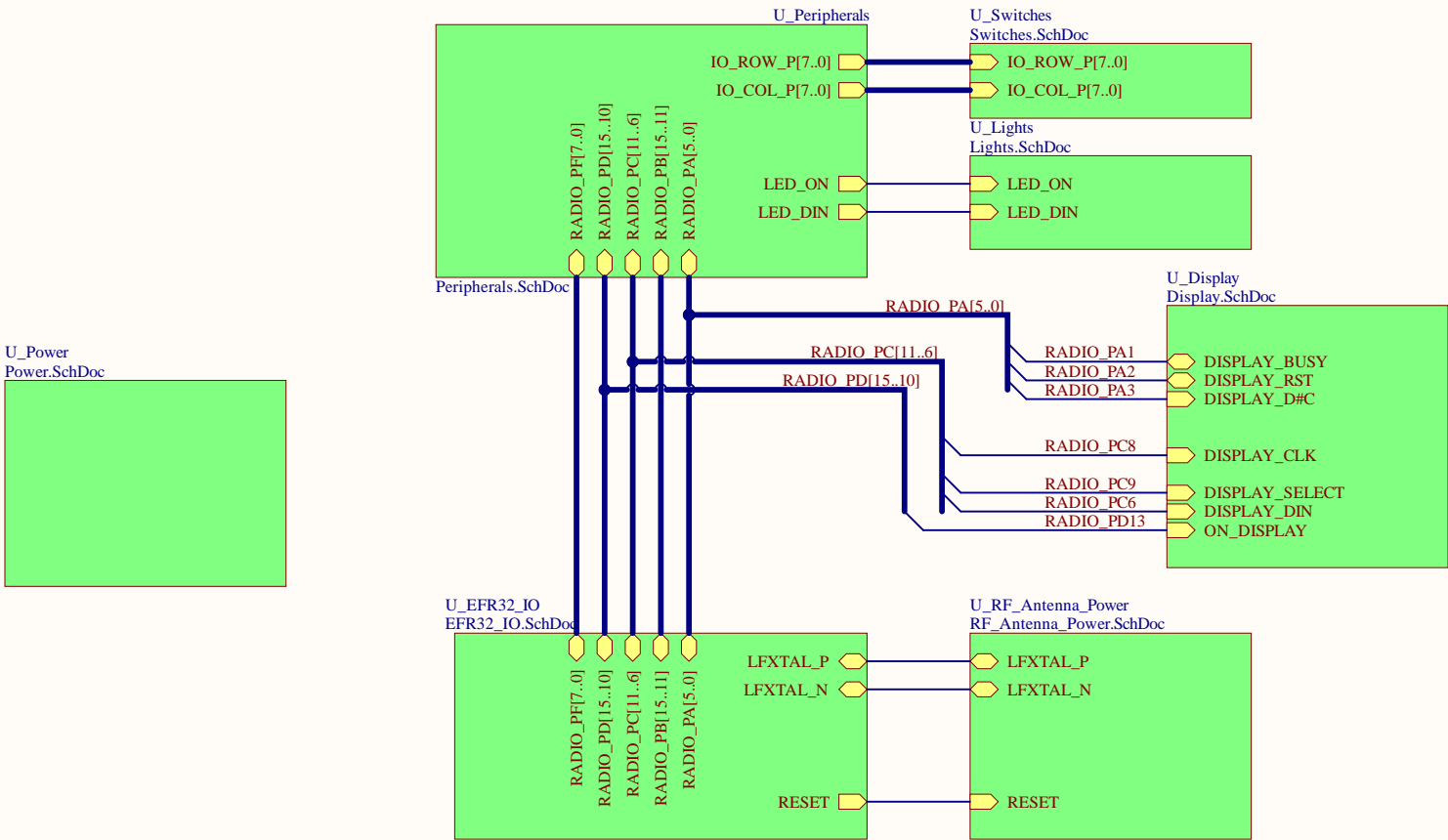
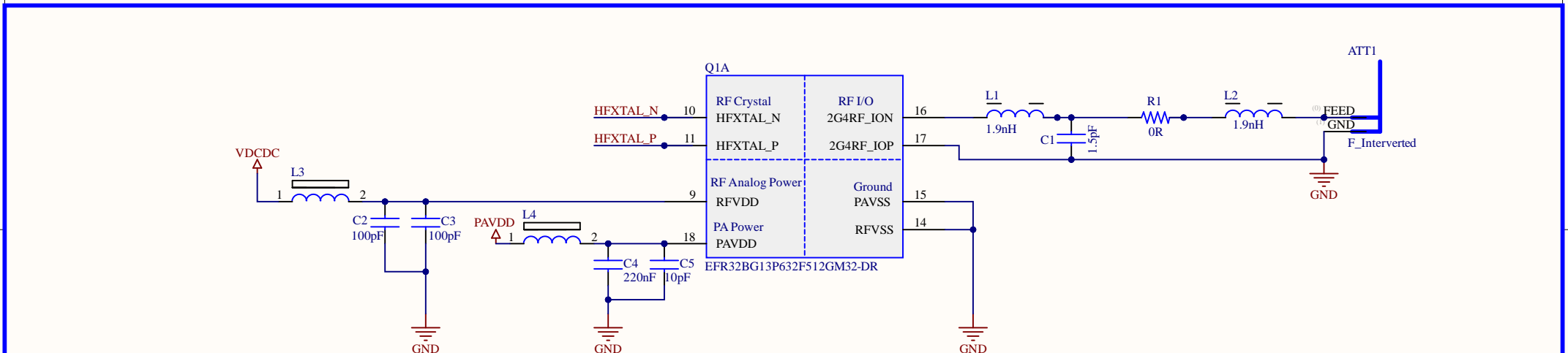


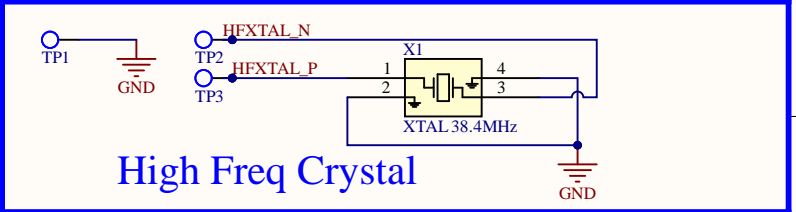
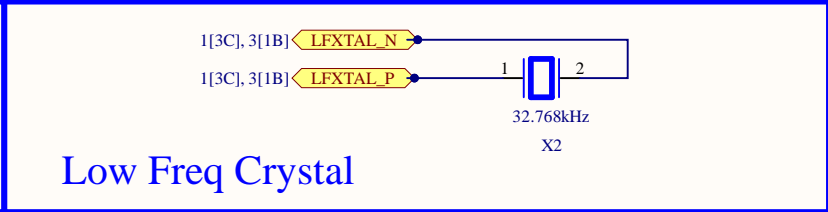
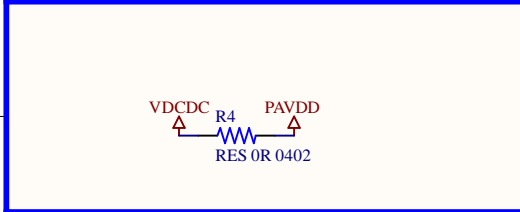
I2C



Title		
Size	Number	Revision
A4		
Date:	10/22/2024	Sheet of
File:	C:\Users\...\Keyboard-Left.SchDoc	Drawn By:



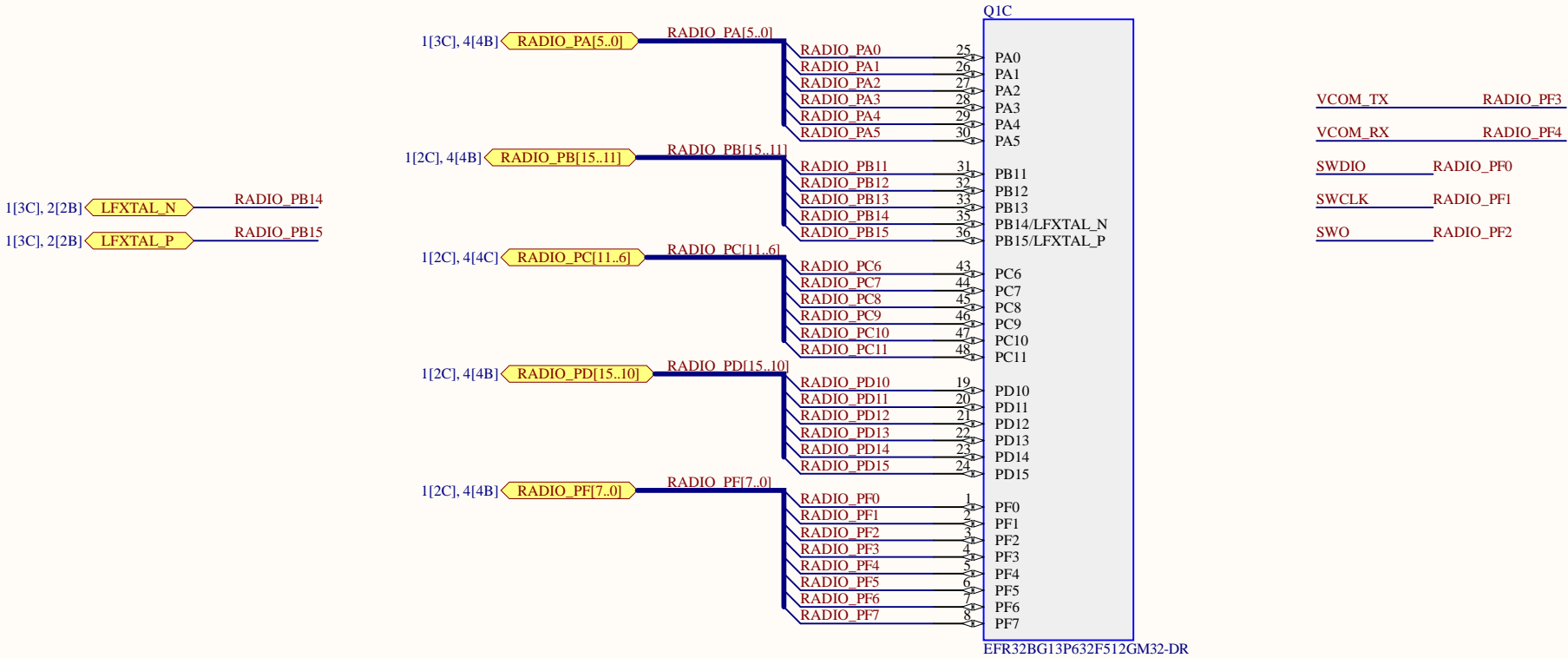
Antenna & Radio Interface



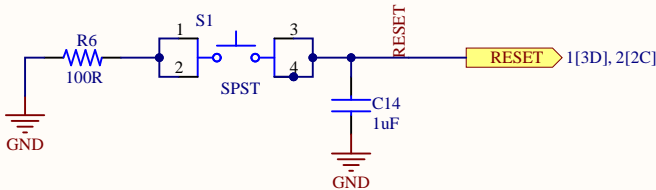
Power & Decoupling

Title		
RF and Crystal		
Size	Number	Revision
A4	2	v1.0
Date:	10/22/2024	Sheet of Low Self Esteem
File:	C:\Users\RF Antenna Power.SchDoc	Drawn By: Parth Thakkar

EFRBG13 GPIOs



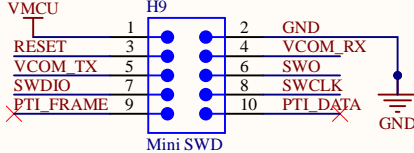
Reset input, active low. This pin is internally pulled up to AVDD. To apply an external reset source to this pin, it is required to only drive this pin low during reset, and let the internal pull-up ensure that reset is released.



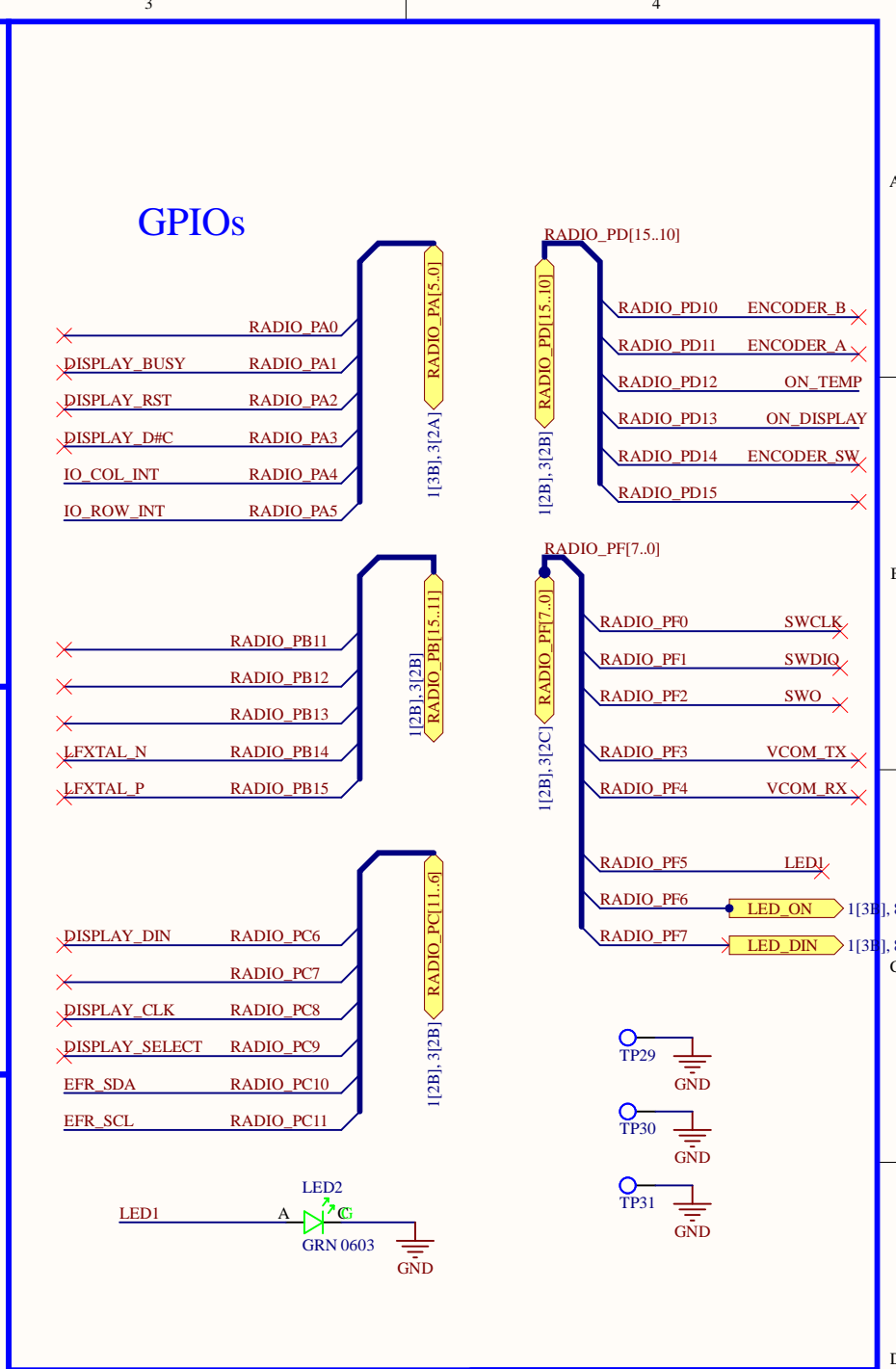
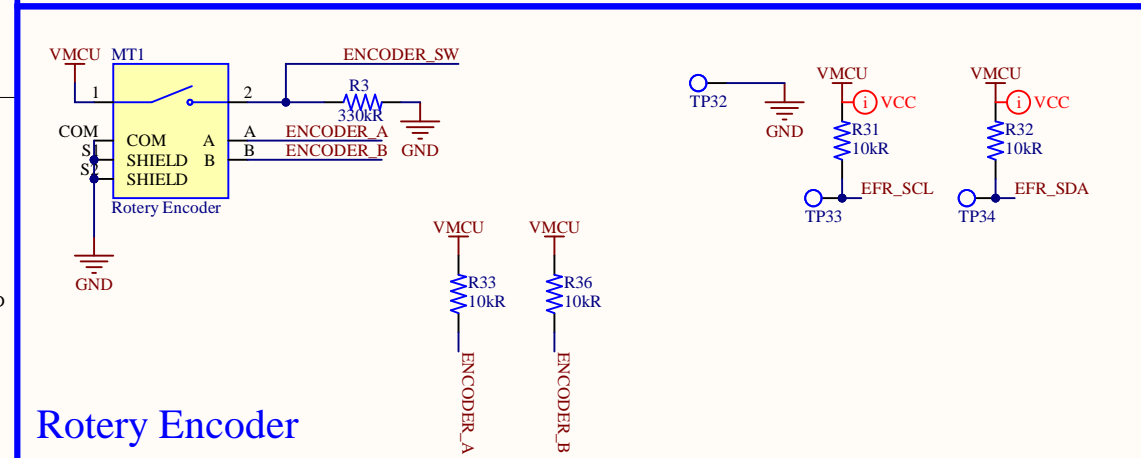
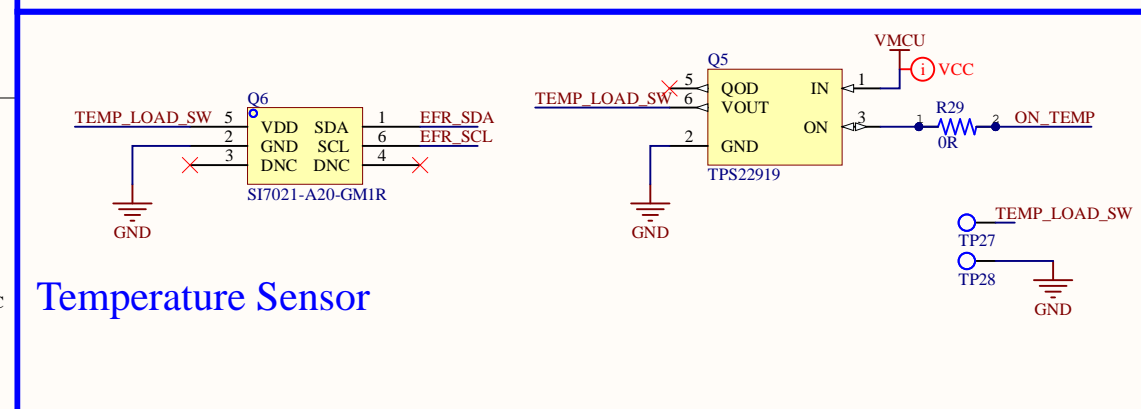
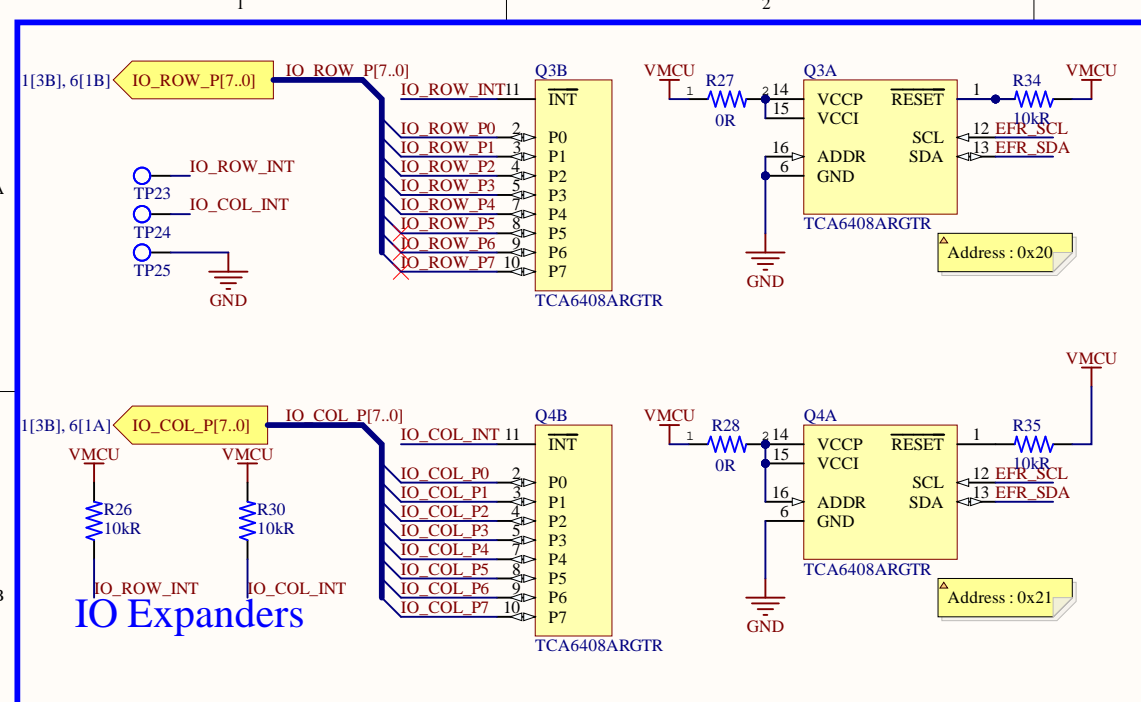
Reset

Mini Simplicity Connector

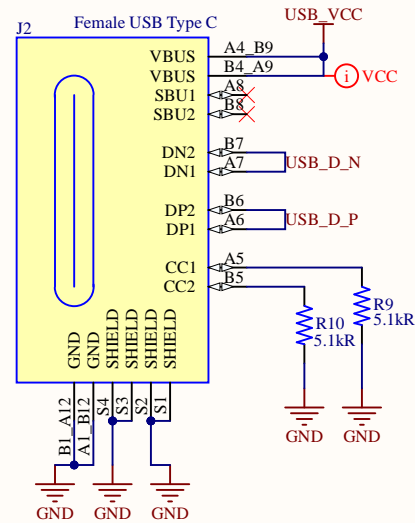
- Serial Wire Debug (SWD) with SWO
- Packet Trace Interface (PTI)
- Virtual COM port (VCOM)
- AEM monitored voltage rail



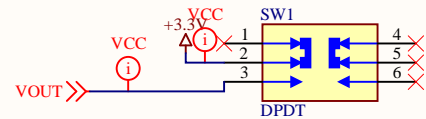
IO Connections		
Title	3	
Size	Number	Revision
Letter		
Date:	10/22/2024	Sheet of
File:	C:\Users\...\EFR32_IO.SchDoc	Drawn By:



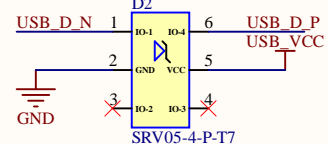
Title		
Size	Number	
Letter	Revision	
Date:	10/22/2024	
File:	C:\Users\...\Peripherals.SchDoc	
Sheet of	Drawn By:	



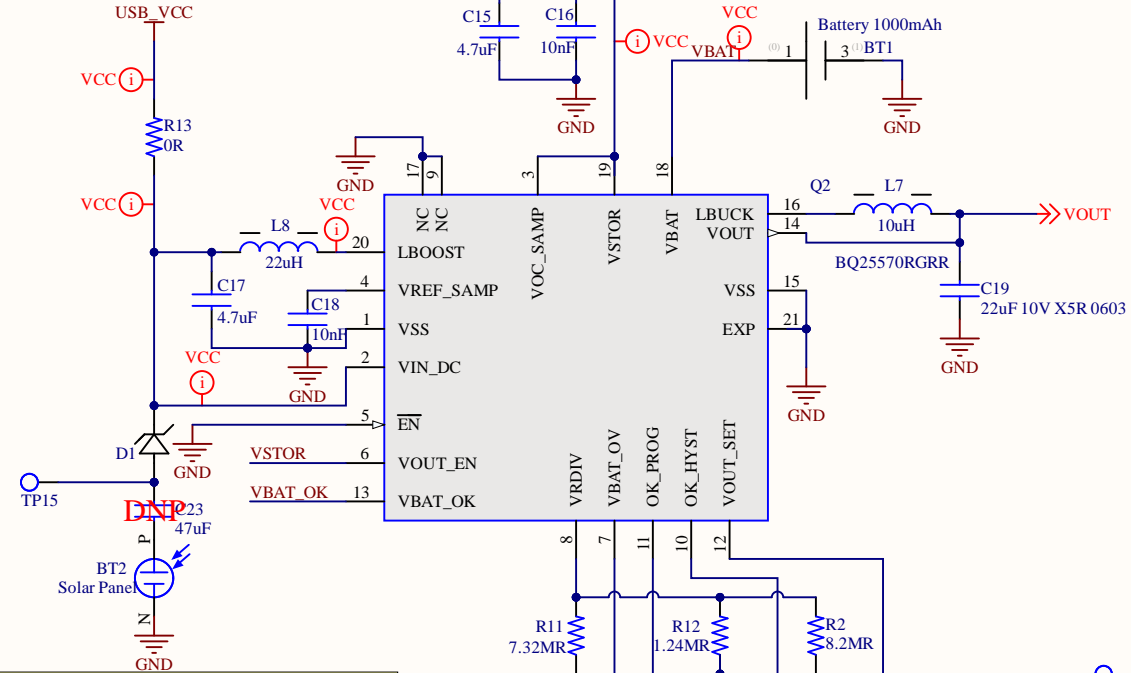
Type C



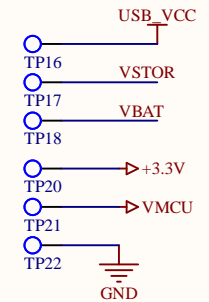
DPDT Switch



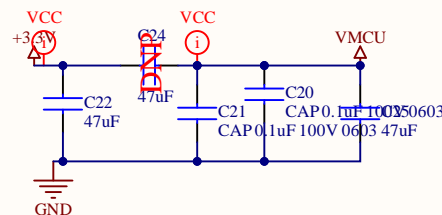
TVS Diode



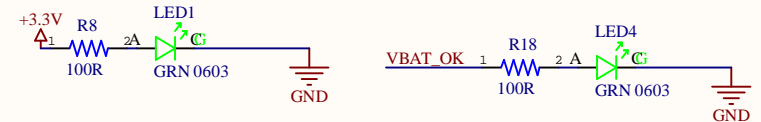
Power Management IC



VBAT_OV (Battery Overvoltage):
 $VBAT_OV = 1.21V * (1 + ROV2/ROV1) * 2/3$
 $VBAT_OV = 1.21V * (1 + 7.32M/5.62M) * 2/3 = 4.2V$
 VBAT_OK (Battery OK threshold):
 $VBAT_OK = 1.21V * (1 + ROK2/ROK1)$
 $VBAT_OK = 1.21V * (1 + 6.65M/4.99M) = 3.2V$
 VBAT_OK_HYST (Battery OK hysteresis threshold):
 $VBAT_OK_HYST = 1.21V * (1 + (ROK2 + ROK3)/ROK1)$
 $VBAT_OK_HYST = 1.21V * (1 + (6.65M + 1.24M)/4.99M) = 3.6V$
 VOUT (Output voltage):
 $VOUT = 1.21V * (1 + ROUT2/ROUT1)$
 $VOUT = 1.21V * (1 + 0.9M/2.1M) = 3.3V$
 MPPT (Maximum Power Point Tracking):
 $VREF_SAMP = VIN_DC(OC) * (ROC2 / (ROC1 + ROC2))$
 $3.35V = 4.15V * (2M / (8M + 2M))$

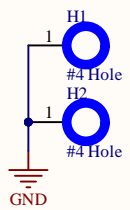
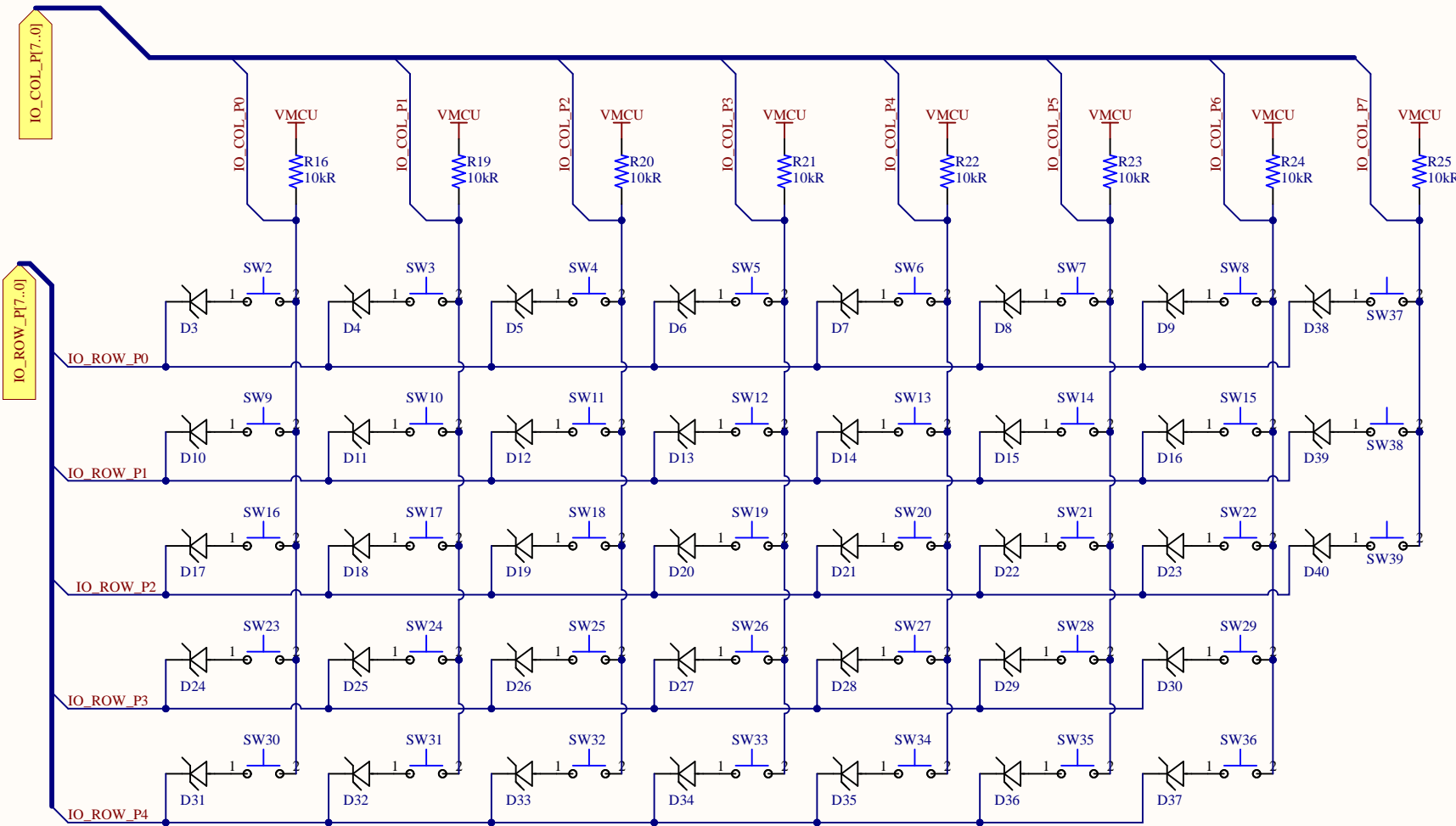


Decoupling and Bulk Cap



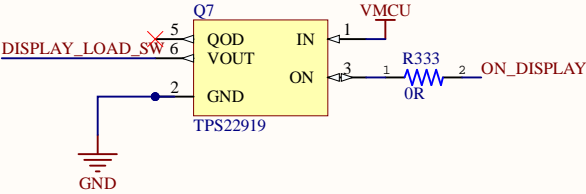
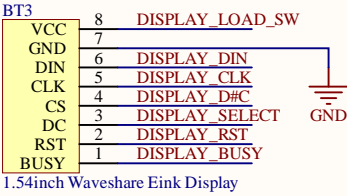
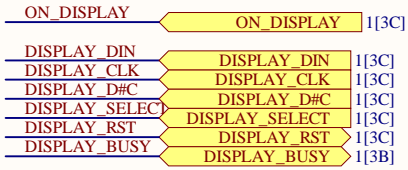
Title			
Power Management			
Size	Number	Revision	
A4	5	v1.0	
Date:	10/22/2024	Sheet of	Low Self Esteem
File:	C:\Users\Power.SchDoc	Drawn By:	Parth Thakkar

Mechanical Switches



Mechanical Holes

Title		
Mechanical Switches		
Size	Number	Revision
A	6	v1.0
Date:	10/22/2024	Sheet of Low Self Esteem
File:	C:\Users\...\Switches.SchDoc	Drawn By: Parth Thakkar



Title		
Size	Number	Revision
A		
Date:	10/22/2024	Sheet of
File:	C:\Users\...\Display.SchDoc	Drawn By:

