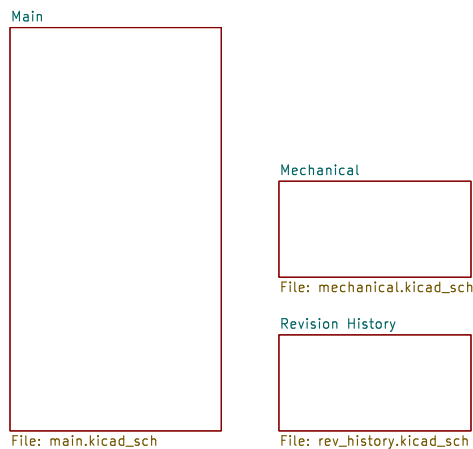


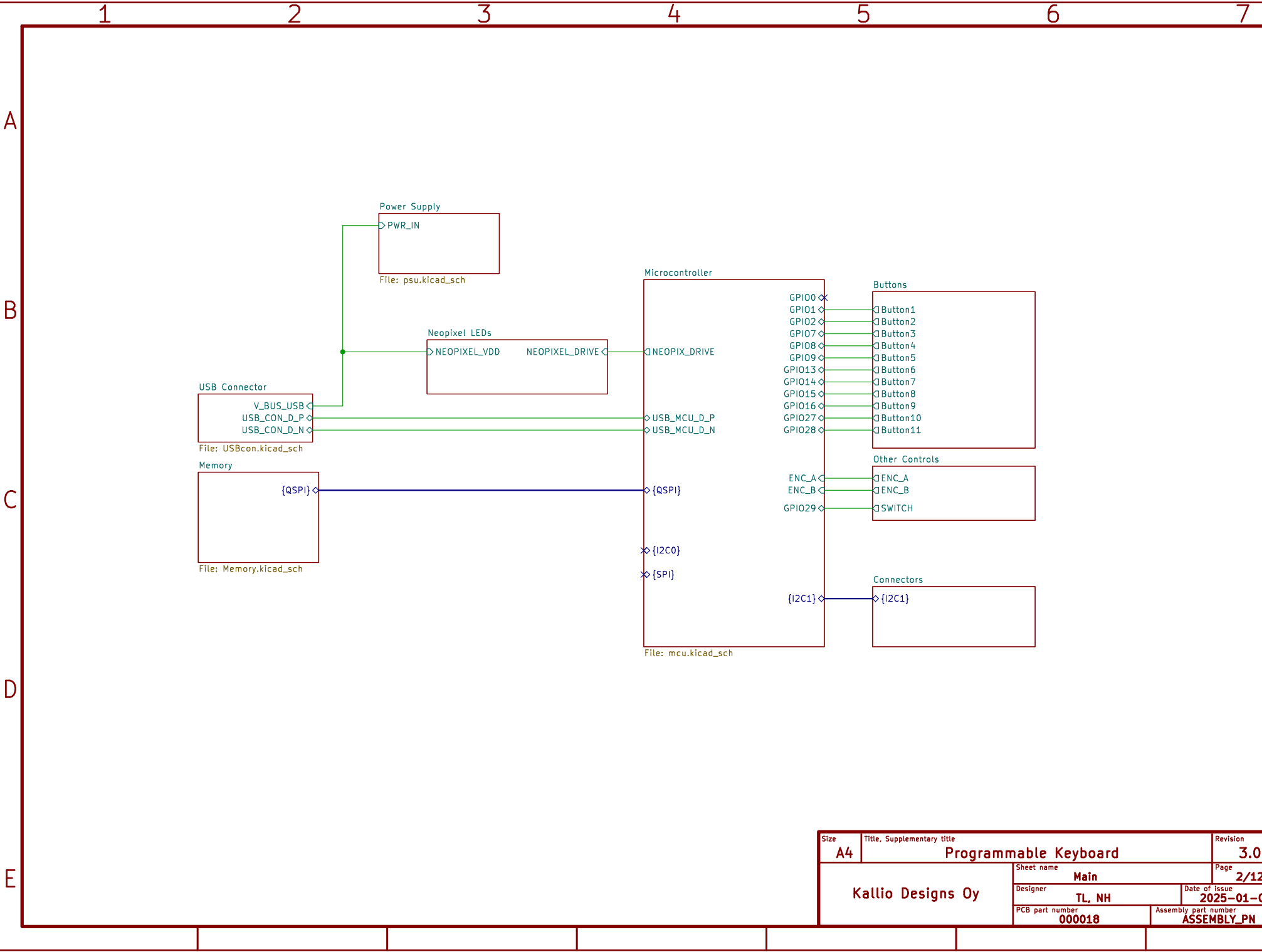
# Programmable Keyboard



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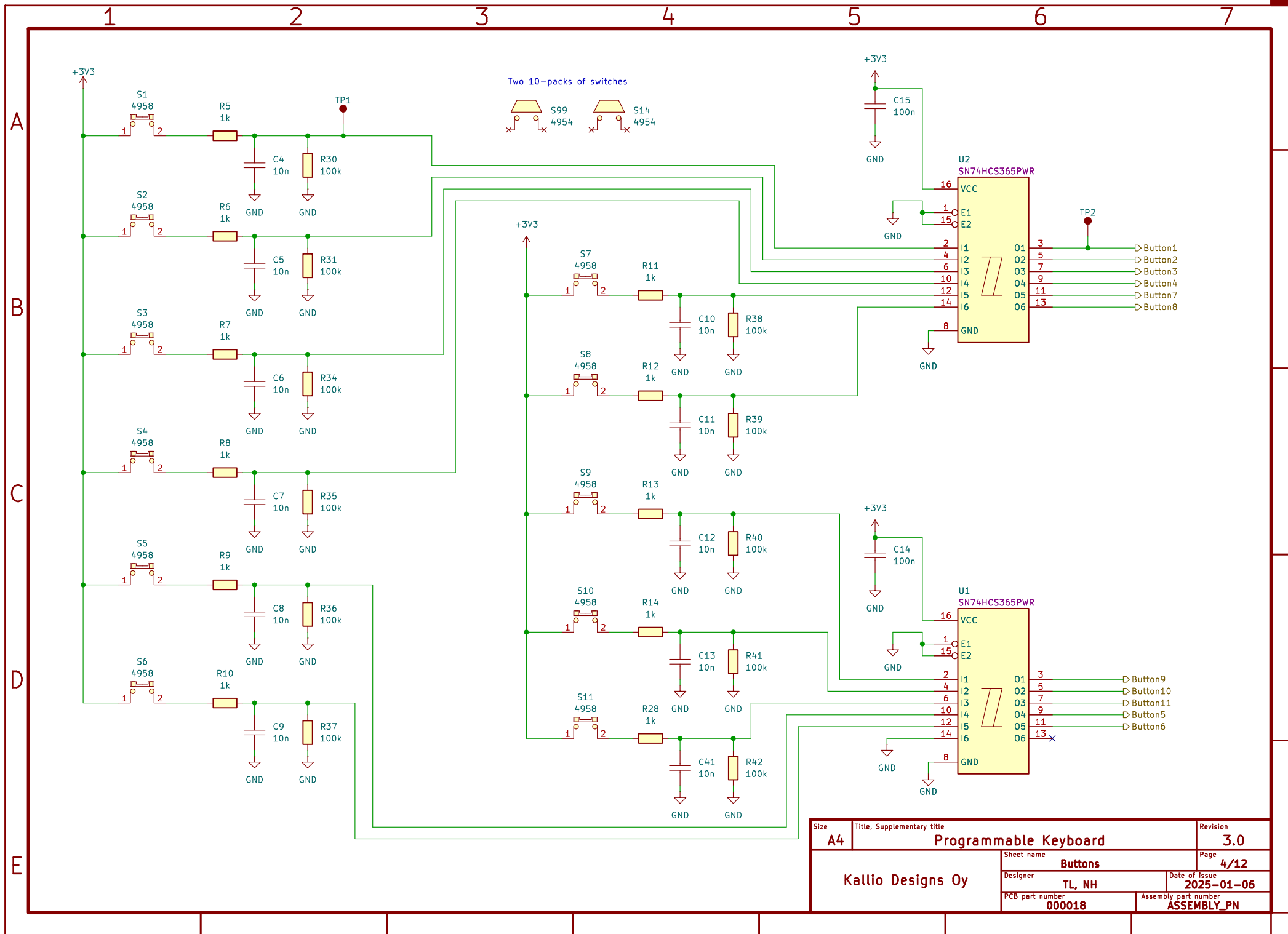
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Size	Title, Supplementary title		Revision
A4	Programmable Keyboard		3.0
Kallio Designs Oy	Sheet name		Page
	Root		1/12
	Designer	Date of issue	
	TL, NH	2025-01-06	
PCB part number		Assembly part number	
000018		ASSEMBLY_PN	

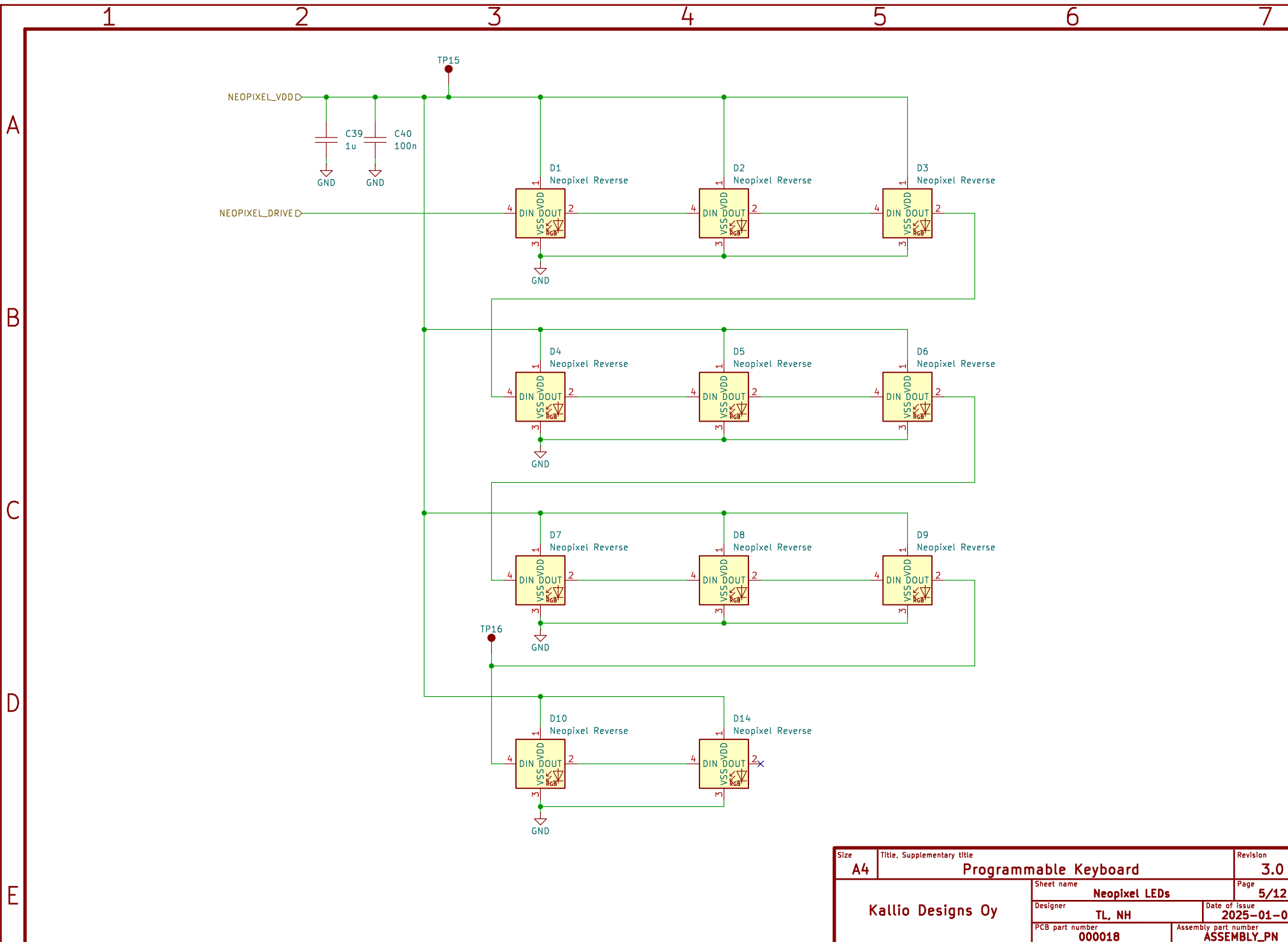


Size	Title, Supplementary title		Revision
A4	Programmable Keyboard		3.0
Kallio Designs Oy		Sheet name	Page
		Main	2/12
		Designer	Date of issue
PCB part number		Assembly part number	
000018		ASSEMBLY_PN	
TL, NH		2025-01-06	

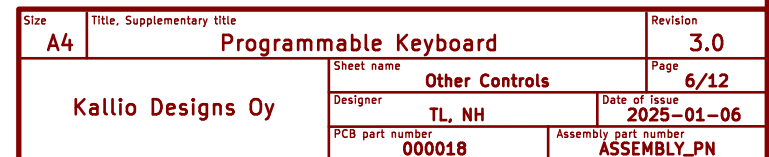


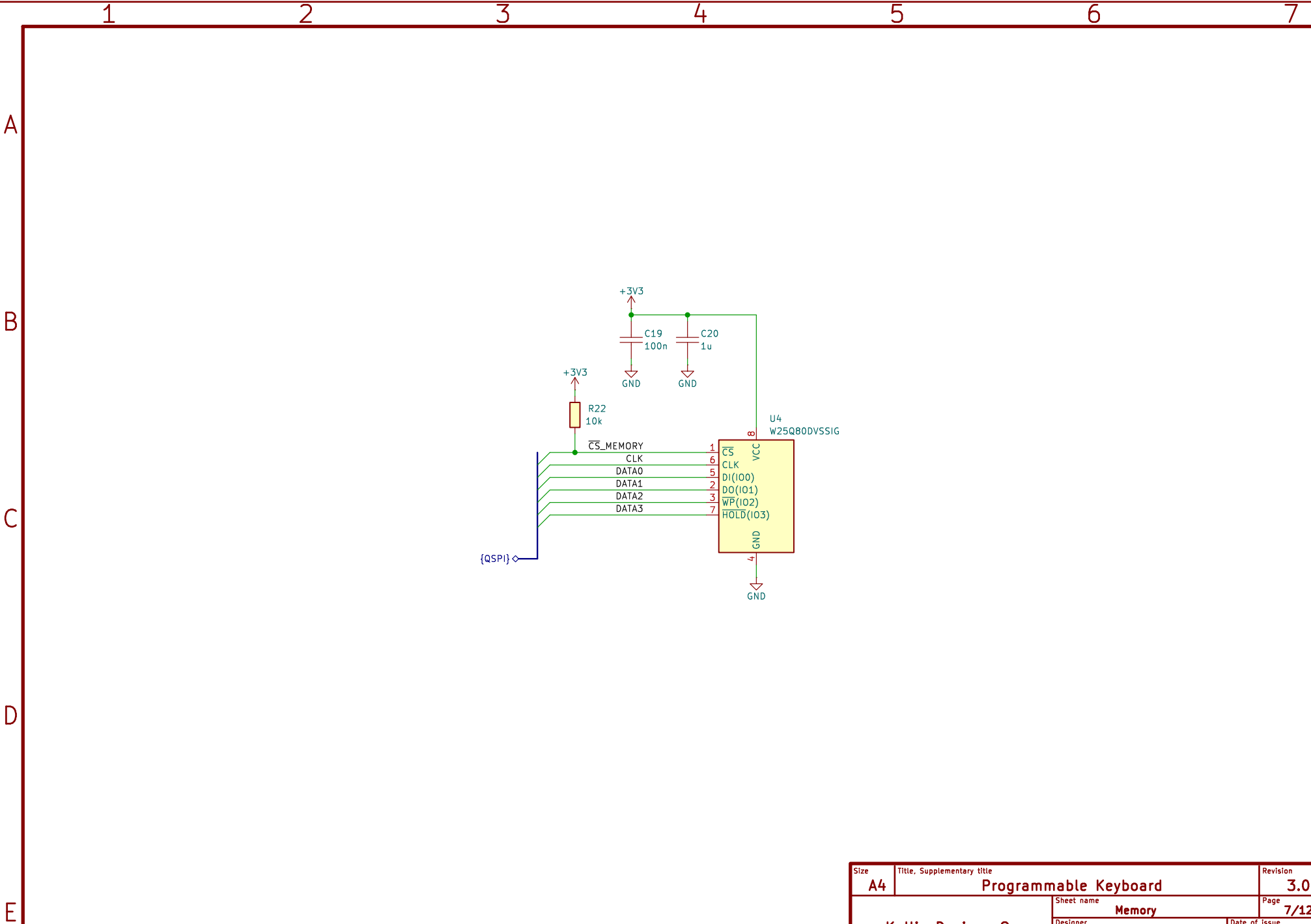


Size	Title, Supplementary title		Revision
A4	Programmable Keyboard		3.0
Sheet name		Page	
Buttons		4/12	
Designer		Date of issue	
TL, NH		2025-01-06	
PCB part number		Assembly part number	
000018		ASSEMBLY_PN	

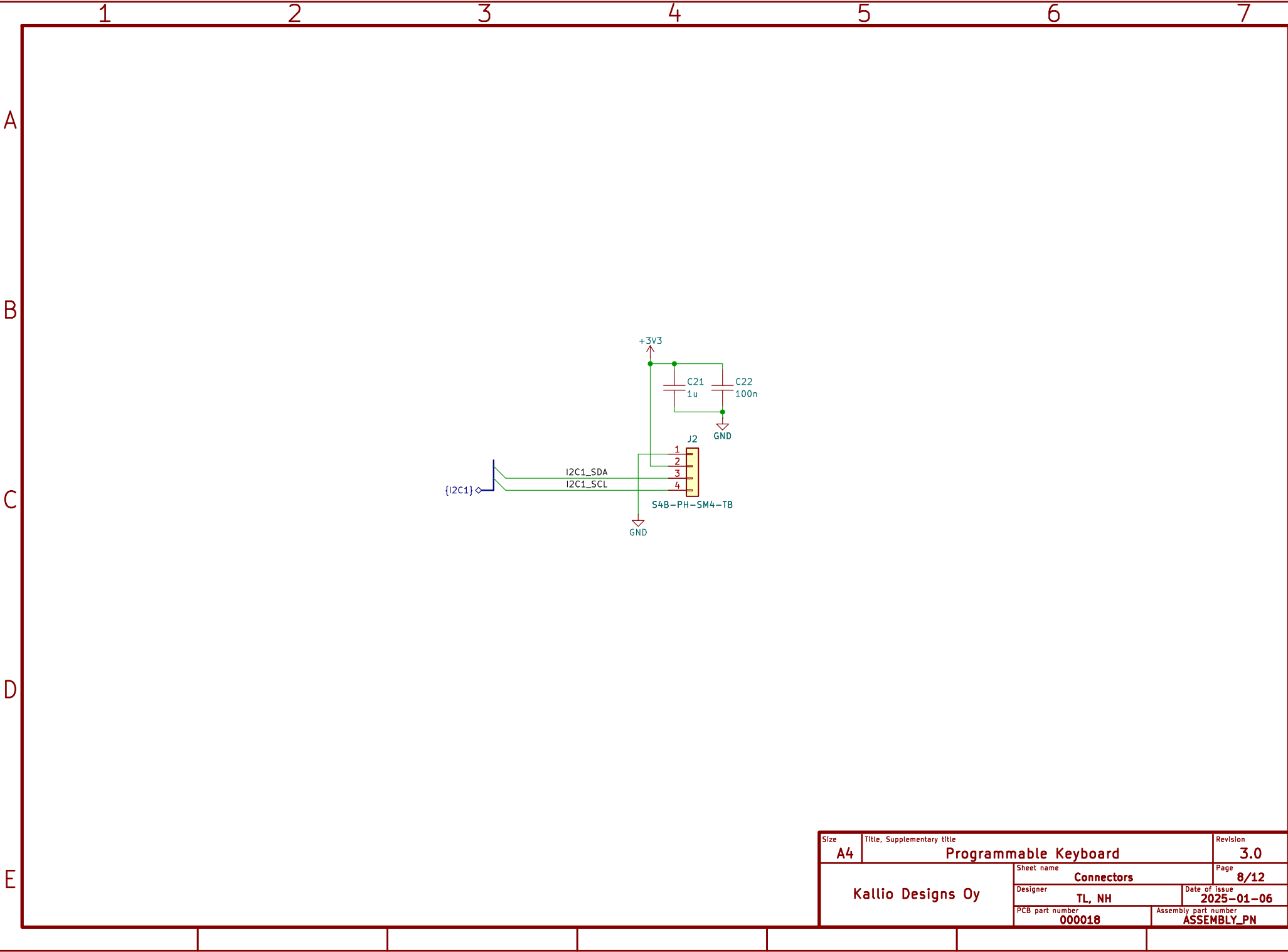


Size	Title, Supplementary title		Revision
	A4Programmable Keyboard		3.0
Kallio Designs Oy		Sheet name	Page
		Neopixel LEDs	5/12
		Designer	Date of issue
		TL, NH	2025-01-06
		PCB part number	Assembly part number
		000018	ASSEMBLY_PN





Size	Title, Supplementary title		Revision
	A4		Programmable Keyboard
Kallio Designs Oy		Sheet name	Page
		Memory	7/12
		Designer	Date of issue
		TL, NH	2025-01-06
		PCB part number	Assembly part number
		000018	ASSEMBLY_PN



Size	Title, Supplementary title		Revision	
	A4		3.0	
Kallio Designs Oy		Sheet name		Page
		Connectors		8/12
		Designer	Date of issue	
		TL, NH	2025-01-06	
		PCB part number	Assembly part number	
		000018	ASSEMBLY_PN	



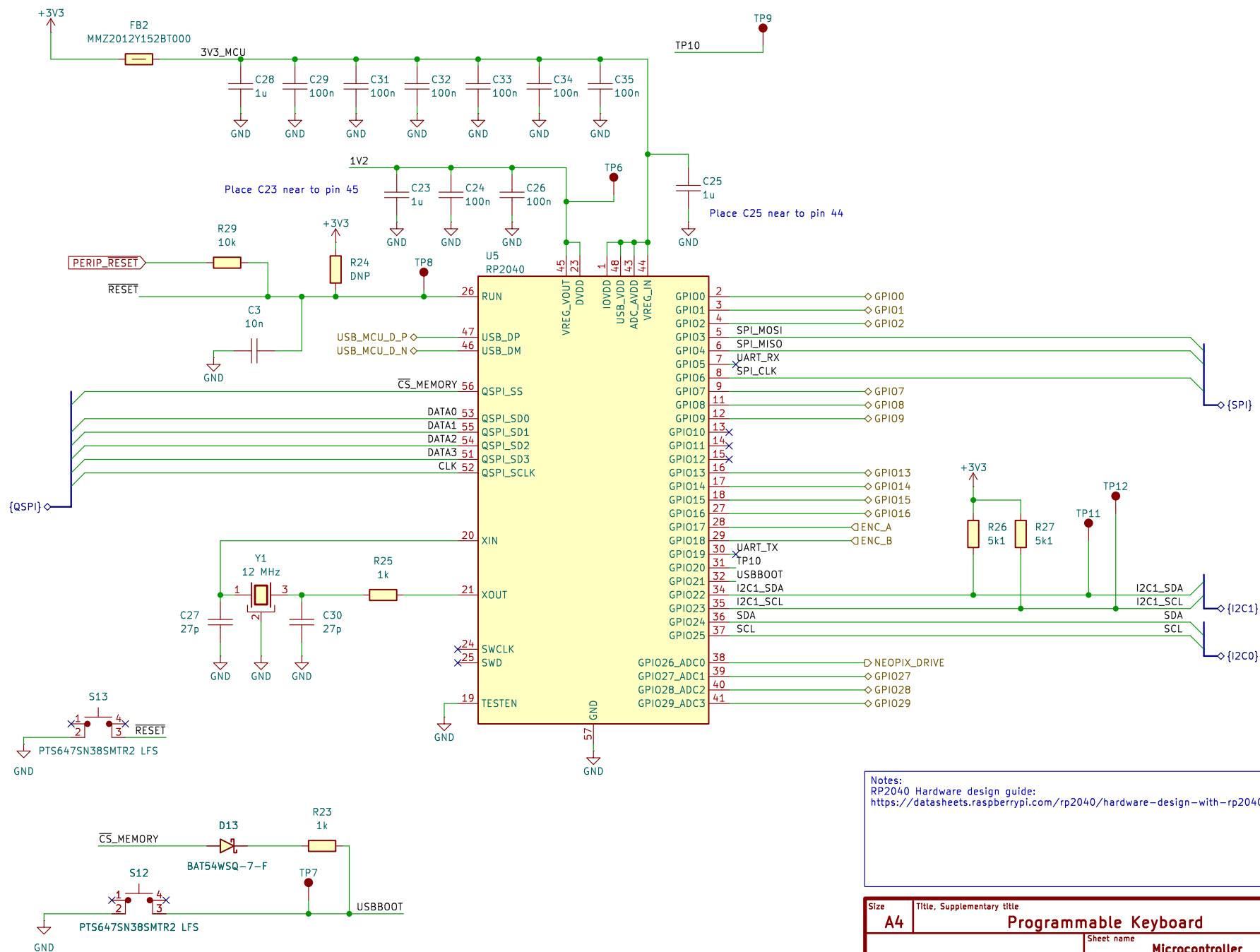
A

B

C

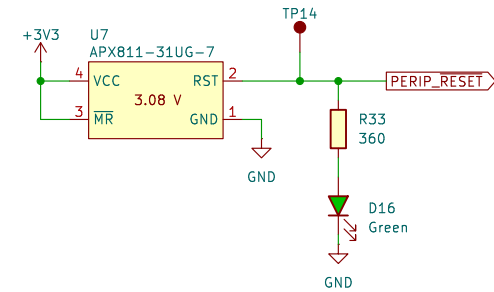
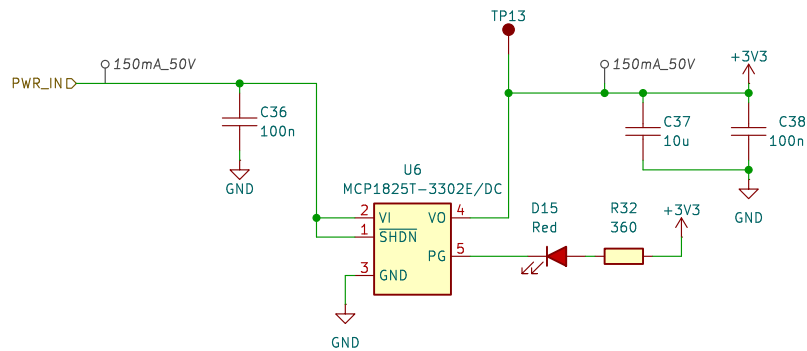
D

E



Notes:  
RP2040 Hardware design guide:  
<https://datasheets.raspberrypi.com/rp2040/hardware-design-with-rp2040.pdf>

Size	Title, Supplementary title	Revision
A4	Programmable Keyboard	3.0
Kallio Designs Oy		Page 9/12
Sheet name Microcontroller		Date of issue 2025-01-06
Designer TL, NH		Assembly part number ASSEMBLY_PN
PCB part number 000018		



Size	Title, Supplementary title		Revision
A4	Programmable Keyboard		3.0
Kallio Designs Oy		Sheet name	Page
		Power Supply	10/12
		Designer	Date of issue
PCB part number		Assembly part number	
000018		ASSEMBLY_PN	



	1	2	3	4	5	6	7
A							
B							
C							
D							
E							

REVISION HISTORY			
REV	DATE	DESCRIPTION	DESIGNER
1.0	19.10.2023	Initial	Teemu Latonen Niko Hämäläinen
2.0	22.10.2023	Form factor changed, connectors changed LEDs added, changed key types Microcontroller and surrounding circuitry changed	Teemu Latonen, Niko Hämäläinen
3.0	08.01.2025	USB Signals reversed Oscillator Y1 changed USB series resistor value changed from 10 ohm to 27 ohm Diode manufacturer change, voltage supervisor type changed	Teemu Latonen

Size	Title, Supplementary title		Revision
A4	Programmable Keyboard		3.0
Kallio Designs Oy		Sheet name	Page
		Revision History	12/12
		Designer	Date of issue
		TL, NH	2025-01-06
		PCB part number	Assembly part number
		000018	ASSEMBLY_PN