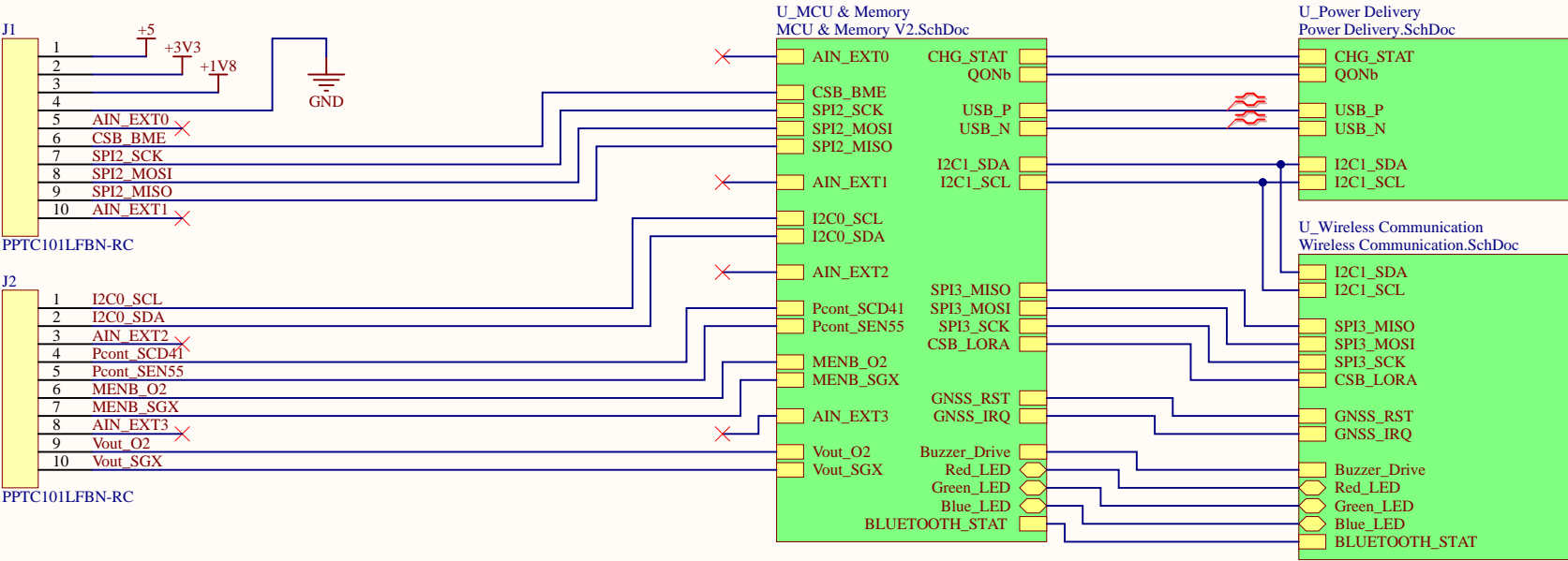


# ToxiTrack - FYDP

## Top Level Schematic

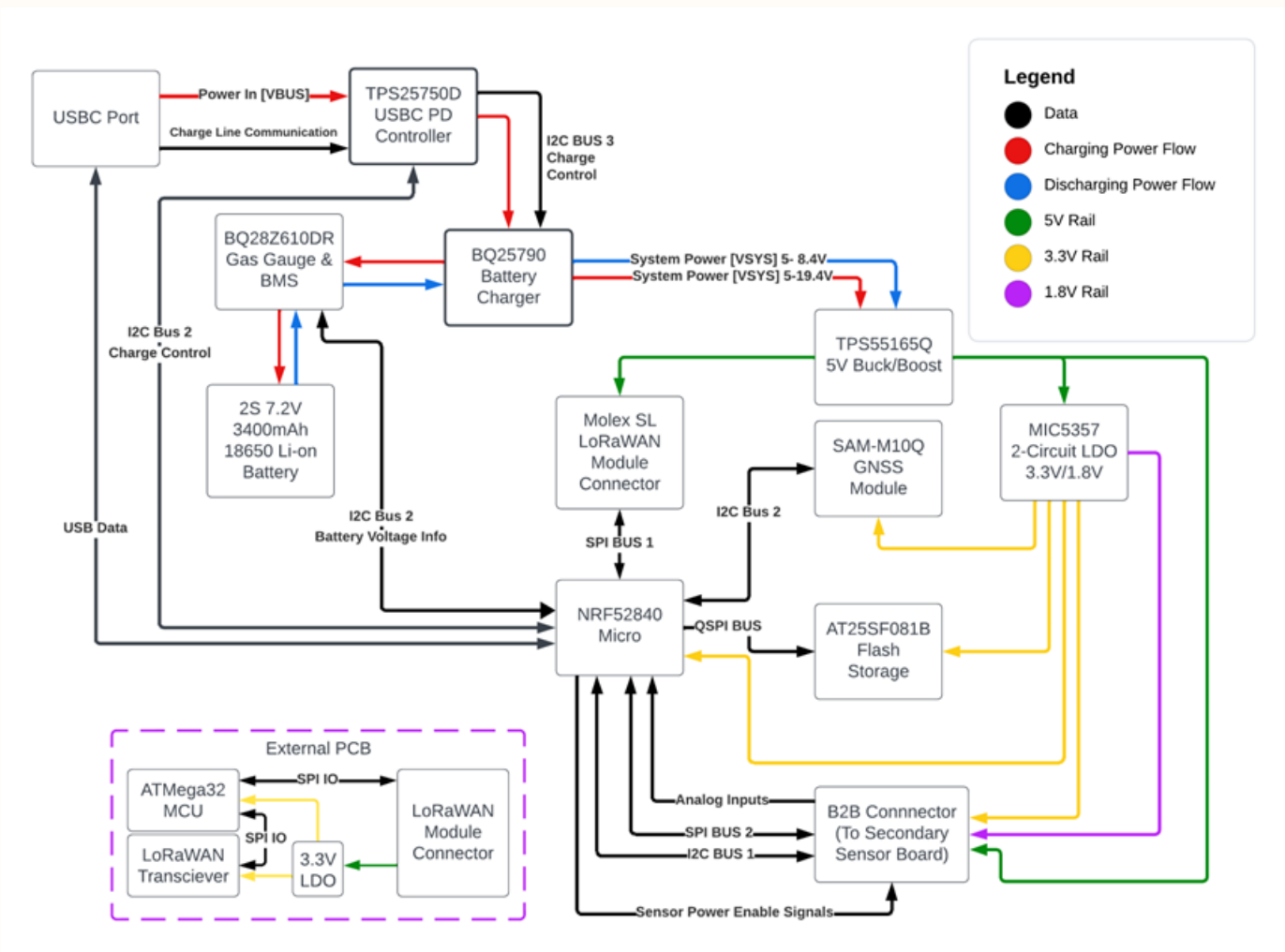


U\_Top Level Diagram  
Top Level Diagram.SchDoc

Title		
Size	Number	Revision
A4		
Date:	2-12-2024	Sheet of
File:	C:\Users\...\Top Level Schematic Main Board.SchDoc	

# ToxiTrack - FYDP

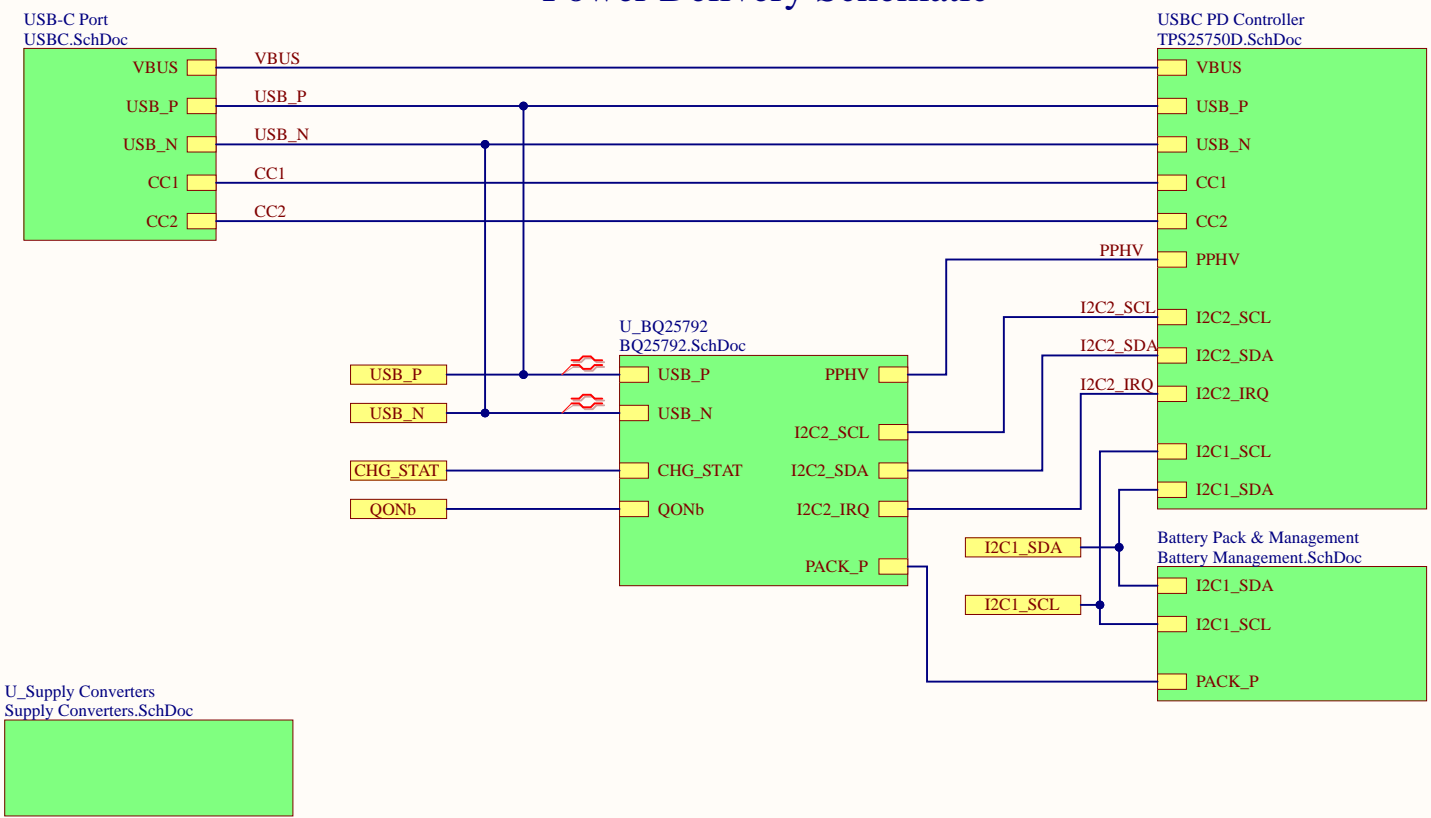
## Top Level Schematic



Title		
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Date:	2-12-2024	Sheet of
File:	C:\Users\...\Top Level Diagram.SchDoc	Drawn By:

# ToxiTrack - FYDP

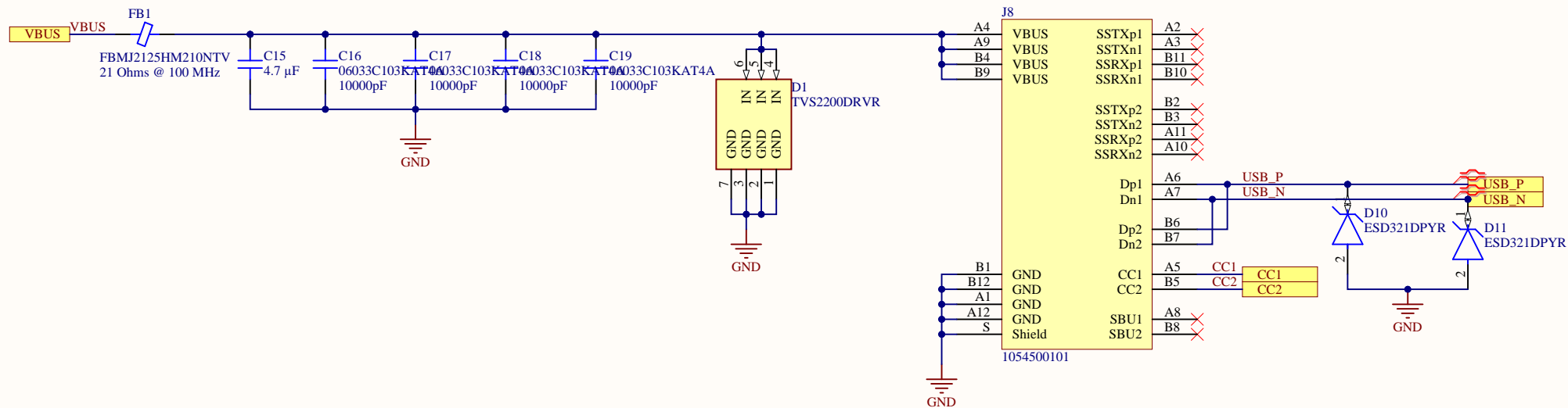
## Power Delivery Schematic



Title			
Size	Number		Revision
A4			
Date:	2-12-2024		Sheet of
File:	C:\Users\...\Power Delivery.SchDoc		Drawn By:

Decoupling Capacitors &  
USB Bus Capacitor

TVS Diode to  
Clamp Voltage  
Spikes



Title		
Size	Number	Revision
A4		
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File:	C:\Users\...\USBC.SchDoc	Drawn By:

10uF Capacitance  
Required on VIN\_3V3  
& PP5V & LDO\_3V3 &  
LDO\_1V5

300pF Capacitance  
Required on CC Lines

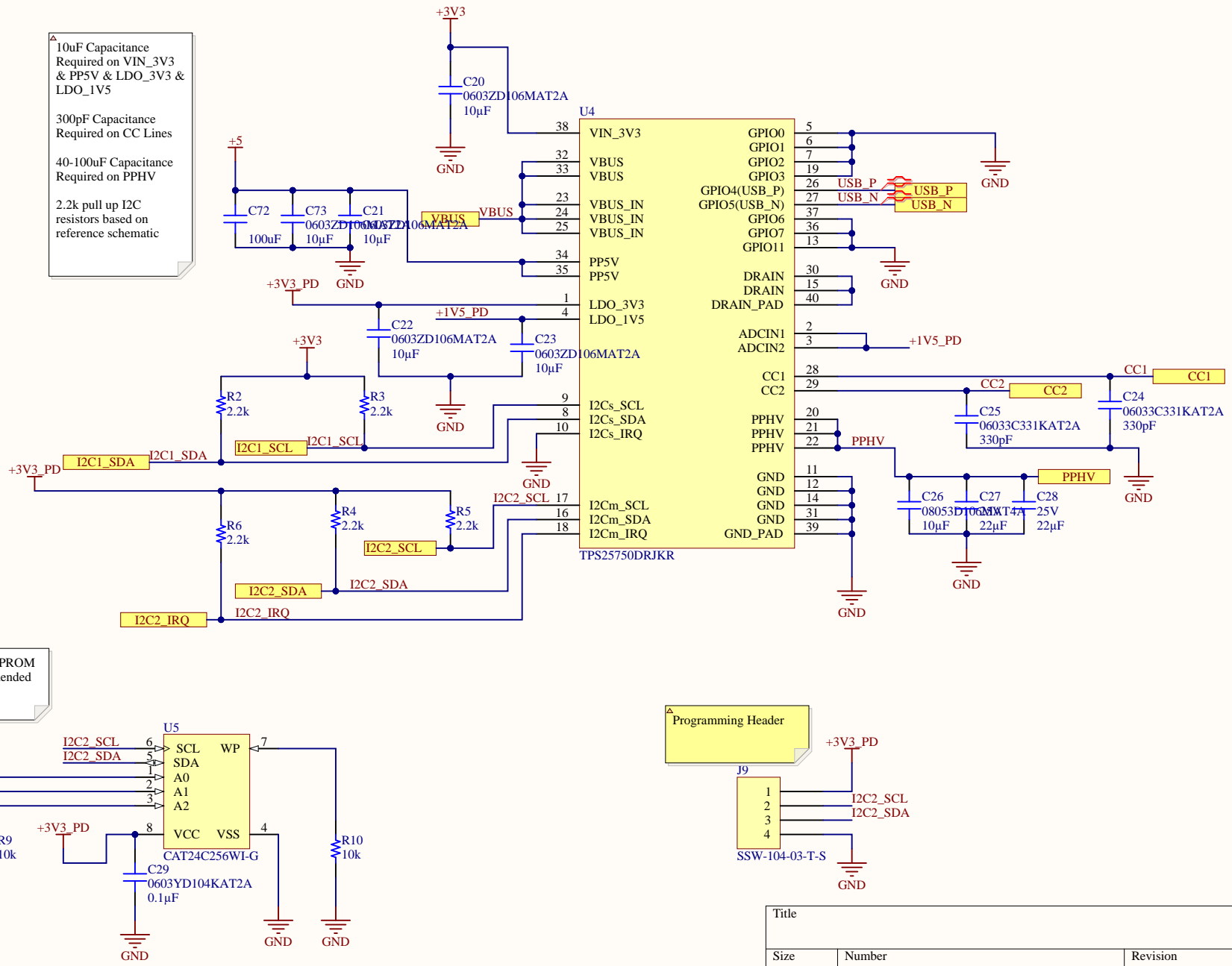
40-100uF Capacitance  
Required on PPHV

2.2k pull up I2C  
resistors based on  
reference schematic

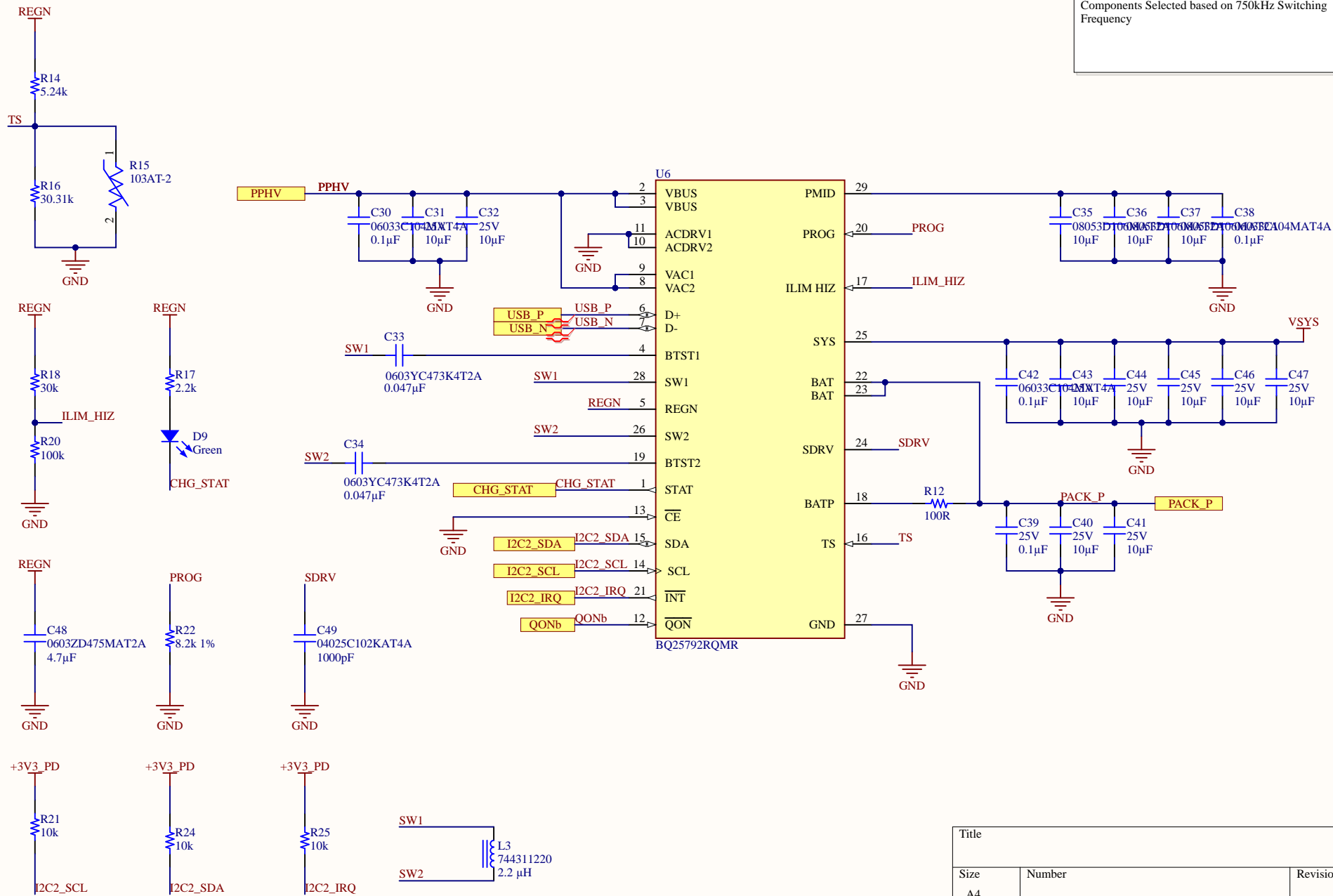
External I2C EEPROM  
Flash as recommended  
by TI

Programming Header

Title		
Size	Number	Revision
A4		
Date:	2-12-2024	Sheet of
File:	C:\Users\...\TPS25750D.SchDoc	Drawn By:

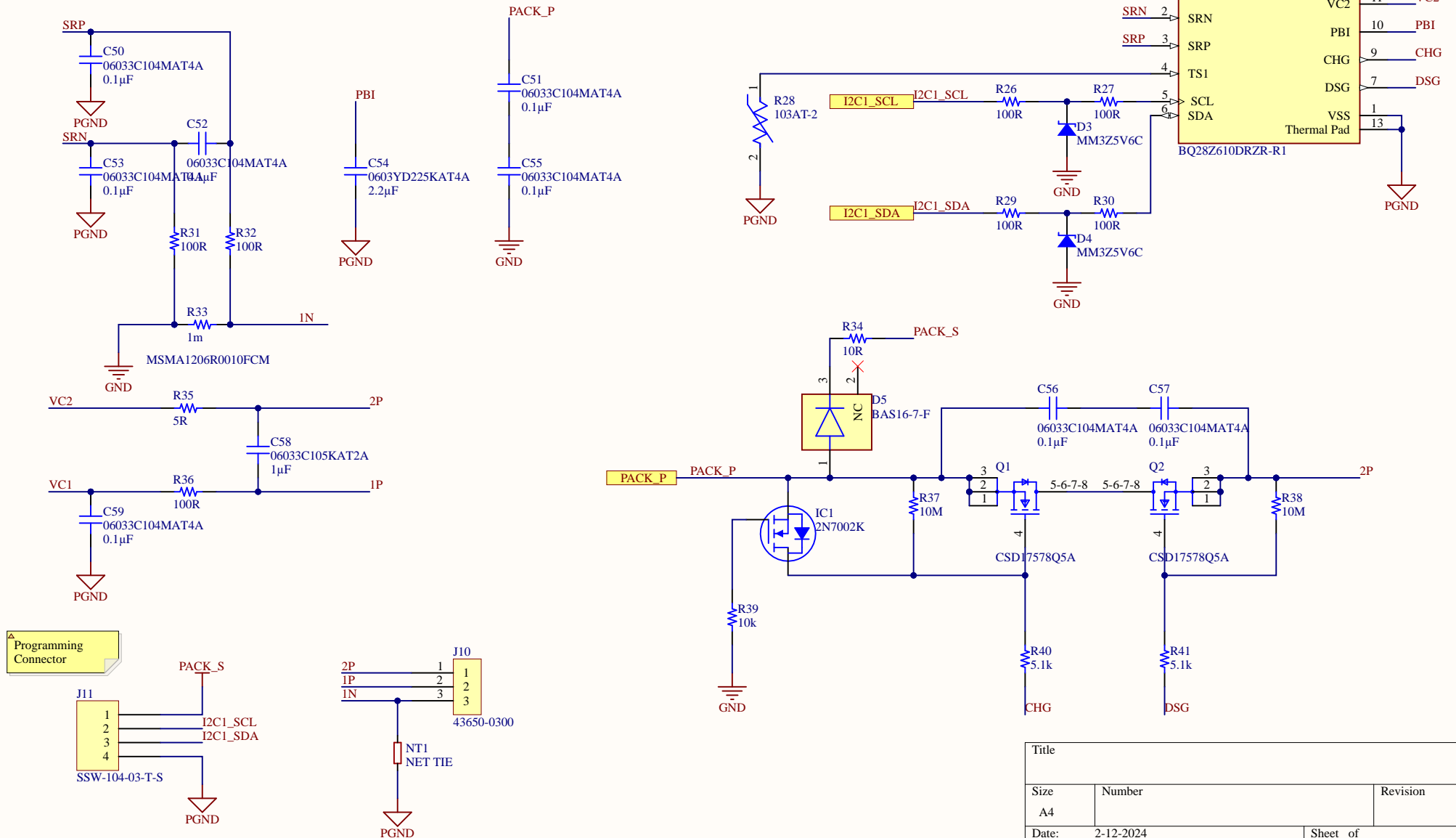


Components Selected based on 750kHz Switching Frequency



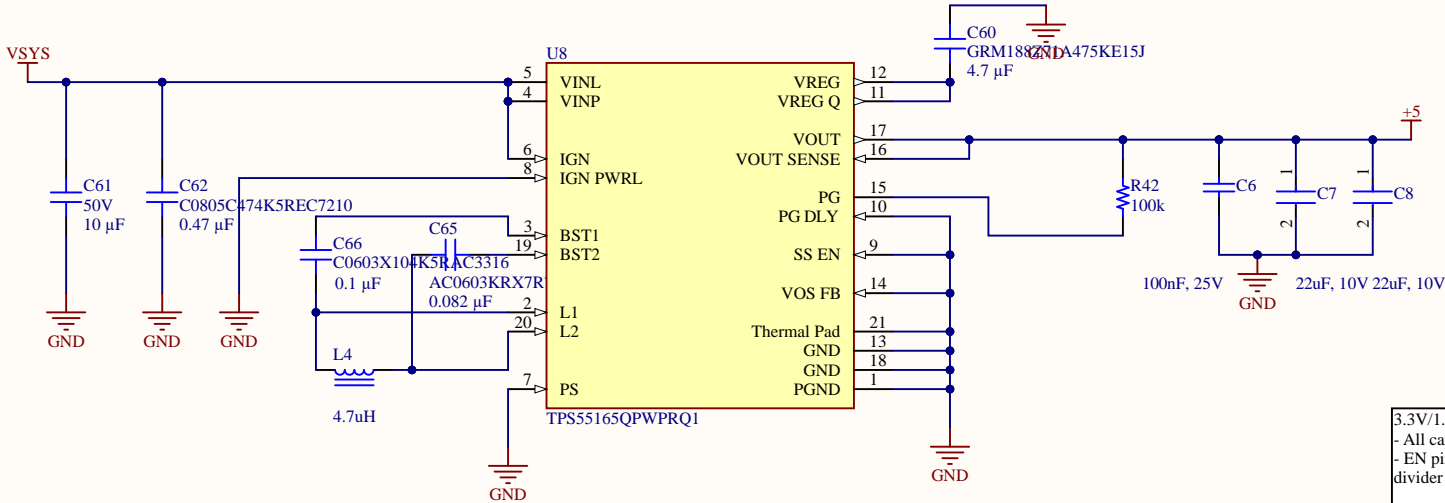
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A4		
Date:	2-12-2024	Sheet of
File:	C:\Users\...\BQ25792.SchDoc	Drawn By:

## Battery Management

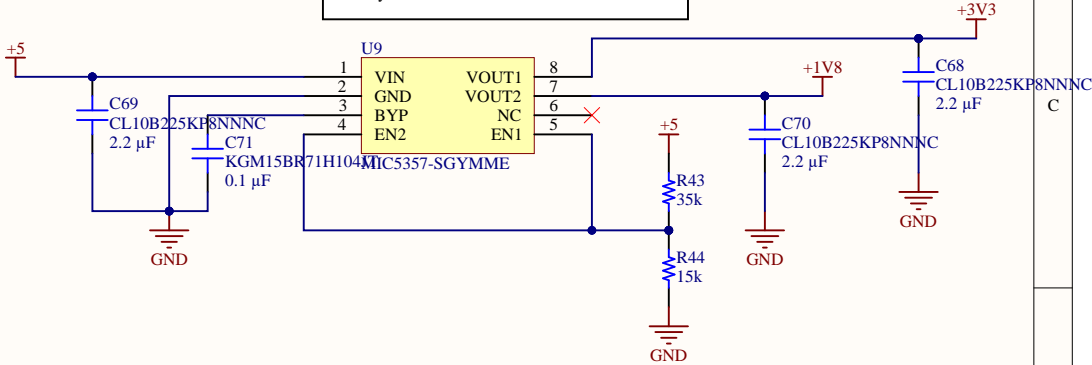


Title		
Size A4	Number	Revision
Date:	2-12-2024	Sheet of
File:	C:\Users\...\Battery Management.SchDoc	Drawn By:

TPS55165 Buck-Boost:  
 - All caps, inductors and resistors sized by the TI WEBENCH designer:  
<https://webench.ti.com/power-designer/switching-regulator/customize/1>



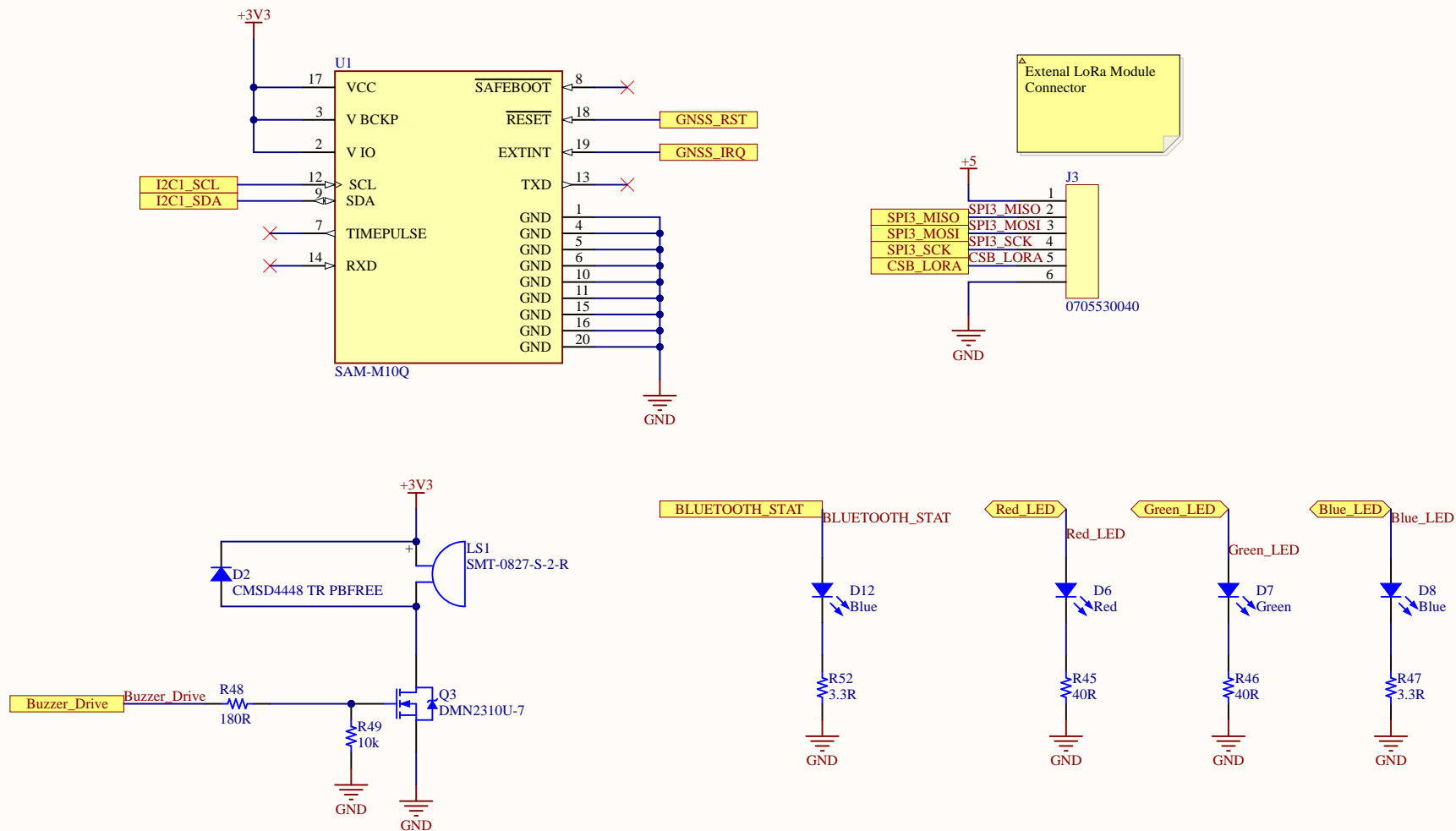
3.3V/1.8V LDO:  
 - All caps are spec'd by data sheet  
 - EN pin HI region is greater than 1.2V, voltage divider yields 1.5V



Title		
Size	Number	Revision
A4		
Date:	2-12-2024	Sheet of
File:	C:\Users\...\Supply Converters.SchDoc	Drawn By:

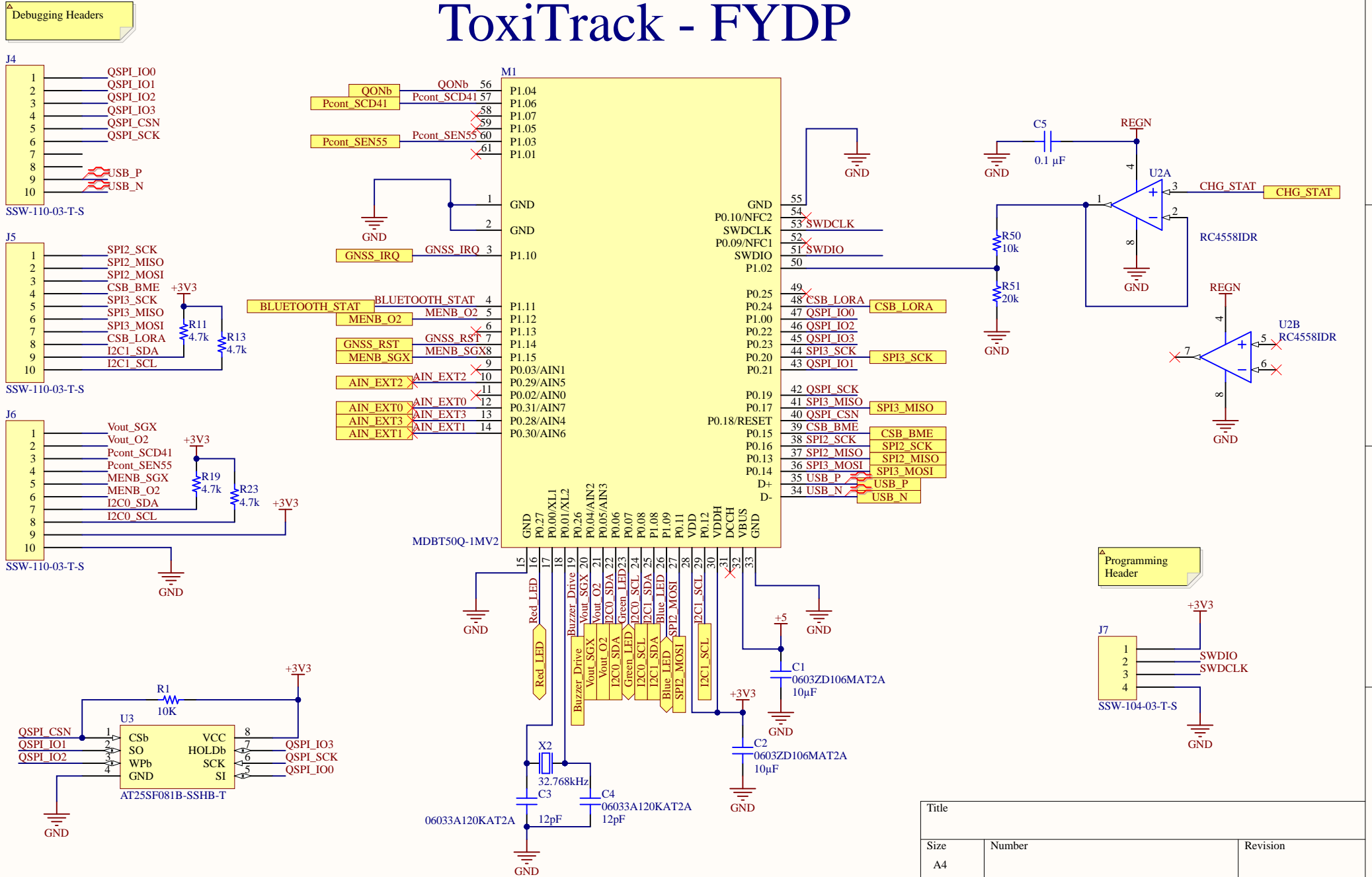


# Wireless Communication

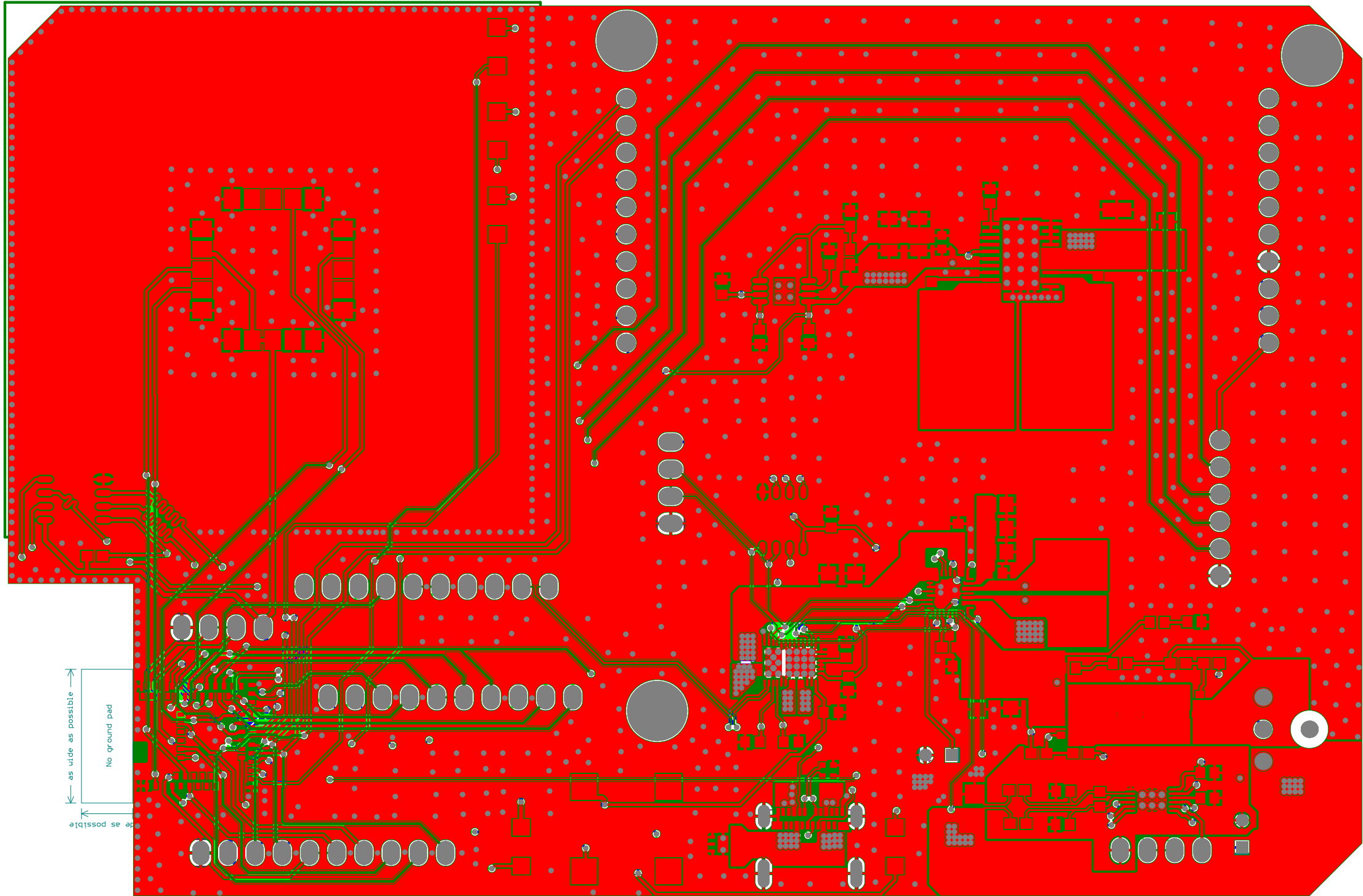


Title		
Size A4	Number	Revision
Date:	2-12-2024	Sheet of
File:	C:\Users\...\Wireless Communication.Sch	Drawn By:

# ToxiTrack - FYDP



Title		
Size A4	Number	Revision
Date:	2-12-2024	Sheet of
File:	C:\Users\...\MCU & Memory V2.SchDoc	Drawn By:



as wide as possible

No ground pad

as possible